

**The Impact of Digitalization on Cinematic Aesthetics and The  
“Spectrum of Cultural Representations”: The Case of Hong Kong**

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## **Abstract**

Cinema, as a complex social and cultural phenomenon, has been recently challenged by digital media cultures and aesthetics since the 1990s. In this study, Hong Kong cinematic productions, blending the West and the East, and flexibly manoeuvring production and post-production with limited resources, are used to demonstrate the advent of new digital cinematic aesthetics and productions in the era of globalization and digitalization. The production culture and aesthetics of local cinema has been, to a great extent, internally modified by the impacts of digital media cultures and technologies, especially digital effects and computer animation of unprecedented imaginary spaces and perspectives for creative productions. The increasing complexity of digital cinematic productions and the rapidly changing cultural production systems bring in newcomers of alternative modes/choices of thoughts and interpretations, thus facilitating production/product differentiation and de-differentiation to cater for the increasing and changing demands of active audiences. The vigorous struggle for cultural representations in digital cinematic aesthetics by producers and consumers of disparate repertoires is the focus of analysis in this research. Empirical evidences suggest a new paradigmatic model to study cultural representations of digital cinematic aesthetics within contemporary creative systems of production and consumption.

This study is a multidimensional investigation of the moments of creativity and struggles over organization cultures and representational practices by both cultural producers and audiences. There are case studies of the general trend of digital cinematic productions in Hollywood and the specific development of digital cinema in Hong Kong, as well as in China. From these empirical analyses, ten new

characteristics of digital cinematic aesthetics are generalized. They include (1) amplification, (2) free referencing, (3) seamlessness and believability, (4) multiple-layered composition, (5) patterning, (6) imaginary perspectives, (7) collective imaginative inputs, (8) cross-fertilization with comic, (9) cross-fertilization with video game, and (10) cross-cultural, cross-historical, cross-genre production. Such inductive findings are also deployed to study the social functions of both producers and audiences in the meaning construction of digital cinematic aesthetics and productions within the dynamics of digitalization and globalization. Eighteen in-depth interviews of production insiders, five focus groups of disparate generations of movie audiences and amateurs, and eleven case studies of Hong Kong digital cinematic productions have been examined. The empirical validity about the ten new forms of digital cinematic aesthetics and their production and consumption is investigated, and also achieved by intensive and interactive case studies, production studies and audience studies, combining textual and discourse analyses and production and reception analyses.

The findings generally support the advent of the ten new aesthetics of digital cinema as a global trend as well as a new glocalism in the Hong Kong cases. While most interviewed producers and audiences articulate the new characteristics of digital cinematic aesthetics, many audiences show disjunctive judgments toward those local filmmakers' treatments to cross-fertilize video game with their cinematic productions. This reveals the inevitability of internal modifications of organization cultures and representational practices to create new digital cinematic aesthetics and productions within new dynamics of digital media cultures and technologies in the fast changing media ecology. Hong Kong filmmakers and computer animators show their strength

and flexibility to glocalize digital cinematic aesthetics and productions by integrating digital visual effects with local film and production cultures, especially in comedic and martial arts cinematic productions. However, it seems that there are larger discrepancies concerning the tastes and aesthetic judgments toward cultural representations in digital cinematic aesthetics by cross-fertilization with video game between general audiences and professionals. This study reflects that the rigid, director-oriented Hong Kong film production system is too demanding on the film director's independent ability of coordination and greatly influences the development of cultural representations in digital cinema by collective imaginative inputs of increasing complexity and flexibility. Producers and consumers of disparate repertoires of cultural practices contribute to the meaning construction of multiple layers of digital effects and computer animation by systematic coordination and collaboration. In other words, the "spectrum of cultural representations", as a framework, helps us understand the complexity and creativity of the new digital cinematic aesthetics from production to consumption practices.

## 論文內容摘要

電影作為一種複雜的社會及文化現象，由九十年代開始，已經受到數碼媒體文化和美學的衝擊。本研究將以東西文化薈萃，善於在製作及後期當中靈活運用有限資源的香港電影，展示在當代全球化和數碼化的情勢之下，嶄新數碼電影美學和創作的蒞臨。本土電影的創作和美學，受著數碼媒體文化和科技的衝擊，特別是數碼特技和電腦動畫所帶來前所未有的想像空間及視野，都產生了重大的內化改變。數碼電影正在不斷增加的複雜性，以及相關文化創作系統的迅速改變，帶來了新人士、新思維、新演繹；這些都有利於對應觀眾不斷增加及改變的訴求，進行製作／產品之分化及去分化。持有不同流程曲口的創作人和觀眾，應對數碼電影美學的文化再現所帶來的話語權鬥爭，正是本研究的焦點所在。實驗證據提示在當代創新文化製作和消費系統之中，研究數碼電影美學的文化再現時，一個嶄新模範典型的必要。

本研究是對於創意時刻的存在，以及文化創作人和觀眾在公司文化和再現實踐之間的角力，多面向的調查和驗證。其中包括數碼電影在荷里活普遍的創作趨勢，以至於在香港及中國的獨特發展的不同個案研究。通過這些實證分析，十種嶄新數碼電影美學的特徵普遍得以認證。這十種數碼電影美學包括（1）誇張及擴大化，（2）自由聯想及參考照應，（3）無瑕疵與真實感，（4）多層合成，（5）圖樣結構，（6）想像視覺，（7）集體想像的輸入，（8）與漫畫的互換吸納，（9）與電玩的互換吸納，和（10）跨文化、跨歷史、跨類型創作。這些歸納所得的結果又用以研究分析，在數碼化和全球化的動力之下，對於數碼電影美學和創作的意義建構，創作人和觀眾所發揮的社會功能。研究包括十八位業界人士的深入訪談，五個不同階層電影觀眾及愛好者的焦點小組，以及十一部香港數碼特技電影的個案分析。本文所關注的嶄新數碼電影

美學，與其生產和消費之過程的實證認受性，是通過以文本和論述，以生產和接受的綜合分析，深入而且互動的個案研究、製作研究和觀眾研究所得。

研究所得理據基本證實十種嶄新數碼電影美學的形成，成爲一種全球的趨勢，在香港數碼電影中更表現出一種新的全球在地主義。當大部份受訪創作人和觀眾都能明辨嶄新數碼電影美學的特徵，對於電影創作人員在於電影與電玩之間互換吸納的處理手法，很多觀眾都表現出分離的批判。這揭示了在快速改變的媒體生態之下，對應數碼媒體文化和科技內的新動力，爲着嶄新數碼電影美學和創作的生產，公司文化和再現實踐出現的內部變更是無可避免。香港電影工作者和電腦動畫師表現出他們的實力及靈活性，整合數碼視覺特技和本土電影文化，全球在地化了數碼電影美學和創作，特別是喜劇及武俠電影。但是對於與電玩互換吸納的數碼電影美學的文化再現，他們與普遍觀眾的口味和美感判斷，似乎存在着較大的差異。本研究揭示香港僵化的導演主導製作系統，過份要求導演個人獨立的協調能力，大大影響了以集體想像力的複雜性和靈活性爲發展動力的數碼電影文化再現。持有不同文化實踐流程曲目的創作人和觀眾，通過系統化的協商和合作，能夠爲眾多層次的數碼特技和電腦動畫的意義建構作出貢獻。換言之，“文化再現的光譜”這個框架，能夠幫助我們了解，從製作到消費的實踐，新數碼電影美學的複雜性和創造性。

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## **Chapter 1 Introduction: Practices of Complexity and Digitextuality**

I have struggled for a very long and difficult time how to write this introductory chapter, especially after a chat with Michael Keane, who supervises graduate students in the Creative Industries Faculty of Queensland University of Technology in Australia. He said that a well-written introduction is important to arouse people's interest to continue reading a (lengthy) PhD thesis. His advice is absolutely right. At the very beginning of my thesis writing I decided to postpone the actual writing of this introductory chapter, although I had had a full picture of the whole thesis. It would be better to have all my thoughts concerning of the concept of complexity systematically consolidated into words (in juxtaposition with images when necessary) in other chapters before writing a comprehensive introduction of the theoretical frameworks and the methods and methodologies of this research. This reveals what I propose, in this thesis, to develop a new paradigm of cultural representations from transdisciplinary perspectives of critical media and cultural studies (Hall, 1997ac; Havens et al., 2009). Such transdisciplinary perspectives of both human and social sciences put emphasis on empirical studies of everyday lived experiences including my own in the life-worlds of cultural production and consumption as a spectrum in which "a whole culture" with reference to Wittgenstein's (2007/1967: 8) "language game" of complex critical and cultural contexts and activities constructs meaning to aesthetic judgments. Therefore, my writing is guided by a sense of consciousness based upon historical narratives, theoretical literatures, and empirical evidences of practical actions and reasoning, which are interdependent and interconnected. In this study of a model of the "spectrum of cultural representations", culture and cultural practices are envisaged as

concrete range of natural phenomena in our societies, thus leading to our continuous learning process for theoretical and aesthetic achievements. They constitute and are constitutive of puzzle-solving enacted practices within increasingly complex language games of social and cultural transformations (Garfinkel, 1967, 1996; Kuhn, 1977, 1996; Ogien, 2009; Shusterman, 1986).

Aesthetics, or more precisely the discourses of it, is a core concept for this study. I examine aesthetics in what I call representations in the spectrum – a duality rather than dualism – of cultural production and consumption under contemporary systems of creative and cultural industries within new dynamics of globalization and digitalization (Caves, 2000; Havens et al., 2009; Hesmondhalgh, 2002). However, aesthetics as mere philosophical thinking from humanity traditions plays little role in this research. Thorough theoretical and practical exploration of aesthetic expressions and perceptions is based upon all data of aesthetics in the form of cultural practices and representations. It is reliant on empirical studies of communicative events and activities within dynamically stable social systems. These data of aesthetics are phenomenal resources from producers as creative artists; media texts as aesthetic objects, consumers/audiences as spectators, and social molding structures of society. They provide 3 ways of empirical investigation to discern the power relationships between and the patterns of acts and thoughts by producers and audiences in the meaning construction of cultural representations via their aesthetic experiences by their disparate repertoires of cultural practices (Codde, 2003; Luhmann, 2000a; Vivas & Krieger, 1953). Thereafter, the meaning of aesthetics as an empirical subject is studied by (1) systems of organization whereupon systematic creation and management of aesthetic representations and experiences via a rhetoric of aesthetics

is possible, (2) disjunctive and/or conjunctive aesthetic interpretation/appreciation by producers and consumers' imagination as social and cultural practices "as an active relationship of structure and agency", and (3) media texts as discourses to form the property of aesthetic objects or experiences (see Diagram 1) (Appadurai, 1996; Beardsley, 1982; Brummett, 1999; Storey, 2010: 53). In a nutshell, this study of digital media aesthetics and productions in systems of contemporary creative and cultural industries is emphatically concerned with the empirical analysis of decision communication among cultural producers of flexibility and creativity, communication about aesthetic perception by audiences of unique repertoire, and their interactive power relations in response to media discourses within dynamically stable social systems. Nevertheless, apart from abstract philosophical arguments of aesthetics, people's cognitive and reflexive understanding of aesthetic representations that reveals their cultural tastes and aesthetic judgment in consciousness is social systematically investigated by means of communication. Such communication as social action elucidates their cultural activities of coordination, collaboration as well as resistance/opposition within the contemporary art system of complexity and flexibility (Caves, 2000; McCormick, 1990; Luhmann, 2000a; Seidl, 2005a).

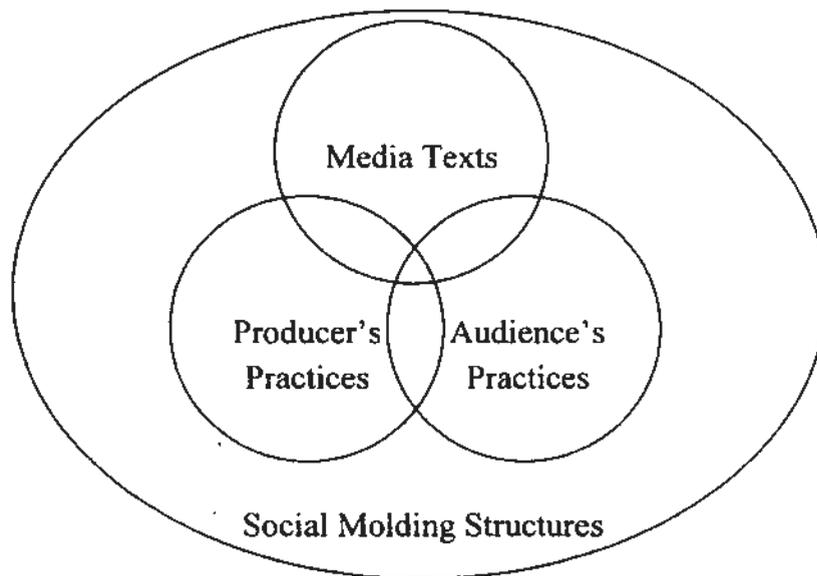


Diagram 1: Aesthetic experiences during production and consumption of media texts in society

In the discursive formation of a particular period and culture, meanings are constructed “within the limits of the episteme” and dynamic structures of “subject-positions”. Throughout this research, discourses of producers, texts and audiences are deployed to understand the moments of creativity and struggles over organization cultures and representational practices in the process of cultural production and consumption of digital cinema (Hall, 1997c: 55-56; Havens et al., 2009; Rose, 2007). Especially discursive formation of the “spectrum of cultural representations” in digital cinematic productions and the correspondingly emerging aesthetics is studied for the revolutionary impact of digital effects and computer animation on cinematic productions of complex “digitextuality” that allows re-organization of media ecology and restructuring of media production and consumption (Everett, 2003; Fuller, 2005), and for the empowering “remediation” of traditional film industry within new dynamics of digital media technologies and cultures (Bolter & Grusin, 1999; Grassilli, 2008). This exemplifies re-engineering and sustaining development of both old and new media in contemporary creative and cultural industries in the spiral of

cultural globalization and in terms of “the language of new media” (Manovich, 2001). Indeed, the selection of digital cinematic aesthetics and productions as subject matters and case studies is not only for my personal interest, professional knowledge and social networks in creative media and film industries, but also because of the significance of Hong Kong cinema in a global sense. While Hong Kong has long been regarded as a media capital of cinematic cultures and productions, digital cinematic productions by means of international/transnational co-productions, as well as local blockbusting productions, have rejuvenated Hong Kong cinema by digital media technologies and cultures into the spotlight of the local, as well as global, media industries in the form of a new localism and globalism, that is, a new glocalism (Chan et al., 2010; Curtin, 2007; Davis & Yeh, 2008). My knowledge of digital effects and computer animation and experiences in the field of creative media industries help understand the differentiation and de-differentiation of creative media organizations and corresponding position-takings in accord with the digital revolution since the 1990s. It provides alternative possibilities, as well as impossibilities, in terms of new modes/choices of thoughts and expressions, especially by such newcomers like (digital) visual effects supervisors and computer animators in the field. Besides, my social networks play an indispensable role in making those ethnographic studies and interviews with professional insiders possible and effective. It is important to discern their “industrial self-theorizing practices” during the process of cultural representation/production under local digital cinematic production systems of complexity and flexibility. Unlike traditional media critics and scholars, such practitioners are theorizing their practices in a very disparate manner that “combines contradictory or competing impulses” in different “socio-professional

situations,” constituting what might be called industrial reflexivity (Bourdieu, 1993; Caldwell, 2008: 2, 15-18).

As a media artist and computer animator, my solid working experiences and cultural practices in Hong Kong, from film to digital media, from analog to digital, make my investigation more reflexive and reflective in a particular sense. Nonetheless, it is subject to the internal fallacy from traditional critical theory and production of culture perspectives. Therefore, multidimensional empirical evidences from producers, texts and audiences are used to triangulate this research for a holistic understanding and depiction of the “spectrum of cultural representations” in digital cinematic aesthetics and productions (Peterson & Anand; 2004; Rose, 2007; Thompson, 1990, 1995). This reminds me of my cultural practices and identities that are multi-layered as researcher, producer, active audience, as well as producer-as-audience, thus facilitating the interpretations of polysemic meanings of cultural representations in the spectrum of production and consumption (Fiske, 1989/1987). From theories to practices, from dominant to negotiated and oppositional readings, from producers’ to audiences’ cultural practices, from textual to discourse analyses, complexity is the essence of this study. However, complexity has to be “reduced” in the course of analysis so as to effectively elucidate the meanings of cultural representations of multi-layeredness and contingency. This explains the incompleteness of every individual chapters and the significance to take this thesis as a whole to understand the complexity model of cultural representations in terms of systems of creative and cultural industries with reference to the rise of human creativity, and inter-correlated cultural practices by both producers and audiences of disparate repertoires in response to media discourses under different socio-cultural

contexts (Codde, 2003; Florida, 2002; Hall, 1997c, 2006; Halsall, 2007; Luhmann, 1995, 2002).

There is no doubt that this study aims at establishing a new paradigm of cultural representations demonstrated by a complexity model of the spectrum of cultural production and consumption in digital cinematic aesthetics and productions. However, an “essential tension” of a “convergent or consensus-bound research” model rather than a concrete formula is constructed leading to a new paradigm. It reflects new challenges and directions to critical media and cultural studies from both humanities and social sciences perspectives. This is not an excuse but what I believe in serious academic scholarship as well as doctoral dissertation that lead to a new paradigm of (trans)disciplinary knowledge for and by separate interpretive communities in patterned ways (Kuhn, 1977: 227, 236; Zelizer, 2008, 2009). It forces me to conduct thorough empirical research to develop my knowledge and theory in this PhD thesis as many previous serious scholars did. Max Weber’s doctoral dissertation (1889), for instance, was part of his first book *The History of Commercial Partnerships in the Middle Ages* and part of his later habilitation for a professorship in Germany<sup>1</sup>. It founded his career and scholarship in economic sociology and social scientific research methodology, thus entitling him one of the three principle architects of modern social science (Giddens, 1971; Kaelder, 2003). Jürgen Habermas also satisfied a habilitation by his dissertation *The Structural Transformation of the Public Sphere: An Inquiry into a Category of Bourgeois*

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<sup>1</sup> Weber’s doctoral dissertation had showed his early knowledge and concern that played an important role in his later writings. This dissertation was considered fully sufficient to earn him a habilitation in the area of commercial law, but he simultaneously submitted another study titled *Roman Agrarian History and Its Importance for Public and Civil Law* (1891) allowing him another habilitation for Roman public and civil law (Giddens, 1971; Kaelber, 2003).

*Society* that was his first major work published in 1962. The book is a constructive and reinvigorating response to the Frankfurt School's conception of critical theory and founds his paradigmatic concept of the "public sphere" (in German, "Öffentlichkeit"). This new concept is a vital contribution to modern understanding of democracy and his own scholarly career (Finlayson, 2005; [http://en.wikipedia.org/wiki/The\\_Structural\\_Transformation\\_of\\_the\\_Public\\_Sphere](http://en.wikipedia.org/wiki/The_Structural_Transformation_of_the_Public_Sphere), cited in Jul. 26<sup>th</sup> 2010). Likewise, Harold Garfinkel's PhD thesis *The Perception of the Other: A Study in Social Order* (1952) supervised by Talcott Parsons in Harvard University that remains unpublished is highly influential to Garfinkel's paradigmatic achievement in ethnomethodological studies alongside his collaborating colleagues<sup>2</sup>. More interestingly, his manuscript originally titled *Prospectus for an Exploratory Study of Communicative Effort and the Modes of Understanding in Selected Types of Dyadic Relationship* written in 1948 as a thesis proposal that was never finished does represent a theoretical grounding vision of his sociological studies of situated practices leading to the paradigm of ethnomethodology. This influential manuscript was finally published in 2006 as a monograph entitled *Seeing Sociologically: The Routine Grounds of Social Action*. It unveils certain undercover grounds of Garfinkel's paradigmatic thoughts in ethnomethodological studies by the reconstruction of prior theories and the re-evaluation of prior historical facts that are "seldom completed by a single man and never overnight". As Garfinkel mentions, the success of our research studies leading to any paradigmatic change always relies upon seeing things anew by introducing new words and new meanings for old ones.

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<sup>2</sup> In the early development of ethnomethodological approach, Garfinkel closely collaborated with some other researchers such as Aaron Cicourel and Harvey Sacks, who further developed their own approaches called cognitive sociology and conversation analysis respectively. Their differentiated social research methods belong to the same paradigmatic approach for their family resemblance (Have, 2004; Kuhn, 1996).

This is resulted from cumulative knowledge and empirical evidences by continuous efforts of interpretive communities like those aforementioned scholars' doctoral dissertations and further research studies (Garfinkel, 2006; Have, 2004; Kuhn, 1996: 7; Rawls, 2006; [http://en.wikipedia.org/wiki/Harold\\_Garfinkel](http://en.wikipedia.org/wiki/Harold_Garfinkel), cited in Jul. 26<sup>th</sup> 2010). This PhD thesis is just a start of my attempt to build theory by grounded empirical studies and cumulative knowledge. I am aiming at a new paradigm of cultural representations within dynamic systems of complexity and uncertainty in the era of globalization and digitalization. A vision, as well as a mission, is necessary to discern the interrelationships between old and new, theory and practice, being and society.

... the wonder of *Seeing Sociologically*... is the witness it offers (most especially to the young) as to how one can both work within the tradition as it is handed down by one's teachers and set off in a new, if not entirely new, direction – one that illuminates the tradition while moving it forward (Lemert, 2006: ix).

### **Complexity, Creativity and Systemicity**

As mentioned above, this study of cultural representations avoids from becoming pure soliloquies by aesthetic abstractions (Vivas & Krieger, 1953). The term “aesthetics” and other jargons have rarely been employed during the empirical research process, especially the audience reception study. Emphasis is indeed put on empirical evidences and the corresponding cognitive and aesthetic reflexivity in terms of communicative events and activities during the processes of cultural production and consumption of digital cinematic productions. Those digital

cinematic representations as symbolic forms of contemporary sign economy and perception/interpretation of the emerging characteristics of digital cinematic aesthetics that are ascribed with economic and symbolic values by integrative economic-symbolic valorizations are intensively studied (Lash & Urry, 1994; Thompson, 1995). However, it is far from any advocacy of “radical empiricism” from Jamesian pragmatic and phenomenological perspectives as both theoretical conceptualization and methodological operationalization of this research are reliant upon the reconstruction of complex and abstract theories empirically evidenced by multidimensional sources of data/discourses of constitutive social and cultural practices as communicative activities of social systems (Cooper, 1999; Gray, 2004; Rawls, 2006, 2008; Watson, 2009; [http://en.wikipedia.org/wiki/Radical\\_empiricism](http://en.wikipedia.org/wiki/Radical_empiricism), cited in Sep. 2<sup>nd</sup> 2010). Here I would like to introduce 3 core concepts – complexity, creativity and systemicity – based upon Niklas Luhmann’s systems theory and other correlated complexity theories (Luhmann, 1995, 2000a, 2002, 2005a; Urry, 2005, 2007). These concepts interdependently and interconnectedly explicate and are interactively used to investigate the “micropolitics of cultural representations” within media organizations of increasingly complex systems and structures. And thus, the power relations between cultural producers and audiences of asymmetrical symbolic creativity/power and increasing flexibility in the spectrum of production and consumption under systems of uprising creative and knowledge economies might be envisaged (Caves, 2000; Havens et al., 2009; Hesmondhalgh, 2002; Thompson, 1995).

Not all complexity is bad for business – but executives don’t always know what kind their company has. They should understand what

creates complexity for most employees, remove what doesn't add value, and channel the rest to employees who can handle it effectively (Birkinshaw & Heywood, 2010: 1).

This quote is from a business article but also applicable to cultural production and consumption in the art field, and points out, to a certain extent, a central argument of the reciprocal/paradoxical relationship between system and creativity in the complexity model of cultural representations. More sophisticatedly speaking, complexity can provide more varieties and alternatives for creative production and consumption exercises. Indeed, executives or more importantly “creative managers” who are “symbol creators” of symbolic creativity and power should understand what creates complexity for other collaborating symbol creators and know how to reduce complexity by systematic procedures of organization and representation (Hesmondhalgh, 2002: 5, 53; Luhmann, 1995; Urry, 2007). Contemporary complex systems of organization and representation that shape and are shaped by the increasing complexity of organization cultures and “structures of feelings” favor hybrid cultures or cultural representations of complexity, unpredictability and contingency. These are treated by flexible creative media companies/agencies of more horizontal hierarchy and nomadic creative labors/producers and active audiences of disparate repertoires of cultural practices. This pinpoints the importance of systems to channel and handle complexity effectively. They reinforce creativity and creative autonomy of producers, as well as audiences, during cultural production and consumption (Codde, 2003; Hesmondhalgh, 2002; Highmore, 2009; Kim, 2003; Seidl, 2005a; Williams, 1961).

Digital effects and computer animation, for instance, add “digitextuality” to the creative processes of digital cinematic productions, thus facilitating differentiation and de-differentiation of productions and/or products and functional positions and position-takings taken by cultural producers involved. Such digitextuality, first of all, increases the complexity of digital cinematic productions via multiple “media convergence”. This is done by means of discoveries and applications of digital media technologies and cultures such as digital effects and compositing that provide new media representational strategies of intertextual/digitextual references and digital aesthetics by new media’s remediation (Bolter & Grusin, 1999; Bordwell & Staiger, 1988; Bourdieu, 1993; Everett, 2003: 7). For instance, cinema and video game possess their unique media specifications such as representations of narrativity and interactivity respectively, and thus different mechanisms of the reduction of complexity are necessary to help producers, as well as audiences, make decision/selection what and how to adapt and appropriate various digitextual references of complexity and uncertainty. To discern the value of increasing complexity, we should bear in mind too much variety leading to chaos while too much redundancy to stagnation. System(s) to reduce complexity is complicated itself and therefore, it can deal with digitextual references of enormous complexity to make contingent decisions/meanings during the creative process of digital cinematic productions. Cultural representations of digital movies are created by adapting new media cultures and aesthetics of unprecedented imaginary spaces and perspectives (Darley, 2000; Everett, 2003; Luhmann, 1995, 2000a, 2002; Moeller, 2006). Moreover, in the field of cinematic production, this is not a simple act to remove particular “unvalued” complexity that you indeed cannot figure out. Throughout the history of cinematic development, complex systems of organization

and representation are/were constructed, deconstructed and reconstructed to invent and sustain cinematic productions by adapting and refashioning disparate old and new media technologies and cultures of complexity and uncertainty. There are uncountable numbers of “mistaken” decisions during the trial and error process to justify the values of different elements of complexity to cinematic productions and aesthetics. Some discarded complexity may be found valuable at different moments and in different situations during the development of cinema and its aesthetics (Bolter & Grusin, 1999; Kirsner, 2008; Toulet, 1995).

Ironically, systems are always criticized to be constraints of creative acts. Indeed, creative acts leading to cultural representations are mutually recognizable collective activities as social and cultural practices by both producers and consumers, and need systems to channel/transform unorganized complexity into organized one, especially in contemporary creative economies of increasingly flexible organizations and nomadic labors. Their efforts in contingent collaboration need to be consolidated to maximize the contribution of human creativity to cultural production and consumption. Some rigid systems of bureaucratic rules/routines may stifle creativity that needs loosely coupling elements as discontinuities to facilitate the continuous reproduction of systems by reform or evolution. Here we see the meanings of life, that is, multi-layered and multidimensional, as organization cultures and structures of social systems and creative thoughts of individual psychic systems fully explicated by Luhmann’s conception of “autopoiesis”. This conception allows change, reform or evolution by self-reproduction of systems of organization and representation and by self-organization of creative thoughts in a creative process of “de-paradoxicalization”. In other words, autopoietic systems favor creative meaning

construction during cultural production and consumption by handling or unfolding the paradox of organizational/institutional complexity and individual complexity and by breaking the rules of organization and representation via the contingent mechanisms of the reduction of complexity (Birkinshaw & Heywood, 2010; Caldwell, 2008; Florida, 2002; Luhmann, 2000a, 2002, 2003, 2005ab; Rawls, 2002, 2006). “Meaning is a term of the psychic conscious system operating in the complexity of the social system” by structural coupling and this meaning is the source of creativity. In this research, a focus of analysis is put on empirical studies of the interplayed social and psychic systems of complexity and uncertainty. The meaning construction of cultural representations by autopoietic systems of organization and representation is studied in terms of decision communications of contingency within social systems and communication about creative thoughts and perceptions of psychic systems in the creative processes of digital cinematic production and consumption. Such communication studies are not simply explicable by economic factors or business-planning activities alone (Hayim, 2006: 18; Hernes & Bakken, 2003; Knudsen, 2005; Magalhães & Sanchez, 2009).

### **Cultural Representations of Multi-layeredness**

We have quickly gone through some core concepts concerning the complexity model of cultural representations. This model leads to a new paradigm of revolutionary theoretical and practical directions and challenges to cultural production and consumption within new dynamics of digital media technologies and cultures (Grassilli, 2008). Nevertheless, confusion instead of clarification may be more likely entangling the readers because of the added-values and/or added complexity by theoretical conceptualization of cultural representations of multi-

layeredness. Here I would like to use some empirical data and analyses to demonstrate the applications of these concepts. Indeed, throughout this research, similar multidimensional and multi-layered empirical evidences from the comparative studies of old and new media traditions and the perspectives of producers, texts and audiences are deployed to depict the full “spectrum of cultural representations” by both producers and audiences’ cultural practices in digital cinematic production and consumption (Hall, 1997a; Havens et al., 2009; Rose, 2007).

“二〇〇六年後現代動畫特輯”

羅門

- 1 一
- 2 O是零
- 3 由一開始
- 4 橫過東西
- 5 直通南北
- 6 正交成經緯線
- 7 座標與
- 8 十字架
- 9 地球 人與上帝
- 10 才不會失蹤
  
- 11 O是滾動的
- 12 地球
- 13 眼球
- 14 輪子
  
- 15 一是直往
- 16 前衛
- 17 領先
- 18 永恆便不會停下來
  
- 19 二
- 20 地球是沒有岸可靠的船
- 21 田園都市 人與上帝
- 22 都坐在船上
- 23 沿著一 向O直航

24 大家口袋裡的旅遊卡  
25 與名片地址  
26 一路丟  
27 只有「悲愴奏鳴曲」「歡樂頌」  
28 與一部聖經  
29 放在船頭  
  
30 一路上  
31 打開電視一頻道  
32 一插進○中  
33 只能看到直舉過來的  
34 陽具  
35 槍支  
36 旗桿  
37 與  
38 麵條  
39 金條  
40 至於那條誰都抓不到的天地線  
41 要把人與地球  
42 牽到哪裡  
43 上帝也不知道...<sup>3</sup>

“2006 Special Collection of Postmodern Animation”

1 1  
2 0 is zero  
3 Starting from 1  
4 Go across the East and the West  
5 Go straight to the South and the North  
6 Forming the lines of latitude and longitude  
7 coordinate and  
8 cross  
9 Globe, man and God  
10 shan't be missing  
  
11 0 is a rolling  
12 globe  
13 eyeball  
14 wheel  
  
15 1 is to go straight  
16 pioneer

---

<sup>3</sup> In the original Chinese poem “○” is used instead of 0. This sign ○ shows a wider morphological meaning to the flexible and polysemic interpretations of the poem. So, I decide to maintain it in the Chinese version.

17           to lead  
18   Eternity shan't be stopping  
  
19    2  
20   Globe is a ship of no shore for mooring  
21   Field and city, man and God  
22           also sitting on the ship  
23           along 1, sailing straight towards 0  
24   Travel cards inside everybody's pockets  
25           and name cards and addresses  
26           keep losing  
27   Only "sorrowful sonata", "happy praise"  
28           and a bible  
29           on the prow of the ship  
  
30   Along the road  
31   Open the TV channel 1  
32           1 plugging into 0  
33   Only see something being raised forwards like  
34           penis  
35           gun  
36           flagpole  
37           and  
38           noodle  
39           gold bar  
40   As for that universal connection nobody can find  
41           pulling man and globe  
42           to where  
43           God also doesn't know... (Luo, 2007: 70-72)

This is merely an excerpt from one of Luo's familiar long-format poems (with my unsophisticated English translation) that not only represents the characteristics of modern Chinese poems – "new poetry" (新詩) – since China's New Culture Movement (五四新文化運動) in the early 20<sup>th</sup> century. It also reveals a revolutionary paradigmatic shift (in modern Chinese literature) in a changing zeitgeist conditioned by complex contextual factors and aesthetic values and judgment of creativity and innovation. The resulting innovative cultural representations are constructed by creative autonomy and "passion" as deep feelings of symbolic values in cultural production and consumption (Hao, 2002; Luhmann,

1998, 2000a; Shusterman, 1986). Such a search for a new paradigm of possibility aiming at creative breakthroughs needs to first satisfy prerequisites of adhering to and mastering conventions. This is achieved by means of transcendental reconstruction of the past in the present, as well as the future, and it has been once again happening in our era of digitalization. The resulting complex and critical changes of cultural representations by increasing complexity and creativity with regard to systems transformation and reproduction in a new era can be discovered via “de-realizing” literatures of China’s New Culture Movement. Like Xun Lu’s (魯迅) first “bai hua xiao shuo” (白話小說) *Diary of Madman* (狂人日記), it breaks between signifiers and signifieds, between forms and contents. Similarly, the contemporary digital revolution like the impact of digital effects and computer animation on digital cinematic productions also leads to new aesthetics of unprecedented imaginary spaces and perspectives of increasing complexity (Bourdieu, 1996; Lu, 2004; Pachucki et al., 2010; Wang, 1992).

Luo’s poem of postmodernism concerning animation as stated in his title interestingly reveals its relevance of cultural representations of multi-layeredness. Both new poetry and digital cinema present/represent renovated “creativity narratives” by increasing complexity and flexibility under a new/revolutionary art system of restructuring organization cultures and social and cultural patterns of creativity (Luhmann, 2000a; Manovich, 2001; Pachucki et al., 2010: 122). This provides insights into the “spectrum of cultural representations” via creative and passionate practices by both producers and audiences recognized and rewarded in their daily lives. Luo completely ignores those stereotypical formats of traditional Chinese poetry like five-character (五言) or seven-character (七言) lines

composition and level and oblique of tones and rhythms<sup>4</sup> in this poem. Besides, he depicts the symbolic values and power of digits/bits – 1s and 0s – in cultural representations by imaginary space and power of multiple media convergence, that is, “digitextual references”, to animate his imagination and much concern about people’s modern as well as postmodern lives in the digital era (Everett, 2003). 1 is 1 itself in line 1; 1 symbolizes by the poet’s imagination as a time in line 3, a motion in line 15, a TV channel in line 31, a penis in line 34, a gun in line 35 and so forth. The representative power of binary digits 1 and 0 that seems to be a signifying system of simplicity is, indeed, tremendously complex and almost unlimited. Both physical forms such as field and city (line 21) and metaphysical contents such as “sorrowful sonata” and “happy praise” (line 27) become symbolic forms constructed by intercourse of 1s and 0s. Definitely, as common characteristics of cultural representations of multi-layeredness, thus facilitating the construction of polysemic meanings, in new poetry (and digital media productions), audiences/readers are given the rights of freedom and free imagination to interpret the meanings of those words/symbols as detached signifiers (Fiske, 1989/1987; Whissel, 2006). For instance, “that universal connection” (line 40) can be understood as the poor telecommunication service entitled “tian di xian” (天地線)<sup>5</sup> in Hong Kong by decontextualization and recontextualization that is obviously not the preferred reading by the Taiwanese poet. The poet’s ultimate goal is to construct cultural representations by a system or a mechanism to reduce complexity or to represent

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<sup>4</sup> Those stereotypical formats of old traditional Chinese poems were the mechanisms to reduce complexity. Unfortunately, such mechanisms could no longer sustain systems reproduction of traditional Chinese poetry because of the changing social and cultural contexts in modern, as well as postmodern, societies (Fang, 2006).

<sup>5</sup> “Tian di xian” was one of Hutchison Telecommunications’ mobile services in the early 1990s that could not receive phone in and was joked to be out of connection at “tian” – the sky – or “di” – underground. It is because the service signal was normally and limitedly available on major streets but not up to any buildings or undergrounds in Hong Kong.

complexity by "simplicity". This is the core representational strategy of poetry to create a vivid (digital) world of free imagination leading to a conception of (digital/new) aesthetics of no shore and no limitation in the era of globalization and digitalization in which eternity shall not be stopping (line 18) because of continuous creative cultural appropriation and experimentation (Chan, 2002; Chan & Ma, 2002; Fang, 2006; Jiao, 2007). It is something people looking for within new dynamics of digital cinematic aesthetics and productions.

Similar to new poetry, digital effects and computer animation in contemporary digital media/cinematic productions allow novel cultural representations of multi-layeredness by complex coordination and collaboration of many creative managers and symbol creators of disparate flexible organizations of rapidly changing cultural production systems and increasing level of creative autonomy (Hesmondhalgh, 2002; Peterson & Anand, 2004). Especially those newcomers like visual effects supervisors and computer animators of strong digital literacy and specialty bring forth evolutionary creative ideas of restructured time and space of cultural representations that break some too familiar old forms and structures of cultural production, as well as consumption, and lead to the advent of unprecedented new aesthetics of digital cinema by providing alternative possibilities to make dream or free imagination as social and cultural practices come true (Appadurai, 1996; Caputo, 1997; Luhmann, 2000a, 2002). Both new poetry and digital media production construct meanings of life by complex and innovative systems of organization and representation like a continuous excursion from endless (digitextual) references and discursiveness. This offers unprecedented aesthetic experiences to cultural producers such as modern poets and new media artists, as

well as audiences, in terms of the blossom and fragrantcy of all new knowledge, human thoughts, passions and media languages. Such new aesthetic experiences by innovative cultural values and judgments of digital aesthetics facilitate a new paradigm of cultural representations as constructs of human reality and virtual reality that goes beyond our temporal and spatial experiences of physicality to hyperreality by free imagination and interpretation. For modern/postmodern poets, they come up with imaginary explanations for natural phenomenon like Luo's stitching of the lines of latitude and longitude (line 6) into coordinates (line 7) and cross (line 8) in his virtual world by bits on paper. Digital media artists like me employ digital effects and compositing of "endless" (but not unlimited) layers and possibilities to construct cultural representations of real virtuality of imaginary space and perspective, that is, "reality effect" of de-realizing literatures and media discourses, by bits in digital media (Black, 2002; Bourdieu, 1996; Fuller, 2005; Leon, 1953; Lovejoy, 2004).

Here I would like to unfold the creative process of a motion graphics design project entitled *Cyberculture and Identity* (see Figure 1) for my master degree to discern the meaning construction process of cultural representations of multi-layeredness in the spectrum of production and consumption. The selection of my own project is not only for convenience to get all reflexive production materials from pre-production to post-production and exhibition (that work of art had been exhibited to public both in London and Hong Kong), from research documents and storyboards to multiple-layered composition of symbolic images, but also for its holistic revelation of the struggling and negotiating aesthetic expression and perception of cultural representations via this motion graphics design of digital effects and computer animation from production to consumption. My cultural practices as a

producer/media artist and also a producer-as-audience reveal relatively high reflexivity. Besides, reflexive and reflective perceptions by the project supervisor and external examiner as audiences-as-producers who are also professional insiders of creative media institutions/industries and by those audiences during exhibitions toward media discourse of the motion graphics of multi-layeredness help understand the complex and contingent social and cultural meanings of digital representations. Different interpretations reveal the power relations between producers and audiences within dynamic systems of interactive communication and new media aesthetics in the era of globalization and digitalization. And this is the investigational model to show the sites of social interaction and struggle over the meaning construction of cultural/visual representations of complexity and digitextuality among producers, media texts and audiences throughout this study of digital cinematic aesthetics and productions (Halsall, 2007; Havens et al., 2009; Rose, 2007; Villarejo, 2007; Wright, 2008).

In Figure 1, all screen-shots are digital composition of multiple layers of visual effects, computer animation and digitized video footages in front of blue-screen studio. They are complex visual representations of digitextual references; sometimes several decades of layers of digital graphic images and programming scripts for procedural animation effects are used to construct a digital composite image like the animating human figures composed of the matrix of different running characters and symbols in screen-shot 1. To be honest, many of these language symbols in the matrix are mere representations of hyperreality within cyberspace from the cultural production perspective, as I – the producer – do not know the meanings of most deployed Japanese, Korean and other special characters. Some

random procedural animated characters may not be meaningful to native Japanese and Koreans as well; nevertheless, some motion graphics of the language matrix are literally meaningful as they are lattices of words or sentences typed or cut and pasted from the internet (see screen-shots 1, 9 and 11). However, their preferred meaning is still a digital representation of the feeling of cyberculture and identity inside the global village/city, which is subject to audiences' negotiated and oppositional readings. Different ages, races and cultures of peoples and their social and cultural practices are used as digitextual references to create aesthetic representations of cyberculture and identity of complexity, multidimensionality, globality, and hybridity (Everett, 2003; Hall, 2006; Lovejoy, 2004). The guy reading comic and playing game in screen-shots 2 and 3 respectively projects a representation of the remediating power of new media culture and aesthetics by multiple media convergence in cyberspace. Digital image layers of Japanese comic and video game console are composited with the guy and some computer animation into the virtual space in order to strengthen those cultural representations of digitextuality with reference to Japanese cultures, but the trick is the guy who looks like Japanese is indeed South Korean. The project supervisor as a more reflexive observer/audience doubted about that such abstract representation could successfully mean so much correlation to and cross-fertilization between new media, comic and game during an interim assessment. Therefore, some additional video and audio footages of informant/protagonist interviews as either voice-over alone or videographics with voice (see the keying of big close-ups in screen-shots 6 and 8) were edited and composited into the motion graphics representations, which won me the critical but positive comment of the external examiner from BBC<sup>6</sup>. He thought that those

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<sup>6</sup> His comments were really significant to win me the master degree in Kingston University. Three

interview discourses in juxtaposition with visual representations of motion graphics make the whole piece of work successfully communicate with audiences, that is, an important socio-cultural process to produce meaning via the existence of audiences in “compromise equilibrium”<sup>7</sup> (Storey, 2010: 50). Digital effects and computer animation offer a high level of creative autonomy to me or any creative artist to create cultural representations of multi-layered or polysemic meanings by unique repertoire of cultural practices of motion graphics design of imaginary spaces and perspectives as the aesthetic characteristics of digital media. Thus, depth of field is a digital effect rather than a physical limitation, identity of multiplicity can be achieved by digital compositing (see screen-shot 7), and protagonists can be animated and interacted with motion graphics in virtual reality (see screen-shots 8 and 10). However, we should bear in mind that audience’s imagination and interpretation always plays an indispensable role in the meaning construction of cultural representations and communication is the key to successfully understand the “spectrum of cultural representations” in digital media productions of complexity and uncertainty (Bolter & Grusin, 1999; Everett, 2003; Gripsrud, 2000; Manovich, 2001).

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classmates failed in their final projects and deserved only a postgraduate diploma as both the project supervisor and external examiner criticized that their motion graphics (two are very beautiful and impressive in visual representations) could not successfully communicate their ideas with audiences. This was the main explanation I got from the project supervisor (and also some audiences’ comments during London exhibition) when I as the class representative went to ask for re-evaluation of their final projects.

<sup>7</sup> “Compromise equilibrium” is a term from Gramsci’s concept of hegemony to explain the interactive relationships between producers and audiences in the innovative meaning construction process in the spectrum of cultural production and consumption (Storey, 2010: 50). Throughout this thesis of transdisciplinary studies with a special attention to complexity theories of autopoiesis, the term equilibrium is meant dynamic stability that is restless but ongoing activities, and that drives innovation by social actors’ practices to constitute the meaning of difference between actuality and possibility/impossibility (Bakken et al., 2009; Garfinkel, 2006; Goldspink & Kay, 2009; Luhmann, 2000a).

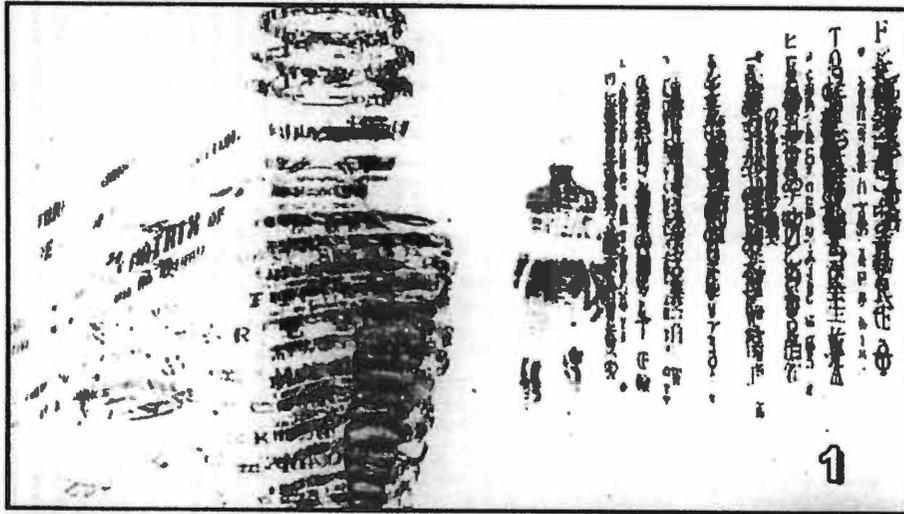


Figure 1: Screen-shots of my motion graphics design *Cyberculture and Identity*



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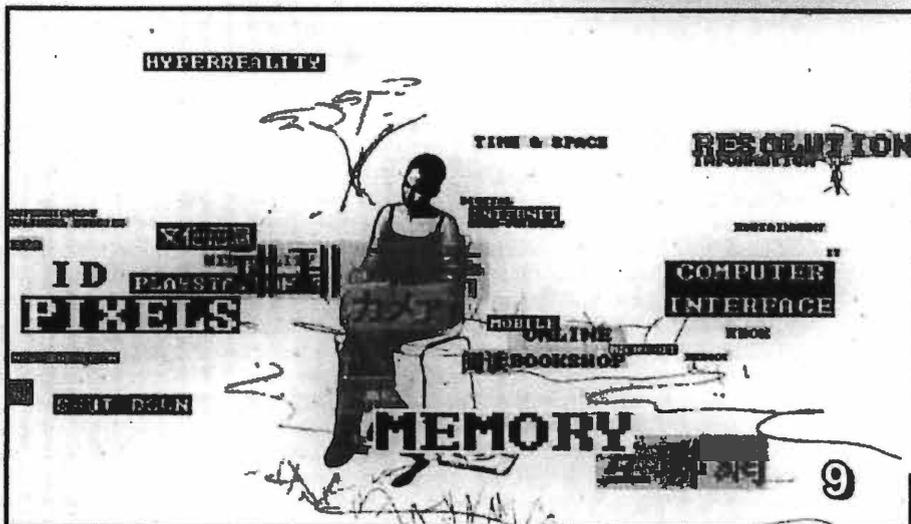
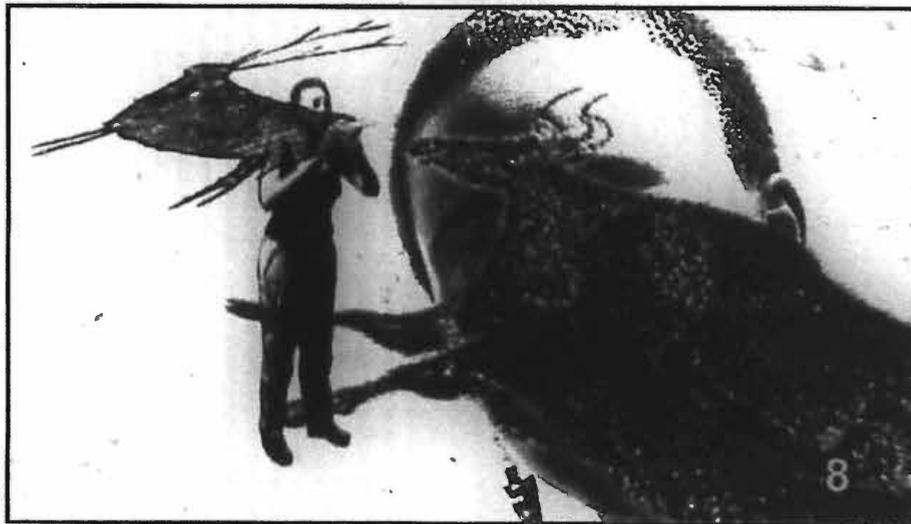


Figure 1: Screen-shots of my motion graphics design *Cyberculture and Identity*

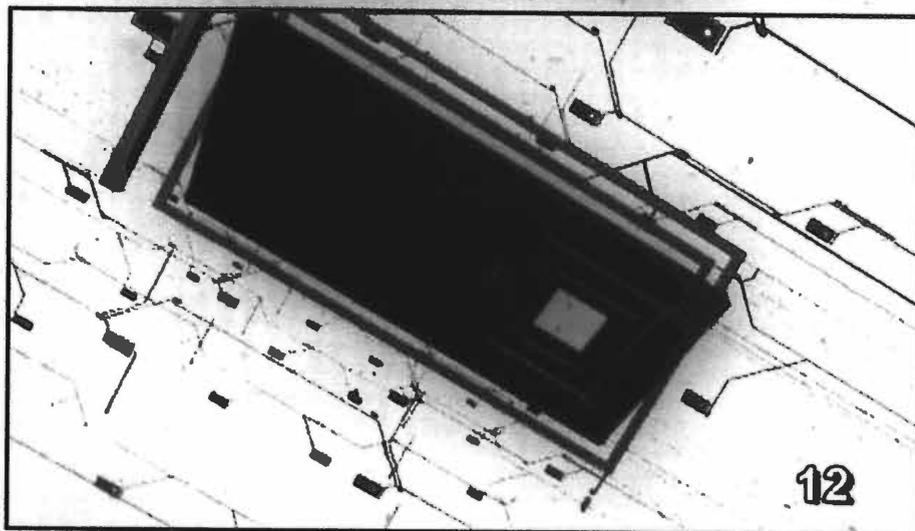
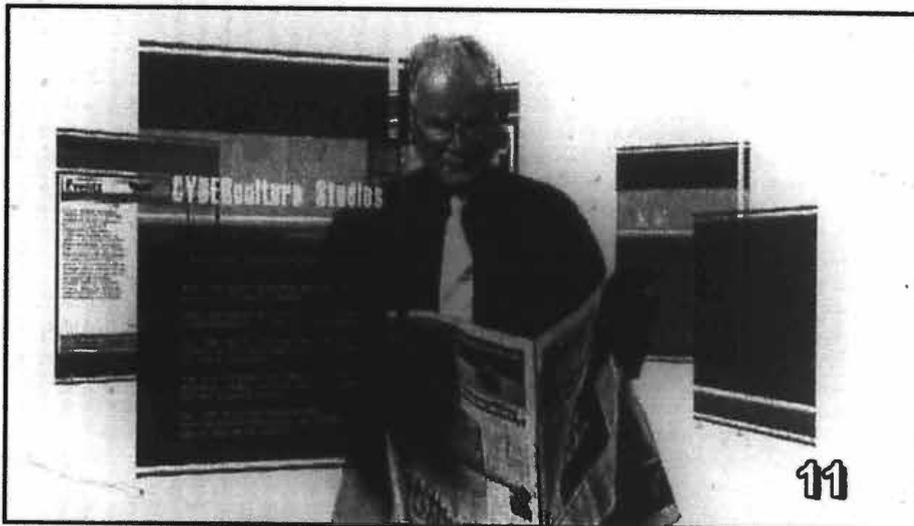
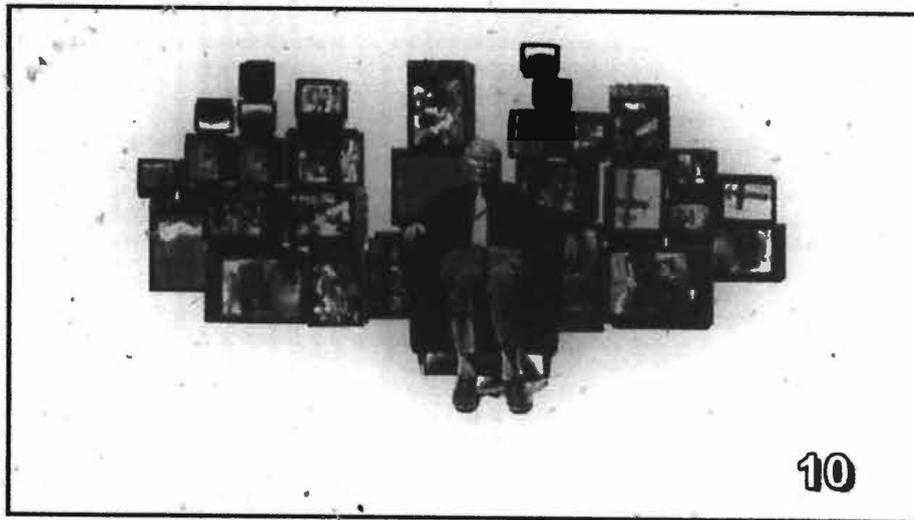


Figure 1: Screen-shots of my motion graphics design *Cyberculture and Identity*

## **Trust in Systems and People: History, Theory and Practice**

Think about that every individual human being thinks and works alone without interaction and communication with any other. Such individualistic art and creative action like painting or writing is possible in the field of art production but very unlikely to happen in the increasingly complex processes of cultural production and consumption including collaboration and interaction among producers and audiences (Caves, 2000; Bourdieu, 1993, 1996; Hesmondhalgh, 2006). More importantly, reflexive knowledge that is studied via recognizable social and cultural practices within flexible systems of organization and representation is achieved by means of communication through social being(s) of mutual trust rather than individual human being (Garfinkel, 1967, 2006; Hall, 1997ac; Rawls, 2002, 2006; Watson, 2009). Trust as a form of faith and expectations constitutes a fundamental fact of social life of complexity and uncertainty. Besides, trust in systems in terms of “faceless commitments” and trust in people, especially experts like those visual effects supervisors and computer animators in this study, by “facework commitments” allow reproduction of organization, organization cultures, and structures, by collaborative activities of people in coordination facilitated by their shared “creative passion”. Trust in systems and people is explanatory to the understanding of communication activities and processes in social systems that also make the incommunicable in psychic systems into an information source of insight to understand discourses of creativity as utterance by cultural producers and audiences in the “spectrum of cultural representations” (Giddens, 1990; Hesmondhalgh, 2002; Luhmann, 1979, 1998; Seidl, 2005a). Thereafter, trust in systems of organization and representation and in people like producers and audiences of unique repertoires of cultural practices provides a ground upon which a complexity model leading to a

new paradigm of cultural representations by theoretical exploration and empirical investigation of reciprocal/paradoxical and “trigger-causal” instead of “effect-causal” relationships is built (Codde, 2003; Seidl, 2005a).

This study is composed of interdependent and interconnected historical narratives, theoretical arguments and empirical analyses to construct the “spectrum of cultural representations”. This is demonstrated by discourses of creativity and representational practices in the formation of new/revolutionary digital cinematic aesthetics based on trust in and “creative passion” shared among cultural producers, as well as audiences, in organization and society of symbolic creativity and flexibility (Hall, 1997ac; Havens et al., 2009; Hesmondhalgh, 2002). As mentioned before, this thesis, from transdisciplinary perspectives of critical media and cultural studies, aims at unfolding new directions of a paradigmatic shift of cultural practices and representations. This empirically grounded thesis is comprised of this introduction, three main parts and a conclusion.

Part I – Chapters 2, 3 and 4 – is the historical narratives and theoretical arguments concerning complexity and complexity theories in the history and lived experiences of the development of digital media and cinema by interpretive communities. Their historical development witnesses the advent of digital cinematic aesthetics by means of cultural practices and representations within new dynamics of digital media technologies and cultures and unveils the increasing complexity and flexibility in contemporary creative and cultural industries (Grassilli, 2008; Lovejoy, 2004; Urry, 2005, 2007). Those historical and theoretical narratives represent a kind of archival empirical evidences to construct a conceptual model in line with some

important inductive findings by case studies facilitating rather than determining the processing of research method and methodology. Starting from an articulation rather than a definition of “digital cinema”, Chapter 2 briefly reveals the interrelated historical development of cinema, media cultures and technologies from analog to digital, from optical tricks to digital representations, from Hollywood to Hong Kong cinema, leading to the advent of contemporary digital cinematic aesthetics and productions. A special attention is paid to the impact of digital and traditional effects and animation on the changes in cinematic techniques and aesthetics and the continual influences of Hollywood cinematic innovations on Hong Kong film productions (Chong, 2008; Kirsner, 2008; Manovich, 2001; Villarejo, 2007). However, local efforts to develop its own cinematic aesthetics and productions by localization and “glocalization” especially in martial arts genres are thoroughly studied to shed light on the emerging and developing digital cinematic aesthetics and productions of Hong Kong characteristics (Davis & Yeh, 2008; Lau, 1999; Robertson, 1995). Chapter 3 presents the major literatures about cultural representations in regard to systems of contemporary cultural production of growing complexity and flexibility in the era of globalization and digitalization. The theoretical frameworks of the “spectrum of cultural representations” and the spectrum of cultural production and consumption are indebted to Luhmann’s (1995, 2002, 2003, 2005a) autopoietic social and psychic systems of organization cultures and creative thoughts. I will elucidate the meaning construction process of cultural representations of complexity, unpredictability and contingency, Hall’s (1997ac, 2006) cultural representations of polysemic meanings by encoding/decoding mechanisms in terms of imagination and interpretation by both producers and audiences’ cultural practices of contingency and discursiveness, and other

complexity theories from transdisciplinary perspectives. Specific structures and functions of contemporary creative and cultural industries that include the working practices of digital cinematic productions and shared “creative passion” among collaborating creative managers and symbol creators to sustain and to reproduce cultural representations by appropriation and experimentation are studied to understand the complex systems of organization and representation. In line with the same purpose, symbolic values and power of complexity and flexibility in organization cultures, nomadic creative labors and reward systems, and trust in systems and people of creative media organizations are intensively explored (Caldwell, 2008; Chan, 2002; Chan & Ma, 2002; Hesmondhalgh, 2002; Peterson, 1994; Thompson, 1995). Furthermore, “communication about audience perceptions” is emphasized to pinpoint the significance of audiences’ powers of representation by unique repertoire of cultural practices to the meaning construction of digital cinematic aesthetics during their creative consumption exercises (Caves, 2000; Codde, 2003; Luhmann, 2000a). Chapter 4 focuses on digital aesthetics and the remediating power of new visual culture and communication to de-realize cultural representations from physical reality references/constraints leading to “reality effects” of digital media by cultural practices of both producers and audiences of increasing levels of creative autonomy and symbolic creativity. Particular attention is paid to the new concept of the “aesthetics of seamlessness” and cultural representations of multi-layered/polysemic meanings in digital cinematic productions, and 10 emerging characteristics of digital cinematic aesthetics are empirically evidenced in relation to digital media cultures and aesthetics of unprecedented imaginary space and power in global Hollywood as well as Hong Kong creative economies (Black, 2002; Bolter & Grusin, 1999; Hesmondhalgh, 2002; Lovejoy,

2004; Manovich, 2001; Robins, 1996). Besides, the chapter introduces a schema of 3 dimensional research methodologies to investigate the meanings of cultural representations in digital cinematic aesthetics and productions via multidimensional articulation of discourses of producers, texts and audiences. This helps discern the micropolitics of cultural representations and power relations between producers and audiences of reflexive knowledge (Hall, 1997c; Havens et al., 2009; Rose, 2007).

Part II – Chapters 5 and 6 – puts emphasis on regularities and disjunctures of aesthetic expressions and perceptions by producers and audiences. Creative decisions via daily constitutive practices are empirically studied to understand the complex meaning construction struggling processes (Luhmann, 2000a, 2003; Rawls, 2002, 2008; Watson, 2009). Chapter 5 is the analysis of a focus group research. 11 representative Hong Kong and Chinese digital cinematic productions were selected to stimulate interactive discussion among 5 focus group audiences of disparate demographics. They are either general audiences or amateurs of digital movies. The aim is to justify the face validity of the 10 inductively found digital cinematic aesthetics. Moreover, most significantly, those audiences' vivid discursive discourses show their powers of representation by cultural appropriation and appreciation of digital cinematic aesthetics and productions in the creative meaning construction process as language games of complexity, unpredictability and contingency. Those interpretations of cultural representations by audiences' utterance as cultural practices are meaningful to understand how their unique aesthetic values and judgment facilitate alternative possibilities in the spectrum of cultural production and consumption (Caves, 2000; Chan & Ma, 2002; Codde, 2003; Luhmann, 2000a; Wittgenstein, 1969, 2007/1967). Chapter 6 presents the complex power relationships

between producers and audiences in terms of disjunctures and conjunctures of their understanding of cultural representations (Appadurai, 1996). Through comparative studies of both producers and audiences' discourses, systems of organization and representation is discerned to understand the complexity, unpredictability and contingency of the meaning construction process of digital cinematic aesthetics. Systematic coordination and collaboration of nomadic labors such as filmmakers and computer animators of symbolic creativity plays an important role in sustaining and reinventing evolutionary cultural productions like digital cinematic productions in contemporary creative media and film industries. An emphatic understanding of audiences' active roles in the interpretation of cultural representations that influence not only creative consumption but also production of digital cinematic aesthetics is advocated (Caves, 2000; Hall, 1997ac; Hartley, 2005; Hesmondhalgh, 2002). Neither producers' discourses nor audiences' perceptions can fully depict the "spectrum of cultural representations" in the contemporary cultural system of increasing complex structures of feelings whereas structures and agencies are in active relationships of dynamic stability in the spectrum of cultural production and consumption (Highmore, 2009; Storey, 2010).

Part III – Chapters 7 and 8 – is more reliant on industrial materials like storyboards and production documentations to display working practices and the detailed-situated process of cultural representations by producers' coordination and collaboration "from within actual settings" of systems of organization and representation (Caldwell, 2008; Garfinkel, 1967: viii; Hall, 1997c). Textual analysis of production materials and footages of digital movies as case studies is juxtaposed with discursive discourses of producers and audiences to elucidate the full "spectrum

of cultural representations” by triangulation. In Chapter 7, Stephen Chow’s 3 digital cinematic productions are thoroughly studied by means of textual and production analysis to discern how digital effects and computer animation function as “de-representations” or “de-paradoxical, deconstructive and de-differential representations” in the “spectrum of cultural representations” to help “glocalize” Chow’s “meaningless” cultures and digital comedic representations via “integrative economic-symbolic valorizations”. It is regarded as an ongoing learning process for Chow and his collaborative cultural producers of symbolic creativity from disparate participating creative media organizations. Those visual effects supervisors and computer animators as creative managers and symbol creators from Centro and Menfond play important roles in Chow’s innovative digital cinematic productions. And different organization cultures of these 2 media production companies highly influence “creative passion” shared among their cultural workers for creative production by cultural experimentation. “Cultural de-representations” as hidden layers of symbolic forms like digital effects and computer animation importantly contribute to the meaning construction of cultural representations in digital cinematic aesthetics and productions by providing unprecedented imaginary space of possibilities, as well as impossibilities, in the creative process of “de-paradoxicalization” (Luhmann, 1995, 1998, 2002; Seidl, 2005a; Thompson, 1995). As the development of systems of creativity and organization in digital cinema is paradoxical and adds complexity and uncertainty to the process of cinematic production, systems of organization and representation are developed to reduce complexity and to facilitate Chow’s visual amplification by digital effects and multi-layered compositing. This results in unprecedentedly new narration and narrative of “glocalized” digital cinematic representations by collective imaginative inputs from

Chow and his collaborating creative members such like visual effects supervisors and computer animators in the creative processes of pre-production, production and post-production. Such creative processes are empirically investigated via industrial-reflexive production materials and sequence-shots of Chow's digital cinematic productions (Manovich, 2001; Marin, 2001; McClean, 2007). Chapter 8 examines such kind of "de-representations" in the "spectrum of cultural representations" again by means of intensive production analysis of ~~A~~ blockbusting digital movies locally produced and transnationally co-produced in Hong Kong and China. A focus of analysis is put on those detailed storyboards and art direction reflexive materials as communication "bibles" for nomadic creative labors of disparate collaborating media organizations like cinematographer, art director, visual effects supervisors and computer animators who are always working at different stages and in different places, as well as spaces, from pre-production to post-production. Such reflexive visual references as storyboards and art direction imageries are "de-representations" make the social systems of organization and representation of digital cinematic aesthetics and productions of increasing complexity and uncertainty possible. Thus, the structural coupling between the social and psychic systems of individual cultural producers of creative thoughts can properly and effectively coordinate complex collective (imaginative) activities during digital cinematic production (Caldwell, 2008; Grassilli, 2008; Luhmann, 1995, 2000a).

Last but not least, the thesis ends with a brief conclusion to summarize the overall empirical evidences that build and furnish the complexity model of cultural representations demonstrated by members' (both producers and audiences') recognizable social and cultural practices in the creative process of production and

consumption of digital cinematic aesthetics and productions (Garfinkel, 1967; Rawls, 1996, 2002, 2006). As a new paradigmatic shift in terms of “the language of new media” and the “speed/mobile cultures”, this study is a response to the complex, rapidly changing cultural/aesthetic tastes and habits of both producers and consumers. This reveals that systems of organization and representation and newcomers of cultural production like visual effects supervisors and computer animators are still evolving to find their positions and to encounter new challenges and directions of cultural representations in digital cinematic aesthetics and productions. Further studies of changing social and cultural practices are necessary to discern the new paradigmatic modeling of cultural representations in the spectrum of creative production and consumption (Bourdieu, 1993; Caves, 2000; Luhmann, 2000a; Manovich, 2001; Tomlinson, 2007). Although I emphasize to avoid from philosophical abstraction in this study, my writing, as well as my thought, is quite abstract as necessary to such a study of cultural representations of complexity, unpredictability and contingency, thus providing preconditions for novelty in theory and practice to produce knowledge via research (Connolly, 2008; Kim, 2003). With a view to making this study’s objectives more obvious to readers, here before to end this introductory chapter, I state the core research questions concerning the complexity model of cultural representations in digital cinematic aesthetics and productions, which are being asked and answered/explored throughout the writing of this empirically grounded thesis.

- RQ1: How do digital media technologies such as digital effects and computer animation affect the aesthetics of cinematic productions? Are there any new aesthetics of digital cinema within the dynamics of digitalization and globalization?
- RQ2: How do local cultural producers shape and reshape the narrative and narration of digital cinematic productions in Hong Kong and China via their cultural practices? What do they do to integrate economic and symbolic values of new media cultures and digital aesthetics in response to the globalization of digital effects and computer animation in cinematic productions?
- RQ3: What are the social functions of producers and audiences to the construction of new digital cinematic aesthetics in the processes of cultural production and consumption? To what extent do cultural producers comprehend and incorporate audiences' perceptions and interpretations of digital cinematic aesthetics? How could we understand the complex power relationships between producers and audiences?
- RQ4: How could we theorize the complexity, creativity and systemicity of digital cinema within new dynamics of digital media technologies and cultures? What are the social meanings of this new theory to the production and consumption of digital cinematic aesthetics and productions in contemporary creative economies?

## **Chapter 2 Historical Retrospect of the Developmental Trend in Cinema and Digital Media Technology**

As many interpretive communities of humanities and social sciences disciplines and industrial institutions have posed different arguments about and different classifications of “digital cinema”, I would like to draw a distinction to pinpoint my schemata in this study of digital cinematic productions with a special attention to the influences of digital effects and computer animation on social and cultural transformation of digital aesthetics and in terms of an interdisciplinary inquiry of social practices and theories (Gaut, 2009; Kirsner, 2008; Manovich, 2001; Villarejo, 2007; Zelizer, 2008). My approach can be seen as a deviation from some interpretive communities, but it also means a converging access to tacit and shared knowledge of others leading to a new paradigm. Although there is no single individual discipline or interpretive community knows all, we need a critical inquiry with its uniqueness, strength and constructive power to investigate social and cultural transformations. However, establishing a new paradigm heading to new challenges and directions needs a solid ground of repetitive patterns orienting interpretive communities towards a unique tradition and a new theory with authenticity and sustainability, which is subject to continuous justification and modification by means of reconstructing prior theories and re-evaluating historical facts in a long-term process (Kuhn, 1977, 1996; Lauer, 2008; Zelizer, 2008, 2009). Such construction and reconstruction of prior theories and historical narratives is the core objectives of this and next 2 chapters of historical and literature reviews with a view to creating a new paradigm of cultural representations using digital cinematic productions as a demonstrating model.

Historical approach is employed to establish a ground for this study. I have to select limited but relevant and convergent historical narratives to depict the trend of cinema and media technology to support my articulation of the relationships between technological innovations and cinematic productions, as well as aesthetics, thus leading to contemporary cultural representations in digital cinematic aesthetics and productions. For instance, this historical retrospect is highly limited to cinema of special effects from traditional optical effects to contemporary digital effects and computer animation, from Georges Méliès' optical trick films to George Lucas' hyperreal illusions of full digital cinematic productions, and from Western Hollywood to Eastern Hollywood – Hong Kong. Such a selection (for drawing a distinction) inevitably makes limitations but the corresponding focus of historical narratives may produce consensus of a new model with regard to solid references to historical and social practices and theories. This facilitates the formation of similarity relations between concrete examples or paradigms (Kuhn, 1977; Lauer, 2008). Historical narratives aim not at producing predictions, but at providing a thorough depiction and interpretation from a start to an end in a period of time and space of specific socio-historical contexts for the inferential thoughts of the future as Kuhn (1977) says.

I deeply believe that much writing on philosophy of science would be improved if history played a larger background role in its preparation (Kuhn, 1977: 12).

This study is a kind of philosophical exploration of the possibility of a new model of cultural representations in the creative processes and constitutive practices

of production and consumption of digital cinematic aesthetics and productions from transdisciplinary perspectives of human and social sciences. The histories of cinema and media technology play an important and indispensable role in its preparation and development. Let's go back to the argument about the definition of digital cinema that is unavoidably concerned with many digital media technologies in the process of its production and consumption. Generally speaking, in accord with historical and practical comparisons, digital cinema resembles traditional cinematic productions and involves 5 typical phases such as pre-production, production, post-production, distribution and exhibition. Moreover, audience reception that is going to be analyzed in Chapters 5 and 6 must be considered to make sense of the meaning of exhibition, as well as production. Accordingly, mere cinematic productions of all these 5 phases being digitally processed and manipulated can be regarded as "full digital cinema" while those other cinematic productions involving only one or more but not all phases digitally treated are defined as "partial digital cinema" (Gaut, 2009; Villarejo, 2007). Indeed, up to now, not many digital cinematic productions have been really distributed and exhibited in full digital format because of technical, social, cultural and economic concerns, though Lucas' *Star Wars Episode I – The Phantom Menace* was experimentally being digitally projected for exhibition in 4 theatres in 1999 (Kirsner, 2008).

On the one hand, I agree with Manovich (2001) that *Toy Story* produced by Pixar Animation Studios in 1995 should be categorized as the first feature-length 3D computer animation instead of a full digital cinema because of its reference to the tradition of cartoons and computer animation of no human acting and location shooting. On the other hand, Lucas' *The Phantom Menace* should not be regarded as

the first full digital cinematic production as Manovich mentioned, because it was still shot on the traditional celluloid film. As recorded, Mike Figgis' experimental movie *Timecode* (2000) shot by digital video and Lucas' world-wide blockbuster *Star Wars Episode II – Attack of the Clones* (2002) by SONY specially designed CineAlta (F900) digital camera of 24 frames per second<sup>1</sup> are the earliest full digital cinematic productions that rely on human actors and real sets supplemented with digital effects and computer animation fully processed and manipulated within the digital space without any generational loss by transmission from analog to digital. Certainly, their screenings in digital format were not universal during their initial release world-wide (Fabe, 2004; Gaut, 2009; Kirsner, 2008; Manovich, 2001). Indeed, most movies studied in this research are not full digital cinematic productions based on the above rigid and precise criteria. However, the history of digital cinema started before the advent of the first full digital cinematic production and showed references to the histories of technology and old media with no doubt (Manovich, 2001; Nerone, 2006, 2008).

Digital cinematic productions have primarily emerged in the arena of post-production and Lucas' Industrial Light & Magic (ILM) has acted as a leading and founding post-production company in Hollywood cinema nourishing innumerable creative artists and pioneers of digital, as well as traditional, effects and animation, and producing uncountable amounts of cinematic productions since 1975<sup>2</sup> (Gaut, 2009; Kirsner, 2008; Smith, 1986). Its world-renowned digital cinematic productions

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<sup>1</sup> 24fps is the standard frame rate of traditional 35mm film cinematography and has also served as a desired, uniform sampling speed to make the illusion of movements in motion pictures for a long time (Bordwell & Thompson, 1986; Manovich, 2001).

<sup>2</sup> ILM was founded by a tentative assembly of a small group of passionate and enthusiastic young talents to create special effects for Lucas' first *Star Wars* movie in a California warehouse in 1975 (Introduction by George Lucas in Smith, 1986).

include *Terminator 2: Judgment Day* (1991), *Jurassic Park* (1993), *Forrest Gump* (1994) and many others that have initially aroused audience awareness of the invented new possibilities and new imaginary labor forces by digital effects and computer animation in contemporary digital cinematic productions in a global sense (Gaut, 2009; Villarejo, 2007). Many of these pioneering creative artists in ILM and their technological researches and inventions such like computer-aided motion control system, painting and photo-retouching software – Photoshop, photorealistic rendering software – RenderMan, and so forth have influenced very much the development of digital cinematic aesthetics and productions in Hong Kong and many other countries all over the world since the 1980s (Chong, 2008; Kirsner, 2008; Li, 2002; Rickitt, 2000; Schroeder, 2004; Smith, 1986).

Historical analysis of the impact of technological development on digital cinema is one among the plurality of approaches to this study of digital cinematic aesthetics and productions. I pay special attention to the continuity of innovative digital effects and computer animation with their correspondingly previous forms such as optical compositing and matte painting (Manovich, 2001; Villarejo, 2007). Technological determinism is absolutely not the stance of my multidimensional approaches of critical media and cultural studies, although many recent media and communication studies have always put emphasis on the future sense of cultural transformation in terms of novel digital technologies. Indeed, technology is only one factor or a cluster of many others to affect social and cultural transformations of our societal systems in the digital era and it is also transforming itself with reference to other contextual factors such as the social, the cultural, the economic and the political in the processes of structural coupling of social and psychic systems that will be

further discussed in the next chapter (Curran, 2008; Luhmann, 1995; Nerone, 2006, 2008).

The following historical narratives of the development of special effects, cinematic technologies and productions aim at providing a consensus about the continuity of digital cinematic productions with the traditional cinema, and inventing a mechanism of convergent inference to depict the possible ways of development of digital cinematic aesthetics (Kuhn, 1977; Manovich, 2001; Villarejo, 2007). Such historical narratives were experienced and described by many involved cultural producers and creative artists of cinematic productions in both Hollywood and Hong Kong. But, unlike the natural sciences in which aesthetics is seldom an end in its achievement, this historical and theoretical investigation focuses on creative artists' goal in terms of the cultural production of cinematic aesthetics by media, from the physical to the digital, and technological innovations, especially digital effects and computer animation. Indeed, most innovations of digital media technologies in cinematic productions primarily aim at and are used to technical puzzle-solving like many scientific innovations, which are also very meaningful to the development of digital cinema and the transformation of our social systems in the digital era (Kuhn, 1977). This investigation is skewed towards human and aesthetic experiences in the history of over-a-century cinematic production; the impact of media technologies on cinematic development and globalization in our social systems is also considered.

### **The Relation of Cinema to Animation with Changing Media Technologies**

I had been fundamentally trained as a film and video maker/artist in a critical moment of the transition from analog to digital media production in Hong Kong –

the Eastern Hollywood – since 1990. Not only was I trained to use traditional Steenbeck – a type of typical flat-bed film editing suites – for physically editing positive prints of film but also I got the chance to become the first generation of non-linear digital video Avid Media Composer and digital sound Pro Tools editors in Hong Kong<sup>3</sup>. My first job after graduation was promoting and training traditional editors in Hong Kong and China using Avid Media Composer systems. One sub-branch of the systems was named Film Composer with a special additional mechanical device imitating the controller of Steenbeck to replace the digital mouse click, which was not quite accepted by industrial practitioners at that time but has become one of the most popular standard suites for non-linear editing of cinematic productions, especially the rough cut<sup>4</sup>. Meanwhile, I was also responsible for demonstrating many other novel digital media technologies for cinema and television productions such like digital visual effects switchers, 3D model digitizer and 3D computer animation software. Especially, I was sent to a week intensive training of a 3D computer animation software at the headquarters of the developer in Vancouver. I also got the chance to become one of the first generation of Alias|Wavefront PowerAnimator and Maya computer animators in Hong Kong<sup>5</sup> and I have been working as a creative artist and instructor of digital effects and computer animation

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<sup>3</sup> Steenbeck was indeed a brand name producing flat-bed film editing suites. Another type of popular film editing device was called Moviola. They were also technological innovations influencing the development of cinematic aesthetics and productions in a particular sense. Nowadays, traditional film and sound editing have been mostly replaced by digital non-linear systems like Avid Media Composer and Pro Tools developed and acquired respectively by Avid Technology since its foundation in 1987 (Kirsner, 2008; Bordwell & Staiger, 1988; <http://en.wikipedia.org/wiki/Avid>, cited in Aug. 1<sup>st</sup> 2009; <http://www.avid.com/us/company/corp-profile.aspx>, cited in Aug. 1<sup>st</sup> 2009).

<sup>4</sup> In 1994, I was introduced to work as an Avid Editor for one of the Hong Kong most famous post-production companies called Centro Digital Pictures Limited. If I had accepted the offer, I would have got the chance to edit Centro's first invested digital cinematic production – *The Stormriders* (1998).

<sup>5</sup> PowerAnimator was a user-friendly icon-based 3D computer animation software system and also the precursor of Maya that has become one of the most popular digital effects and computer animation software in contemporary digital cinematic productions. Both software systems had been developed by Alias|Wavefront, a pioneering company of digital effects and computer animation in the global media industries, which was acquired by a multinational post-production systems conglomerate – Autodesk – in the late 2005 (<http://usa.autodesk.com>, cited in Aug. 1<sup>st</sup> 2009).

since 1994. I have witnessed the dramatic social and cultural changes of cinema and television productions in media industries since the 1990s. As Felix Chong – the scriptwriter of the awarded Hong Kong movie *Infernal Affairs* (無間道, 2002)<sup>6</sup> – said, “We have entered a digital era and filmmakers have already prepared to give up cinematic productions using celluloid film that is a must in the near future.”

From my own working experience and professional insiders’ opinions, digital effects and computer animation technologies play an important role in social and cultural transformations of cinema and television productions in the digital era while computer non-linear editing unless certain digital effects plug-ins<sup>7</sup> are used to manipulate the digitized film/video footages is generally excluded from the “cult of special effects” (Bordwell & Staiger, 1988: 243; Rickitt, 2000; Smith, 1986). Generally speaking, digital visual effects and editing are separate procedures during the workflow of digital cinematic productions, and disparate sub-fields of production and aesthetic studies, although they are both belonging to the post-production phase mainly. In this study, I choose to ignore the analysis of the impacts of computer editing but to focus on the contributions of digital effects and computer animation to digital cinematic aesthetics. We have to understand the indispensable cultural influences on storytelling and other aesthetic values in digital cinematic productions by computer non-linear editing, which constitute another scope of cultural and aesthetic studies. But many movie editors like Michael Kahn believed that they

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<sup>6</sup> *Infernal Affairs* was adapted by Martin Scorsese to make the Academy Awarded (Oscar) Hollywood movie *The Departed* (2006).

<sup>7</sup> Digital effects plug-ins that are sometimes called filters are presets of programming scripts written by computer programmers for creating particular visual or audio effects with flexible but limited variability. For example, Adobe Photoshop’s filter effects are typical digital effects plug-ins for photo retouching.

might merely learn just the fundamental commands of the computer editing system and follow the traditional aesthetics of film editing to do their jobs (Kirsner, 2008).

There are many arguments about the differences between cinema and animation especially in terms of their production practices and the concepts of artificiality and reality. Traditionally speaking, cinema was regarded as a capture of frames of a continuous stream of motion while animation was created frame by frame. The former was defined as a realistic representation of continuous photography and the latter was merely a graphic representation of illusory motion of discontinuity. However, Eadweard Muybridge's analysis of movement by means of sequential photographs provided convergent reference material for artists of both cinema and animation, which reminds us of their basic shared concept of the illusion of movement and continuity by perceptual responses to visual representations as stimuli (Bordwell & Thompson, 1986; Bendazzi, 1994; Chong, 2008; Manovich, 2001; Toulet, 1995; Villarejo, 2007). Definitely, the aesthetic styles and approaches of cinema and animation are very different. These create their own specific cultural representations in the history of media industries that are repeatedly changing in accord with technological and other contextual factors in the world. For instance, techniques of motion capture that utilize either optical or magnetic sensors to realistically imitate a real performer's movement in a well-defined setting and then apply the recorded reference data in terms of algorithm to a corresponding digital character are popularly employed by contemporary computer animators for many game design and some digital cinematic productions that seek for cinematic reality effects. But, in Pixar Animation Studios, computer animators of world renowned 3D animated features such as *Toy Story* (1995), *Monsters, Inc.* (2001) and *The*

*Incredibles* (2004) object to the use of motion capture to replace traditional “keyframe animation” techniques that constitute the unique aesthetics and styles of traditional cartoon and animation of discreteness. Indeed, digital media technologies have provided a new condition of convergence of cinema and animation productions and aesthetics with a coherent emphasis on cultural representations by perceptual realism in terms of hyperreal and photorealistic digital imageries since the 1990s. A similar convergent condition once emerged at the very beginning of the development of cinema and animation when hand-painted and hand-animated images were used to filmmaking (Bendazzi, 1994; Chong, 2008; Gaut, 2009; Manovich, 2001; Villarejo, 2007). Here we should envisage the existence of shared dimensions of aesthetics and production techniques in cinema and animation productions. So, I would like to introduce my convergent-divergent-convergent (C-D-C) model to study the changing relationships between cinema and animation with the development of media technology in terms of a selection of representative historical narratives as follows.

Both cinema and animation are cultural artifacts constructed by human beings for human purposes, especially cultural representations for cultivating and entertaining, and share the same origins of moving image technology for the production of illusory motion. In other words, the developments of cinema and animation are also reliant upon technological discoveries and applications in other fields from the very beginning (Bordwell & Staiger, 1988; Chong, 2008). Like Figure 2.1, the Zoetrope of a sequence of consecutive moving images and other members of optical spinning toys such as the Phenakistoscope, the Thaumatrope and the Praxinoscope, and the early flip book machine Mutoscope were all the primary peep show toys that founded the technological and aesthetic concepts of cinema and



Figure 2.1: A Zoetrope of consecutive animated images provided an initial idea of motion pictures ([http://commons.wikimedia.org/wiki/File: Zoetrope.jpg](http://commons.wikimedia.org/wiki/File:Zoetrope.jpg))

animation by displaying a succession of images as the illusion of continuous movement. Such peep show machines embarked Thomas Alva Edison's invention of the Kinetoscope and the later improved version Kinetophone combining moving images with the Phonographic soundtrack, thus establishing the origin of American movie industry in 1894. In the meantime, dizzying perspective images of magic lanterns and panoramas that emerged after the popularization of the combination of painting and theatre in visual art performance of shadow puppetry, "ombres chinoises" (Chinese shadows), demonstrated the original ideas of projection and exhibition technologies to entertain massive audiences, prefigured some "cinematic" effects like fades, dissolves and limited animation techniques by multiple projectors, and formed the prototypes of "cinema": Until December 28, 1895, Auguste and Louis Lumière first exhibited their motion pictures to public audiences by charging one franc per head in the basement of Le Grand Café in Paris, thus giving birth to "cinema" – the original concept of film projection to the public named after "Cinématographe", a trade name of Lumière brothers' company, and their technological inventions that created the unprecedented immersive experience of entering the larger-than-life imaginary movie world (Black, 2002; Bordwell & Thompson, 1986; Kirsner, 2008; Rickitt, 2000; Toulet, 1995; Villarejo, 2007). All

the above technological developments of projection and exhibition depict the convergent characteristics of cinema and animation in terms of the exploration of the illusion of movement at the beginning stage.

Since the 1920s, the aesthetic approaches of cinema and animation had been becoming more divergent because of the advent of talkies and Technicolor movies. In the era of silent movies, the frame rate of film shooting was usually much less than 24fps, thus producing slapstick look and feel of Charlie Chaplin and Buster Keaton in their silent comedies. When compared those caricatured movements of the casts in the early black-and-white silent movies with the movements of the animated characters like Gertie in Winsor McCay's first character cartoon *Gertie the Dinosaur* (1914) and Felix the Cat in Pat Sullivan's *Feline Follies* (1919), there are no big differences between the silent movies and the animated shorts except that the former movies are photographic representations but the latter are graphic ones (Kirsner, 2008; Rickitt, 2000). The introduction of novel media technologies of synch-sound and Technicolor systems for cinematic productions was not totally fluent and had been highly attacked as a mechanical-technological move to destroy the "aura" of silent and black-and-white movies respectively. Nevertheless, finally, Warner Bros justified the competitive advantages of product differentiation by synch-sound movies, invested a lot to improve the innovative technology for synch-sound cinematic production, and released the first full talking movie *Lights of New York* in 1928, which earned \$1.2 million with a production budget of \$23,000 only. Similarly, the technological innovation of a faster speed of Technicolor film encouraged the making of *Gone with the Wind* (1939) as an epic of historicity and physical reality, which was regarded as one of the most chaotic and expensive endeavors in the

American movie history with an astronomical number of budget at that time – nearly \$4 million. However, the movie ended up earning more money than any previous movies in the history and winning the Academy Award for Best Picture. The success of *Gone with the Wind* helped convince other studios to produce Technicolor movies and most profitable movies had been synch-sound and Technicolor cinematic productions throughout the 1930s and 1940s. They helped diverge the aesthetic styles of cinema and animation into the photographic realism of a sense of natural performance especially in human dramas and the graphic representations of discrete and discontinuous images of artificial artworks and characters respectively (Bordwell & Staiger, 1988; Kirsner, 2008; Manóvich, 2001).

However, cinematic productions, especially commercial and entertaining blockbusters, have never refrained from the aesthetics of illusionism shared with animation, thus creating cultural artifacts of amusement and fantasy to entertain audiences. Although many movies tried their best to veil any traces of their production processes of unreality, they would not deny what they revealed were larger-than-life imaginary images of action inside the filmic space and time, and they employed many animation and photographic tricks and techniques to produce unreal and impossible effects of exaggeration and caricature. The innovations of media technology in the digital age have once again brought cinema and animation productions to a convergent and intersecting mode in which digital cinema recuperates many animation techniques and aesthetics into its production by means of digitalization while computer animation becomes more photorealistic and seamlessly integrates to an unprecedented degree into many digital cinematic productions, especially in the form of digital visual effects and virtual sets and

characters (see *Cinefex* magazines; Gaut, 2009; Manovich, 2001; Rickitt, 2000). Details of the impacts of the historical and technological development of animation techniques and aesthetics and digital effects and computer animation on cinematic productions are going to be discussed in the next 2 sections. Here I put emphasis on an analysis of the critical condition that makes possible the contemporary convergence of cinema and animation productions, that is, "digitalization".

Digital [cinema] = Live action material + Painting + Image processing  
+ Compositing + 2D computer animation + 3D computer animation

(Manovich, 2001: 301)

Manovich (2001: 302) defined that "digital cinema" is "a particular case of animation that uses live action footage as one of its many elements", which can be discerned from his equation cited above. Although digital effects and computer animation that construct all the elements except live action material in Manovich's equation and form the core parts of our argument of digital cinematic productions, his definition of "digital cinema" as a subordination to computer animation is problematic and indeed an overstatement. This leads to an underestimation, as well as misunderstanding, of the collaborative power relations of cinema and computer animation in cultural representations of digital cinematic aesthetics and productions. On the one hand, digital media technologies invent new possibilities of production divisions and fresh roles of creative artists as newcomers such as digital compositing and computer animators-respectively in digital cinematic productions; on the other, timeless or rejuvenated traditional skills and aesthetics of cinema and animation still play a critical role in motivating and stabilizing the creative and revolutionary

process of digital cinematic productions in terms of their creative collaboration under the new convergent medium of digitalization (Bordwell & Staiger, 1988; Chong, 2008; Gaut, 2009; Villarejo, 2007). As the director and producer Roger Corman mentioned, "The future of cinema lies in the power of the pixel" (Kirsner, 2008: 198). Pixels are the building blocks of bitmap images represented by binary digits/codes – 1s and 0s – in the process of digitalization of cinematic images. Instead of chemical emulsion on photographic film, digital cinematic images are generated by sampling the light emitted or reflected by the objects that the pixels represent and are capable of infinite computational manipulation with no degradation within the digital space (Gaut, 2009; Manovich, 2001). And boundaries have no longer existed between digital images of cinema and computer animation at all because of their "digitextuality" with reference to "pixelation" that all digital images become computer-generated discrete values in the form of pixels<sup>8</sup> (Everett, 2003; Gaut, 2009; Kirsner, 2008). Such a convergence of the modes of production of digital cinema and computer animation has taken a long time of technological development by both the structural coupling of media organizations and the invaluable efforts from many innovators and artists in the fields of cinema and animation.

*Tron* (1982) was generally regarded as a break of the iceberg for the engagement of digital effects and computer animation in Hollywood cinematic productions. It was the first Disney's blockbuster using computer-generated animation composited with live film footages (about 15 minutes), but its box office (\$33 million) was not quite successful compared with its production cost (\$17

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<sup>8</sup> Bearing in mind, computer animation in the form of vector shapes is still popularly used. But vector animation is graphic instead of photorealistic representations and normally used to represent cartoonish imagery. Besides, after digital compositing, vector shapes (motion graphics) are combined with other elements to form a composited pixel bitmap in cinema or television production.

million). The production of *Tron* initiated by independent animator Steven Lisberger, who trusted the potential of computer graphics to combine with traditional hand-drawn animation to empower the art of storytelling in cinema, involved 4 digital effects and computer animation firms (Robert Abel and Associates, III, MAGI, and Digital Effects) external to Disney, and utilized the most powerful minicomputers for digital effects and computer animation production at that time. This early digital cinematic production played an indispensable role in triggering the exploration of combination of live action footage and computer-generated animation, and nourishing a pool of pioneers of digital effects and computer animation for the afterward development of digital cinematic productions in the history<sup>9</sup>. Such group of pioneers included a computer animator – Chris Wedge, who later founded Blue Sky Studios and directed 3D animated features *Ice Age* (2002) and *Robots* (2005), and a young energetic Disney animator – John Lasseter, who witnessed and admired of the potential of computer-generated animation and produced the first full 3D animated feature *Toy Story* in Pixar (Chong, 2008; Kerlow, 2000; Kirsner, 2008; Rickitt, 2000).

Lasseter said that “when Walt [Disney] died, the desire to experiment died too” and “Disney” became “a place that was kind of frozen in time” (Kirsner, 2008: 69). The innovative and experimental works of *Tron* were believed impossible to happen in-house at Disney and finally all the innovative computer-generated images were produced by the 4 external firms of passionate entrepreneurs and creative artists, which reveal the general resistance to innovation by well-developed media conglomerates under the stable system of organization culture and routines. Besides,

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<sup>9</sup> Indeed, Lev Manovich – the author of *The Language of New Media* – is one of these pioneering computer animators in the production of *Tron*.

the resultant glowing cinematic images of the game arcade and characters inside the movie was a technical and aesthetic achievement by an unprecedented combination of live action footage and computer-animated sequences physically assembled under a backlit rostrum camera by means of traditional stop-motion animation. Both technological innovations and traditional animation play a part of role in the advent of the new techniques and aesthetics of digital cinematic production demonstrated by *Tron*. However, the failure of the movie reminds us of the divergent characteristics of cinema and animation that the live action footages were photorealistic images and the computer-generated animation was pure geometrical representations of hard edges in terms of low resolution vector graphics and raster bitmap images respectively. At that time, pixel bitmaps were not preferably used to digital media production because of the tremendous requirements of computer resources such as the long rendering time and the expensive hard drive storage for creating bitmap images (Chong, 2008; Kirsner, 2008; Rickitt, 2000). The higher the resolution is the bitmap, the more the memory and production time are required for both the image rendering and saving. Until the 1990s, the rapid advancements of computer technologies and the decline of the costs of computer graphic workstations and corresponding software and hardware systems including much more affordable RAMs and hard drive memory made possible the seamless digital compositing of convergent photorealistic digitized images of cinematic live action footages and digital effects and computer animation in the form of high resolution pixel bitmaps. Consecutive breakthroughs of digital effects and computer animation design in digital cinematic productions such like James Cameron's *Terminator 2*, Steven Spielberg's *Jurassic Park* and Robert Zemeckis' *Forrest Gump* that prove the ability of hyperreal computer-generated images to challenge the ideas of realism by means

of “pixelation” or digitalization have undermined filmmakers’ skepticism towards digital aesthetics and productions, and have more importantly led to the growing exploration of digital cinematic aesthetics and productions in Hollywood, as well as Hong Kong, since the late 1990s (Bendazzi, 1994; Chong, 2008; Manovich, 2001; Villareji, 2007).

### **From Physical Tricks to Digital Illusions**

In view of the history, the development of cinema has always been concerned with the spirit of exploration and innovation in terms of the creation of fantastic and illusory trick moving images by borrowing and modifying techniques of other mediums and/or by inventing new ways of practices and new media technologies. In this section, we are going to study how creative practices of innovative or rejuvenated techniques and technologies contributed to the development of cinematic productions and aesthetics by means of illusory cinematic images from the physical to the digital in the 20<sup>th</sup> century. From Méliès – the father of special effects – to Lucas – the Godfather of special effects and the founder of ILM, the developmental trend of cinematic effects shows that the forces to technological innovations in cinematic productions have shifted from individual artistic exploration to institutional collaborative research and development. Nevertheless, “creative passion” of enthusiastic innovators and artists plays one of the most critical determining roles in structural changes of aesthetics and production systems in cinema by means of “cinematic dynamism” that is a capacity to “arrange and rearrange time” and space and that reveals social, cultural, aesthetic, technological, economic and other dimensions of cinematic arts and sciences (Chong, 2008; Smith, 1986; Villarejo, 2007: 9). Such “creative passion” has been well demonstrated by the

non-calculating and even somehow unrewarded efforts and constitutive practices as mutual commitments and expectations by Méliès and many other enthusiastic innovators and artists in the media industries to seek for unstoppable advancements of technologies and aesthetics in media and cinematic productions (Luhmann, 1998; Watson, 2009).

Technological innovations for cinematic productions are mostly resulted from institutional research and development determined by the aesthetic, economic, political and social factors in order that the members of professional institutions such like the Academy of Motion Picture Arts and Sciences (AMPAS), the American Society of Cinematographer (ASC) and the Society of Motion Picture Engineers (SMPE) and the studios and production companies can maintain their status quo. However, ironically, such institutions always function as the major sources of constraints to revolutionary changes for their bureaucratic organization structures of rigidity and stability (Bordwell & Staiger, 1988; Bordwell & Thompson, 1986; Kirsner, 2008; Manovich, 2001). Fundamentally speaking, the industrial organizations invest in some technological changes for their business strategies in the movie markets, as Bordwell and Staiger (1988: 243-247) stated that “production efficiency”, “product differentiation” and “adherence to standards of quality” were the major causes of technological innovations in cinematic productions, thus aiming at guaranteeing their stable and wishfully increasing market shares and profits. But such a wish of stability leading to mechanical reproduction of stereotypical rather than innovative cinematic productions cannot explicate the rapid and revolutionary technological and aesthetic changes in contemporary cinema. Like Lucas, many creative filmmakers and animators as the die-hard innovators always complained

about the low budget and high resistance to visual effects of technological innovations offered by the investors especially when compared with the payments for main actors/actresses in Hollywood and Hong Kong blockbusters. On the one hand, the persistent demands of creative effects and aesthetics for storytelling from the passionate filmmakers and animators and the fast-changing new generations of audiences that are going to be empirically studied in Chapters 5 to 8 have continuously instituted revolutionary technological innovations for cinematic productions. These innovations have been achieved by means of “dynamic stability” of social and psychic systems as a kind of reciprocal antagonism between the producers and audiences and the organizations of contemporary creative and cultural industries. On the other, the century long revolutionary achievements of cinematic technologies and aesthetics have been a result of cumulative effects of a large number of minor technological innovations by the efforts of passionate and creative inventors and artists of cinema and other institutions. The purposes of their disparate forms of visual effects by means of technological innovations from the physical to the digital vary in multiple dimensions such like (1) the production of techniques for puzzle-solving, (2) the new production methods for saving time and budget, (3) the experiments for new possibilities of imagery, (4) the innovations to be rewarded and/or patented, and (5) the construction/reconstruction of new aesthetics of visual representations (Crane, 1994; Gaut, 2009; Kirsner, 2008; Kuhn, 1977; Luhmann, 2000a; Peterson & Anand, 2004). All these 5 dimensions of technological innovations of visual effects cumulatively contribute to social and cultural changes of cinematic productions and aesthetics and are always interweaved. Cinema including cinematic techniques and aesthetics has “always lived in multiple forms, some slowly dying, some newly emerging” (Villarejo, 2007: 1). Sometimes, the old forms

of cinematic techniques and aesthetics are replaced or rejuvenated by the newly emerging ones as those physical tricks by the advent of digital illusions as explained below.

Cinema is spectacle. Spectacular images have been kept created by continuous discoveries and applications of illusionary techniques since the advent of cinema. But the foremost spectacular illusionistic moving images happened as an accident that inspired Méliès and his career as the originator of special effects by reinventing certain optical tricks. Once Méliès had been shooting his film at the Place de l'Opéra in Paris, his camera jammed and he fixed the problem and resumed shooting. Afterwards he found the projected images as a surprise with a bus changing into a hearse and men transforming into women. This puzzle-solving experience initiated his passion to create trick films by means of the reinvention of a number of photographic techniques with a view to designing his own magic and aesthetics of special effects. As the father of special effects, Méliès' optical tricks founded the basic aesthetics and techniques of many cinematic effects from the optical to the digital age. In *The Four Troublesome Heads* (1898), Méliès firstly played with his theme of decapitation by the techniques of multiple exposures (superimposition), black backdrops and stop-motion photography. And in *Indian Rubber Head* (1902), he made an unprecedented spectacular storytelling with his own head being blown up in the middle of the screen/stage by masking off desired areas of the film using a split-screen process and rewinding and reshooting the same piece of film. This creates an early prototype of optical compositing for cinematic effects production in most of the times of the 20<sup>th</sup> century cinema. Besides, in his masterpiece *A Trip to the Moon* (1902), the fantastic and spectacular illusions of three-dimensional depth

of the moon adventure were created by his stylistic hand-made props and paintings that inspired the future techniques of miniatures and matte paintings respectively in cinematic productions to a great extent. Méliès' spectacular trick films were resulted from his individual creative passion for fantastic special effects but failed to sustain under the circumstances of audience demands for increasing realistic narratives of human dramas at the early stage of cinematic development (Chong, 2008; Rickitt, 2000; Toulet, 1995).

Special effects are used in motion pictures when scenes are desired that would be impractical, expensive, dangerous, or even impossible to film in a normal manner. In the last few decades, the audiences' appetite for spectacle has increased, while the cost of motion picture production has multiplied tenfold. This has led the more imaginative filmmakers to look to visual effects as a way to expand the scope of their films while still maintaining a practical budget (Smith, 1986: 4).

Most spectacular illusionistic imageries are impractical and even impossible to film at all that filmmakers and visual effects artists need to create novel methods and technologies for the production of illusions within the time and cost limits. From the 1930s to the 1980s, physical tricks such as stop-motion animation, miniatures, rear projection, matte paintings, travelling mattes and optical compositing were frequently used in spectacular Hollywood blockbusters, which have been mostly replaced by digital effects and compositing in contemporary digital cinematic productions (Chong, 2008; Manovich, 2001). For instance, during the Great Depression of the early 1930s, Willis O'Brien as a renowned modeler and stop-

motion animator of *The Lost World* (1925) was invited to the production of Paramount's monster movie *King Kong* (1933) with a view to helping the studio escape from bankruptcy. Instead of mixing protagonists' live action with animated models by the process of double exposures with split-screen mattes that he utilized in *The Lost World* and that was slow and at risk to lose the original live footage, he employed the "miniature rear projection" method in the production of *King Kong*. This is shown in Figure 2.2 that miniatures and glass mattes were built with a rear projection screen set inside a small cave of the model setting. The miniature of Kong was animated in between other miniatures and glass mattes of the cliff while the live footage of Bruce Cabot (acted by John Driscoll) was rear-projected onto the screen frame by frame for producing stop-motion animation (Kirsner, 2008; Rickitt, 2000). Indeed, rear projection was developed for avoiding expensive and difficult location shooting and imitating realistic outdoor scenes inside the studio after the advent of synch-sound cinematic productions since the late 1920s, but it became less popular due to the advancements of location shooting equipments and techniques of travelling mattes and optical compositing after the 1950s. Manovich argued that rear projection was a rare exceptional case against the aesthetic standard of Hollywood to hide the artificiality of cinematic illusionary space. Nonetheless, the innovative uses of rear projection techniques still made the stylish and flamboyant machismo actions in the first James Bond movie *Dr No* (1962) and the fascinating spectacle of the 12 rear-projected live action images on the matte painting of the Ewok Village scene in *Return of the Jedi* (1983) (Manovich, 2001; Rickitt, 2000; Smith, 1986).

MINIATURE REAR PROJECTION

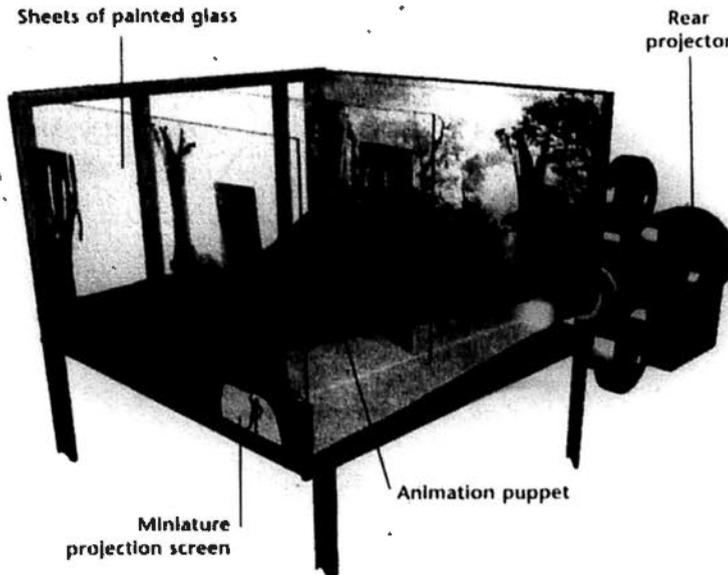


Figure 2.2: Miniature rear projection setting used for the production of *King Kong* (1933) that combines multiple layers of animated images (Rickitt, 2000)

Different types of travelling mattes techniques had been experimented for exploring new possibilities of cinematic illusions since Méliès' early success in creating trick films by split-screen mattes. Fundamentally speaking, travelling mattes include the male mattes – the black-and-white silhouettes of the foreground motion of a film – and the female mattes – the inverted silhouettes of the male mattes – to prepare the separate layers of elements of foreground motion and background images to be reassembled into a single composite layer of images by optical printing as shown in Figure 2.3. If the mattes are grey in tone, the final composite images will become ghostlike as Figure 2.4 that is very similar to the effects of superimposition. Such film layers of visual elements created by travelling mattes had significantly constructed the aesthetic concepts of layering in digital compositing in contemporary digital cinematic productions, which is resulted from long-term explorations of

technological innovations for new ways of masking by different types of travelling mattes to achieve new possibilities of imagery in cinema and television productions<sup>10</sup>.

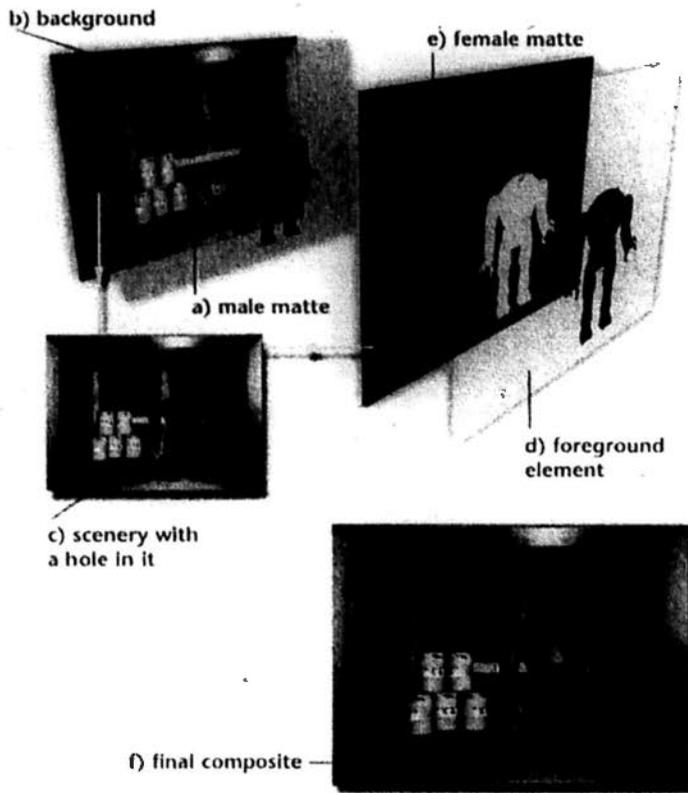


Figure 2.3: Male and female mattes for image compositing (Rickitt, 2000)

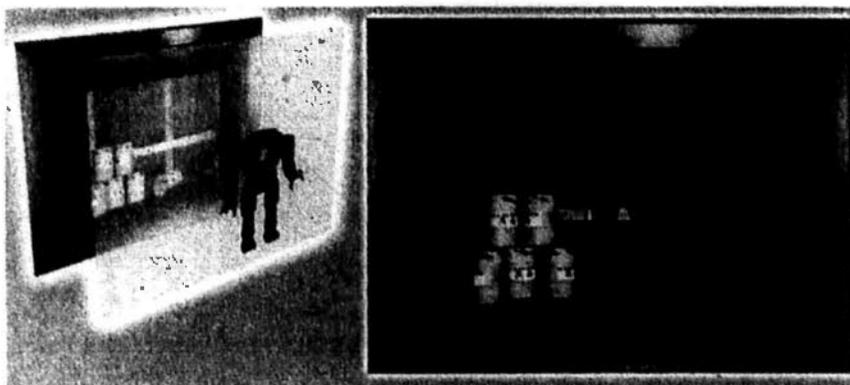


Figure 2.4: Compositing without mattes produces the ghosting effects like superimposition (Rickitt, 2000)

<sup>10</sup> In television, the masking techniques are generally called keying. Many other state-of-the-art visual effects are originally developed and experimented by television productions, especially television commercials (TVCs), from hard-edged electronic effects to seamless digital effects and computer animation. They may constitute another scope of studies and so are skipped for limited spaces in this study (Chong, 2008; Kirsner, 2008; Manovich, 2001).

To name a few, the Williams process patented by Frank Williams in 1918, the blue-screen color separation process, the sodium vapor process, the blue-screen color difference process and the hand-drawn mattes were all popular physical methods used to experiment different ways of image compositing for spectacular illusions. For instance, the sodium vapor process was used in Disney's (nowadays musical-cult-movie) *Mary Poppins* (1964), which combined the live motion actor and animated characters (see Figure 2.5) into stylish cartoon imagery with the hard-edge around the live actor imitating the graphic look and feel of the cartoon drawings. Similarly, the spectacular images of *Superman* (1978) (acted by Christopher Reeve) hovering in the sky with his symbolic blue costume of the original DC comic were created by the blue-screen color difference process and empowered the trend of spectacular illusions of superheroes in Hollywood cinematic productions. Besides, in *The Birds* (1963), a time-consuming imagery production to achieve the stylish and illusionary effect of hundreds of seagulls flying down from a bird's point of view to attack a town of people that fitted to Alfred Hitchcock's aesthetics of voyeurism was produced by hand-drawn mattes and rotoscoping of the 500 frames of this one shot filmed from a cliff-top (Rickitt, 2000). It sounds a crazy way to consume so much time and human resources to create such a spectacular imagery, but indeed both hand-drawn masking and rotoscoping by means of digital tools such as Autodesk Flame and Adobe After Effects are still frequently used in contemporary digital cinematic productions.



Figure 2.5: The sodium vapor process was used to combine the actor with animated cartoons in *Mary Poppins* (Rickitt, 2000)

“Rotoscope” was a technological invention patented by animator Max Fleischer in 1917 used to trace projected pre-filmed footage of performer’s movement onto celluloid one frame at a time for creating lifelike movement of cartoon character. Based on the concept of rotoscoping, Disney invented and patented the multiplane rostrum camera in 1937 that allowed the filming of certain planes of images with three-dimensional depth. This increases the sense of realism and naturalistic movement in cinema and animation productions and constructs the basic aesthetic concepts of layering for both optical and digital compositing. By means of advanced techniques of rotoscoping and optical compositing, those animated miniatures of walking vehicles in *Return of the Jedi* (1983) were “sandwiched” between mattes of real forest scenes and live action elements as if really running in between trees and bushes with a depth of field (see Figures 2.6 and 2.7). The four-headed optical printer entitled “Quad” (Figure 2.8) used for

compositing since ILM's work on *The Empire Strikes Back* (1980) was a double printer with 4 synchronous film projectors, was originally designed by effects supervisor Richard Edlund, and won an Academy Award itself. Again, ILM's team of innovators and artists headed by John Dykstra, who had worked for and been introduced to Lucas by Douglas Trumbull – the world renowned visual effects supervisor of the sci-fi masterpieces *2001: A Space Odyssey* (1968) and *Blade Runner* (1982), invented the first computer-aided motion control system using the latest microchip technology entitled Dykstraflex in his honor that allowed the rigged camera to move repeatedly in a precise motion. The Dykstraflex system helped create many revolutionary special effects in *Star Wars* (1977), especially the fast-paced spaceship battles by moving the camera repeatedly and precisely past miniatures of incremental shifts while exposing the film with shutter wide open to create motion blur effects, and win the Academy Awards for best effects and special technical achievement (Chong, 2008; Rickitt, 2000; Smith, 1986; [http://en.wikipedia.org/wiki/John\\_Dykstra](http://en.wikipedia.org/wiki/John_Dykstra), cited in Aug. 10<sup>th</sup> 2009).

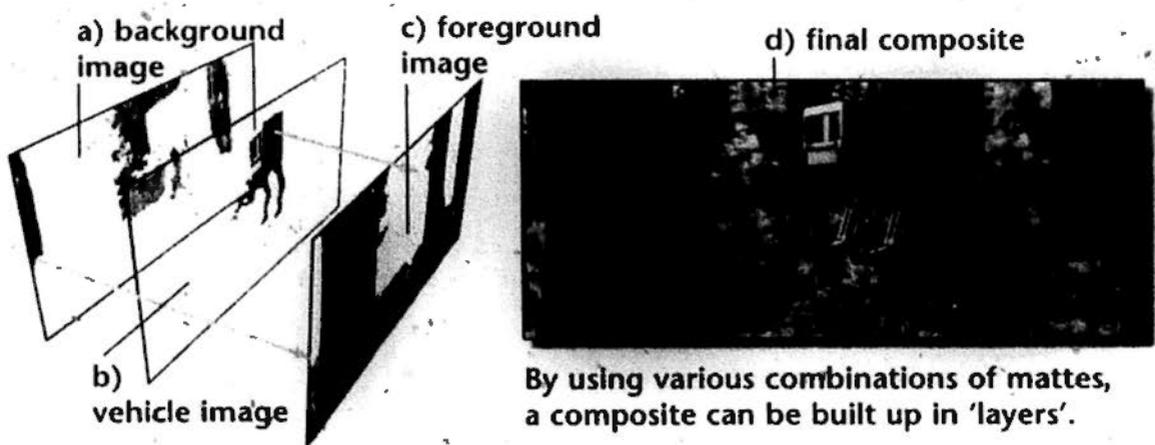


Figure 2.6: Rotoscoping of multiple layers of filmic images and matte paintings of the forest in *Return of the Jedi* (Rickitt, 2000)



Figure 2.7: Final composite of live action elements, miniatures and matte paintings by optical printing in *Return of the Jedi* (Rickitt, 2000)

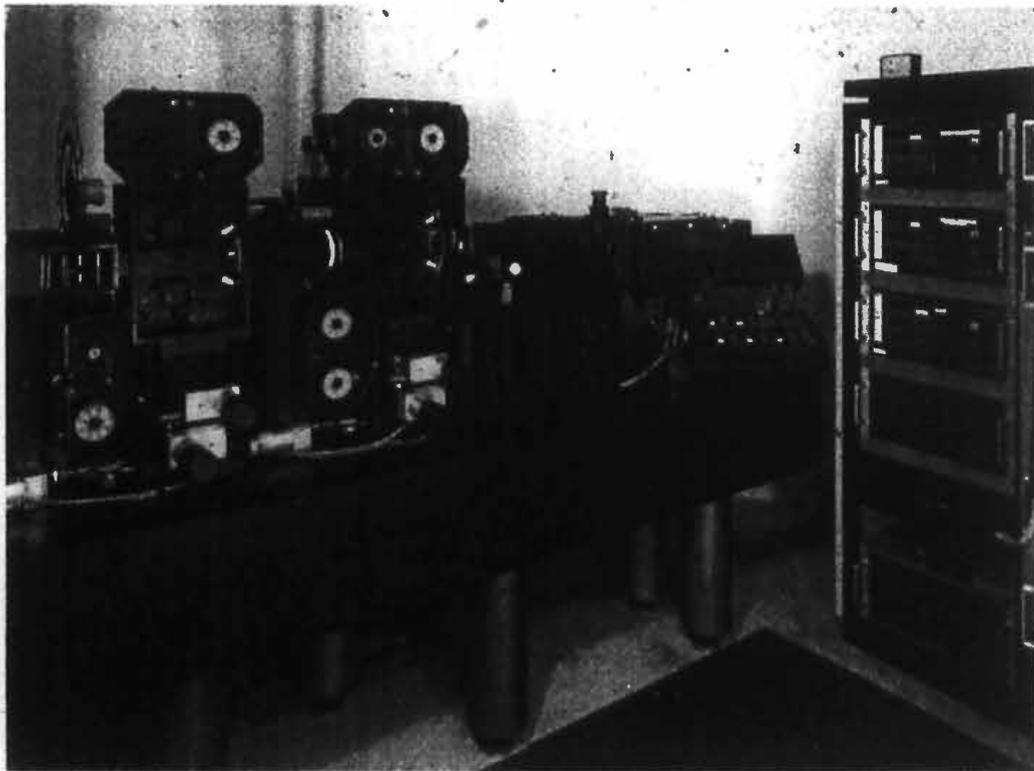


Figure 2.8: Quad optical printer for physical image compositing effects (Smith, 1986)

Dykstra's success in *Star Wars* was inseparable to his working experience with Trumbull, who helped Stanley Kubrick produce the convincing and state-of-the-art visual effects of space travel and exploration in *2001* with reference to the NASA

space program. Indeed, *2001* creates unprecedented impacts on not merely the design aesthetics for afterward sci-fi movies but also the prototypes of the design of computer technology from the physical products to the graphic representations of visual display units. In the movie, the countless computer displays, video monitors and graphic panels were all imaginary simulations created by film projectors veiled within each set of the spaceship and the corresponding fluorescent texts and graphics on those displays were produced by rotoscoping animation of physical artworks (Chong, 2008). Mechanical motion control camera rig was sophisticatedly used to shoot both the huge spacecraft scene and the “Stargate sequence” in *2001*. The precise movements of the camera passed the fixed spacecraft model with its windows blacked out in the first pass and the model draped in black velvet showing only the windows of rear-projected pre-filmed live footage of Poole monitoring from within the spacecraft in the second in order to achieve in-camera compositing for Kubrick’s desired illusion of realism without image degradation by optical printing. Besides, *2001* was the first blockbuster movie employed front projection techniques recommended by visual effects supervisor Tom Howard, who won the Academy Award for special effects on *The Thief of Bagdad* (1940) – the first movie using an optical printer to combine travelling mattes elements of blue-screen effects. In the opening prehistoric apes fighting scene of *2001*, the apes-actors wearing revolutionary novel kind of facial masks designed by Stuart Freeborn were fighting in front of an enormous (12m x 27m) Scotchlite screen with images of expansive African landscapes being front-projected. This classic scene creates the amazingly convincing visual representations of the “dawn of man” sequence. In the famous “Stargate sequence”, Trumbull utilized both the motion control camera and the revolutionary slit scan techniques to create Kubrick’s new aesthetics of visual

representation of space travel as the psychedelic light flying through the camera (see Figures 2.9 and 2.10). The slit scan techniques were further used to produce streaking film title effects in *Superman* and *Star Trek* (1979) (Rickitt, 2000; Shay & Duncan, 2001).

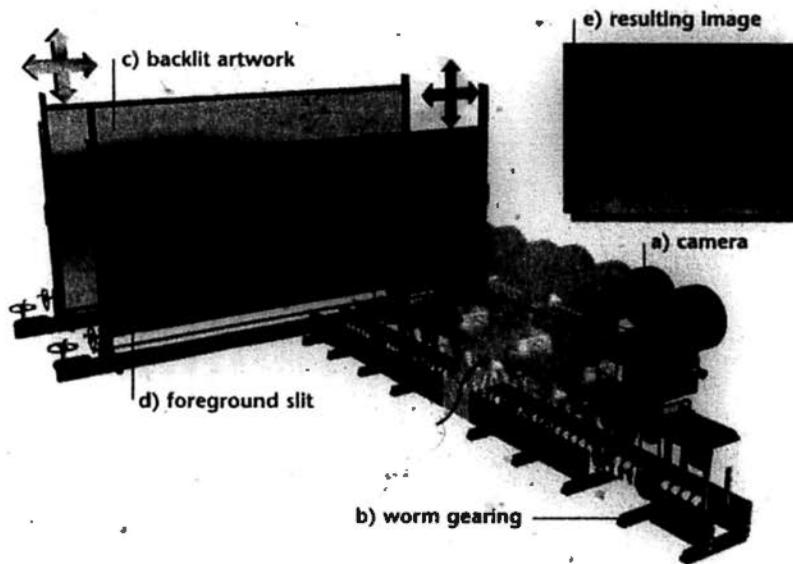


Figure 2.9: Slit scan setting to shot the famous "Stargate sequence" using mechanical worm gearing motion control in *2001: A Space Odyssey* (Rickitt, 2000)

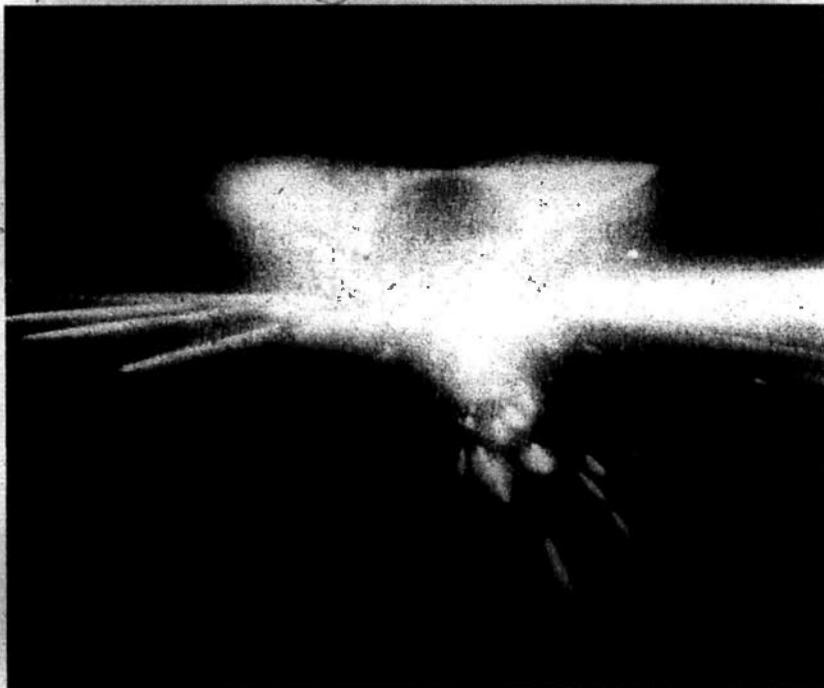


Figure 2.10: The psychedelic light flying from the "Stargate sequence" in *2001: A Space Odyssey* (Rickitt, 2000)

After the invention of computer-aided motion control system for the production of *Star Wars*, ILM kept further develop the power of computer technologies to cinematic effects production because the innovators and artists believed that innovative computer technologies could replace or enhance physical special effects to provide more freedom to their creative imagination. The Lucasfilm Computer Division developed an image manipulating and scanning computer device entitled "Pixar" and a powerful photorealistic rendering package named "RenderMan" compiled by computer scientist Edwin Catmull. Lucas had sold the division to Apple's co-founder Steve Jobs for \$5 million in 1986 and it became the world renowned Pixar Animation Studios producing the first and many other 3D computer animated features. Catmull, who has become the president of both Walt Disney Animation Studios and Pixar Animation Studios after Disney bought Pixar in 2006, won an Academy Award by Pixar's RenderMan in 1993. More importantly, the resulting ability of computer technologies to create hyperreal and photorealistic images of digital effects and computer animation have shifted cinematic effects production from physical to digital and have been empowering the spectacles of cinematic illusions and growing the exploration of digital cinematic productions with a number of enormous breakthroughs in production techniques and digital aesthetics since the 1990s (Chong, 2008; Kirsner, 2008; Rickitt, 2000; Smith, 1986; Vaz & Duignan, 1996).

### **Breakthroughs of Digital Effects and Computer Animation in Cinematic Productions**

As mentioned before, *Tron* was a breakthrough to engage computer-generated animation in blockbusting movie productions, which triggered insights of a

lot of innovators and artists concerning the impact of computer technologies on cinematic aesthetics and productions no matter how other people criticized its failure in box offices world-wide. Indeed, also in 1982, ILM produced the "Genesis" sequence in *Star Trek II: The Wrath of Khan* as the first full 3D computer-graphics (CG) sequence in feature movie (Smith, 1986; Vaz & Duignan, 1996) and shared with *Tron* the same aesthetics of CG imagery in the 1980s that I would like to define as "the 1<sup>st</sup> phase of postmodern CG aesthetics". Those hard-edged and plastic quality of CG images in these 2 movies were a result of animating and compositing of a selection of disparate images as pastiches and showed well-defined boundaries between composited elements following the logic of the 1<sup>st</sup> phase of postmodern aesthetics in regard to the electronic and early digital effects such as video switchers and keyers and low resolution computer renderings of linear perspectives and geometrical shapes in the 1980s (Chong, 2008; Manovich, 2001). Since the 1990s, the advanced techniques of digital compositing and computer animation have allowed all the complex live action and CG images selected by the filmmakers and artists as reality and hyperreality respectively merge together seamlessly into the cyberspace of photorealism, thus creating "the 2<sup>nd</sup> phase of postmodern CG aesthetics" that impossible becomes possible. Unlike previous movies, contemporary digital cinematic productions of high quality CG spectacles are willing to unveil the scenes behind as publicity and industrial-reflexive materials to show audiences and other producers the power of their visible and invisible effects (Caldwell, 2008; Manovich, 2001). Digital effects and computer animation as novel technological innovations provide broader methods of storytelling and new possibilities of aesthetics by the empowered imaginary freedom to filmmakers and animators in contemporary digital cinematic productions with a view to inventing consecutive

breakthroughs in techniques and aesthetics for cultural productions in creative media industries. Human creativity is the fundamental elements of such breakthroughs. However, technological and aesthetic creativity takes a long time to develop under the influences of social and cultural factors including economy and politics, and needs a strong commitment from the innovators and artists and the production organizations to create the suitable and sustainable environments of flexibility and dynamic stability that encourage human creativity in cultural production by means of both intrinsic and extrinsic rewards (Bordwell & Staiger, 1988; Florida, 2002; Kerlow, 2000; Kirsner, 2008). The following historical narratives provide a selection of examples demonstrating how innovators and artists in Hollywood improved digital technologies and aesthetics piece by piece to create consecutive breakthroughs in digital cinematic aesthetics and productions.

In contemporary digital cinematic productions, one of the most significant digital media technologies inventing new methods of storytelling is the introduction of digital character animation. This allows the interaction between the live performers and the non-existent digital characters to construct the narratives of cinema by means of new ways of cultural representations. In one hallucination scene of *Young Sherlock Holmes* (1985), a stained glass knight leapt out from a church window to kill the cursed/poisoned priest (see Figure 2.11), which amazed me and aroused my initial interest in computer animation and digital cinema. For today's standard of digital character animation, this computer-animated knight fighting sequence may be not photorealistic enough. But, in 1985, it was a groundbreaking experiment to bring a virtual character to life with a real actor in a movie, which was resulted from ILM artists' yearlong innovative works. They made reference to the

pre-filmed live motion of a “costumed model shop crew member Jeff Mann” for animating a “wireframe” character (see Figure 2.12) and created the convincing digital matte paintings of the stained glass window as the texture mapping for the knight character by scanning a physical watercolor matte painting produced by Chris Evans (see Figure 2.13), and by painting and seamlessly blending color across the matte line using sophisticated computer painting software<sup>11</sup> (Kirsner, 2008; Rickitt, 2000; Smith, 1986; Shay, 1996: 104). However, the color stained glass knight was like animated plates of color mattes and lack of three-dimensionality. Just one year afterwards, another vital breakthrough was shown by Lasseter’s animated short *Luxo Jr* (1986) in Pixar. It demonstrated the potential of subtle and organic 3D character animation of personality by integrating his learned principles of traditional animation<sup>12</sup> into the digital form and provided an indispensable lesson concerning the aesthetics of hybridity in digital character animation by combination of accurate mechanical realization and photorealistic and hyperreal representations to fellow computer animators. His 3D character animation was looking for the illusion of reality but not constrained by the laws of physics. Therefore, the digital characters “can go anywhere the director wants them to go, at any speed, at any time during a sequence” and “reality can be mixed with the unreal” (Bendazzi, 1994: 442; Chong, 2008).

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<sup>11</sup> The state-of-the-art painting and photo-retouching software Photoshop was originally developed by ILM “effects supervisor John Knoll and his brother Thomas Knoll in the late 1980s” (Rickitt, 2000: 204).

<sup>12</sup> Disney’s principles of animation include (1) squash and stretch, (2) timing, (3) anticipation, (4) staging, (5) follow through and overlapping action, (6) straight ahead action and pose to pose, (7) slow in and slow out, (8) arcs, (9) exaggeration, (10) secondary action, (11) appeal, and (12) solid drawing (Thomas & Johnston, 1995). But the last principle has been seldom used to computer animation of photorealism and sounds more suitable for the 1<sup>st</sup> phase aesthetics of postmodernism of hard-edge design.



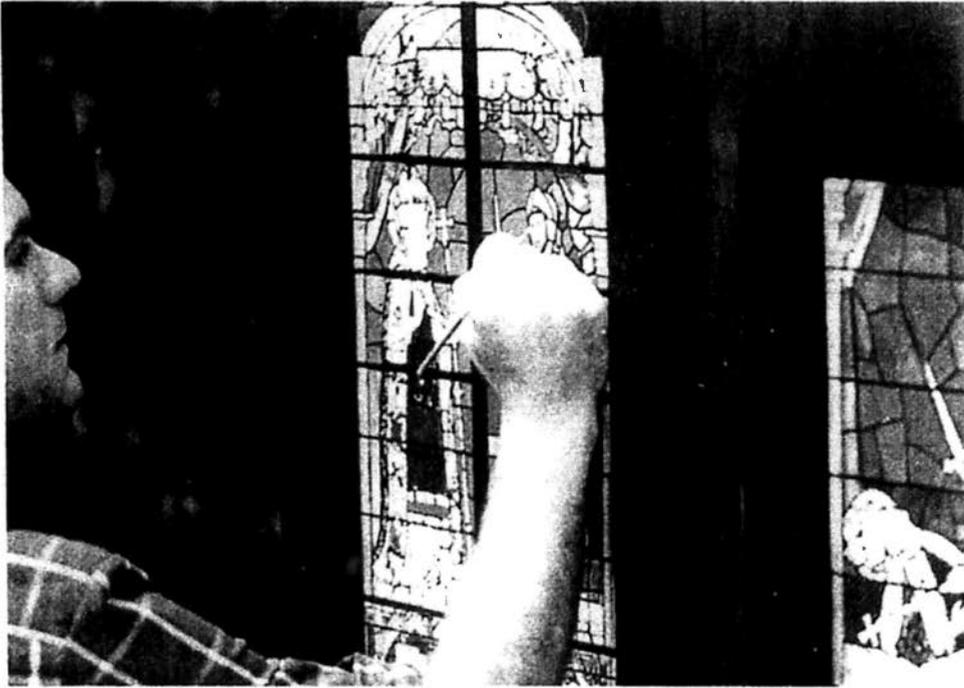


Figure 2.13: Matte artist Chris Evans was producing the stained glass window by watercolor painting in *Young Sherlock Holmes* (Rickitt, 2000)

With a view to blending digital animation and live action footage seamlessly, all computer-generated images must be photorealistically rendered to blur the boundaries between the real and the unreal. Cameron's *The Abyss* (1989) made a groundbreaking digital animation of a pseudopod (see Figure 2.14) that showed organic simulation of fluidity and reflectivity and was seamlessly composited with 70mm live action film footage unprecedentedly. This won ILM an Academy Award for Best Visual Effects and set a new aesthetic standard of digital effects and computer animation for digital cinematic production. One of the most striking sequences of the movie was the computer-animated pseudopod transforming itself to the facial expressions of the human actor and actress for communication (see Figure 2.15). It was created by ILM artists using an advanced laser scanner to capture the faces of the actor and actress and applying the data to the computer-generated model, and it benchmarked the potential contribution of digital effects and computer

animation to shape narratives of cinematic productions (Chong, 2008; Kerlow, 2000; Rickitt, 2000; Vaz & Duignan, 1996).

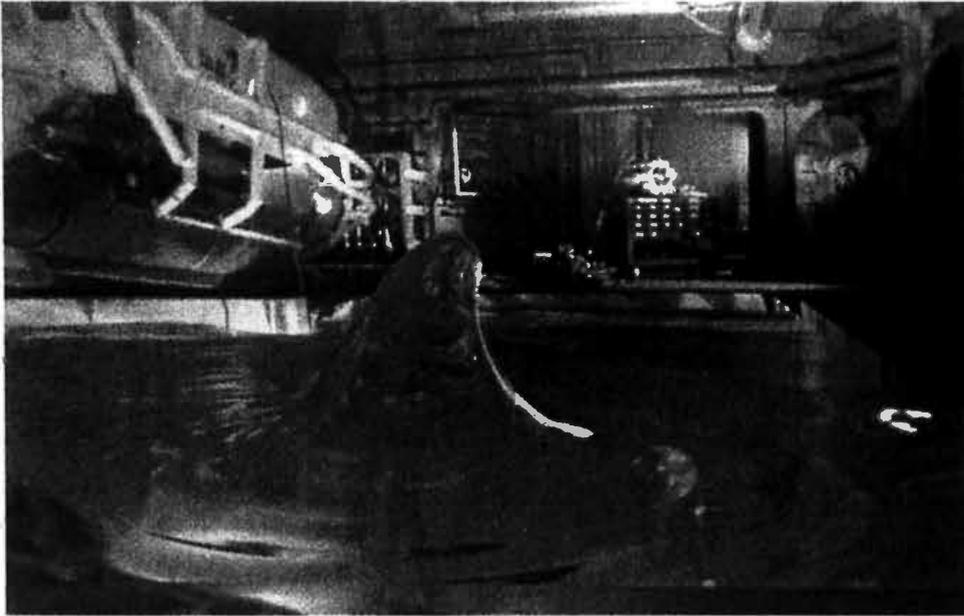


Figure 2.14: The groundbreaking organic animation of a pseudopod of both fluidity and reflectivity by ILM in *Abyss* (Vaz & Duignan, 1996)



Figure 2.15: The pseudopod transformed itself to different facial expressions for communication in *Abyss* (Vaz & Duignan, 1996)

Indeed, the advancements of digital technology had played an important role in making such kind of digital cinematic productions of photorealism possible since the 1990s for providing faster and more powerful computer workstations and render

farms<sup>13</sup> of photorealistic rendering software systems like RenderMan and Mental Ray. These rendering systems can create visual effects of motion blur, anti-aliasing, shadow-casting, and reflection and refraction by raytracing as well as radiosity. Such powerful visual effects of computer rendering technologies helped Cameron get another success in his next masterpiece *Terminator 2* that was regarded as a monumental breakthrough in digital cinematic production in the early 1990s (Kerlow, 2000; Rickitt, 2000). In *Terminator 2*, the liquid-metal cyborg T-1000 created by advanced 3D scanning and morphing animation technologies acted as the most important main cast of human form and proved greater possibilities of digital effects and computer animation to enhance storytelling in cinematic production by over 100 elements and 7,965 frames of 3D computer-generated images involved in the movie. T-1000, who morphed smoothly to imitate different human characters inside the movie, walked out of the fire when metamorphosing from a liquid-metal cyborg of convincing shiny reflection of the environment to a human cop in one unbroken shot (see Figure 2.16). This created a legend and standard of digital cinematic effects and amazed many contemporary producers who were skeptical to the functions of digital effects and computer animation to cinematic productions and aesthetics (Kerlow, 2000; Vaz & Duignan, 1996).

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<sup>13</sup> Render farms are powerful computer clusters built to render computer-generated images in production houses. During a visit to DreamWorks Animation SKG studio in Los Angeles, I was shown one room of render farms as large as half a basketball field for rendering its 3D computer animated features.



Figure 2.16: The liquid metal T-1000 was metamorphosed to a human cop when walking out of the fire in *Terminator 2: Judgment Day* (Vaz & Duignan, 1996)

Nevertheless, those digital effects and computer animation in *Terminator 2* were still criticized to be highly restricted to the shiny metallic and plastic textures and the rigid robotic movements, which are acceptable only if the movie is concerned with something about futuristic unreality and sci-fi mechanics. Until 1993, Spielberg's *Jurassic Park* encouraged by those successful digital effects and computer animation in *Terminator 2* made another milestone of digital cinematic production by creating amazingly lifelike digital characters of extinct dinosaurs to interact with actual human characters by means of seamless photorealistic composition and hyperreal organic movements of digital dinosaurs. A great deal of historical and cultural research references had been used in designing and animating those digital dinosaurs that revealed detailed skin textures and moved naturally and logically. Both traditional rotoscoping techniques and advanced computer animation tools had been employed simultaneously to create the lifelike motions of those digital creatures inside the computer cyberspace. SoftImage<sup>14</sup> had been first used by ILM animators to set smooth, organic and convincing character animation of those digital

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<sup>14</sup> SoftImage was a menu-driven, user-friendly, high-end animation software system and once became the most popular 3D computer animation system all over the world after the acquisition by Microsoft and its foremost integration into PC workstation.

dinosaurs in *Jurassic Park* by means of the novel techniques of “inverse kinematics” (IK)<sup>15</sup>. As shown in Figure 2.17, the T-rex’s 3D wireframe model as technically called the skin was transformed and deformed by a hierarchy of skeleton composed of joints and bones. controlled by IK systems that are most popularly utilized in contemporary 3D character animation. IK systems can move, for instance, the leg bones of the T-rex simply and logically in an inverse order that the keyframe animation of the “end effector” of an IK handler at the ankle joint will transform the upper knee and hip joint members of the leg hierarchy accordingly. Such hierarchical skeletal transformation creates a normal and organic step of the digital character (Kerlow, 2000; Rickitt, 2000; Vaz & Duignan, 1996).

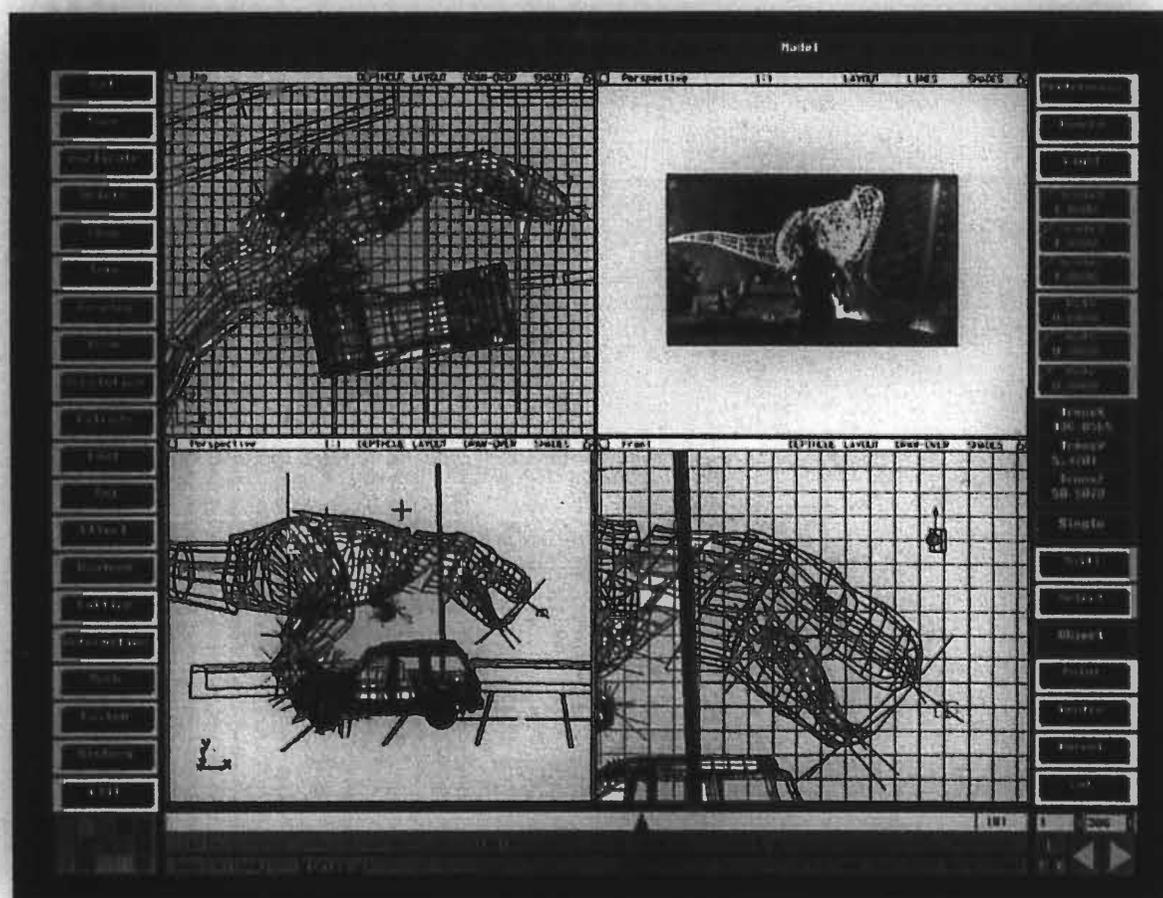


Figure 2.17: The T-rex wireframe model was animated by using SoftImage’s IK systems for *Jurassic Park* (Vaz & Duignan, 1996)

<sup>15</sup> Inverse kinematics are useful for complex character animation by means of controlling a skeletal hierarchy of joints and bones with the last joint of an IK system called the end effector to determine the motions of the chain of related joints in the hierarchy (Kerlow, 2000).

Besides, ILM technological innovators created a painting program called Viewpaint to allow artists to paint directly on the surface of each digital dinosaur's skin and certain layers of texture mapping such like bump maps to add the contours of the skin and other maps to inscribe color, pattern, mud and dirt on the skin surface were assigned to each dinosaur model for photorealistic rendering. Moreover, sometimes both full-scale animatronic and digital dinosaurs were employed in the same sequence and the digital texture maps applied to the digital dinosaur were carefully tuned to match the surface details of the animatronic one, thus further ensuring the photorealistic look and feel of the digital images in the final composite (see Figure 2.18). In the movie sequel *The Lost World: Jurassic Park* (1997), the real motions of actors/actresses and the hyperreal movements of digital dinosaurs were almost perfectly matched by means of motion tracking techniques to synchronize the motions of both physical and virtual cameras (Rickitt, 2000; Vaz & Duignan, 1996). Up to the late 1990s, digital effects and computer animation technologies had already developed to a very mature stage and more innovative inputs were applied to creating new aesthetics of digital cinematic productions by means of applications and modifications of existing digital production techniques and aesthetics by all over the world innovators and creative artists. They are repeatedly introducing a tremendous amount of creative inputs into this newly maturing and rejuvenating cinematic medium of digitalization (Bendazzi, 1994; Gaut, 2009).



Figure 2.18: Full-scale animatronic and digital raptors were used in this sequence by sophisticated photorealistic compositing in *Jurassic Park* (Vaz & Duignan, 1996)

In 1994, invisible effects of seamless digital compositing and photorealistic computer animation helped shape the legendary narratives in an unprecedentedly visual effects intensive human drama *Forrest Gump*. The story of the movie started with a digitally animated feather of smooth hovering motion and seamless compositing with Tom Hanks' live footage whereas a real fallen feather plucked by Hanks was perfectly matched by the digitally animated one built upon twenty five blue-screen reference images of different feathers shot by Director Zemeckis (Vaz & Duignan, 1996). As Manovich (2001: 153) mentioned, "digital compositing does represent a qualitatively new step in the history of visual simulation because it allows the creation of moving images of non-existent worlds" and thus, creates what he calls the "aesthetics of continuity" by blending invisible effects into cinematic moving images. However, I put emphasis on hyperreal and photorealistic digital effects and computer animation that are seamlessly composited with real cinematic images, which constructs the concept of the "aesthetics of seamlessness". For instance, in *Forrest Gump*, Hanks interactively accepted the Medal of Honor from President Johnson by digital compositing that removed LBJ's original head and blended the

remnant to the present-day live footage with additional noise and dirt (see Figure 2.19). Digital effects and computer animation are hyperreal imageries that are more real than the real, and therefore, additional roughness like noise and dirt is required to decrease the level of reality/hyperreality of computer-generated images to achieve the final composite images of consistent photorealistic representations and the aesthetics of seamlessness (Manovich, 2001; Vaz & Duignan, 1996).



Figure 2.19: Invisible effects by digital compositing in *Forrest Gump* (Vaz & Duignan, 1996)

Virtual characters of animation by motion capture of stunt performers were added in between real actors/actresses on the deck of the sinking ship in *Titanic* (1997) – a historic-epic of the unprecedentedly highest production budget, worldwide box offices and amount of invisible effects in a human drama – in order to achieve spectacularity as well as historicity in the movie. Unlike many former spectacular movies of special effects, digital effects and computer animation were produced as invisible as possible by the artists of Digital Domain founded by ex-ILM General Manager Scott Ross<sup>16</sup> and therefore, many physical references were used to the digital effects production for *Titanic*. It is not real but hyperreal and aims not at revealing physical reality as documentary but at constructing symbolic

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<sup>16</sup> Digital Domain was co-founded by James Cameron – the director of *Titanic* – and his long-time friend and associate Stan Winston in 1993. But both departed from the board of directors after the success of *Titanic* ([http://en.wikipedia.org/wiki/Digital\\_Domain](http://en.wikipedia.org/wiki/Digital_Domain), cited in Aug. 18<sup>th</sup> 2009).

representations with reference to physical reality (Manovich, 2001, Rickitt, 2000; Shay, 1997). For instance, the upper levels of the Titanic passenger liner of a roughly 1:1 scale were created (see Figure 2.20) and those missing parts of the ship were digitally rebuilt by computer-generated images whenever necessary. In the sinking scene of *Titanic*, a specifically upended ship (see Figure 2.21) was utilized to shoot some actors and actresses hovering on board and some stunt players sliding and falling off the deck with a green-screen material safeguard. The green-screen allowed the rest of the ship to be added digitally and virtual characters falling off the deck were composited onto the filmed footages accordingly to achieve photorealistic imageries. Unlike Jackie Chan's style of Hong Kong kung fu movies, safety was highly concerned with no one, even stunt player, was hanged more than 5 meters from a lifeguard and the most spectacular jumping motions that had been supposed to be impractical to shoot physically were played by virtual stunts (Shay, 1997).



Figure-2.20: Physical setting of *Titanic* whereupon missing parts of the ship was built by computer-generated images (Shay, 1997)



Figure 2.21: An upended ship was utilized to shoot people hovering on board and falling off the deck. Green-screen material was used to add digital stuntmen and other elements to the scene in *Titanic* (Shay, 1997)

Besides, for saving budgets and producing enormous scenes, a number of miniatures were filmed and digitally composited with digital matte paintings and computer animation. Figure 2.22 shows a digital compositing of a traditional matte painting of the rescue ship *Carpathia* by Chris Evans<sup>17</sup>, a digitally painted sky, computer-generated smoke of particle animation<sup>18</sup>, miniature icebergs, and lifeboats shot in Mexico in a scene from *Titanic*. Apart from the traditional matte painting, Evans needed to make digital touchups to refine all the colors of the elements in the layers of the digital compositing image sequence to make the final composite images

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<sup>17</sup> At the very beginning, it was considered to build a computer model of *Carpathia* but Evans, who was strong in creating realistic matte painting, suggested to paint it. The matte painting was based on some references like Ken Marschall's painting and certain watercolor sketches by an artist on the rescue ship (Duncan, 1997).

<sup>18</sup> Particle systems are procedural animation systems usually used in creating natural materials and phenomena such as rain, wind, fire, smoke, cloth and so forth. They can be effectively employed to create flock animation of images or objects to imitate crowds like those animated dog-fighting spaceships and aircrafts in *Independence Day* (1996) (Kerlow, 2000; Rickitt, 2000).

perceptually believable especially when audiences seeing smoke being emitted from the Carpathia's funnel (Duncan, 1997; Rickitt, 2000). *Titanic* is a spectacle of "reality effects" and cultural representations of digital aesthetics concerning hyperreality, seamlessness and believability by digital compositing that is going to be further discussed in Chapter 4 (Black, 2002; Manovich, 2001; McClean, 2007).

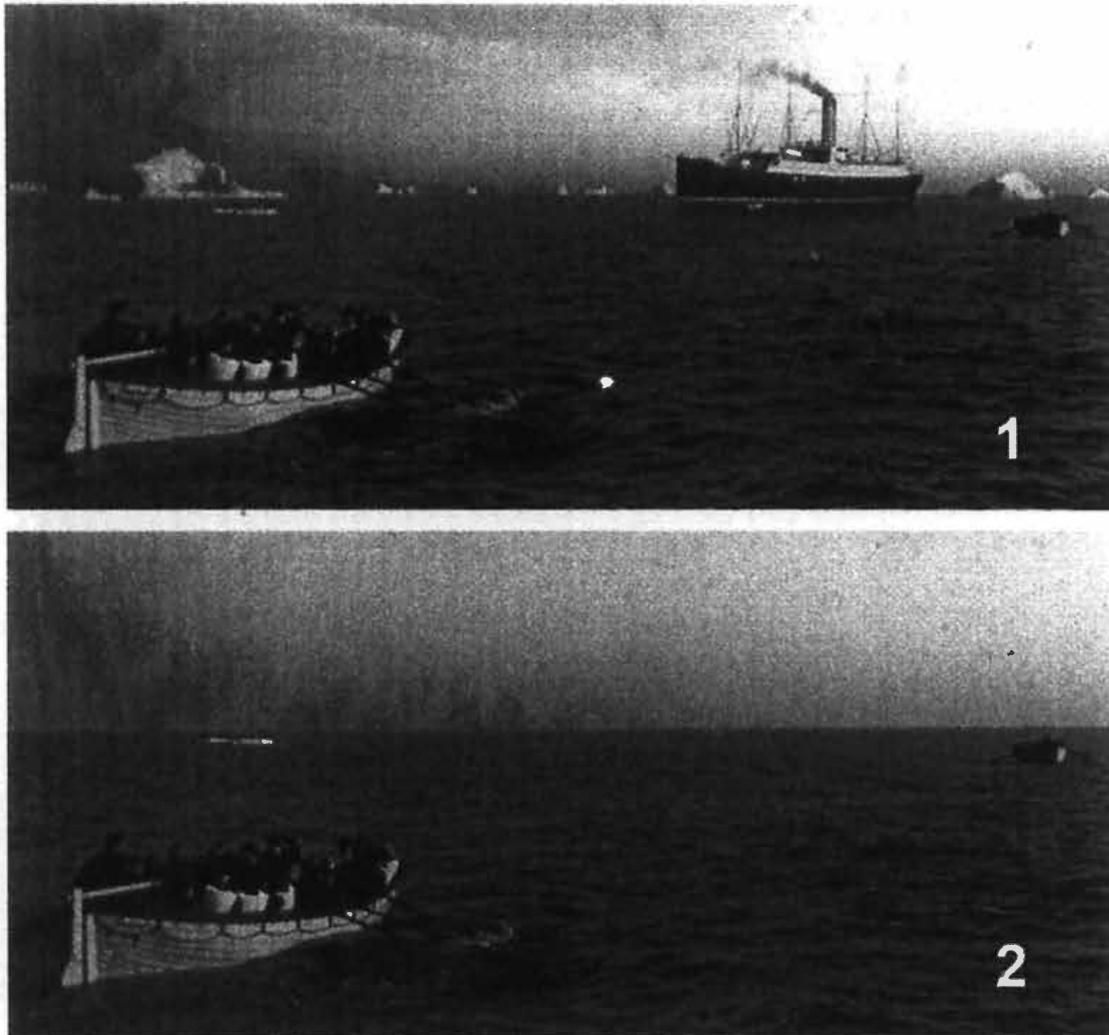


Figure 2.22: Digital matte paintings of the rescue ship Carpathia and icebergs (1) were composited with live footages of lifeboats shot in Mexico (2) to create the rescue scene in *Titanic* (Duncan, 1997)

Another influential breakthrough of digital cinematic productions and aesthetics happened in *The Matrix* (1999) that was adapted from comic strips by the Wachowski Brothers. The creation of the matrix – the cyberspace of the computer world – inside the movie has become an aesthetic model to many sci-fi and comic-

style movies afterward. Also, the techniques and aesthetics of “bullet-time sequence” in *The Matrix* by modifying Tim McMillan’s time slice photography techniques in the early 1980s have been heavily employed by many other digital cinematic productions to play with hyperreal tempo-spatial actions. The artists of Manex Visual Effects set up a green-screen studio of 122 still cameras (see Figure 2.23) to capture movements of Keanu Reeves and other casts in extremely slow motion while the camera sequence looked like moving circularly around the live action characters with digital bullets travelling in desired routes along them. Indeed, Reeves and other casts were suspended on wires in the centre of the stage to perform their actions and photographed by the array of still cameras at intervals that had been designed by “bullet-time” camera movements as pre-visualization in the computer, thus creating hyperreal imaginary perspectives of the multi-faceted cyberspace in the movie. Those pre-visualized virtual cameras were synchronized with those physical cameras and thereafter, allowed computer animators to create those digital bullets’ motions and other props and backgrounds to integrate seamlessly into the “bullet-time sequence” footages (Chong, 2008; Martin, 1999; Rickitt, 2008). By means of novel visual representations to familiarize, as well as de-familiarize, audiences with the matrix of the global village, digital effects and computer animation helped *The Matrix* trilogy not only construct a persuasive cyberworld of unique aesthetics of time and space, but also arouse a lot of intensive discussion of the matrix philosophy in the academic field (Butler, 2002; Constable, 2009; Irwin, 2002, 2005; Yeffeth, 2003).

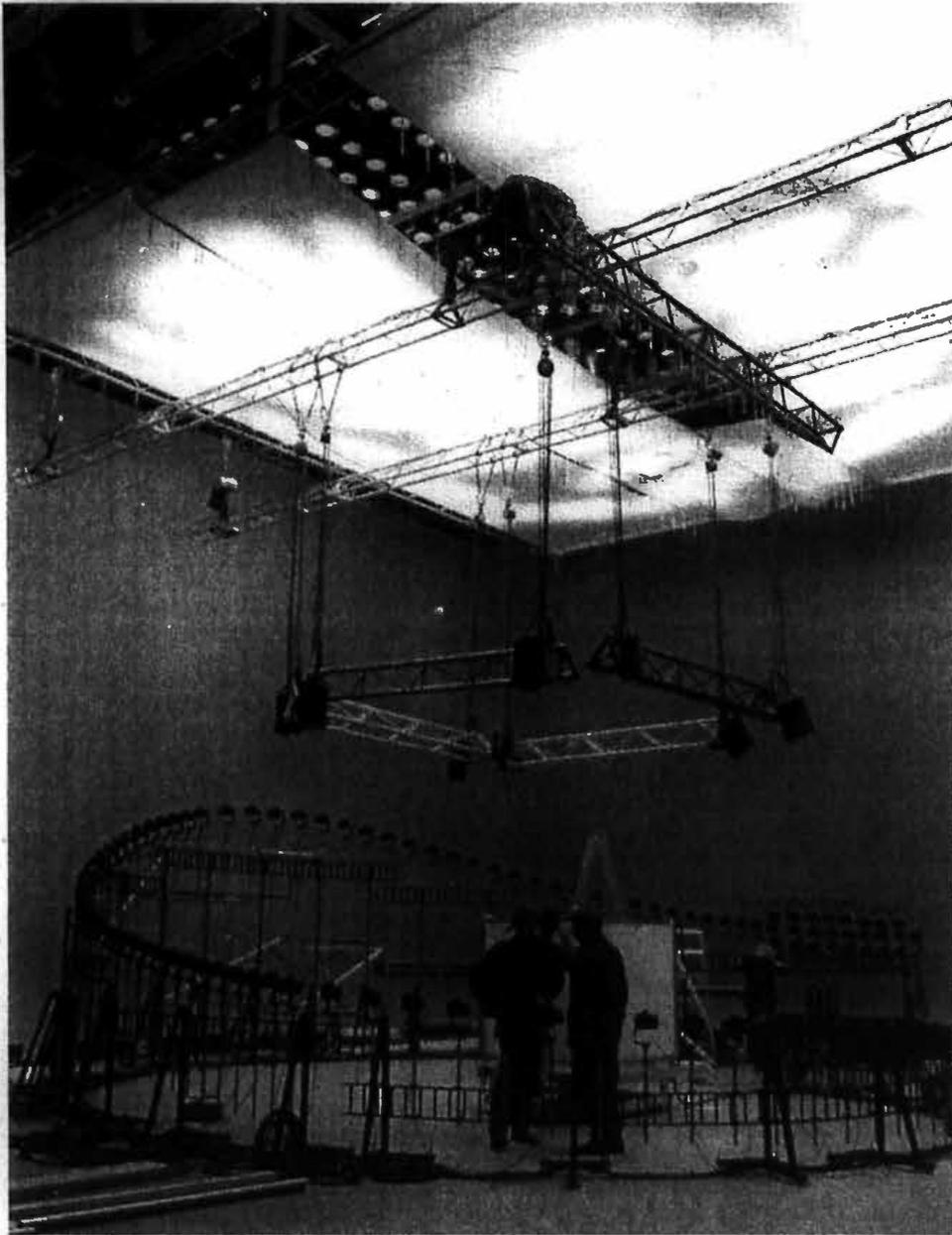


Figure 2.23: The green-screen studio of 122 still cameras to create the bullet-time slow motion sequences in *The Matrix* (Martin, 1999)

By discoveries and applications of advanced digital media technologies, filmmakers and animators all over the world continued to explore new possibilities of digital cinematic productions and aesthetics in their cultural representations (Bordwell & Staiger, 1988). Some high fantasy novels and cinematic stories that had been believed impossible to be filmed before were reinvigorated and visually represented by the imaginary power of digital effects and computer animation, and created as a new wave of digital cinematic productions in the early 21<sup>st</sup> century such

as Lucas' new *Star Wars* trilogy: *The Phantom Menace* (1999), *Attack of the Clones* (2002) and *Revenge of the Sith* (2005), and Peter Jackson's *The Lord of the Rings* trilogy: *The Fellowship of the Ring* (2001), *The Two Towers* (2002) and *The Return of the King* (2003), and his remake of *King Kong* (2005). Lucas had waited over a decade for the advancements of digital media technologies to execute his desired realization or "hyperrealization" of digital character animation of clones of virtual casts in enormous scenes of photorealistic galactic landscapes in his new *Star Wars* trilogy. Many of the main casts were entirely digital and interacted with real human actors and actresses performing by their imagination and director's guidance in front of the blue-screen (see Figure 2.24). The traditional mixture of lovable creatures like Jedi Master Yoda and C-3PO produced by prosthetic make-ups, animatronics and stop-motion animation were totally replaced by digitally animated characters of complex facial expressions while many techniques of miniatures and matte paintings were digitally adapted and adopted in terms of computer models, digital matte paintings and digital compositing. Such new digital aesthetics provided greater freedom to Lucas to create his fantasy world of impossibilities and he even decided to rely more on computer-generated imagery in digital cinematic production and so, to sell off ILM's production division of models, miniatures and matte paintings in 2006. Though the digital characters like Jar Jar Binks of over 400 emotive and expressive facial expressions for lip-synch animation played freely to contribute to storytelling of the movies, many physical references of reliable solidity such as the puppet of Yoda as a reference for building the digital Yoda (see Figure 2.25) and the miniatures of apartment buildings staged at the centre of the Republic capital (see Figure 2.26) were still very significant to construct the digital cinematic world of photorealism (Duncan, 2002; Kirsner, 2008; Rickitt, 2000).

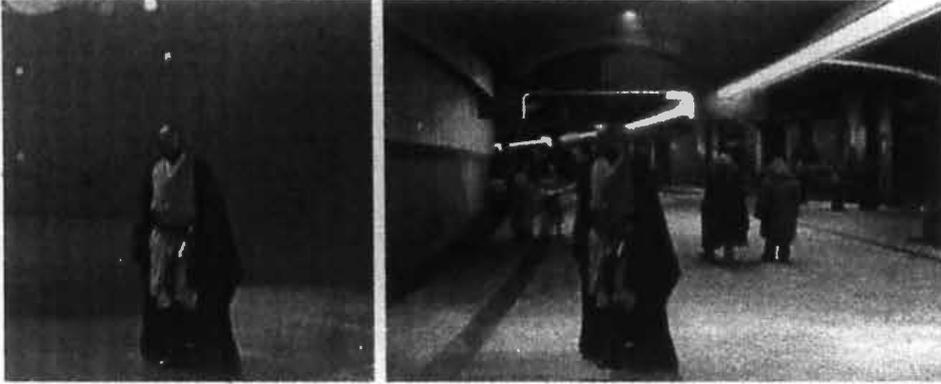


Figure 2.24: The actor was performing by imagination in front of a blue-screen and digital environment was added during post-production in *Star Wars Episode II: Attack of the Clones* (Duncan, 2002)



Figure 2.25: ILM animators were building and animating (digital) Yoda with reference to the puppet invented before (Duncan, 2002)

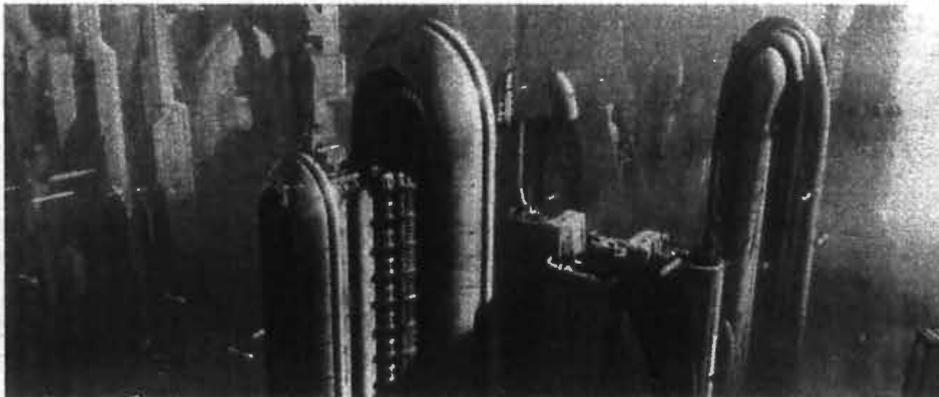


Figure 2.26: Physical miniatures of apartment buildings still played an important role in producing photorealistic digital cinematic world in *Attack of the Clones* (Duncan, 2002)

Indeed, Jackson's *The Lord of the Rings* trilogy put a lot of emphasis on references during the production and employed almost all state-of-the-art digital media technologies and many traditional production techniques like miniatures, prosthetic make-ups and matte paintings. This helped establish not merely his own

career as an Academy Awarded director but also his creative companies Weta Workshop and Weta Digital and the creative film industry in Wellington – the “New Hollywood” in New Zealand. Unlike *Star Wars*’ regular clones of virtual troops, the armies of Rohan’s rangers and Orc and Uruk-hai captors in *The Lord of the Rings* trilogy were digitally produced with reference to physical drawings and puppetries and of additional irregularity and randomness by the most advanced crowd animation system Massive software ([www.massivesoftware.com](http://www.massivesoftware.com)). Those tiny details of textures and irregularities highly enhanced the photorealistic look and feel of the movies. In the meantime, as Weta Digital VFX Supervisor Matt Aitken mentioned during his workshop presentation in DELF 2009<sup>19</sup>, “reference performances” played a critical role in the delivery of digital character animation as sophisticated as Gollum in *The Lord of the Rings* trilogy and Kong in the remake of *King Kong*. Both Gollum and Kong were digital characters of convincing emotive and expressive movements and facial expressions by motion capture of the prized performer Andy Serkis’ reference performances in terms of his body motions and facial expressions respectively (see Figure 2.27). More importantly, Serkis played the creatures physically to provide on-site reference performances to other main protagonists’ acting and director’s directing like the fighting among Gollum and hobbits Frodo and Sam (see Figure 2.28). Certainly, a lot of additional works such as motion capture data editing, keyframe animation and motion blending, texture mapping, and digital compositing by computer animators were required to achieve the final sophisticated digital character animation of seamlessness and photorealism by mean of collaborative

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<sup>19</sup> DELF has been a yearly event called Digital Entertainment Leadership Forum organized by Hong Kong Cyberport since 2004. The main theme of DELF 2009 was “Innovate Locally, Collaborate Globally: The Success of Wellington, New Zealand” and many experienced managers and artists of creative industries from Wellington were invited to give speeches and workshops to Hong Kong practitioners.

performances and coordination among creative filmmakers and animation artists that highly enhanced the production and aesthetic control during digital cinematic production (Chong, 2008; Fordham, 2003; Gaut, 2009).



**Figure 2.27: “Reference performance” by Andy Serkis for both facial expression and motion capture animation of Gollum in *The Two Towers* (Fordham, 2003)**



Figure 2.28: Serkis' "reference performance" (1) provided significant on-site reference to other actors' acting and the director's directing in a scene of *The Two Towers*. Digital Gollum (2) was added to the final composite during post-production (Fordham, 2003)

We have gone through a lot of historical narratives of recent breakthroughs of digital cinematic productions and aesthetics in Hollywood, and their extended influences on world cinema. Hong Kong and many other places as "media capital" for cinematic productions as Curtin (2007) mentioned may not afford the tremendous amount of time and budget for technological research and development like Hollywood; nevertheless, cinema as cultural products through the social practices of technological and aesthetic applications is most reliant on human labor of creativity

that is the core value of media capital<sup>20</sup>. Technologies alone cannot make movies. Contemporary digital cinematic productions from the West to the East have revealed the indispensable influences of digital effects and computer animation on social and cultural transformations of cinematic production techniques and aesthetics toward better storytelling, hyperrealism, and enhanced spectacle by inventing/reinventing new possibilities of cultural representations by means of new creative labor forces from novel production divisions and international division of labor in digital cinematic productions (Bordwell & Staiger, 1988; Bordwell & Thompson, 1986; Gaut, 2009; Villarejo, 2007). The versatility of digital effects and computer animation to digital cinematic aesthetics and productions is merely limited by the creativity and collaborative performances of filmmakers and artists in creative and cultural industries. Creative exposures and experiments to disparate technological and cultural innovations with regard to other socio-historical contexts are the critical determining factors to give Hong Kong and China the directions to the development of digital cinematic aesthetics and productions (Bendazzi, 1994; Gaut, 2009). Those collaborative experience and innovative knowledge in terms of applications and modifications of technological innovations and aesthetics have been unstoppably learned from Hollywood and other media capitals in the history of cinematic production, thus creating the unique aesthetics and production systems of Hong Kong cinema to a great extent.

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<sup>20</sup> "Media capital" applicable to all creative and media industries is generally defined as (1) "a logic of accumulation" of economic and production resources, (2) agglomeration of creative talents of aesthetic and market innovations, and (3) "forces of socio-cultural variation" in terms of national and institutional contexts (Curtin, 2007: 10-23).

## **Transformation of Cinematic Effects in Hong Kong**

With a view to understand the empowering cultural/aesthetic values of digital effects and computer animation in contemporary digital cinematic productions in Hong Kong, it is necessary to having a general historical review of the development and contribution of cinematic effects in the Hong Kong, as well as Chinese, film industry. Indeed, the early Hong Kong cinema had already been directly influenced by the American cinematic productions, as documents evidenced that an Edison's film crew had visited Hong Kong in 1898 and produced at least 7 short films there. Moreover, the early Hong Kong and Chinese cinematic productions followed Hollywood's production techniques quite closely and Hollywood talkies were regularly screened in Hong Kong from 1929, just one year after the first release of Warner Bros' full talking movie in 1928. Because of economic resistances, Hong Kong and Chinese cinematic productions took some years to adapt synch-sound technologies to their productions. However, since 1933, the production of talkies in Hong Kong had made a commercial success of Hong Kong filmmakers in developing overseas Cantonese markets of "cultural proximity" and resulted in the emergence of the first golden age of Hong Kong cinema in the history (Kirsner, 2008; Law et al., 2004; Straubhaar, 1991). Although Hong Kong and Chinese cinematic productions had already learned many physical tricks like superimposition, fades, dissolves and primitive animation techniques from Méliès' and some Hollywood's special effects films at the very beginning, their technological advancements were quite stagnant under the instable social and economic contexts at the periods of the Second World War and China's Civil War. The booming of Hong Kong cinema from the gentility to more aggressive mass cinema by means of spectacular techniques and aesthetics learned from Western and Japanese movies was deferred until the advent

of martial arts genres in the late 1960s and the 1970s. Martial arts movies became unprecedentedly attractive action spectacles of a distinct Chinese sensibility by adapting foreign cinematic effects such like stunt doubles, wire hovering and trampoline jumping<sup>21</sup> into local flesh-and-blood action choreography and mythical storytelling, and represented a successful marriage between the foreign and indigenous cultures for both local and global film markets (Law et al., 2004; Teo, 1997).

The martial arts picture was the vanguard of all that was creative and unique in Hong Kong cinema. At its peak of popularity, it influenced all of Southeast Asia and it even broke out of this region to influence Europe and America. Hollywood has been greatly influenced by the genre (Zhang, 1999: 24).

The importance of the martial arts genre takes its root in its characters of “national cinema”. Historical happenstance enables the martial arts genre, which is regarded as absurd and weird, to prosper in this “cultural desert”, and become a most representative genre of Hong Kong cinema (Lau, 1999: 30).

Martial arts movies are still belonging to one of the most popular genres and distinctive cultural representations of Hong Kong cinema influencing Chinese and

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<sup>21</sup> As John Chiang (姜大偉) and Gai Tong (唐佳) mentioned in the first episode of a TV documentary *Hong Kong Exclusives* (香港獨家, 2009) produced by Television Broadcasts Limited (TVB), many Hong Kong martial arts choreographers learned a lot of shooting and stunt techniques from their participation in the location shooting of the Hollywood blockbuster *The Sand Pebbles* (1966) in Hong Kong.

global movie cultures. Besides, since the 1960s, martial arts stories have become one of the most fruitful topics for fantasy film productions with absurd and weird special effects because of their special cultural contexts as those of the Western science-fictional and medieval battle stories that facilitate different imaginative interpretations in terms of symbolic creativity using unrealistic visual effects. The characteristics of “national cinema” of martial arts appeared inside 3 contemporary world famous transnational digital movies *Crouching Tiger, Hidden Dragon* (臥虎藏龍, 2000), *Hero* (英雄, 2002) and *The Promise* (無極, 2005), which were produced by creative filmmakers and artists in China, Taiwan, Hong Kong, and America and Australia, and employed a lot of digital media technologies and Chinese martial arts<sup>22</sup>. However, the martial arts genre is not the mere one theme for digital cinematic productions, and indeed the core elements of martial arts cultures – the unrealistic, imaginative creativity – inspire the development of digital effects and computer animation of hyperreality in many other genres and novel mixed genres like comic-style kung fu movies and postmodern science-fictional love movies (Davis & Yeh, 2008; Lau, 1999). Before exploring the first blossom of the martial arts genre in Hong Kong cinema and its relation to the culture of cinematic effects, I would like to introduce a typology to study disparate martial arts genres in Hong Kong and Chinese cinema.

Martial arts not only represents a unique Hong Kong and Chinese movie genre, but also constructs 3 categories of martial arts movies of specific cultural representations and their mixtures that, to a certain extent, explicate their disparate

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<sup>22</sup> Martial arts as a cult even influence many contemporary Hollywood digital cinematic productions like *The Matrix* trilogy and *Kill Bill* (2003).

routes of development in relation to cinematic effects. The first category of martial arts movies is “magic-spirit motion pictures” (shengguai wuxia pian, 神怪武俠片), a kind of very obvious fantasy film productions. It highly adapted Western and Japanese optical visual effects into the fusion of the supernatural power with Chinese martial arts and myths, especially in the form of rotoscoping and stop-motion animation and superimposition techniques to place animated flying swords and real life characters onto the sky (Davis & Yeh, 2008; Lau, 1999). The second category is “swordplay movies” (dao jian wuxia pian 刀劍武俠片) of weapon-driven action spectacles. This category was initially inspired by Japanese samurai movies and action choreography techniques in the mid-1960s and indigenized by the stylized combination of Peking Opera and film and the graphic representations of violent fighting in an epic scale such like King Hu’s (胡金銓) *Come Drink with Me* (大醉俠, 1966) and Che Zhang’s (張徹) *The One-armed Swordsman* (獨臂刀, 1967) respectively. Unlike those magic-spirit motion pictures, Chinese swordplay movies put more emphasis on sword-fight<sup>23</sup> to bring audiences a sense of physical reality and historicity; nonetheless, they adapted and modified the styles of Japanese samurai movies of spectacular comic-and-action choreography and filming and editing techniques to represent their own style of swordplay action scenes of not only realistic but also hyperreal Hong Kong martial arts choreography. The unique cultural representations in Chinese swordplay movies revealed the supernatural martial arts like “uplifting art” (qing gong, 輕功) – a kind of legendary “weightlessness” techniques – using physical techniques such as trampolines and wires instead of optical tricks used in magic-spirit motion pictures to further the

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<sup>23</sup> Magic-spirit movies usually included dramatic and unreal sword-fight but the climax and resolution was represented by the final decisive fight in terms of animated flying weapons.

mythical narratives of the “wuxia” world (武俠世界) in a more perceptually realistic sense (Lau, 1999; Law et al., 2004; Teo, 1997; Zhang, 1999). Until the 1970s, the third category of martial arts movies called “kung fu movies” (功夫片) was brought into blossom by the advent of an international superstar Bruce Lee (李小龍) and his flesh-and-blood kung fu fighting on the screen. But indeed kung fu movies had been developed by the lifestyle fist-combat in Hong Kong cinema since the first *Wong Fei-hung* (黃飛鴻) movie acted by Tak-hing Kwan (關德興), who was really a kung fu master and always designed action choreography during shooting himself, and directed by Pang Wu (胡鵬) in 1949. Mostly different from swordplay movies that always happened in medieval dynasties and took mythical fantasies of historic narrative forms, kung fu movies were generally in a contemporary modern time and place and employed fist-fighting of closer relationship to audiences’ understanding of everyday life violence (Chung, 2007; Hong Kong Film Archive, 1999; Law et al., 2004; Teo, 1997; Yu, 1994).

It is arguable to distinguish the first two categories from the third one by drawing a timeline to split them into cultural representations of pre-modern society – “jianghu” (江湖) – in medieval dynasties and modern society of everyday life after the decline of the Qing Dynasty respectively. Indeed, either animated flying swords in magic-spirit motion pictures or physical swords and blades in swordplay movies were weapon-driven sword-fight in a particular sense and followed more tightly the mythical and historic narrative forms of the “wuxia” world in medieval dynasties that is typically represented by the concept of “jianghu”. As Yang (2009) mentioned, the central-ideological symbols of “jianghu” are rivers (江) and lakes (湖) representing

(temporary) autonomous zones where most sword-fights have happened and “xia” (俠) as the hero/heroine or the knight-errant plays the role in restoring justice by his/her own rules of the law away from the social and political order. Such a symbolic image of “jianghu” as a world composed of individuals and their relationships away from government’s social and political systems, “a world of adventure, freedom, transgression and divine justice” and “a world of betrayal, intrigue and evil” provides fruitful cultural elements of mythical narratives to many cinematic productions (Schroeder, 2004; Teo, 1997; Yang, 2009: 173).

In a modern, as well as postmodern, sense, “xia” can, however, be a swordsman, a kung fu master, a gangster and even a clown hero like Jackie Chan, whose movies like *Drunken Master* (醉拳, 1978) and *Police Story* (警察故事, 1985) blurred the boundaries of kung fu, comedy and gangster movie genres, and “jianghu” has been extended to the modern society whereas rivers and lakes have been replaced by side-streets and back-alleys. As a result of reactions to changing times and tastes and convergent powers of digital effects and computer animation, all 3 categories of martial arts genres, as well as other movie genres, have merged or shared their cultural representations to hybrid narrative forms in digital cinematic productions (Davis & Yeh, 2008; Lau, 1999; Lee, 2009; Teo, 1997). No matter where the story occurs either in a medieval battlefield or in a modern metropolis, either a knight-errant’s sword or a gangster’s gunshot can be spectacularly represented by digital visual effects from an unimaginable perspective under the same concept of digital aesthetics. “Jianghu”, indeed, best represents the collective imaginary time and space of the movie world where all creative filmmakers and artists acting as “xia” work hard to struggle for their living and dreaming. And they have kept discovering,

applying and modifying disparate cinematic effects to reinvigorate martial arts genres in the history of Hong Kong cinema, thus influencing not only Chinese cinematic aesthetics and productions but also global movie cultures especially in terms of Hong Kong martial arts choreography and its aesthetics (Lau, 1999; Law et al., 2004; Teo, 1997; Zhang, 1999).

As early as 1928, cinematic visual effects like flying swords, thunder palm and supernatural phenomena such as levitation and hovering into the sky were employed in a series of Chinese martial arts films of *The Burning of the Red Lotus Monastery* (火燒紅蓮寺) that were adapted from a popular martial arts novel *Pingjiang Buxiao Sheng* (平江不肖生). But the golden age of magic-spirit motion pictures in Hong Kong cinema arose in the 1960s. Over 30 magic-spirit movies were produced annually at that period (Cheuk, 2000; Chung, 2007; Lau, 1999). Painting on the negative by rotoscoping was one of the most popular animation effects used to imitate the “qi” (氣) – the “life force” or the “spiritual energy” of martial arts – in terms of visible palm forces in magic-spirit motion pictures like *The Furious Buddha's Palm* (如來神掌怒碎萬劍門, 1965, see Figure 2.29). And superimposition was another popular method of cinematic effects used in martial arts fantasy like the talk between the little Bo-bo Fung (馮寶寶) and the giant in *Magic Cup* (夜光杯, 1961). Other audio and optical effects and cinematic techniques like color-tinting and miniature modeling had also been used in those magic-spirit motion pictures in the 1960s. One of the famous scenes was the giant fish model produced by Ki-ping Lo (盧寄萍) for the movie *Ten Brothers vs the Sea Monster* (十兄弟怒海除魔, 1960), which is not a martial arts genre and the design of the model is inspired by foreign

science-fictional movies like *Frankenstein* (1931). However, Lo's own imagination and his knowledge and skills about traditional Chinese paper binding arts were significant to his contribution to the development of model and miniature effects in Hong Kong cinema. These fantasy movies helped to nourish the first generation of creative workers of cinematic special effects in Hong Kong<sup>24</sup> (Cheuk, 2000; Hong Kong Film Archive, 1999, 2001).



Figure 2.29: The 1960s typical rotoscoping animation effects in a magic-spirit motion picture *The Furious Buddha's Palm* (Hong Kong Film Archive, 1999)

Not much novel cinematic visual effects was invented/reinvented and martial arts pictures using real kung fu had gradually replaced the dominating status of magic-spirit and swordplay movies in the 1970s. Until 1979, Hark Tsui's (徐克) first movie *The Butterfly Murders* (蝶變) that was defined as a postmodern swordplay movie reinvented, as well as subverted, the martial arts genre by replacing the

<sup>24</sup> The Wan Brothers (萬氏兄弟) and Ki-ping Lo, who are the first generation of cinematic effects workers in Hong Kong, also came from China (Hong Kong Film Archive, 2001). At the very beginning of the development of Hong Kong cinema, transborder collaborations had already begun.

ancient and conventional supernatural elements with scientific gadgets such as spring-levered arrows as hidden weapons, explosives as magic palm power, and a coat of armor as “iron cloak” (tie bu shan 鐵布衫) ability, which signified the stylish characteristics of subversiveness of Tsui’s and most Hong Kong New Wave directors’ cinematic explorations and experiments in the 1980s (Cheuk, 2000, Lau, 1999; Sek, 2002; Teo, 1997). During the shooting of *The Butterfly Murders* in Taiwan, the production crew primarily failed to provoke those butterflies to move at all because of carsickness by the long transportation from the butterfly valley and a friend of Tsui came to visit and wondered why not to use special effects for those butterfly shots (Ho & Ho, 2002). As Nansun Shi – famous film producer and co-founder of Tsui’s Film Workshop – recalled during my interview, this friend’s wonder really embarked Tsui’s engagement in exploring special effects for cinematic productions and, indeed, he was very interested in novel media technologies and possessed knowledge and skills of photographic procedures from his solid working experience in darkroom during his life in New York.

Since the 1980s, Tsui had introduced a lot of Western visual effects and technologies to Hong Kong cinematic productions and invented a distinguished Eastern style of visual effects by combining Western ones with local wire stunt and animation effects in a hybrid form (Hong Kong Film Archive, 2001; Law et al., 2004; Li, 2002; Teo, 1997). For his movie *Zu: Warriors from the Magic Mountain* (新蜀山劍俠, 1983) as a high budget production for Golden Harvest and as an idea initially motivated by the horizon of *Star Wars* of spectacular cinematic effects, he invited and imported certain experienced cinematic effects artists and designers from

Hollywood to act as consultants and trainers for the film production. Robert Blalack, who worked for Lucas on the original optical composites for *Star Wars*, Peter Kuran, who served as the animation and rotoscope supervisor for *The Empire Strikes Back*, Artie Wong and John Scheele, who worked on the production of matte paintings and optical compositing respectively for the first commercial feature film incorporating computer-generated animation as vital narrative elements – Disney's *Tron*, were the first group of Hollywood creative artists of cinematic effects imported to Hong Kong. A lot of advanced visual effects skills like optical compositing, rotoscoping, matte paintings, miniatures, blue-screen shooting, computer-aided stop-motion animation and primitive computer animation technology had been introduced into Hong Kong cinema via their global connections, and a new generation of local special effects artists was cultivated. Indeed, Tsui established Cinefex Workshop as a branch of Film Workshop to create special effects for his own movies and to provide services to other filmmakers, especially his close partners of Cinema City<sup>25</sup>, in Hong Kong with a view to both enhancing visual aesthetics and reducing production costs by spectacular visual effects and sophisticated production technologies in Hong Kong cinema. These sophisticated cinematic effects influenced dramatically Tsui's film productions throughout the whole 1980s and the early 1990s such like the movies *A Chinese Ghost Story* trilogy (情女幽魂 I, II & III, 1987, 1990, 1991) and *Wicked City* (妖獸都市, 1992) (Ho & Ho, 2002; S. Ho, 2002; W. Ho, 2002; Li, 2002; Schroeder, 2004; Teo, 1997).

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<sup>25</sup> Cinema City was a leading Hong Kong film production studio founded by Karl Maka, Dean Shek and Raymond Wong in 1980. These three heads plus Hark Tsui, Nansun Shi, Eric Tsang, and Teddy Roban Kwan were called the Gang of Seven to decide all productions collectively inside a meeting room (Curtin, 2007; S. Ho, 2002; Wong, 1998).

Unlike Tsui's movies, many other cinematic productions in the 1980s and the early 1990s employed special effects, especially primitive hard-edged computer graphics, as gags and gimmicks to attract audiences rather than added-values to create unique cultural representations of Hong Kong cinematic aesthetics and productions, as Wellington Fung (馮永) – former producer of Cinema City and one of the founding partners of Media Asia – pointed out. For instance, to compete with Golden Harvest's *Zu*, Shaw Bros hired Japanese special effects experts to help produce Alex Cheung's (章國明) science-fictional comedy film *Twinkle Twinkle Little Stars* (星際鈍胎, 1983) using miniatures, front projection and optical compositing. However, the film was a disaster in box office and was criticized as a poor imitation of special effects production of weak storytelling. Even in some blockbusters of fairly good box offices in the 1980s such like *Till Death Do We Scare* (小生怕怕, 1982; box office: HK\$13.9 millions) that Olivia Cheng's (鄭文雅) 3 ex-husbands as ghosts jumped out from their photographs by optical compositing and *The Legend of Wisely* (衛斯理傳奇, 1987; box office: HK\$18.7 millions) that a flying dragon was hovering in a sky of clouds by 3D computer animation, special visual effects were employed simply as imitative spectacular gimmicks for publicity (Cheuk, 2000; W. Ho, 2002; Hong Kong Movie Database, <http://hkmdb.com>, cited in Aug. 24<sup>th</sup> 2009; Xu, 2009).

On the contrary, Tsui continued to reinvent unique visual effects aesthetics of spectacular imageries in his cinematic productions in Hong Kong by blending special effects techniques with hybrid genre movies like mysterious ghost stories and martial

arts. This leads to the success of *A Chinese Ghost Story* trilogy<sup>26</sup>, *Swordsman I & II* (笑傲江湖 I & II, 1990, 1992) and *Once upon a Time in China* series (黃飛鴻系列) using special make-ups, miniatures, optical compositing and computer animation from the West and local stunts and martial arts choreography. Most visual effects of these movies were produced by Tsui's Cinefex Workshop that imported a lot of innovative technologies from the West and nourished many local visual effects artists (Ho & Ho, 2002; S. Ho, 2002; Li, 2002; Teo, 1997). Ying Wong (黃英) – one of the local pioneers of computer animation, who was invited by Tsui to come back Hong Kong from Canada to work on the computer animation production for *A Chinese Ghost Story II*, helped set up the computer animation division in Cinefex Workshop and import the first Silicon Graphics (SGI) workstation that was priced over a million Hong Kong dollars to Hong Kong in 1988. "SGI workstation was the most popular kind of workstations at that time. We had to apply for official customs permit to purchase it because it belonged to high-end technology and official permit was a must for its import from America to Hong Kong. It was not easy to get the permit as if the American government was worrying about the transfer of high-end technology to the mainland China", said Wong during my interview. Because of those limitations of both economic and political conditions and the more program-driven instead of user-friendly computer animation software systems, breakthroughs in digital cinematic productions and aesthetics in terms of digital effects and computer animation had rarely been made in Hong Kong in the late 1980s and the early 1990s.

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<sup>26</sup> Bearing in mind, computer animation was only used in the production of *A Chinese Ghost Story II & III*. All flying swords and Chinese-style flames in *A Chinese Ghost Story I* were created by optical compositing of physical effects (Ho & Ho, 2002).

Since the mid-1990s, digital effects and computer animation have gradually become much more popular in the field of cinematic production because of the popularization of digital media technologies in Hong Kong. *The Umbrella Story* (人間有情, 1995) is the first Asia's film combining live action and archive footages with digital effects that were produced by Centro Digital Pictures Limited to imitate certain visual effects in *Forrest Gump*, though the box office (HK\$6.8 millions) was not quite good. The first local blockbusting digital movie co-produced by Centro and Golden Harvest is *The Stormriders* (風雲之雄霸天下, 1998) adapted from a renowned local comic book, which was regarded as one of the most successful digital cinematic productions (Hong Kong box office: over HK\$41 millions) in Hong Kong (Cheuk, 2000; Hong Kong Film Archive, 2001; Hong Kong Movie Database, <http://hkmdb.com>, cited in Aug. 24<sup>th</sup> 2009). The movie was finally composed of 550 shots of digital effects and computer animation that amounted to 40 minutes of the screening time. *The Stormrider* was a critical breakthrough in the history of digital cinematic productions and aesthetics in Hong Kong in which digital effects and computer animation for the “whirlwind kick” (風神腿), the “cloud-discharging palm” (排雲掌, see Figure 2.30), and the “fire unicorn” (火麒麟, see Figure 2.31) conveyed not simply imitation of the original story but unique, hyperreal, imaginative cultural representations collectively created by local comic artists, filmmakers and computer animators (Hong Kong Film Archive, 1999).



Figure 2.30: The local comic-style “cloud-discharging palm” by digital water effects in *The Stormriders*



Figure 2.31: The East and West hybrid “fire unicorn” by digital character animation in *The Stormriders*

Tsui had also tried to collaborate with Menfond Electronic Art and Computer Design Company Limited to explore his novel cultural representations of digital cinematic productions and aesthetics in terms of advanced digital effects and computer animation. In *Master Q 2001* (老夫子 2001, 2001), he bravely decided to create 3 main characters in digital form to interact with the real protagonists while he deployed over 1,500 digital effects shots to construct his ideal mythical atmosphere and landscapes in *The Legend of Zu* (蜀山傳, 2001) – a rejuvenation of his original

Zu in 1983. Both digital movies were not quite successful in box offices, but helped train up a lot of local computer animators in Menfond, which have produced many state-of-the-art digital effects and computer animation for digital cinematic productions such like those game-style digital effects in *The Twins Effect* (千機變, 2003) and *A Chinese Tall Story* (情癡大聖, 2005), and those photorealistic effects and digital composition of battlefield imageries in *A Battle of Wits* (墨攻, 2006) since the millennium (W. Ho, 2002; Sek, 2002).

Since the late 1990s, more small and medium enterprises like Centro and Menfond have been established and participated in digital cinematic productions for the declining cost and increasing accessibility of the new computer technologies, and more transnational, as well as global, digital cinematic productions have utilized their creative services (Currah, 2003; Hong Kong Film Archive, 2001). In view of the historical experience of the development of Hong Kong cinematic effects from analog to digital, such opportunities to collaborate with global cultural producers and creative media organizations are meaningful to the sustainable development of digital effects and computer animation techniques and aesthetics for local digital cinematic productions. However, Hong Kong filmmakers and creative artists of digital effects and computer animation not only learn from others but also invent/reinvent their own cultural and aesthetic values for their own media representations in their creative productions, and local and global audiences also play an important role in constructing the uniqueness of cultural representations in digital cinematic aesthetics and productions during their consumption under the special local and global contexts. Such diversified and unique cultural representations in the

creative process of production and consumption have been demonstrated by a lot of digital movies in Hong Kong and China since 1998 – the advent of *The Stormriders*. Therefore, the rest of this research is going to intensively analyze a selection of representative digital cinematic productions of specific digital aesthetics in Hong Kong from 1998 to 2010 to demonstrate the complexity model of cultural representations in our era of digitalization and globalization.

### Chapter 3    The “Spectrum of Cultural Representations” in Systems of Creative and Cultural Industries

Of the almost unlimited numbers of layers in digital compositing of cinematic effects and computer animation, we can understand the complexity of organization and creative process in digital cinematic aesthetics and productions, which demonstrates what Urry (2005: 1, 2007: 27) entitles “the complexity turn” signifying an increasing complex “structure of feeling” in contemporary creative economies of the globally and digitally networked societies<sup>1</sup>. Unlike “the postmodern turn” that is only skeptical and deconstructive and that aims at querying social problems and posing unsolvable questions<sup>2</sup> – the language games – in a particular sense, complexity theories and practices adapted by critical media<sup>3</sup> and cultural studies combine strategies of construction, deconstruction and reconstruction of social structures. This leads to a new paradigm of cultural representations with a sense of contingency and unpredictability under the circumstances of growing complexity of organizations, technological innovations, cultural production and consumption, and socialization that constitutes the complex but flexible/fluid/abstract systems and processes of contemporary creative and cultural industries (Butler, 2002; Kim, 2003; Koch, 2005; Luhmann, 1995, 2000b). Also different from traditional industrial and media effects studies, the rise of “symbolic creativity” critically demands holistic research on organizations, creative talents and cultural practices typified into the intertwined relationships of producers, texts, and audiences, with a view to

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<sup>1</sup> This term is borrowed from the concept of “The Rise of the Network Society”, the first volume of the trilogy of *The Information Age: Economy, Society and Culture* by Manuel Castells (1996). But I prefer to use it in plural form to emphasize my belief on pluralism in contemporary informational and mobile societies.

<sup>2</sup> Postmodern queries and deconstruction are meaningful and valid to understanding the complexity and corresponding problems of modern and postmodern societies. Indeed, Luhmann’s (2002) systems theory employs deconstruction to unfold the paradox for second-order observation of social system. His objectives include reconstruction of social structure by means of self-organization.

thoroughly understanding the main gaps and trajectories of cultural representations in the spectrum of production and consumption. This reveals new challenges and directions for a new paradigm from transdisciplinary perspectives of both human and social sciences (Havens et al., 2009; Hesmondhalgh, 2002; Rose, 2007). Such transdisciplinary theories and practices of empirical studies constitute a complex model of the “spectrum of cultural representations” in systems of contemporary creative and cultural industries that forms the core theoretical framework of this study going to be intensively explored in this chapter. (For easy and quick referral of different theories and their interrelationships in the construction of the complexity model of cultural representations, Table 3 summarizes the key concepts deployed in this study at the end of this chapter.)

This complexity model of cultural representations based on transdisciplinary theories and practices of social sciences and humanities such as Luhmann’s systems theory, Derrida’s deconstruction, Hall’s representation and cultural studies, postmodernism and de-differentiation, and digital aesthetics of new media culture puts emphasis on the moments of creativity and struggles over organization cultures and representational practices in the process of cultural production and consumption (Havens et al., 2009). On the one side of the coin, it matches Florida’s concept of the rise of human creativity in contemporary knowledge-based economy, especially in those creative and cultural industries that are very much reliant upon creative workers’ ability to construct meanings in novel cultural forms and mediums. On the other side, his conceptual definitions of the so-called “Creative Class” that attempt to include as many people as possible to shock the economists and policy-makers are merely vague and intangible constructs subject to shifting and multiple

interpretations. His argument that all human beings are potential members of the “Creative Class” is a utopian thought ignorant of the reality of social inequality and exclusion. Indeed, his studies have failed to provide any specific and analytic mechanisms to understand the correlation of cultural production and consumption to human creativity (Florida, 2002, 2005; Lang & Florida, 2005).

As is a reductionist tendency, most conventional political economy and trendy creative industries research perspectives merely emphasize macroscopic structural issues in terms of a narrow scope of economic and industrial organizations, governmental/national policies and city developments with very incomplete or without explication of the functions of human agents in the creative process of cultural production and consumption (Bagwell, 2008; Florida, 2002, 2005; Gibson et al., 2002; Havens et al., 2009; Higgs & Cunningham, 2008; Mould et al., 2008). Such macroscopic studies fail to discern the “micropolitics of cultural representations” – the complexity and paradox of power relations between cultural producers and consumers/audiences, between organizations as agencies and human agents, in everyday meaning construction – that is one of the core functions of the complexity model of cultural representations with a meso-to-micro-level perspective. This multi-faceted and multi-perspective approach envisages social and cultural transformations of “our relationships with media, as well as the quantity, quality, and diversity of mediated texts” in the era of “digitalization and globalization” (Havens et al., 2009: 235). Following the tradition of the production of culture perspective, this complexity model focuses on how the expressive symbol elements of culture shape and are shaped by systems of contemporary creative and cultural industries in which flexible organization structures, power relationships between cultural

producers of collective activities, and reward systems are operating. However, in addition to the industrial reflexivity of the production of culture perspective, the “spectrum of cultural representations” seeks to understand the complex repertoires of cultural/symbolic practices by both producers and audiences in terms of their aesthetic and cognitive reflexivity in the process of cultural production and consumption. This explicates the interpenetrating relationships between social and psychic systems in the production, reception and interpretation of social and cultural meanings from a critical perspective (Caldwell, 2008; Codde, 2003; Havens et al., 2009; Lash & Urry, 1994; Peterson, 1994; Peterson & Anand; 2004).

With a view to constructing, deconstructing and reconstructing the “spectrum of cultural representations” to holistically depict the mechanisms how organization cultures of media industries form, circulate and change knowledge about productions, texts and audiences, and how human agents such as cultural producers and consumers contribute to shape and reshape social and cultural meanings of production, as well as perception, in discursive signifying practices, Luhmann’s “systems theory” concerning both organizational decision communication and human thoughts of consciousness and creativity is deployed to constitute the backbone of this complexity model (Havens et al., 2009; Luhmann, 1995; Seidl, 2005a; Seidl & Becker, 2005; Storey, 2010). Luhmann’s systems theory constructs and is constructed by a transdisciplinary conception of “autopoiesis” that means “self-reproduction” originated from the concept of biological systems of cell organisms, whereas he pays most efforts to establish his creative concepts of social and psychic systems to explain societal transformations by mean of the reproduction of elements and the structural coupling of systems and environments. While life is

the fundamental reproductive element of biological systems, communication is the foundation of social systems and perception preoccupying human consciousness belongs to psychic systems. All these autopoietic systems are operatively closed and cannot enter or determine the operations of each other. Nevertheless, we can “communicate about perceptions”, which is a way of interpenetration between the corresponding social and psychic systems. Indeed, the psychic system of human thoughts serves as an environment to provide a precondition for communication while the social system of communication serves as an environment for human interaction (Luhmann, 1995, 2000a, 2002; Seidl, 2005ab). As a crucial difference and distinction from biological systems, both psychic and social systems are characterized by their deployment of meaning (Sinn) – making sense – that is constantly being constructed and exchanged in every human and social interaction by means of cultural representation (Hall, 1997c; Hayim, 2006; Luhmann, 1995, 2000a; Moeller, 2006).

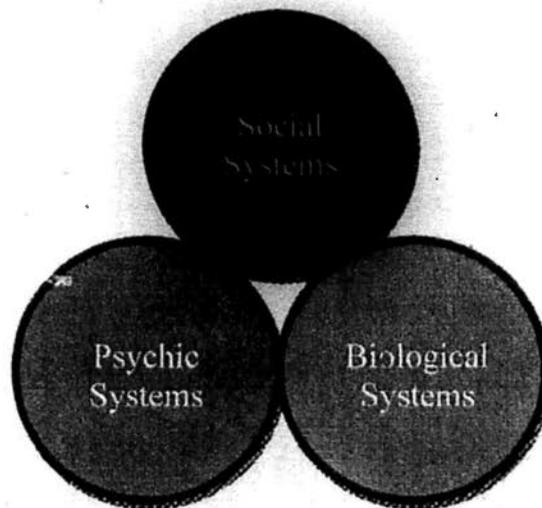


Diagram 3.1: Three types of autopoietic systems

In this study, we are investigating an art, as well as cultural, system that is not a stand-alone system but an interplay of both psychic and social systems in cultural practices as demonstrated by digital cinematic aesthetics and productions. In such an

art system of production and consumption, cultural representation constitutes and is constitutive of a concept of social and cultural meaning that is contingent not merely on particular psychic/social systems but also upon the observation/reception process itself (Halsall, 2007; Luhmann, 2000a). Therefore, cultural representations of media production and consumption like digital cinematic productions within social life need to be properly understood and interpreted through particular constitutive cultural practices as observation/reception situated within particular socio-historical contexts (Garfinkel, 1967, 2008; Kellner & Durham, 2006; Rawls, 2008). More precisely speaking, a thorough understanding of the interplay of both social and psychic systems in terms of organizational communication and human interaction as cultural practices during production and consumption is necessary to fully elucidate the “spectrum of cultural representations”. This includes a detailed analysis of the organization cultures of creative production process with a special attention to the collective activities of the flexibly assembled and/or employed cultural producers and their “creative passion” as deep feelings of symbolic values and mutual commitments to constitutive practices, and the interactive relationships between producers and consumers via the observation/reception of digital cinematic aesthetics and productions. It unveils the micropolitics of cultural representations concerning both “the intentions of producers” and “the desires and needs of consumers” highly determined by psychic systems and “molded by the wider capitalist social formation” in social systems (Garnham, 2005: 486; Havens et al., 2009; Hesmondhalgh, 2002; Luhmann, 1998; Rawls, 2002, 2008; Watson, 2009).

In Hong Kong – a highly Westernized capitalist consumer society putting more emphasis on entertainment rather than art and cultural representation, the

movie industry has continuously followed the traditions of global capitalist organization culture and digital media technology from the West, especially Hollywood. But, in accord with the concept of “glocalization” in the spiral of cultural globalization, different artistic and cultural inputs by local producers and audiences play critical roles in the process of cultural representations of digital cinematic aesthetics and productions in the local, as well as “glocal”, creative and cultural industries (Crane, 2002; Hartley, 2005; Hesmondhalgh, 2002). Luhmann’s (1995) systems theory helps us understand the paradox of organization culture encountered by cultural producers and creative media organizations in the Hong Kong creative media and film industries on the one hand. His concept of “de-paradoxicalization” reveals the contributions of cultural producers of the multiple layers of filmic images, digital effects and computer animation to sustain creative production of digital cinema within the flexible systems of organization and representation and the contributions of audiences, as well as producers-as-audiences, by their unique repertoires of cultural practices during the observation/reception process to the meaning construction of digital cinematic aesthetics and productions on the other (Codde, 2003; Luhmann, 1995, 2002, 2005a; Seidl & Becker, 2005). In other words, the paradox of organization culture may lead to the production of redundant stereotypes of cultural representation within a social system of operative closure. Layers of digital effects and computer animation function as one type of the resources of creativity in cultural representations that is named “cultural de-representations” in the proposed spectrum to facilitate an injection of creativity and aesthetic values from the organization to its digital cinematic productions. This process includes a re-entry or interpenetration of the organization into the interaction among the social and psychic systems of cultural production. Besides, audience’s

reception and interpretation of social and cultural meanings, that is, their expectations, of digital effects and computer animation in digital cinematic productions by observing the works of art is an operation of perception and understanding. It is communicated via the structural coupling of the corresponding psychic and social systems in a creative process of “de-paradoxicalization”, thus also producing another type of “cultural de-representation” to undo the tendency of stereotyping (Czarniawska, 2005; Hall, 1997b; Hesmondhalgh, 2002; Knudsen, 2005; Luhmann, 2000a, 2002, 2005a).

Via the hermeneutic and empirical analysis of cultural representations in terms of case studies of purposefully selected digital cinematic productions, 10 new characteristics of digital cinematic aesthetics are generalized, which is going to be thoroughly elucidated in Chapter 4. Such inductive findings significantly help investigate how the local cultural producers of media organizations shape and reshape the narrative and narration of some innovative digital cinematic productions in Hong Kong and China via their cultural practices. What do they do to integrate economic and symbolic values of the postmodern hybrid cultures and the “glocalized” digital effects and computer animation in response to the global trend of digital cinematic aesthetics and productions. This demonstrates a creative process of re-entry among different social and psychic systems (Luhmann, 1995, 2000a, 2002; Marin, 2001; Thompson, 1995). The resulting multi-layered cultural representations should not be viewed and analyzed separately according to the concept of the “aesthetics of seamlessness” with reference to Manovich’s (2001) conception of the “aesthetics of continuity” in digital compositing of new media culture. In the meantime, how do audience perceptions of digital cinematic aesthetics that cultural

producers should envisage play a role in the meaning construction of cultural representations in digital cinematic aesthetics and productions? How could we understand the complex power relationships between the producers and the audiences that reveal a reciprocal/paradoxical, “active relationship of ‘structure’ (production) and ‘agency’ (consumption)”? It is a problem of double contingency of the ego/alter constellation that we should understand to unfold the paradox with a view to discerning the possibility from the impossibility (Luhmann, 1995, 2000a; Storey, 2010: 53). Furthermore, what are the influences of paradoxical organization routines that lead to stereotypical productions and de-paradoxical symbol elements that facilitate the injection of creativity by re-organizing organization structures and cultures on the cultural producers and audiences of “symbolic creativity”? And what are their social functions in the meaning construction process of cultural representations in systems of organization and representation in digital cinematic aesthetics and productions within new dynamics of digitalization and globalization? Such influences need to be empirically studied via their enacted practices during production and consumption to discern their powers of imagination and interpretation in the innovative process of meaning construction of cultural representations by structural coupling (Bakken et al., 2009; Garfinkel, 1996; Luhmann, 2000a; 2002; Rawls, 1996).

All these questions can only be answered by drawing multiple distinctions to observe the interplayed relationships between disparate psychic and social systems in creative and cultural industries. They include those blind spots that many cultural producers always miss and their corresponding networks of structural coupling from multidimensional perspectives and at a deeper human level by means of the

reduction of complexity. From the analytic schema, the micropolitics of cultural representations revealed by the complex repertoires of both producers and audiences should be studied as piecemeal with interdependence and interconnectedness to stitch the “spectrum of cultural representations” in terms of organizational decision communication and communication about aesthetic perceptions of digital cinematic productions in systems of creative and cultural industries (Brocklesby, 2009; Havens et al., 2009; Luhmann, 1995, 2000a, 2002; Seidl, 2005a; Seidl & Becker, 2005). Before going deeper to analyze the functions of social and psychic systems in the complex model of the “spectrum of cultural representations”, we may first of all study the rise of human creativity and the corresponding creative economies in the spiral of cultural globalization.

### **The Rise of Creative and Cultural Industries in the Digitally Networked Societies**

“Creative Industries” have been named in many governmental policies, especially in those developed cities and countries like the United Kingdom, Singapore, Hong Kong, Australia, and New Zealand for the advocacy of social and cultural transformations of the uprising knowledge-based creative economies. The term “Creative” of a capital C is exaggerated to a certain extent to veil the old sense and odor of the long-term developed terminology “Culture Industry”. Indeed, there is no conflict between the two terms “creative” and “culture”, but I would like to advocate people to envisage the importance of both terms to the sustainable development of creative economies. It is highly recommended to stick to use the relatively cumbersome term “creative and cultural industries” to depict the real empowering characteristics of such novel cultural production model with a special attention to the rise of “symbolic creativity” for the digitally networked societies

(Hesmondhalgh, 2002; Jeffcutt & Pratt, 2002). Especially in Hong Kong – always being criticized as a culture desert that I disagree – the significant position of culture seems to be consciously neglected during the promotion of the “Hong Kong Creative Industries”. To make this cumbersome term more pervasive and persuasive a journey to the definitions of creative and cultural industries is helpful.

The term “Culture Industry” was originally used to criticize the monolithic mass entertainment by the United States in a chapter of the book *Dialektik der Aufklärung (Dialectic of Enlightenment, 1944)* written by 2 philosophers of the Frankfurt School of Critical Theory – Theodor Adorno and Max Horkheimer – in the 1940s (Hartley, 2005; Hesmondhalgh, 2002). They worried about the booming media culture as a kind of mechanical reproduction for propaganda and mass ideological persuasion by the regnant capitalist authority. The industrialization of culture was regarded as the commodification of the human mind by applauding standardization of the production and distribution of cultural products in “dream factories” like Hollywood. Such “Culture Industry” as the mechanical reproduction of popular newspapers, movies, magazines and music distracted the mass audiences “from their duty to progress the class struggle” (Hartley, 2005: 11). Adorno and Horkheimer created the term “Culture Industry” as a shock because they equated culture as art in an ideal state to serve as a form of critique of people’s lives and supposed culture to be opposite to industry as a mechanical mode of production of standardized products held by capitalists. They believed that culture lost its capacity to act as utopian critique, once it had been commodified as cultural product to be bought and sold as mass culture under a form of social control by those economic elites (Crane, 1992; Finlayson, 2005; Hesmondhalgh, 2002).

Adorno and Horkheimer's view about the mechanical reproduction of cultural commodity is valid as we can prove it from many redundant formulated Hollywood movie productions in a particular sense. It still reminds us of the threat by the media imperialism of the Hollywood and other media conglomerates in a global sense. However, their overly pessimistic standpoint towards the development of cultural industry in line with the cultural imperialism theory is seriously criticized. French sociologists like Morin, Huet and Miège preferred to use the term "cultural industries" to amend the incorrect concept to regard the "Culture Industry" as a "unified field" where diversity seems to be impossible. Cultural industries involve complex forms of human activities of disparate cultural and aesthetic values and different logics at work in different types of cultural productions. Adorno and Horkheimer's nostalgic anchorage to pre-industrial forms of cultural production is rejected. Such nostalgic notion of critical studies veils the sight to the possible new and innovative directions of cultural production led by the de-paradoxical, deconstructive and de-differential systemic frameworks of industrialization and new technologies of imaginary and symbolic powers. Moreover, the process of commodification of culture is not a smooth, non-resisted one and the consumers and cultural artists play the role as contestants. Therefore, the cultural industries serve as a zone of continuing struggle by the muscles of collaborating artists and consumers of conflicting preferences and different cultural tastes and expectations of creativity (Caves, 2000; Hesmondhalgh, 2002; Rasch, 2002).

Definitely, creativity takes a core position in the long lasting cultural industries. Since the Renaissance, art has been regarded as the highest form of human

creativity. People of creative ability are regarded as artists and their invention and/or performance of dramas, songs, images, poems, jokes and other forms of texts involves the manipulation of cultural symbols for the purposes of entertainment, information and even enlightenment. Such kind of cultural products of human activities with strong connotations of individual genius that conveys symbolic meanings to other people is named “symbolic creativity” instead of the term “art”. Besides, the term “artists” is replaced by “symbol creators” who make up, interpret or rework those cultural texts. Certainly, it is not just the change in the terminologies. Studies by Raymond Williams and Pierre Bourdieu show how such “symbolic creativity” has played a role as “a more or less permanent presence in human history” and “how its management and circulation” have radically transformed in different societies at different periods (Hesmondhalgh, 2002: 4-5). Indeed, there is no any singular, homogeneous type of creativity in cultural industries. Creativity is not a commodity but comes from creative people who are subject to the paradoxical effects of organization and bureaucracy in social and psychic systems (Florida, 2002; Luhmann, 2003; Seidl, 2005a). So, how to refresh symbolic creativity becomes a core task to maintain the growth of cultural industries.

In our digital era, the term “Creative” provides a strong sense of newness that is relevant to the realm of new media technologies and innovations. On the contrary, the term “Culture” conveys a feeling of old fashion and more importantly a historical reference that may not be a good selling point in particular newly developed cities and countries like Hong Kong and New Zealand. Thus, the term “Creative Industries” instead of “Cultural Industries” has been borrowed from the United Kingdom, more precisely London, to create a sound newly advocated economic

strategy in the age of information society. London's Department of Culture, Media and Sport (DCMS) has firstly defined the "Creative Industries" as

those activities which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property (DCMS, 1998).

It is obviously a renaming and branding process to replace the term "Cultural" but to strengthen the accent "Creative" for the industries in the 21<sup>st</sup> century that rely very much on new media communication and innovative technologies to produce novel cultural products (Jeffcutt & Pratt, 2002). Within the 13 advocated sectors (they are recombined into 11 sectors in Hong Kong), advertising, architecture, design, film, interactive software, music, publishing, television and radio of modern society depend, by and large, on digital media technologies for their innovation and operation. For instance, most contemporary sci-fi movies like *The Matrix* and *AI* (2001) rely very much on the advanced digital effects and computer animation to realize the fantastic and imaginary scenes and creatures inside the movies. Indeed, all contemporary movies have at least their first cut inside the computer and digital sound has become the standard in the industry (Kirsner, 2008). We should discern the implications of the continuing advances in digital media technologies for production and reproduction, and distribution in the creative industries. Social transformations such as social inclusion and urban regeneration that result from Beck's term "individualization" within the creative industries of the highly digitally networked societies should be envisaged. The re-

engineering of human resources such like Bourdieu's "new cultural intermediaries" or Hesmondhalgh's "creative managers" to represent the mediators and gatekeepers to deal with the conflicts between the entrepreneurs and the primary creative personnel such as directors and computer animators named "symbol creators" implies the significance of individual creativity in the production of symbols, the play of images and the organization of desires in the creative industries (Beck & Beck-Gernsheim, 2001; Blythe, 2001; Hesmondhalgh, 2002: 5, 53). Besides, the interactive power relationships between creative artists and active audiences play increasing roles in restructuring creative media industries in the era of globalization and digitalization. As the active audiences get more in-depth information of production cultures such industrial-reflexive materials like the "making-of" and "behind-the-scenes" in DVDs, production software and hardware demo reels, and practical workshops via the digital and global networks, they develop strong and unique repertoires to understand and decode, as well as to create, cultural representations of digital cinematic aesthetics and productions in the process of consumption, thus influencing cultural production in a particular sense (Caldwell, 2008; Codde, 2003; Havens et al., 2009; Tryon, 2009).

Bearing in mind, the input of creativity is important in the process; nevertheless, the final output is the cultural symbols. Therefore, the more cumbersome term "creative and cultural industries" is recommended to fully depict the characteristics of these reinvigorated culture-economic systems in our digitally networked societies. Here we are investigating the contributions of both producers and audiences as sources of collective creativity to cultural representations of digital cinematic aesthetics and productions by media organizations of the Hong Kong, as

well as transnational, creative and cultural industries. It is discernible that the production and manipulation of symbolic creativity concerns a complex process of re-entry or interpenetration among the social and psychic systems. The reproduction of social systems is reliant on decision within organizations of creative and cultural industries while that of psychic systems is based on thoughts of human agents such as creative managers, symbol creators, and audiences. However, the social and psychic systems are separate and operatively closed and thus, they cannot cause a change in each other. Only through a particular mechanism the psychic system can trigger an internal modification of the social system or vice versa, and such a mechanism is called "de-paradoxicalization" that appears in the creative process of cultural representations for digital cinematic productions, and that is the source of creativity in organizations (Hesmondhalgh, 2002; Luhmann, 1995, 2002; Seidl, 2005a).

The creative process in these organizations is distinguished by a complex cycle of knowledge flows, from the generation of original ideas to their realization. [It is] sustained by inspiration and informed by talent, vitality and commitment – this makes creative work volatile, dynamic and risk-taking, shaped by important tacit skills (or expertise) that are frequently submerged (even mystified) within domains of endeavor (Jeffcutt & Pratt, 2002: 228).

Especially in digital media industries, knowledge flows are continuous and demanding. Merely creative talent and vitality are absolutely insufficient to support the creative workers who are underemployed and underpaid except a rare number of

creative managers as stardom to sustain the volatile, dynamic and risk-taking creative work (Hesmondhalgh, 2002). As most interviewed media producers and computer animators of digital cinematic productions commonly agree, the commitment to the creative duties based upon the shared “creative passion” is the core driving force to creative workers continuing their careers and dreams in creative and cultural industries. Hence, the creative outcome depends very much on the interplay of organization cultures and human interaction to uphold such “creative passion”, which we are going to further discuss in a later section (Caldwell, 2008; Peterson, 1994; Smith, 1986).

Fortunately, the decreasing costs of media content production in terms of advanced but cheaper digital media technologies allow “the initial hope of a democratization and expansion of creativity and expression” (Bustamante, 2004: 806). Less than one tenth of money can purchase a fully functional workstation for computer animation production compared with one a decade ago. The popularization of digital media technologies, first of all, brings the proliferation of small and medium production companies to the digital media industries. They maintain very high flexibility for creative media productions with complex, symbiotic relation to other large, medium and even small media enterprises (Bustamante, 2004; Hesmondhalgh, 2002). Secondly, the growth and expanded digital media content production in the global market works “in favor of consumers and their right to access a plural and open culture and information” (Bustamante, 2004: 809), which requests hybrid, plural, global cultural contents in digital media productions. This situation facilitates flexible organizations and creative works by small and medium enterprises like those in Hong Kong to amend their creative productions with regard

to the complex, rapidly changing cultural tastes and habits of consumers and the rapid reinstitutionalization of cultural production systems (Caves, 2000; Hesmondhalgh, 2002; Peterson & Anand, 2004). However, the network of global media markets is complicated and highly occupied by few world dominating media conglomerates like AOL Time-Warner and Disney (Jeffcutt & Pratt, 2002). An understanding of the concepts of globalization and “glocalization” may figure out the route that cultural producers of the Hong Kong creative and cultural industries can take for the sustainable development of digital cinematic aesthetics and productions.

### **Cultural Globalization and Glocalization**

Culture (from the Latin *cultura* stemming from *colere*, meaning “to cultivate”) is a term that has different meanings. ... “culture” emerged as a concept central to anthropology, encompassing all human phenomena that are not purely results of human genetics. Specifically, the term “culture” in American anthropology had two meanings: (1) the evolved human capacity to classify and represent experiences with symbols, and to act imaginatively and creatively; and (2) the distinct ways that people living in different parts of the world classified and represented their experiences, and acted creatively (Wikipedia: <http://en.wikipedia.org/wiki/Culture>, cited in Oct. 1<sup>st</sup> 2009).

... culture is said to embody the “best that has been thought and said” in a society. It is the sum of the great ideas, as represented in the classic works of literature, painting, music and philosophy – the “high

culture” of an age. Belonging to the same frame of reference, but more “modern” in its associations, is the use of “culture” to refer to the widely distributed forms of popular music, publishing, art, design and literature, or the activities of leisure-time and entertainment, which make up the everyday lives of the majority of “ordinary people” – what is called the “mass culture” or the “popular culture” of an age... in a more “social science” context, the word “culture” is used to refer to whatever is distinctive about the “way of life” of a people, community, nation or social group (Hall, 1997a: 2).

Culture is academically defined as one of the most complicated English words of different meanings in the history of man (Williams, 1985). I am not eager to discuss all the varying definitions of the term “culture” here. Nonetheless, the two citations from both humanities and social sciences perspectives show that culture is generally related to human symbolic/creative activity or the “way of life” to a different degree, no matter how such creative activity is categorized as “high” or “low” culture in the history of human beings. Certainly, such concept of binary opposition between “high culture” and “popular culture” is no longer applicable in our digital era of the “new postmodernist zeitgeist” emphasizing the inherently contradictory, inconsistent and incoherent characteristics of hybrid cultures. The context of cultural activities that people experience and participate in is more important because it is participants in a culture who convey and construct meaning to people, objects and events (Crane, 1994; Hall, 1997a). National boundaries provide the sites and symbols of power, and the preconditions of identity, thus a so-called national culture is possible (Chan & McIntyre, 2002). But it is so weak a term based

on the concept of nation-state as an “imagined community” (Anderson, 1991). More specific local cultures of human phenomena and lived experiences represent the identities and activities of communities within more defined local districts/places are more meaningful to reveal particular social implications. However, those physical boundaries for both national and local cultures are challenged by the new concept of communication networks and symbolic boundaries due to the advent of digital technologies and globally networked societies (Castells, 1996; Chan & McIntyre, 2002). In other words, some local cultures are inevitably being globalized leading to hybrid cultures but still exert their unique characteristics of locality to create the context of “glocalization” in the spiral of globalization (Hawkins, 2006). Like Hong Kong of a unique locality of postmodern and postcolonial experiences blending the West and the East, local cultures possess advantageous competitive symbolic power of representation for “the generality, the ambiguity and the multiple layers of meanings” in the process of cultural globalization and “glocalization” (Harvey, 1993: 4; Lam 2010).

Global culture is always positioned to local cultures as antagonism. While local cultures present differences and promote diversities, global culture collapses differences and advocates uniformity and homogeneity. Local cultures need not be exclusive of each other because they, in any one locality, can provide multi-layered and diversified choices to people. On the contrary, global culture offers the same limited choices of cultural products like Coca-Cola and Pepsi or Time and Newsweek to people (Redner, 2004; Straubhaar, 2007). However, the concepts of global and local cultures are relational and thus, Hollywood movies are local cultures in America but global culture in the world. Global culture(s) should not be an

absolutely singular term. They originate from globalized local cultures that provide hybrid choices. As Featherstone pinpoints, one of the striking effects of the process of globalization is to make us aware of the world itself as a locality, a singular place (Chan, 2002; Featherstone, 1993). It is a duality rather than dualism. The global contains the local; the local is the global. Nonetheless, we ought to “think locally, act globally” to advocate cultural differences and hybridity instead of the radical oligopolistic global culture (Redner, 2004: 46; Robertson, 1995). Here the disenchantment of the limitation and boundedness of the world and humanity as a paradoxical consequence of the process of globalization is not to advocate homogenization but to familiarize us with disparate local cultures of greater diversity and hybridity. This reveals the empowering impact of digital cinematic aesthetics and productions in Hong Kong on cultural hybridization of the global and local cinema in the process of cultural globalization. They deploy both the globalized digital media technologies and cultures and the local cultural representations as playful collages and pastiches of Hong Kong styles and traditions of multi-layered local cultures of postmodern complexity collectively constructed by the local, as well as global, cultural producers and audiences (Featherstone, 1993; Straubhaar, 2007).

Indeed, cultural globalization is not longer a simple one-way process from the West to the East. Reverse cultural flow like the Hong Kong cinematic martial arts choreography to influence the Hollywood movie culture is possible. Such kind of cultural hybridization instead of homogenization of consumer culture led by the globally expanded conglomerates should be advocated (Chan & McIntyre, 2002; Crane, 2002; Lee, 2002). At the very beginning of the development of Hong Kong film industry, it might be regarded as a type of Westernization that Hong Kong

cinema learned a lot of media technologies and cultural production skills from the West. However, these skills have been localized and hybridized like what Stokes and Hoover explained the very short production time and the lack of adequate post-production as the characteristics of Hong Kong cinema. Again, the proliferation of digital media technologies like digital effects and computer animation for digital cinematic productions that are mainly manufactured by the West, especially the United States, might be regarded as another wave of Westernization of the Hong Kong cinematic productions in a particular sense. Nonetheless, other than the technological dominance by the West<sup>3</sup>, digital media technologies provide a means to local digital cinematic productions and nourish a pool of local creative managers and symbol creators among the international division of labor in contemporary globally networked creative and cultural industries to create more diversified, high quality cultural products to the world. This becomes the contribution of Hong Kong cinema “in important ways to international aesthetic diversity and quality” (Hesmondhalgh, 2002: 193; Stokes & Hoover, 1999) and the objectives of this study to dig out the possibility of digital cinematic aesthetics to empower cultural hybridization and representation in the Hong Kong and world cinema.

One important mechanism in the spiral of globalization is “glocalization” that challenges the binary opposition between global and local cultures and leads to cultural hybridization. The process of “glocalization” is seldom affected by global media conglomerates, which means the local media companies possess high level of autonomy and which does not lead to global cultural homogenization (Crane, 2002;

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<sup>3</sup> Not many but some production companies in the Hong Kong film industry have their own R&D department to develop custom-made programs for cinematic effects. Unlike the Western-dominated film technologies, many other new media industries in Hong Kong develop their own software and hardware technologies for sustainable development within a local context. For instance, Man-kin Lau developed the software program Qcode for Chinese input in Hong Kong.

Lam, 2010). Indeed, the dialectical and relative relationship between global and local cultures can be discerned in the process of “glocalization” (Chan, 2002). Robertson (1995) initially employs the term “glocalization” to refer to the global production of the local culture and the localization of the global culture. This notion may be rewritten as the local production of the global and the globalization of the local, which more properly accounts for the development process of the “glocalization” of digital cinematic aesthetics and productions in Hong Kong by integrating the globalized digital media technologies and the local hybrid cinematic cultures such like the local “meaningless” culture, comics and comedies, and martial arts traditions.

This research aims at demonstrating how creative managers and their collaborative symbol creators design their specific cultural strategies in terms of flexible organization cultures and shared “creative passion” of human agents in systems of cultural production. Such flexible production systems are deployed by small and medium enterprises of the local and global digital media organizations and their creative cultural representations of digital cinematic productions lead to a synthesis of “glocal” cultural and aesthetic values. This kind of cultural “glocalization” that may not be consciously confessed by the organizations and cultural producers themselves is a complex interaction of localizing and globalizing tendencies (Chan & McIntyre, 2002). Such a process of “glocalization” relies very much on creative managers and symbol creators’ contribution to and participation in establishing the temporal and spatial conditions for the harmonic cultural interaction between the local and the global – a “glocal” context – by means of the re-entry of the organization into the interaction among the social and psychic systems. This involves an evolving process of decontextualization and recontextualization of both

global and local cultures leading to the complex creative construction of multi-layered cultural representations in digital cinematic aesthetics and productions (Chan & Ma, 2002; Luhmann, 2002; Seidl, 2005a).

### **Production and Consumption of Culture**

In terms of the “modernist zeitgeist” of the first half of the 20<sup>th</sup> century, the conception of culture puts emphasis on consistency and coherence. However, the “postmodern zeitgeist” concerns hybrid cultures of unpredictability, inconsistency and incoherence from interdisciplinary perspectives of both human and social sciences. For the complexity and unpredictability of digital cinematic aesthetics and productions, neither modern nor postmodern perspectives can fully depict the aspects of these hybrid media cultures. It is invaluable to delve into a study of the full spectrum of the production-and-consumption process for such a newly developed recorded media culture. Through recorded media culture that is recorded in print, film or digital media, culture nowadays is almost entirely expressed and negotiated via culture as explicit social constructions or cultural products (Crane, 1994). It is almost impossible to understand the nature and role of recorded media culture in digital media productions if we are not going to examine the characteristics of the creative media organizations in which it is produced (or socially constructed) and disseminated, and the mutually recognizable practices by cultural producers who make symbolic and aesthetic decisions in production. Therefore, the production of culture perspective that is concerned with the effects of different types of technologies, organizational structures, markets and social groups on the diversity and range of cultural productions is useful to deconstruct parts of the organizational and creative activities in the complex process of cultural representations.

Nevertheless, as digital aesthetics of cultural production and consumption is highly flexible and continually changing within systems of dynamic stability, parts of such complex process of representational practices need to be understood via consumer/audience repertoire of meaning construction for media consumption that is generally underestimated in cultural production studies (Caldwell, 2008; Crane, 1992; Havens et al., 2009; Negus, 2006; Peterson & Anand, 2004).

The distribution and marketing of recorded media culture as a kind of global culture relies very much on the global networks of multinational media conglomerates. But, on the one hand, recorded media culture is not interpreted in the same way in every country/place. For instance, the combat training between Neo and Morpheus in *The Matrix* may be interpreted as Chinese kung fu in America, but Judo – the Japanese martial arts and combo sports – in China, and cyberpunk choreographic performance – a comic-style superhero fighting – in Hong Kong. People of different cultural backgrounds and lived experiences may interpret the same cultural symbols very differently according to different social practices and contextual factors (Crane, 1992). On the other, the production of recorded media cultures that is not dominated by the multinational media conglomerates varies with different cultural backgrounds of the corresponding creative workers and different organization cultures in a spiral of cultural globalization. This leads to diversities of cultural products, which we should envisage to understand the complex creative process of cultural representations in the more flexible contemporary creative and cultural industries. The reasons for the predominance of Hollywood digital cinematic productions in the global market have more to do with economic factors than with cultural attitudes and values defining representations (Crane, 1992, 1994; Peterson &

Anand, 2004). Indeed, Hollywood movies have been highly influenced by Hong Kong film cultures like martial arts choreography during the declining period of the Hong Kong film industry since the late 1990s (Lee, 2002).

Since the 20<sup>th</sup> century, media cultures such as print, film, video and especially the recent digital media have played a crucial role in the change of the way by which ideology is communicated in societies. Besides, the shift from print media to a combination of print and digital media in the globally networked societies exerts tremendous effects on the dissemination of ideological contents in terms of disparate media discourses. The nature and role of such kind of media discourse has been reconceptualized and is no longer determined exclusively by economic factors. Our globally networked societies are definitely composed of many different social groups with both consistent and conflicting interests that cannot be simply reduced to economic interests. Apparently, the media culture produced by cultural producers who may embody different groups of memberships and whose responses to any particular media discourse may vary disseminates a variety of messages that cannot be entirely explained as the expression of economic interests as well (Crane, 1992).

This multi-discursive approach to media discourse accounts for the usefulness of examining the ways of cultural production in which creative workers respond to and interpret discursive messages in the media. Such discursive functions of the media in the production of culture may be defined as cultural representations in the British Cultural Studies tradition (Hall, 1997c; Storey, 2010), and may be divided into 3 major functions of media discourse. First of all, the media convey an inventory of lifestyles and media discourses by presenting diversified lifestyles and behavior of

different social groups. Secondly, the media categorize these cultural materials and interpret them according to their relationships to the center and the periphery of the social sphere to convince the public of the center position's legitimacy. However, I believe that the legitimacy of the periphery's position can also be achieved in an opposite way. Finally, the media codify events and behaviors in various ways and place them in different contexts to produce different interpretations for assigning different levels of prestige and significance to them. Some types of events and behaviors may be defined as the dominant code to represent the dominant culture. Some others may be considered to be the alternative culture subject to negotiation between those who support both dominant and oppositional codes. And the remainder may be regarded as the oppositional culture (Crane, 1992; Hall, 2006).

In digital cinematic productions, cultural producers including those filmmakers and computer animators are belonging to a diversified range of social groups of various cultural backgrounds, and their interpretations of media culture in the process of cultural production vary dramatically from the dominant to the oppositional. As Fiske (1989/1987: 14-15) mentions, media culture as products are made and distributed by the industry's producers but media culture as texts are the productions by their audiences and producers-as-audiences. Indeed, media cultural product becomes a text/representation at the moment of consumption/reading/reception and the text functions as a "site of struggles for meaning" construction by both producers and consumers in particular social contexts. This reminds us of the importance of discourses by active audiences as a system of cultural representations to construct and disseminate "polysemy, or multiplicity of meanings" of media culture as texts like those digital cinematic aesthetics and productions.

Media culture does not define goals itself but provides utilities in the form of symbols, stories, rituals, and world views that cultural producers can use to solve problems and to organize their collective activities over time. Besides, producers and consumers are not “cultural dopes”. They are often active, skilled users of culture, and their behaviors may be very different for their various capacities to translate particular values into action for polysemic meaning construction (Crane, 1994; Fiske, 1989/1987; Hall, 1981). The production of culture perspective helps us discern particularly how the content of media culture is affected by the cultural producers and the surroundings in which it is created, disseminated and evaluated. It focuses distinctively on the consequences of enacted activities for cultural production and provides a way to better understand the shape and form of any particular cultural expression inside a particular media organization exhibiting social order and reality (Crane, 1994; Garfinkel, 1996; Kim, 2003).

Meanwhile, the complex and flexible systems of organizational structure and creative management of international division of labor constitute dynamic and innovative modes of cultural production in contemporary creative and cultural industries by blurring conventional organization formulas like public and private, professional judgment and personal taste, and work and leisure time in our digitally globalized societies (Lee, 2002; Negus, 2006; Peterson & Anand, 2004). Digitalization on cultural production, indeed, makes critical effects on the restructuring of time, space and place in daily work processes. Digital media technologies change the ways of spatial organization and temporal sequencing of creative workers in media industries, and blur conventional distinctions between

cultural producers and consumers (Klinenberg & Benzecry, 2005). Contemporary cinema is not exceptional. Almost all new scriptwriters unavoidably employ desktop publishing software, most film cameras have digital video assisting tool-kits, all first-edits of cinematic productions use non-linear computer editing suits, and digital effects and computer animation are becoming common elements of cinematic narratives. The whole culture of cinematic production has changed under the influences of digital media technologies. On the one hand, these skills and knowledge of digital media technologies like digital effects and computer animation confirm the status quo of many professional symbol creators of digital cinematic productions; on the other, many industrial-reflexive materials of digital media production cultures become open sources to active amateurs, thus challenging the cultural and knowledge gap between producers and consumers. Nevertheless, the professional-amateur power relations in the process of cultural production and consumption still exist but become more complex (Bordwell & Staiger, 1988; Caldwell, 2008; Manovich, 2001; Tryon, 2009).

The production of culture perspective can be used to examine how cultural producers and the milieus in which culture is produced affect the form and content of cultural productions in terms of the insights and methods of technological, industrial, economic, organizational and occupational systems (Lampel et al., 2006; Peterson & Anand, 2004). An in-depth production analysis of the cultural practices of creative workers and the organization cultures of digital cinematic productions can help us discern the changing constitutive collective activities involved in this particular newly developed digital media industry. Similar to many other contemporary creative and cultural industries, the complex production process of digital cinema

involves multiple, diverse parties such as producers, directors, scriptwriters, actors and actresses, visual effects supervisors, and computer animators. They possess diversified cultural repertoires and belong to a number of different memberships and media organizations. The creative process of every part of digital cinematic production is most likely to be informal and highly variable in a particular sense (Lampel et al., 2006). In Hong Kong, digital cinematic productions always include collaborations among different parties in the global media industries, location shooting overseas, “glocalized” production of digital effects and computer animation, and global distribution channels. In this study, collaborative activities of creative managers and symbol creators and diverse and complex organization cultures in the creative production of digital effects and computer animation as cultural representations leading to the formation of digital cinematic aesthetics are intensively investigated via situated working practices “from within actual settings” and contexts of cultural productions (Garfinkel, 1967: viii; Rawls, 2002, 2006).

Nonetheless, the production of culture perspective that helps explore how and why social and cultural meanings are inscribed into media texts by cultural producers generally fails to discern the contribution of creative consumption by active audiences to the meaning construction process, as most producers’ perceptions of audiences and their assumption about audience tastes and aesthetic values are usually incorrect or biased (Barker, 2003; Crane, 1992). Indeed, all creative and cultural industries harvest cultural and aesthetic values from the critical moments of consumption that is part of the creative production cycle rather than its terminal (Hartley, 2005). Such creative consumption is, by and large, reliant upon audience repertoire of cultural practices to construct polysemic meanings by active

appropriation and appreciation, which forms “creative consumption capital” and which is resulted from continuous and accumulative “learning and experience” in diversified socio-cultural contexts. Here media discourses of critics’ assessments and industrial-reflexive materials only partly shape audience repertoire as “creative consumption capital”. Audience perceptions from direct experiences of media texts like digital cinematic productions play the most important role in constructing meanings of cultural representations in a creative process of consumption whereupon audiences shape and are shaped by aesthetic values and judgment (Barker, 2003; Caves, 2000: 176; Chan & Ma, 2002; Codde, 2003; McCormick, 1990). Therefore, reception analysis of audiences of digital cinematic productions is an indispensable part to understand the complexity of aesthetic perceptions and the contribution of audience repertoire to meaning construction in the creative process of cultural consumption, as well as production, in order to depict the full “spectrum of cultural representations”, which is going to be further explored in the last section of this chapter.

### **The “Spectrum of Cultural Representations”**

In this study, the key concept of cultural representations is constructed on the basis of a number of transdisciplinary theories and practices of social sciences and humanities such as Luhmann’s systems theory, Derrida’s deconstruction, Hall’s representations and cultural studies, postmodernism and de-differentiation, and digital aesthetics of new media culture. At the very beginning of the theoretical exploration of this new model of culture and organization studies that is entitled the “spectrum of cultural representations”, Luhmann’s concepts of paradox and “de-paradoxicalization” form the framework to depict the possibility, as well as

impossibility, of the creative process of cultural production and consumption and the categorization of different cultural representations (Czarniawska, 2005; Knudsen, 2005; Luhmann, 1995, 2002, 2005a; Seidl, 2005a). This complexity model emphasizes multi-layered but interrelated interpretations and representations of social meanings of cultural production and consumption by cultural producers like creative managers and symbol creators, texts as a third factor of intentional signifying practices, and audiences of disparate social and aesthetic experience, from both hermeneutic and social scientific perspectives (Dyer, 2000; Hesmondhalgh, 2002; King, 2000). The environments of cultural production and consumption constitute and are constitutive of the social and psychic systems whereas the psychic system serves as the environment of the social system and vice versa. The social system reproduces itself on the basis of organizational communications such like decision processes during cultural production and consumption while the psychic system is based on thoughts of human beings such as cultural producers and audiences of symbolic creativity. Although the psychic system provides a precondition for communication, it does not enter into the social system and vice versa. Both systems are separate and operatively closed (Luhmann, 1995, 2002; Seidl & Becker, 2005). The social system does not receive any inputs from the external environment but merely "irritations" or "noises" thus increasing complexity, which cannot determine any operations of the social system but may trigger its internal modifications. This distinction between the system and the environment forms the paradox that is the tension of the "spectrum of cultural representations" and explains thoroughly the relationship between them as a "trigger-causality" instead of an "effect-causality" (Luhmann, 1995; Seidl, 2005a: 23). By the way, such a paradoxical distinction may be drawn between two (or even more) different

social/psychic systems, for instance, the system of novel production and the system of cinematic production by transcribing that novel such as *The Lord of the Rings* as Tolkien's novels and Jackson's film trilogy respectively. The original novel is a cultural representation and the digital movie is another cultural representation or I would name it a "cultural re-representation" for distinction, which constitutes the terminals of a "spectrum of cultural representations" as shown in Diagram 3.2<sup>4</sup>.

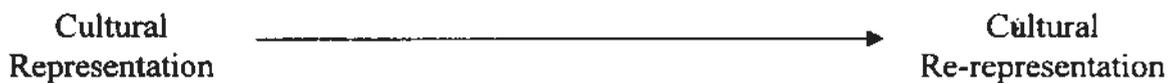


Diagram 3.2: The backbone of a "spectrum of cultural representations"

Luhmann's another core concept of systems theory is "de-paradoxicalization" that is a creative process to ensure self-reproduction of the system and thus, to prevent the paradox from leading to system paralysis (Czarniawska, 2005; Seidl, 2005a). Besides, a system's structural coupling with its environment is "a process that is carried out over time, and is possible insofar as the system is able to deal with paradox" by means of self-organization (González-Díaz, 2004: 16). While self-reproduction of the system refers to the reproduction of communicative events that is triggered but not determined by any environmental events, self-organization refers to the construction of system structures that may determine the concrete processes of "de-paradoxicalization" (Knudsen, 2005; Seidl, 2005a). It is important to our understanding of the complex relations of the process of "de-paradoxicalization" to the concepts of structure, cultural representation, deconstruction and de-differentiation.

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<sup>4</sup> In practical reality, many "spectra of cultural representations" are flowing, interacting and interweaving as a network of culture, which reveals the real complexity of the politics of signification and the power relations between cultural production and consumption practices by both producers and audiences (Havens et al., 2009; Storey, 2010).

People may query how the process of de-paradoxicalization can be creative and emancipatory if it is determined by structures as restricting powers like linguistics. However, we must understand the system structures and their possible mechanisms of structural coupling are concerned with both semiotics and discursive practices of structuralism and poststructuralism respectively. While the semiotic approach is concerned with the how of representation, with how linguistic signs produce meanings, that is called the “poetics” of representation, the discursive approach is more interested in the effects and consequences of representation as “contingency”, that is its “politics”. We study not merely how language and representation convey meaning, but also how the knowledge which a particular “discourse” in Foucault’s perspective creates connects with power, regulates conduct, makes up or constructs identities and subjectivities, and defines the way certain things are represented, thought about, practiced and studied. Such discursive approach always puts emphasis on “the historical specificity of a particular form or ‘regime’ of representation” (Hall, 1997a: 6). It is this discursive approach of cultural studies providing a chance to empower the interpretive ability of the term “cultural representation” whereupon cultural producers and audiences struggle for meaning construction with regard to their conflicts of interests by structural coupling of both social and psychic systems of communication and consciousness/perception respectively (Fiske, 1989/1987; Luhmann, 2000a). However, language is still the most popular structure to establish representative meanings of culture in our everyday life in the social systems of communication (Hall, 1997ac).

To put it simply, culture is about “shared meanings”. Now, language is the privileged medium in which we “make sense” of things, in which meaning is produced and exchanged. Meanings can only be shared through our common access to language. So language is central to meaning and culture and has always been regarded as the key repository of cultural values and meanings (Hall, 1997a: 1).

Hall articulates the signifying functions of language in order to establish his interpretation of cultural representation in modern cultural studies. The “shared meanings” of culture are dispersed to different people via language/communication in the form of either verbal or visual representations. Language is able to do this because it operates as a system of representation. In other words, language employs various signs and symbols such as sounds, characters, musical notes, physical objects and digital images to stand for or represent to other people our concepts, ideas and feelings. Therefore, representation via language is at the center of the process by which meaning is produced (Hall, 1997ac). However, this interpretation of cultural representation produces two disappointments to cultural studies in a particular sense. First of all, the orthodox attachment of the term representation to language and its signifying structure almost leads to the fatal attraction to “stereotype”. It is a selection and construction of generalized signs that categorize social groups or individual members of a group, reducing people to a few, simple, essential traits and discouraging expression in diversity, thus any cultural emancipation seems to be impossible. Once you decide to represent something to other people in terms of language, you lose any freedom of choices except a list of stereotypes. Secondly, the

advocate of language as central to meaning and culture by representation empowers the Englishness and the Western hegemony (Hall, 1997ab; Taylor & Willis, 1999).

However, Hall (1997c) clarifies that the emphasis on cultural practices is significant. The participants in a culture convey meanings to people, objects and events. Things “in themselves” rarely if ever find any one single fixed and unchanging meaning. On the one side of the coin, cultural practices reveal the power of cultural diversity; on the other, they prove the limitation of representation to the construction of social and cultural meanings. Language of its orthodox structure more close to the natural scientific tradition compared with other social theories sets the rules, norms and conventions to govern the social order within the system. Representative meanings by language are used to regulate and organize people’s conduct and practices. So, under the principles of representation via language, cultural practices are monitored within the language system of communication in order to maintain social solidarity and stability. Nevertheless, digital media and culture of extraordinary visual impact on systems of communication and representation bring new challenges and/or opportunities to us (Wright, 2008).

From the discursive perspective, people belonging to the same culture share a similar conceptual map that allows them to interpret the signs according to the system of concepts and images in their mind. This represents the environment that enables them to produce meanings with reference to things both inside and outside their heads. Such discursive approach to cultural representation is comparatively more emancipatory and shows no absolute burden to the language structure inside our heads. It is recognized that interpretations of culture are required and that

“interpretations never produce a final moment of absolute truth”, but that “interpretations are always followed by other interpretations in an endless chain” (Hall, 1997c: 42). For mortal human beings, such kind of endless interpretations of culture and cultural representations constitutes a particular kind of burden that scholars normally take might be regarded as a just one-life-long language game. The utterances for meaning construction are divided into various types dependent on shared rules and generate power/knowledge relationships between producers and audiences. This is a continual, living process of knowledge for the reinvigoration or de-paradoxicalization of human cultures from generation to generation, from one system to another system. In this latter stance, as Foucault argues, knowledge about and practices around any subjects must be historically and culturally specific, and they cannot exist meaningfully outside specific discourses, outside the ways they are represented in the discursive discourse, created in knowledge and regulated by the discursive practices and disciplines of a particular society at a particular period of the history. People should discern the radical breaks, ruptures and discontinuities between one time and the other, between one discursive social formation and the other. Such differences instead of references to things or concepts make a promise to the possibility of polysemic meanings that is contingent (Belsey, 2002; Hall, 1997c).

Reference itself is nothing but the achievement of an observational designation. Each observation designates something (traditionally speaking: it has an object). The opposite concept here is simply operating. In contrast to referring, operating is an objectless enactment. In the observation, the difference between observation and operation can be reformulated in an innovative way as the distinction between

self-reference and external reference. Self-reference refers to what the operation “observation” enacts. External reference refers to what is thereby excluded (Luhmann, 2002: 65).

In Luhmann’s systems theory, the operation of referring functions like language system on the basis of signifying practices of observational reference in search of system stability. But reference itself is nothing and any interpretations of a final moment of absolute truth with a particular reference are not possible. By means of drawing a distinction between self-reference and external reference at a particular moment of the observation, the meaning-reference relationship of cultural representation can be reformulated in an innovative way. Indeed, the meaning of cultural representation as a communicative event/activity is ultimately determined via the “understanding” conceptualized as a selection of a particular distinction between “information” as a repertoire of alternative possibilities and “utterance” as different choices of selectable forms of and reasons for a communication within a system of “dynamic stability” similar to Foucault’s discursive practices (Luhmann, 2000a, 2005a; Seidl, 2005a: 28). Furthermore, self-reference and external reference of the systems can be encoded/decoded in different ways with regard to the observational operation of functional systems of differentiation and de-differentiation, which accounts for “discontinuities via the reorganization of the form of differentiation of society” (Luhmann, 2002: 66-67). In addition, the system’s self-referentiality of the characteristics of paradoxicality is itself deconstructive and can help reconstruct the system’s structures in interactional communication at different times and in different socio-historical contexts by means of the creative process of de-paradoxicalization as structural coupling among systems and environments. The

interaction among the social system of organizational communication and the psychic system of perception in terms of trigger-causality explains the flexibility and contingency of the structures of cultural representations in the spectrum (Luhmann, 2000a, 2002; Seidl, 2005ab).

“At least as regard to deconstruction, it is interested in what is considered the great canon – the study of great Western works – and open at the same time to new works, new objects, new fields, new cultures, new languages, and I see no reason why we should choose between the two. That is the tension in deconstruction”, said Jacques Derrida (Caputo, 1997: 11).

Derrida clarifies his stance towards his interest in the great canon like Plato’s philosophy and new interpretations of cultures, languages and works, and the cohesive tension between the canonical and innovative viewpoints in his philosophy of deconstruction. His standpoint of heterogeneity supports the proposed complex model of the “spectrum of cultural representations” that denies to choose between the traditional structure of semiotic analysis and the poststructural and postmodern, discursive approach to explain any particular meanings of cultural representations. The concept of deconstruction advocates not multiplicity but heterogeneity, difference and disassociation, which is absolutely inevitable for the relation to the other. This is what we need to disrupt the totality in order to achieve the condition for the relation to the other (Caputo, 1997). The other is a variant or subaltern that challenges the centrality of the dominant structure of cultural representation by means of its otherness (Hartley, 2003). The otherness of the other is important to

provide alternative choices of interpretations for cultural representations to people, which is the core value of the proposed complexity model.

Deconstruction is nourished by a dream of the invention of the other and the relentless pursuit of the "impossibility", and pushes meaning towards "undecidability" that is the precondition for making a decision in a paradox and that makes the decision contingent (Belsey, 2002; Caputo, 1997; Luhmann, 2005a; Seidl, 2005a: 45). So, the other/alternative meanings of cultural representations that are regarded as impossible are more important to the knowledge of deconstruction. From Derrida's point of view, dissociation is the condition of the relation to the other. Once one grants some privilege to gathering and not to dissociating, one leaves no room for the other. However, in a dilemma, unity, some gathering, some configuration of a structure is needed. Derrida calls this structure of one relation to the other a "relation without relation" that is a paradox, and this is a relation in which the other remains absolutely transcendent with no need to destroy all forms of unity. It is almost a mission impossible that attempts to constitute a receptacle to call up both the dominant and the other. This is called the "experience of the impossible" of things whose possibility has to be sustained by their impossibility that is the condition of possibility. This experience means running up against the limits of the possibility and passing to the limits of the unrepresentable and unrepresentable, which is what people most desire, namely, the "impossible". Deconstruction reminds people that other possible or impossible (or alternative) solutions exist, and unveils a blueprint of the creative process of de-paradoxicalization that is looking for an impossible structure for alternative cultural interpretations and representations. But

that is a non-structure which stands for and against structure simultaneously (Caputo, 1997; Luhmann, 2002).

The distinction between classical and deconstructive readings of culture is regarded popularly as the "distinction between gravity and levity", between serious (academic, responsible) readings and silly (non-academic, irresponsible, even dangerous) readings respectively. The postmodern deconstructive readings are always labeled as the "play of signifiers" that is a form of understanding, as well as misunderstanding, by partial interpretation (Butler, 2002; Caputo, 1997: 77). Reading is a process to achieve/construct meanings represented by any means of signification. The importance of the classical structure for efficient communication is undeniable, but silly plays must play a role in constructing a human life. Both readings should find a place for their reciprocal coexistence. However, the label of the "play of signifiers" reveals the threat of postmodernism in a particular sense. The meaning of "logocentrism", that gives privilege to the dominant culture, making the logic of the dominant, the demonstrably true or false claims, the center, and pushing everything else off to the periphery, is polemical. It confines the central position to the dominant but the peripheral places, the marginal, to the other, the subordinated. From Derrida's point of view, the "meaning" and "reference" constitute a function of the difference that is vital to solve aesthetic puzzlements in complex language games (Caputo, 1997; Monk, 2005; Wittgenstein, 2007/1967). From the perspective of a person at the center of a playground, the other person might be positioned at the periphery, but it might be the opposite that the person, supposed to be at the center, is located at the periphery. The difference between their positions relies totally on their reference positions. "Il n'y a pas de hors-texte" means that there is no reference without

difference (Caputo, 1997: 80). This phrase reminds us of the symbiotic relationship between reference and difference. Differences in cultural representations are made possible only when more than one possible references are available.

Differences between systems and environments provide alternative possibilities for decision making, thus enabling and restricting a re-entry of the organization into the interaction by means of the creative process of de-paradoxicalization, deconstruction and de-differentiation. Such a creative process is possible or impossible to the cultural representations of the spectrum whereas the rigid, traditional, organizational structures highly restrain changes but the loose structures of the intermediate multiple layers of cultural representations by producers and audiences more likely allow system's internal modifications. These internal changes are triggered by external elements of the environments that increase complexity, uncertainty and instability in a dynamic (Knudsen, 2005; Luhmann, 2005b; Seidl, 2005a). The intermediate layers of cultural representations as the "resources of symbolic creativity" for reinvigorating cultural production of organizations like digital cinematic aesthetics and productions should be envisaged and regarded as "de-paradoxical, deconstructive and de-differential representations" or "de-representations" in the "spectrum of cultural representations" as shown in Diagram 3.3 for their ability to motivate symbolic creativity by means of de-paradoxicalization, deconstruction and de-differentiation in social and psychic systems.

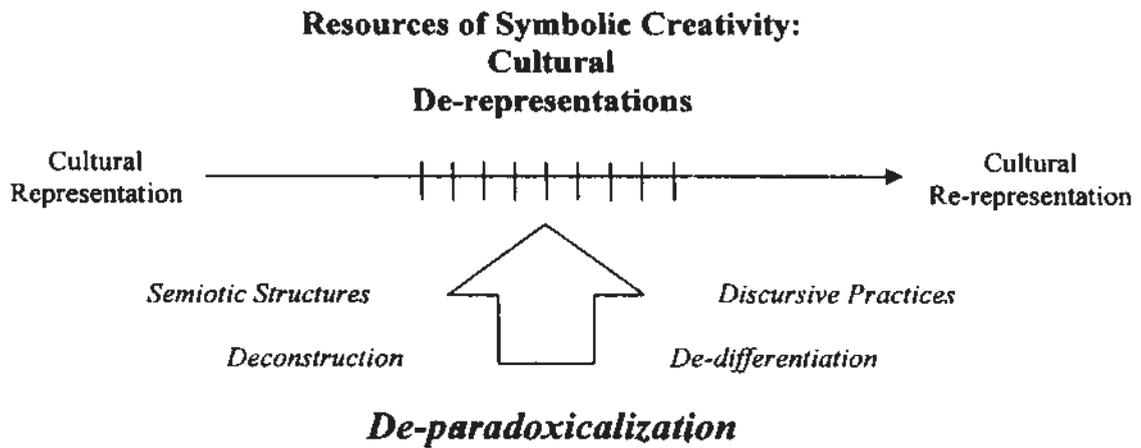


Diagram 3.3: Multiple layers of cultural “de-representations” as the “resources of symbolic creativity” in a “spectrum of cultural representations”

Media organizations as social systems have to make decisions to reproduce themselves. However, decision as a specific form of communication is not a process but a choice among alternative possibilities. Moreover, “decision communications are always paradoxical”. We cannot make a decision unless there are “undecidable” alternative choices, or we need not to choose if there are no alternative possibilities. All previous decisions may serve as references or “decision premises” for later decisions, which refers to the structural preconditions, thus defining or creating a “decision situation”. Within such “decision situation”, the creative process of de-paradoxicalization allows the interpenetration between systems and environments and the operation of “uncertainty absorption” when one decision connects to another decision. Though organization decisions are not produced by the psychic systems of human beings, their thoughts in the environments serve as uncertainty to trigger the internal modifications of decision communications in the process of de-paradoxicalization (Luhmann, 2005b; Seidl, 2005a: 39-42, 45). Therefore, the intermediate layers of cultural de-representations in the spectrum provide alternative possibilities like the multiple layers of digital effects and computer animation for

producers and audiences' selection of decisions in the creative process of cultural production and consumption under which uncertainty absorption takes place. It creates the decision situation that allows interactional communications among systems of traditional film culture and digital media culture of different aesthetics, thus leading to the formation of digital cinematic aesthetics and productions as a new art system of the interplayed social and psychic systems. Within such complex systems of contemporary creative and cultural industries, not only the producers' mind but also the audiences' thoughts based upon observation/reception play a role in the meaning construction of digital cinematic aesthetics (Luhmann, 2000a).

This research focuses on in-depth case studies of both systems of organization and representation in terms of producers and audiences' repertoires of cultural practices during the creative process of production and consumption (Codde, 2003; Hall, 1997c). Particular attention is paid to the complex interrelationships between all the data of aesthetics that include the producer's talent, the aesthetic object's structure of beauty, the audience's power of representation, and the molding effects of organization. They contribute to interpret and organize aesthetic values and judgment to construct meanings of cultural representations in the cultural system (McCormick, 1990; Vivas & Krieger, 1953). Especially in contemporary creative and cultural industries, flexible organization cultures and human agents such as creative managers and symbol creators play important roles in maintaining organizational and cultural production and reproduction instead of paralysis. Their symbolic power and creativity to continually create works of art of novel symbolic/aesthetic values is reliant on their shared "creative passion" as a commitment to discourses as a matter of negotiation, conflict and struggle with

commercial concerns of economic values. Moreover, in the creative process of de-paradoxicalization, deconstruction and de-differentiation, communication about audience perceptions of cultural products by means of interpenetration between the psychic and social systems is inevitable with a view to fully depicting the “spectrum of cultural representations” (Hesmondhalgh, 2002; Seidl, 2005a; Thompson, 1995). In the next 2 sections, we are going to investigate how cultural producers and audiences contribute to these complex mechanisms as the meaning construction of cultural representations upon their observation/reception and production and consumption practices in the cultural system.

### **Organization Cultures and Creative Passion**

Organization and creativity are always regarded as 2 antagonistic terms. But, indeed, the creative process of cultural production that is concerned with both social and psychic systems relies very much on the ongoing tension between organization and creativity. While certain rigid forms of organization may stifle creativity; many flexible, loose coupling elements of organization in contemporary creative and cultural industries provide supportive and sustainable environment of new lifestyles, technologies, associations and neighborhoods to creative workers by whom the differentiated and de-differentiated functions of entrepreneurs can operate to reform the patterns of cultural production/representation in the form of an “aestheticization” of life as a response to increasing individualization and reflexivity. Such creative, most likely imagined, communities of cultural production innovate by breaking the rules of organization and representation, but they also revalue collaboration and struggle within cooperating organizations. They enjoy the freedom of collective imaginary space whereupon they try their best to ignore conventional orders but they

also expect directions from effective organization cultures (Caldwell, 2008; Edwards & Miller, 2000; Featherstone, 1991; Florida, 2002; Luhmann, 2002). Change, reform or evolution is related to decision communications of contingency within the social systems of organization that are capable of transforming unorganized complexity into organized one leading to reproduction. This continuity of organizational cultural production and reproduction by means of the reduction of complexity is an indispensable prerequisite for any change or evolution of the cultural system in which new aesthetic forms are derived from the discontinuous differentiation and/or de-differentiation of all too familiar traditional forms under a double contingency. In other words, the continuous reproduction of systems and organizations requires such new elements as discontinuities. These discontinuities of cultural production are explained by the reorganization of the forms, as well as mediums, of differentiation and de-differentiation of social and psychic systems, especially for those flexible creative workers (Luhmann, 2000a, 2002, 2003; Hernes & Bakken, 2003).

Indeed, bureaucracy rather than organization stifles creativity. Especially when talking about organization cultures in plurality, creative workers generally enjoy a great extent of creative autonomy dependent on the flexibility and fluidity of organizations in systems of creative and cultural industries. As Weber emphasizes, bureaucracy is identified with rationality. Bureaucratic organization, hence, reproduces itself by the rigid mechanisms of rationalization, routinization and disenchantment of the social systems. Creative ideas as paradoxical opinions survive because of the existence of personalized and spontaneous systems of charismatic leadership as the imaginative flight of the genius. Nevertheless, routinization of charisma is possible leading to bureaucratic organization. The core of creativity is

maintained by the contingency and unpredictability of organization cultures shaping and being shaped by the supervision/leadership of creative managers who provide, as well as protect, elements of creative autonomy and “creative passion”. Such “creative passion” as deep feelings and mutual commitments to cultural production shared with collaborative creative workers of organizations of the “rationality of irrationality” represents a strong and common desire to be creative under the systems of organization and representation whereupon the organization cultures serve as balancing forces for effective communications (Gerth & Mills, 1958; Florida, 2002; Hesmondhalgh, 2002; Luhmann, 1998; Ritzer, 2008).

Media organizations of contemporary creative economies are restructured by systems of horizontal and vertical integrations, and usually operate with international division of labor to different extents in the process of globalization and “glocalization”. Loose/soft control of creative workers of flexible specialization is employed to sustain the development of symbolic creativity while rigid control of reproduction and distribution is used to ensuring the reproductive daily operation of organization in the complex model of cultural production within a dynamic stability. This unveils contemporary flexible organization cultures as the meanings of life by increasing the variety of decision communications and decreasing the redundancy of social systems (Florida, 2002; Hesmondhalgh, 2002; Jeffcutt & Pratt, 2002; Luhmann, 2003). Whereas the rigid control of strong ties among a group of insiders of traditional human capital promotes stability rather than creativity, contemporary organization cultures of flexibility and fluidity do not only work by established routines but also allow cultural experimentation to absorb creative ideas and to encourage cultural reinvention. Moreover, the loose control system of organization

allows a high level of mobility among creative workers of weak ties but strong symbolic creativity. This facilitates rapid entry of newcomers and promotes novel combinations of resources and ideas, which is important to the creative process of cultural production in media organizations (Bourdieu, 1993; Chan, 2002; Florida, 2002, 2005; Hesmondhalgh, 2002).

The rigid forms of media organizations that generally put emphasis on the quantity of mechanical reproduction and the standardization of distribution are not the main target of this study. The aesthetic and cognitive reflexivity of creative workers who seek high quality of aesthetic lives and rewarding careers of cultural diversity under the loose networks of flexible organization cultures leading to social and cultural transformations in contemporary creative and cultural industries is one of the core objectives of this research to solve aesthetic puzzles of the “spectrum of cultural representations” in contemporary digital cinematic productions (Chan & Ma, 2002; Lash & Urry, 1994; McGranahan & Wojan, 2007; Wittgenstein, 2007/1967). For instance, unlike the distribution of digital cinematic productions in regard to the disenchantment of social systems of mechanical production and reproduction within rationalized and routinized organization structure leading to the loss of quality, creative workers of digital effects and computer animation upholding creative autonomy and “creative passion” make sense of what is produced in digital cinematic productions by means of the “re-enchantment” of cultural representations. Such “re-enchantment” deals more with quality than with quantity and is concerned with contingent and unpredictable cultural production of magic, fantasies and dreams on behalf of creative workers’ imagination and shared “creative passion” defined by their aesthetic values and judgment of the rationality of irrationality. This requires

the supervision and coordination of diversified skills and knowledge, as well as emotion, of symbol creators like computer animators by creative managers like film director and visual effects supervisor in the form of collective collaboration in digital cinematic productions (Caves, 2000; Chan & Ma, 2002; Ritzer, 2008). In this research, in line with audience reception analysis to be further discussed in the next section, empirical studies of reflexive working cultures and coordination of collective “creative passion” among creative managers and symbol creators of digital cinematic productions are conducted to understand their unique repertoire of cultural/aesthetic practices in the creative process of cultural production. Therefore, understanding the meaning of “creative passion” and the reward mechanisms to maintain and control such shared “creative passion” thus facilitating creative production and management of creativity under the systems of flexible organization cultures is necessary.

Creative and cultural industries as risky businesses are, by and large, reliant on trust among cultural producers of collaborating organizations to sustain the complex cycle of knowledge flows from original ideas to realization by inspiration. Flexible specialization of the loose control systems of organizations offers the creative managers freedom of selection and decision of creative inputs from the complex nomadic labor system wherever the assembly of (underpaid and/or underemployed<sup>5</sup>) symbol creators is seldom fixed and unchanging (Caldwell, 2008; Caves, 2000; Hesmondhalgh, 2002; Jeffcutt & Pratt, 2002). Trust in creative managers as mediators and entrepreneurial coordinators like film director, art director and visual effects supervisor of digital cinematic production is important to

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<sup>5</sup> In terms of the ratio of income to working hours, most symbol creators of contemporary creative and cultural industries are underpaid. Besides, many of them are underemployed or self-employed freelancers of one-shot project-based cultural productions working under informal alliances (Caldwell, 2008; Caves, 2000).

maintaining collective activities of symbolic creativity and sustaining stylistic breakthroughs on cultural production in the form of “facework commitments” to “creative passion” shared among creative managers and symbol creators in their daily operation and cooperation. In the meantime, trust in systems of organization in terms of “faceless commitments” embeds the coordinating power of creative managers to the expert systems of industrial reflexivity and ensures a dynamically stable environment for the continuity of creative production in the cultural system. Most symbol creators like those computer animators obey discourses of creativity from creative managers as their supervisors under trust systems because they uphold similar expectations to execute their symbolic and creative power to create digital cinematic aesthetics and productions of their passionate symbolic, as well as economic, values by valorizations. Trust in persons and systems, hence, circulates positive and negative “creative passion” as expectations and frustrations respectively in a paradox, which provide irritations to reinforce internal modifications of systems of cultural production in creative organizations (Caldwell, 2008; Giddens, 1990; González-Díaz, 2004; Hesmondhalgh, 2002; Thompson, 1995).

“Creative passion” is shared expectations to motivate creative communities of cultural production to encounter challenge and responsibility under the rapidly changing systems of creative and cultural industries. Indeed, it is an attitude of trust that is not transferrable to other members who trust. But it is shared to disclose possibilities of collaborative practical actions in the creative process of cultural production under the complex systems of flexible organization cultures (Florida, 2002; Luhmann, 1979). More precisely speaking, “creative passion” that supports a model of trust behavior and provides a point of orientation for creative activities of

complex interactions is a kind of love and love relationship among creative managers and symbol creators signifying deep feelings of and emotional fulfillments by cultural representations and sustaining evolution in the cultural system. Such passionate love of creativity as a mystery of symbolic values that “defies explanation or requires no justification” plays a special role in helping symbol creators win the recognition from creative managers and establish their self-esteem and self-control on a concept of service combining duty and enthusiasm in the creative process of cultural production (Luhmann, 1979, 1998: 26). This kind of “creative passion” shared among creative communities is something almost unalterable and unaccountable, and accounts for the willingness of so many creative workers to participate in small and medium organizations as a result of a mutual commitment to doing creative production that they are proud of. Though most creative workers are underpaid and/or underemployed, their shared “creative passion” is a driving force to be innovative by breaking rules of systems of organization and representation. The maintenance of such “creative passion” in the name of collaboration and coordination among creative managers and symbol creators of symbolic creativity that reveals no absolute reporting relationships but forms intrinsic motivation to creativity is heavily reliant upon the social reward systems generally monitored by creative managers as gatekeepers (Florida, 2002; Hesmondhalgh, 2002; Luhmann, 1998).

Creative managers as gatekeepers and core decision makers of flexible and collaborating media organizations are the significant authoritative agents of specialized cultural production and creative management knowledge whose affirmations, reinterpretations and rejections shape and reshape individual works and

whole careers of the creative teams in creative and cultural industries (Hesmondhalgh, 2002; Peterson, 1994; Peterson & Anand, 2004). For instance, the director and visual effects supervisor of a digital cinematic production serve as the gatekeepers. The symbolic creation of digital visual effects in a digital movie as collective activities by all the team members as symbol creators including the scriptwriter, cinematographer and computer animators only takes on a preferred meaning when the director and visual effects supervisor affirm its use by their actions and negotiations. Gatekeeping is the process of evaluation and judgment about admitting creative workers or their works of cultural/aesthetic values into a cultural production based on the shared creative passion and organization routines in a paradox. Here the coordination and collaboration among creative managers and symbol creators is significant to pass decisions in a chain that creative inputs are changed or de-paradoxicalized continuously from the preliminary ideas to the finished cultural products of symbolic creativity. In any digital cinematic production, the film director as a gatekeeper plays a crucial role in communication and coordination when an artistic expression created in one art world like computer animation is introduced into another like traditional film production. Moreover, the cultural production of digital cinema never makes simply choose/reject decisions. The creative works like scriptwriting, storyboarding, digital effects and computer animation may be altered or recontextualized repeatedly, which happens "at each stage of a decision chain" as the cultural production "moves from being a germ of an idea to being offered to the public" in the complexity model of cultural representations (Caves, 2000; Peterson, 1994: 172).

As I mentioned before, creative passion is one of the critical core elements of organization cultures for the sustainable development of contemporary creative and cultural industries. Reward systems that provide the mechanisms to maintain the creative passion shared among creative managers and symbol creators play an inevitable role in preventing any creative media organizations from paralysis. In other words, the elements of reward systems can motivate cultural producers to be creative, thus leading to the reproduction of systems and organizations of symbolic creativity (Hesmondhalgh, 2002; Peterson, 1994; Seidl, 2005a). There are 4 distinct reward systems that we can demonstrate to employ creative managers such as producers, film director and art director, and symbol creators such as computer animators of digital cinematic productions to account for the functions of each system. The first is the "independent reward system" in which cultural producers including the directors and computer animators of creative media organizations set their own standards of performance and allocate symbolic and material rewards. This production system based on independent rewards relies on the intrinsic motivating power of the self-perpetuating and self-evaluating peer groups. The second is called the "semi-autonomous reward system" in which the producers and directors allocate the symbolic rewards but the material rewards are allocated by the consumers. For instance, the film director and computer animators may achieve prizes and awards like the Academy Awards from the recognized awarding organizations coordinated by the corresponding professional (imagined) communities of media institutions. And the general public allocates economic rewards for their survival by buying the movie tickets and the corresponding cultural products like DVDs. The third is the "sub-cultural reward system". Here cultural producers and audiences do not show a sharp distinction but share a subculture within which rewards, mostly symbolic, are

allocated. Obviously, many creative animators (who are the major audiences) and audiences of digital cinema (who may also be creative workers) possess the same sub-cultural beliefs of digital aesthetics and media technologies, and they always share production techniques and techno-cultural information via the internet. This blurs the boundary of professional-amateur relationship to a certain extent. The forth is called the "hetero-cultural reward system". Here many small specialty firms and independent producers and computer animators that compete with and feed the media conglomerates work to shape cultural products in the media markets. Their contributions to maintain cultural heterogeneity of the creative production in digital cinematic aesthetics and productions are their own rewards, which sustains the development of Hong Kong and world cinema of cultural diversity (Peterson, 1994).

Careers of creative workers of industrial, cognitive and aesthetic reflexivity are a core reference point for study in this research. Under the advocacy of contemporary creative economies, people generally regard the works of creative production as comparatively more superior knowledge-based careers than those skill-based blue-collar jobs in a global sense. Nevertheless, a lot of vocational trainings, especially in Hong Kong, undermine the professional status quo of those creative careers as highly skilled hard working redundant duties of low salary only. Irregular working hours and overtime works are the features of creative works especially in the Hong Kong film and media industries famous of the very short and tight production schedule, but not the art sense and craft of the creative workers that should be the main source of their sense of self-worth and shared creative passion. The fusion of the self and work of creative production is important to the sustainable development of creative media industries (Caldwell, 2008; Hesmondhalgh, 2002;

Peterson, 1994; Stoves & Hoover, 1999). As Bordwell (2000: 2) pinpoints, Hong Kong cinematic productions of "sentimental, joyous, rip-roaring, silly, bloody and bizarre" scenario design can also achieve very high aesthetic merits by collective collaborations among filmmakers and computer animators in digital cinematic productions. For instance, those successful and enthusiastic computer animators tend to have supportive partners including good supervisors while those unsuccessful ones possess partners who are supernurturant, overprotective and smothering (Hesmondhalgh, 2002; Peterson, 1994).

In Hong Kong, the norms and conventions of collaboration of many media organizations always constrain computer animators to meet very tight deadlines by downgrading the quality of works in digital cinematic productions. These restrict local creative workers and organizations from cultural/aesthetic experimentation by means of any time-consuming process and lead to the production of redundant digital effects and computer animation, and the paralysis of effective organizational communications. Autopoietic structural coupling conditions facilitating creativity inside small and creative media organizations are very significant to the sustainable development of careers of cultural producers and symbolic creativity, as well as productivity, in cultural production. Such conditions mean flexible organization cultures of diverse and innovative entrepreneurs to maintain the dynamic power relationships between the level of competition among cultural producers and the level of creativity in their cultural productions (Luhmann, 2000a; Peterson, 1994). In this study, we employ specific case studies in Hong Kong and China to investigate how certain creative media organizations compromise creativity with productivity and how creative workers continue their careers by coordination, collaboration and

negotiation to uphold their shared creative passion towards digital cinematic productions, thus affecting their aesthetic achievements to different degrees.

### **Communication about Audience Perceptions of Digital Cinematic Aesthetics**

Studies of creative and cultural industries have seldom investigated the impact of audiences' powers of representation on cultural production during their consumption exercises. As mentioned before, creative consumption is not separate from production but forms a part of the dynamic of the cultural production-and-consumption process, especially under the postmodern zeitgeist of the reflexive economy of signs and space. It relies on audiences' cultural consumption capital by education and lived experiences as capacity of their active cultural appropriation and appreciation highly enhanced by the internationalization of media cultures in favor of consumers' flexibility and reflexivity. This increases the complexity of contexts of meaning construction, thus irritating societal horizons of cultural expectations (Bustamante, 2004; Caves, 2000; Chan & Ma, 2002; Jeffcutt & Pratt, 2002; Lash & Urry, 1994; Luhmann, 2000b). Within the complex, global/glocal "cultural supermarket" of media cultures, choices of hybrid cultures that are not totally unconstrained offer free play of signs to audiences ranging from preferred to oppositional meanings, whereas audience's consumption as a selection of understanding realizes the meaning of cultural production. Cultural sovereignty is, to a great extent, reserved by audience repertoire of cultural practices during everyday consumption exercises that determine what cultural products to be consumed and what cultural values to be adopted by audience perception and interpretation of cultural representations (Abrahamson, 2004; Chan, 2002; Lee, 2002; Mathews, 2000: 1).

Cultural representations are codes linking producers, texts and audiences in a network of meanings (Fiske, 1989/1987). Like the genre system, cultural producers uphold certain representative and stylistic elements as reference codes to familiarize their target audiences to some standardized preferred meanings (Hesmondhalgh, 2002; Kellner, 1999; Neale, 2003). However, most of the time, the first impulse of cultural understanding is not producer's own intention, but audience's perception and interpretation when observing the work of art constructs the meaning, especially in mass media of popular cultures. It does not mean that producers need to surrender to audience perception and interpretation. They understand that their own decisions can create social meanings of cultural products and leave them to the audiences as second-order observers to form their own judgment. This is released from any constraints of consensus and is able to make differences to allow alternative possibilities of understanding from the "blind spots" of the first-order observation by the producers. Especially when talking about aesthetic pleasure, the mere perception of the material forms of cultural productions cannot make for it. It relies on audience aesthetic judgment by devalorizing and revalorizing the symbolic forms of cultural productions in terms of structural coupling of the psychic systems with the social systems, which plays a vital role in self-socialization and social inclusion in the creative process of cultural production and consumption (Luhmann, 2000a; Moeller, 2006).

With a view to depicting the full "spectrum of cultural representations", in line with the cultural production perspective mentioned in the last section, this study also aims to unveil the emerging aesthetics of digital cinematic productions because

of the advent of digital effects and computer animation via the “impossible” communication of audience perceptions. I call it “impossible” because perception cannot be produced or received by communication as Luhmann mentions. However, we can communicate about perceptions, which is a way of interpenetration between the corresponding psychic and social systems. Perception in the form of memory serves as an important mechanism of the reduction of complexity to select what to remember and what to forget, and provides a precondition for re-entry via an imaginary space bridging the marked and unmarked spaces, which constitutes the creative process of de-paradoxicalization (Luhmann, 1995, 2000a, 2002; Seidl, 2005b). In this research, communication about audience perceptions of digital cinematic aesthetics is conducted to investigate social meanings and functions of digital cinematic productions in life of cultural representations. Similar to creative thinking of cultural producers, audience consumption/perception of a cultural product implies for a cultural practice to understand and/or to decode, as well as to create, a contingent social and cultural meaning of a representation by one’s own repertoire. This includes both the rules and the mediums leading to the material forms for cultural production and consumption. Such audience repertoire of cultural practices lays in psychic systems where audience perceptions interpret and organize aesthetic values and judgment to construct meanings of cultural representations (Codde, 2003; Luhmann, 2000a; McCormick, 1990).

A Greek idea of aesthetics is what can be perceived by our senses, which “results in a double transformation: a thing becomes a work of art and a work of art becomes an object for our feelings and ideas” (McCormick, 1990: 32). This double transformation should be understood in a holistic manner; otherwise, communication

between an artist/cultural producer and his/her audience may often become pure soliloquy. With a view to understanding the full spectrum of meanings of aesthetics in an art system, the complex interrelationships between all the data of aesthetics including the audiences' powers of representation via their aesthetic perceptions must be grasped. Therefore, particular attention is paid to study the audiences' powers of representation as a free play of both imagination and understanding of a work of art (cultural representation) by audience repertoire of cultural practices, which audiences are able to interpret and to organize aesthetic values and judgment to construct meanings of cultural representations upon their perceptions (Codde, 2003; Luhmann, 2000a; Vivas & Krieger, 1953).

It is through the existence of an audience that film acquires social and cultural importance. The production of a film provides a raw material which regulates the potential range of experiences and meanings to be associated with it, but it is through audiences that films become "inputs" into larger socio-cultural processes (Gripsrud, 2000: 201).

Film as an art form always exists with an aesthetic/cultural dimension based on artistic conceptualization, socio-cultural practices and audience observation/reception in a paradoxical interrelationship. With regard to the construction of meanings by active, interpreting, differentiated, as well as de-differentiated, audiences that digital cinematic aesthetics may become "inputs" into larger socio-cultural processes of globalization and hybridization, aesthetic perceptions by audiences for communication in social systems of cultural production and consumption should be envisaged (Dyer, 2000; Gripsrud, 2000). Nonetheless, it is an

“impossible” communication because such aesthetic perceptions cannot be received or produced by communication. We need to communicate about aesthetic perceptions that preoccupy consciousness and happen in our minds, which is a way of interpenetration of the psychic systems with the society. Indeed, the psychic system of human thoughts as the source of creative ideas serves as an environment to provide a precondition for communication. Not only producers’ creative minds but also audiences’ thoughts based upon observation/reception play a role in the construction of meanings of digital cinematic aesthetics and productions. But their interdiscursive discourses form a paradox. This reveals that aesthetic perceptions by audience repertoire represent a kind of symbolic creativity useful to the constitution of the framework of de-paradoxicalization, deconstruction and de-differentiation to depict the alternative possibilities of the creative process of cultural production and the categorization of disparate cultural representations. In other words, audiences of the powers of representation by means of their unique repertoire of aesthetic values and judgment that includes both the rules and the mediums leading to the material forms for cultural production and consumption, to a great extent, participate in cultural production via consumption in a creative process of de-paradoxicalization, deconstruction and de-differentiation (Codde, 2003; Czarniawska, 2005; Luhmann, 2000a, 2002, 2005a; Seidl, 2005a).

Art, or cultural representation, is a signifying practice for the communication of values, especially aesthetic values. A work of art embodies an aesthetic value in a designated structure of representation and then, is perceived by the audience who perceives the value structure directly. However, after perceiving a number of works of art, audiences have embodied their experience of aesthetic values, thus developing

their aesthetic judgment, and their aesthetic experiences are communicable in social systems. Their aesthetic discourses as signifying practices are not restricted to the structure of representation of the perceived works of art (Dewey, 1980; Morris, 1953). Communication about audience perceptions of aesthetics is reliant on the “rhetoric of aesthetics”, that is, “a loose understanding of rhetoric as persuasion, as the creation and management of meaning, as influence through the use of signs”, embodied in the meanings and significations of cultural productions facilitated by different aesthetic experiences (Brummett, 1999: 22). The social system of communication by signifying practices does not receive any inputs from the psychic system but merely irritations by audience perceptions of aesthetic experiences, which cannot determine any operations of the social system but may trigger its internal modifications by structural coupling. The social and psychic systems maintain their separate operations and achieve a dynamic stability dependent upon the continual, internal modifications of their own resources. This explains the possibility of audience participation in constructing, deconstructing and reconstructing social and cultural meanings as contingencies in the “spectrum of cultural representations” by means of de-paradoxicalization (Luhmann, 2000a, 2002, 2005a; Seidl, 2005ab).

By aesthetics I mean meaningful sensory reactions to experience, characteristics of experiences that facilitate some reactions and appreciations over others, an experience of appreciation or pleasure in those sensory reactions, and a unifying focus or noticing of sensory experience. An aesthetic reaction to an object or experience is the product of an interaction between the socially influenced needs, interest, and perceptions of individual subjects and the parameters set

for that experience by particular texts and objects (Brummett, 1999: 9).

An art/cultural system is not a stand-alone, independent, autopoietic system, but interplay between the psychic and social systems. Through art, perception and communication are integrated by the rhetoric of aesthetics without merging or confusing their respective, separate operations. Such rhetoric of aesthetics ensures a faculty of appreciation that is a systemic thinking about something and facilitates communication about aesthetic perceptions to depict experiences and feelings of appreciation or pleasure in the beauty, ugly, disordered, painful and so forth in social systems (Brummett, 1999; Luhmann, 2000a). Digital cinematic productions using a great deal of digital effects and computer animation are regarded as commercial and entertaining art form of new medium of aesthetics and play a role in the never-ending process of socialization and acculturation by structural coupling of audience perceptions in the psychic systems with the socially influenced texts of cultural representations within dynamic contexts of new media cultures. Such structural coupling is a mechanism of both constraining and enabling. On the one hand, the tightly-coupled elements of the art form of digital cinematic productions, especially most blockbusters, tend to engage audiences in particular preferred signifying practices. On the other, the medium of aesthetics of digital cinematic productions is loose coupling of elements, thus facilitating discursive interpretations of cultural representations. So, audiences can negotiate, as well as create, their social and cultural meanings of digital cinematic aesthetics and productions in complex and often paradoxical ways by means of their repertoire of aesthetic perceptions. In other words, the rhetoric of aesthetics is used to communicate about audience perceptions

of digital cinematic aesthetics in order to construct contingent meanings of cultural representations under particular socio-historical circumstances (Bordwell, 2006; Halsall, 2007; Lee, 2002; Luhmann, 2000a, 2005a; Magalhães & Sanchez, 2009; Moeller, 2006).

Despite the existence of various meanings of cultural representations, every interpretation, including either the producer's one or the audience's one, imposes limitations (Luhmann, 2000a). Indeed, the meaning of cultural representation as an aesthetic experience is ultimately determined via the "understanding" conceptualized as a selection of a particular distinction between "information" and "utterance" in terms of a shared rhetoric of aesthetics for observation/reception within an art system of dynamic stability (Luhmann, 2005a; Seidl, 2005a). With a view to understanding the contingent and unpredictable social and cultural meanings of digital cinematic aesthetics and productions in the complex model of the "spectrum of cultural representations", the texts of digital cinematic productions should be holistically understood from all the data of aesthetics as empirical evidences from the interconnected and interdependent producer, text and audience perspectives that form the 3 sites of meaning construction struggling under disparate socio-cultural contexts (Halsall, 2007; Luhmann, 2000a; Rose, 2007; Vivas & Krieger, 1953). To empirically understand the vigorous impact of digitalization on cinematic culture, we should go to explore more precisely the developing new media cultures of digital aesthetics and the emerging characteristics of digital cinematic aesthetics in some contemporary digital cinematic productions. Besides, research methodologies that are used to collect and study all the data of aesthetics and to link up both theories and practices of this thesis are introduced in the next chapter.

**Table 3: Key concepts of the theoretical frameworks for the complexity model of cultural representations**

<b>Bureaucracy</b>	It is system elements identified with rationality that stifles creativity. Bureaucratic organization is reproduced by the rigid mechanisms of rationalization, routinization and disenchantment of the social systems (Gerth & Mills, 1958; Florida, 2002).
<b>Complexity</b>	It is the essence of the contemporary globally networked societies of modern, as well as postmodern, cultures. Every culture or cultural product is composed of many parts and constitutes a complex structure of feeling. It is "the complexity turn" as Urry (2005, 2007) mentions. A mechanism of the reduction of complexity like the creative process of "de-paradoxicalization" is necessary to absorb uncertainty in order to ensure the reproduction of the cultural system (Luhmann, 1995, 2000a; Seidl, 2005a).
<b>Creative Class</b>	It is Florida's (2002) utopian concept regarding nearly all human beings as potential members of the contemporary growing creative economy. Nevertheless, his emphasis on the rise of human creativity is valid to the understanding of the growing creative and cultural industries.
<b>Creative consumption</b>	It is reliant upon active audiences and their unique repertoire of cultural practices to construct polysemic meanings by active cultural appropriation and appreciation. This establishes "creative consumption capital" resulted from continuous and accumulative education and lived experiences (Caves, 2000: 176; Chan & Ma, 2002; Codde, 2003). Moreover, creative consumption that is the harvesting moment of cultural and aesthetic achievements plays an indispensable role in the production-and-consumption cycle as Hartley (2005) mentions.
<b>Creative manager</b>	It is Hesmondalgh's concept of the creative artist of management skills as equivalent to Bourdieu's cultural intermediary in the cultural industry. Creative managers who may also be symbol creators themselves are gatekeepers to deal with the conflicts and interests between the entrepreneurs and the symbol creators by systematic coordination and collaboration. Their collective inputs aim at achieving equilibrium among individual creativity and institutional creativity in the production of symbols, the play of images and the organization of desires in the creative industries (Blythe, 2001; Hesmondalgh, 2002).
<b>Creative passion</b>	It is one of the critical core elements of organization cultures based on trust in systems and people to maintain systems reproduction by communicative events and activities (Giddens, 1990; Seidl, 2005a). Creative passion is a kind of love, love relationship, or expectation shared among creative communities such like creative managers and symbol creators who are always underpaid and/or underemployed. Their shared creative passion as deep feelings of symbolic values and mutual commitments to cultural production is the driving force to encounter challenges and responsibilities and to continue their careers and dreams in creative and cultural industries (Hesmondalgh, 2002; Luhmann, 1979, 1998).
<b>Deconstruction</b>	Derrida's deconstruction is one of the core concepts of poststructuralism and postmodernism that reveals the new possibilities of other meanings. The concept of deconstruction advocates heterogeneity, difference and disassociation that shed light on the relation to the other and that help to understand the complexity problems of modern and postmodern societies and aesthetic puzzlements in the play of signification and

	language games (Belsey, 2002; Butler, 2002; Caputo, 1997; Wittgenstein, 2007/1967).
<b>De-paradoxicalization</b>	It is one of the core concepts of Luhmann's (1995) systems theory that is a creative process to ensure self-reproduction of the system and thus, to prevent the paradox from leading to system paralysis (Czarniawska, 2005; Seidl, 2005a). Similar to deconstruction, de-paradoxicalization pushes meaning towards undecidability by deconstructive systems of flexibility and contingency that unfolds the paradox (Caputo, 1997; Luhmann, 2002, 2005a; Seidl, 2005a). But de-paradoxicalization puts more emphasis on reconstruction of the systems by the interpenetration between systems and environments and the operation of uncertainty absorption. Alternative possibilities of meaning construction are achieved by the internal modifications of decision communications in the creative process of de-paradoxicalization (Luhmann, 2002, 2005b; Seidl, 2005a).
<b>Discourse</b>	There are media discourses, producers' discourses and audiences' discourses to represent the diversity of meaning construction and the polysemic meanings of media culture (Crane, 1992; Fiske, 1989/1987). From Foucault's perspective, discourse connects with power, regulates conduct, makes up or constructs identities and subjectivities, and defines the way certain things are represented, thought about, practiced and studied. Discourses by cultural producers and audiences' unique repertoires of social and cultural practices enable discursive formation of meaning with regard to their conflicts of interests under disparate socio-cultural contexts (Codde, 2003; Hall, 1997ac). Their interdiscursive discourses form a paradox, but also make a promise to alternative possibilities of meaning construction by structural couplings in the creative process of de-paradoxicalization (Luhmann, 2000a, 2002, 2005a).
<b>Glocalization</b>	It is Robertson's (1995) concept about the global production of the local culture and the localization of the global culture in the spiral of cultural globalization. The process of glocalization puts emphasis on the interaction between local and global cultures leading to cultural hybridization (Chan, 2002; Crane, 2002). This reveals the unique characteristics of locality like Hong Kong's unique postmodern and postcolonial experiences to blend the West and the East as advantageous competitive symbolic power of representation in its cultural productions (Hawkins, 2006; Lam, 2010).
<b>Industrial-reflexive materials or industrial self-theorizing materials</b>	From the production of culture perspective, professional insiders are theorizing their practices in a very distinctive manner that "combines contradictory or competing impulses" in different "socio-professional situations". Such in-depth practical information of production cultures as industrial-reflexive or "industrial self-theorizing materials" is significant to help audiences and researchers to understand and decode, as well as to create, representations of cultural productions (Caldwell, 2008: 2, 15-18; Codde, 2003; Tryon, 2009).
<b>Language game</b>	It is Wittgenstein's philosophical inquiry of unsolvable questions that reveals the complexity of human culture. Language game is highly concerned with deconstruction whereupon the relationship between "meaning" and "reference" is used to constitute a function of difference. This is vital to solve aesthetic puzzlements in cultural representations in a contingent manner (Caputo, 1997; Monk, 2005; Wittgenstein, 1969, 2007/1967).

<p><b>Organization cultures</b></p>	<p>Creative production is reliant on the ongoing tension between organization and creativity (Florida, 2002). Rigid organization culture forms a paradox between organization and human agents leading to the production of redundant stereotypes of cultural representation within a social system of operative closure. Organization cultures in plurality emphasize the flexibility and fluidity in organizational structures and decision communications to allow cultural experimentation to absorb creative ideas and to share creative passion among cultural workers by structural couplings among social and psychic systems. This is a creative process of de-paradoxicalization to undo the tendency of stereotyping (Chan, 2002; Hesmondhalgh, 2002; Hall, 1997b; Luhmann, 2002, 2003, 2005a; Seidl, 2005a).</p>
<p><b>Paradox</b></p>	<p>It is a dilemma between system and environment, between organizational communication and human creativity, between organization and creative workers. Paradox is the undecidability of every decision that is the precondition for making a decision. The paradox of organization culture may lead to stereotypical production/reproduction and even system paralysis. However, the paradoxicality of a system reveals its self-referentiality that helps deconstruct and reconstruct the system's structures in interactional communication by structural coupling among systems and environments (Luhmann, 2005ab; Seidl, 2005ab; Seidl &amp; Becker, 2005). The paradox of power relations between cultural producers and audiences, between organizations and human agents, in everyday meaning construction of cultural production and consumption empowers the complexity, contingency and unpredictability of cultural representations in the process of social and cultural transformations (Havens et al., 2009; Luhmann, 1995, 2002).</p>
<p><b>Production of culture perspective</b></p>	<p>It is a tradition of the perspective of cultural sociology to investigate how expressive symbol elements of culture shape and are shaped by production systems in which organization structures, power relationships between cultural producers of collective activities, and reward systems are operating (Crane, 1994; Peterson, 1994; Peterson &amp; Anand, 2004). The production of culture perspective can be used to examine how cultural producers and the milieu in which culture is produced affect the form and content of cultural productions in terms of the insights and methods of technological, industrial, economic, organizational and occupational systems, that is, industrial reflexivity. However, it fails to discern the importance of audiences' cultural practices in the meaning construction of cultural representations (Caldwell, 2008; Lampel et al., 2006; Peterson &amp; Anand, 2004).</p>
<p><b>Polysemy</b></p>	<p>It is Fiske's (1989/1987) concept to specify the importance of discourses by active audiences to construct and disseminate multiplicity of meanings of media culture as texts. Media cultural product as a text/representation functions as a site of interaction between cultural producers and audiences to struggle for meaning construction in particular social contexts. The polysemic meanings of cultural representations constructed by active cultural appropriation and appreciation may be ranged from dominant, negotiated to oppositional ones in accord with different encoding/decoding mechanisms (Chan &amp; Ma, 2002; Hall, 2006).</p>
<p><b>Re-enchantment</b></p>	<p>It is a concept of re-traditionalization or re-mooring of tradition in terms of cultural production and consumption dealing more with quality rather than quantity. The re-enchantment of cultural representations is</p>

	<p>concerned with contingent and unpredictable cultural production of magic, fantasies and dreams on behalf of people's imagination and shared creative passion. This focuses on people's aesthetic values and judgments of the rationality of irrationality (Caves, 2000; Chan &amp; Ma, 2002; Ritzer, 2008; Thompson, 1995).</p>
<b>Representation</b>	<p>Language is one of our most familiar representational systems through which "we 'make sense' of things" and "meaning is produced and exchanged". Representation of a cultural text carries multiple layers of meanings constructed by discourses of producers, audiences and media. These include the "poetics" of representation concerned with the how of representation from the semiotic approach and the "politics" of representation regarding the effects and consequences of representation as "contingency" from the discursive approach (Hall, 1997a: 1, 6). The complex meanings of a representation must be discerned via an understanding of cultural producers and audiences' repertoires of cultural practices and their power relationships (Codde, 2003; Havens et al., 2009). Nevertheless, stereotypical practices reduce representations to a few, simple, redundant characteristics of meaning construction process to facilitate dominant reading (Hall, 1997b).</p>
<b>Structural coupling</b>	<p>It is a re-entry or interpenetration of the organization into the interaction among the social and psychic systems to facilitate systems reproduction by internal modifications in terms of trigger-causality (Luhmann, 2000a, 2002; Seidl, 2005a). A system's structural coupling with its environment is a creative process to unfold the paradox by means of self-organization (González-Díaz, 2004). Structural coupling of the psychic systems with the social systems plays a vital role in self-socialization and social inclusion in the creative process of cultural production and consumption (Luhmann, 2000a; Moeller, 2006). This favors the sustainable development of flexible organization cultures and symbolic creativity under the systems of creative and cultural industries in dynamic stability (Hesmondhalgh, 2002; Luhmann, 2000a; Seidl, 2005a).</p>
<b>Symbol creator</b>	<p>It is Hesmondhalgh's another concept of the creative artist of symbolic creativity who makes up, interprets or reworks those cultural texts/representations. Symbol creators who are always underpaid and/or underemployed are collaborating with creative managers to produce creative works of art by mutual commitments to constitutive practices under systems of flexible organization cultures and shared "creative passion" (Caldwell, 2008; Hesmondhalgh, 2002; Watson, 2009).</p>
<b>Symbolic creativity</b>	<p>A kind of cultural products of human activities with strong connotations of individual genius that conveys symbolic meanings to other people is named "symbolic creativity" instead of the term "art". It is a contemporary terminology to specify the rise of human creativity of symbolic, as well as economic, values that demands holistic research on organizations, creative talents and cultural practices typified into the intertwined relationships of producers, texts, and audiences in the process of cultural production and consumption (Florida, 2002; Havens et al., 2009; Hesmondhalgh, 2002; Rose, 2007).</p>
<b>Systems theory</b>	<p>It is Luhmann's transdisciplinary conception of autopoiesis that means "self-reproduction" originated from the concept of biological systems of cell organisms, whereas he pays most efforts to establish his creative concepts of social and psychic systems to explain societal transformations by mean of the reproduction of elements and the structural coupling of systems and environments. The social systems of organizational decision communication and the psychic systems of</p>

	<p>human consciousness and creativity explain the complexity of meaning construction process in cultural production and consumption. Although all these autopoietic systems are operatively closed and cannot enter or determine the operations of each other, the psychic systems can trigger internal modifications of the corresponding social systems by structural coupling or vice versa (Luhmann, 1995, 2002; Seidl, 2005a).</p>
<p><b>Trust</b></p>	<p>It is an attitude that is not transferrable to other members who trust, but that is shared to disclose possibilities of collaborative practical actions and practical reasoning in the creative process of cultural production under the complex systems of flexible organization cultures. Trust is the foundation of “creative passion” as shared expectations to motivate creative communities of cultural production to encounter challenge and responsibility under the rapidly changing systems of creative economy (Florida, 2002; Luhmann, 1979). Trust in people maintains collective activities of symbolic creativity and sustains stylistic breakthroughs on cultural production in the form of “facework commitments” to “creative passion”. Trust in systems of organization in terms of “faceless commitments” embeds the coordinating power of creative managers to the expert systems of industrial reflexivity and ensures the continuity of creative production in a dynamic stability. Nonetheless, trust in people and systems circulates positive and negative “creative passion” as expectations and frustrations respectively in a paradox (Caldwell, 2008; Giddens, 1990; González-Díaz, 2004; Hesmondhalgh, 2002).</p>
<p><b>Valorization</b></p>	<p>As Thompson (1995: 27) mentions, “valorization” is one of the ways of commodification in the media industries in which cultural artifacts “can be ascribed a certain value”. Symbolic forms acquire “symbolic value” via the process of “symbolic valorization and “economic value” via the process of “economic valorization” for exchange in media market. Mostly, the commodification of symbolic forms takes the process of integrated economic-symbolic valorizations in contemporary creative and cultural industries.</p>

## **Chapter 4    Digital Cinematic Aesthetics and 3 Dimensional Research Methodologies**

The adoption and application of digital media technologies in contemporary cultural production and consumption has been reforming our sensory perceptions and cognitive experiences since the late 20<sup>th</sup> century. In other words, our cultural practices require responding to newly emerging visual, linguistic, literary and aesthetic codes and signifiers of digital media cultures (Everett & Caldwell, 2003). Such cultural practices are important to the construction of meanings of social life in the study of cultural representations (Hall, 1997a). “Cognitive map”, re-identified and re-defined by Fredric Jameson in the 1980s, refers to a practical process by which an organism makes representations of its environment in its brain (Jameson, 1991; Laszlo et al., 1993). In modern generic grid city, cognitive mapping works as an individual’s ability to locate oneself in terms of the city’s identifiable monuments, buildings and other reference markers. Besides, the figure of cognitive mapping functions as a spatial response to people’s incapacity to locate themselves in contemporary, unrepresentable space of late capitalism (Hartley, 2003). Our cultural practices provide the possibility of diversity in cultural representations, which, however, relies on the availability of reference points for mapping. Mapping may be for one’s identification with the city, or its imageries. It may become a frustration if one cannot find any reference to pose oneself on it, although it may just be caused by the condition that there are no fixed reference points from where traces emanate, neither spatially or temporally (Cilliers, 1998). Late capitalism leading to the imagery postmodern cityscape is accused of such kind of frustration in the process of cognitive mapping.

However, such accused frustrations may be interpreted as significant alterations in cognitive maps that are established by the hybrid pastiches of the new metropolis and affect the formation of new patterns of thoughts and actions. This new construction must be connected with the transformations of social and psychic systems involving the birth of new structures affirmed by new ideas, new patterns of behavior and social organizations, new value systems, new lifestyles and so forth, but the transformation of any system should be in relation to its previous history. Indeed, the evolution of cultural cognitive maps is a result of syntheses of human interaction with its environment (Laszlo et al., 1993). It provides an opportunity to establish new ways to represent new ideas and new information like those new media concepts and aesthetics. These new media cultures of digital aesthetics unavoidably assert the uprising of new techniques for production and reproduction – new forms of cultural practices from Walter Benjamin's mechanical reproduction to digital representation. Besides, the mode of participation is changing according to the change in size and composition of the public, and also the attitudinal change of the new generation of participants in new media (Chartier, 2003).

Derrida's answer to the critiques of his theory of deconstruction states that the signified does not exist. It is only an illusion invented by human beings (Harland, 1991). Postmodernists normally celebrate the liberation of signs from dependency on well-defined signifieds (Gottdiener, 1995). Signifieds are definitely invented illusions for cultural representation but such illusions function properly in the history of human beings and take a position to represent the meaning of everyday life. Like such digital cinematic images as digital effects and computer animation, digital

cinema is full of unreal, or hyperreal, invented visual signs that represent the liberation of signs in a particular sense. These signs are not dependent on well-defined signifieds but not totally independent. Though digital media raise a relatively higher degree of audience autonomy and activity, it is highly criticized to assume any generalization of the audience autonomy and activity (Cubitt, 2004). On the one hand, certain digital media audiences may need more detailed signifying information for their understanding and interpretation. On the other, multidimensional signifiers with polysemic signifieds are required for enhancing the emancipatory power of new media cultures of digital aesthetics. This new form of media signs should “invoke a sense of history; a rupture with the past; a specific location on the global geopolitical grid; a culture, a cultural diversity; an origin; and a ‘home’<sup>1</sup>” (Gottdiener, 1995: 234-235).

Audiences of digital cinematic productions are bombarded with their unreal or hyperreal digital images as signifiers and increasingly become incapable of attaching meanings as signifieds to them. Cultural representations of these digital images need a relevant encoding/decoding mechanism for their interpretation or articulation. We should advocate the development of an aesthetic content that can be seen not merely in the proliferation of objects that have a substantial aesthetic component, but also in the increasing component of sign-value or image embodied in objects. This mechanism of aestheticization takes place in all the processes of

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<sup>1</sup> Baudrillard gives his comments on the marginal object to an explanation for the significance of the “second home”. The successful, affluent, modern bourgeois purchases as second home in the country. The country home has a country décor. Every effort is made to preserve the images of rustic nature. The country home stands outside the timeline of modernity (Gottdiener, 1995: 45).

production (producers), distribution (texts) and consumption (audiences) of reflexivity (Hall, 2006; Lash & Urry, 1994; Storey, 2010). Therefore, not only the producers but also the audiences play active roles in the signifying processes of digital cinematic aesthetics and productions. Their efforts and influences on the cultural representations of digital cinema can be understood via an in-depth investigation of the digital aesthetics they share. Furthermore, a set of novel characteristics of digital cinematic aesthetics is emerging by their unique repertoires of cultural practices in regard to the complex interrelationships between their aesthetic interests and the societal changing molding functions in contemporary creative media and film industries (Codde, 2003; Vivas & Krieger, 1953). This chapter aims to introduce and inductively evidence 10 emerging characteristics of digital cinematic aesthetics based upon the data of aesthetics of some major digital cinematic productions in Hong Kong and China, as well as Hollywood. These generalized characteristics of digital cinematic aesthetics serve as both case studies and investigational subject matters for further empirical studies in the following chapters. Meanwhile, this chapter provides a thorough schema of qualitative research methodologies of triangulation for investigating all the data of aesthetics of digital cinematic productions with a view to fully elucidating the complex model of the “spectrum of cultural representations”.

### **Digital Aesthetics: New Visual Culture and Communication**

It was claimed that the advent of photography and cinematography had caused a shattering of visual tradition in human history. Moholy-Nagy, one of the most influential faculty members of the Bauhaus School (founded in Germany in

1919), also acknowledged cinema and photography as a foundation for a “new vision”, which constructed a new way of reshaping human consciousness and a new way of seeing the world from a different perspective (Lovejoy, 2004). Similarly, the advent of digital cinema and other digital media cultures has triggered a new challenge to our visual culture and communication with reference to (digital) aesthetics in the 21<sup>st</sup> century. At this critical moment, we may first re-analyze the worry about “mechanical reproduction” raised by Benjamin in his essay “The Work of Art in the Age of Mechanical Reproduction” (1936).

Though Benjamin knew the potentially positive impact of technology on the development of art and culture, he put emphasis on the loss of “aura”. In other words, he criticized the means of mechanical reproduction leading to the loss of sense of uniqueness and primal consciousness that attaches to a singular work of art (Lovejoy, 2004). First of all, Benjamin’s stance on the binary oppositional understanding of high art and popular art is problematic and irrelevant to postmodern cultures of hybridity in our contemporary societies. However, his critique on the harmful effects of mechanical reproduction is still valid. Once upon a time, I preferred to use the word “film” instead of “cinema” because the latter one could mean the theatre for screening where a film becomes a commodity in terms of ticket selling. Mechanical reproduction of a film for screening in different places and sale in terms of DVD records or other digital media formats is concerned with pure commercial activities (though it is meaningful to the survival of the filmmakers). Film is a work of art concerning cultural representations created by filmmakers in terms of their social practices, which should arouse audiences’ sense of uniqueness and primal

consciousness, unless the film is a mechanical reproduction of stereotypical cultural symbols without any original inputs of symbolic creativity. If so, that cultural representation will be totally equal to the cultural re-representation in the “spectrum of cultural representations”, leading to mechanical reproduction. Benjamin’s warning about mechanical reproduction can still remind us of the potential crisis in representation during cultural production. However, the concept of art in terms of authenticity and reality is no longer applicable in the age of digital aesthetics and the power of representation by audience repertoire demands cultural productions of diversity and hybridity.

Even when [films] purport to represent actual historical events, these blockbusters feature mythological characters, breathtaking vertical terrains, and forms of embodiment – all of them more or less detached from any referent in the real world – onto which international audiences can map their conflicting identifications and emotional affiliations (Whissel, 2006: 25).

It is a new representation that provides new visual pleasures to the international audiences, which creative media organizations look for their cultural products of maximizing potential international market revenues. Digital media technologies like digital effects and computer animation greatly facilitate “detachment and disengagement” of digital cinema from the real world. Audience vision can be totally separated from experience and “a de-realized quality” of digital

aesthetics is highly accepted (Robins, 1996: 13). However, physical referent is still normally preferred to help audiences attach to the new representation. For instance, John Anderson, who worked in Lucas' ILM, was responsible for making digital effects for the entertainment productions. He, based on his knowledge of fluid dynamics and computer science from college, designed the wave effects in *The Perfect Storm* (2000). It is pretty clear that Anderson's duty in Hollywood is to create a realistic, but not necessary true, digital imagery (Lawler, 2001). His knowledge of physical phenomena is used to make a physical referent to the audiences, whereas what the audiences expect to see inside the movie is not a reality but a hyperreal representation. The storm inside the movie just like those digital monsters of *The Lord of the Rings* is image or model of a real without origin or reality. Such digital image is virtual reality created for new visual pleasure that Baudrillard calls a "deterritorialized hyperreality" (Robins, 1996: 44). The physical referents like the real storm and the monsters depicted by the novels that the computer animators may try to present/re-present to the audiences are cultural representations while the hyperreal digital images that the audiences perceive are new representations which are entitled "cultural re-representations" for distinction in regard to the complex model of the "spectrum of cultural representations".

We do live in a world where images proliferate independently from meaning and referents in the real world. Our modern existence is increasingly one of interaction and negotiation with images and simulations which no longer serve to mediate reality (Robins, 1996: 44).

Digital technologies that have destroyed the faith in the truthfulness in representation really make a critical change in representation that not merely refers to realistic production of reality. Cultural conditions in our digital era is continuously transforming with the advancement in digital media technologies that allow for a restructuring of the visual, opening to new territory of hyperreality with entirely different time and space relations. Digital effects and computer animation help to change the nature of human perception and make it possible to see things that could not have been seen before and to see them in a new way that people could never imagine before (Lovejoy, 2004). This is a new era of digital aesthetics that people accept the new ways of visual communication without realistic referents. Any violation of physical laws can be acceptable narratives in digital cinematic productions (Cubitt, 1998; Whissel, 2006). Nobody does query why Neo can move faster than bullets in *The Matrix* and audiences are willing to follow the virtual camera to go into the bin for voyeurism from a new perspective in *Fight Club* (1999). For the complexity and unpredictability of digital aesthetics, cultural producers of digital cinema like filmmakers and computer animators need to explore the unfamiliar and to learn to be comfortable with uncertainty in order to “bring unique perspectives to the task of interpreting and reshaping culture” (Lovejoy, 2004: 283). In the meantime, audiences of digital cinema also share and/or modify such unique perspectives during their consumption and contribute to interpreting and reshaping its aesthetics in a particular sense.

## **Aesthetics of Digital Effects and Computer Animation**

Dinosaurs are running with the casts in the real landscape in *Jurassic Park*; the real casts and virtual stuntmen jump together from the top of the sinking ship in *Titanic*. All the elements are so real and blended together as seamless digital images, though all the dinosaurs, the virtual stuntmen and the sinking ship are computer-generated layers merely (Manovich, 2001). All these digital layers of cinematic productions are hyperreal images generated “by mathematically modeling rather than imitating through a copying process”. All these digital effects and computer animation “cannot be considered as ‘simulacra’ or copies”, for there is no point in concerning digitally rendered images as simple fakes or mechanical reproductions (Lovejoy, 2004: 152). Indeed, the aesthetics of digital cinema is quite different from that of traditional cinema. The latter tries the best to erase any traces of its own production process and to avoid the audiences from knowing that the reality it presents often does not exist outside the film space. Digital cinema, on the contrary, openly confesses that its simulated images are mere representations (Manovich, 2001). But digital compositing blends the digital images and the live footages together seamlessly where we can find the aesthetics of digital effects and computer animation, their cultural and aesthetic values of representations.

Digital compositing and computer animation are digital media technologies to replace the use of models, mirror images and matte paintings that were combined together with other film images via optical printing in the past. Some people might criticize that digital compositing does not bring any new concepts for the creation of fake realities but simply expands the possibility to join different layers of images

within one shot. New compositing technology actually allows the composition of unlimited numbers of image layers together in one shot and all these seamless digital layers need not to be realistic as mentioned that digital aesthetics does not need referents from the real world. Besides, computer animation makes it possible to create moving simulated images of non-existent worlds for the composite, which allows the movements of computer-generated characters within real landscapes and the risky activities by real actors and actresses within synthetic virtual spaces like a sinking ship (Manovich, 2001). Digital media technologies provide a power of symbolic creativity of almost unlimited changeable perspectives in a virtual world to cultural producers of digital cinematic productions that have never happened before.

Such an emergent structure involves a sense of contingent openness and multiple futures, of the unpredictability of outcomes in time-space, of a charity towards objects and nature, of diverse and non-linear changes in relationships, households and persons across huge distances in time and space, of the systemic nature of processes, and of the growing hyper-complexity of organizations, products, technologies and socialities. On the last of these we can note the huge increase in the number of components within products (Urry, 2005: 3).

The complexity of digital media technologies and their products, both physical and non-physical, can be found in digital cinema. Urry (2005) gives us 2 examples that an Eli Whitney musket possesses 51 components and a space shuttle

may contain over 10 million. In one shot of a digital cinematic production, we may also have over 100 layers of digital images for compositing that was unimaginable 2 decades ago. But the interesting point is that not merely cultural producers as experts but also active audiences know such complex technologies and their cultures to a great extent. In other words, the aesthetics of digital effects and computer animation in digital cinematic productions is shared by them. New form of cultural interaction among them is not merely dependent on advanced technical communication devices like the internet that convey information from one to the other. Drawing on their common cultural and aesthetic interests, they create new forms of action and interaction that is predominantly monological leading to the formation of “global virtual communities” (Thompson, 2005b). As mentioned before, some fans of digital cinema may be quasi-experts of digital effects and computer animation from different places who may contribute to the creative processes of digital cinematic productions by sharing their self-created digital effects or programs via user-groups of global networks. Besides, audiences may get professional reflexive information about industrial productions from the behind-the-scenes and demo reels of digital cinematic productions (Caldwell, 2008; Tryon, 2009). The professional-amateur relationship still remains but is highly blurred.

Different from the postmodern aesthetics based on collage that aims to produce visual, stylistic, dissonant pastiches, mostly a hybrid of imitations of dead styles (Lovejoy, 2004), the aesthetics of digital effects and computer animation takes on the imaginary image layers and the seamlessly composite filmic/cinematic space. The multiple layers of images convey multi-layered, polysemic meanings with

reference to the single composite layer as the core narrative of digital cinema. The contemporary cultural practices of digital effects and computer animation ought to be interpreted as the aesthetics of seamless control over multiple layers of digital images generated at different times and spaces and coordinated in such a way that perception of their separated existence is functionally erased from the standpoint of the audiences (Manovich, 2001; Schroeder, 2004). Visually speaking, all edges and borders of the layers are erased to form a composite layer for a digital movie that is the dominant cultural representation of the core narrative and the prominent layer of the symbolic form to represent the mostly market-oriented economic and symbolic values by means of integrative economic-symbolic valorizations. However, conceptually speaking, all the seamlessly hidden layers of digital images may provide a diversity of cultural meanings that are transmitted from the cultural producers and may be shared among the other producers and the audiences. These digital images of multi-layeredness facilitate the creative process of de-paradoxicalization and the formation of negotiated and oppositional meanings of cultural representations. They constitute layers of symbolic forms to represent or “re-represent” other symbolic/cultural values in terms of symbolic valorizations in the process of cultural production and consumption (Hall, 1997ac, 2006; Thompson, 1995).

What is important, I suggest, is the common actuality and the interplay of different order of images within a specific social space. The point is that there are not just new technologies, but a whole range of available image forms – and consequently of ways of seeing,

looking, watching – all of which are actually being mobilized and made use of, and in ways that are diverse and complex (Robins, 1996: 5).

The aesthetics of digital effects and computer animation for digital cinematic productions is a little bit different from the digital aesthetics we discussed before. Physical referents are generally important to audiences for understanding digital cinematic productions. At least a physical referent but mostly many, either from social reality or from imagination (of a novel or script probably), should be the cultural representation of a digital movie for the audiences' selection and identification, and the hidden meanings of multi-layered digital effects and computer animation be left to the audiences' exploration as a new form of visual culture and aesthetics in the complex model of the "spectrum of cultural representations". Like *Final Fantasy: The Spirit Within* (2001), the photorealistic computer-generated characters and virtual environments were criticized to fail to enhance the narrative of the story and to show no point of reference to audiences<sup>2</sup>. However, those digital effects and computer animation of the movie are/were hot topics among fans of digital media cultures. Anyway, the concepts of digital aesthetics and polysemic meanings of cultural representations may give insights and guidelines to cultural producers and audiences for understanding the sustainable development of digital cinematic aesthetics and productions in Hong Kong and global media industries,

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<sup>2</sup> I believe that the failure of the movie was mainly because of the highly abstract and philosophical narrative that I like personally but seems to be too difficult to general public and the prior knowledge of reference images from the previous Japanese computer games that the movie claims to be adapted from.

whereas both producers and audiences' repertoires of cultural practices should be envisaged.

### **3 Dimensional Research Methodologies**

Developing a schema of research methodologies is significant to generate empirical evidences for answering research questions that deal with both producers and audiences as different social actors in a society who make sense of cultural representations in different ways and under different contexts when studying culture dependent upon participants' disparate interpretations by their repertoires of cultural practices (Codde, 2003; Hall, 1997a; Rose, 2007). With respect to Thompson's (1990, 1995) warning of the "fallacy of internalism", we should bear in mind the complexity of meaning construction in the social and cultural processes of production and consumption among interplayed social and psychic systems. Thus, any particular inferences should be treated with skepticism and multidimensional research methods as triangulation are necessary to fully elucidate the complex model of the "spectrum of cultural representations" (Douglas, 2008; Luhmann, 1995, 2000a). As there is no any universal interpretation of cultural representation in critical media and cultural studies, comparative studies of multiple interpretations of cultural representations by triangulating research across media organizations, textual content and cultural practices by both producers and audiences should be deployed to discern the micropolitics of cultural representations and power dynamics engendered by their diversified "ways of seeing" (or observation and perception) of creativity and reflexivity (Berger, 1985/1972; Hall, 1997a; Havens et al., 2009; Horner, 2008; Wright, 2008).

This new complexity model emphasizes multi-layered but interrelated interpretations and representations of contingent social and cultural meanings of media production and consumption by cultural producers like creative managers and symbol creators of preferred aesthetic styles and symbolic creativity (Caves, 2000; Halsall, 2007; Hesmondhalgh, 2002), texts as a third factor of intentional signifying practices, and audiences of disparate social and cultural/aesthetic experiences, from both hermeneutic and social scientific perspectives (Dyer, 2000; King, 2000). These 3 sites of human interaction – production, textual content and reception/perception – contribute to the formation of a holistic understanding of the interpretations of visual representations concerning the intentions of cultural producers, the textual meanings (image politics) of signification, and the desires and needs of audiences within systems of organization and representation under disparate socio-cultural contexts via thorough discourse and textual analysis of all the data of aesthetics. This constitutes a 3 dimensional (producers-texts-audiences) investigational model for this research of the creative process of cultural production and consumption of digital cinematic productions (Garnham, 2005; Rose, 2007; Storey, 2010; Wright, 2008).

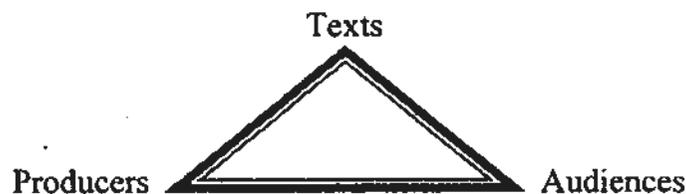


Diagram 4: Three dimensional investigational model of triangulation

Thereafter, regularities and disjunctures of cultural representations in the socio-cultural practices of producers and audiences are emphatically studied by

means of discourse analysis with juxtaposition of media texts. Irresponsible interpretation of one media text in isolation by textual analysis that is traditionally conducted in many film and screen studies is by no means acceptable, but intensive textual analysis of selected digital cinematic productions is used to understanding the symbolic functions of media texts as containers of dominant reading and sites of human interaction for negotiated and oppositional readings (Douglas, 2008; Hall, 1981; Horner, 2008; Rose, 2007; Wright, 2008). Besides, production analysis of professional communicative materials such as movie script, storyboards, design layouts, animatics<sup>3</sup> and so forth, and other industrial-reflexive materials like demo reels and behind-the-scenes in line with in-depth conversational interviews with production insiders is conducted to study the changing organization cultures and the industrial self-theorizing collective activities of digital cinematic productions. Bearing in mind the important insights of digital media technologies “as material forms of critical and aesthetic craft knowledge”, my firsthand working experience with contemporary state-of-the-art computer software and hardware technologies and my understanding of professional pipelines for the production of digital effects and computer animation, and participant observation in the field of digital media productions provide a dynamic of social network of production knowledge concerning cultural/aesthetic expressions and social practices from the cultural production perspective (Caldwell, 2008: 350).

In-depth conversational and focus group interviews compiling over 200,000 words of transcribed scripts (mainly in Chinese originally) are the most important

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<sup>3</sup> Animatics or story reels are used to testing the timing and synch-sound with dialogues or music for visual effects or animation production before making the finalized production/rendering. In terms of 3D computer animation low-resolution renderings are used for animatics while story and rhythm tests using storyboards are typical animatics for traditional animation production (Kerlow, 2000).

primary sources of empirical data in this research. Apart from critics and scholars, both producers and audiences possessing their unique repertoires of cultural practices and representational strategies during the process of production and consumption create “interpretive communities” of discursive discourses, which is vital to understand the meaning construction mechanism in the “spectrum of cultural representations” (Havens et al., 2009; Staiger, 2000; Zelizer, 2008). Indeed, qualitative interviewing may be empirical forms of storytelling of “thick descriptions”. Such transcribed scripts of “thick descriptions” are not simple texts but discourses of complexities and contradictions helpful to discern altered intentions and desires about aesthetics of digital cinematic productions from cultural producers and audiences’ stories and explanations (Lindlof & Taylor, 2002; Rose, 2007; Staiger, 2000). Their discourses of intertextuality and interdiscursivity show “chains of communicative events” among interplayed social and psychic systems of cultural representations during their production and consumption exercises, which emphasize the reading of invisibility from the links among texts, discursive practices and social practices from a critical perspective (Fairclough, 1992, 1995a, 1995b; Rose, 2007; Stewart, 2009).

18 active practitioners of creative media and film industries of expertise in the production and development of digital effects and computer animation and cinematic productions were interviewed face-to-face in “protected times and spaces” (see Appendix I: List of 18 Production Interviews). All interviews were conducted in fairly relaxing environments including private office/meeting rooms, cafes, and restaurants in Hong Kong at times when external and working pressures on the interviewees were low and they were not edgy about the next job on their schedules

(Lindlof & Taylor, 2002). The interviewees of very high industrial reflexivity were representative and diversified ranging from above-the-line creative managers to below-the-line symbol creators, which facilitates a holistic study of production and organization cultures in digital cinematic productions (Caldwell, 2008). Because I have solid working experience in the field of digital media production and social networks with most interviewees, rapport with the interviewees was quickly achieved by the clarification of reasons and purposes of the interviews with the corresponding participants of the media industries. This is important to establish relaxing and reliable interview contexts. Though the interviewees did not come to common agreement on every topic, free expressions using shared jargons were welcome and they generally recognized that different viewpoints of pros and cons in the field were valid and important to studying the sustainable development of digital cinematic aesthetics and productions in contemporary creative and cultural industries (Lindlof & Taylor, 2002).

Semi-structured interview protocol was carefully prepared in advance for each interviewee in accord with literature review, textual analysis, his/her position in the field, and former corresponding interviews if any. The 18 interviews were all tape-recorded with participants' consent and lasted from 1 to 3 hours, but most were around 1 hour long. All these qualitative interviews were in-depth conversations of collaborative, as well as ethnographic, styles that were loose, interactive and open-ended, thus allowing interactions between the researcher and the interviewees and co-authoring interview stories of both intended and unintended purposes and results. These 18 interviews that did not include informal interviews and chats with some other informants during conferences, seminars and production workshops were all

conducted by me – the only researcher, which could ensure a high degree of consistency in the qualitative interviewing process. All interviewees were encouraged to freely articulate their viewpoints and experiences, and all tape-recorded conversations were fully transcribed with no reservation. The interview transcripts were not all neutral or mistake-free but were analyzed with a special attention to highlight general trends and to demonstrate the ways in which production and organization cultures responded to the sustainably changing development of digital cinematic aesthetics and productions in the Hong Kong, as well as global film industries. The interviewees' views were interpreted in relation to their positions in the organizations and their individual personal experience and career trajectory within the field of computer animation and cinematic productions, especially for digital cinematic productions (Lindlof & Taylor, 2002; Thompson, 2005a).

Other than interviews with informants of the field from the cultural production perspective, respondent interviews in the form of focus group interactions were used to studying audience perception of digital cinematic aesthetics and productions. Perception, especially imagined one, which is “intuition” – “the self-induced simulation of perception”, is very abstract and difficult to be quantitatively measured (Kent, 1994; Luhmann, 2000a: 7). Apart from radical textual determinism of textual and aesthetic analysis in the tradition of film and screen studies, reception analysis by means of focus groups was used to investigate a multitude of audience perceptions on 10 emerging characteristics of digital cinematic aesthetics. With a view to understanding audience perceptions of these new characteristics of digital cinematic aesthetics in contemporary Hong Kong and Chinese movies using a great deal of digital effects and computer animation, cultural practices and feelings of

audiences during their initial experiences of watching 11 correspondingly selected digital cinematic productions were explored during the group discussions<sup>4</sup>. Not only discursive discourses but also some deviations had been discovered during the interactive discussion in the 5 focus groups of differentiated socio-cultural backgrounds. On the one hand, the results reveal the complexity of aesthetic perceptions by audience practices within the art system and the validity but non-generalizability of reflexive data reference by focus group methodology. On the other, cultural producers are aroused to pay more attentions to audiences' disparate understanding of and contribution to the meaning construction of digital cinematic aesthetics in the "spectrum of cultural representations" (Luhmann, 2000a; Morrison, 1998; Turner, 2000).

On the one side of the coin, audience perceptions of movies rely on the interests, expectations and cultural tastes inscribed into the texts in accord with the value structure of cultural production; on the other, audiences construct social and cultural meanings during their observation/reception of cinematic representations by their own repertoire of perception (Codde, 2003; McQuail, 1997; Morris, 1953). What I am studying in the focus groups is audience perceptions of digital cinematic aesthetics, which is an "impossible" communication and involves the processing of digital cinematic productions in audience minds – the psychic systems (Gripsrud, 2000; Luhmann, 2000a). Reception analysis of communication about aesthetic perceptions by audiences is useful to understand the meanings of digital cinematic aesthetics derived from media texts dependent on the perceptions, experiences and socio-cultural backgrounds of the audiences whose repertoire of cultural practices

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<sup>4</sup> Further details of the workflow of focus group can be found in Appendix II.

includes their active engagement in digital encodings, semiotics and aesthetics (Codde, 2003; Everett, 2003; McQuail, 1997). The objective of reception analysis is not to attempt to construct the so-called correct reading of cultural representation since there is no universal meaning and it is by no means possible to find out the position of every individual audience. But reception studies should dig out multi-faceted contextual factors accounting for a range of disparate aesthetic perceptions and readings of digital cinematic productions from audiences' discourses of their interpretations and experiences (Hall, 1997c; Staiger, 2000; Stokes, 2001). In this research, focus group study is employed to investigate such abstract aesthetic perceptions in terms of interactive discussions among the group participants and the moderator/researcher (me) because it is a good way of exploring an area like digital cinematic production with limited prior knowledge and a promising and practical means to reduce the gap between textual analysis and audience practices (Field, 2000; Morrison, 1998).

I intensively studied 11 selected digital movies that were produced or co-produced by Hong Kong and Chinese filmmakers, utilized a great deal of digital effects and computer animation mainly created by the 2 most representative Hong Kong post-production companies – Centro and Menfond, and had been produced since the emergence of the first globally recognized, blockbusting Hong Kong digital cinematic production *The Stormriders* of international standard and state-of-the-art digital visual effects in 1998 (Hong Kong Film Archive, 1999). The other 10 digital cinematic productions include another comic-transcribed movie: *A Man Called Hero* (1999), Stephen Chow's spectacular comedies: *Shaolin Soccer* (2001), *Kung Fu*

*Hustle* (2004) and *CJ7* (2008)<sup>5</sup>, game-like digital movies: *The Twins Effect* (2003) and *A Chinese Tall Story* (2005), martial arts blockbusters: *Hero* (2002) and *A Battle of Wits* (2006), and postmodern magic-spirit martial arts movies: *The Legend of Zu* (2001) and *The Promise* (2005). 3 to 5 minutes of edited footages of the 11 movies were used as stimulus materials during focus group discussions and were screened in 5 different sessions according to the differences and similarities between the movies after the first introductory session of casual questioning to foster conversation and interaction among the focus group participants (Krueger, 1994; Morrison, 1998). Each session lasted around 15 to 20 minutes and each focus group finished around 2 hours.

5 focus groups of 37 participants of Hong Kong local residents, 7 to 8 in each group, recruited by snowball sampling via referrals made among people who knew others possessing similar characteristics of the research purpose were successfully conducted after 2 pilot tests in early 2009 (Lindlof & Taylor, 2002). The focus group participants were selected from over 100 applications by a specifically designed recruitment questionnaire (see Appendix II) as a screening frame to categorize people in terms of the popularity of watching movies, the familiarity with digital cinematic productions especially those 11 selected movies and the age range in order to facilitate the purpose of the research to study the social variations in audience perceptions in terms of their differences and similarities in movie-watching experience<sup>6</sup> and socio-cultural backgrounds (Morrison, 1998). Finally, the 5 focus

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<sup>5</sup> *CJ7* should be written in full as *Chang Jiang 7* and also be named *A Hope* occasionally.

<sup>6</sup> I use the term movie-watching instead of movie-going because many contemporary movie audiences do not restrain themselves from watching movies inside theaters. As Hill (2000) and Stokes (2001) mention, the watching of movies is now more popular than ever because of the facilitation by new media channels and technologies such as television, VCD, DVD, internet and so forth.

groups include 3 different age groups of general movie audiences: (A) 18 to 24, (B) 25 to 39, and (C) 40 or above, and 2 different age groups of movie amateurs<sup>7</sup>: (E1) 18 to 24 and (E2) 25 to 39.

Group discussion was focused on audience perceptions of the 10 characteristics of digital cinematic aesthetics in order to minimize the variety of alternative possibilities of information. The focus group research put emphasis on the analysis of the rhetoric of aesthetics as utterance for communication about aesthetic perceptions among those participating audiences of disparate socio-cultural backgrounds. Despite of the very artificiality of the focus group environment, spatial arrangement that all participants faced the others and no two friends seated beside each other except group (A) of university classmates was used to create a fairly flexible situation to encourage openness and engagement during the conversational discussion (Field, 2000; Morgan, 1998). In the focus group discussion, simple questions and follow-ups in layman terms<sup>8</sup> were properly employed to smooth the group interaction and to focus the discussion on participants' initial perceptions and experiences when watching the selected movies in their own words and contexts (Morrison, 1998; Wolfe & Haefner, 1996). Such 3 dimensional research methodologies by means of multi-faceted and multi-perspective data analysis of media production, textual content, and audience perception help empirically evidence the newly emerging aesthetics of digital cinema, as demonstrated below and in the following chapters.

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<sup>7</sup> Focus group participants as movie amateurs in this research must have watched at least 9 out of the 11 selected digital movies. Indeed, most of them watched all the movies and many other digital movies shown in the questionnaire.

<sup>8</sup> Even though the term "aesthetics" as the core for this study, it had never been employed in any questioning during those focus groups. Discussion was all the times focused on the participants' straightforward feelings, experiences and perceptions in their own words.

## **10 Characteristics of Digital Cinematic Aesthetics**

For the proceeding of empirical research, the subject matters to be investigated in this study should be discerned. 10 characteristics of digital cinematic aesthetics are inductively defined by means of literature review, textual analysis of digital cinematic productions, production analysis of the Hong Kong, as well as global, creative media and film industries, in-depth conversational interviews, and other empirical evidences including participant observation and industrial-reflexive demonstrations in the form of professional conferences like SIGGRAPH and DELF (Digital Entertainment Leadership Forum), user-group seminars and workshops, demo reels, behind-the-scenes and so forth. These 10 new aesthetics of digital cinema are further generalized by empirical data of production and reception analyses. With regard to the very different aesthetics and production techniques of full length 2D and 3D computer animated features such like *The Prince of Egypt* (1998), the *Toy Story* series and *Final Fantasy*, this study is limited to digital cinematic productions of physical cinematographic shooting and real-person-acting but enhanced, as well as fantasized, by digital effects and computer animation (Manovich, 2001). The coexistence of digital creatures and stuntmen with real actors and actresses is ordinary and acceptable. Nonetheless, digital editing and simple color correction are not regarded as digital effects and computer animation for digital cinematic productions. The 10 characteristics of digital cinematic aesthetics are (1) amplification, (2) free referencing, (3) seamless and believability, (4) multiple-layered composition, (5) patterning, (6) imaginary perspectives, (7) collective imaginative inputs, (8) cross-fertilization with comic, (9) cross-fertilization with

video game, and (10) cross-cultural, cross-historical, cross-genre production, which show interdependent and interconnected relationships of hyper-complexity.

**Amplification** is a typical means to spectacular and exaggerated cultural productions in contrast to cultural representations of realism tradition. Movies are always regarded as a source of cultural production to provide larger-than-life spectacle. With the aids of digital effects and computer animation, movie spectacle is rejuvenated to an unprecedented level in digital cinematic productions by unimaginable and exaggerated visual representations of “hyperrealism” such like those armies of Orcs at the battlefields of Middle Earth in *The Lord of the Rings* trilogy and the Buddha’s palm-print on the ground by Stephen Chow’s magic kung fu in *Kung Fu Hustle*. (Black, 2002; Darley, 2000; Kellner & Durham, 2006; Marshall, 2004). As Rob Coleman – Animation Director of ILM – pinpointed, contemporary movie directors always request computer animators to make digital characters do something physically impossible. Spectacular and exaggerated digital effects are used to transcend the imagery and action of digital cinematic productions “beyond physical realism and into the realm of perceptual realism but cognitive improbability” by dissolving the dichotomy of reality and illusion. Those hyperreal digital cinematic images are signifiers free of any indexical link to actual referents of particular signifieds. They astonish and overwhelm audience senses and invite audiences to see them as digital effects of spectacularity and improbability (Barker, 2000; Darley, 2000; McClean, 2007: 85; Robins, 1996). As Felix Chong emphasized during my interview, sometimes contemporary movie-going is a sort of perception of spectacular activities rather than narrative actions.

**Free referencing** does not mean the unnecessary of reference but the autonomy of interpretation by referring to something in the world and/or the human condition such like a dream or an imagination belongs to the audience and the artist. Digital cinematic productions as an art form intensively employ seamlessly composited images of digital effects and computer animation to resemble something in the world to a certain extent with a view to calling audience attention to a reference to one's own experiences, thoughts or feelings, and indirectly to the world of real social life (Beardsley, 1982) However, even human reality is usually a construct. For instance, a factual world like the 1950s New York City in Jackson's *King Kong* is constructed and simulated by fictional materials in terms of digital effects and computer animation to satisfy audience dream of real virtuality (Black, 2002). But, bearing in mind, the omnipresent perspectives of digital effects and computer animation such as the bullet-time slow motion sequences in Wachowski Brothers' *The Matrix* trilogy as well as the hyper-time combat scene in Yimou Zhang's (張藝謀) *Hero* mark the increasing detachment of digital images from exterior realities. Free referencing focuses on "the free play between signifier and signified", which the digital images as signifiers are regarded as dispensable containers with limited or even no effects on the contained (Hill, 2000; Brunette, 2000: 90). Watching digital cinematic productions is a "continual excursion" to audiences who possess the autonomy of interpretation by "endless reference and discursiveness", thus leading to polysemic meanings of cultural representations (Leon, 1953: 622).

Digital dinosaurs and real casts are running together on the grassland in *Jurassic Park*; the real and virtual stuntmen jump together from the sinking ship in

*Titanic*. All the elements of filmic and digital images are seamlessly and photorealistically blended together, although all the dinosaurs, the virtual stuntmen and the sinking ship are computer-generated image layers only (Manovich, 2001). Digital effects and computer animation of **seamlessness and believability** is used to convince audiences of either a perceptually realistic world of extinct but fantastical dinosaurs or a cognitively realistic historic scene of a disaster of lifelike and interactive virtual human victims. Both cases share the same goal to make those digital cinematic images believable by means of seamless composition of multiple layers of computer-generated images and photographic images of live action performances. However, the former using seamless but visible effects of photorealistic computer-animated dinosaurs aims to create a fantasy world of spectacular imageries that cannot be seen elsewhere to astonish audiences and to extend their senses into the cyberspace of barely rich imaginary experiences. The latter tries the best to construct pasts and presents by seamless and invisible digital effects to deceive audiences and to suspend their disbelief for the time it takes to tell the historic story. Those seamless and believable digital effects and computer animation, visible or invisible, fantastic or realistic, provide unprecedented creative tools for expanding the imagination and stretching the aesthetics of digital cinema (Bolter & Grusin, 1999; Darley, 2000; McClean, 2007; Robins, 1996; Sarafian, 2003).

**Multiple-layered composition** is reliant on the aesthetics of layering and seamlessness conceptualized by “digitextuality” that moves audiences beyond the intertextual signifying system of citations and transpositions to “a metasignifying system of discursive absorption whereby different signifying systems and materials

are translated and often transformed into zeroes and ones for infinite recombinant signifiers". In other words, digital cinematic productions construct meanings not merely by creating digital layers of effects and animation via absorption and transformation of other cultural texts, but also by embedding the entirety of other (analog and digital) media texts seamlessly within the new composition of multi-layeredness of the emerging digital cinematic aesthetics and rhetoric in light of multiple "media convergence phenomenon" in the spiral of cultural globalization (Everett, 2003: 7). Such digitextuality adds, as well as reduces, complexities in a paradox to digital cinematic aesthetics and productions, which digital layers of disparate media texts of multiple relations of media dimensionality combine in new structures of complex aesthetic combination. Each layer of images operates separately and independently in a self-referential structure; nevertheless, no layers exist as discrete bits in a final digital composition (Fuller, 2005). On the one hand, digital compositing of cinematic productions blends all digital layers of computer and other visual effects with live action performances into a seamless and believable representational composite image layer, which should also integrate seamlessly into the diegetic realm of the digital movie like the young-old-man Mr. Button in *The Curious Case of Benjamin Button* (2008). On the other, digital layers combined in a composition still represent multiple styles facilitated by functionally differentiated/de-differentiated creative managers and symbol creators such as the directors, casts and computer animators of digital cinematic productions. This leads to polysemic meanings of cultural representations like Kaige Chen's (陳凱歌) *The Promise* of main protagonists from different Asian countries, Oscar-awarded cinematographer and art director, and state-of-the-art digital effects and computer animation by Centro as pastiches (Bolter & Grusin, 1999; Darley, 2000; Marshall, 2004; McClean, 2007).

The multiple-layered composition is a result of digital revolution from a new articulation of “hybrid representational strategies” and “intertextual referentiality” in a paradoxical process of deconstruction and reconstruction, which stitches layers of representations together indistinguishably in a digital cinematic production (Darley, 2000; Everett, 2003: 7).

**Patterning** in digital cinematic productions is a re-articulation of the concept of the classical 2D cartoon aesthetics of replication by means of seamless and believable multiple-layered composition of various digital image layers of effects and live action shots (Darley, 2000). Indeed, whenever substantial works of arts are created, a general or stylistic pattern of cultural production is discoverable in the creative process. Nonetheless, there are many disparate patterns between one creative process and the other in accord with cultural producer’s “habits and temperament”. One may select his/her desired elements of the mediums to create the patterns for the demands of a particular cultural production in progress with regard to one’s repertoire. A “creative pattern” is normally used to standard “problem solving” when there is “a pattern of appreciation” common to cultural production in the field. For instance, the digital crowds of spectacularly abundant troops in the battles of *The Lord of the Rings* and *A Battle of Wits* reveal a very popular practical usage of patterning by means of multiple-layered compositing of 3D animated effects that cannot be achieved by the traditional 2D animation and live shooting. The goal of such patterning of digital crowds is not simply to shock the audiences but creates a seamless and believable world of otherness to immerse the audiences into that fantastical movie world (Beardsley, 1982: 240-241; Sarafian, 2003). In the meantime, the postmodern characteristic of patterning celebrates the fragmentation,

indetermination and unpredictability of the subject as the aestheticization of life, which “all the perfectly patterned relationships the artist seeks to symbolize in design are in an ultimate sense untrue and, in a profound sense, anti-life” (Brummett, 1999: 92; Featherstone, 1991). Such a perfectly patterned relationship as Zhang’s exaggerated use of digitally simulated arrows in *Hero* represents an aesthetic experiment in his digital cinematic production that he employed those physically impossible, well-patterned digital arrows to transgress aesthetic style and representational norms on behalf of his own repertoire and authorship (Brummett, 1999; McClean, 2007).

Digital media technology is the symbol of hyperreality and omnipotent reason that is the ultimate medium. This new medium that can simulate, absorb or become all other media changes the paradigm of representation and the nature of human perception in a way that people have never seen before. Such like digital effects and computer animation of digital cinematic productions have empowered the medium to transgress any spatial fixed-point perspectives and fixed spatial-temporal relationships, thus leading to the formation of a new medium of aesthetics called **imaginary perspectives** (Everett & Caldwell, 2003; Lovejoy, 2004; Robins, 1996; Wright, 2008). An imaginary point-of-view (POV) is a typical technique of imaginary perspectives used to bring audiences a sense of presence or voyeurism that had emerged in Hitchcock and Vertov’s classical movies. However, digital media technologies are not the “kino-eyes” because they not merely advance ideas and desires of unimaginable representations but also sublime once believed-in unrepresentable ideas. Their new and synthetic abilities to construct seamless and believable representations of possibilities, as well as impossibilities, greatly stretch

the imagination and aesthetics of digital cinematic productions. Following some aesthetics of cartoon animation, digital effects and computer animation possess the abilities to violate the laws of physics and perspective to an unprecedented degree. Indeed, those underwater scenes and hyper-time slow motion combats in *Titanic* and *Hero* respectively are novel cultural representations of the unrepresentable by imaginary perspectives (Bolter & Grusin, 1999; Everett, 2003). As Black (2002: 10) mentions, more creative artists and resources are used to produce increasingly vivid but less lifelike sensational images, thus “making artifice seem natural, the non-visible appear visible and the realm of the imaginary come across as convincing and credible”. In such an artificial and hyperreal world of digital cinematic productions, “nothing must appear to be unreal” and “nothing must be left unseen”. However, all digital effects and computer animation of imaginary perspectives cannot be regarded as “simulacra” or “copies”, for there is no point in concerning digitally rendered models and environments as simple fakes or mechanical reproductions (Lovejoy, 2004).

**Collective imaginative inputs** remind us of the nature of digital cinematic productions belonging to the field of creative and cultural industries that put emphasis on collaborative team works by creative managers and symbol creators including the film director, casts, cinematographers, art and costume directors, visual effect supervisors, computer animators and so forth (Caves, 2000; Hesmondhalgh, 2002). Cinema is a comprehensive art medium of highly structured organization for its complex and collaborative production exigencies. It includes the free play of imagination and identification among producers and audiences’ psychic and social systems to construct contingent and unpredictable meanings of cultural

representations from their observation/reception experiences in a paradox. The digitextuality of digital cinematic productions is concerned with process, product and discourse in the spectrum of cultural production and consumption looping from a creative representational process to audiences' practices and feedbacks. Audiences' engagement in and imagination for the construction of meanings via consumption should be regarded as a form of collective imaginative inputs. Especially when many digital movies have explicitly showed off their "making-of" as publicity and/or special features within their DVD products, audiences nowadays sophisticatedly and reflexively engage with the digital encodings, semiotics and aesthetics of digital cinematic productions (Caldwell, 2008; Everett, 2003; Marshall, 2004; Tryon, 2009). From the cultural production perspective, all participating artists including both creative managers and symbol creators need to possess specific skills and knowledge to bring unique imaginary perspectives to the function of interpreting and reshaping cultural representations in the complex image world of digital cinematic productions. These artists who have an urge to explore unfamiliarity and to absorb uncertainty are the major task forces of collective imaginative inputs in digital cinematic productions (Lovejoy, 2004). It is ineffable how a director instructs an actor/actress to interact with an invisible effect or virtual creature in front of a green-screen and how the computer animators create the minute details of a virtual performance by digital effects and computer animation when those live action footages remain unknown. The quality and believability of the final multiple-layered composition relies on the collective contributions by all creative artists responsible for the cultural representations of disparate layers of physicality and virtuality in a digital cinematic production. Any one's mistake may destruct the final output in a particular sense (McClellan, 2007; Sarafian, 2003). For instance, the incredible but natural facial

performance of the digital creature in Jackson's *King Kong* is reliant on collective imaginative inputs from the facial expression data of the live performer Andy Serkis' reference performance and the computer animators' keyframing skills. On the contrary, non-matching performances by different parties like the scriptwriter, cinematographer and computer animators are considered to be one of the major reasons for the unexpected outcome in Chen's *The Promise*.

**Cross-fertilization with comic and video game** reveals the complex interrelationships between the aesthetics of comic, video game and digital cinema in the era of new media cultures of digitextuality. With a view to competing with newer media forms, cinema adapts both old and new media forms like comic and video game respectively in a paradox, which dissolves the either/or dichotomy of reality and illusion in a new form of cultural representations by means of digital effects and computer animation (Everett & Caldwell, 2003; Marshall, 2004). In media history, film, comic and cartoon animation, and video game are interplayed with each other to different extents. Japanese "manga" (漫畫) and "anime" (動畫) are probably the first ever comic and cartoon productions of the strongest cinematic senses adapted from Hollywood movies, and many comic strips have been reinvigorated into digital cinematic productions such as Hollywood *Batman* series and Hong Kong *Stormriders*. Digital cinematic productions in the process of "remediation" attempt to entirely absorb the comic and video game elements, thus minimizing the discontinuities among the older and newer mediums (Bolter & Grusin, 1999; Lam, 1996). Film narratives have long been absorbed by many video games while more and more recent digital cinematic productions have utilized stories, characters and other digital imageries of video games like *Tomb Raider* in their cultural

representations (Darley, 2000). In the era of digitalization, comic, video game and digital cinema share their new media aesthetics of cultural representations for comedic and shocking effects by exaggeration, unimagined spectacular scenarios by imaginary perspectives, and postmodern storytelling via compositing multiple layers of digital images of hyperreality. They all follow some rules of aesthetics of comic and cartoon animation to violate the laws of physics and perspective in the real world; nevertheless, there are still obvious differences between their cultural representations in terms of digitextuality. While all try the best to make their digital images believable, digital cinema makes more references to reality and its aesthetics of seamlessness is by no means very relevant to comic and video game images being fully created in one particular medium at the same “level”<sup>9</sup> of layering. Besides, a strong narrative structure for meaning-making is highly preserved in digital cinematic productions in contrast to the relatively more decentering narratives of comics and video games. Discrete frames of comic strips never pay attention to the continuity of the narrative but leave the imaginary space to the audiences to a great extent. Computer game players expect spectacular visual and audio excitations rather than deep stories and, moreover, interactive game play instead of narrative is the core design and attraction of video games. Cross-fertilization is a popular way of “repurposing as pouring a familiar content into another media form” such like recuperation of comic strips into live action movies by digital effects and computer animation and imitation of computer game’s spectacular excitations of digital imaging and computer graphics in digital cinematic productions (Bolter & Grusin, 1999: 89; Darley, 2000; Marshall, 2004; McClean, 2007). Such a repurposing

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<sup>9</sup> Here we must distinguish “level” that means the medium of cultural representation in an abstract sense from the many levels of image layers possible in both comic and digital cinematic productions by digital compositing software.

mechanism with reference to cross-cultural structural coupling among different social and psychic systems is very important to an older medium like film to withstand the challenges from newer media forms.

As hybrid cultures, most digital cinematic productions are **cross-cultural, cross-historical, cross-genre production**. Not only does it function as a repurposing mechanism to withstand the increasing challenge from newer media cultures, but also it serves as a re-engineering mechanism to reinvigorate other cultural, historical and genre materials into the new form of cultural representations in digital cinematic productions. The hybrid forms reveal the eclecticism of digital aesthetics and cultures that deconstruct and reconstruct different styles, genres and artistic conventions. Owing to de-differentiation of industrial practices, production techniques and technologies, and cultural forms in postindustrial networked societies, flexible forms of collaborative production provide contingent alternative possibilities of democratized aspirations around cultural production by collective inputs from both producers and audiences. The film medium is being rejuvenated by digitalization to construct new hybrid forms and patterns of cultural representations by using pastiches and “digitextual” references that all other cultural and historical forms must first be digitized into the new representational form of multiple layers and styles (Bolter & Grusin, 1999; Everett, 2003; Hill, 2000; Marshall, 2004). Such hybrid forms of cross-cultural, cross-historical, cross-genre cinematic productions are familiar to audiences of nostalgic movies of postmodernism. In contrast to exoticism that indicates an influence coming from receiving something completely strange or foreign, nostalgia allows self-reproduction with reference to something familiar, thus facilitating the transformation into a new media culture. The key is the

symbolic power of new representational strategies and possibilities of digital media technologies, which “reconstructs the past in the present”. This is a digital revolution in cinematic production resembling China’s New Culture Movement in the early 20<sup>th</sup> century that established a vital feature of modern Chinese literature called “imaginary nostalgia” (想像的鄉愁) and totally reformed the rhetoric and aesthetics of contemporary cultural production and consumption. The nostalgia is imaginary because the author deconstructs and reconstructs the pasts in terms of the presents and the meaning-making based on the presents provides the major social function (Everett, 2003; Hill, 2000; Wang, 1992: 251, 2008). Likewise, digital cinematic productions like *The Lord of the Rings* of a fantastical story with a nostalgic but transformed background of medieval Western kingdoms absorb the pasts and extend into the imaginary future seamlessly and spectacularly in a novel and the unprecedented form of visual representations by the rhetoric of aesthetics in terms of digital effects and computer animation.

Throughout this research, the findings generally support the advent of these 10 new characteristics of digital cinematic aesthetics as a global trend as well as a new glocalism in the Hong Kong cases. However, it seems that there are larger discrepancies concerning the tastes and aesthetic judgments toward cultural representations in digital cinematic aesthetics by cross-fertilization with video game between general audiences and professionals. The following chapters are going to further present the analyzed data of aesthetics collected by the aforementioned 3 dimensional research methodologies of triangulation to elucidate the complexity model of cultural representations and to empirically evidence the 10 new aesthetics of digital cinema (see Table 4). The next chapter firstly reveals the social variations

of understanding digital cinematic aesthetics by audiences' disparate repertoires of cultural practices via their discourses during the 5 focus group discussions.

Table 4: Summary of research methods and methodologies for empirical studies

Research methods and methodologies	How to fit into the theoretical framework	Major coverage
<p><b>Reception studies:</b>                      ~ Focus group                      ~ Discourse analysis</p>	<ul style="list-style-type: none"> <li>- Audience perceptions of digital cinematic aesthetics and productions by initial experiences of watching 11 selected digital movies as case studies produced or co-produced in Hong Kong and China are thoroughly studied by focus groups.</li> <li>- Focus group participants' discussions and interactions are used to discern the contributions of audiences' unique repertoires of cultural practices to the meaning construction of cultural representations in digital cinematic aesthetics and productions in regard to their disparate age ranges and movie-watching experiences.</li> <li>- Regularities and disjunctures as the complex structure of feelings by producers and audiences' disparate repertoires of cultural practices in the creative processes of production and consumption are investigated by comparative discourse analysis of their interpretations of cultural representations in digital cinematic aesthetics and productions.</li> </ul>	<p>Chapters 5 &amp; 6</p>
<p><b>Production studies:</b>                      ~ In-depth conversational interview                      ~ Production analysis                      ~ Discourse analysis</p>	<ul style="list-style-type: none"> <li>- From the production of culture perspective, production practitioners share their in situ practices and industrial-reflexive observations of digital cinematic productions.</li> <li>- Professional insiders of both cognitive and aesthetic reflexivity comment on the impact of digital media cultures and technologies on cinematic productions and the advent of digital cinematic aesthetics in Hong Kong and Chinese, as well as global, film industries based on their disparate working experiences in the arenas of directing, scriptwriting, art directing, digital effects production and so forth.</li> <li>- Regularities and disjunctures as the complex structure of feelings by producers and audiences' disparate repertoires of cultural practices in the creative processes of production and consumption are investigated by comparative discourse analysis of their interpretations of cultural representations in digital cinematic aesthetics and productions.</li> </ul>	<p>Chapters 6 to 8</p>

<p><b>Case studies:</b> ~ Textual analysis ~ Production analysis ~ Discourse analysis</p>	<ul style="list-style-type: none"><li>- In-depth sequence-shot analyses are used to study the narratives and aesthetics of some representative local/global/glocal digital cinematic productions in Hong Kong and China with a view to discerning the influences of glocalized digital effects and computer animation on cultural representations and empirically studying the advent of new characteristics of digital cinematic aesthetics.</li><li>- Industrial-reflexive materials like storyboards and animatics are deployed to understand the changing systems of digital cinematic productions from pre-production to production and post-production, and the production/product differentiation/de-differentiation leading to the advent of novel digital cinematic aesthetics. This reveals the complexity and multi-layeredness of the meanings of cultural representations in digital cinematic aesthetics.</li><li>- Centro and Menfond are used to study the impact of different organization cultures and the corresponding creative passion shared among their creative workers on the systems of organization and representation in digital cinematic productions.</li><li>- Media discourses are juxtaposed with cultural producers and audiences' discourses to envisage the complex meaning construction struggling in the process of cultural production and consumption.</li></ul>	<p>Chapters 4, 7 &amp; 8</p>
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## **Chapter 5 Social Variations in Audience Perceptions of Digital Cinematic Aesthetics and Productions**

Cinema as an enormously important creative and cultural industry of the cluster effects on metropolitan knowledge-based economy that arouses special attentions from many media capitals and their governments providing outstanding supportive policies for its substantial and sustainable development both economically and culturally in the spiral of cultural globalization harvests economic, cultural and aesthetic values from the critical moments of cultural consumption (Chan et al., 2010; Hartley, 2005). Unlike many traditional film and screen studies, this complexity model of critical media and cultural studies puts enormous emphasis on the analysis of creative consumption by audience repertoire of cultural practices to construct polysemic meanings of cultural representations by means of communication about audience perceptions of digital cinematic aesthetics from direct and initial experiences of media discourses. Such audience repertoire as “creative consumption capital” shapes and is shaped by aesthetic values and judgment via active participation in cultural appropriation and appreciation resulted from continuous, accumulative learning and experience in diversified socio-cultural contexts of mutually recognizable social orders (Barker, 2003; Caves, 2000; Chan & Ma, 2002; Codde, 2003; Garfinkel, 1996, 2006; Havens et al., 2009; Luhmann, 2000a; McCormick, 1990; Rawls, 2002, 2006). With respect to Wittgenstein’s (1969, 2007/1967: 8) conception of language games, to universally depict a meaning of cultural representation by audience perception is impossible and audience expressions of aesthetic judgment involve the rules and routines of “a whole culture” of both social and mental processes under particular contexts. However, instead of aesthetic adjectives such as “beautiful”, “impressive” and so on that are merely

words of contingent expressions, aesthetic values and judgment as audiences' collective activities play a complex but definite role in the interpretation of aesthetics, as well as aesthetic rules, of a culture of a period. At least, audience reception studies may, to a great extent, fill the gaps of cultural/aesthetic understanding between producers and audiences in the meaning construction process whereas many producers incorrectly assume audiences' tastes and aesthetic values in their own thoughts from the traditional production of culture perspective (Crane, 1992; Peterson & Anand, 2004).

This chapter of audience reception analysis with reference to audience perceptions of the 11 selected Hong Kong and Chinese digital cinematic productions by means of 5 focus groups including 3 different age groups of general movie audiences: (A) 18 to 24, (B) 25 to 39, and (C) 40 or above, and 2 different age groups of movie amateurs: (E1) 18 to 24 and (E2) 25 to 39 aims to understand the complexity of aesthetic perceptions and the contribution of audiences' practices to meaning construction in the spectrum of cultural consumption and production. This also helps us discern the important role of audience perceptions in the creative process of de-paradoxicalization as one type of resources of symbolic creativity in the complex model of the "spectrum of cultural representations". Audience perceptions as autopoietic activities of psychic systems are social systemically studied in terms of discourse analysis of those focus group discussions and interactions to investigate the social variations in audience perceptions of the 10 inductive characteristics of digital cinematic aesthetics with regard to audiences' differences and similarities in movie-watching experiences and socio-cultural backgrounds.

Apart from a coherence, discursive discourses and even some deviations as alternative opinions about the experiences and feelings, that is, indeed, the rhetoric of aesthetics as “utterance” the focus group discussants deployed when watching different digital movies, were generated during the group discussion. These discussants’ discourses showed their unique repertoires of cultural practices to create, to understand and/or to decode meanings of cultural representations in digital cinematic productions and aesthetics, and their synthetic and reflexive interactional exchanges (Brummett, 1999; Codde, 2003; Hall, 1997c). Actually, loose patterns of thoughts with both resonance and conflict were achieved in those focus groups, as Field (2000) mentions that it is most likely the result of focus group study when the moderation for creating group dialogues and exchanges is effective. It is indeed the beauty and the ability of focus group as a methodology that is a unique language of research through which a kind of storytelling technique is used to understanding audience perceptions and experiences (Morrison, 1998). This focus group research of the “impossible” communication of audience perceptions of digital cinematic productions and aesthetics in terms of their complex discourses of social and cultural meanings that are contingent and are retrieved from the psychic to the social systems during their interactive group discussion is not merely a challenge, but also a fascinating story of empirical knowledge from a theory-practice perspective (Connolly, 2008; Halsall, 2007; Luhmann, 2000a).

An interdiscursive analysis of the interplay between the media texts – the 11 selected digital movies – and the dialogues of the group discussants is utilized to constitute a vivid, live communication story about audience perceptions of digital

cinematic aesthetics from their initial movie-watching experiences with a special attention to their understanding of and contribution to the meaning construction process of cultural representations in digital cinematic productions by means of their “rhetoric of aesthetics”. It is very difficult to clearly depict this focus group story of diversified and complicated data from those group discussants of disparate aesthetic experiences and socio-cultural backgrounds. Nevertheless, their contribution including the discursiveness and some deviations of their interactive group discussions in their own words that found the climaxes of the story and the study to the understanding of audience perceptions of the 10 emerging aesthetics in the Hong Kong, as well as Chinese, digital cinematic productions is an ineffable evidence of the significance of audience reception analysis to contemporary cinema and cultural studies. Such kind of audience studies is especially useful for exploring abstract, novel concepts of social and cultural meanings like digital cinematic aesthetics with limited prior knowledge (Brummett, 1999; Gripsrud, 2000; Morrison, 1998). And, bearing in mind, this comparative reception study aims at solving aesthetic puzzles rather than deducing causal explanations concerning the impact of the increasing imaginary space and power of digital effects and computer animation on cultural representations in digital cinematic productions. Audiences’ discourses provide vivid aesthetic reactions and explanations that show no causal relationships but define the possibilities of the advent of new aesthetics, as well as aesthetic rules, in a novel culture of digital cinema in our era of digitalization and globalization (Wittgenstein, 2007/1967).

Following the flow of the focus group that was divided into 5 main sessions plus an introductory and a short round-up, I would like to depict the vivid findings of

the 5 focus groups with reference to the 10 characteristics of digital cinematic aesthetics demonstrated by the 11 selected movies as meaning-constructive discourses of the group discussants' personal experiences and perceptions and the synthesis of their interactions in separate sessions with certain inter-exchangeable information. A summary of some major opinions from the group discussants is provided for comparative studies in Appendix III. Throughout all the focus groups, seamlessness and, more importantly, believability of digital effects and computer animation in digital cinematic productions was intensively agreed to be the core feature of digital cinematic aesthetics no matter how the audiences articulated the meanings of cultural representations of believable digital visual effects from reality to hyperreality or from cognitive realism to perceptual realism. Besides, digital effects were coincidentally regarded as a means to facilitate the globalization of Stephen Chow's comedic performances in his recent digital cinematic productions by means of visual amplification (McClean, 2007). However, those focus group audiences' cultural appropriation and appreciation of his newly reinvigorated visual gags and cross-cultural, cross-historical, cross-genre productions varied with their lived experiences and socio-historical backgrounds. Meanwhile, they interpreted and created contingent meanings of cultural representations by free referencing in terms of free play of signs when watching digital cinematic productions by cross-fertilization with comic (Brunette, 2000). Their preferred, negotiated and oppositional readings/meanings of cultural representations that were not limited to the original comic representations were selectively referring to either realistic representations or hyperreal spectacles, but were highly concerned with the concept of "make-believable", thus reinforcing the satisfaction of their free imagination as social practices (Appadurai, 1996; Hall, 2006).

The concept of cross-fertilization with video game in digital cinematic productions was generally not well-perceived by the focus group audiences; nevertheless, they believed in the trend to use video game graphics to enhance cinematic representations in response to their high affinity to cross-cultural and cross-genre productions in postmodern consumer societies. But absorbing hybrid video game and genre elements in the process of remediation leading to reinvigoration of cinematic medium relies very much on the quality and believability of digital cinematic productions, as most focus group audiences agreed (Bolter & Grusin, 1999). In the meantime, patterns of digital visual effects as a re-articulation of the concept of the aesthetics of replication in cultural representations of digital cinematic productions were generally recognized by the audiences (Darley, 2000). The elder audiences more appreciated patterns of digital visual representations of invisible effects but realistic feelings while the younger generations accepted more spectacular visible effects of patterning in digital cinema. Nearly all focus group audiences had no doubt about the increasing powers of cultural representation of the unrepresentable by the imaginary perspectives of digital effects and computer animation. This newly advent of imaginary spaces and perspectives brings them unprecedented sense of presence or voyeurism when watching those digital movies. The elder audiences more expected slow rhythm lifelike representations but the younger ones appreciated those hyperreal representations from incredible imaginary perspectives (Black, 2002; Everett, 2003). The “aesthetics of seamlessness” was commonly agreed as the fundamental rule to make multiple-layered composition of digital effects and computer animation in digital cinematic productions believable, comfortable and enjoyable. And many audiences pinpointed the failures of some

digital compositing because of poor coordination of collective imaginative inputs from disparate creative managers and symbol creators like the film directors and the protagonists respectively. Nonetheless, some audiences reflexively demonstrated their understanding of the symbolic power and values of the separate layers of digital visual effects and the complex aesthetics of digital compositing in digital cinematic productions. Indeed, most audiences showed their powers of representation and imagination during their engagement in movie-watching, which should be regarded as a form of collective imaginative inputs to the meaning construction of cultural representations in digital cinematic aesthetics and productions. Let us go to explore the details of some discourses of the audiences' initial perceptions and interactional discussions of the 11 digital cinematic productions during the focus groups with reference to a conception of complexity by means of deconstruction and reconstruction rather than a generalization. This helps us discern aesthetic puzzlements from cultural representations of digital cinematic productions of increasing complexity and digitextuality (Belsey, 2002; Luhmann, 2002; Manovich, 2001; Wittgenstein, 2007/1967).

### **Believability of Perceived Digital Cinematic Aesthetics**

Fundamentally speaking, the emergence of the 10 distinctive characteristics of digital cinematic aesthetics was, to a great extent, recognized de facto by most focus group discussants whose perceptions and interpretations of the meanings of cultural representations in digital cinematic aesthetics and productions were, however, contingent and paradoxical in accord with disparate personal experiences and socio-historical contexts (Halsall, 2007; Kellner & Durham, 2006). As Morrison (1998) mentions, focus groups can never produce generalizable results but provide

“limited references”. Dialogues of group interactions in the 5 focus groups of disparate socio-cultural backgrounds did not justify the definitions, meanings and/or values of digital cinematic aesthetics but conveyed messages of possible references for solving aesthetic puzzlements to the agents. They include cultural scholars, producers and audiences of digital cinematic productions and other new media cultural productions, as well as cultural studies. Such possible references of aesthetic reactions and explanations from constitutive practices could be either ignored or utilized to construct, deconstruct and reconstruct meanings of cultural representations in digital cinematic aesthetics and productions in the spectrum of cultural production and consumption like different styles, genres and artistic conventions within one’s free play of the power of representation and signifying practices in the creative process of de-paradoxicalization, deconstruction and de-differentiation (Hill, 2000, McCormick, 1990; Watson, 2009; Wittgenstein, 2007/1967).

No one in the 5 focus groups disagreed with the significance of seamlessness and believability of cultural representations; nevertheless, their interpretations were contingent and varied with different aesthetic experiences and socio-cultural backgrounds. Most elder movie audiences and mature movie amateurs of groups (C) and (E2) respectively expected seamless and invisible digital effects and computer animation to make movies smooth, believable and enjoyable, especially for those genres of more realistic and historical storyline. They understood the creative power of the imaginary space of digital visual effects to produce unrepresentable and spectacular images in digital cinematic productions, but they more preferred to utilize such digital effects to reinforce realistic representations of invisibility and

believability. Here is the interaction between 2 members of group (C) concerning the contribution of digital effects to cinematic representations and their believability.

Wai (C)<sup>1</sup>: Advantage is about the depiction of something more factual, like *Titanic*, really using computer technology to recreate the ship, to show how it crashes and divides into 3 sections. That indeed restores holistically the historic story.

Fanny (C): Because of the advent of digital effects, many apparently impossible things become possible to do. Like a recent movie *The Curious Case of Benjamin Button*, you can imagine how Brad Pitt becomes an old man like that! Such a dwarf, his face and look is impossible to make. Or might you think how he can be made to look so young in the rare part of the movie?

Wai's (C) argument showed that one of the advantages of digital media technologies was reproducing factual reality such like the sinking ship in *Titanic*, which restored the historic event believably but not truthfully. Besides, Fanny (C) pointed out that audiences could be persuaded by seamless and believable digital visual effects like those in *The Curious Case*, even though they knew the scenarios were impossible in reality. However, she regarded those digital troops in a scene of *A Battle of Wits* as poorly generated and unbelievable, thus reducing the extent of

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<sup>1</sup> As I promised group members anonymity, no real names of group discussants are used in this thesis. For instance, Wai(C) is a pseudonym for the storytelling with his group name in brackets for identification. In Appendix II: (C) Demographics of Focus Group Participants, I also employ their pseudonyms but provide some accurate background information as reference for the study with a reservation of their anonymity and privacy. Besides, all the cited conversations are originally in Chinese and I have tried my best to make all the English translation in regard to the original wordings.

audience engagement in the movie. In other words, digital cloning of troops of poor quality and visible seams of compositing in the movie failed to provide visual representations of a sense of cognitive reality. But most discussants of both groups (C) and (E2) were convinced by those “impossible” digital representations of the old and young looks of Brad Pitt as perceptual reality in *The Curious Case*. Don (E2) also explained that he did not consider the movie to be a digital cinematic production of digital effects as the selling point and he felt the storyline was fluent and believable because of the seamless composition of digital effects and make-ups. He had indeed got used to digital effects and taken less their spectacular impact on digital cinematic productions into consideration when making decision to watch any movies. In the meantime, King (E2) pinpointed that it had been becoming a trend to incorporate digital effects into cinematic productions especially for those blockbusters, the boundary between movies with and without digital effects had already been blurred, and the most successful representations of digital effects should be invisible and function like editing and background music. Such invisible and seamless digital effects make good cinematic productions to deceive audiences and to suspend their disbelief for the time of storytelling. And King (E2) actually blamed on the lack of choices of local digital cinematic blockbusters of seamless and invisible effects because many local producers were eager to see/make visible effects of cultural representations in their digital cinematic productions. Such visible effects could not make those movies more believable to him and his group members but nakedly revealed the so-called production and/or economic values of the additional digital effects (or budget) in cultural productions. But, indeed, those visible effects of low quality and believability could not reinforce the symbolic/aesthetic values and even the economic values of cinematic representations by valorizations (Thompson,

1995), and attract audiences go movie-watching, as most discussants of both groups (C) and (E2) agreed.

King (E2): I do not go movie-watching for particular cinematic production of digital effects, but indeed there is no choice... Recently, you could have not found any blockbusters without any digital effects at all. With no digital effects, it must be a small budget production.

Generally speaking, the discussants of group (B) showed respect to digital cinematic productions with invisible effects that make audiences feel comfortable and remain unknown of the existence of digital visual effects; nevertheless, they also appreciated the visible spectacles by digital effects of higher and professional quality. Certainly, for well-experienced/cultured Hong Kong audiences, those movies of “digital effects for digital effects’ sake” cannot easily acquire their attention and astonish them. Make-believable fantasy movies like *The Matrix* need consistently high quality of digital effects production to bring audiences to the unimaginable world of perceptual reality or hyperreality in line with a strong storyline. Some discussants emphasized that those visible effects of poor quality in local digital cinematic productions were unnecessary and even made the movies more unreal and unbelievable, thus not enjoyable<sup>2</sup>. Their appreciation of cultural representations of believability in digital cinematic productions is indeed positively correlated to the quality of digital effects production and of storytelling, that is, the aesthetics of seamlessness no matter what visible and/or invisible effects are used to reinforcing

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<sup>2</sup> “Not enjoyable” is a phrase of aesthetic adjective that plays no role in aesthetic judgment. Therefore, those not enjoyable visible effects, even those poor ones, may be regarded as something appreciable to some members of cult movies of disparate cultural tastes and aesthetic judgment towards digital cinematic productions that is evident in the focus groups (Wittgenstein, 2007/1967).

the storyline. Their discussions sound contradictory and sometimes deviant, but also vividly show their reflexive understanding of cultural representations in digital cinematic aesthetics and productions with regard to disparate socio-cultural contexts. This illustrates aesthetic puzzlements being contingently solved by their cultural tastes and aesthetic judgments (Caves, 2000; Wittgenstein, 2007/1967).

Chiu (B): I feel that those digital effects can't make a movie more appreciable or not, but I think those in *The Matrix* are exceptional...

Karen (B): Those Hollywood effects possessing higher degree of believability make you feel they are real, but some Hong Kong ones indeed look really unreal!

Louis (B): Firstly, movie-watching is ever and forever very subjective. A movie won't become appreciable because of some good comments from some people. Secondly, (people) don't go watching movies for digital effects.

Indeed, more mature and older audiences of groups (B), (C) and (E2) more focused on the movie storylines that are generally less influenced and distracted by seamless and invisible effects favoring cognitively realistic representations like those historic scenes in *Titanic* and *Forrest Gump*. However, visible effects of high quality and seamless composition are also important to storytelling in spectacular fantasy movies of cultural representations in contemporary digital cinema of perceptual reality or hyperreality. Audiences' disparate expectations in accord with their

aesthetic experiences and socio-cultural backgrounds may affect their attitudes and perceptions of those digital movies and the corresponding usages of digital effects and computer animation in cultural representations as new aesthetic expressions of digitextual references (Everett, 2003; Manovich, 2001; McClean, 2007). The following 5 sessions mainly employ the discussants' discourses of their perceptions of the corresponding movies in each session of screening during the focus group discussion to analyze the variations of their interpretations and understandings of the meanings of cultural representations in digital cinematic aesthetics and productions. Such comparative discourse analysis may help us discern how audiences communicate about their perceptions of cultural representations during creative consumption from their individual as well as collective aesthetic experiences in everyday lives.

### **Session 1: Stephen Chow's Digital Cinematic Productions**

Edited footages of digital effects and computer animation in Stephen Chow's *Shaolin Soccer*, *Kung Fu Hustle* and *CJ7* were utilized to recall those group discussants' initial watching experiences and perceptions of cultural representations. Nearly all group discussants recognized the trend of globalization that generally more appreciated Chow's visual gags empowered by exaggerated digital effects and computer animation of novel comedic values instead of his verbal gimmicks in Cantonese that not many people and even Chinese in the world market could understand (Lee, 2009; McClean, 2007). However, perceptions of his digital amplification of visual gags varied with those group discussants' age and aesthetic experiences towards his movies to great extents. The younger discussants of both groups (A) and (E1) showed a relatively higher adaptability of Chow's amplification

of visual representations by digital effects and computer animation while those mature discussants of group (B) more appreciated verbal gags and his former performances without digital effects. In both groups (C) and (E2), most discussants showed understanding of Chow's change to adapt digital effects for globalizing his movies by visual representations, but perceptions of his digitally amplified visual effects were very fluctuant within a dynamic stability among those group discussants except those as his fans who, to some degree, appreciated his comedies no matter what visual or verbal gags were employed for cultural representations. Moreover, some discussants in group (E2) could explicate a decreasing amplification effect of digital visual representations in Chow's 3 consecutive digital cinematic productions. Amplification by digital media technologies seems to be functional to globalize Chow's, as well as Hong Kong, comedic movie productions in a particular sense and Hong Kong media producers including filmmakers and computer animators also show their strength in glocalizing global-digital media cultures and technologies during the creation of local, as well as glocal, digital cinematic aesthetics and productions by their own symbolic creativity of Hong Kong characteristics like "meaningless" culture (Lam, 2010). Nevertheless, how to sustain this kind of glocalized amplification effects on local digital cinematic productions is a challenge to all creative managers and symbol creators in the field that may get some hints from the discussants' discourses.

With a relatively higher adaptability of Chow's visual gags by amplification, most discussants of group (A) thought that his movies were still comedies of "meaninglessness" (*mo lei tau* culture, 無厘頭文化) but converted to utilize more digital visual effects and actions, thus creating amplified visual gags instead of verbal

gimmicks to produce spectacular comedic effects in digital cinematic productions for both foreign and local audiences (Davis & Yeh, 2008; McClean, 2007). Although it was only a change of the method to make representations of Chow's "meaningless" culture as Kitty (A) said, such a new method of digital amplification really brought unprecedented visual representations and aesthetic expressions to contemporary cinematic production and consumption in Hong Kong. As Man (A) declared, he believed that digital effects and computer animation of those 3D skeleton knights' reactions properly represented the power of the kung fu called "lion's roaring" (shi hou gong, 獅吼功) performed by the landlady acted by Qiu Yuen (元秋) in *Kung Fu Hustle*. Such exaggerated and believable visual representations of kung fu displace or transgress those traditional physical effects like 2D cartoonish drawings and explosions and flesh-and-blood fist-fighting using trampolines and wires in Hong Kong and Chinese movies to achieve an unimaginable "wuxia" world of digitextuality (數碼武俠世界), and create an unprecedented imaginary space of possibilities in digital cinematic productions that are more globally understandable and appreciable (Cheuk, 2000; Hong Kong Film Archive, 1999; Lau, 1999; Law et al., 2004).

Joe (A): (Chow) wants to enter Hollywood and other foreign markets, and therefore, makes use of digital effects. Fundamentally, his acting has also changed. In the past, he relied more on Hong Kong style jokes that only Hong Kong people can understand. In *Shaolin Soccer*, you find no more jokes that only Hong Kong people know how to laugh.

Some discussants of group (E1) accepted Chow's digitally amplified visual gags and thought that he had integrated digital visual effects into the diegetic realm of his comedic movies in a quite different way from Hollywood (Darley, 2000). During the group discussion, some declared that they only expected laughing when watching Chow's movies but not digital effects. They tended to compare those gimmick locations of his digital cinematic productions with those ones for laughing in his former movies of more abundant verbal gags, and even pretended to skip some parts of digital effects when screening. However, most group members confessed that it was a global trend to adapt digital effects and computer animation in movie-making and those amplified digital visual effects in *Shaolin Soccer* and *Kung Fu Hustle* were funny and novel cultural representations helpful to Chow's storytelling. They thought that those incredible comedic kung fu motions like flying and spinning of the landlady in the sky in *Kung Fu Hustle* was impossible to be made successfully without digital effects to exaggerate those visual representations. Indeed, it is evident that Chow's glocalized integration of digital visual effects into his cultural representations or re-representations that are distinguishable from his former representations of "meaningless" culture really creates a novel means of narration and produces unprecedented narrative representations of digital comedic effects by amplification. This makes a new aesthetics of digital cinematic production that is quite unique in Hong Kong and different from Hollywood aesthetic experience (Lee, 2009; Marin, 2001).

James (E1): I think Stephen Chow has invested a lot of money to produce digital effects in Hong Kong, insisted on local production,

invested a lot. I think his usage of digital effects is different from Hollywood, because his digital effects are used to help his storytelling.

Compared *The Champions* (波牛, 1983) acted by Biao Yuen (元彪) with Chow's *Shaolin Soccer*, Po (B) preferred the old format of action-comedic effects instead of Chow's digital amplification as she considered Yuen's kung fu acting of soccer play to be more realistic and believable. However, she could accept those digital effects in *Kung Fu Hustle* with cross-cultural reference to her memory and perception of the classic magic-spirit movies like *Buddha's Palm* (1964). Besides, Catherine (B) and Louis (B) believed that low-tech physical effects plus make-ups for Chow's performance in his former movies like *From Beijing with Love* (國產凌凌漆, 1994) and *The Flirtong Scholar* (唐伯虎點秋香, 1993) might still work and be better than those digital visual spectacles in (especially local) cultural representations, but such verbal gags of local slang that only Hong Kong people would understand and laugh cannot get a victory in the global markets. Chow's reinvented cinematic productions by digital amplification sacrifice certain indigenous verbal gags and cultural representations to satisfy the needs and desires of global audiences, especially those mainland and oversea Chinese. On the other hand, his deployment of digital effects and computer animation is highly indigenous and creates new possibilities and new aesthetics of cultural representations by means of visual exaggeration and cross-cultural, cross-historical, cross-genre production. Such glocalised digital effects unprecedentedly dissolve the boundary of reality and illusion, thus reinforcing the imaginary space of possibilities and impossibilities in his narrative representations of digital cinematic productions.

Catherine (B): I don't think these digital visual effects will inscribe any impression on your life. If talking about Stephen Chow, I always remember *From Beijing with Love* and you may recall the next of his stage dialogue.

Louis (B): But the problem is that people in mainland China can only understand *A Chinese Odyssey* (西遊記/大話西遊, 1994) and people in China Towns overseas can't understand what you're speaking at all because they may not follow those very indigenous things.

Perceptions of Chow's digitally amplified visual gags among those discussants of both groups (C) and (E2) are very fluctuant and paradoxical. Yee (C) enjoyed the feeling of the localized "meaningless" culture revealed and represented by those "poor" and "awful"<sup>3</sup> local digital effects production in *Shaolin Soccer*, but, paradoxically, she claimed to dislike those digital visual effects and Chow's acting. She also commented that digital effects of *CJ7* were good and, for herself, the movie would be more enjoyable without Chow, who was not regarded as a good drama actor. Meanwhile, Don (E2) sophisticatedly explicated that there had been a gradual decline in amplification effects in Chow's digital cinematic productions. He thought that the spectacularity of those digital visual gags of *Shaolin Soccer* was most memorable as those spectacular digital effects and computer animation of Chinese kung fu comedy had been first sophisticatedly developed there. Such digitally

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<sup>3</sup> I add double quotation marks to the adjectives "poor" and "awful" to remind readers of the real and subjective, possibly quite positive, meanings of the words when Yee (C) employed them as her aesthetic adjectives here.

amplified representations of Chinese kung fu comedy became less effective in *Kung Fu Hustle* and even seemed to lose their charisma to audiences in *CJ7*. Then, the key question is how to sustain amplification effects by digital visual effects in local digital cinematic productions. Some discussants' discourses revealed certain hints that local digital cinematic productions should not aim at competing for technological advancements with Hollywood, but glocalize digital effects and computer animation to reinvigorate local cultural representations by integrating digital effects with local, as well as glocal, cultures like Chow's "meaninglessness".

Many group discussants could tell some examples of their perceptions of the cross-cultural, cross-historical, cross-genre representations in Chow's digital cinematic productions, but their discourses varied with their autonomy of interpretations by referring to their own experiences, thoughts or feelings, and to something in the world and/or the human imagination (Beardsley, 1982). The older and mature generations of groups (B), (C) and (E2) generally referred those imaginary nostalgic scenes and elements in Chow's digital movies to cultural and historical reality, as well as their own memory, while those young discussants of group (A) tended to deconstruct and reconstruct them by their own imagination. In other words, the older and mature audiences preferred to reconstruct the past in the present and the youngsters tended to extend the past into the imaginary future. Their diversified interpretations of those nostalgic representations or re-representations in digital cinematic productions show the variations of audiences' cultural practices and somewhat the difficulty for cultural producers to make decision for a particular approach to cross-cultural, cross-historical, cross-genre productions. Nevertheless, their disparate perceptions of polysemic meanings of imaginary nostalgic

representations in Chow's digital movies evidence that digital cinematic productions as hybrid cultures of new media reinvigorate other cultural, historical and genre materials into new forms and patterns of cultural representations. Such new aesthetics of "imaginary nostalgia" of the pasts and the presents, as well as the futures, in terms of pastiches and digitextual references can provide alternative possibilities of cultural representations to rejuvenate the film medium and to satisfy audiences' free imagination as social practices simultaneously (Appadurai, 1996; Everett, 2003; Hill, 2000; Wang, 1992, 2008). Therefore, Parker (A) applauded the creativity of those 3D digital skeletons flying in the air of the "non-local" space of the poor ghetto called "zhu long cheng zhai" (豬籠城寨) in *Kung Fu Hustle* resembling that in the nostalgic movies entitled *The House of 72 Tenants* (Davis & Yeh, 2008; Sun, 2009), but he did not mention any cultural and historical references to the construction of meanings of those nostalgic representations. Besides, Man (A) thought that some digital effects made sense for some scenes of comic-style soccer play in *Shaolin Soccer* with reference to his own creative thinking and some rough memories about comics and cartoons. Their free imagination or interpretation reveals the flexibility of rejuvenated nostalgic representations by digital effects and computer animation that allow contingent alternative possibilities of democratized aspirations to digital cinematic productions by collective inputs from both audiences and producers.

Man (A): I think that event makes sense or not relies very much on one's perceptions from the pasts. Like *Shaolin Soccer*, it spends a lot of time to depict how Wei Zhao (趙微) spins the ball and does a lot of works before she kicks it out. I think such a process to store "qi" (the

power) is reasonable, because it is a must before launching any “jue zhao” (unique and final skill of martial arts, 絕招).

As mentioned before, by means of cross-cultural reference to some classic Cantonese magic-spirit movies, Po (B) accepted those digital visual effects of kung fu fighting in *Kung Fu Hustle*. But Louis (B), who could never understand the logic of those matters of triad society and thus, disliked watching those *Young and Dangerous* series (古惑仔電影系列), was disappointed by some cross-genre representations in *Kung Fu Hustle* that the transformation of Chow as a bad gangster to a kung fu master of Buddha’s spirit in a seamless multi-layered composition at the end of the movie could not persuade him. Meanwhile, Fanny (C) as Chow’s fan declared to be very excited by a great deal of digitally exaggerated kung fu combat scenes that are salutes to those corresponding scenes in some classic Cantonese magic-spirit movies like *Buddha’s Palm* and *The Six-fingered Lord of the Lute* (六指琴魔, 1965), which may resonate with audiences who had watched such classics or their replays on television. When Yung (E2) mentioned the link of Bruce Lee to *Kung Fu Hustle*, King (E2) explained that the movie should not be regarded as a simple comedy but a digitally enhanced kung fu movie to satisfy Chow himself as a kung fu amateur and to express his attitude towards “wushu jing shen” (martial arts spirit, 武術精神). This might be the reason why the movie was not funny and entertaining enough, as King (E2) commented that most audiences had rarely defined Chow as a martial arts artist instead of a comedian. It is almost impossible to construct a general pattern concerned with the meanings of cross-cultural, cross-historical, cross-genre productions from the group discussants’ discourses that are so

diversified in terms of a great deal of intertextual references to societies of different culture, history and genre (Hill, 2000). However, such discourses of aesthetic perceptions provide useful references for free associations by audiences, as well as producers, to rejuvenate cinematic consumption and production by means of constructing, deconstructing and reconstructing meanings of cultural representations in digital cinematic productions. And diversities of cultural representations of spectacularity and believability are further reinforced by new and renewed references of digitextuality of multiple media convergence to digital cinematic productions (Everett, 2003).

### **Session 2: Comic-transcribed Digital Cinematic Productions**

The 2 digital cinematic productions screened in this session of the focus group were Andrew Lau's (劉偉強) *The Stormriders* and *A Man Called Hero*, which are both produced by Golden Harvest and Centro and the latter is responsible for all digital effects and computer animation of the movies. Both digital movies have been regarded as comic-style local productions of a breakthrough in digital visual effects since Centro started its business in digital cinematic productions intensely. Definitely, nobody would query these 2 digital movies as transcription from Hong Kong comic strips de facto. However, all group discussants evaluated very differently the movies and their spectacular digital effects by means of free referencing. Most group discussants as comic fans accepted the spectacular images of *The Stormriders* but criticized those unbelievable digital effects of *A Man Called Hero* with reference to the comic-style hyperreal imaginary perspectives and the cognitive reality of the comic story's background in line with their own lived experiences respectively. In other words, hyperreal representations or re-representations by cross-fertilization

with comic imaginary worlds that violate the laws of physics and perspective in terms of exaggerated visual effects in digital cinematic productions are highly accepted by contemporary audiences of free imagination. But intertextual references as contextual factors to original comic strips, especially those realistic representations of everyday lives, must be taken into consideration during such kind of cross-fertilized cultural production with a view to making rejuvenated and remediated comic-style visual representations in digital cinematic productions believable (Bolter & Grusin, 1999).

At the very beginning of the session, Man (A) explained that he liked *The Stormriders* as if it was a believable re-articulation of the original comic strips with those digitally amplified light beams of low but acceptable standard of digital effects and computer animation spurring and mixing with some real casts by digital compositing with reference to his own experience of game play. He also accepted the digital representation of Giant Buddha of Leshan (洛山大佛) in *The Stormriders* but regarded the computer-generated Statue of Liberty in *A Man Called Hero* as a poor, unreal, unbelievable fake, mainly because he had seen the real Statue of Liberty in person. Indeed, he attached his feeling of the Giant Buddha image to his experience of reading comic strips. Besides, it was very “logical” to Parker (A) that water was required for expressing and representing the power of the “cloud-discharging palm” (pai yun zhan, 排雲掌) in *The Stormriders* and such effects of water could merely be animated by digital visual effects. Those young discussants made differences from and references to their individual interpretations of the meanings of cultural representations in both digital movies by their free play of signifiers and signifieds, not limited to the original comics but also referred to other intertextual, as well as

digitextual, references such as lived experiences and video games in the life-world (Brunette, 2000). They demonstrated their autonomy of interpretations and powers of imagination in the meaning construction process of cultural representations during the consumption, as well as production, of digital cinematic aesthetics.

Man (A): It is Giant Buddha of Leshan belonging to the comic strips. I have never seen the real Giant Buddha of Leshan. I can accept it looks unreal. [But] the Statue of Liberty I have seen myself. How would it look like that!

As a comic fan, Louis (B) liked *The Stormriders* but not *A Man Called Hero* and appreciated the computer-generated Giant Buddha of Leshan and “fire unicorn” (火麒麟) in the former movie. However, he regarded those digital effects and computer animation of both movies as poor productions when compared with Hollywood ones. Especially those weak digital effects in *A Man Called Hero* could not make cognitively realistic representations of the comic story look believable to him and many comic fans. Chiu (B), not a comic fan, liked both movies but showed his understanding that corresponding comic fans might feel disappointed by those digital effects of the movies representing only one value structured cultural production from a particularly selected imaginary perspective (Morris, 1953). In other words, the computer animation restricted audiences from the higher autonomy of imagination in the comic world. Similarly, Tak (C) thought that such recognized images of the original comic strips had already defined how those digital effects should be done to get a victory in cultural representations of these digital movies. It is reminded that digital cinematic productions by cross-fertilization with comic

should not be regarded as a simple mechanical reproduction of the original comic for their differences from and references to one another's emphatic media attributes such like the continuity of narrative representations in digital cinema and the discrete frames of discontinuous representations in comic strips. Unlike Tak's (C) argument, such digital cinematic productions should not be limited to the imagery imposed by the original comics. With reference to the imaginary space and power of digital effects and computer animation, more "impossible" narrative representations of digitextuality should be created by repurposing as pouring comic symbol-elements into cinematic medium by digitalization and remediation (Bolter & Grusin, 1999; Everett, 2003; Sarafian, 2003).

Chiu (B): I can understand that some (comic) fans may be disappointed because it is difficult and almost impossible to integrate all contents of the 10 or more comic books into a 2 to 3 hours long movie. But I think those digital effects can help fill in many spaces.

Tak (C): Probably those comic strips have already inscribed the imagery. You just follow the comics to do it again. Indeed, people here are not meaningful. All are animation productions because all follow the characteristics of the comics.

While Eva (E2) regarded *The Stormriders* as a successful digital cinematic production of amazingly spectacular digital visual effects well representing Hong Kong comic culture, Don (E2) depicted the movie as a failure because of those awful digital reproductions of comic scenes like the duel between Sword Saint (劍聖) acted

by Anthony Wong (黃秋) and Lord Conquer (雄霸) by Sonny Chiba (千葉真一) by referring to the original comic strips. He liked *A Man Called Hero* a little bit more for its storytelling, but considered the last combat scene in the Statue of Liberty to be a spoiled stroke for the visible, unbelievable multi-layered composition. The digital statue as a fake and the real actors were uncomfortably put together like cartoons. No matter how the discussants interpreted their feelings of those comic-transcribed visual representations in the digital movies, one key point to success is to make believable representations by digital effects and compositing of high quality and seamlessness that help audiences engage in storytelling. In this focus group study, all group discussants utilized the term “cartoon” in a relatively negative manner to criticize weak and poor digital effects and compositing except those in Chow’s digitally exaggerated comedies. The above discourses of those group discussants’ perceptions of cross-fertilization with comic in digital cinematic productions are limited references of the possibilities of a way of repurposing the comic media culture in cultural representations of digital cinematic productions. Meanwhile, free referencing with regard to their personal interests and social and cultural/aesthetic experiences functions as an important mechanism to ensure the success or failure of the process of cross-fertilization by audiences’, as well as producers’, autonomy of interpretations and imagination by “endless references and discursiveness” (Leon, 1953: 622). This leads to polysemic meanings of cultural representations of postmodernity and digitextuality in digital cinematic aesthetics and productions.

### **Session 3: Game-like Digital Cinematic Productions**

*The Twins Effect* and *A Chinese Tall Story* were discussed among the focus group discussants and many discussants considered both movie productions to be a result of idolism that Twins and many other protagonists of both movies were belonging to the same agency – EEG (Emperor Entertainment Group Limited, 英皇娛樂集團有限公司) – instead of cross-fertilization with video game. Many regarded the most obvious but unsuccessful part of both movies as the idol acting; nevertheless, they could identify a lot of cultural representations of game elements inside the movies. But those digital replications of unimaginable spectacular visual effects from video game graphics that violate the laws of physics and perspective in the real world in the 2 digital movies were commonly not appreciated. Though many older and mature discussants of groups (B), (C) and (E2) believed that youngsters should be the target audience of those game-like digital cinematic productions, most young discussants of both groups (A) and (E1) negatively perceived those cross-fertilized game elements in *A Chinese Tall Story*. Nonetheless, such game elements of seamlessly composited digital images in *The Twins Effect* were relatively more accepted by the young group members for its cross-genre production of mixed images of kung fu and Western vampire genres. Although I list and explicate the 10 distinctive characteristics of digital cinematic aesthetics separately and individually, they are parts of the holistic cultures of digital aesthetics and function interactively with interconnected and interdependent relationships bearing in mind. For instance, cross-fertilization with video game and mixed genres by means of digital effects production successfully reinforces spectacular visual representations of hybridity and digitextuality in *The Twins Effect*, but the hardcore computer game graphics reproduction like those digital image layers in *A Chinese Tall Story* fails to repurpose

game elements as digitextual references to strengthen cultural representations in the movie (Bolter & Grusin, 1999; Everett, 2003).

Parker (A) liked watching *The Twins Effect* that matched spectacular digital visual images with the imaginary fantasy genre like *The Stormriders*. And, indeed, digital visual images like flying bats and Western vampires inside the train station and the church that were seamlessly and believably composited with the environment were well presented in *The Twins Effect*, thus positively engaging audience perceptions with the storyline. Kitty (A) also thought that the combination of computer graphics with foreign vampires in the movie looked like Western genre and looked comfortable and believable, but she felt that the cross-fertilization of the Chinese classic novel *Journey to the West* (西遊記), which she had read and was familiar with, with those science-fictional elements and digital visual effects in *A Chinese Tall Story* was unbelievable and unacceptable. Similarly, James (E1) appreciated *The Twins Effect* because costume design and computer graphics of those vampires during their fights looked believable and relevant to the genre. However, he regarded *A Chinese Tall Story* as a special, interesting spectacle mixing hybrid elements in a novel packaging technique of cultural representation. Bearing in mind, he defined himself as a curious guy of relatively high level of adaptability and acceptability, and he was indeed a cult movie amateur preferring watching those visual effects in *Magic Crystal* (魔翡翠, 1986) rather than Chow's recent digital comedies. Those discussants' discourses did not show any consistent belief of the aesthetic values and judgment of cross-fertilized game-like digital representations in cinematic productions. On the other hand, they directly or indirectly articulated the new aesthetic possibilities of imaginary perspectives and exaggerated representations

in digital cinematic productions by remediating compatible video game and cross-genre cultures by means of seamless and believable digital effects production (Bolter & Grusin, 1999; McClean, 2007).

Kitty (A): I think the selling point of *The Twins Effect* is the story of vampire, using a lot of foreigners, looking more Western, unlike those jumping Chinese vampires. The movie and CG are matching.

James (E1): I feel *A Chinese Tall Story* quite interesting. When watching so many things (inside the movie), you feel it ridiculous. Some scenarios and characters inside the movie look like *Star Wars*. But you would also see something it wants to express. Perhaps, I have a higher level of acceptability. I am very interested in why someone would produce this movie in such a modern era.

Those discussants of both groups (B) and (C) regarded *The Twins Effect* as copycat of Hollywood vampire movies. Louis (B) asked for others' feelings about the movie and he would have described it as a copycat of a standard Hollywood digital movie in between the end of Grade A and the beginning of Grade B if *Twins* had disappeared. But he confessed that those digitally amplified representations of kung fu were very local and no reference was given by foreign cultural representations. Those hybrid kung fu elements reveal the strength of cross-cultural and cross-genre productions in Hong Kong cinema that may be rejuvenated via cross-fertilization with video game by digitalization. While Tak (C) depicted the movie as a mix and match of Western genres of adventure and vampire movies that

imitated both vampire animation and stories from the West but still employed those unpopular and old-fashioned storylines. Ping (C) responded to that those vampires in contemporary Hollywood movies could walk outdoors at daytime. Besides, Louis (B) thought that *A Chinese Tall Story* was a game movie full of beautiful computer graphics like those in game trailers, and a mix and match of the Chinese classic *Journey to the West*, Director Jeff Lau's former movies *A Chinese Odyssey* series, and video game graphics like those in *Final Fantasy* with the corresponding and promising fans of video games and pop idols of the movie as the target audiences. However, Chiu (B) as a game amateur argued that the standard of those digital effects and computer animation in *A Chinese Tall Story* had already been greatly transcended by contemporary Japanese video game graphics, and he did not catch a feeling of cultural representation of video game when watching the movie. Nevertheless, nearly all members of group (C) believed that the target audience of *The Twins Effect* and *A Chinese Tall Story* was not themselves but the youngsters who should like the fast-rhythm-game-like computer animation inside the movies. Similarly, King (E2) believed that contemporary directors might expect to sell game-like movies to young audiences and thus, they copied a lot of computer graphics from the openings of some existing video games for cultural representation. Most members of group (E2) also agreed that game-like digital effects might be the selling point for such kind of digital cinematic productions. All the above discourses of game-like cultural representations reveal the immature development of the concept of cross-fertilization with video game. But they remind us that such game-like cultural representations in digital cinematic productions should not be mechanical reproduction of video games. And intertextual/digitextual references like cross-cultural and cross-genre elements should be concerned to produce and to understand

the meanings of cultural representations of digital cinematic aesthetics and productions jointly constructed by active audiences and producers of unique repertoires of cultural practices within a dynamic stability (Codde, 2003; Everett, 2003; Luhmann, 2000a).

The young discussant Jenny (A) criticized that *A Chinese Tall Story* was very unreal and especially the cross-section of some fire layers shown in the movie were extremely flat and awful. She further described such fire layers like the unwanted representation of bugs during game play. As Man (A) mentioned, playing game should involve a different attitude towards cultural representation. He further explicated the difference between movie-watching and game playing that cultural producers should bear in mind during cross-fertilization. Besides, Sing (E1) said that he could not imagine such kind of game-like movies putting the real actors and cartoon layers together, and thought that *A Chinese Tall Story* might be a mistake when once upon a time the director had played video game like *War Craft* and been excited. It is irony that the director's keen concern to integrate some game graphics into the digital cinematic production to appreciate youngsters' cultural tastes has finally become a point of criticism by those young audiences. However, it is evident that cultural producers' assumption of audience tastes and aesthetic values may be biased or incorrect (Crane, 1992).

Man (A): When playing game, imagery is a supplement, and the most important thing is that game play is enjoyable. Cinema is purely visual appreciation. Game play seeks for game participation; visual

only helps make it more enjoyable... You cannot play that movie when watching.

The group discussants' disparate and paradoxical perceptions of *The Twins Effect* and *A Chinese Tall Story* reveal that the concept of cross-fertilization with video game in digital cinematic productions is not mature and needs more considerations of the digitextual differences among different media, and that cross-cultural, cross-historical, cross-genre productions need to pay attention to the quality of production to construct new hybrid forms and patterns of cultural representations in terms of pastiches and digitextual references. Moreover, the imaginary, cross-cultural representations by cultural producers may not satisfy the needs and gratifications of audiences in terms of their autonomy of interpretations with reference to their disparate aesthetic experiences and socio-cultural backgrounds, but the foundation to success is concerned with quality and believability of digital effects production in such kind of cross-genre and/or cross-fertilized game-like digital cinematic productions.

#### **Session 4: Martial Arts Blockbusters**

Recently, a number of Chinese martial arts blockbusters have been produced and co-produced by Hong Kong and China with a view to extending their market shares in Pan-Asia, as well as global, movie markets since the "glocal" success of *Crouching Tiger, Hidden Dragon* in 2000 (Chan et al., 2010; Yin & He, 2009). In this session, 2 Chinese martial arts blockbusters – Yimou Zhang's *Hero* and Jacob Cheung's *A Battle of Wits* – were used as stimulus for group discussion concerning the influences of digital cinematic productions and aesthetics on such reinvigorated

Hong Kong and Chinese unique genre. Almost as a common agreement, most group discussants understood that patterning was one of Zhang's techniques to construct spectacles and he has confirmed a creative pattern to transgress his own aesthetic style and representational norms in Beijing Olympic 2008 and his other film and cultural productions in accord with his habits and temperament (Beardsley, 1982; Brummett, 1999). In *Hero*, various patterns were displayed and most group discussants appreciated those spectacular patterns in terms of their different imagination and interpretations of the movie except most elder audiences of group (C) who were struggling for a balance of cultural representation between perceptual and cognitive realisms with a skewed attitude towards the references of physical reality. While most movie amateurs of both groups (E1) and (E2) enjoyed spectacular patterns and imaginary perspectives in *Hero*, which was regarded as a journey or a walk in gallery for exploration by free referencing, many discussants of the other groups took more care of believability and quality of digital effects production in *Hero* and *A Battle of Wits*. With reference to cognitive reality, those group discussants put more emphasis on seamlessness and invisibility of digital effects; nevertheless, they allowed seamless but visible digital effects by referring to perceptual reality or hyperreality from imaginary perspectives (Black, 2002; McClean, 2007).

While most discussants of group (C) believed that those patterned digital arrows in *Hero* represented Zhang's aesthetic style in terms of romanticism, Wai (C) commented that digital arrows had become a standard of cultural representation in digital cinematic productions and Tak (C) argued that Zhang had sacrificed the core imagery of battle scene which should be bloody but had been romanticized by means

of digital patterning. Fanny (C) also complained that those digital arrows were visible but not believable because of a lack of depth; nevertheless, she applauded the invisible digital arrows in *A Battle of Wits* that she did not recognize before the focus group. However, she confessed that the POV (point-of-view) shot of a pile of digital arrows in *Hero* was unreal but provided an interesting and spectacular visual excitement from a special imaginary perspective. Generally speaking, those elder audiences of fruitful lived and cultured experiences as their intertextual references more prefer to watch realistic representations by invisible digital effects in Chinese martial arts movies, especially those of strong historic backgrounds. But they also understand and try the best to adapt the new aesthetics and perspectives of digital cinematic representations of unprecedented symbolic forms and values, which is an inevitable cultural, as well as generational, gap also encountered by many older cultural producers.

Fanny (C): Those digital arrows (in *Hero*) can be seen as effects...  
Flying from there, the depth is not enough. I cannot feel the effect (of reality).

Tak (C): The whole thing is romanticized. It should be a very bloody (battle) scene. Because of digital effects, it becomes very awful, but quite pretty.

Fanny (C): (In *A Battle of Wits*) I thought they used real arrows...  
Maybe it is advancement (in digital effects production).

As one of the young movie audiences of higher tolerance, Man (A) said that the feeling of those digital arrows was believable when he was engaged in such Chinese martial arts genre and like what he saw when playing video game. Besides, most young discussants recognized those digital crowds of troop unreal at the first sight of a battle scene in *A Battle of Wits*, and Lam (A) commented that the long shot was so static and audiences could gaze at the visible layers of digital cloning of crowds, thus making the final composition unbelievable. While Lam (A) disliked those squarely patterned digital arrows, her group members commonly appreciated very much for the combat scene in *Hero* that uneven patterns of “hu-yang” (胡楊) leaves spectacularly and romantically moved and followed the fighter’s sword to dance in a sophisticated visual representation by digital effects and compositing. Louis (B) also recalled his memory that those scenes of digital arrows and other patterns in the movie had astonished many people, and such usage of digital arrows in cultural representation was pioneered by *Hero*. In both groups (E1) and (E2), those movie amateurs appreciated Zhang’s patterning effects and believed that those visible patterns of digital arrows were necessary to represent his spectacular battle scenes of thousands of troop of power and discipline. While Lin (E2) thought that those digital arrows were more beautiful than the real ones shown in some previous movies, Don (E2) responded that such a feeling of arrow shooting had never been achieved and represented before and recalled that the most impressive and beautiful scene to him was the one in the scholar institute where Jet Li (李連杰) and Maggie Cheung (張曼玉) fought against the digital arrows. That scene formed believable spectacular martial arts patterns that could not be achieved by physical cinematography alone. Although nearly all younger generations of audiences and

movie amateurs showed relatively high adaptability of new patterning effects in digital cinematic productions, both quality and believability of digital effects production was emphasized. More interestingly, digital patterns of spectacular effects like those leaves on dance and those unevenly distributed arrows in the institute in *Hero* that not only confirm hyperreal representations of exaggerated visible effects like game graphics but also inscribe certain realistic references of martial arts to audience imagination were more appreciated by those young audiences and movie amateurs. Their perceptions and interpretations of such hyperreal spectacles of visible patterns leading to new aesthetics and perspectives of martial arts choreography by digital effects and computer animation are, to a great extent, strengthened by the additional realistic references of disorderliness and materialistic environments to digital compositing. This reinvents a new genre of martial arts of digitextuality by free referencing to their real and virtual lived experiences of both cognitive and perceptual realisms (Everett, 2003; McClean, 2007).

Man (A): I really think they shoot decades of (real) arrows out. Maybe related to experience of game play, like playing the *Story of Three Kingdom's Heroes* (三國群英傳); those soldiers shoot arrows really like (those in *Hero* and *A Battle of Wits*). I indeed think (those arrows in the movies) are real.

Lin (E2): Compared with those (physical) arrow shooting scenes of previous movies, those (digital) arrows are very beautiful.

Don (E2): Apparently no feeling of arrow shooting in the past.

Parker (A) thought that the imaginary perspective of the shot that a sword was cutting through a writing brush from an unimaginable perspective was a result of delicate management and coordination by the filmmakers in *Hero*, which was more impressive than those battle scenes from his opinion. As regards Zhang's hyperreality of martial arts romanticism, Kitty (A) described those spectacularly colorized scenes created by Zhang's hyperreal representations as pictures of beauty, and believed that more different beautiful and unimaginable pictures would appear because of the powers of representation by unprecedented imaginary perspectives of digital effects and computer animation. Po (B) also thought that the slow motion of those water droplets in the opening combat scene in *Hero* represented a kind of novel aesthetics and perspective in digital cinematic productions, which audiences need to see slowly to get the impact. But Chiu (B) criticized that such slow motion perspective of digital visual effects was very unbelievable and uncomfortable to him. Meanwhile, most elder discussants like Ching (C) appreciated the combat scene in rain where the water was frozen and Jet Li cut into the frozen water, as well as time, to fight against Donnie Yen (甄子丹) from an imaginary perspective of the unrepresentable that is impossible without digital effects and compositing. Nonetheless, she did not accept to apply such imaginary perspective to those shots of well-patterned digital arrows because she knew how the real arrows were shot de facto. King (E2) regarded that hyper-time slow motion in *Hero* as nothing new but an imitation of the bullet-time slow motion shots in *The Matrix*. But Don (E2) reminded his group members of the cultural specificity in *Hero* that the layers of live shooting of the scene are already very beautiful and attractive representations because both actors are real kung fu masters.

Ching (C): Because arrow shooting is reality. You know the appearance of shooting. But when you talk about that kung fu, those water and wind are your imagination.

Don (E2): (*Hero*) is better than *The Matrix*. Jet Li and Donnie Yen can really fight. That (kung fu fighting) is not part of the effects but already looks pretty good; with integration of digital effects, it looks better than their fighting alone.

Although the group discussants' cultural appreciation and appropriation of the novel imaginary perspectives by digital effects and computer animation in digital cinema highly varied with their free referencing to unpredictable loci of the spectrum from cognitive reality to perceptual reality, their discourses articulated common agreement with the creative power of imaginary perspectives in digital cinematic productions. This leads to the "re-enchantment" of cultural representations in martial arts genres during the process of production and consumption of digital cinema. Such re-enchantment of cultural representations by novel imaginary perspectives of digital visual effects allows unprecedented, unpredictable and contingent production of magic, fantasies and dreams of unimaginable martial arts choreography. *Hero* well demonstrates such re-enchanted representations of martial arts fantasies in Zhang's new aesthetics of digital cinema that should deal more with quality rather than quantity and take care of audiences' disparate aesthetic values and judgment of the "rationality of irrationality" (Chan & Ma, 2002; McClean, 2007; Ritzer, 2008). Furthermore, cultural specificity like Hong Kong martial arts culture should be

emphasized during the process of remediation and reinvention of glocalized cultural representations in digital cinematic aesthetics and productions by integrative economic-symbolic valorizations of both old and new media and cultures (Bolter & Grusin, 1999; Thompson, 1995; Waisbord, 2004). According to the group discussants' discourses of their perceptions of the aesthetics of patterning and imaginary perspectives, their interpretations of the meanings of cultural representations in digital cinematic productions in terms of these 2 aesthetic characteristics are highly subject to audience repertoire of cultural practices referring to different aesthetic experiences and socio-cultural contexts in the creative process of de-paradoxicalization, deconstruction and de-differentiation. It is contingent that every person may locate one's imagination on any spot of the spectrum from radical perceptual realism to radical cognitive one during the process of cultural consumption and production in a paradox such like the elder audiences' acceptance of hyper-time fighting scene in rain but rejection of digital patterns of slow motion arrows in *Hero*.

### **Session 5: Postmodern Magic-spirit Martial Arts**

Again 2 martial arts movies: Hark Tsui's *The Legend of Zu* and Kaige Chen's *The Promise* were deployed to stimulate focus group interaction for the study. But these 2 digital movies are, indeed, difficult to be classified as they are postmodern cultural productions of hybridity and digitextuality and cross-cultural, cross-historical, cross-genre productions composed of multiple layers of old and new media images of multiple relations of media dimensionality (Everett, 2003; Fuller, 2005). I define them in a contingency as "postmodern magic-spirit martial arts" genres for their conspicuous postmodern characteristics of pastiches and intertextual

references that hybrid forms of hyperreality, mythology and martial arts in complex aesthetic combination reveal some representative imagery of those 1960s Hong Kong magic-spirit martial arts movies (Hong Kong Film Archive, 1999). I use a plural form to maintain their identities of hybridity and uncertainty. Another difficulty in this part of reception analysis is the lack of intimate experiences about complex and collaborative production exigencies from those group discussants' perceptions upon their movie-watching experiences (Marshall, 2004). Fortunately, some group discussants had vivid reflexive knowledge and information about digital cinematic productions from watching the "making-of" and other media discourses. Many older discussants of groups (B), (C) and (E2) could point out certain problems concerning collective imaginative inputs to cultural representations in these 2 digital cinematic productions, though those production difficulties were not very precisely explicated. While the young discussants of both groups (A) and (E1) provided unique perceptions of the digital movies from their perspectives of new and youth media cultures, those older discussants took more care of the Chinese cultural elements in the movies.

With regard to some visual representations by multiple-layered composition of digital effects and filmic images, Jenny (A) could not understand why *The Promise* had to use digital grassland instead of a real one for the running scenes that was criticized as unreal and unbelievable. Parker (A) replied that the critical problem should be the cost, as well as quality, of the production of the layers of digital effects and computer animation in the movie. He believed that the movie's digital visual effects should be completely acceptable using the existing quality and techniques of video game graphics and animation. However, he pointed out that those digital layers

of live action shooting and computer graphics of the movie did not match, thus showing that the protagonists possessed more vivid color, but those computer graphics looked like renderings out of RAMs in the final composition. He also complained that many motions in *The Legend of Zu* and *The Promise* showed unacceptable fast rhythm and the background layer in the former movie appeared unreal and unbelievable when the protagonists kept flying in front of the awfully digital composited background layer, thus making it look like those old-hey-day Hollywood movies as Man (A) described. Again, those group discussants could pinpoint the problems of digital cinematic productions in terms of quality and believability that highly influence audience perceptions of cultural representations. As I know from some insiders, the most critical problematic is the poor coordination of collective activities in these 2 digital cinematic productions. This results in unacceptable and unbelievable digital effects and compositing that cannot reinforce storytelling but distract audience attention.

Jenny (A): I can't understand why (*The Promise*) has to use CG grassland during those running scenes on the grassland! I don't know it is necessary for the story and what an (imagined) world we enter.

Parker (A): CG of *The Promise* is poor because of the lack of delicacy in its production. Don't know why the guy always keeps running. He is (running) very slow, but the ground is moving much faster.

Sing (E1) liked *The Promise* and felt that those screen representations of the movie looked perfect and beautiful like those imagined mythic images of Chinese

magic-spirit movies/stories from his initial perception, but he also laughed at home when watching those fakes of flying protagonists again. Likewise, Fat (B) applauded the beautiful representations of Goddess Manshen (滿神) acted by Hong Chen (陳紅) as the mythical character in *The Promise* and Cecilia Cheung (張栢芝) as the master Dawn (孤月大師) at the very beginning scene of *The Legend of Zu* that all layers of digital images were seamlessly composited, but he cursed that the advent of Louis Ko (古天樂), who owned a pair of sharp metallic wings composited on his back, destroyed the beauty of the pictures. Indeed, Bo (B) thought that Tsui's *Zu: Warriors from the Magic Mountain* in 1983 looked better and its physical special effects as she defined as more "honest effects" produced more believable and acceptable representations for her. She regarded those digital visual effects in *The Legend of Zu* as unnecessary but awful. Generally, younger discussants showed higher tolerance towards novel digital effects and computer animation of game and new media imageries based on their own cultural values and lived experiences in cyberspace. But most mature discussants relied more on their lived experiences and tastes towards some representations of traditional media and cultures. Therefore, they tended to compare Tsui's old and new *Zu* movies and to make references to some traditional mythic and martial arts imageries when watching *The Promise*.

Fat (B): The screen of the advent of that Goddess in *The Promise* looks very beautiful. Then at that moment she is drifting away, that feeling is very sacred.

Bo (B): *Zu: Warriors from the Magic Mountain* is a little bit better. I think that effect using over 80 people to pull the wire (for the weightless kung fu) is indeed more acceptable to me. Therefore I was disappointed when Hark Tsui's second *Zu* movie launched.

Wai (C) felt that those digital representations of arrows in *The Promise* looked more beautiful and believable than those in *Hero* because of the additional layer of fire on arrowhead. Unfortunately, the reaction performance of those temporary actors and actresses in the scene destroyed the final outcome in a particular sense. And Tak (C) appreciated Tsui's insistence on reproducing the precise cultural representations of the original novel in *The Legend of Zu*, especially his research about the details of Zu's weapons like those metallic blades and swords and the abstract "qi". However, he was disappointed by the final composition of the multiple layers of live action performances and animated metallic weapons that failed to represent the physical materiality like weight on the human body.

Tak (C): Those martial arts movies (transcribed) from Jinyong (金庸) and Julong's (古龍) (novels) use swords for fighting. But it is not (swordplay) in the original novel of *Zu*. So, the new version of the *Zu* movie more closely reveals that feeling (inside the novel), very scientific. It plays with "jian qi" (劍氣), because it is concerned with Taoism (道學).

Compared *The Promise* (2005) with *A Man Called Hero* (1999), Monica (E2) thought that the multi-layered composition of the protagonists with the digital background layers was still very poor and unbelievable as shown in a scene that Donggun Jang (張東建) kept running on the roof of a computer-generated palace with Cecilia Cheung as a kite flying behind him. Besides, Don (E2) explained that he could not keep his laugh because Jang's serious acting in contrast to those cartoonish composited layers of digital effects really produced a comedic representation like those comedic scenes in Chow's digital movies. Honestly and fairly speaking, the digital effects and compositing in *The Promise* and *The Legend of Zu* showed some advancement in the Hong Kong digital effects production, but their final multi-layered compositions were not professional enough to make those older and mature audiences believe based upon their references to cognitive reality and cultured experience of Hollywood blockbusting digital movies. Especially for martial arts genres of long traditions and historical references, film directors need to put extra efforts to coordinate collective inputs from both old and new media producers, as well as audiences, of the contemporary complex creative and cultural industries to reinvent cultural representations of martial arts in the form of digital cinematic aesthetics and productions. This can only be achieved by thoroughly considering the potential functions of the imaginary power of digital media technologies and cross-cultural, cross-historical, cross-genre symbol-elements to produce novel, representative, multi-layered digital imageries for storytelling. Needless to say, digital compositing of multi-layeredness that asserts the "aesthetics of seamlessness" creates new possibilities of cultural representations in cinematic productions in the era of digitalization (Havens et al., 2009; Manovich, 2001). Nonetheless, Jang's serious running but unintended comedic effects in *The Promise* provides a negative

exemplification and those visible seams of overly produced digital images of low quality and believability in *The Legend of Zu* is another.

Fanny (C) showed her understanding of the difficulty those protagonists encountered when they had to act by imagination in front of the green studio and the importance of coordination between acting and digital effects production. She pinpointed the significance of collective imaginative inputs from the protagonists (together with the director), although they were to some degree limited by the script. For instance, it was believed that Ekin Cheng, who likes playing video games, might pick up the acting required in the game-like digital environment of *The Stormriders* but fail to catch how to act in the relatively more classic martial arts story of *The Legend of Zu*. And most elder discussants thought that digital visual effects meant imagination and the corresponding protagonists needed to cultivate their imagination to act like pantomime in front of the green-screen. Similarly, Man (A) also emphasized and appreciated the performances by those protagonists but not the ostentatious use of digital visual effects in *The Promise* that did not help storytelling. Those discussants' discourses remind us of the fundamental nature of digital cinema as a comprehensive art form and system that is very much reliant upon the coordination of collective imaginative inputs from different agents of symbolic creativity. Innovative cultural representations of digital cinematic aesthetics and productions should not forget the contribution of those traditional media and symbol creators like cinematographers, art directors, martial arts directors and protagonists to reinvented martial arts movie productions when adapting digital media technologies and cultures by remediation (Bolter & Grusin, 1999).

While Louis (B) criticized that cultural representations in *The Legend of Zu* relied too much on digital media technologies, Gordon (B) also agreed that many Hong Kong and Chinese directors played digital effects and computer animation as toys without thorough imaginative inputs but sacrificed many other coordination works and elements in cultural representations of their digital cinematic productions. However, King (E2) fairly commented that Chen probably did not know how to creatively produce digital movie as he had never used digital effects and computer animation before, but his teams' collective inputs to creative representations in costume design and art direction in *The Promise* were appreciable. Eva (E2) also agreed that Chen's skills and knowledge seemed to be not enough to control and coordinate the digital effects production, thus leading to a failure in digital representations by collective imaginative inputs in the movie composition. Simply speaking, all the mature discussants' discourses evidence the supreme importance of the film director's coordination power and aesthetic sense to construct the meanings of cultural representations in digital cinematic productions in the creative process of de-paradoxicalization. All different collective imaginative inputs from both old and new media cultures/producers to a digital cinematic production may become messy, unbelievable digital images if the film director fails to integrate all these symbolic power and values into novel cultural representations by valorizations for better storytelling, especially in postmodern cultural production of complexity and uncertainty that needs to be de-paradoxicalized (Luhmann, 2002, 2005a; Seidl, 2005a; Thompson, 1995).

Louis (B): *The Legend of Zu* possesses too large a burden. I have a feeling of video game and there are many Chinese cultural elements

as Parker (B) said. You (mix them all together by digital effects and) only destroy the whole thing, no any benefit. Too fetishize technology.

The group discussants' perceptions of the significance of digital compositing in terms of the aesthetics of layering and seamlessness and collective imaginative inputs from filmmakers and computer animators to cultural representations in digital cinematic productions are obvious especially when audience reflexive knowledge about cultural productions has been highly increased in contemporary informational societies. Indeed, the imaginary thoughts of all group discussants represent a kind of collective imaginative inputs as Susan (E1) mentioned her perception of *The Promise* from her initial watching experience. She liked the story but not those poor digital effects and compositing and so, she would imagine her desired imageries by her own creative thinking as imaginative inputs when watching the movie. But, certainly, that is not what the filmmakers should expect the audiences to do to totally ignore their symbolic creativity.

Susan (E1): I like that story but not those digital effects that are not quite good. I imagine myself when watching. I think how (the movie) should look like in my mind... I imagine it myself, but not something (Chen's) production gives me.

All the above extracts from the 5 focus groups reveal that audience perceptions and interpretations of the meanings of cultural representations of digital cinematic aesthetics and productions vary greatly with socio-cultural backgrounds and socio-historical contexts in regard to audience repertoires of cultural practices at

disparate times and spaces. The discourses of audience perceptions and experiences of digital cinematic aesthetics and productions are being repeatedly constructed, deconstructed and reconstructed in a creative process of de-paradoxicalization by means of the networks of structural coupling between the psychic and social systems of perceptions and communication/“communication about the perceptions” respectively by the participating audiences (Brocklesby, 2009; Luhmann, 1995, 2000a; Seidl, 2005a). It is important that cultural producers should understand but not underestimate the contribution of audience perceptions as important collective imaginative inputs as those collaborative activities by those old and new media producers of digital cinematic productions to the meaning construction of multi-layered cultural representations in the spectrum of production and consumption.

#### **Reminder: More to be done for Reception and Discourse Analysis**

The “impossible” communication of audience perceptions of digital movies has been made possible via the interactive discussion of focus groups and generated fruitful data references to our understanding of the polysemic meanings of cultural representations in digital cinematic aesthetics and productions in terms of distinctions between information and utterance drawn by audiences (Luhmann, 2000a, 2005a; Seidl, 2005a). This chapter aims not at justifying any particular definitions of the characteristics of digital cinematic aesthetics, but draws attention to the possibilities of the construction of meanings of digital cinematic representations within new aesthetics and dynamics of digitalization and globalization (Grassilli, 2008; Havens et al., 2009). The analysis of those focus group participants’ discourses of aesthetic perceptions when watching those selected digital cinematic productions vividly depicts their experiences and feelings of digital cinematic aesthetics with

reference to their free play of imagination and interpretation of new and old media forms in their own words and contexts (Beardsley, 1982; Wolfe & Haefner, 1996). These discourses empirically support the advent of the 10 new aesthetics of digital cinema and pinpoint the important role and function of audiences' cultural practices in the "spectrum of cultural representations" of digital cinematic consumption and production.

The social and cultural meanings of representations in digital cinematic aesthetics and productions are contingent, but too much variety can merely lead to chaos and too much redundancy to paralysis. Reception analysis of audience perceptions of the 10 inductive characteristics of digital cinematic aesthetics may contribute to absorb as much variety as possible and to form combinations of possible references of media and aesthetic knowledge. This facilitates the advent of innovative media art forms of new styles from the rejection of all too familiar old and stereotypical forms and reinvents some routines/rules of aesthetic values and judgment to solve renewed and uncertain aesthetic puzzlements in digital media cultural productions (Luhmann, 2000a; Moeller, 2006; Wittgenstein, 2007/1967). Cultural producers of digital cinematic productions should envisage alternative possibilities of the meaning construction of cultural representations in the spectrum of production and consumption by audience repertoire of cultural practices as mutually recognizable constitutive activities, which form an indispensable part of the meanings of the existence of cultural production and corresponding artists in the art system and is well demonstrated by this reception study (Codde, 2003; Garfinkel, 1996; Rawls, 2002, 2006; Watson, 2009).

Apart from methodological individualism that is prominent in qualitative research, I have suggested a 3 dimensional investigational model to interpret meanings of cultural representations by interactional enquiries between media texts and other empirical data like interviews and focus group discussions. Here I have just finished a small part and more details of the discourses of the focus group participants can be further studied to extract their disparate aesthetic experiences and perceptions in comparison with the understanding of cultural representations by the analysis of digital cinematic aesthetics and productions from the cultural production perspective, which is demonstrated in the next chapter. This focus group analysis only drafts some scenarios. The full script of a bigger story concerning the full “spectrum of cultural representations” needs to be written in terms of more complicated interdiscursive discourses of the interplay among the media content of digital cinematic productions, the in-depth conversational interviews of cultural producers and the dialogues of interactional discussions in the focus groups. Finally, a contingent but holistic picture of the interrelationships among the texts, the producers and the audiences concerning the meaning construction of cultural representations in a spectrum will be illustrated by means of possible mechanisms to communicate about aesthetic meanings and perceptions of digital cinematic productions by structural coupling between our psychic and social systems.

## **Chapter 6 Regularities and Disjunctures between Producers and Audiences in Cultural Production and Consumption**

As Bourdieu (1993: 179) mentions, the power relationships between producers and consumers of cultural productions fundamentally form “the oppositions and antagonisms”, thus leading to Michel Foucault’s “paradise of ideas” of discursive discourses. Both cultural producers and consumers who play the role as contestants are continuously struggling for the powers of representation as a free play of both imagination and understanding of a work of art in the process of meaning construction in accord with their conflicting preferences and disparate cultural tastes and expectations of creativity (Caves, 2000; McCormick, 1990). The main gaps and trajectories of cultural representations by their repertoires of cultural practices can be discerned via juxtaposition of their discursive discourses of production and consumption to understand and/or to decode, as well as to create, the meanings of cultural representations in the spectrum (Codde, 2003; Hall, 1997c). Here Appadurai’s (1996) conception of disjunctures and differences of global cultural flows leading to cultural hybridization rather than homogenization with reference to the image politics and the imagination as social practices among producers and audiences should be envisaged. The disjunctures of all the 5-scapes<sup>1</sup> that constitute the continuously fluid and uncertain interplayed social/psychic systems between production and consumption in contemporary creative and cultural industries put emphasis on both irregularities and regularities.

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<sup>1</sup> Appadurai’s (1996: 33) framework of disjunctures is concerned with “the relationship among 5 dimensions of global cultural flows” that include the fluid, irregular shapes of “ethnoscapes”, “technoscapes”, “financescapes”, “mediascapes” and “ideoscapes” within social formations of economy, culture and politics.

Both cultural producers and audiences as human agents follow some regularities, as well as routines, of the systems of organization and representation that structured structures may function as structuring structures to generate and organize cultural practices and representations. However, their cultural practices are not always calculated and they do not simply obey the rules of the game consciously and rationally. Many flexible, loose coupling elements of organization and human interaction as disjunctures provide modularity and variability to new lifestyles, technologies, associations and neighborhoods to reform the patterns of cultural production and consumption in the form of an “aestheticization of life” as a response to increasing individualization and reflexivity by breaking the rules of organization/routinization and representation (Bourdieu, 1993; Caldwell, 2008; Featherstone, 1991; Florida, 2002; Luhmann, 2000a, 2002; Magalhães & Sanchez, 2009; Manovich, 2001). What is new in cultural representation is the disjuncture that points to some conjunctural practices and representations between the production-and-consumption process and the mass-mediated discourses and practices in the complexity model. Thereafter, bearing in mind, this study of the “spectrum of cultural representations” constitutes and is constitutive of a duality rather than dualism of regularity and disjuncture whereupon the discourses of cultural producers and audiences found the neighborhoods that are contexts and simultaneously require and produce contexts of the micropolitics of cultural representations. It concerns both the intentions of producers and the desires and needs of audiences highly determined by the psychic systems and molded by the social systems in a creative process of de-paradoxicalization (Appadurai, 1996; Garnham, 2005; Havens et al., 2009; Luhmann, 2002, 2005a).

Cinematic, as well as digital, images of symbolic values are employed as sites of social interaction among producers and audiences struggling over cultural legitimacy in the meaning construction process of cultural representation, and conveyors of information about contemporary visual culture and communication with regard to the complex, rapidly changing cultural tastes and habits of audiences and the rapid reinstitutionalization of cultural production systems (Caves, 2000; Grove, 2007; Peterson & Anand, 2004; Wright, 2008). Especially in the contemporary cultural system of manifest postmodernity and digitextuality, digital cinematic aesthetics and productions of hybrid cultures that show the characteristics of complexity, unpredictability and contingency favor active audiences of free imagination and creative artists of flexibility and symbolic creativity. Both producers and audiences are not cultural dopes but often active, skilled users of media cultures in the form of symbols, stories, rituals, and world views (Crane, 1994; Fiske, 1989/1987; Hall, 1981). On the one hand, their collective activities in terms of the regularities of behavior confirm autopoietic systems of organization and representation by referring to familiar norms, rules and shared understanding on the basis of conventional signifying practices such like language that regulate the power relations between producers and audiences by specifying their rights and obligations. On the other, their discursive practices within the collective imaginary space of possibilities construct the disjunctures and differences of cultural practices in regard to disparate positions and position-takings that reveal the existence of alternative modes/choices of thought and interpretation of cultural representations by negotiation and opposition. This facilitates the interpenetration between social and psychic systems within a dynamic stability, thus leading to internal modifications of the encoding/decoding mechanisms by breaking the rules, as well as structures, of

the systems of conventions in a creative process of de-paradoxicalization in the “spectrum of cultural representations” (Becker, 1974, 1976; Bourdieu, 1993; Caldwell, 2008; Hall, 1997c, 2006; Luhmann, 2002; Seidl, 2005ab).

For instance, the genre system of cinematic representations typically exemplifies the regularities of collective activities during production and consumption based on the rigid systems of conventions. It makes the production of standardized genre movie resulting in redundancy and stereotype easier, but the innovation by cultural experimentation and creative consumption leading to the rise in variety and diversity of cultural representations more difficult. While the cultural producers of genre movies uphold some representative and stylistic symbol-elements as reference codes and conventions as well as some rules and routines of organization cultures to systematically produce some standardized preferred meanings, the audiences who are familiar with the rules and the mediums of the systems of conventions should react properly to produce an expected emotional response to any stereotypical representations (Becker, 1974, 1976; Chan, 2002; Grant, 2003; Kellner, 1999; Neale, 2003). Nonetheless, cultural sovereignty is, to a great extent, reserved by audience repertoire of cultural practices during the consumption exercises and especially active audiences never give up their rights and powers to struggle for meaning construction via media culture as texts like genre movies as the sites of human interaction (Chan, 2002; Fiske, 1989/1987; Wright, 2008). Besides, renewed, mixed, and hybrid genres of media productions are possible especially in cultural representations of digital cinematic productions whereupon digitextual references of new media cultures that are so fluid and flexible make the disjunctures and differences. They allow the free play between signifiers and signifieds by

audiences and producers of the autonomy of interpretation by endless references and discursiveness (Brunette, 2000; Everett, 2003; Leon, 1953). The polysemic meanings and meaning construction process of cultural representations in the spectrum of production and consumption can be discerned by a comparative study of those discourses among cultural producers and audiences during those in-depth conversational and focus group interviews respectively in this research.

In this chapter, the increasingly complex structure of feelings about cultural representations of digital cinematic aesthetics and productions is demonstrated by the discourses of both producers and audiences as a type of “cultural de-representations”, which reveals their disjunctive and conjunctive understanding of and contribution to the symbolic/aesthetic values of the cultural production of digital effects and computer animation in the creative process of de-paradoxicalization, deconstruction and de-differentiation (Highmore, 2009; Storey, 2010; Urry, 2005, 2007). Most interviewed cultural producers as creative managers and symbol creators of digital cinematic productions show their trust and mutual commitment to their creative duties based upon the shared “creative passion”. It is important to their collective and collaborative activities in cultural production and the core driving force to continue their creative careers, as well as dreams, in contemporary creative and cultural industries. However, they have to encounter a lot of difficulties and challenges in the field of digital cinematic productions to coordinate collective activities of creative workers under the complex nomadic labor systems and flexible organization cultures and structures of disparate participating parties by means of integrative economic-symbolic valorizations. This is inevitable before achieving an equilibrium that is never frozen between economic values and symbolic/aesthetic values in a dynamic

stability under the rapidly changing socio-cultural contexts in our era of digitalization and globalization (Caldwell, 2008; Goldspink & Kay, 2009; Luhmann, 1979, 2000a; Thompson, 1995). Besides, they also need to select the best or better means of decision communication to produce innovative and persuasive media cultures and aesthetics to struggle with audiences for the construction of meanings of cultural representations that is contingent and to persuade audiences enter, or re-enter, cinema to watch digital cinematic productions.

As one interviewed film producer<sup>2</sup> mentioned, to enhance the cultural interest and appreciation of Hong Kong movies by the local audiences that is endorsed by 1 of the 4 objectives of the Film Development Fund of the Hong Kong Film Development Council<sup>3</sup> (<http://www.fdc.gov.hk/en/services/services2.htm>, cited in Feb. 5<sup>th</sup> 2010) and commonly believed by many filmmakers to be related to digital media cultures and younger generations of audiences in favor of digital cinematic productions of spectacular impulses<sup>4</sup> is the most difficult task and challenge encountered by the contemporary Hong Kong filmmakers. In comparison with audience perceptions of digital cinematic aesthetics in the 5 focus groups, discourses of the 18 interviewed creative managers and symbol creators of digital cinematic productions in Hong Kong and China show both similarities and differences among themselves and the audiences in the meaning construction processes of cultural representations. This means the coexistence of a variety of cultural practices by both

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<sup>2</sup> Sometimes I hide the name of the interviewed cultural producer for protecting one from any inconvenience when I am talking about something sensitive.

<sup>3</sup> The Hong Kong Film Development Council was established by the Government of the Hong Kong Special Administrative Region in 2007 with a view to reinvigorating the Hong Kong film industry.

<sup>4</sup> James Cameron's *Avatar* (2009) as a spectacular, stereoscopic 3D digital cinematic production has just broken the world record of box office (already over US\$2 billion, <http://www.the-numbers.com/movies/records>, cited in Feb. 5<sup>th</sup> 2010) and aroused some discussions about those possible spectacles of stereoscopic 3D effects in Hong Kong cinema (see Ming Pao, Jan. 15<sup>th</sup> & 27<sup>th</sup> 2010).

producers and audiences as regularities and disjunctures in the spectrum of cultural production and consumption. It is a duality of regularity and disjuncture corresponding to the concept of double contingency of the ego-alter constellation that is the doubling of impossibility leading to possibility. In other words, the paradoxical and de-paradoxical mechanisms of the continuity of organizational cultural production and reproduction and the discontinuous deconstruction and reconstruction of all too familiar forms and mediums lead to hybrid cultural productions of new media aesthetics (Appadurai, 1996; Luhmann, 1995, 2000a, 2002; Metcalf, 2001). Nevertheless, some disjunctive understanding of digital cinematic aesthetics remind cultural producers that their assumption about audience tastes and aesthetic values may be incorrect or biased, and they must envisage audiences' powers of representation as a free play of both imagination and understanding of digital cinematic productions by audience repertoire of cultural practices. The audiences of different socio-cultural backgrounds can interpret and organize aesthetic values and judgment in terms of their enacted practices by education and lived experience to construct polysemic meanings of cultural representations upon their perceptions (Codde, 2003; Crane, 1992; McCormick, 1990; Rawls, 1996, 2001).

The following juxtaposed discourses provide some insightful information to all cultural producers and audiences of digital cinematic aesthetics and productions concerning the limitation of every interpretation of cultural representations and the importance of sensitivity to everyday changing experiences of digital media literacy. This is a response to the growing complexity of digital technologies and newcomers of flexibility and symbolic creativity in globalized digital media industries and the increasing and diversifying flows of audience resistances in creative consumption of

digital media cultures. Nonetheless, disparate and competing interpretations of cultural representations in the spectrum of production and consumption make possible change, reform, and evolution of digital cinematic aesthetics and productions in an unprecedented speed (Bourdieu, 1993; Hesmondhalgh, 2002; Luhmann, 2000a; Wilson, 2006). This comparative discourse analysis of the producers' observations of those creative processes and duties of cultural production and the audiences' perceptions of those digital effects and computer animation produces some differences and references for understanding the landscapes including some blind spots of the development of digital cinematic aesthetics and productions in Hong Kong and China since the advent of *The Stormriders*. 5 distinctions of such differences and references as disjunctures and regularities of interconnectedness and interdependence are drawn to elucidate some contributions of both producers and audiences' conflicting and consistent interpretations of cultural representations to the meaning construction of digital cinematic aesthetics. These 5 distinctions: (1) the influences of youth and new media cultures on digital cinematic productions, (2) the imaginary space and power for the creation of digital cinematic aesthetics, (3) the collective inputs from cultural producers to digital cinematic aesthetics and productions, (4) the Hong Kong styles of digital cinematic productions, and (5) the impact of digital effects and computer animation on cinematic storytelling are thoroughly studied with reference to the interactive power relationships between producers and audiences and their discursive practices in sites of struggle for contingent meanings of cultural representations, which result from their observation/perception and interpretation of media texts and discourses.

## **Youth Cultures as References for Digital Cinematic Productions**

As just mentioned before, enhancing the cultural interest and appreciation of Hong Kong cinema to attract young audiences to enter, or re-enter, theatres to watch the local movies is a commonly agreed goal by many contemporary local filmmakers. But this is not something new at all as if all commercial and entertaining art forms of mass media like cinema need to concern how to attract more audiences by structural coupling of the psychic system with society in terms of self-socialization and social inclusion (Moeller, 2006). During my interview, Kan-cheong Tsang (曾臻昌, TV and film scriptwriter) pinpointed that it is all the time necessary to understand the new generation and youth cultures for film creation. He further explained that cultural workers of cinema and other entertainments always want to know the needs and desires of audiences, especially younger generations, in order that they may create something new to lead the cultural trend that the youngsters follow. However, he thought that the holistic film development in Hong Kong has been a little bit behind the trend especially when considering the recently rapid growth of game and other youth cultures. Such new media and youth cultures have dramatically changed the logic, rhythm and speed of cultural imagination by young audiences of “speed-inflected dispositions” – “impatience, daring, restlessness, defiance of authority” – in contemporary digital media production and consumption of reflexive sign economy (Lash & Urry, 1994; Tomlinson, 2007: 53). Many interviewed producers and audiences, especially the elder ones, also agreed that the new logic and rhythm of youth cultures in the digital era heavily influences digital cinematic aesthetics and productions by introducing new modes of thought and interpretation of cultural representations (Bourdieu, 1993). Ain-ling Wong (黃愛玲, film critic and researcher) confessed that the dramatic youth cultural transformation concerning digital media

literacy is difficult to be followed by the older generations and those spectacular digital effects of cinematic productions of unprecedented imaginary perspectives have become common symbol-elements of added-values to attract young audiences to enter cinema, which is generally resonated with major opinions among the elder audiences of the focus group (C). She also said that those digital cinematic productions of fast rhythm are corresponding to the acute and quick sense and sensitivity of youth generation growing up with disparate digital media.

A. Wong: ... But, nowadays the young generation contacts all (new) media... that time (and speed), patience, attention, interest have greatly changed.

A. Wong: I think it is related to (digital literacy). (The youngsters) are comparatively easier to accept something jumpy. They do not need your clear explanation about the (jumpy) camera shot(s). They can quickly adjust themselves because they have learned so much via the virtual space. Jump from one thing to another. That jumping (rhythm) is very fast and tremendous.

Wai (C): ... Recently, I have watched the movie *Transformers*<sup>5</sup>. I feel dizzy when watching. (The robots) keep transforming unstoppably, only visually very exaggerated, very messy! I think that things (that movie or robots) may not be belonging to our generation. Those

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<sup>5</sup> Michael Bay's *Transformers* (2007) is a movie adaptation of the Transformers franchise including comics, toys and TV episodes ([http://en.wikipedia.org/wiki/Transformers\\_\(film\)](http://en.wikipedia.org/wiki/Transformers_(film)), cited in Jan. 3<sup>rd</sup> 2010).

young kids who like Transformers may feel excited by the movie and that (robotic) transforming.

Fanny (C): (*A Chinese Tall Story*) seems to have a great deal of creativity. Some people said that its story was very novel. But when watching these (messy and fast rhythm) footages of the movie again, I really cannot guess what it is doing...

Youth cultures like electronic book, digital photography, mobile, internet and video game, just to name few, provide differences and references in terms of new media contents, lifestyles, human-computer interfaces, digital visual effects and so forth for innovative production and creative consumption like those cross-fertilized comic-style and game-like digital movies. Such cross-fertilization with youth and new media cultures is a popular way of repurposing as pouring some familiar youth content into another new, as well as old, media form (Bolter & Grusin, 1999). While nearly all interviewed producers and audiences acknowledged some advantageous contribution by the imaginary space and power of digital effects and computer animation to cinematic productions, most young audiences of the focus group (A) and movie amateurs of both groups (E1) and (E2) more appreciated seamless and believable spectacular visible effects of fast rhythm like video game in digital cinematic productions such as *The Stormriders* and *The Twins Effect*. However, Felix Chong (莊文強, director and scriptwriter) reminded us that not only the changing rhythm but also the color and tones of multiple window screens and other symbol-elements of digital media technologies like video games, mobile telecommunications and computer technologies in our everyday lives have, to different extents,

transformed our perception experience and affected the methods and rhythm of cinematic and other media productions. This facilitates the advent of new aesthetics and new symbol creators like computer animators by production differentiation and de-differentiation in creative media and film industries (Bordwell & Staiger, 1988; McClean, 2007).

Although most members of both groups (B) and (C) believed that youngsters were the target audiences of those fast rhythm game-like digital effects and computer animation in *The Twins Effect* and *A Chinese Tall Story* referring to youth game cultures, nearly all young audiences of both groups (A) and (E1) who appreciated fast rhythm game-like computer graphics (CG) commented on the added-values of such kind of game-like CG very systematically in accord with youth resistance and reflexive knowledge about the differences between cinema and video game by a sensitivity to their everyday experiences. This pinpoints some incorrect or biased assumption about audience tastes and aesthetic values of youth game cultures by cultural producers of digital cinematic productions and reveals the immature development of the aesthetic conception of cross-fertilization with video game (Crane, 1992; Wilson, 2006). The young audiences believed that using spectacular CG must be a trend for such kind of digital cinematic productions, but they cared about the matching of CG layers with other filmic images during digital compositing and the story and image quality enhanced by digital effects and computer animation to a great extent. Man (A) commented that *A Chinese Tall Story* failed to attract young audiences not for those messy multiple layers of CG but for the unacceptably low quality and believability of the digital effects production. He further explained the importance of visual pleasure in digital cinema compared with the different kind

of enjoyment by interactive game play that may tolerate lower quality of graphic representations. And both Jenny (A) and Parker (A) agreed that the relatively higher quality of game-like CG production that matched with the fantastic vampire story of *The Twins Effect* achieved similar effects of spectacularity like *The Stormriders* to successfully bring the audiences to another world of imagination by cross-fertilization with video game and comic.

As Tsang said, digital cinematic production needs to create, and/or to follow, the cultural trend. The growing imaginary space and power of visual exaggeration in computer games has challenged and influenced digital cinematic productions, especially action movies, to a great extent. Both Bill Lui (雷楚雄, art director) and Bismarck Ho (Menfond's senior computer animator) confessed that video games have become popular intertextual/digitextual references for digital cinematic productions. At the very beginning, the development of video game learned a lot from cinema. But, as Lui said, owing to the advancement of digital technology, those spectacular and believable 3D images of photorealistic lighting and rendering make references of new possibilities of imagination for contemporary digital cinematic productions. Those new cinematic images are reliant on digital effects and computer animation sophisticatedly developed in the field of video game and digital media industries. He also pinpointed that some film directors and martial arts directors would like to ask those younger assistant directors to edit some footages of computer games as references for them to design actions in movie productions. Besides, Ho proved that during the design treatment of a fighting scene of complex, multiple layers of digital effects and computer animation in *A Chinese Tall Story*, Menfond's computer animators really referred to some intermediate transitional scenes of

computer game with a view to matching the interest and taste of young audiences. Unfortunately, those young audiences of the focus groups (A) and (E1) did not like that scene very much and someone even criticized those cross-sectional views of computer animation in the scene as unwanted bugs of computer game. Such oppositional readings of the movie's digital representations reveal the disjunctures and differences between producers and audiences' repertoires of cultural practices during production and consumption, the existence of youth resistance to the preferred meanings by cultural producers, and the complexity of the meaning construction process in the "spectrum of cultural representations". This elucidates both the difficulty and the worthiness of this research on the basis of the complexity model of critical media and cultural studies. Indeed, Chong complained that Hong Kong cinema does not possess relevant and reliable systems of research data like those available in Hollywood and thus, Hong Kong filmmakers always make decision (communication) by guess or gut feeling only (Chan et al., 2010).

### **The Imaginary Space of Digital Cinematic Aesthetics**

Not merely do youth and new media cultures change the rhythm of cultural imagination but they also create unprecedented imaginary space and power of possibilities by introducing new aesthetics and perspectives. This provides the opportunity for bridging the marked and unmarked spaces of cultural production and consumption and allows the creative process of de-paradoxicalization, deconstruction and de-differentiation (Luhmann, 2000a, 2002; Tomlinson, 2007). Such new aesthetics and imaginary perspectives of digital cinematic productions to a great extent reinvigorate contemporary cinema as the "dream factory" of spectacles, as A. Wong and Chong pinpointed. Here we focus on the conception of digital cinematic

aesthetics as our perception of cultural representations in a digital cinematic production that is a work of art. And this work of art is an object for our feelings and ideas during the consumption exercise. This is a double transformation that should be understood via a comparative discourse analysis of both producers and audiences' cultural practices in a holistic manner. Or, their individual interpretation of cultural representations, especially those authoritative interpretations by filmmakers and film critics that usually ignore differences of audience perceptions, in digital cinematic aesthetics and productions often becomes pure soliloquy (McCormick, 1990; Vivas & Krieger, 1953). As a demonstration of industrial self-theorizing action, Chong humbly declared, "If talking about film as a kind of art... Only after its completion, the people who watch it, perceive it, and be touched by it may have the initiative to tell it is an art or not." Indeed, many cultural producers get the final impression of their invented/reinvented aesthetics of digital cinematic productions when watching their own movies from a producer-as-audience perspective.

In this section, we are going to study the possibilities of new aesthetics and perspectives of digital cinematic productions by comparing disjunctive opinions and discourses of both cultural producers and audiences based on their production and perception experiences respectively. Indeed, there is a dilemma in defining any new aesthetics of cultural representations. It generates new stylistic forms by rejecting or modifying systems and structures of representation that have become all too familiar or stereotypical, and simultaneously constructs new value structure of cultural production, as well as reproduction, leading to another wave of rationalization and routinization of some familiar forms by repetitive collective activities (Luhmann, 2000a; Morris, 1953). For instance, Olive Leung (梁菁雯, lecturer and Centro's

former motion graphics designer) queried about the validity of Zhang's patterning of digital arrows in *Hero* as a new aesthetics of digital cinema that should stimulate a sustainable change in audience imagination and aesthetic experience of cultural representations. Nevertheless, her colleague Nelson Tam (譚海鳴, lecturer and Menfond's former computer animator) agreed with some other interviewed cultural producers and most audiences of the focus groups that the patterning of digital arrows as a new dynamics and aesthetics in digital cinematic productions initially and consistently demonstrated by Zhang's movies and other cultural productions like the opening performance of well-patterned real crowds of people in Beijing Olympic 2008 has become a global standard of spectacular effects. He also pinpointed that such systematic and spectacular patterning effects as those digital arrows in *Hero* represent Zhang's unique and fabulous achievement by his habits and temperament of transcendental visual treatment, and have been frequently imitated by many Chinese and foreign digital cinematic productions as a formula (Beardsley, 1982; Brummett, 1999). But, bearing in mind, most elder audiences of group (C) disliked those squarely patterned digital arrows in *Hero*.

Tak (C): I think (those scenes of well-patterned digital arrows) are romanticized.

Wai (C): I feel (those digital arrows are) unreal.

Ching (C): The feeling should be very fast when shooting arrows.  
Such (digital arrows) are too slow.

As commonly agreed by most focus group audiences, the patterning of digital arrows in *Hero* represents Zhang's preferred style of visual representation of romanticism and perfectionism. During my interview, Ellen Poon (潘國瑜) as the consultant and visual effects supervisor of *Hero* confessed that such regular patterns of digital arrows are really unnatural and impossible to make possible in reality especially when you have tried arrow shooting on location yourselves. She further explained that it is irrelevant to illustrate such patterning effects from a conception of reality. From her point of view, those well-patterned digital arrows are "impossible" representations of military power and imageries of hyperreality as a choice of aesthetic styles made by the creative managers and symbol creators of the movie, especially Director Zhang.

Poon: Akira Kurosawa's observation is very good and so, his scene of (actual) battle really looks chaotic... It depends on what you want. In *Hero*, (Zhang) wants those (digital) arrows to show the power and discipline of the troop and to win the battle. Therefore, those arrows must be orderly. Every arrow becomes a character. To win, those arrows must not be messy and chaotic.

Patterning of spectacular digital arrows is a choice of aesthetics by cultural producers and those digital arrows to a certain extent become characters of the movie from an unimaginable perspective by the imaginary power of digital effects and computer animation to bring audiences to a new space of possibilities and impossibilities in the "spectrum of cultural representations". Though Lui thought that those well-patterned digital arrows are not rational, he agreed that those orderly

arrows made possible by digital visual effects could represent the stern military discipline and should be a decision by the director's choice. But he added that such patterning as a new aesthetics and perspective by unprecedented imaginary power of digital effects needs to make believable. This is evident that most focus group audiences, especially those elder ones in group (C), except those movie amateurs more appreciated those invisible and believable digital arrows in *A Battle of Wits* compared with those visible and spectacular ones in *Hero*. As Clement Cheng (鄭耀明, Menfond's former visual effects supervisor), who was responsible for making and coordinating digital effects production in *A Battle of Wits*, and Margaret Yau (游潔貞, the movie's associate/managing producer) mentioned, over 400 shots of digital visual effects in the movie are not obvious spectacles because the filmmakers want to make those effects as believable as possible.

To make spectacular and believable imagery is gift to contemporary digital cinematic productions by the new aesthetics of unprecedented imaginary perspectives of digital effects and computer animation that makes impossible become possible and provides preconditions to create new voyeurism for audiences. Creative artists of digital cinema collectively and collaboratively employ digital effects to sublime unimaginable and unrepresentable ideas into believable representations to produce increasingly vivid but less lifelike sensational images by blurring the boundary of illusion and reality. This greatly stretches the imagination and aesthetics of digital cinematic productions (Black, 2002; Chong, 2008; Everett, 2003; Sarafian, 2003). Wellington Fung (馮永, producer and founding partner of Media Asia) emphasized that contemporary digital media technologies highly enhance

believability of digital visual effects such as the seamless digital compositing of a scene in *Crouching Tiger, Hidden Dragon* that makes the fighters' weightless kung fu inside the bamboo grove believable and enjoyable, and thus helps storytelling. However, he believed that cultural representations by spectacular and believable digital effects influence more the sensational than the emotional feelings of audiences on visual spectacle and storyline respectively. It is generally supported by nearly all focus group audiences who, to a great extent, agreed with most interviewed cultural producers that the impact of the increasing imaginary space and perspective by digital visual effects on cultural representations in local digital cinematic productions is highly reliant upon audience perceptions of sensational images by spectacularity and believability.

But audiences' interpretations of cultural representations still show disjunctures and differences by their disparate repertoires of cultural practices. This is well demonstrated by the focus group audiences' discourses of their free imagination and understanding of the representative meanings of the early combat scene in rain of impossible but believable imaginary perspectives by digital compositing of multiple layers of digital visual effects and real combat footages in *Hero* by means of free referencing. Young audiences of group (A) generally agreed that *Hero* as Zhang's martial arts movie should look unreal and those digital imageries of the slow motion fighting and splash of water droplets were pretty visual representations made possible by those digital effects. Meanwhile, most elder audiences of group (C) who disliked those spectacular patterns of digital arrows appreciated this combat scene of slow rhythm very much and regarded those digital effects of water droplets as believable and realistic representations of martial arts of

Chinese characteristics. Those movie amateurs of both groups (E1) and (E2) commented on the hyper-time motion sequence of the combat scene positively or negatively to different extents, but they simultaneously compared those cultural representations of digital effects with Hollywood ones such like the bullet-time motion effects in *The Matrix*. Here the definition/conception/articulation of believability is fluid and flexible and subject to audiences', as well as producers', different interpretations of cultural representations with no fixed relation to other reality, unreality, and hyperreality. As Poon mentioned from her solid working experiences in both Hollywood and Hong Kong, some comic-style kung fu of water effects is relatively abstract and surreal, and thus, computer animators can more freely create some unimaginable representations of digital effects. Nevertheless, some animation like the motion of the "fire unicorn" in *The Stormriders* is more realistic and needs to follow some laws of physics by referring to real animal behavior and motion in order to make those digital images and motions believable by narrowing down the gaps between producers and audiences in the "spectrum of cultural representations" (Bolter & Grusin, 1999; Sarafian, 2003).

### **Collective Inputs to Digital Cinematic Aesthetics and Productions**

Cinematic production is a result of complicated collective activities of both regular and irregular practices of symbolic creativity under fluid and flexible systems of organization and representation, which is never fixed but always changing. Digital technologies add new sources of complexity, uncertainty and contingency to digital cinematic production by introducing new aesthetics, new techniques, new collaborating organizations, and newcomers of creative managers and symbol creators into the field of cultural production, with a view to sustaining and

reinventing the complex cycle of knowledge and cultural flows by collaborative inspiration to satisfy market, as well as audience, demands (Becker, 1974, 1976; Hesmondhalgh, 2002; Jeffcutt & Pratt, 2002). As Chong sophisticatedly pinpointed from his solid practical experience of the production of the *Internal Affairs* trilogy (無間道 I, II & III, 2002, 2003), cinema is one rare field of creative and cultural industries as risky businesses whereupon its previous success increases the failure rate of the next consecutive production, especially a prequel or sequel, in terms of innovative breakthroughs. Similarly, Ko Fai<sup>6</sup> (高輝, creative director and visual effects supervisor) also mentioned the increasing difficulty in Centro's 2<sup>nd</sup> digital cinematic production *A Man Called Hero* of the same original comic artist but of even more fans, after the success of *The Stormriders*. There are many reasons for this unexpected phenomenon that is not core concern of this study. But it reminds us of the existence of some disjunctures and differences of cultural production knowledge that represents the imagination as social practices among producers and audiences leading to the gaps of the understanding of cultural representations in digital cinematic aesthetics and productions. Although many contemporary audiences get such kind of production knowledge from industrial-reflexive materials, some information about the changing production cultures and differentiated/de-differentiated new positions and position-takings resulted from the rapid reinstitutionalization of cultural production systems, especially the “ugly difficulties”<sup>7</sup> encountered by many cultural producers, is still hidden behind “behind-

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<sup>6</sup> Ko Fai – one of the key animators for the production of *A Man Called Hero* in Centro – is a naked name generally known in the field. His real name is Yuen-fai Ng (吳炫輝).

<sup>7</sup> I call them the “ugly difficulties” because they are always some unintended consequences of non-systematic coordination and organization of cultural production in the Hong Kong film industry. Indeed, many interviewees felt upset for such kind of avoidable problematic in digital cinematic productions. And such kind of problematic has never been shown to audiences in the “making-of” that shows off minor or fixed difficulties merely.

the-scenes” of digital cinematic productions (Appadurai, 1996; Bourdieu, 1993; Caldwell, 2008; Peterson & Anand, 2004).

This section aims to unveil some insiders’ solid practical experiences of cultural production concerning certain complicated, interconnected and interdependent production knowledge of symbolic creativity in digital cinematic productions that may help audiences understand the meanings and meaning construction process of cultural representations from the cultural production perspective. Such insiders’ discourses of their practical actions and reasoning also reveal polysemic meanings of cultural representations during production because of the complexity and uncertainty of the outcome of their collaborative and coordinated collective activities in the creative process of de-paradoxicalization. Whereas the advent of digital effects and computer animation increases the complexity of digital cinematic aesthetics and productions, the sustainable development or reproduction of systems of organization and representation in digital cinema relies on the reduction of complexity. In other words, the increasing complexity and uncertainty of production workflows by innovative technologies and work forces by newcomers of creative managers and symbol creators such as visual effects supervisors and computer animators needs to be coordinated or reduced to productive collective inputs to enhance and sustain cultural representations of digital cinematic aesthetics and productions (Garfinkel, 1967, 1996; Hesmondhalgh, 2002; Luhmann, 1995, 2002). All interviewed producers agreed the importance of communication/coordination to digital cinematic productions. But the core question is how to make effective decision communications to produce/reproduce collective activities for creative cultural production within the complex but flexible imaginary space of

possibilities and impossibilities. The answer is laid on trust in people and systems that nourishes and is nourished by “creative passion” shared among cultural producers. Such creative passion as passionate love and shared expectation signifies deep feelings of and emotional fulfillments by cultural representations of symbolic creativity and sustains evolution in the cultural system of flexible organization cultures (Giddens, 1990; Luhmann, 1979, 1998, 2000a).

As both Nansun Shi (施南生, producer) and Lik-chee Lee (李力持, director) acknowledged, film director and visual effects supervisor are 2 of the most significant coordinators of all the creative works of digital effects and computer animation in a digital cinematic production, and the director is the gatekeeper to make the final decision especially in the director-oriented Hong Kong film industry. Collaborative activities of all creative workers organized and supervised by both film director and visual effects supervisor – the latter is mostly also a computer animator – are commonly regarded by all interviewed cultural producers as the preconditions for successful creative production of digital cinema. Here I put emphasis on the investigation of some problematic of collaboration and coordination among some local film directors, visual effects supervisors and computer animators in the production process of digital effects and computer animation, thus influencing the resultant cultural representations of digital cinematic aesthetics and productions. Such coordination and supervision of collective activities in digital cinematic productions of increasing complexity and uncertainty is, by and large, reliant upon creative passion shared among film director, visual effects supervisor and other creative workers of an attitude of trust that is intrinsic but not transferrable. Trust in creative managers like film director and visual effect supervisor of a digital

cinematic production is vital to coordinate collective activities of symbolic creativity in order to sustain stylistic breakthroughs on digital effects and computer animation in the form of “facework commitments” to the shared creative passion in cooperation of no absolute reporting relationships, while trust in systems of organization, especially organization cultures and structures, in terms of “faceless commitments” to the expert systems of industrial reflexivity provides a dynamically stable environment of relatively regular structures of power for systematic coordination of creative production and reproduction (Giddens, 1990; Florida, 2002; Luhmann, 1979). Those discourses of the interviewed cultural producers support that the functions of trust systems and shared creative passion in cultural production of complex collaborative activities play indispensable roles in contemporary digital cinematic productions.

For answering some queries from the focus group audiences about collective imaginative inputs to digital cinematic productions, discourses of cultural producers’ working experiences that reveal the problematic of some creative processes of digital effects production and the disjunctive understanding of cultural representations in digital cinematic productions between producers and audiences should be analyzed with reference to the contexts of functional differentiation and de-differentiation among the corresponding creative managers and symbol creators (see the diagram of working pipeline in Appendix IV). This is useful to understand the interrelationships and the complex and difficult coordinating collective activities among them. Nearly all elder and mature audiences of groups (B), (C) and (E2) thought that the film directors should be responsible for the failures of *The Promise* and *The Legend of Zu*

that possess good casts and elements of digital visual effects but that are poorly coordinated during production.

Gordon (B): ... like “Parvenu”. It seems that suddenly (the director) discovers (he) is rich and can employ digital technology to do something. All things are put into the production, the director apparently goes away and then you do whatever you like.

Ching (C): I can only tell *The Promise* looks very beautiful, but it is also like *The Legend of Zu*, very messy and dizzy.

King (E2): *The Promise* is poor after all things are combined together. If any part of all elements is separated, it does not look bad. Not only digital effects but also acting, art direction, cinematography are not very bad.

Under the loose control system of organization and the complex flexible labor system of digital cinematic production, the film director and visual effects supervisor as creative managers are offered the freedom of selection and decision of creative inputs from collaborating symbol creators, thus facilitating rapid entry of newcomers to promote novel combinations of resources and ideas by cultural experimentation and reinvention (Caldwell, 2008; Chan, 2002). As is well known in the Hong Kong film industry, film director as an auteur needs to take full responsibility to coordinate all creative activities including acting, cinematography, lighting design, art direction, and digital effects production – *mise-en-scène* – in a digital cinematic production.

But, for making a digital movie that is a comprehensive art form of digitextuality and hyper-complexity, the film director needs some collaboration and guidance from other creative managers and symbol creators like visual effects supervisor and computer animators of different flexible specializations to produce realistic, as well as hyperreal, digital effects and computer animation seamlessly and believably composited with filmed footages. In other words, all creative managers and symbol creators in a symbiotic relationship need to know how to achieve equilibrium or success in their coordinated collaborative activities by effective communication. It is not easy but contingent and concerned with the power/knowledge relationships between cultural producers of disparate symbolic power and creativity and of different positions and position-takings in the field (Bourdieu, 1993; Caves, 2000; Hesmondhalgh, 2002). As Shi pinpointed, if necessary, the film director who does not know everything should employ visual effects supervisor(s) to help coordinate the production of those scenes of digital visual effects. Otherwise, the outcome of poor digital effects production would become a judgment to the director himself/herself.

Lui generally agreed with Director Lau to create a new position entitled “Visual Effects Director” (特技導演) for Menfond’s visual effects supervisor to emphasize his contribution of digital visual effects to the digital cinematic production as important as the martial arts director in *A Chinese Tall Story*. But this is generally not recommended by most interviewed visual effects supervisors who thought the title as a “director” too heavy and inappropriate to their duty and position in digital cinematic production. Menfond’s visual effects director had participated in the movie production since the early pre-production, that is, much earlier than Lui’s former

collaboration experience with Menfond in a former digital cinematic production *The Twins Effect* in which its people had not yet appeared when Lui talked about some character and computer graphics design with the film director at the pre-production stage of script reading. However, Menfond's digital effects and computer animation in *A Chinese Tall Story* was criticized as messy, unrealistic images and did not satisfy what Lau expected. As some interviewed producers pinpointed, the Wong Brothers – Eddy Wong and Victor Wong – as both founders and computer animators of Menfond like to participate personally in digital effects production and create a relatively market-oriented production and organization culture. Such kind of organization culture means saving time and increasing productivity by compromising the production quality and represents a kind of flexibility welcomed by many local filmmakers. This compromise like the making of over 1,500 digital effects shots in *The Legend of Zu* within an impossibly limited time (around 4 months) and resources is believed to result in those unsatisfactory digital representations of the movie (“Special Report: Hong Kong Digital Effects” in *Hong Kong Film*, “香港特效-不能不說的秘密”, 香港電影, 2009). On the contrary, Lau's over-supervision that breaks people's trust as mutual commitments leading to constitutive/productive practices also imposed unnecessary stress on Menfond's computer animators during the post-production of *A Chinese Tall Story* (Watson, 2009). Some interviewed producers said that Lau went to Menfond frequently like on duty to supervise the post-production of digital visual effects, which exemplifies poor coordination of collective activities of symbolic creativity that need creative autonomy (Hesmondhalgh, 2002).

In *Shaolin Soccer* that is Stephen Chow's first attempt to employ an unprecedentedly huge amount of digital visual effects to enhance storytelling in his

cinematic production, Ken Law (羅偉豪, visual effects supervisor) was given enough creative autonomy to produce “glocalized” digital effects for those kung fu soccer scenes by coordinating collective activities among crew members and computer animators on location shooting and at Centro’s animation studio respectively. It was not easy to work together with Chow and other crew members at the very beginning as they had not possessed much prior knowledge for digital effects production at that time. Law told me that he, a twenty something newcomer at that time, needed to spend a period of time to get trust from them by means of sharing creative knowledge and solving problems of green-screen shooting on location and post-production effects by his team’s creative and passionate works. For instance, Chow had unstopably shouted when given pre-rendered sequences of animatics that are grey image sequences of low resolution and rough movements for quick motion preview in professional animation production, and Siu-tung Ching (程小東) as a renowned martial arts director in Hong Kong had refused to reshoot a shot of fighting scene when Law on location pinpointed the possible problem of the framing for better post-production effects at the very beginning of *Shaolin Soccer*’s production. After trust and shared creative passion built up by interactive communication, Law successfully established his status quo as a professional visual effects supervisor for the movie and even Ching asked for his opinions how to shoot the last complicated scene of a crowd of real and virtual people and a great deal of digital visual effects in Shanghai’s Times Square. During the post-production, Ken and his team were fortunately given a high level of creative autonomy by the loose control from both Chow and John Chu (朱家欣) – Centro’s Executive Director. The latter is generally defined by my interviewed animators as a generous boss

supporting creative cinematic productions and encouraging his staff to produce innovative digital effects. Indeed, Centro's organization culture has, generally speaking, created a shared vision, as well as passion, to produce digital effects and computer animation of higher quality and symbolic creativity by trial and error that is less commonly advocated in Menfond as proved by many animators' discourses in my interviews.

Nevertheless, even Centro's creative animation could not work because of the poor coordination in the production of separate layers of mise-en-scène elements in *The Promise*. As Ko Fai mentioned, it is sometimes very difficult to work with renowned directors, especially those who are not familiar with digital effects and computer animation and are unwilling to learn new media cultures, in digital cinematic productions. Even Frankie Chung (鍾志行) as the creative director in Centro was just an employee and might find difficulty to request critical amendments from Director Chen or to reject the job. There were a lot of problems due to poor communication and coordination during location shooting in *The Promise* leading to unintended workloads and unexpected result of cultural representations in digital compositing. As some focus group audiences commented, separate layers of images of the movie are pretty enough but the final composite is messy and meaningless. Such like the meteor hammer made of weightless blowing balloon and green-screen motion shots of insufficient, non-fixed trackers<sup>8</sup> made the post-production of digital visual effects more difficult and unreasonably time-consuming. One interviewed visual effects supervisor told me that someone in the crew stopped Centro's

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<sup>8</sup> Trackers are spots of markers mounted on some fixed positions on location or studio for facilitating motion tracking to synchronize the movements of virtual camera and digital effects/characters of computer animation with that of the real camera during digital compositing.

animators to move out some sand bags on location for querying the ability of its post-production team to remove them. Law confessed that sometimes it is really difficult to squeeze some time to clean up everything during location shooting as the production schedule in Hong Kong cinema is famously tight. But, the point is that removing the bags is not a worthy job in digital effects production and needs a few second physically on location, or a few hours in post-production. More importantly, such poor coordinating and collaborating attitude may collapse trust among people and undermine the creative values of collective inputs to digital cinematic aesthetics and productions. As stated in a sophisticated Chinese idiom: “two heads are better than one; better to work with others than to go it alone” (一人計短，二人計長). We should bear in mind that coordination and collaboration is the key to success in digital cinematic productions of increasing symbolic creativity and complexity within new dynamics of digitalization and globalization (Hesmondhalgh, 2002; Grassilli, 2008).

### **Digital Cinematic Productions of Hong Kong Characteristics**

Indeed, there are more discourses of cultural producers' working experiences relevant to the coordination of collective imaginative activities such as storyboarding, art directing, computer animation, acting and directing; thus influencing cultural representations in digital cinematic aesthetics and productions. We are going to further explore them in Chapters 7 and 8. In this section, an emphatic analysis is put on the social functions of the loose control systems of organization and the complex nomadic labor systems in the Hong Kong creative media and film industries. They result in some unique practical design of digital effects and computer animation of Hong Kong characteristics in terms of disjunctive and conjunctural practices and

representational strategies in digital cinematic aesthetics and productions (Appadurai, 1996; Caldwell, 2008; Florida, 2002). The unique experience of “cultural glocalization” in Hong Kong that production and consumption fetishism towards postmodern cultures encourages both local producers and consumers think locally and act globally in regard to differences and references of social practices leading to cultural imagination of hybridity facilitates the affinity of complexity and fluidity in organizations and structures of local creative media industries by structural couplings in dynamic stability (Lam, 2010; Luhmann, 2000a, 2002; Redner, 2004; Seidl, 2005a).

To some degree, Hong Kong cinema imitates the globalized Hollywood system and structure of capitalist production culture while local digital media production companies import and learn digital media technologies from the West, mainly Hollywood, for the production of digital effects and computer animation. Nonetheless, the unique characteristics of locality in Hong Kong cultural productions of postmodern and postcolonial experiences blending the West and the East play a critical role in restructuring and glocalizing those imported organization and production systems and cultures. All these result in the “hyper-flexible” production systems featuring what Stokes and Hoover explained the very short production time and the very limited budget and human resources for post-production in cinematic productions of the Hong Kong characteristics of ambiguity, complexity, productivity, and competitiveness (Hawkins, 2006; Hesmondhalgh, 2002; Stokes & Hoover, 1999). Such characteristics include the director-oriented loose production system of “hyper-flexible” supporting teams as collaborating creative managers and symbol creators as well as mixed and hybrid genres and glocalized digital effects in local digital

cinematic productions. These Hong Kong styles of digital cinematic productions contribute to the sustainable development of international aesthetic diversity and quality in terms of cultural glocalization by complex interaction of localizing and globalizing tendencies (Chan & McIntyre, 2002; Hesmondhalgh, 2002).

It may be subject to criticism as over-simplification, but it is generally agreed by nearly all interviewed producers and audiences that very limited budget and time is the core feature of Hong Kong cinematic production. As Shi said, there were always a lot of regrets in some local digital cinematic productions because of the unexpected results of digital effects due to insufficient production time and budget. Chong also mentioned that those foreign producers were amazed when he told them the small budget used for his Grade A local cinematic production that is less than one-tenth of a Hollywood Grade A movie. "Saving time and cutting budget" is one of the most popular mottos among cultural producers, especially those creative managers as coordinators and supervisors, in Hong Kong cinematic production. Such limited time and budget also means squeezing the production schedule and maximizing the productivity of flexible labors that are underpaid and underemployed but work over time. This directly or indirectly forces local creative managers and symbol creators to work untraditionally leading to localized, as well as glocalized, styles of digital cinematic aesthetics and productions. Ironically, as regards the "Eastern Hollywood" of the utmost similar systems and structures of cinematic production to Hollywood, the development of digital cinematic production in Hong Kong is commonly considered to be at least 10 years to lag behind. It does not mean that local audiences can tolerate local digital cinematic productions of low quality, although, like most focus group audiences, they do adjust their cultural tastes and

expectations when watching local digital movies to some degree (Caves, 2000; Caldwell, 2008; Hesmondhalgh, 2002). A study of the local systems and structures of organization in digital cinematic productions and the resulting digital visual effects of strong local/glocal stylistic aesthetics may provide fruitful information about both the weakness and strength of the creative media and film industries in Hong Kong. Such weakness and strength are both related to trust in systems and people we have just discussed a little bit in the last section.

The most different structure of organization system from Hollywood is the power interrelationship between film director and producer(s) in Hong Kong cinema. It is important to distinguish the executive producer (監製) from the managing producer/production manager (製片) in the hierarchy of Hong Kong cinematic production, although there is no one coherent and consistent definition of the hierarchy for its fluidity and flexibility as Yau confessed. The executive producer is usually the user/investor while the managing producer is a real on-site/in-service creative manager in Hong Kong cinema. In other words, the status quo and functional equivalence of the managing producer is more close to that of Hollywood producer(s) who are normally also creative managers of symbolic creativity. Here I employ “Hollywood producers” to represent all the executive producers, associate producers and production managers in Hollywood to distinguish from the managing producer in Hong Kong<sup>9</sup>. Their positions in the field can be comparatively discerned from the organization charts of Hollywood and Hong Kong cinematic production

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<sup>9</sup> Some executive producers in Hollywood who are studio managers or agents holding real power are also a type of users, but most of them have relevant working backgrounds in the field of cultural production. And they show some practical skills of symbolic creativity, as well as practical actions and reasoning, that most local executive producers are lacking in Hong Kong cinema (Garfinkel, 1967, 1996; Tashiro, 2002).

systems in Appendix V. Bearing in mind, the status of Hollywood producers is generally at a higher level than that of the Hong Kong managing producer and even the film director in the hierarchy as they are mostly responsible for seeking and controlling venture capital for Hollywood cinematic production. On the contrary, in the director-oriented Hong Kong cinema, the film director's reputation in the field plays the major role in attracting investment to cinematic production and thus, his/her hierarchical position is usually higher than the managing producer's one. Meanwhile, as both Fung and Yau mentioned, many executive producers in Hong Kong and China are purely users/investors who are indeed not creative managers and even not belonging to the institutional systems of cinematic production. They use cinematic production as an investment tool instead of cultural representation of symbolic creativity. Therefore, they put more emphasis on economic rather than symbolic values by skewed economic valorization (Thompson, 1995). Fung also pinpointed that those local executive producers as users investing a number of cinematic productions simultaneously would not spend as much time on production as those Hollywood producers except those of Shaw Brothers, Golden Harvest and Cinema City studios in the good-old-days (Curtin, 2007; Wong, 1998). In a nutshell, executive producers as users/investors in Hong Kong cinema function like contemporary Hollywood studios responsible for investing and distributing rather than producing movies whereas independent production companies and film directors of symbolic creativity are temporarily and flexibly employed or assembled to create cinematic productions. The power relation of Hong Kong executive producer(s)/Hollywood studio to film director is a vertical hierarchy while the relationships between film director and other collaborating creative managers such as cinematographer, art director and visual effects supervisor in both Hong Kong and

Hollywood are belonging to more flexible horizontal systems that offer higher degree of creative autonomy to the director and his/her creative team (Hesmondhalgh, 2002; Hozic, 1997, 2001; Wong, 1998).

Nevertheless, the loose control system of organization in the contemporary director-oriented Hong Kong cinema is subject to a critical problem of imbalance of coordination powers between the film director and the managing producer. This influences the achievement of "compromise equilibrium" in cinematic representations, that is, a spectrum of meanings constructed via both producers and audiences' cultural practices of disparate repertoires, by means of integrative economic-symbolic valorizations and increases the risk of cultural production. It is because the managing producer in Hong Kong cinema who is supposed to be responsible for controlling the production time and budget that affects both economic and symbolic values is, generally speaking, subordinated to or even bypassed by the local film director who sometimes acts as both the director and producer of cinematic production simultaneously. Moreover, those executive producers as users/investors in Hong Kong who care more about the productivity and profitability by economic valorization rather than the film director's creative/aesthetic vision and mission until such aesthetic achievement providing extra reward to the investment cannot function as those Hollywood executive and associate producers of both coordinating power and symbolic creativity. In other words, Hong Kong cinema lacks an institutionalized functional producers-system like Hollywood one to reduce the complexity in contemporary increasingly flexible cinematic production. Either the mal-function of the executive and managing producers or the over-concentration of authority/ coordinating workload to the film director may lead to the potential crisis of

unsuccessful coordination of production time and budget and poor quality of collective activities from flexible labors and collaborating organizations. This results in what Shi mentioned many regrets of the local filmmakers of high level of symbolic creativity but low level of administrative management skills. Such a potential crisis that is greatly increased because of the rise in complexity and uncertainty in digital cinematic production needs to be tackled by a more balancing collaborative relationship between the film director and the producer(s) in Hong Kong cinema. Their collaborative coordination and collective inputs can create cultural representations of digital cinematic aesthetics and productions as cultural/symbolic forms of both fruitful economic and symbolic values and the meanings of life in the spectrum of cultural production and consumption by integrative economic-symbolic valorizations in “compromise equilibrium” (Storey, 2010: 50; Thompson, 1995). Such “equilibrium” different from conventional balancing theories that “propose a well balanced system maintains on its own” should be understood as a restless, ongoing system of “carefully coordinated work of various kinds in an ‘operative net’” to constitute “the process of self-regulation” by social actors’ communicative activities/efforts (Garfinkel, 2006, 2008; Rawls, 2006, 2008: 89).

As Ying Wong (黃英, computer animator and producer) mentioned, most film directors of creativity prefer to create something new instead of reproduction to lead the cultural trend. Once a film director finds a new way to create the trend, he is most satisfied by the symbolic rewards from both peer groups and audiences, thus leading to the sustainment and reinvigoration of his shared creative passion via constitutive practices as mutual commitments to collective representations in a dynamic stability (Peterson, 1994; Rawls, 2001, 2008; Watson, 2009). With a view

to concentrating on those creative processes of digital cinematic productions, most interviewed cultural producers agreed that the film director should properly collaborate with the managing producer to systematically coordinate/share those workloads for both economic and symbolic valorizations. Shi pinpointed that it is not simply a monetary problem. She further explained that the power relationship between a film director and a managing producer should be symbiotic and reciprocal (and sometimes unavoidably paradoxical). The former focuses on all collective activities for the creative processes of a production while the latter takes care of all production scheduling and financial arrangements with the same view to making a better production of symbolic creativity and professional quality. Certainly, limited time and budget in Hong Kong cinema still makes so much difficulty to local digital cinematic productions that many filmmakers and computer animators need to make compromise in their creative processes and practices and that may challenge the maintenance or sustainable development of shared creative passion.

Positively speaking, many cultural representations of locality in digital cinematic aesthetics and productions such like those scenes of kung-fu-soccer-play as amplified comedic effects in *Shaolin Soccer* commonly appreciated by most audiences of the focus groups, except group (C), are very local cinematic representations of “meaningless” culture resulted from glocalised digital visual effects by local computer animators, which we are going to further study in the next chapter. These indigenous cultural representations in Hong Kong cinema are usually unintended consequences by practical consciousness of creative and reflexive artists encountering the problematic of very tight production schedule and insufficient

production knowledge<sup>10</sup> of digital cinematic production under the “hyper-flexible” systems of organization and representation. They are forced to (take risk to) create their own standards and expert systems of digital effects production that are fluid and flexible to struggle for survival and recognition as a type of symbolic rewards in the field (Giddens, 1990; Peterson, 1994). But, some local risky cultural experimentation and reinvention in digital cinematic aesthetics and productions like cross-fertilized game-like hybrid genres by means of unstable and non-systematic structural coupling of elements of different genres and experimental digital effects may not guarantee sustainable development and even collapse the trust, as well as creative passion, of both cultural producers and audiences by non-persuasive and unappreciable hybrid forms in a particular sense. For instance, *The Twins Effect* like a mixed genre of vampire and RPG game was fairly accepted by most young and mature focus group audiences but not regarded as a successful experiment/formula by many interviewed cultural producers, while *A Chinese Tall Story* was generally defined as a failed experiment of messy, over-production of digital visual effects by most focus group audiences and many interviewed producers. As one interviewed cultural producer said, *A Chinese Tall Story* is too aggressive to experiment something very new and unknown to explore the cultural values and tastes of youth generation.

However, somewhat aggressiveness in cultural experimentation is necessary in line with more systematic coordination and collaboration of collective activities for achieving breakthroughs in digital cinematic aesthetics and productions such like the unique styles of patterning effects and imaginary perspectives in *Hero*. Director

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<sup>10</sup> Indeed, production knowledge for digital media cultures can never be sufficient. But the “ugly difficulty” is the limited production time and budget in Hong Kong cinema. This always restricts local computer animators from experiment by trial and error as normal process/practice to enhance knowledge in creative media organizations all over the world.

Zhang successfully shared his creative passion and production habits and styles with his team of creative managers like Poon and her collaborators to produce a unique and unprecedented novel martial arts genre of digital amplification. While Poon was the gatekeeper to style-consistently monitor and coordinate all creative inputs from symbol creators of different participating organizations such as Animal Logic, The Orphanage, Tweak Films and Menfond<sup>11</sup> to those digital effects production in *Hero*, she confessed the importance of interactive collaboration especially with Zhang. He made the final decision by integrating his personal style and disparate ideas of novelty by digital media technologies in dynamic stability. Such interactive communication and coordination facilitates the advent of new aesthetics of digital effects like The-Matrix-style of “hyper-time” motion sequence and the romantic dancing patterns of fallen leaves during those fighting scenes in *Hero* by means of cultural glocalization and collective imagination (Chan, 2002; Everett, 2003). Nonetheless, as most interviewed producers commonly agreed with many focus group audiences, Chen’s *The Promise* as a novel, experimental postmodern martial arts genre fails to enhance storytelling by valorizing new media cultures and symbolic power of newcomers of digital generation because of poor coordination and over-production of digital visual effects. The resulting cultural representations of this digital movie can neither economically or symbolically satisfy both producers and audiences in “compromise equilibrium” (Storey, 2010).

As Tam pinpointed, it would be difficult for those local computer animators who are mostly underpaid to keep working hard and overtime continuously if the

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<sup>11</sup> Menfond was only responsible for the wire-removal process in *Hero*’s post-production but its computer animators learned a lot from its digital effects production, especially those digital arrows in the movie. This results in its professional production of invisible digital arrows in *A Battle of Wits* to a great extent.

production of digital effects and computer animation is poorly coordinated and the reward systems such like professional-recognized awards and job promotion and/or increasing salary to sustain and reinvent shared creative passion as mutual commitments to rules and orders of engagement in constitutive practices to create cultural representations fail to work (Caldwell, 2008; Hesmondhalgh, 2002; Watson 2009). Indeed, it was emphasized by most interviewees that good story rather than digital spectacle is the core factor to construct meaningful representations in the creative process of cultural production and consumption. It is storytelling enhanced by digital effects and computer animation helping the development of cultural representations in digital cinematic aesthetics and productions of Hong Kong characteristics. This produces both economic and symbolic values sustaining the development and reproduction of creative media organizations and their symbol creators of shared creative passion in the creative process of de-paradoxicalization.

### **The Contribution of Digital Effects and Computer Animation to Cinematic Storytelling**

Story is most important to all narrative productions. But the key question is how to create good narrative representations of a story in the process of cultural production and consumption. In digital cinematic production, as most movie amateurs and mature audiences of the focus groups (B), (E1) and (E2) and many interviewed cultural producers argued, digital effects and computer animation should be utilized to achieve better storytelling and storyline development by enhancing cultural and narrative representations. Instead of story and its narratology that construct a broader scope of study out of the focus of this research, I put emphasis on the contribution of digital effects and computer animation to narration and narrative

of digital cinematic productions (Bal, 1997; Fludernik, 2009). Narration is concerned with aesthetic and theoretical-practical aspects that include all the features of storytelling as the presentation or re-presentation of narrative representations; narrative is related to elements of cognitive reflexivity of knowledge and recognition that reveal all the semantic and pragmatic characteristics of plots and characters through representation. In other words, narration concerns storytelling techniques to establish the relationship between representation and story by narrative communication while narrative is representation to exhibit a series of interrelated events and characters of chronological and causal arrangements (Jannidis, 2003; Marin, 2001; Punday, 2003). The increasing imaginary space and power of possibilities by digital effects and computer animation should enhance the narration of digital cinema at the aesthetic and theoretical-practical level by exceeding the traditional mimetics of cultural representation and provide new possible, as well as impossible, forms and elements of narrative representations to digital cinematic productions. Besides, the multiple layers of digital effects and computer animation construct layers of symbolic forms to represent symbolic/cultural values and help reinvigorate contemporary cinema by remediating youth and new media cultures such as comic and video game by means of integrative economic-symbolic valorizations (Bolter & Grusin, 1999; Marin, 2001; Thompson, 1995). I call such digital layers of new media images as “cultural de-representations” that serve as the “resources of symbolic creativity” and facilitate the structural coupling of the cinematic production systems with the new cultural environments within new dynamics of digital media cultures and technologies. They trigger internal modifications of the production systems of digital cinema in the creative process of

de-paradoxicalization, deconstruction and de-differentiation (Grassilli, 2008; Luhmann, 1995, 2002, 2000a; Seidl, 2005ab).

However, many local digital movies are regarded as unsuccessful representations whereupon digital visual effects fail to enhance storytelling. What are the reasons why the narration and narrative of some local digital movies is not strengthened by the added-values of digital effects and computer animation? What are the weaknesses of narrative representations in local digital cinematic productions? Are there any strengths of digital effects production in Hong Kong cinema? Although some answers have already been shown in the previous sections, I am going to make a brief summary to depict certain strengths and weaknesses of narrative representations by digital effects and computer animation in some local digital cinematic productions in this section. Generally speaking, poor story and script is the fatal problem of Hong Kong cinema (Chan et al., 2010) that is not directly correlated to the use of digital effects and computer animation and the advent of digital cinematic production. While many movie amateurs of groups (E1) and (E2) believed that digital cinematic effects are pure sensational spectacles and the corresponding storyline of a digital movie is generally weaker, they thought that proper use of digital effects should help storytelling and storyline development in digital cinematic production. It seems to be resonated with Fung's argument about the distinctive contribution of digital visual effects to the sensational feelings rather than the emotional ones in digital cinematic productions. But he also acknowledged that the increasing sophisticated use of digital characters like Gollum in *The Lord of the Rings* and Jar Jar Binks in *The Phantom Menace* really emotionally enhances narrative representations in these digital movies. In a nutshell, many problems of

local digital cinematic productions are resulted from the imbalance coordination between digital effects production and storyline development and the poor quality of visual representations by digital effects and computer animation, under the “hyper-flexible” production systems of limited time and budget in Hong Kong cinema. Local filmmakers should bear in mind that over-production of low quality movies has, to a great extent, eroded the Hong Kong film industry since 1990s (Chan et al., 2010; Curtin, 2007).

For instance, over-production of and over-reliance on digital visual effects are typically regarded as one of the main reasons why digital cinematic productions like *A Chinese Tall Story* and *The Promise* fail to tell a good story to audiences. Both Lui and Law regarded Lau as a systematic film director and producer of fruitful experience, but Lau’s coordination between digital effects production and storytelling in *A Chinese Tall Story* is a failure in a particular sense. His overuse of digital image layers that show relatively lower quality than computer game graphics does not make those narrative representations believable to audiences and even veils rather than strengthens the storyline that is regarded as innovative and experimental by some interviewed producers and audiences. Generally speaking, over-production of digital effects and computer animation within limited time and budget (or human resources) means negatively compromising the quality of production leading to unbelievable visual representations. They are both weak spectacles and poor narrative elements for storytelling in digital cinematic productions. Nevertheless, some digital imagery of high quality like Goddess Manshen that looks pretty as a separate layer also becomes unbelievable because of the weak storyline of *The Promise* that is reproduced/re-edited as a nationally famous mash-up: Ge Hu’s (胡戈)

“egao” (惡搞) – “a murder case for a mantou” (一個饅頭引發的血案) – popularly distributed via YouTube (<http://www.youtube.com/watch?v=xIU4udZRKEY>, cited in Feb. 19<sup>th</sup> 2010). Besides, Law pinpointed that many digital visual effects in the movie are unnecessary like those crowds of digital animated buffalo in the valley<sup>12</sup>. This means that such spectacular digital images cannot help develop the storyline of the movie, but that should be the fundamental objective of the use of digital effects and computer animation in digital cinematic production. Both *The Promise* and *A Chinese Tall Story* are criticized as failures because of the directors’ extreme technological fetishism, but I think that it is more related to their mal-performance to direct/coordinate collective activities of collaborating creative managers and symbol creators to enhance narrative representations during the process of digital cinematic production in order to achieve “compromise equilibrium” in the spectrum of cultural production and consumption (Storey, 2010).

Certainly, like the advent of cinematography, lighting and editing techniques that helped to establish the cinematic aesthetics of mise-en-scène and montage in the 20<sup>th</sup> century, digital media technologies provide new directions and new forms and elements of the most bizarre, transgressive and experimental digital images of possibilities for refashioning narration and narrative of both reality and hyperreality in cultural representations of digital cinematic productions (Bolter & Grusin, 1999; Fabe, 2004; Kirsner, 2008; Rombes, 2009). As A. Wong mentioned, digital media cultures definitely change storytelling of contemporary cinema and the new visual images of digitextuality greatly influence narrative, structure, rhythm and even

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<sup>12</sup> Some insiders told me that real crowds of buffalo had been prepared on location for the scene but finally all buffalo died for poor coordination and digital animated buffalo were (unwillingly) used to solve the problem.

content of digital cinematic productions, especially for younger generations. Y. Wong also said that digital effects and computer animation construct a new “visual rhythm” of impossibilities in digital cinematic productions. This new “visual rhythm” of cultural imagination provides new directions and elements for the “re-enchantment” of cultural and narrative representations that is concerned with contingent and unpredictable cultural production of magic, fantasies and dreams on behalf of creative artists’, as well as audiences’, new aesthetic values and judgments of the “rationality of irrationality” (Chan & Ma, 2002; Everett, 2003; Ritzer, 2008; Tomlinson, 2007). As most interviewees commonly agreed, digital visual effects highly enhance the overall production quality of Chow’s recent digital movies for increasing their economic values in the global markets on the one hand. Visual amplification by digital effects as globally consumable symbolic forms instead of indigenous verbal gags plays an increasing role in narrative representations of his digital cinematic productions, thus reinforcing both economic and symbolic values of his cultural representations, on the other. This is a unique style of digital effects and computer animation in the Hong Kong creative media and film industries that comic-style and fast rhythm visual imageries as a compromise of technical skills and production time become novel aesthetics and imaginary perspectives popularly used to local creative productions. Such new aesthetics of Hong Kong style of “glocalization” favors narration and narrative of comic-style action genres in local digital cinematic productions.

As Ho said, local digital effects production generally looks more cartoonish compared with Hollywood that means less photorealistic but more graphical representation owing to some technical deficiency in digital media technology and

insufficient production time, thus leading to the compromising imaginative aesthetics of Hong Kong characteristics in local digital cinematic productions. However, narration and narrative of local digital movies is highly limited to comic and comedic representations like Chow's recent digital comedic movies and comic-style and romanticized martial arts actions like *The Stormriders* and *Hero*. Narrative representations of photorealistic digital images in action and gangster movies that are popular genres in Hong Kong are highly under-developed in local digital cinematic productions, as most focus group audiences argued that local audiences would more prefer Hollywood photorealistic effects of high quality and believability, or realistic images of flesh-and-blood choreography in local action and gangster movies. But both Chong and Tsang as the local famous scriptwriters acknowledged that the imaginary space and power of digital effects and computer animation does provide a higher level of creative autonomy to storytelling and scriptwriting in cinematic production. During scriptwriting, they dare to think something that is impossible before. As Fung made it clear, some (creative) ideas had already been excluded by producers at the initial stage of brainstorming in Cinema City for the impossibility of operation that becomes possible for the advent of digital effects and computer animation. And digital visual effects make some impossible events and perspectives like those imaginary perspectives of digital flying daggers in Zhang's *House of Flying Daggers* (十面埋伏, 2004) possible to successfully engage audiences in the imaginary fantastic world of "re-enchantment". This shows the impact of digital effects and computer animation on storytelling commonly agreed by most interviewed cultural producers<sup>13</sup>. It is generally believed that more photorealistic

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<sup>13</sup> Indeed, I did not talk about *House of Flying Daggers* with all interviewees. But all given opinions agreed that it shows new imaginary perspective impossible without digital visual effects. On the

imageries of digitextuality can further develop narration and narrative in terms of new stretching aesthetics and imaginary perspectives in more diversified cultural representations of digital cinematic productions in Hong Kong and China (Everett, 2003; Sarafian, 2003).

### **Constitutive Practices of Complexity**

As Ko Fai mentioned, the learning process of digital cinematic aesthetics and productions in Hong Kong since 1998 has proved a lot of improvements, as well as breakthroughs, in digital effects production by local visual effects supervisors and computer animators who need to work under the “hyper-flexible” systems of Hong Kong cinematic production and find alternative possible ways to catch up Hollywood digital media technologies and cultures. Furthermore, bearing in mind what Chong reminded us, Hong Kong cinema is not preparing to fight against itself but struggling for survival with Hollywood and global cinema in the spiral of cultural globalization. Those discourses of cultural producers and audiences evidence the disjunctures and differences, and some conjunctures and regularities, in the meaning construction process in terms of their disparate imagination as social practices during cultural production and consumption. It is evident that local producers need to pay more efforts to envisage audiences’ perceptions of digital cinematic aesthetics and productions being asymmetrically interpreted from the cultural production perspective (Appadurai, 1996; Crane, 1992). The increasing complexity and uncertainty of cultural representations in digital cinematic productions by the growing imaginary space and power of new aesthetics and perspectives given by digital effects and computer animation and new modes of thoughts and

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contrary, those digital images of well-patterned flying arrows in *Hero* are not commonly accepted by most interviewed producers as a unique digital cinematic aesthetics enhancing storytelling.

interpretations by newcomers such as visual effects supervisors and computer animators of symbolic creativity and new generation of audiences of reflexive knowledge can merely be understood via their mutually recognizable constitutive practices. Their discourses of such practices are empirical evidences of the micropolitics of cultural representations among producers and audiences in the spectrum of cultural production and consumption, which is significant to the new paradigm of critical media and cultural studies (Bourdieu, 1993; Havens et al., 2009; Rawls, 2002, 2006, 2008).

This understanding via enacted practices within the new complexity model of cultural representations shapes and is shaped by “hyper-flexible” systems of organization and representation in digital cinematic aesthetics and productions. These systems vary with disparate organization cultures and corresponding nourished creative passion shared by creative managers and symbol creators as demonstrated by Centro and Menfond in my case studies. They, moreover, constitute and are constitutive of social and cultural practices as contingent meaning construction process by the networks of structural coupling between social and psychic systems, especially in the creative process of de-paradoxicalization. Such constitutive practices of complexity by both cultural producers and audiences show trigger-causal relationships and lead to autopoietic systems of organization and representation in digital cinematic aesthetics and productions by collective activities of both disjunctures and regularities. This is revealed by both producers and audiences’ discursive practices of cultural production and consumption in line with media texts as discourses (Brocklesby, 2009; Halsall, 2007; Hall, 1997ac; Luhmann, 2002, 2003; Seidl, 2005a). Therefore, more professional production knowledge of reflexivity

about digital cinematic aesthetics and productions in Hong Kong and China from the insiders' discourses and practical working documents of creative collective activities such as script, storyboards and animatics by production analysis are going to be explored in the next 2 chapters. It is a continuous learning/exploring process to discern some progresses and obstacles, and to infer some possible means and directions to the development of cultural practices and representations by digital effects and computer animation of Hong Kong characteristics in digital cinematic aesthetics and productions. It may sustain the growth of Hong Kong cinema and satisfy the growing needs and desires of audiences of reflexive and creative consumption in dynamic environments of complexity and digitextuality that all solid and virtual media melt into the air of the cyberspace (Caldwell, 2008; Everett, 2003; Havens et al, 2009).

## **Chapter 7 Cultural Representations in Stephen Chow's Digital Cinematic Aesthetics and Productions**

Since the late 20<sup>th</sup> century, digitalization has become a global trend in media productions and, by and large, taken an indispensable position in cinematic productions. Not merely all those unimaginable blockbusting spectacular movies like *Jurassic Park*, *The Lord of the Rings* and *X-Men* (2000), but also many artistic and romantic movies like *Kill Bill* and *Titanic* are reliant very much on globalized new media technologies such as digital effects and computer animation for their production of cultural representations. Kung fu and comedy movies are the long-term mainstream genres in Hong Kong cinematic productions. By means of digital effects and computer animation, a new type of symbolic creativity that contributes to the sustainable development of creative and cultural industries in terms of the manipulation of creative symbols like images, songs, jokes and so on “for the purposes of entertainment, information and perhaps even enlightenment” (Hesmondhalgh, 2002: 4) has, to a great extent, reinvigorated the kung fu and comedy movies in Hong Kong. This is demonstrated by Stephen Chow as a generally recognized fan of kung fu culture and a renowned Hong Kong comedy film actor-director, who has made 3 digital cinematic productions – *Shaolin Soccer* (2001), *Kung Fu Hustle* (2004) and *CJ7* (2008) – since 2001. These 3 digital movies using innumerable numbers of digital visual effects have primarily initiated thoughts of the possible contributions of digital aesthetics to innovative cultural representations or re-representations for the rejuvenation of the Hong Kong film industry – one of the most important local creative and cultural industries of enormous clustering effects (Chan et al., 2010; Li, 2005; Lu & Zhang, 2008). This chapter employs these 3 movies as cultural texts to empirically demonstrate how global-digital media

aesthetics and Chow's local "meaningless" culture (*mo lei tau* culture) integrate in his unique digital cinematic productions of multi-layered cultural representations of "seamlessness" via collective activities of imagination as social practices with an increasing attention to the complex systems of organization and representation in pre-production, production and post-production (Appadurai, 1996; Davis & Yeh, 2008; Manovich, 2001).

As a highly Westernized capitalist consumer society, cinema in Hong Kong puts more emphasis on entertainment rather than art and cultural representation, and it has continuously followed the traditions of global capitalist organization culture and digital media technologies from Hollywood. But, in accord with the concept of "glocalization" in the spiral of cultural globalization, different artistic and cultural inputs by local creative managers and symbol creators play crucial roles in the processes of cultural representations in digital cinematic productions under the "hyper-flexible" systems of local creative and cultural industries (Hesmondhalgh, 2002; Robertson, 1995). Luhmann's (1995) systems theory helps us understand the paradox of organization culture encountered by cultural producers and creative media organizations in the local creative media and film industries on the one hand. His concept of "de-paradoxicalization" reveals the contributions of the multiple layers of digital effects and computer animation to sustain and reinvigorate creative representations in local digital cinematic productions within the dynamics of rigid social systems of organization and representation of the traditional film industry on the other hand. In other words, the paradox of organization culture leads to the production of redundant stereotypes of cultural representations within a social system

of operative closure (Hall, 1997b; Luhmann, 2000a; Seidl, 2005a). But multiple layers of digital effects and computer animation function as “de-paradoxical, deconstructive and de-differential cultural representations” or “cultural de-representations” in the “spectrum of cultural representations” to reinforce symbolic creativity and aesthetic values of digital cinematic productions in the process of cultural production and consumption. This process includes a re-entry or interpenetration of the organization into the interaction among the social and psychic systems that reinforces the meaning construction process by cultural producers and audiences of symbolic creativity and aesthetic and cognitive reflexivity in terms of the networks of structural coupling. They take disparate roles and positions in the field of cultural production and consumption in “compromise equilibrium” to ensure the autopoiesis of the cultural system via their constitutive practices (Brocklesby, 2009; Hesmondhalgh, 2002; Luhmann, 2002, 2005a; Seidl, 2005a; Storey, 2010).

In this chapter, how the local creative managers and symbol creators of creative media organizations shape and reshape the narrative and narration of Chow's recent innovative digital cinematic productions by means of integrative economic-symbolic valorizations of the local “meaningless” culture and the “glocalized” digital effects and computer animation would be investigated to demonstrate such a process of re-entry among different systems (Davis & Yeh, 2008; Lee, 2009; Seidl, 2005a; Thompson, 1995). The resultant multiple layers of cultural representations or re-representations should not be viewed and analyzed separately according to the concept of the “aesthetics of seamlessness”. This case study not merely emphasizes textual analysis of cultural representations of digital media content but also investigates the enacted practices of creative production “from

within” the perspectives of production members in regard to their collective activities of both routinization and experimentation during the creative process of digital effects and computer animation design for digital cinematic productions (Garfinkel, 1967: viii, 1996; Rose, 2007). Discursive discourses of both producers and audiences from in-depth conversational and focus group interviews respectively are used to justify, as well as to challenge, the face validity of textual and contextual meanings from media discourses with a special attention to reflexive knowledge of “industrial self-theorizing” materials such like animatics and pre-visualization tests. This demonstrates a complex but sophisticated mode of struggle for meaning construction among producers, texts and audiences in the “spectrum of cultural representations” (Caldwell, 2008: 15-18; Hall, 1997c).

In most Hollywood digital blockbusters, seamless digital visual effects are employed to blend live action and computer generated images together for cultural representation, thus leading to either “realistic re-presentation” like the smooth blending of live action of real protagonists and historically accurate but digitally created images in *Titanic* or “fantastical representation” like those impossible creatures as digital illusion animated in the dream world of *The Lord of the Rings*. It is obvious that either imitated physical reality or fantastical hyperreality is the objectives of such kinds of Hollywood blockbusters using seamless composition of filmic images and digital effects, thus irritating audience sensations of cognitive and perceptual realisms (McClellan, 2007). Nonetheless, neither real nor hyperreal are many cultural representations of Chow’s seamless digital composite images in his 3 digital movies. This is relevant to his unique aesthetics of “meaningless” culture of both locality and postmodernity of a long history of development in his former

cinematic productions and television performances since the late 1980s, and which, however, creates new means of narration and new narrative forms of visual representations (Bunny, 2005; Lu & Zhang, 2008; Marin, 2001; Wright, 2008). For instance, the digitally created soccer ball of photorealistic “texture mapping” that is a computer animation technique to mount the photographic image of a soccer ball onto the digital wireframe model looks realistic but is fantastically powerful enough to destroy goals and any other obstacles in *Shaolin Soccer*. It moves and deforms in accord with the movements of the stunt “kung fu” actors that audiences may not recognize the authenticity of their “kung fu” motions. While Chow’s Buddhist Palm making explosive destruction in *Kung Fu Hustle* is a fantastical representation with reference to the famous cult movie of martial arts fantasy *Buddha’s Palm*, many kung fu fighting scenes of digital composite layers of seamlessness make audiences believe that they are a result of physical action choreography rather than digital illusion. It is a paradox between references and differences, reality and illusion that is relevant to Black’s (2002) concept of “reality effects”. This provides cultural producers and audiences the power of interpretations of the contingent social and cultural meanings of the digitally composited images of seamlessness in Chow’s reinvigorated cinematic representations. Indeed, I prefer to utilize re-representations rather than representations to distinguish his new mode of cultural production in these 3 digital cinematic productions from his former movies of purely indigenous “meaningless” gags and gimmicks.

It is arguable that cultural representations in Chow’s digital movies are nothing new but just a continuation of his cultural production of “meaninglessness”

using digital media technologies. But, as Chung – the former Creative Director and Head of Animation of Centro, which is responsible for the digital effects and computer animation production of both *Shaolin Soccer* and *Kung Fu Hustle* – pinpointed, Chow has successfully helped glocalize digital media technologies to create unique cultural representations of digital cinematic productions by integrating local “meaningless” culture into new media of digital aesthetics. The resultant cultural re-representations are innovative of heterogeneous cultural and aesthetic values by means of integrative economic-symbolic valorizations of the local “meaningless” culture and the glocalized digital effects and computer animation. They are totally different from those cultural representations of his former movies of mainly verbal gags and gimmicks in the 1990s (Fu, 2007; Li, 2005; Lu & Zhang, 2008). In an interview of the “making-of” *Shaolin Soccer*<sup>1</sup>, Chow acknowledged that he decided to produce the movie because he would like to do something as new as the combination and composition of kung fu and soccer game together in an unprecedented way. This kind of cultural exploration and experimentation is continued from *Shaolin Soccer* to *CJ7*. As McClean (2007: 85) mentions, Chow “takes great advantage of DVFX for comedic value in his films *Shaolin Soccer* and *Kung Fu Hustle*” and he does enhance humor, as well as storytelling, with seamless and exaggerated digital effects and computer animation in his digital cinematic productions by means of digital amplification and cross-cultural, cross-historical, cross-genre references that is going to be emphatically analyzed. However, *CJ7* of digital effects and computer animation produced by Menfond instead of Centro has been largely criticized as a failure to satisfy Hong Kong audiences and a regression

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<sup>1</sup> It is an interview of Stephen Chow recorded in the “making-of” in the DVD of *Shaolin Soccer* published by Universal Laser & Video Co. Limited. Such kind of industrial-reflexive materials of digital movies is one type of important empirical data and is seriously refuted by juxtaposition with interviewed professional insiders’ discourses in this study (Caldwell, 2008).

in digital effects production by many interviewed local producers and audiences (Chen, 2008). Nonetheless, in contrast, the character animation of the extraterrestrial dog: CJ7 inside the movie is argued as a breakthrough of digital character animation in Hong Kong cinema (Liu, 2008). In the following analysis, the influences of different organization cultures of Centro and Menfond and their cultural workers' creative and passionate collective inputs on Chow's cultural representations in these 3 digital cinematic productions are going to be discerned in line with discourse and textual analysis mainly from the production of culture perspective. This reveals the complex changes of Chow's cinematic representations during the processes of pre-production, production and post-production in the era of digitalization and globalization.

### **Pre-production and Pre-visualization: A Learning Process**

Starting from pre-production and pre-visualization to production and post-production, Chow has began a learning process leading to his critical changes in cinematic productions and cultural representations by means of digital effects and computer animation since the creation of *Shaolin Soccer*. With a view to discerning his continuous evolution in digital cinematic aesthetics and productions, a comparative study of *Shaolin Soccer*, *Kung Fu Hustle* and *CJ7* is meaningful and indeed inevitable. However, it is conceptually difficult, or impossible, to compare these 3 movies that Chow projects different expectations and attempts to test something very differently. As Tsang mentioned, *Shaolin Soccer* is fundamentally a breakaway exploration to deploy digital visual effects to produce Chow's ultimate comedic representations of universal spectatorship and also serves as a touchstone of

visual representation of imaginary kung fu by digital effects and computer animation that establishes his trust to produce *Kung Fu Hustle*. This latter digital movie is his cultural re-representations of “imaginary nostalgia” to salute his most respectable idol Bruce Lee (李小龍) and the history of Hong Kong, as well as Chinese, martial arts film cultures, and aims at global movie markets by international co-production (Dumas, 2009; Fu, 2007; Law, 2005; Lee, 2003, 2010; Lu & Zhang, 2008; Yang, 2005). Very differently, *CJ7* is a kid movie of science-fictional elements as another new wave of exploration of another market, which is a praise to Spielberg’s conception of “cinematic industrialization” successfully demonstrated by the global distribution of the movie *E.T.: The Extra-Terrestrial* (1982) and the global sale of its spin-offs rather than a direct homage to the movie itself. Nonetheless, digital representations of kung fu are one of the common elements shared by all these 3 digital movies. *Shaolin Soccer* still represents Chow’s comedy of a focus on parody and pastiches but amplifies those kung-fu-soccer-actions by digital visual effects to glocalize his comedic representations; *Kung Fu Hustle* is his imaginary nostalgic representations of kung fu for self-satisfaction and homage to Bruce Lee that cannot be joked as he declares; *CJ7* is kung fu kidding of science-fictional and hybrid genre representations of a shifted emphasis on his directing role and tragic-storytelling about the love relationship between a father and his son. This can greatly explain why most focus group audiences, especially those expecting to laugh for Chow’s comedic representations, thought that *Shaolin Soccer* is the best comedy among the 3 and *CJ7* the worst. The latter aims at the mainland China market where it got a box office over RMB 200 million and its toys sold well, and is generally regarded as a leap forward in Chow’s directing and marketing and publicity. In other words, his systems of organization and representation reinforce “cinematic industrialization”

that targets at an under-developed market of cinema and its spin-offs for kids in China (Chen, 2008; Longtin, 2009; Lu & Zhang, 2008; Wu & Wang, 2008).

In the light of such a conception of cinematic industrialization, understanding Chow's changes in these 3 movies should start at his internal modifications of production systems in line with collective activities of collaborating crew members, especially those visual effects supervisors and computer animators, of symbolic creativity for digital effects and computer animation leading to novel cultural representations in digital cinematic aesthetics and productions. Generally speaking, the increasing efforts on pre-production and pre-visualization by collective imaginative inputs can more fairly elucidate the progressively sustainable development in his digital cinematic productions from *Shaolin Soccer* to *CJ7*. This section aims at demonstrating how conceptual and symbolic creativity of creative managers and symbol creators such as abstract plots and fantastic actions from inconsistent and sometimes chaotic ideas of their individualized psychic systems can be collectively and collaboratively organized and represented in the social systems of digital cinematic production by means of systematic pre-production and pre-visualization.

Storyboards and animatics are 2 of the most important and popular pre-visualization tools in digital cinematic production and a full script is necessary before any meaningful tangible works of pre-production and pre-visualization for a cinematic production can really start. But all these are not always systematically

executed and provided in the field of cultural production in Hong Kong cinema. Not many local cinematic productions put a lot of efforts on storyboarding like *Hero* and *A Battle of Wits* that is going to be further studied in Chapter 8. “Animatics as pre-visualization”<sup>2</sup> tests that are very useful and important to the initial design of digital effects and computer animation are rarely employed in local digital cinematic productions. Besides, a finalized full script is hardly achieved and “flying sheets” (fei chi chai, 飛紙仔) of amending script are usually distributed to the director and protagonists at the last moment of filming in Hong Kong cinematic production. Such kinds of local production and organization routines reveal the (mostly unwanted<sup>3</sup>) flexibility of cinematic production systems in the local creative and cultural industries but add complexity and uncertainty to the process of cultural production. This is paradoxical to the original objectives of pre-production and pre-visualization as references or “decision premises” that are used to reducing complexity of production by means of “uncertainty absorption” to create “decision situation” as structural precondition for making communication decision through the interpenetration between the social and psychic systems of organization and representation in the creative process of de-paradoxicalization (Luhmann, 2002, 2005b; Seidl, 2005a).

As Barbara Robinson – Managing Director of Columbia Pictures Film Production Asia – said, Hong Kong cinematic production needs to be more

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<sup>2</sup> Animatics are more popularly used for digital effects and computer animation design during production and post-production. Therefore, I would like to specify the analysis of “animatics as pre-visualization” materials in this section.

<sup>3</sup> Many local cultural producers regard this kind of flexibility as a gift to production of creative autonomy.

systematized, routinized, standardized and globalized/glocalized in order to successfully attract much more international venture capital and achieve better share of the global market. Indeed, Columbia Pictures made the decision to invest 95% of the production cost (US\$20 million) and to take the responsibility of global distribution and marketing for Chow's *Kung Fu Hustle* with a precondition that a complete and fully structured screenplay and sufficient tests of pre-production and pre-visualization must be ready before starting the shooting (Fu, 2007). Digital effects and computer animation not merely reinforces the imaginary space and power for digital cinematic production but also greatly increases the complexity of cultural production by increasing the numbers of new workflows, new symbol-elements, and new creative managers and symbol creators of newly differentiated and de-differentiated professional roles and positions such as visual effects supervisors and computer animators of creative media organizations like Centro and Menfond. In order to make an efficient, or wishfully the best, decision/selection among alternative choices from collective imaginative inputs by many collaborating creative managers and symbol creators in complex digital cinematic production, reduction of complexity by systematic organization of pre-production and pre-visualization such as storyboarding and animatics plays a vital role in the creative process of de-paradoxicalization leading to a dynamically stable system of cultural representation in digital cinematic productions. Law – Visual Effects Supervisor of *Shaolin Soccer* and Visual Effects Consultant of *CJ7* – pinpointed that Chow and his crew members have progressively learned about the significance of pre-visualization to digital cinematic production. During the production of *Shaolin Soccer*, they did not care very much about pre-visualization at all. They started to know how to deploy animatics for pre-visualization of digital effects production in *Kung Fu Hustle*. In the

pre-production of *CJ7*, they put more efforts and emphasis on systematic pre-visualization, and more recognized the importance and indispensability of the systems of organization and representation in terms of storyboarding and animatics for the complex creative production of digital effects and computer animation. This reveals a learning process that Chow and his flexible team have increasingly and progressively adapted the concept of reduction of complexity resulting in creative representations in digital cinematic aesthetics and productions by effective and collaborative decision communication among creative managers and symbol creators of complex thoughts and symbolic creativity within the dynamic and interplayed social and psychic systems (Luhmann, 1995, 2000a; Seidl, 2005a).

As Law and L. Lee mentioned, Chow made the final decision to employ Centro instead of Menfond to produce digital effects and computer animation for *Shaolin Soccer* because of Centro's more persuasive and believable pre-visualization tests. Simply but importantly, a test to add an animated soccer ball on top of Chow's head in the pre-filmed footage that he pretends to play soccer by head looks photorealistic and gives Chow and his creative team more confidence in creating kung-fu-soccer-play in the movie by means of digital visual effects. As evidenced by most interviewed cultural producers' discourses, the organization culture of Centro indeed more encourages and appreciates cultural experimentation and invention by its creative workers compared with that of Menfond. "The team leader (in Centro) can really help and give you confidence in testing. He lets you take the risk to experiment something but reminds you of the requirement of no (enough) sleeping for a whole week. Then he may go to bargain with the director for changing the

production time and design”, said Leung; “Menfond’s colleagues shall say not to do it in that way and think repeatedly to design some ‘cheaper’ methods (that is easier and faster) to do the (digital effects). This means that the final outcome is only still acceptable to the client, even though the quality is not self-satisfactory and not acceptable to professional insiders in the field. It is indeed organization culture. Once the boss has said that you need not to do as better as that quality and you should compromise for allowed budget and time, you as the employees will just follow and that influences the whole company”, said Tam. Centro’s organization culture and its cultural workers’ shared creative passion encourage cultural experimentation for sustainable development of symbolic creativity while Menfond’s organization culture to compromise for business concern fails to sustain creative passion in a particular sense. However, one of the latter’s working mottos, that is, “saving time and cutting budget”, is more relevant to the flexible systems of cinematic production and indeed appreciated by many film producers in Hong Kong. Centro turned down some projects of digital cinematic productions for “unacceptably” low budget and short period of production time while Menfond has seldom refused to work for any projects, as some insiders mentioned. The former is usually regarded as tough and rigid in its quotation of production time and cost for digital cinematic effects to maintain its production quality and reputation while the latter is more compromising to the production budget by changing time and quality of digital effects production. Menfond’s compromise definitely bears the brunt of the availability of time and human resources for pre-production and pre-visualization. Nevertheless, apart from organization culture, personality of cultural producers like Law, who is very active and passionate to making experimentation for creative digital effects and computer animation and had worked for Menfond before joining in Centro for *Shaolin*

*Soccer's* production, may seriously affect creative passion and working culture shared among collaborative members of creative media organization as mutual commitments to constitutive practices for pre-production and pre-visualization (Hesmondhalgh, 2002; Watson, 2009). This explains that in the process of cultural production communicative elements of organization culture can be internally modified by cultural artists' creative thoughts or vice versa, which elucidates the complex model of the "spectrum of cultural representations" in relation to the "trigger-causal" instead of "effect-causal" relationships between the social and psychic systems by networks of structural coupling (Seidl, 2005a).

It is a dilemma/paradox. Systematic organization of storyboarding generally designed by layout artists of strong visualization sense and skills in Hollywood cinematic production is used to reducing complexity and facilitating effective communication among collaborating creative managers and symbol creators to produce cultural representations especially for those scenarios of digital visual effects from the screenplay and collective imaginative inputs. However, such professional storyboards as concrete and systematic visual references for cultural production are usually regarded as constraints to symbolic creativity of cinematic representations in the flexible systems of the director-oriented Hong Kong film industry. As Law pinpointed, there are always communication problems during location shooting in local digital cinematic productions because of the lack of storyboards and animatics as pre-visualization. The local filmmakers cannot clearly depict what they want to express by verbal communication and indeed those words on papers cannot efficiently elucidate what the filmmakers think and expect to be

achieved by visual representation. Moreover, a full script is by no means ready before shooting and the script is changed daily in Hong Kong cinematic production. This consequently makes it very difficult, or impossible, to prepare professional storyboards to pre-visualize the imaginary actions and perspectives of digital visual effects before shooting.

“I immediately sketched (some storyboards) on location, just a few frames. Indeed, (the crew members of *Shaolin Soccer*) did not quite understand how to view storyboards; at that time Stephen Chow himself did not know storyboarding too. They all have learned how to view storyboards after finishing several (digital) cinematic productions”, said Law. Up to now, professional storyboards are still luxuries in Hong Kong cinematic productions except some scenarios of uncontrollable scope and scale of visual representations such like those battle scenes in *A Battle of Wits* going to be thoroughly analyzed in the next chapter. But, L. Lee as Executive Director of *Shaolin Soccer* told me that few sketched storyboards on location really help visualize the concept for more smooth shooting of some scenes and greatly showcase the contingent ability and flexibility of Hong Kong cultural producers in cinematic production. Moreover, more systematically, storyboards have been increasingly used to pre-visualize some concepts and visual representations in Chow’s digital cinematic productions, as evidenced by the roughly sketched storyboards of a concept of Dicky’s dream life with the alien dog at an early stage of the pre-production of *CJ7* (see Figure 7.1). Definitely, the details of such storyboards are not good enough when compared with those Hollywood professional storyboards like *Jurassic Park*’s ones (see Figures 7.2(a) and (b)) to precisely illustrate those

camera angles and perspectives, those protagonists' positions and eyelines, and the spatio-temporal correlations of those imagined digital effects and creatures for cinematic production. However, this has already shown Chow and his team's learning progress in pre-production and pre-visualization, which enlightens the development of systems of organization and representation in local digital cinematic aesthetics and productions to a certain extent.

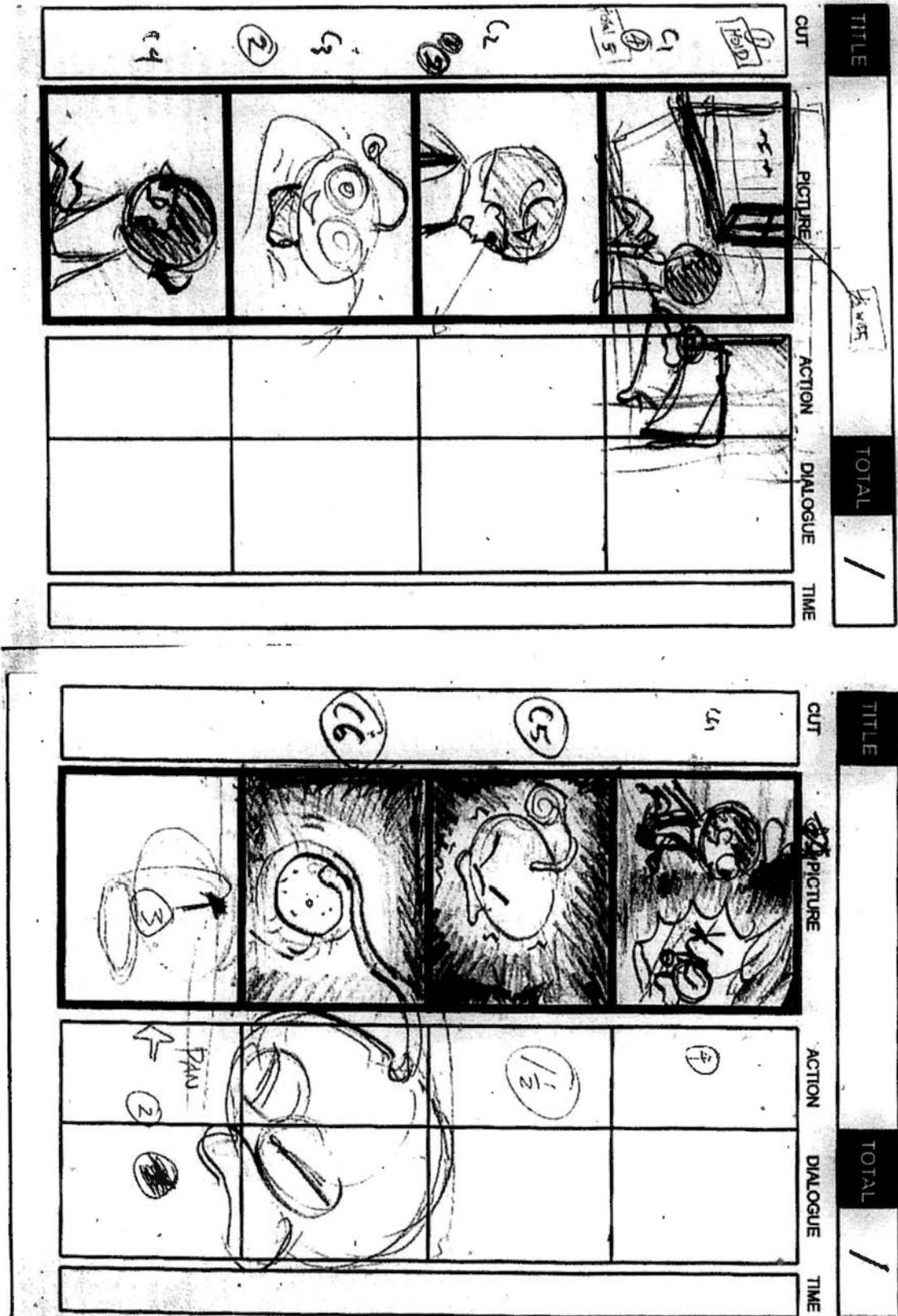


Figure 7.1: Two pages of storyboards of an early but not executed visual concept of a scene in *CJ7*



Figure 7.2(a): Excerpts of professional storyboards for visual communication in *Jurassic Park* (Shay & Duncan, 1993: 160)



Figure 7.2(b): Excerpts of professional storyboards for visual communication in *Jurassic Park* (Shay & Duncan, 1993: 161)

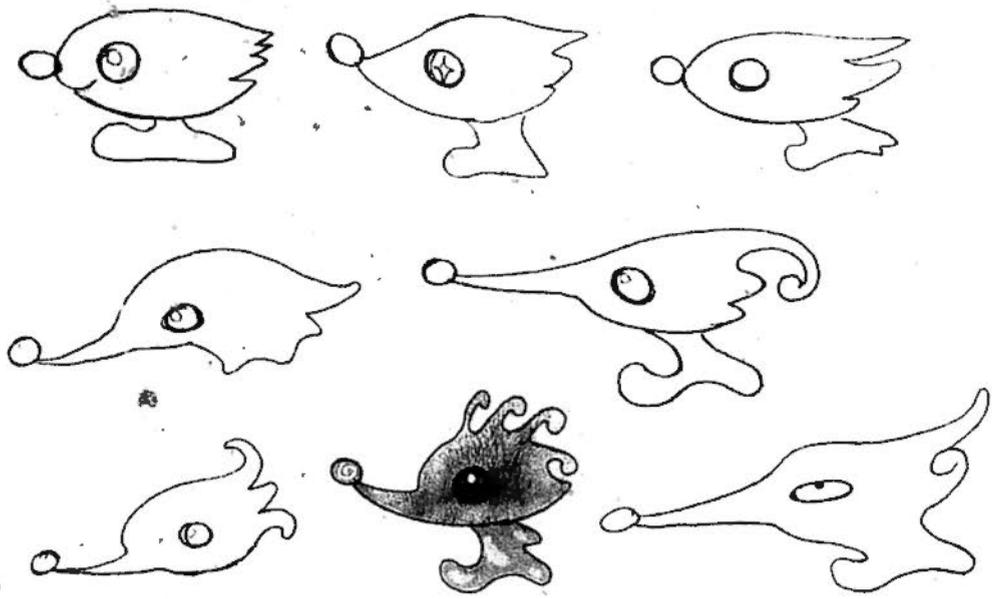
Indeed, *CJ7* shows some obvious advancement in Chow's, as well as Hong Kong, systems of pre-production and pre-visualization for cultural representation that is important to facilitate directing as communication and coordination of all the complex and sometimes paradoxical imaginative inputs from (too) many flexible collaborating creative labors of disparate participating organizations during digital cinematic production. All these pre-visualization images such as character design, digital effects tests and animatics function as "cultural de-representations" in the "spectrum of cultural representations" and play important roles in the creative process of meaning construction in digital cinematic aesthetics and productions. Here we may intensively study some test images and animatic sequences at the pre-production stage of *CJ7* to discern their de-paradoxical and communicational functions in the spectrum of cultural production. As Tsang said, the most difficult task and the most significant achievement in *CJ7* is the production of an imagined non-existent creature – the extraterrestrial dog: *CJ7* – by digital effects and computer animation, that is, a breakthrough in Chow's, as well as Hong Kong, digital cinematic production. So, first of all, we should analyze the character design as pre-visualization reference for the production of this digital creature that had started and inherited to Menfond before Chow's final decision to employ the company for the production of digital effects and computer animation in *CJ7*.

Character design is the fundamental and one of the most significant pre-visualization tools in character animation production. And a thorough and sophisticated design of imagined non-existent character should include precise specifications of tools and accessories as shown in Figures 7.5(c) and (d) to fully

depict all potential references of visual representations for the production. From those early sketches of character design of the extraterrestrial dog (see examples in Figures 7.3(a) and (b)), we not merely discover some initial features of look and style including the color and gel-like body deployed by the final character design, but we also understand that the final digital character comes out of uncountable number of modifications by collaborating creative managers and symbol creators (Kerlow, 2000; Patmore, 2003; Seegmiller, 2004). Although it is an early stage of character design, the character designer as symbol creator tries the best to show disparate motions and expressions of CJ7 and some imaginary visual representations of the power and function of its candy-like antenna in Figure 7.3(b). It mirrors to Chow's lollipop image<sup>4</sup> in *Kung Fu Hustle* and represents one of his favorite imageries – “virginity” from childishness and powerlessness (Lu & Zhang, 2008: 292). Besides, Figure 7.4 shows 3 different sets of digital character design tests by means of more complicated 3D computer modeling and rendering that is necessary to 3D character animation (see Kelly, 2001). These render images uncover some struggle of visual representations for the production of the digital creature. Obviously, the character design in Figure 7.4(a) tries to avoid from technical difficulty of “fur animation”, which is a kind of not fully predictable dynamic simulation, by cutting the alien dog's hair. In the meantime, Figure 7.4(c) shows the character design of no soft antenna that may save time for dynamic or secondary actions during animation production and also provides a variety of look and feel and dress-style to the digital character.

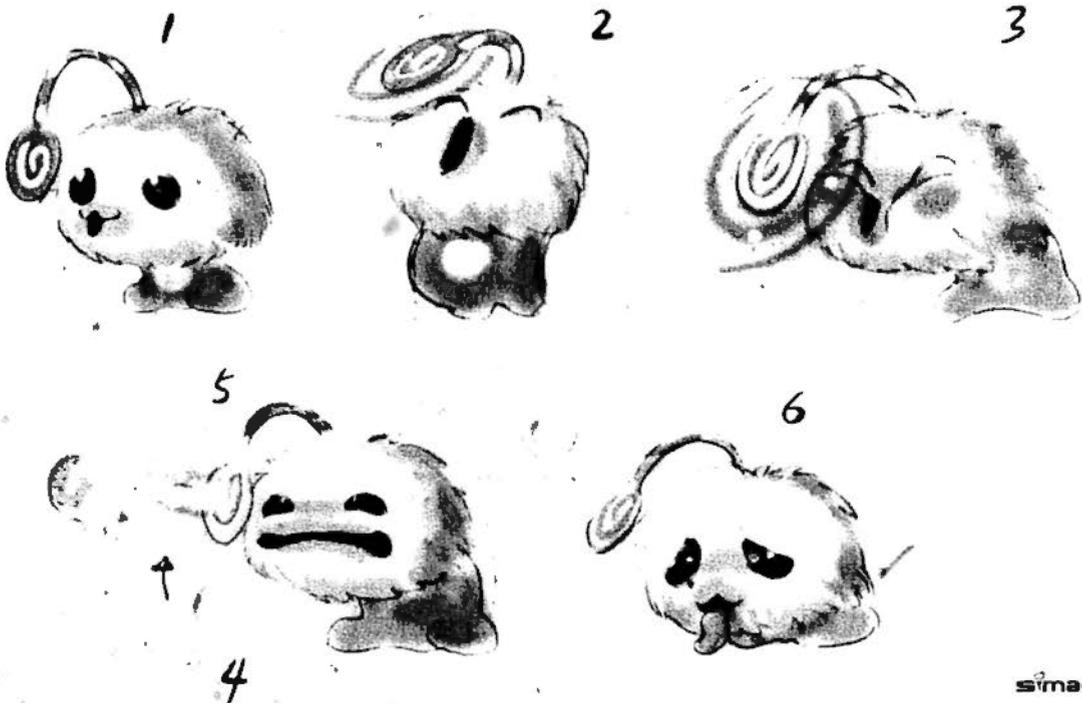
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<sup>4</sup> The lollipop inside *Kung Fu Hustle* is not real candy but specially made for the movie production.



Mouse Head simage

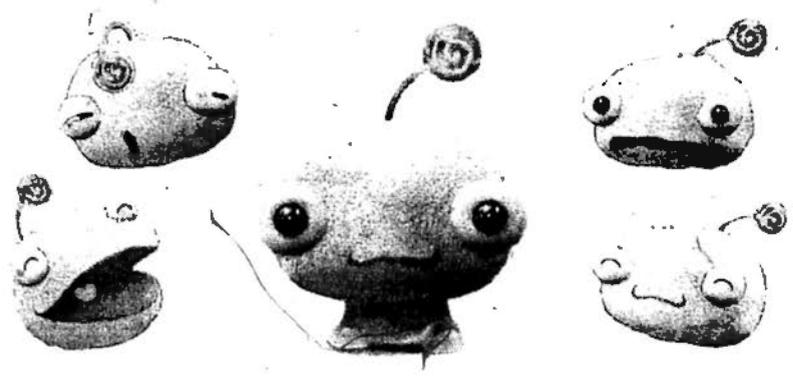
Figure 7.3(a): Very primitive sketches of character design for the extraterrestrial dog in CJ7



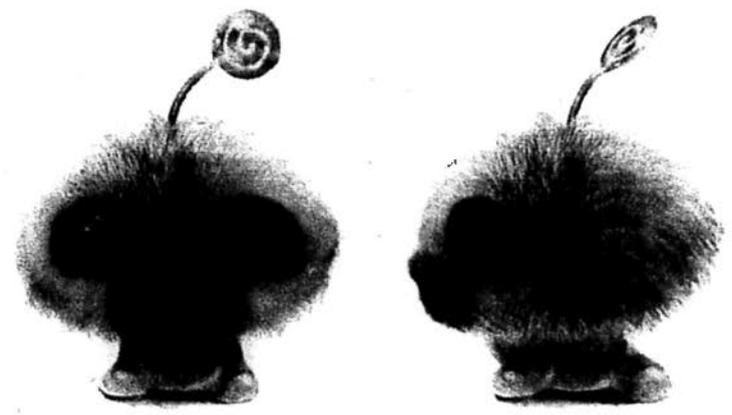
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Figure 7.3(b): More detailed sketches of character design for the extraterrestrial dog in CJ7

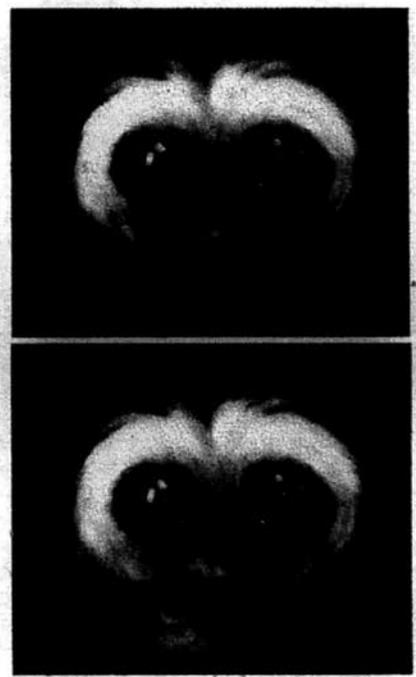
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(a)



(b)



(c)

Figure 7.4: Three sets of different 3D character design for the digital creature in CJ7

There are many more 2D sketches and 3D render test images of CJ7 that reveal the complexity of the process of digital character design by the efforts and creative passion from more than one symbol creators in this digital movie. Such pre-visualization tests are necessary and significant representations to create references for the narration and narrative of the digital cinematic production, which can be further illustrated by those visual design images beside the corresponding synopsis of textual treatment in Figures 7.5(a)-(d). Such treatment and visual design provide useful narrative elements like the detailed performance of the alien dog's antenna (that shows a sort of electric power, glows when becoming a tool, and performs different actions like a dog's tail) in Figure 7.5(a), and the diversified functions of different tools and accessories (that inspire some tools design for Dicky's dream of victory in his school life and examination) in Figures 7.5(c) and (d) in reference to some imaginary ideas of the Japanese manga and anime *Doraemon* (see Figure 7.6).

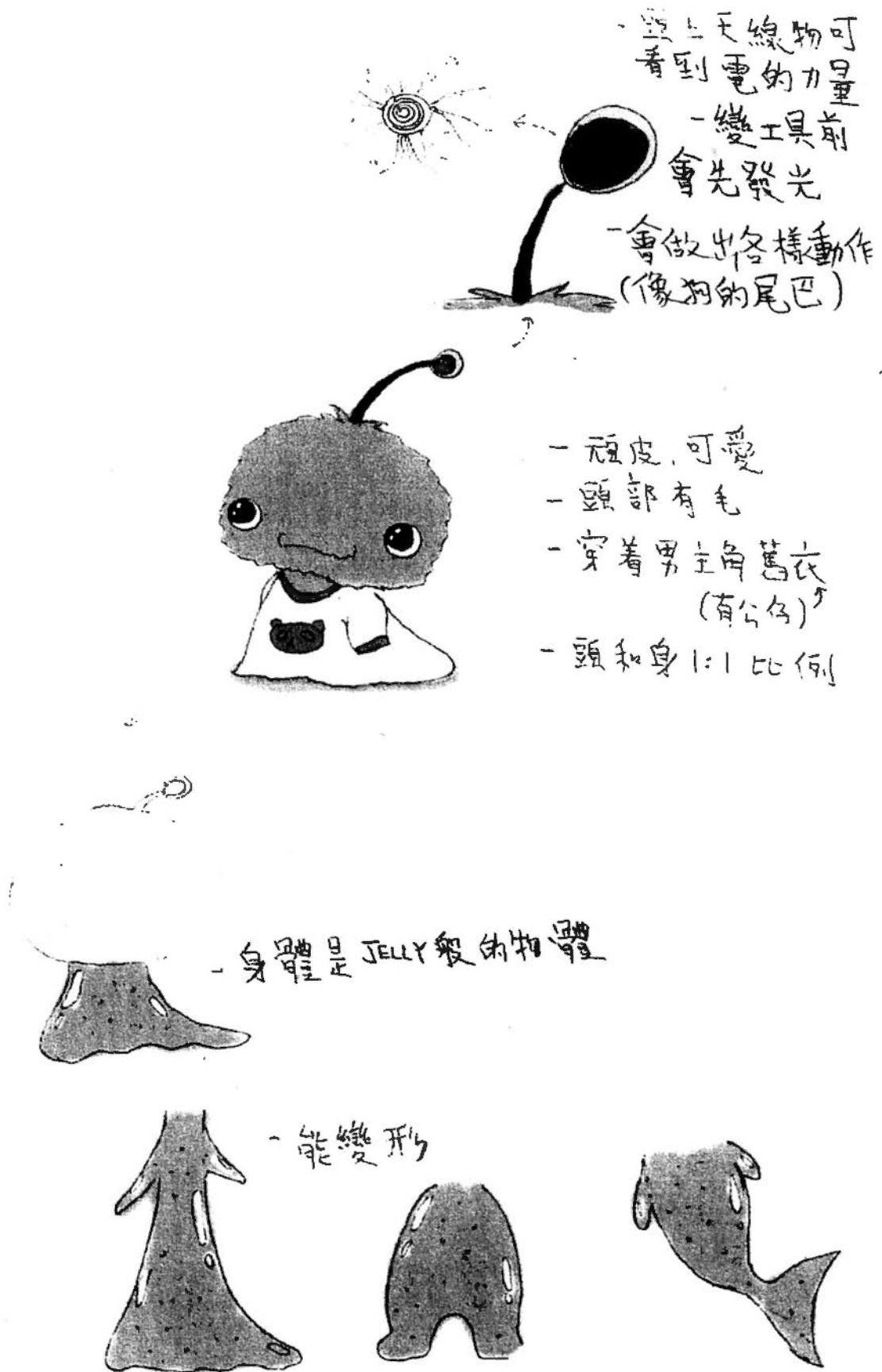


Figure 7.5(a): Detailed concept design of the character in CJ7

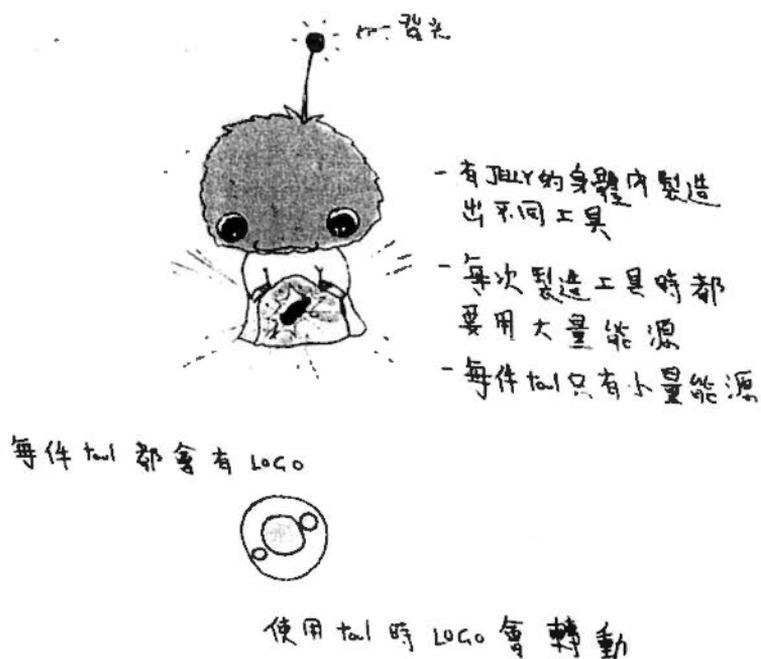
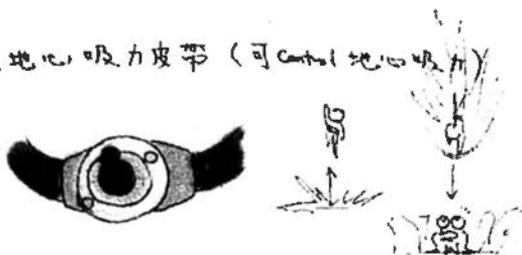


Figure 7.5(b): Detailed concept design of the character in *CJ7*

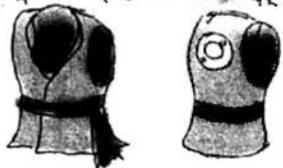
① 變大縮細鏡 (只可以用三次)



② 反地心吸力皮帶 (可Control地心吸力)



③ 高速背心 (可加快身體動作)



④ 聰明筆 (考試/做功課用)



Figure 7.5(c): Detailed concept design of the character's accessories in *CJ7*

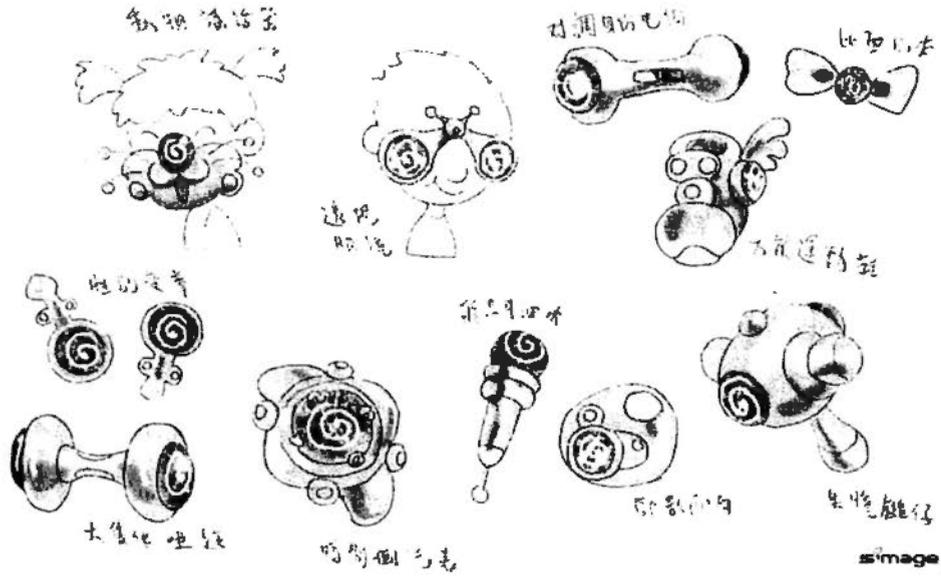


Figure 7.5(d): Design of some tools for *CJ7*



Figure 7.6: References of the Japanese manga *Doraemon* for the character and tool design in *CJ7*

As mentioned before, animatics as pre-visualization are very rare in Hong Kong digital cinematic productions. Again, during the pre-production of *CJ7*, animatics and pre-visualization tests are, to a great extent, unprecedentedly employed to produce visual references for reducing complexity, absorbing uncertainty, and making narrative representations. Certainly, their quality and functionality is almost incomparable to those in Hollywood blockbusters like those animatics and pre-visualization tests for shooting the aircraft disaster inside the correspondingly decorated blue-screen studio in David Fincher's *Fight Club* (1999) that is an extraordinarily outstanding demonstration of pre-production for his strong sense and knowledge of visualization as Poon pinpointed. Chow's pre-visualized representations in *CJ7* do make a milestone in the development of pre-production and pre-visualization systems in local digital cinematic productions. As Fabe (2004) mentions, shot-by-shot textual analysis of movie sequences offers viewers and researchers better ability to discern and appreciate the rich complex meanings of visual representations of the cinematic medium and their profound effects on our perceptions and creative thinking. Here I select 2 animatic sequences of pre-visualization tests from *CJ7*'s pre-production (see Figures 7.7 and 7.8) and utilize sequence-shot analysis to deconstruct and reconstruct/review their contribution to the meaning construction of cultural representations via enacted practices by collaborating cultural producers of symbolic creativity and mutual intelligibility in digital cinematic productions, which is highly ignored by traditional film and screen studies (Hesmondhalgh, 2002; Ogien, 2009; Rawls, 1996; Watson, 2009). This reveals an important learning process to cultural producers and audiences how systems of pre-production and pre-visualization function as cultural de-representations in the creative process of de-paradoxicalization, thus influencing the

compromising meaning construction process in the spectrum of cultural production and consumption (Storey, 2010).

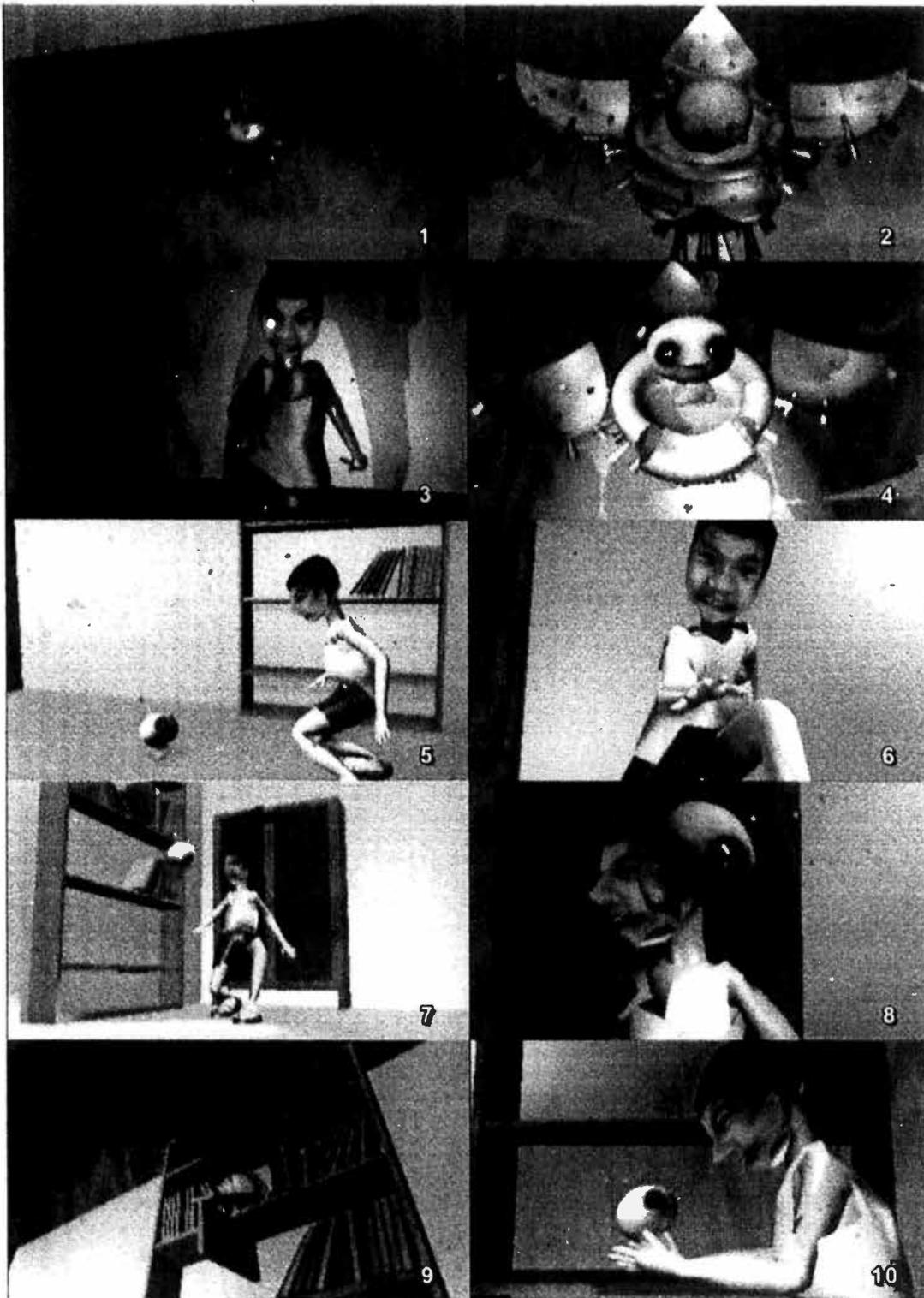
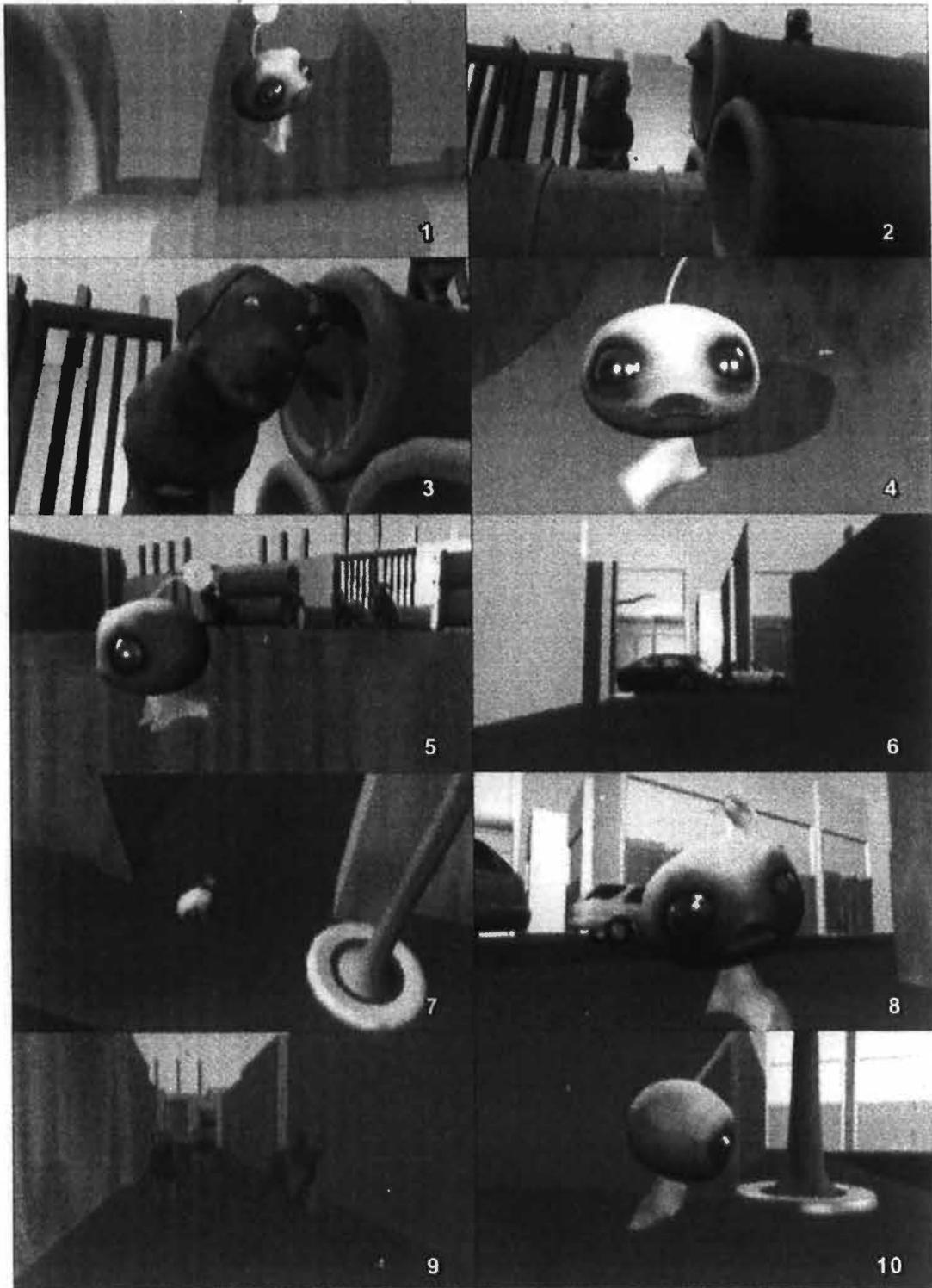


Figure 7.7: Sequence-shots of an animatic to test an early concept of the first encounter between Dicky and the alien dog in *CJ7*



**Figure 7.8: Sequence-shots of an animatic to depict how CJ7 escapes from the attack by some wild dogs and goes to save Dicky's father from an accident, which has never been produced**

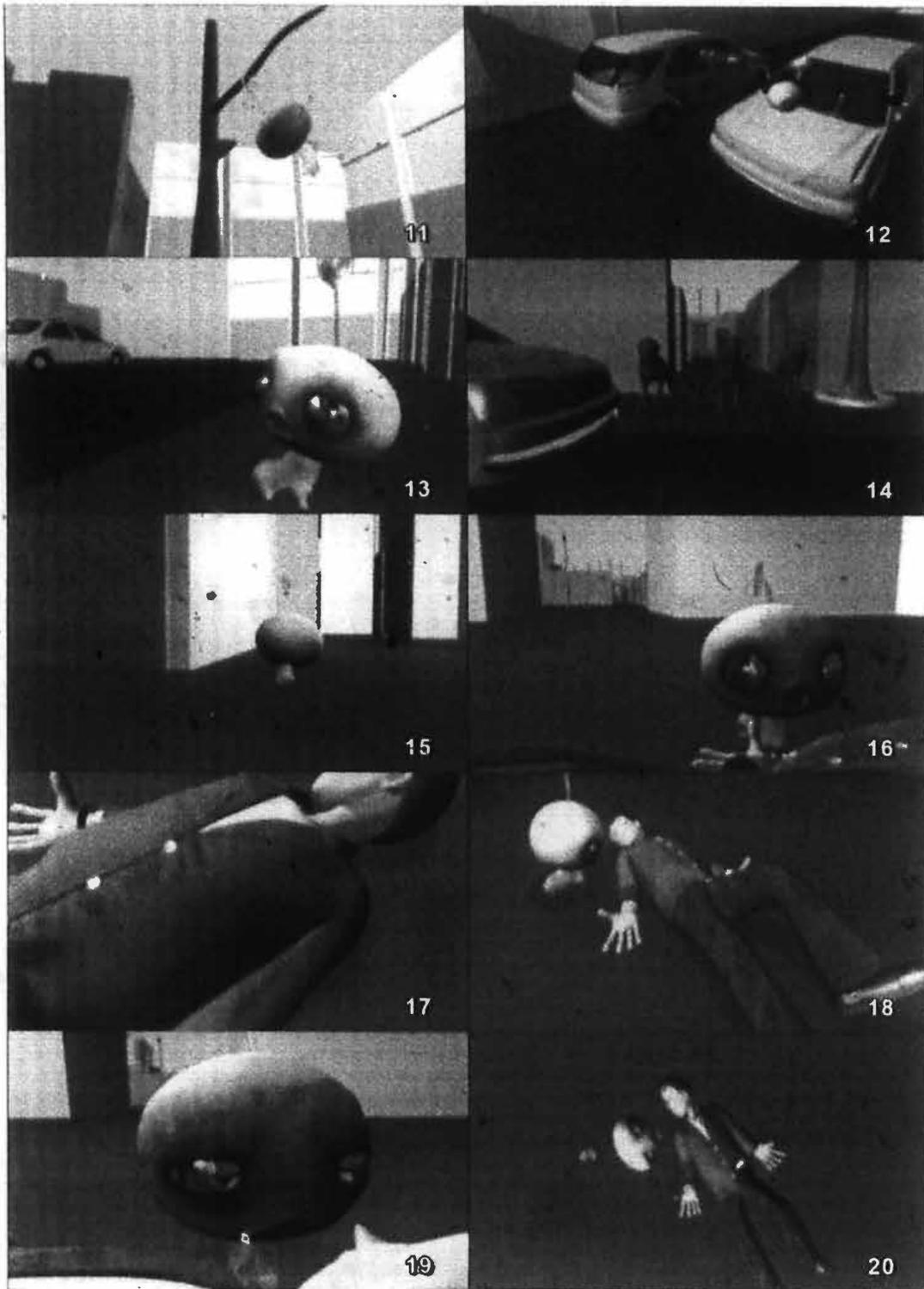


Figure 7.8: Sequence-shots of an animatic to depict how CJ7 escapes from the attack by some wild dogs and goes to save Dicky's father from an accident, which has never been produced

Figure 7.7 shows an animatic sequence to pre-visualize an early concept of the first encounter between Dicky and the extraterrestrial dog in *CJ7*, which is partly adapted to the final cinematic production. On the one hand, such an animatic as pre-visualization may save both time and budget for the production. With no need to employ the protagonist and other crew members for any physical shooting, merely a computer animator following the script and storyboards as well as some guidance from the director and animation supervisor can produce the whole sequence by means of 3D computer animation cheaply. On the other, the animatic sequence provides fruitful references concerning the possible camera movements that traditional storyboards cannot offer and the “impossible” rehearsal between the virtual Dicky – a low resolution model of human figure with simple texture maps – and the physically non-existent digital creature. This facilitates very much the coordination of complex collective imaginative inputs from collaborating cultural producers like the director, the protagonist and other crew members during the live shooting. Shots 1 and 2 of the animatic sequence tell us the original egg-like concept to breed *CJ7* in front of Dicky. But that breeding concept is not used in the final production except those tube-like objects on the surface of the sphere during its transformation inside the wardrobe instead of the open area of the house. Moreover, the animatic covers Dicky’s frightening response after seeing *CJ7* and his curious but careful approach to it in shots 3 and 6 respectively. It can tell how to act, how to film, how to animate for the digital cinematic production from this simple but useful animatic and pre-visualization test.

The animatic sequence in Figure 7.8 is actually more complicated but I only excerpt 20 shots rather than the whole sequence to demonstrate how it is used to inspire the final production in *CJ7*. The extraterrestrial dog is under attack by some wild dogs on its way to go to save Dicky's father acted by Chow, which is not the final storyline of the movie. The concept of this animatic about the rescue of the master's father is very dramatic and impressive, but its desertion is understandable and relevant to the flexible systems of cinematic production in Hong Kong whereupon even a final script is seldom ready on location shooting. However, this pre-production test is still worthy to provide some references for cultural representations in some other scenes of the movie. For instance, the concept of a wild dog's attack on *CJ7* is utilized in a scene that Dicky tries to justify its kung fu skills on his way to school. Similar to shot 1, a dog's shadow is animated to fight against *CJ7* in the movie. From shots 16 to 20, a variety of camera angles and motions is used to capture the digital character's responses to Chow's death in accident. Although *CJ7* finds Chow's death inside a hospital in the final movie, those emotional changes in terms of its facial expression as shown in shots 16, 19 and 20 are meaningful references for visual representations by animation production in the movie.

From the aforementioned animatics, we can understand that Chow has put a lot of efforts on developing his systems of pre-production and pre-visualization that may be not very mature to clarify uncertainty in cultural representations of digital effects and computer animation, and to facilitate communication and collaboration in the afterward production and post-production. Furthermore, he had invited different

symbol creators other than Menfond's creative animators to make pre-visualization tests for *CJ7*'s pre-production at the very beginning. Law and his own company had started some pre-production first, but quitted for Chow's original request of an unacceptably tight production schedule that was accepted but not followed by Menfond. Finally, once again, Chow found Law to act as the movie's visual effects consultant<sup>5</sup> to monitor the production of digital effects and computer animation by Menfond of different working philosophy and organization culture, because of Chow's trust on Law with regard to their former collaborating experience in *Shaolin Soccer*. Here I would like to analyze some early pre-visualization tests for *CJ7* by different flexible nomadic artists in some detail with a view to pinpointing the complexity and significance of collective imaginative inputs from collaborating computer animators to cultural representations in digital cinematic aesthetics and productions. Many of these pre-visualization tests were done on behalf of their creative passion rather than economic reward.

Figure 7.9 and Figure 7.10 are pre-visualization tests for the fur and gel-like body of the digital creature *CJ7* respectively. As most interviewed cultural producers confessed, fur simulation is one of the most difficult tasks in the production of *CJ7*. As a computer animator myself, I can fully understand the difficulty in animating the digital character of fur simulation especially when it interacts with human body and other physical objects like water shot on location (Liu, 2008; "Special Report: Hong Kong Digital Effects", 2009). The render test in Figure 7.9 presents very

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<sup>5</sup> As many interviewed cultural producers said, it is difficult to supervise other symbol creators if you are not in a right position of membership – the corresponding creative manager enacting mutual recognizable practices (Garfinkel, 1967; Rawls, 2002, 2006). Law as *CJ7*'s visual effects consultant encountered many difficulties to supervise other visual effects supervisors (Eddy Wong is his former boss) and computer animators in Menfond – another company that he was no longer belonging.

photorealistic fur on an object that looks much better than the final version of fur simulation on CJ7. However, we should envisage the rendering configuration for the test that is only one frame of film resolution, but that takes 9 minutes to finish the calculation by a computer workstation of 3G CPU and 1,000MB RAM on graphics card. This means that to render CJ7's fur in such detail throughout the movie may take years for the digital cinematic production (3.6 hours for one second animation; 216 hours or 9 days for one minute<sup>6</sup>), which is impossible and unaffordable in Hong Kong cinema. Therefore, in order to save time and budget, lower quality of fur simulation is finally employed in accord with the flexible systems of digital cinematic production in Hong Kong.

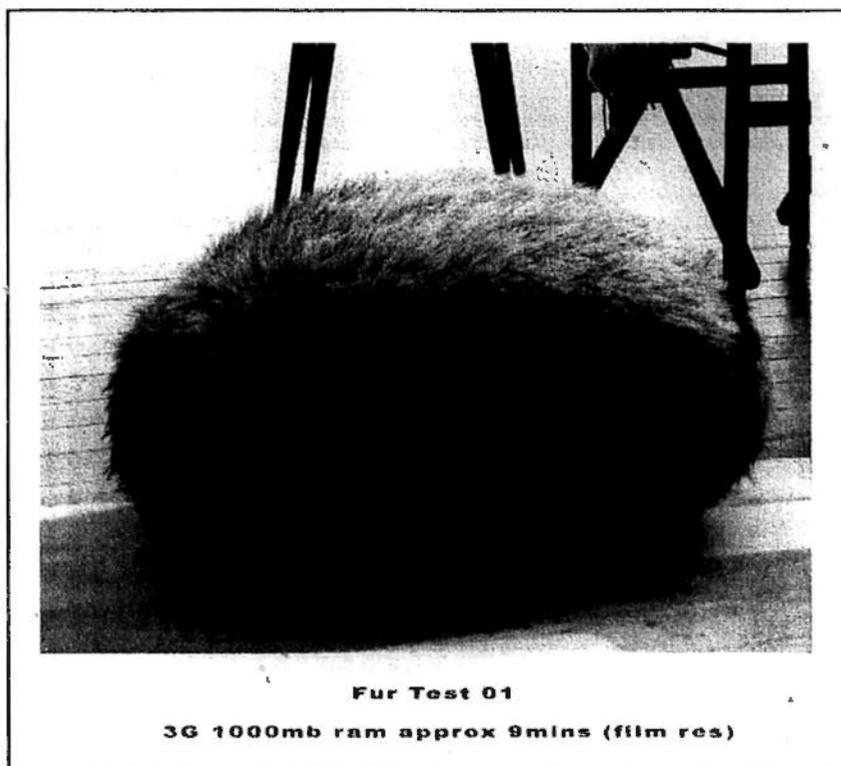


Figure 7.9: A high-quality render test of computer simulated fur for *CJ7*

<sup>6</sup> The timing is simply based on direct calculation without concern to more complex motions of character animation and separate layer rendering that normally takes longer time but is more flexible for later amendment in production.



Figure 7.10: Snapshot of a motion test of the peristalsis of the gel-like body for *CJ7*

It may sound ridiculous that nearly all the aforementioned animatics and pre-visualization tests are not directly used in the final production. Nevertheless, bearing in mind, they are cultural de-representations in pre-production rather than production and post-production. Their complex, indirect and uncertain contribution to cultural representations in digital cinematic aesthetics, and productions paradoxically explicate the importance and sustainable development of pre-production systems in Hollywood on the one hand, and the unwillingness of many Hong Kong filmmakers to invest heavily on pre-production on the other. But underestimation of the cultural/aesthetic values of pre-production always leads to some regrets and unintended effects in local digital cinematic productions, as Shi mentioned. The unstable systems of pre-production and pre-visualization whereupon the scripts, storyboards and corresponding pre-visualization tests are never finalized weaken, to a great extent, the contribution of animatics and pre-visualization tests to cultural representations in digital cinematic productions. Fortunately, the weakness of the

pre-production systems especially with regard to professional full script has been recognized and envisaged in the Hong Kong film industry (Chan et al., 2010). However, cultural experimentation and appropriation by an early pre-visualization test like the animatic sequence of the repairing effects on an apple in Figure 7.11 that conceptually contributes to the narration and narrative by digital effects production in *CJ7* is valuable but still rare in most local digital cinematic productions.

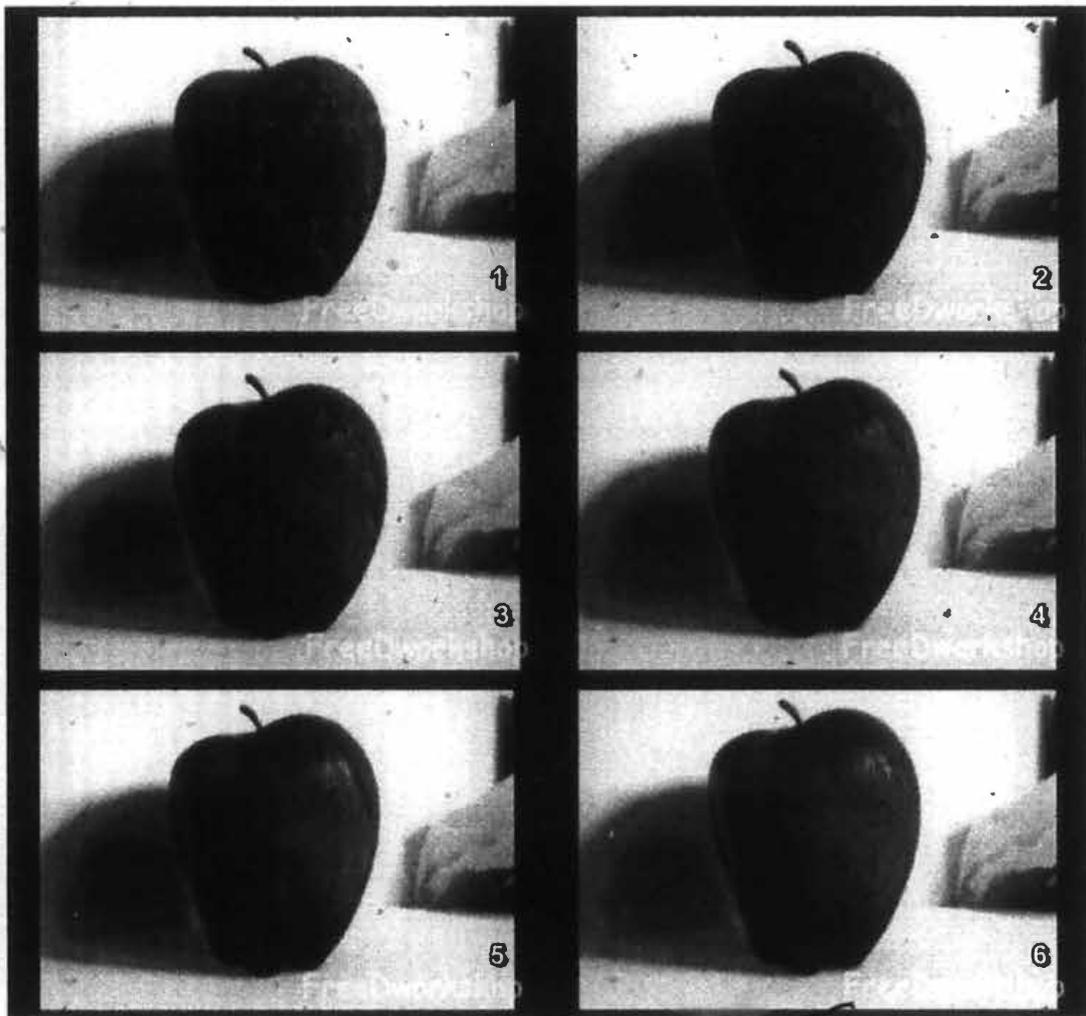


Figure 7.11: An animatic sequence to test the repairing effects on an apple for *CJ7*

As Chung mentioned, Hong Kong digital cinematic effects lag behind Hollywood in view of the insufficient time and budget in media production and research, and development from both cultural production and technological development perspectives. Very limited resources are available to pre-production in

Hong Kong cinema, thus constraining professional and systematic development of pre-production and pre-visualization in local digital cinematic productions. However, the flexible systems of local creative media organizations and nomadic labors function in their own ways to develop local cultural production of digital effects and computer animation by means of glocalization. Such expedient ways may not be the best solutions but indeed provide meaningful references to cultural representations in resources-limited digital cinematic productions in Hong Kong. Law told me that he always puts emphasis on tests whereupon he learns and discovers something new or some new methods of digital effects production, and he works hard with colleagues on behalf of shared creative passion to create some digital visual effects which can even shock Hollywood experts (mostly by their “glocality”) in a particular sense.

For *CJ7*, Law did a lot of pre-visualization tests to facilitate Chow’s directing and production of this new hybrid genre of unprecedented digital character animation in line with live performances. Figure 7.12 shows some pre-visualization tests that Law tried to composite the animated digital character into the pre-filmed video footage, which is used to provide some references how to shoot the live scene of a doll prototype as “performance reference” for either the cinematographer or the actors/actresses on location. In snapshots 1 and 2, we can see that green material is utilized for “chroma keying” to remove the hand and the control stick during digital compositing. Besides, 3 tiny tapes on the blue control stick in snapshot 3 is used to motion tracking for precisely matching the virtual camera and digital character’s motion to the captured video as shown in snapshot 4. These tests assure Chow to

shoot *CJ7* with the doll prototype on location that facilitates his directing and the protagonists' acting.

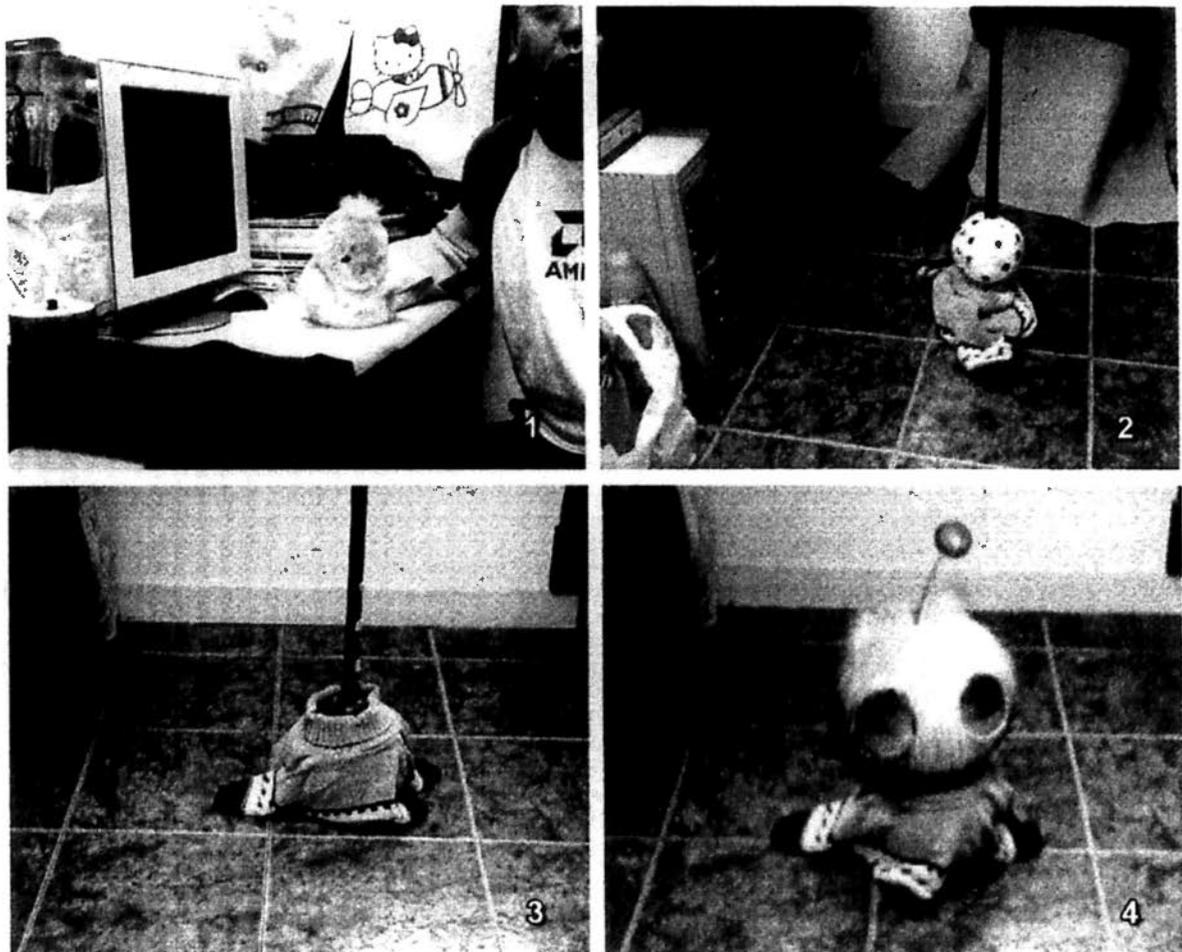


Figure 7.12: Snapshots of 4 sequences of live video and animatic to test digital composition effects for *CJ7*

Moreover, collective imaginative inputs from foreign computer animators are deployed to glocalize digital cinematic productions in the spiral of cultural globalization. Similar to Tsui's experiences in the 1980s mentioned in Chapter 2, foreign experts' technological skills and knowledge is continuously imported to local cinematic production (Schroeder, 2004). More importantly, local filmmakers and computer animators can work together with many foreign experts via the internet conveniently and boundlessly in the era of digitalization and globalization. In *CJ7*, foreign computer animators really contribute a lot to the design of fur and eyes of the

digital character. In Figures 7.13(a) and (b), the comparative pre-visualization tests reveal the professional process to develop the computer graphics (CG) eyes that are indistinguishable from or more realistic than the real ones. The dog's CG eye in Figure 7.13(a) looks dull because of unsatisfactory reflection mapping on the eye shader<sup>7</sup>, while its CG eyes in Figure 7.13(b) are more believable for the photorealistic eye shader of multiple layers of mappings that highly imitates the complex reflection contexts/images of physical environment.

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<sup>7</sup> Shader is a utility to assign materials and textures to object's surface during computer rendering that involves a technique of mathematical calculation based on different representations of light, surface and textures. The shading calculation sometimes imitates physical phenomena but always transgresses physics in terms of digital aesthetics (Kerlow, 2000; Patmore, 2003).

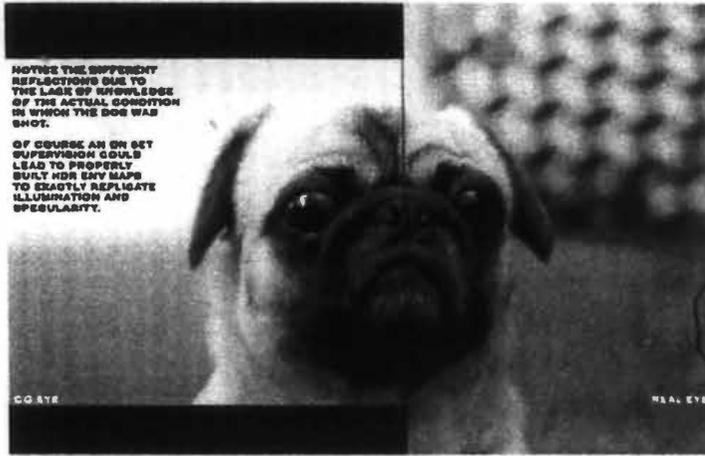


Figure 7.13(a): An unsatisfied render test of eye shader; left side is CG eye, right side is the real eye for comparison



Figure 7.13(b): A photorealistic render test of eye shader; left side is CG eye, right side is the real eye

On the one side, all these animatics and pre-visualization tests of *CJ7* (including the tests of facial expression, illumination on fur and character animation in Figures 7.14, 7.15 and 7.16 respectively) reveal the complexity and significance of pre-production in digital cinematic production whereas all these extra works of contingency and uncertainty under the systems of pre-production and pre-visualization, paradoxically, aim to reduce complexity for smoothing production and post-production. Such paradox evidences the characteristic of animatics and pre-visualization tests as a kind of cultural de-representations in the creative process of de-paradoxicalization, thus facilitating rather than directly producing cultural representations in digital cinematic production. On the other side, as a learning process for Chow and his creative team, *CJ7* shows a progression instead of regression in the development of systems of organization and representation in Hong Kong digital cinematic production, especially when considering the systems of pre-production and pre-visualization. Despite Chow's important creative and coordinating roles in the movie production, collective imaginative inputs from computer animators during pre-production to symbolically create character design, storyboards, animatics and pre-visualization tests as de-representations in the spectrum of cultural production and consumption are indispensable to the final innovative cultural representations. In the next 2 sections, we are going to emphatically study some similar cultural de-representations by collective imaginative inputs from collaborating creative managers and symbol creators in the processes of production and post-production that are more directly and visibly presented and represented in Chow's digital cinematic productions.

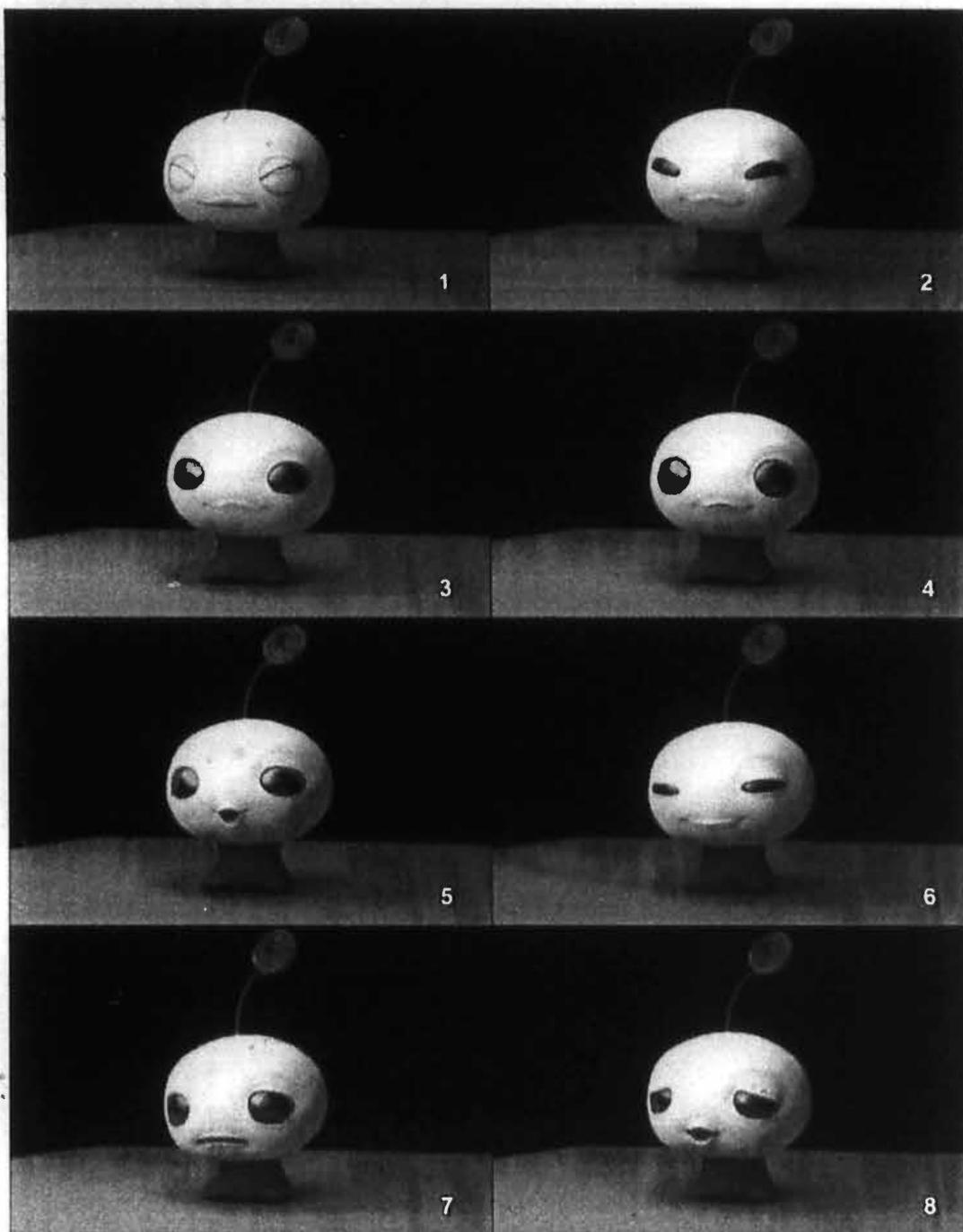


Figure 7.14: An animatic sequence to test facial expression of the digital character in *CJ7*

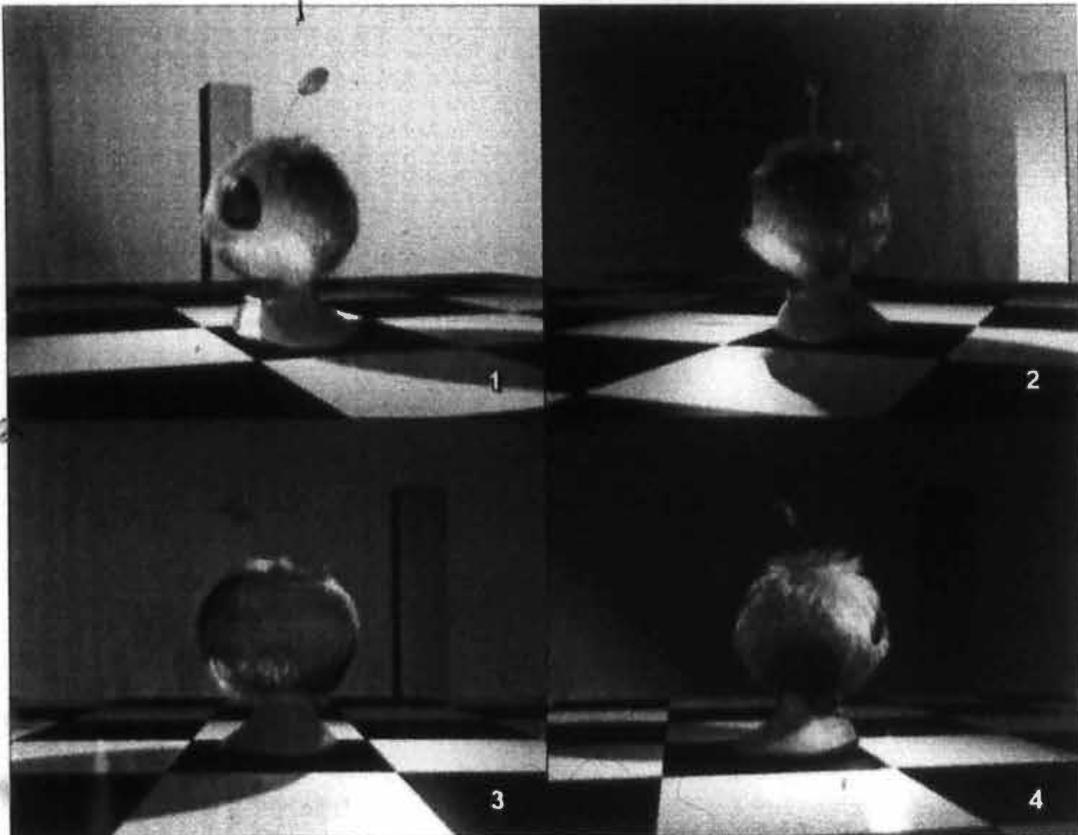


Figure 7.15: Snapshots of a circular camera movement to test lighting effects on simulated fur of the digital character in *CJ7*

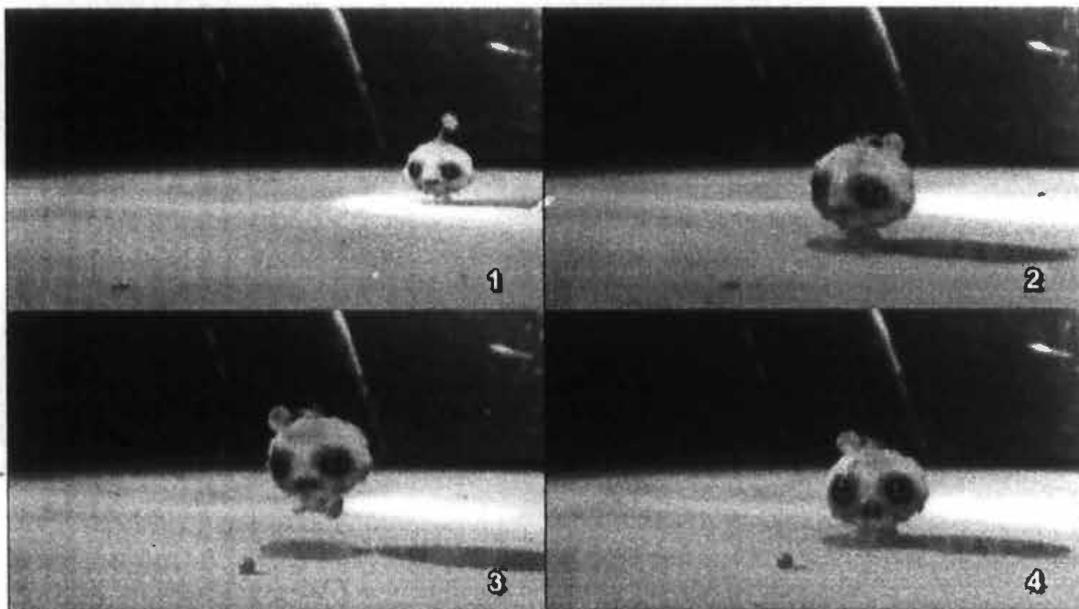


Figure 7.16: Snapshots of a motion test of the digital character in *CJ7*

### **Visual Amplification: Stephen Chow's Cultural Glocalization**

Traditional Cantonese comedy production possesses its own pre-existing social and cultural sign systems for its representation of local “meaningless” culture that is, by and large, reliant on verbal scripts including both dialogue and monologue to strengthen the comedic effects of indigenous gags and actions, while new media reveals different signifying systems of digital aesthetics and cultures more dependent on imaginary visual representations to exaggerate the performances of “meaningless” culture. The re-articulation of traditional and new media sign systems in digital texts like Chow's digital cinematic productions is complicated and paradoxical (Everett, 2003; Lee, 2009). Fundamentally speaking, media organizations like traditional Hong Kong film and media conglomerates attempt to reproduce movies using the same pre-existing sign systems with a view to ensuring the profitability of movie productions from the experience of previous productions in accord with organization culture and routines, that is, a kind of cultural reproduction from previous cultural production/representation. Such kind of stereotypical cultural production of a few, simple, essential traits and discouraging expression is not creative but paradoxical to the will of most cultural producers like Chow and his creative team of symbolic creativity; nevertheless, Chow is himself paradoxical for his identities as both an organization manager and a symbol creator in his cultural productions. Therefore, systems are extremely important to reduce complexity for making communication decision from alternative choices by structural coupling of the corresponding social and psychic systems under which collaborating creative managers and symbol creators contribute to the meaning construction of cultural representations in digital

cinematic aesthetics and productions (Hall, 1997b; Luhmann, 1995, 2000a; Seidl, 2005a; Seidl & Becker, 2005).

For instance, the singing performance of Chow and Yat-fei Wong (黃 飛) in *Shaolin Soccer* is a typical reproduction of local “meaningless” culture within the traditional sign system, which is more reliant on the singing scripts and dialogues than those visual impacts of the scene. However, the intermediate layers of digital effects and computer animation like the digital soccer ball in the movie providing cultural de-representations play a more crucial role in enhancing the comedic effects of Chow’s digital cinematic representation by a creative process of de-paradoxicalization. This allows the interpenetration between the systems of traditional film production and new media of digital aesthetics and thus, creates new cultural and aesthetic values of digital cinematic production. As most interviewed cultural producers and audiences pointed out, Chow has changed to utilize visual amplification by means of digital effects and computer animation to globalize/glocalize his comedic representations of “meaningless” culture since *Shaolin Soccer*. He obviously reveals his will to globalize his spectacular digital representations of kung fu soccer at the opening of the movie that the globe is lined up with a monk’s head, a soccer ball and the sun (see Figure 7.17). The twilight behind the monk’s head and soccer ball may be relevant to some critics’ appraisal of the movie as a glocal representation of the Hong Kong tenacious spirit under economic recession and a successful case of integrative economic-symbolic valorizations to globalize Chow’s “meaningless” comedy by visual amplification to satisfy youth cultures of comic and video game imageries in relation to digitextuality (Davis &

Yeh, 2008; Longtin, 2003; Thompson, 1995; Tong, 2003). But it would be more reliable to empirically discern Chow's novel visual representations by digital amplification in terms of some sequence-shot analysis of his cultural production of kung-fu-soccer-play in *Shaolin Soccer* and imaginary nostalgic representations of martial arts in *Kung Fu Hustle*. Such novel representations demonstrate a metamorphosis of kung fu movies that simultaneously breaks through and dissolves the martial arts traditions resulting in the advent of a new style of kung fu representations by digital aesthetics (B. Lee, 2010; V. Lee, 2009).



Figure 7.17: Metaphor of “glocalization” at the opening of *Shaolin Soccer*

As both L. Lee and Tsang mentioned, Chow believed that the scope of the fusion of kung fu and soccer was big enough to globalize/regionalize<sup>8</sup> *Shaolin Soccer*, and, more importantly, kung fu may be reinvented by integration into soccer play to

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<sup>8</sup> Although Chow and his creative team aimed at creating *Shaolin Soccer* for the global market, they knew that the movie got success mainly in Asian region. Its box office in the United States was only US\$ 489,600. For really globalizing as well as Hollywoodizing his digital cinematic production, Chow accepted the preconditions by Columbia Pictures to collaborate for the production and distribution of *Kung Fu Hustle* that earned US\$ 17,108,591 in the US box office and got success world-wide (Chan et al., 2010; Fu, 2007).

create visual gags and spectacles by means of digital effects and computer animation. This digital cinematic aesthetics by amplification not only exaggerates kung-fu-soccer-play but also allows imagination that everybody can play kung fu inside the movie, as Tsui reinvigorated martial arts movies that need not to be reliant on real martial arts artists by innovative cinematography and editing techniques, as well as aesthetics, that have also been used in Chow's digital cinematic productions ("Hong Kong Action Film: A Decade of CG 2" in *Wuxiu Gushi*, "香港動作電影:CG十年(下)" - *武俠故事*, 2009; "Special Report: Hong Kong Digital Effects", 2009). Indeed, all actors of the 6 Shaolin disciples in *Shaolin Soccer* do not really know kung fu and cannot play soccer well. Also, the main actress Wei Zhao's Tai-chi (太極) kung fu is a fake. Figure 7.18 is a sequence of the movie to introduce her Tai-chi and first encounter with Chow that means the fusion of female and male, yin and yang, Tai-chi and Mighty Steel Leg (大力金剛腿). This is a hint of the reunion of Wudang (武當) and Shaolin kung fu to create the superpower of kung fu soccer by digital amplification, thus making the final goal at the last soccer competition in the movie, as Chow reminds that all kinds of kung fu originate from Shaolin when he first encounters the soccer coach acted by Man-tat Ng (吳孟達) at the Shanghai's Times Square. Furthermore, Zhao's Tai-chi for making mantou (饅頭) down-to-earth legitimates diversified kung fu representations in everyday lives, especially the soccer play, of the public in the movie.

As most interviewed cultural producers agreed, Chow as the director plays the most important coordinating role to orientate collective activities of symbolic

creativity and to reduce complexity during both production and post-production. Nevertheless, those digitally amplified comedic representations of kung-fu-soccer-play in *Shaolin Soccer* are resulted from complex collective imaginative inputs from creative managers and symbol creators including the scriptwriters, cinematographer, actors and actresses, visual effects supervisor, computer animators and so forth by the networks of structural coupling among their social and psychic systems of mutually recognizable practices (Brocklesby, 2009; Luhmann, 2000a, 2005a; Rawls, 2002, 2006). In Figure 7.18, Zhao's Tai-chi kung fu is sophisticatedly visually represented by integrative symbolic valorizations of directing, acting, cinematography, editing and digital visual effects. During the location shooting, a real cook was invited to demonstrate how to prepare the flour for making mantou and Zhao indeed followed the cook to make it. Besides, those computer animators on location observed and learned from the cook. Some flour and dough were brought back to Centro for computer animators' firsthand experiment and referencing, as Law said. The sequence is collectively produced by Chow's creative coordination and other creative artists' imaginative inputs. In shots 3, 9, 10 and 11, the camera captures Zhao's fragmented motions and gestures as cultural representations of Tai-chi kung fu during her preparation of mantou dough to inspire audience's free referencing. Shot 4 firstly adds some subtle digital visual effects of flour powder to link the scene to digital aesthetics by amplification that is followed by a high-speed photography of frozen water in the air in shot 5 and Zhao's physical actions of flour kneading in shots 6 and 7 for blurring physical and digital illusions. Then her physical action is gradually transformed into the animated symbol of Tai-chi in shot 8, which reminds us of the fantastical nature of digital representation. Hyperreal rather than real kung fu representations are the core objectives of the digital

cinematic production. In shots 15 and 16, Zhao is still kneading real dough that is sophisticatedly replaced by digital one in shot 17. Afterwards, digital dough by visual amplification takes the core position to represent the spectacular Tai-chi kung fu for the rest of the scene and to give a hint of the extraordinary power of Tai-chi for kung-fu-soccer-play when Zhao is exaggeratedly throwing the dough as a soccer ball into the air in shots 19 to 22.



Figure 7.18: Sequence-shots to introduce Wei Zhao and her Tai-chi kung fu in *Shaolin Soccer*



Figure 7.18: Sequence-shots to introduce Wei Zhao and her Tai-chi kung fu in *Shaolin Soccer*



Figure 7.18: Sequence-shots to introduce Wei Zhao and her Tai-chi kung fu in *Shaolin Soccer*

Moreover, Chow's digital amplification continues his unique cultural representations of Hong Kong "meaningless" culture composed of both locality and postmodernity. In *Shaolin Soccer*, his cultural representations by visual amplification exemplify its differentiation from Hollywood cinematic productions by re-presenting/re-representing "more distinctive subjects, styles and genres, specific to local popular taste" such like youth cultures of comic and video game (Bunny, 2005; Davis & Yeh, 2008: 39; Longtin, 2003). Indeed, more sophisticatedly, Chow's re-representations by digital amplification in his digital cinematic aesthetics and productions are concerned with cross-cultural, cross-historical, cross-genre references in relation to digitextuality and glocality. The sequence-shots in Figure 7.19 is one of the best exemplars in *Shaolin Soccer*'s glocalization of digital effects and computer animation to create its unique cultural representations of comic and video game cultures related to the nostalgic imagination of Yoichi Takahashi's manga and anime *Captain Tsubasa* (足球小将). By free referencing, most mature and older audiences of the focus groups (B), (C) and (E2) identified the sequence with the manga and anime while most young audiences of groups (A) and (E1) more freely appreciated the sequence in accord with their cultural taste towards comic and video game of digitextuality (Davis & Yeh, 2008; Everett, 2003).

As Lewis Au – one of the junior computer animators for the production of *Shaolin Soccer* – pointed out, most of the time no soccer ball was shot on location. Chow gave a quite high level of creative autonomy to Centro's computer animators to design the motions of the ball, and Law as the visual effects supervisor also interactively gave some guidance to his subordinate animators during the post-

production. In Figure 7.19, a digital soccer ball is used in the whole sequence but definitely Chow's movement and camera framing do provide references (or limitations) to the design of the digital ball's motions and effects in a particular sense. Shots 2, 3, 4 and 9 show some kind of local popular taste of cinematography, as Chung depicted that the cinematography of *Shaolin Soccer* is very casual and raw, of not much lighting, with reference to Chow's creative direction of locality (Davis & Yeh, 2008). In the sequence, a comic-like transition of the soccer ball from Chow's leg to the goalkeeper's hand is digitally represented by shots 5 to 8. According to Law's thick description of his creative teams' work by free referencing to disparate movies, television programs, comic books and their own tests, the core concept of this transition came from *Captain Tsubasa*. But that tiger imagery was decided to add into the sequence at a later period. The superpower of Chow's kick is comically represented with an increasing amount of visual amplification by the transition from a speedy soccer ball in shot 5, a ball of streamlining hot air and fire around its edge in shot 6, a capsule like the movie *Apollo 13* (1995) fully covered by fire in shot 7, and finally to a fire-tiger imagery of roaring with reference to the tiger-shoot (猛虎射门) in *Captain Tsubasa* in shot 8. Meanwhile, the most exaggerated power of the kick by the fire-tiger is immediately destroyed and displaced by the static soccer ball covered by disappearing fire particles and tightly held by the goalkeeper's hand in shot 9. This whole transition sequence comprises glocalized cultures of complex references to cinema, television, comic, computer game, digital effects and computer animation by collective imaginative inputs from Chow and his creative team. As Chung and Law confessed, the creative managers and symbol creators of glocal lived experiences and symbolic creativity define those cultural representations of local "meaningless" culture and glocalized digital visual effects in *Shaolin Soccer* in

regard to Chow's taste and personality and collaborative coordination in the director-oriented Hong Kong cinema. Chow's directing and coordinating role is crucial to reduce complexity of his digital cinematic productions under the flexible systems of organization and representation in Hong Kong cinema in order to paradigmatically and harmonically produce his unique style of "meaninglessness" in digital cinematic aesthetics and productions.

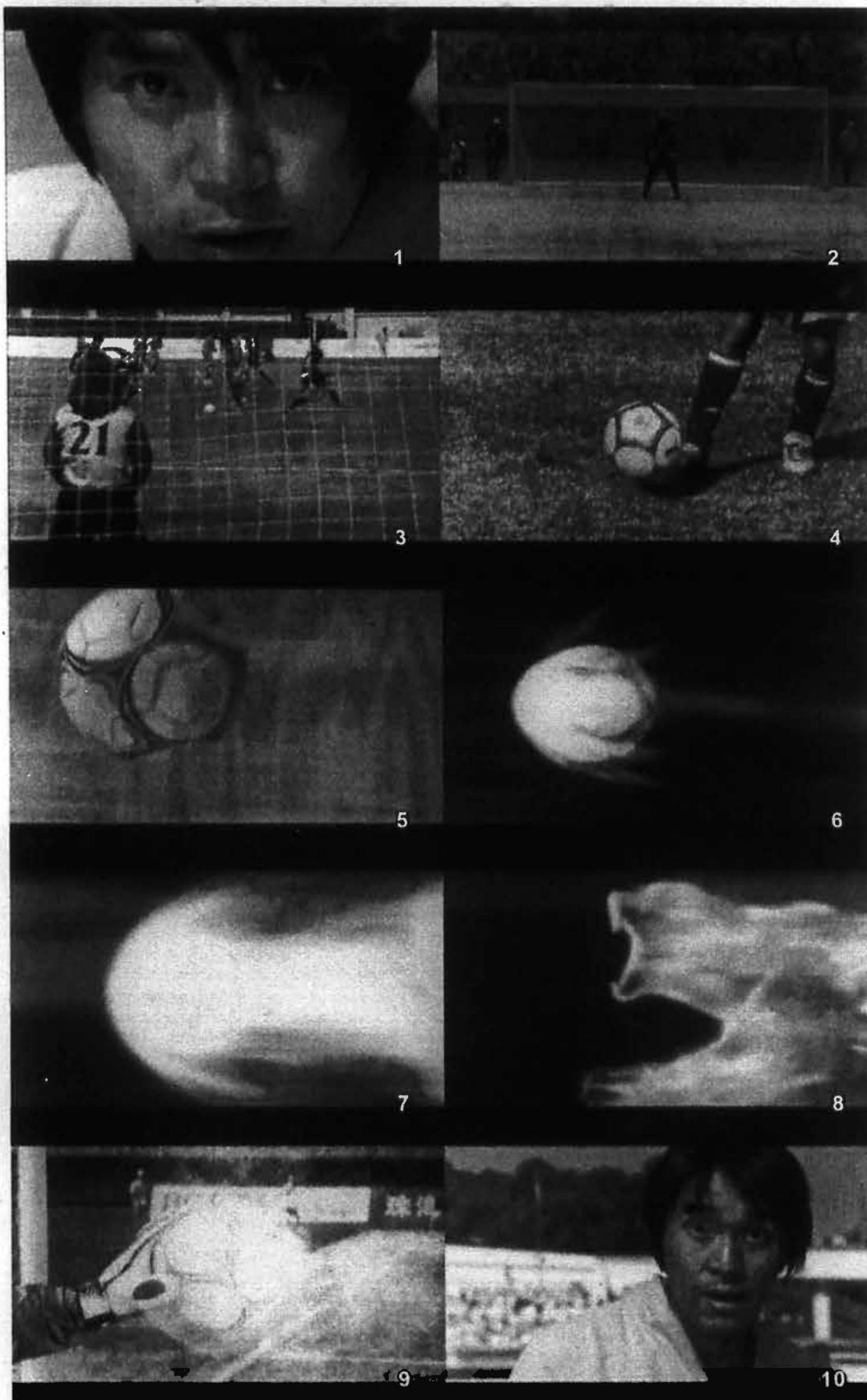


Figure 7.19: Digital amplification of the tiger-shoot of the Japanese manga and anime *Captain Tsubasa* in *Shaolin Soccer*

*Kung Fu Hustle* makes a dream come true as Tsang mentioned. It is Chow's dream to re-present and represent his idol Bruce Lee's spirit to enlighten people about Lee's philosophy of kung fu via his visual representations by digital amplification. Seriously speaking, it is not a comedy, but a melodrama of Chow's imaginary nostalgia by free referencing to cross-cultural, cross-historical, cross-genre elements on behalf of his own dream/daydream, which deconstructs and reconstructs the pasts in terms of the presents (Lu & Zhang, 2008; Wang, 1992, 2008). Certainly, this dream includes some calculation to glocalize this digital cinematic production in terms of his unique cultural representations of comedic effects and unprecedented kung fu animation. For instance, the "non-local" or glocalized space of the poor ghetto called Pig Sty Alley (zhu long cheng zhai, 豬籠城寨) that phonetically sounds like Kowloon Walled City (九龍城寨) in Cantonese in *Kung Fu Hustle* resembles the nostalgic movies entitled *The House of 72 Tenants*, but its imaginary nostalgic representations point to neither Hong Kong nor Shanghai imageries (Davis & Yeh, 2008; Lee, 2009; Li, 2005; Longtin, 2005; Sun, 2009). This glocalized space provides not only hybrid imageries for audiences' free referencing but also an imaginary space and perspective for Chow's nostalgic kung fu re-representation by digital amplification that resonates with the traditional ethos of martial arts culture. The alley, as I mentioned in Chapter 2, is a modern/postmodern symbol of "jianghu" where the "xia"/kung fu hero/Chow plays the role in restoring justice by his own rules – irrational (magic-spirit) imaginary kung fu (Lee, 2009; Yang, 2009). As most focus group audiences acknowledged, Chow is well-known as a comedian but not a kung fu master/artist. Chow himself certainly understands this truth. So, all kung fu masters including Chow himself inside *Kung Fu Hustle* rely on digital effects and computer animation to perform those unimaginable kung fu representations of

comedic effects with reference to local “meaningless” culture by increasing levels of amplification, from physical kung fu choreography of Twelve Kicks of the Tam School (十二路譚腿), animated motions of Eight Trigram Staff (五郎八卦棍), digitally visualized Lion’s Roar, to the most exaggerated magic-spirit Buddha’s Palm. The movie represents a salute not merely to Bruce Lee but also to martial arts film cultures in Hong Kong, as well as the Greater China (Fu, 2007; Li, 2005; Yang, 2005).

In the first kung fu fighting scene inside the poor ghetto of the “non-local” space of crouching tigers and hidden dragons in *Kung Fu Hustle*, all the 3 crouching tigers: the coolie acted by Xing-yu Shi (釋行宇), who is indeed an outstanding representative of the 32<sup>nd</sup> generation of disciples of Songshan Shaolin Temple (嵩山少林寺), the tailor by Chi-ling Chiu (趙志凌), who is a famous martial arts choreographer in Hong Kong cinema, and the baker by Zhi-hua Dong (董志華), who is one of Che Zhang’s favorite martial arts artists, know some sorts of real kung fu and start Chow’s imaginary nostalgia of martial arts cultures from more realistic representations by physical fist-fighting choreography (Law et al., 2004; Yang, 2005). Snapshots in Figure 7.20 that show the coolie’s Twelve Kicks and the tailor’s Hung Gar Iron Fist (洪家鐵線拳) to fight against the gangsters of the Axe Gang (斧頭幫) are the most realistic kung fu representations in the movie; nevertheless, they are still digitally exaggerated by changing their motion rhythm and adding comic-style (irrational) dust and dirt and sparkling fire by digital visual effects to the film footages as shown in snapshots 2 and 3 respectively. Snapshot 4 amplifies the power of the baker’s Eight Trigram Staff by animating those machine guns being broken by

his staff at the critical moment when those gangsters want to fire the other 2 kung fu masters. This visual amplification looks like a sort of supernatural power of magnetization sucking all machine guns to hit and break onto the wall is a typical comic representation that may recall Magneto in *X-Men*. And finally a full screen of digital animation in snapshot 6 that all dust and clothes are blown to fly is used to further amplify the extraordinary power of the baker's high-speed style of staff kung fu to close this first fighting scene of justice.



Figure 7.20: Visual transition from physical to digital representations of martial arts in *Kung Fu Hustle*

Figure 7.21 is the sequence of a duel between the landlady and the 2 harpist-killers in the poor ghetto, which depicts the highest level of digital amplification and the climax of that fighting scene following the previous stepwise combats among the tailor, the baker and the 2 killers. Digital imageries of imaginary animated fists and blades have been gradually replacing their physical fist-fighting and swordplay kung fu representations. This sequence also exemplifies Chow's complex imaginary nostalgic representations by glocalised digital effects and computer animation in terms of digitextual pastiches of hybrid cultures of locality and postmodernity, the West and the East, in a sense of the "new localism" (Davis & Yeh, 2008: 7, 42; Everett & Caldwell, 2003; Lee, 2009). Shot 1 gives a big close-up to the eccentric landlady of farcical house-wife hair-style and local unmannered smoking gesture. It is cut to shot 2 of a medium-close of the blind killer wearing traditional Chinese robe and using strings' "qi gong" that recalls some older audiences' memory of the magic-spirit genre movie *The Six-fingered Lord of the Lute*. In comparison, their dress-codes seem to belong to very different times and spaces. However, their unique skills of kung fu are also related to invisible vocal power that is sophisticatedly represented by visual amplification in Chow's digital cinematic production. The strings' "qi gong" of the 2 killers is exaggeratedly visualized by unprecedented digital effects and computer animation in harmony with outstanding sound effects. From shots 3 to 6, the 2 killers' final strike is visually represented by a flock of skeleton knights holding big blades to fight against the landlady and landlord. Those digital image layers of skeleton knights that more represent Western culture in regard to foreign digital cinema and video game are well composited and integrated into the film footage to re-represent and reinvent the magic-spirit kung fu most visually presented by hand-drawn animation in the 1960s' magic-spirit movies. The camera, then, cuts

again to the big close-up of the landlady in shot 7 that reveals her deep breath of a cigarette. The quick burning of the cigarette and influx of the smoke in slow motion by digital visual effects strongly exaggerates and visualizes a process to store “qi” (the power) before the landlady launches her Lion’s Roar kung fu. Shots 8 and 9 sophisticatedly express the superpower of her lion’s roaring by unprecedented visual amplification in terms of flock animation by particle systems that breaks those skeleton knights into pieces. Finally, her kung fu power is further explicated by blowing away and breaking the 2 killers’ clothes and all other stuff into digital dust and dirt in shots 10 and 11 whereas a similar digitally amplified representation also appears in Chow’s last score of the final competition in *Shaolin Soccer*. Though the landlady and the 2 killers look like people belonging to disparate periods, places and cultures, their vocal kung fu is similar cross-cultural productions with reference to the 1960s’ magic-spirit movies, and is visually re-represented by the same digital skeleton knights within new dynamics created by contemporary digital media culture (Grassilli, 2008). In *Kung Fu Hustle*, many other similar hybrid cultures that add complexity to Chow’s cinematic production are also seamlessly and believably integrated by glocalized digital effects and computer animation into his cultural representations of digital cinematic aesthetics.



Figure 7.21: Visual amplification of the magic-spirit kung fu Lion's Roar in *Kung Fu Hustle*

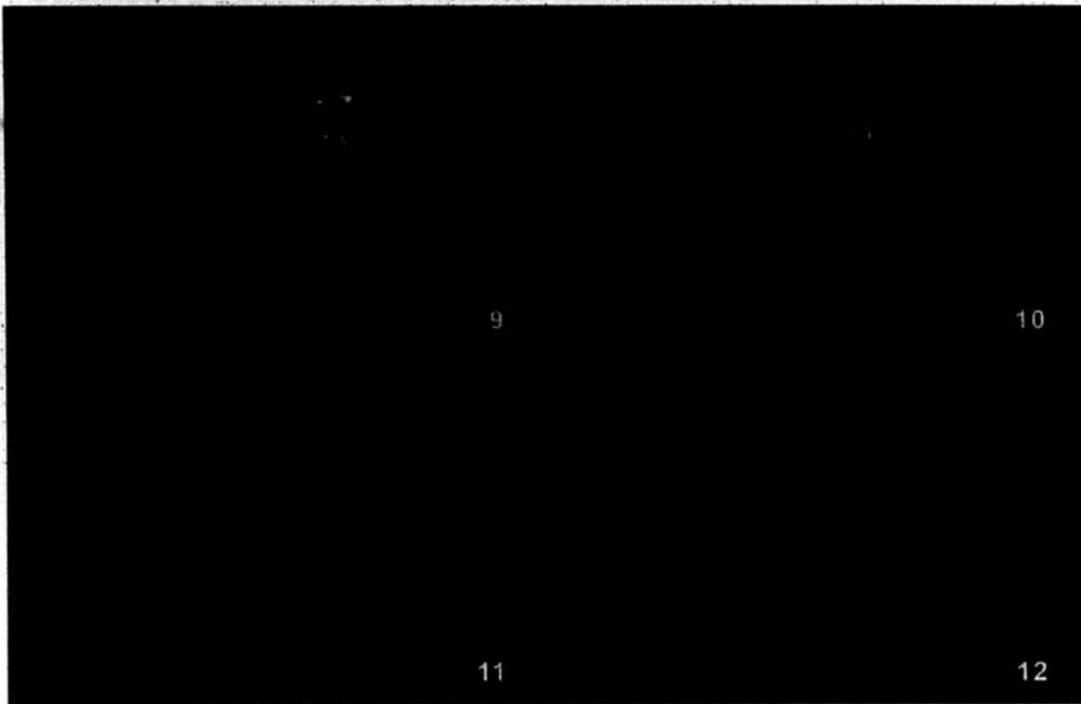


Figure 7.21: Visual amplification of the magic-spirit kung fu Lion's Roar in *Kung Fu Hustle*

*Kung Fu Hustle* is arguably the most complicated digital cinematic production in Chow's experience in terms of pre-production, production and post-production that really helps globalize as well as Hollywoodize this digital movie and its world-wide distribution. The success of its cultural representations relies, by and large, on collective imaginative inputs from his collaborating creative managers and symbol creators by structural couplings of the social and psychic systems whereas Chow's creative thoughts and passion play the most important role in the coordination and interpenetration of the systems of communication into the interaction with others' alternative thoughts during digital cinematic production under the flexible and director-oriented systems of Hong Kong cinema (Luhmann, 2000a; Seidl, 2005a). Possibly, if the director gets lost as many focus group audiences commented on *The Promise*, collective imaginative inputs from flexible nomadic labors will be difficult to be consolidated into creative and meaningful cultural representations in digital cinematic aesthetics and productions (Caldwell,

2008). For instance, Chow's wish to praise Bruce Lee's philosophy of Jeet Kune Do (截拳道) – “using no way as way; having no limitation as limitation” (以無法爲有法; 以無限爲有限) – is sophisticatedly represented by his acting and directing in line with glocalized digital effects and computer animation in *Kung Fu Hustle* (Bunny, 2005; [http://en.wikipedia.org/wiki/Jeet\\_Kune\\_Do](http://en.wikipedia.org/wiki/Jeet_Kune_Do), cited in Apr. 19<sup>th</sup> 2010). Therefore, Fire-cloud Beast (huo yun xie shen, 火雲邪神) acted by Siu-lung Leung (梁小龍) – a hidden dragon, a famous kung fu star during the 1970s' kung fu movie boom – says “speed determines the winner in the world of kung fu”, and visually demonstrates this philosophy of Lee's by catching a bullet fired beside his own temple (太陽穴), which is visually represented by digital effects and computer animation but is impossible in the real world (see Figure 7.22). Besides, Chow starts his duel against Fire-cloud Beast and the Axe Gang in Pig Sty Alley with imaginary nostalgic imageries and kung fu representations imitating not merely Lee's *Fist of Fury/The Chinese Connection* (精武門, 1972) but also *The Matrix*. This is a re-representation beyond locality and postmodernity by blurring the boundary between realism and hyperrealism and leads to a new style of martial arts by digital aesthetics. Likewise, he demonstrates Lee's philosophy by his short-distance combat and fast-paced steps on the gangsters' feet (see Figure 7.23), which sophisticatedly integrates Lee's Jeet Kune Do and Neo's Western-cybernetic kung fu with his “meaningless” culture of comic representations by means of digital visual effects. His comical fast-paced steps are not only criticized by Fire-cloud Beast to be kid fighting but also reflect his favorite theme of “virginity” of childishness again (Bunny, 2005; Ip, 2005; Lee, 2009; Lu & Zhang, 2008).



**Figure 7.22:** Chow's digital representation of Bruce Lee's kung fu philosophy in *Kung Fu Hustle*



**Figure 7.23:** Chow's comedic way of representation of Lee's Jeet Kune Do in *Kung Fu Hustle*

As mentioned before, *Kung Fu Hustle* is a dream of Chow's. Tsang confessed that most storylines originated from Chow's passionate affections of his own lived experiences and mediated cultural (collective) memory such like Lee's kung fu and movies, Jin Yong's (金庸) martial arts literatures<sup>9</sup>, magic-spirit movies of the 1960s and so on. Especially Buddha's Palm that he always swore he wanted to learn during brain-storming for the script is unprecedentedly exaggerated by digital visual effects (see Figures 7.24, 7.25 and 7.26), thus creating the "terminal" representation or re-representation of Chow's fantasy of kung fu by means of collective imaginative inputs and memories. This fantasy is shared to all collaborating cultural producers as well as audiences who contribute to the meaning construction of cultural representations in the creative process of de-paradoxicalization during production and consumption. However, it does not mean that all seamless digital effects and computer animation by collective imagination are de-paradoxical. Decisions of complexity by cultural producers within the cultural system define the final outcome of any digital cinematic production that may be paradoxical and not creative like the flying action of Dicky acted by Jiao Xu (徐嬌) in *CJ7*. He/she steps on an eagle and sees a cloud pattern of the extraterrestrial dog that is an obvious mechanical reproduction of a similar scene in *Kung Fu Hustle* whereas Chow sees a cloud pattern of the Buddha instead (see Figure 7.25). Some critics argued that this scene of mechanical reproduction in *CJ7* represents the official shift of duty of "meaningless" comedic acting to Xu from Chow (Longtin, 2009; Wang, 2008). But, as some mature movie amateurs of the focus group (E2) pointed out, this is a salute to Chow himself by nostalgic representation just like what he does to praise Bruce

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<sup>9</sup> Jin Yong's martial arts literatures are concerned with vivid intertextuality and include novels, movies, television programs, comics and video games. Such intertextual references help globalize *Kung Fu Hustle*, as Tsang pinpointed.

Lee in *Kung Fu Hustle*, in which he is the only one, the top fighter, who defeats another hidden dragon, Fire-cloud Beast – Siu-lung Leung. Ironically, his winner-determining kung fu is Buddha's Palm originally mastered by “huo yun xie shen” (Fire-cloud Beast and the top master in the cult movie *Buddha's Palm*). This explicates that it is only Chow's cultural imagination by hyperreal representation and Lee – the real dragon – is still his mere unforgettable kung fu master.



Figure 7.24: Palms printed on a traffic light station in *Kung Fu Hustle* that may recall someone's memory of Fire-cloud Beast's palm-prints on the 6 tripods (“ding”, 鼎) inside a temple before his death in the magic-spirit movie *Buddha's Palm*



Figure 7.25: Chow's disenchantment of Buddha's Palm at the sky in *Kung Fu Hustle* that is imitated to make a salute to himself in *CJ7*

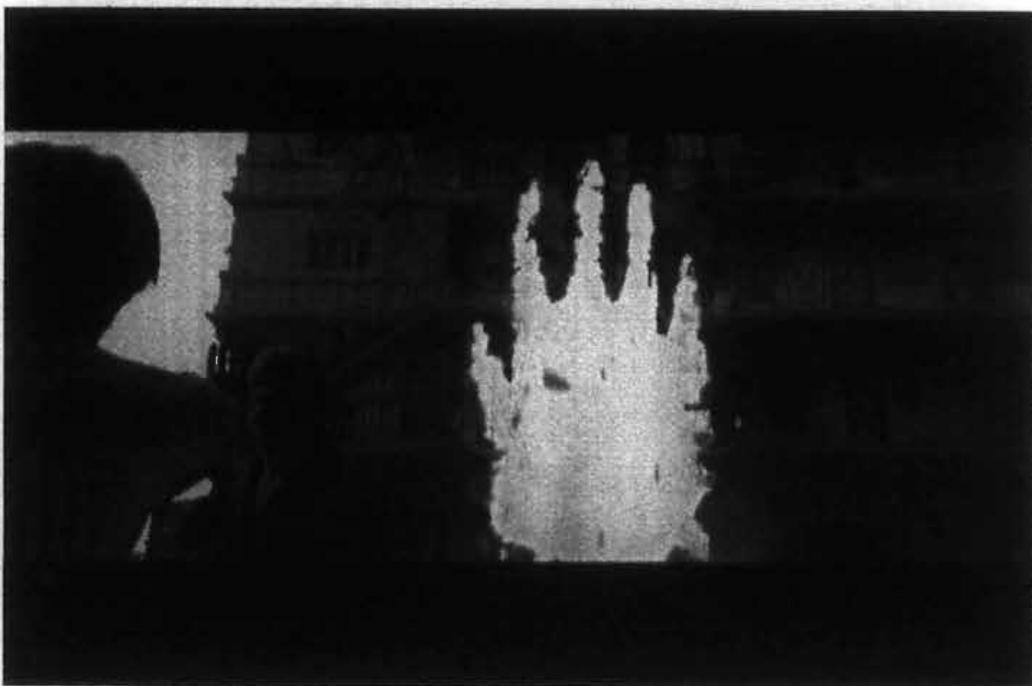


Figure 7.26: Digital amplification of the superpower of Buddha's Palm in *Kung Fu Hustle*

### **De-representations: Multi-layeredness of Symbolic Creativity**

Digital effects and computer animation as cultural de-representations in the “spectrum of cultural representations” contribute to shape and reshape the narrative of local “meaningless” culture by referring to knowledge and recognition of reality and hyperreality, and enhance the narration of digital aesthetic and theoretical-practical values by exceeding the mimetics of cultural representation in Chow’s digital cinematic productions (Marin, 2001). As mentioned before, many images and actions of protagonists in his digital cinematic productions are digitally manipulated, exaggerated and composited to reshape the narrative of the final composite images with regard to knowledge and recognition of local “meaningless” and other reinvented cross-cultural, cross-historical, cross-genre references, and to empower the narration by integrating digital aesthetics of new media into traditional film production. In other words, these digital movies are reinvigorated narratives of his “meaningless” cultural representations and the narration of newly invented digital cinematic aesthetics. For instance, in *Shaolin Soccer*, Chow kicks the ball to hit a gang after being insulted at the karaoke bar. His body and motion are frozen and digitally manipulated like *The Matrix*’s bullet-time motion with the ball’s digital animation and the background plate created in multiple layers, which stretches time and space of the motion and allows creative inputs from computer animators (Sarafian, 2003). This reshapes the narrative with reference to reinvented knowledge of kung fu, soccer game and local gang fighting culture, and exaggerates the comedic effects of the “meaningless” kung-fu-soccer-fighting from an unprecedented imaginary perspective. Chow plays a central role in glocalizing the digital styles and aesthetics in cultural representations of his digital cinematic productions, as

commonly agreed by his collaborating cultural producers I interviewed. However, visual effects supervisors like Law and Chung of *Shaolin Soccer* and *Kung Fu Hustle* respectively who take the major positions to coordinate, as well as control, the layers of live shooting on location for digital effects and compositing, and computer animators who freely add layers of digital effects and computer animation into the digitized film footages in regard to given creative autonomy are indispensable newcomers of symbolic creativity in the field of cultural production. They provide new modes of thought and expression for cultural de-representations in the creative process of de-paradoxicalization, thus triggering internal modifications of the systems of organization and representation in digital cinematic productions (Bourdieu, 1993; Hesmondhalgh, 2002; Seidl, 2005a).

*Shaolin Soccer's* digital visual effects are argued to give a strong sense of locality – “dei dao” (地道) – to Hong Kong audiences because of Chow's style and temperament of local “meaningless” cultural production and limited budget for digital effects production. This might mean a compromise to make digital effects below Hollywood (professional) standard to save time and budget under the operation of flexible systems in Hong Kong cinematic production. On the other hand, this results in unique style and aesthetics of digital cinematic production by glocalized digital effects and computer animation that is unthinkable to many Hollywood animators (“Special Report: Hong Kong Digital Effects”, 2009). “Those digital effects of *Shaolin Soccer* are not very difficult. This is a typical Hong Kong genre movie. Chow's style of exaggeration is renewed via our digital effects. The movie is very like *Captain Tsubasa*. We combine symbol-elements of comic and (his

“meaningless” comedy) together to an unprecedented level. Certainly, the leader of this innovation is the director”, said Chung. The unprecedented comedic visual representations of kung fu soccer are a result of glocalization, more than a remix of locality and postmodernity, by new media of digitextuality that facilitates multiple media convergence of cross-cultural, cross-historical, cross-genre elements. This leads to the complex composition of multi-layeredness in Chow’s digital comedic representations (Everett, 2003; Lee, 2003; McClean, 2007).

“You should consider that person is local or not. If that person is local, then his thought is generally more local. Probably I am a quite localized person because I also more like reading local style comic strips”, said Law. Not only does Chow’s taste and style convey locality to cultural production, but also Law and his collaborating computer animators provide concepts of locality for digital effects production in *Shaolin Soccer* in accord with the flexible systems of Hong Kong cinematic production. Without consistently systematic prior preparation at the pre-production stage, Law always had to take quick and flexible action to decide something for digital effects production on location shooting. Figures 7.27(a)-(f) are snapshots of a production sequence of a soccer ball surrounded by a group of sports shoes. Those shoes are computer models of texture maps by capturing images of real shoes that Law brought back from location. Indeed, he brought not only those shoes but also dust and dirt on them to Centro for the glocalized digital effects production leading to the local/glocal style of cultural representation in *Shaolin Soccer*. However, it does not mean that computer animators’ symbolic creativity is totally limited to the physical references. As Au mentioned, he had started building those

shoe models before shooting that scene. Captured images of those real shoes were retouched and then freely mapped onto the wireframe models by controlling the UV coordinates of texture maps in the corresponding shaders (Kelly, 2001; Kerlow, 2000) as shown in Figures 7.27(d) and (e). Moreover, creative animation of those shoes' exploding motions, particle effects of dust and dirt, and interactive shadows casting on other shoes and the soccer ball, thus producing the final composite images of photorealistic but hyperreal representation, reveal multi-layeredness of symbolic creativity by Centro's collaborating computer animators. The flexible systems of organization and collaboration lead to the cultural representations of glocalized digital cinematic aesthetics in Chow's digital movies to a great extent.



Figure 7.27(a): Snapshot of a kung-fu-soccer-kick in *Shaolin Soccer*



Figure 7.27(b): Snapshot of a kung-fu-soccer-kick in *Shaolin Soccer*

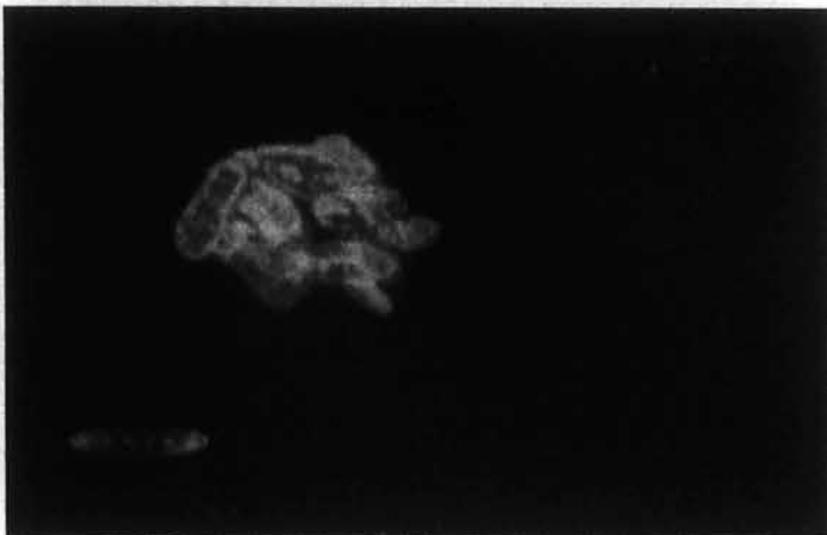


Figure 7.27(c): Wireframe models of a soccer ball and sports shoes in *Shaolin Soccer*



Figure 7.27(d): Wireframe models of a soccer ball and sports shoes in *Shaolin Soccer*



Figure 7.27(e): Layer rendering of a soccer ball and sports shoes in *Shaolin Soccer*



Figure 7.27(f): Layer rendering of a soccer ball and sports shoes in *Shaolin Soccer*

Similarly, in *Kung Fu Hustle*, a high-speed chasing game between Chow and the landlady is produced of cartoon-style motions in accord with the classical cartoon series of *Wile E. Coyote and Road Runner* by shooting their movements and gestures in front of blue-screen, and then animating and compositing the acquired motion sequence layers with other digital images (see Figures 7.28(a)-(e)). The reinvigorated narrative and narration by adapting cartoonish motions with reference to *Wile E. Coyote and Road Runner* show the diversity and hybridity of cultural representations in the movie by means of integrative economic-symbolic valorizations of multi-layered symbolic forms of local “meaningless” culture, classical cartoon culture and digital aesthetics of new media culture that are sophisticatedly merged to form a seamless composite layer as the final cultural representation. Such newly invented “meaningless” cultural representation may not satisfy all audiences of different discursive practices (Longtin, 2005; Thompson, 1995). Nonetheless, the multi-layered images of filmed footages and computer animation are good exemplars of cultural de-representations that violate the laws of physics and provide imaginary spaces and perspectives of possibilities to Chow and his collaborating cultural

producers for the production of imaginary nostalgic representations (Bolter & Grusin, 1999). Figure 7.28(a) shows that Chow quickly swung his hands to pretend fast running in front of the blue-screen and he wore blue stockings to facilitate digital compositing of cartoonish motor-cycling wheel-legs for the chasing sequence. (see Figure 7.28(d)). Sometimes he was rotated on a blue rotary platform and moved on track (see Figure 7.28(b)) to create separate layer of running and rotating film sequence that is digitally composited with other layers of images including the landlady's hovering posture (see Figure 7.28(c)) to produce the physically impossible animated sequence in Figure 7.28(e). Within the cyberspace of digital media, computer animators as symbol creators can freely animate and composite different layers of filmed and computer generated symbolic images like the trolley and uncovered dust and dirt from unrepresentable space and perspective to produce "impossible" cultural representations in accord with digital cinematic aesthetics of hybridity and digitextuality (Everett, 2003).



Figure 7.28(a): Blue-screen shooting for a chasing scene in *Kung Fu Hustle*



Figure 7.28(b): Blue-screen shooting for a chasing scene in *Kung Fu Hustle*



Figure 7.28(c): Blue-screen shooting for a chasing scene in *Kung Fu Hustle*



Figure 7.28(d): Multi-layered composite of a chasing scene in *Kung Fu Hustle*



Figure 7.28(e): Multi-layered composite of a chasing scene in *Kung Fu Hustle*

*Kung Fu Hustle* is Chow's imaginary nostalgia of martial arts in Hong Kong and Chinese film history. He self-reflexively casts some representative actors and actresses to construct his unimaginable/re-imagined kung fu representations by digital imaginary (Fu, 2007; Lee, 2009). Especially Siu-lung Leung inside the movie conveys a double meaning of cultural transformation. He – a famous kung fu star in the 1970s – is re-presented with other ex-kung-fu-artists to give a homage to local kung fu film cultures of the 1970s and 1980s; he – Fire-cloud Beast: a top killer of incredible kung fu in this movie – represents a hidden dragon inside a madhouse for developing Chow's imaginary nostalgic narratives of "meaninglessness". As an object for audiences' perceptions, he is a (temporary) representation of "Bruce Lee"

(before Chow's reincarnation) because he first presents and demonstrates Lee's philosophy of Jeet Kune Do, and he has the same first name Siu-lung (小龍) as Lee<sup>10</sup> (McCormick, 1990). However, he is a fake. His incredible kung fu like the Toad Style of the Kwun Lun School (昆侖派蛤蟆功) originated from Jin Yong's *The Legend of the Condor Heroes* (射雕英雄傳) and his impossible stand-up split leap (see Figure 7.29(d)) followed by explosive "qi gong" is cultural representation of a novel style of "cyber kung fu" to reinvent the magic-spirit martial arts in the 1960s by means of digital imaginary (Lee, 2009). Figure 7.29(a) clearly explains how to produce such new style of kung fu representation in terms of collective imaginative inputs and digital media aesthetics. Screen-shots 1 and 3 show the original film footages of location shooting that is the result of coordination and collaboration among the director, cinematographer, art director, visual effects supervisor and so forth. We can see that Leung's leg was actually raised up waist-deep only. His real leg was finally replaced by a digital one. In screen-shots 2 and 4, we see a computer animator was designing the motion of a virtual leg in the cyberspace for the imaginary kung fu representation. The generation of the digital flip-flop that highly represents some sense of local "meaningless" culture and seamlessly matches the real one on location needs coordination between the art director, visual effects supervisor and computer animator. Figure 7.29(b) shows 3 tiny spots circled that are used for motion tracking to match the motions of both the digital leg and the virtual camera with the film footage to create the final seamless and believable composite sequence (see Figure 7.29(d)). The production and post-production of this motion sequence not merely reveals the complexity and glocality of Chow's imaginary nostalgic kung fu

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<sup>10</sup> In the 1970s, Siu-lung Leung was entitled with Bruce Lee, Jackie Chan and Dick Lung as the "4 dragons" in Hong Kong cinema (<http://baike.baidu.com/view/302261.htm>, cited in Apr. 22, 2010).

representation in terms of digital cinematic aesthetics, but also explains the importance of systems of organization/coordination and interaction/collaboration by mutually recognizable constitutive practices during the processes of digital cinematic production (Davis & Yeh, 2008; Rawls, 2002, 2006; Watson, 2009).

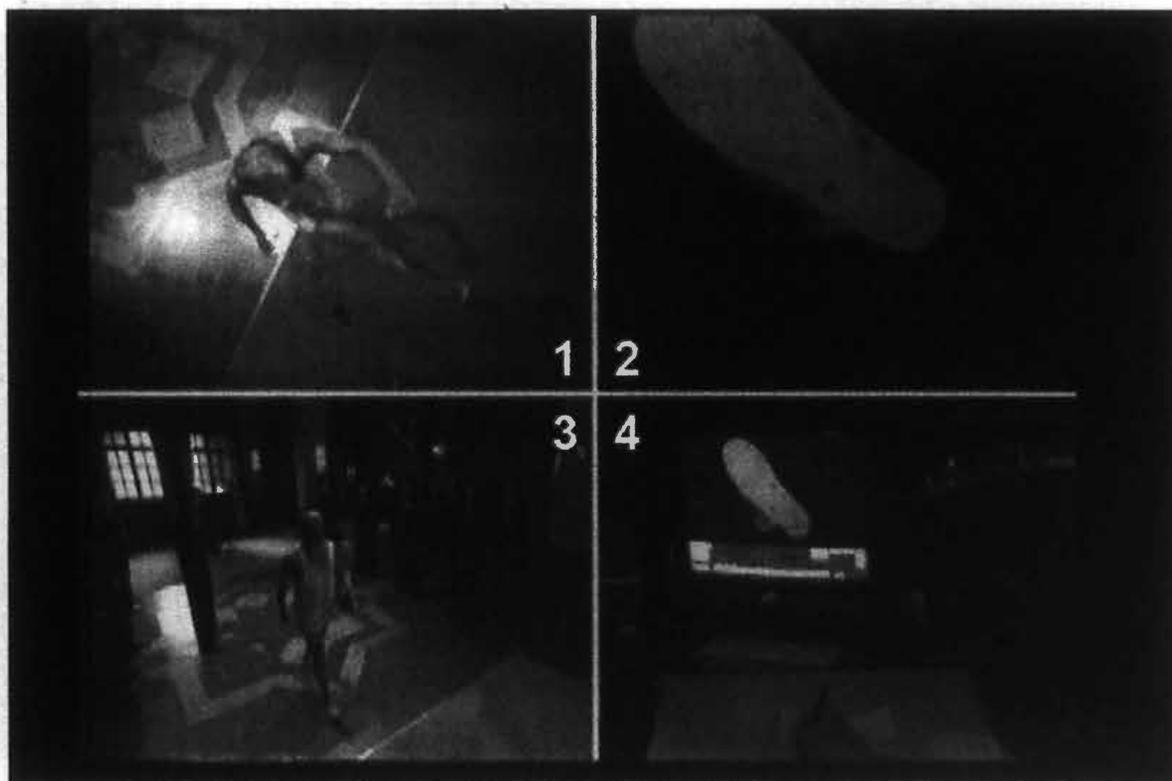


Figure 7.29(a): Digital aesthetics of kung fu re-representation in *Kung Fu Hustle*

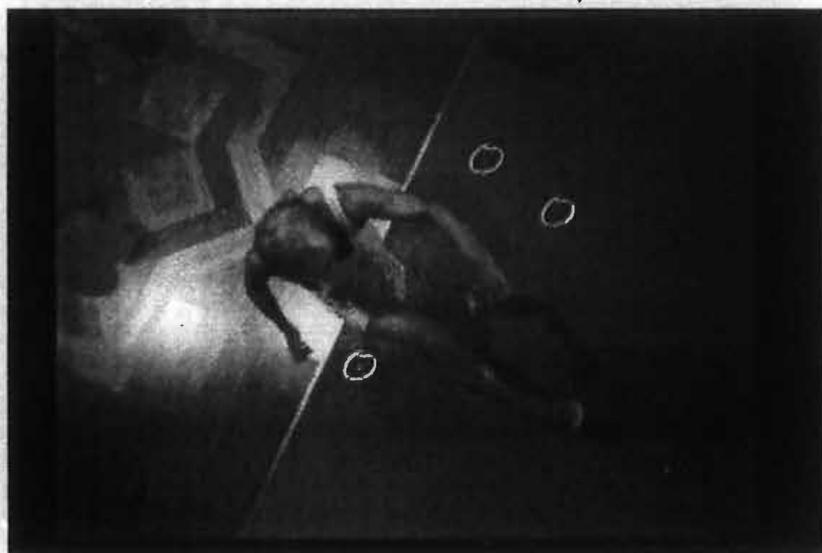


Figure 7.29(b): Motion trackers for seamless digital compositing in a shot of *Kung Fu Hustle*



Figure 7.29(c): Computer animation of a digital leg in *Kung Fu Hustle*

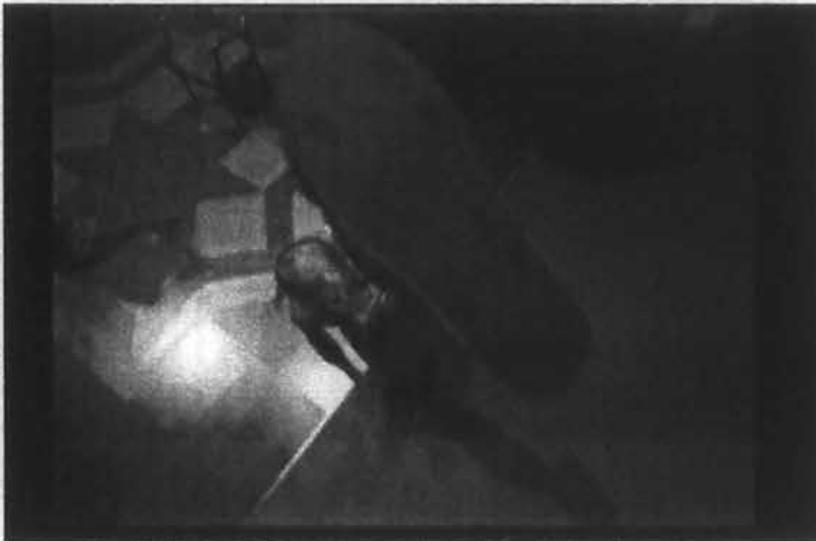


Figure 7.29(d): Multi-layered composition of an "impossible" kick in *Kung Fu Hustle*

*CJ7* may not be an attractive movie to many old fans of Chow's "meaningless" movie culture in the light of the generally negative comments from most focus group members. But his attempt to explore the alternative possibilities of digital cinematic production concerning the interplay among different global/glocal cultures and aesthetics such as the cultural life of working class in mainland China, science fiction and kid movies, and to experiment the concept of cinematic industrialization by systems of organization and representation in cultural production, marketing and publicity should be envisaged. This exploration and experimentation

of cultural representations in the creative process of de-paradoxicalization is crucial to the sustainable development of the Hong Kong creative media and film industries struggling for survival in both local and global movie markets by irritating internal modifications of systems of organization and representation (Seidl, 2005a). We have talked about the outstanding contribution of *CJ7*'s pre-production and pre-visualization systems to the development of local digital cinematic aesthetics and productions before. Here a scene inside an "unreal" toilet (a set) where Dicky forces the extraterrestrial dog to give him magic tools demonstrates another new experiment in Chow's digital cinematic production during the processes of production and post-production. In screen 2 of Figure 7.30, we can find a doll prototype as performance reference for the actress Xu on location shooting. This doll was masked out and then replaced by the digital creature via a lot of collective actions from Menfond's computer animators and digital compositing artists. Compared with "reference performances" in Jackson's *The Lord of the Rings* and *King Kong* I mentioned in Chapter 2, the doll as a non-reactive reference for Xu's eyeline is just better than none. In the "making-of" this scene, Chow is shown to give vocal cues to direct Xu how to react to *CJ7*'s firing shit by their collective and collaborative imagination. Indeed, the complexity of digital cinematic production is much higher than what many audiences and local filmmakers think. Figures 7.31(a) and (b) are snapshots of the animatics for post-production to show the rough animation of the digital character according to the doll's position and Xu's acting. After a number of tests of the animation, lighting, shading, effects and so on, separate layers of the animation sequence such like fur layer, diffuse color layer, reflection layer, shadow layer and effects layer are rendered and then digitally composited with the filmed footage like the final test in Figure 7.32. The multiple-layered composition of digital

representations resulted from collective imaginative inputs from Chow and his creative collaborators reveals the complexity, modularity and variability of digital cinematic aesthetics and the necessity of systems in the creative process of digital cinematic production (Manovich, 2001). Without dynamically stable autopoietic systems of organization and representation, the increasing complexity and flexibility of all collective activities and digital media technologies and cultures that should reinforce novel cultural representations in digital cinematic aesthetics and productions cannot be effectively handled and adopted to develop an evolving art system of glocality in Hong Kong cinema (Luhmann, 2000a, 2005a).



Figure 7.30: Comparing the location shooting (2) and the final composite image (1) in *CJ7*

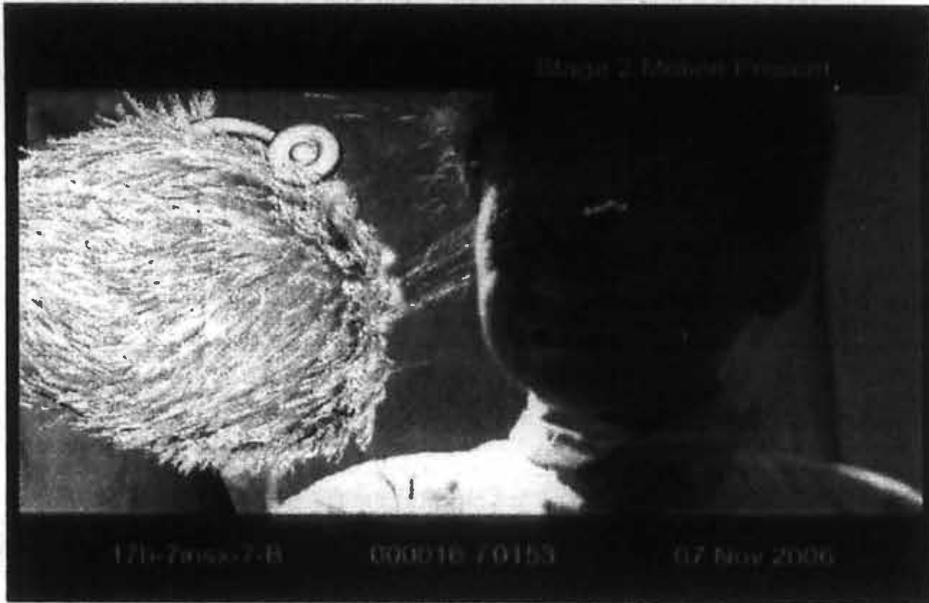


Figure 7.31(a): Snapshot of an animatic for post-production in *CJ7*



Figure 7.31(b): Snapshot of an animatic for post-production in *CJ7*



Figure 7.32: Final test of digital compositing in *CJ7*

### **Ongoing Evolution of Cultural Production**

Hong Kong film industry as one of the most important local creative and cultural industries needs the influx of ideas and human agency of added-values as the substances of symbolic creativity to sustain innovative or reinvented cultural representations by remediation in digital cinematic productions with a view to competing with other new media forms such as internet and video game of digital aesthetics (Bolter & Grusin, 1999; Chan et al., 2010; Marshall, 2004). Although some interviewed cultural producers and audiences thought that Chow's "meaningless" comedy can still work without digital effects and computer animation, and many older focus group audiences said that they prefer to watch his former hyperbolic "meaningless" performances, I doubt that how many audiences would go to watch his purely indigenous cultural representations by verbal gags and gimmicks especially when considering the global market of non-Cantonese audiences in the era of globalization and digitalization. Figure 7.33 shows a scenario commonly regarded

as one of the most laughable scenes in *Kung Fu Hustle* that Chow is being attacked by 2 digital snakes after seriously hurt by his own knives in a farcical assassination. As Tsang commented, those snakes if replaced by plastic ones can also be funny to a different extent, which may then become a cult movie. More importantly, though those digital snakes look photorealistic, the multiple-layered composition of visual representations of their action and Chow's reaction in line with the storyline created by Chow and computer animators' collective imagination with digitextual reference to hybrid cultures of cinema, television, comic, video game and digital effects holistically produces the comedic text and context. This reminds audiences of the hyperreal nature of Chow's exaggerated representations in his digital cinematic productions. (As Tsang said, the scene would be a horror instead of a comedy if the snakes' attack looks real and painful.) In this chapter, in-depth textual and production analyses of Chow's 3 digital cinematic productions and the unique styles and aesthetics of cultural representations in terms of his reinvented kung fu and comedy productions have already elucidated his innovative cinematic representations by digital amplification and cross-cultural, cross-historical, cross-genre production through integrative economic-symbolic valorizations of local "meaningless" culture and glocalised digital effects and computer animation. The new aesthetics of digital cinema reinforces Chow's creative autonomy to produce novel cultural representations or re-representations of spectacles and imaginary nostalgia in digital cinematic productions by means of unprecedented imaginary spaces and perspectives of possibilities and impossibilities in the cyberspace (Davis & Yeh, 2008; Lee, 2009; Thompson, 1995).



Figure 7.33: Chow is being attacked by 2 digital snakes in *Kung Fu Hustle*

Neither real nor hyperreal are Chow's newly invented styles and aesthetics of cultural representations in his digital cinematic productions. Chow and his collaborating creative managers and symbol creators sophisticatedly and collectively produce novel cultural representations by increasing complexity in digital movies via the introduction of new modes of thoughts and expressions as new resources of symbolic creativity from the flexible nomadic labors and creative media organizations like computer animators and Centro and Menfond respectively (Bourdieu, 1993; Caldwell, 2008; Hesmondhalgh, 2002). Indeed, Chow and many filmmakers have learned a lot from both organizations and their creative artists via their interaction and collaboration as mutually recognizable constitutive practices in these 3 digital cinematic productions (Rawls, 2002, 2006; Watson, 2009). While Chow plays the crucial role in coordination of collective imaginative inputs from newcomers of digital media literacy, disparate organization cultures of Centro and Menfond of symbolic power do influence creative inputs and passion of their

creative workers in terms of different levels of cultural exploration and experimentation during the creative processes of digital effects and computer animation production. Their different organization cultures, to a certain extent, affect Chow's trust and collaboration with them during the production of his 3 digital movies. Besides, Chow and his creative team have increasingly understood the importance of systems of pre-production, production and post-production to maintain workflow rigidity in digital cinematic productions of increasing symbolic creativity and digitextuality with a view to reducing complexity and uncertainty to smooth decision communications by the networks of structural coupling between social and psychic systems of creative media organizations and their creative artists (Brocklesby, 2009; Florida, 2002; Seidl, 2005a). As Robinson pinpointed, more rigid systems of organization and production like full screenplay and sufficient pre-visualization tests before shooting are necessary to globalize Hong Kong cinematic productions (Fu, 2007). This is demonstrated by Chow's success in glocalizing his cultural representations and globalizing *Kung Fu Hustle*. Indeed, Chow and his creative team started to learn systematic production of digital effects and computer animation in *Shaolin Soccer*, fully practiced global and professional standard systems of digital cinematic production for his glocalized digital representations of imaginary nostalgic martial arts in *Kung Fu Hustle*, and explored another new market of kid movies by digital character animation in *CJ7* with a bigger view to experimenting the systems of production and marketing for cinematic industrialization. In other words, developing systems of creativity and organization is the core achievement of Chow's recent digital cinematic productions.

In a nutshell, the increase in complexity by flexible systems of newly differentiated and de-differentiated digital media industries and the corresponding advent of new roles and positions taken by creative artists of symbolic creativity leads to alternative possibilities of digital cinematic aesthetics for cultural production and consumption while the reduction of complexity by systems of organization and representation facilitates uncertainty absorption for making effective decision to construct the meanings of cultural representations in the complex model of the “spectrum of cultural representations”. It is a paradox between flexibility and rigidity, creativity and organization in cultural representations of digital cinematic aesthetics and productions, which needs to be de-paradoxicalized (Florida, 2002; Luhmann, 1995, 2002, 2005ab; Seidl, 2005a). Chow’s coordination and collaboration with other creative managers and symbol creators, especially those visual effects supervisors and computer animators, as mutual commitments to rules and routines of engagement in constitutive practices during the pre-production, production and post-production of his 3 digital movies reflexively illustrates the imaginary space and power of cultural de-representations such as storyboards, animatics, and multi-layered digital effects and computer animation in the creative process of de-paradoxicalization (Luhmann, 2000a, 2002; Watson, 2009). Such de-representations, mostly unseen in the final seamless digital composite images of cultural production in accord with the concept of the “aesthetics of seamlessness”, sophisticatedly demonstrate how creative managers and symbol creators of symbolic creativity reinforce creative cinematic representations by integrating local “meaningless” culture and glocalized digital visual effects, and how they industrialize cinematic production by systematic organization and communication in Chow’s digital cinematic productions. *Shaolin Soccer*, *Kung Fu Hustle* and *CJ7* show a learning

process in local digital cinematic aesthetics and productions that is an ongoing evolution leading to the long-term and continuous changes of cultural representations in the complex spectrum of production and consumption. Neither death nor rebirth of Chow and his “meaningless” culture do his digital movies represent; it is Chow’s evolution in relation to digital aesthetics of new media that takes time to discern the outcome deserved to be envisaged (Liu, 2008; Longtin, 2009; Wu & Wang, 2008). In the era of globalization and digitalization, continual social and cultural transformations by de-paradoxical, deconstructive and de-differential remediation in the cultural system are inevitable and necessary to create a dynamically stable environment for the reinvigoration and sustainable development of cultural representations in the Hong Kong creative media and film industries (Bolter & Grusin, 1999; Luhmann, 2000a, 2002).

## **Chapter 8    Organization and Interaction of Collective Imagination in Digital Cinematic Productions**

In this study, I attempt to demonstrate a 3 dimensional investigational model to comparatively analyze all the data of aesthetics (Vivas & Krieger, 1953) of digital cinematic productions and the corresponding “micropolitics of cultural representations” in the sites of interaction and meaning construction struggling processes under different socio-cultural contexts by triangulating research across media industries, textual content and cultural practices by both producers and audiences of disparate repertoires in the spectrum of cultural production and consumption (Codde, 2003; Havens et al., 2009; Rose, 2007; Wright, 2008). As a continuation of the previous chapter’s production analysis, here the focus of analysis is further shifted onto media production texts as industrial-reflexive materials. Discourses by cultural producers are still used to justify the face value of those studied media discourses and to provide professional insiders’ insights about how individual “creative managers” and “symbol creators” of digital cinematic productions make aesthetic decision communication, generate production knowledge of “symbolic creativity” and build theories on enacted practices in terms of reflective and reflexive researcher-subject interactions (Caldwell, 2008; Hesmondhalgh, 2002: 4-5). Such approach makes “compromise equilibrium” between reception study and production analysis in this research of cultural representations (Storey, 2010: 50). It, more importantly, envisages the specific social and cultural meanings of professional insiders’ knowledge and practices that are contingent and, by and large, hidden from audience access, and that need to be empirically studied “from within” actual working practices (Garfinkel, 1967; Halsall, 2007). In view of the fact, most “raw” industrial production materials of digital cinematic productions that are not

incorporated into those “behind-the-scenes” and “making-of” are rarely available to outsiders/researchers as most filmmakers are forced to sign non-disclosure and confidentiality agreements. Besides, like Hollywood, Hong Kong filmmakers as a relatively closed imagined and representative community have seldom openly responded to outsiders poking their noses into their cultural business under the relatively rigid systems of production and distribution that is paradoxical but coexisting with the flexible creative systems of nomadic labors in Hong Kong cinema (Caldwell, 2008; Mayer, 2008; Tashiro, 2002). In this chapter, juxtapositions of symbolic forms like storyboards, mood boards and sequence-shots as well as visual references of art direction and screen-shots are deployed to intensively investigate cultural practices and representations in accord with the rapidly changing visual culture and communication of digital media aesthetics and technologies by means of organization and interaction of collective imaginative inputs from creative managers and symbol creators in the field of digital cinematic productions.

As just mentioned the difficulty to get raw data of industrial-reflexive materials as empirical records of cultural producers’ interactive creative processes and practices in the form of sketches and early drafts of digital cinematic productions for comparative studies, my choices of digital movies as case studies in this chapter are highly limited to the rare resources collected (Caldwell, 2008). Fortunately, these cases show some sorts of important correlation and some obvious trends of cultural development in local and global digital cinematic aesthetics and productions. All the 4 selected digital movies here are regarded as commercial blockbusters in Hong Kong. Mostly, post-production including digital effects, editing, audio production

and so on deserves the lowest amount of budget in Hong Kong cinematic production. Only blockbusting productions may provide relatively higher budget and longer production time for cultural experimentation in digital effects production that here is studied. *Hero*, *A Battle of Wits* and *A Chinese Tall Story* are Pan-Asian co-productions aiming at regional, as well as global, markets, while *The Twins Effect*<sup>1</sup> – a very local production – also follows the trend of cultural globalization by integrating hybrid genre elements of Western vampire, Chinese martial arts and fantasy movies by means of cross-fertilization with video game and digital effects cultures (Hong, 2003; Teo, 2008). Both *A Chinese Tall Story* and *The Twins Effect* are hybrid genres of postmodernity and locality of Hong Kong cinematic traditions revitalized by digital effects and computer animation to different extents. The latter got 6 awards including Best Art Direction by Bill Lui and Best Visual Effects by Menfond's computer animators at the 23<sup>rd</sup> Hong Kong Film Awards ([http://en.wikipedia.org/wiki/23rd\\_Hong\\_Kong\\_Film\\_Awards](http://en.wikipedia.org/wiki/23rd_Hong_Kong_Film_Awards), cited in May 26<sup>th</sup> 2010). Meanwhile, both *Hero* and *A Battle of Wits* are transnational/international co-productions of martial arts blockbusters as a continuation of the trend of new Chinese “dapian” (大片) initiated by the global success of *Crouching Tiger, Hidden Dragon* and are also concerned with unprecedented cultural representations/re-representations of martial arts epics in the Warring States Period (戰國時代) of China within new dynamics of digital media cultures and aesthetics. Unlike (or beyond) classic Hollywood blockbusters, such new Chinese martial arts blockbusters not only assimilate traditional genre elements but also de-localize in terms of international quality of production and marketing, and re-localize in multi-layered

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<sup>1</sup> *The Twins Effect II* (千機變 II: 花都大戰, 2004) is a sequel co-produced by Hong Kong and China and one of the top 10-box offices in China in 2004 (Yin & He, 2009). But there are no connections between the stories of the 2 movies except the 2 main actresses of the same idol effect.

cultural representations by means of glocalized digital effects and computer animation (Bordwell, 2006; Davis & Yeh, 2008; Grassilli, 2008; Pang, 2007; Whissel, 2006; Yang, 2007). Traditionally speaking, blockbusters are big budget movie productions of “high concept”, typical and familiar genre to guarantee acceptance at the box offices. Likewise, new Chinese martial arts blockbusters that need to raise big budgets by international co-productions rely on “high concept”, epic scene, enormous spectacle, international production standard, and advanced digital visual effects to produce commercially more “predictable”<sup>2</sup> cultural representations obeying the genre systems of convention and expectation in order to achieve the lion’s shares of global/regional movie markets (Berry, 2008; Bordwell, 2006; Grant, 2003; Neale, 2003; Yoon, 2009; Zhou & Liu, 2007). Especially martial arts genre is the only type of Chinese cinematic production entering the US and Western commercial markets in the 1970s and the unique style of cultural representations of Chinese culture, that is, specific symbol-elements of Chinese fantasy and imagination as social practices and historical narratives unavailable in other foreign cultures as A. Wong pinpointed. This genre is reinvigorated by transnational co-productions to generate a new globalism and localism of martial arts blockbusters to rejuvenate the shrinking Hong Kong cinema, to industrialize China’s under-developed movie market, and to regain international market positions for Hong Kong and Chinese movies to struggle for Pan-Asian, as well as global, market shares against Hollywood and other uprising Asian blockbusters (Appadurai, 1996; Chan, 2008; Davis & Yeh, 2008; Teo, 2008; Yin & He, 2009).

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<sup>2</sup> This is an excuse rather than a powerful or guaranteed prediction by the rules of mechanical reproduction under the genre system.

*Hero* and *A Battle of Wits* as transnationally co-produced martial arts blockbusters inherit many Hong-Kong-based martial arts cinematic traditions especially those action choreography and “wuxia” scenarios of cultural imaginary, that is, some familiar and formulated genre elements of cultural representations to provide a means of identification and understanding for audience perception. Nonetheless, like all other new Chinese martial arts blockbusters, they are criticized, in my opinion blessed, to be an unstable or flexible genre that indeed facilitates cultural experimentation and hybridization in local digital cinematic productions by means of glocalized digital effects and computer animation rather than standardization by genre formulae. Such diversity and experimentation of cultural representations are in conflict with some rules of the traditional blockbusting genre production in regard to the concept of “radical genre imperialism”, but reveal some unique and extraordinary cultural and aesthetic values of the flexible systems of organization and representation in Hong Kong cinematic production on behalf of the postmodern conditions of hybrid genre productions<sup>3</sup> (Cai, 2005; F. Chan, 2008; J. Chan, 2002; Dixon, 2000; Neale, 2003; Tudor, 2003; Yang, 2007). In my focus groups, most elder audiences criticized *Hero*'s battle scenes of digital arrows in pattern as unrealistic while many movie amateurs thought that those digital visual effects in *A Battle of Wits* are not spectacular enough. However, *Hero* won many awards, broke records of box offices both in China and abroad, and satisfied many audiences' sensational perceptions by means of its romanticized spectacular digital representations of martial arts. *A Battle of Wits* also got very good box offices in both Hong Kong and China, and had been commented and appreciated as a reflexive

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<sup>3</sup> Hybrid genre is loosely thought of as a genre and not regarded as a genre in its own right. I prefer to use “hybrid genres” in plural form to elucidate their nature as cross-cultural processing of more than one genre to transgress or extend beyond the boundaries of genres (Dixon, 2000; Neale, 2003; Tudor, 2003).

turning point of the trend of new Chinese martial arts genre(s) for its unprecedentedly realistic and believable cultural representations by invisible digital effects (Liang, 2007; Louie, 2008). These 2 digital movies under the generic title of new Chinese martial arts blockbusters show different and very independent routes of development and cultural representation or re-representation, but simultaneously demonstrate commonplace transgression by cross-cultural transmission in international co-productions to reinvigorate martial arts genre by postmodern cultural logic and digital media aesthetics. This transgression leads to cultural transformation in digital cinematic aesthetics and productions by creating hybrid characters and narratives within new dynamics of digitextuality that merges cultural diversity and cultural proximity into new aesthetics of digital media<sup>4</sup> (Cai, 2005; Neale, 2003; Qiao, 2005; Straubhaar, 1991; Yin & He, 2009; Yoon, 2009).

Similarly, hybrid genre movies like *A Chinese Tall Story* and *The Twins Effect* also reveal such kind of transgression by cross-cultural and cross-genre production in Hong Kong cinema of postmodernity and flexibility. This is what the innovation of cinematic aesthetics and markets needs by adapting the increasing complexity and uncertainty of digital cinematic productions. And this explains the process of genre formation and change whereupon not only predictability by repetition but also creativity and originality by variation play important roles in satisfying producers and audiences' collective dreams and desires for the newness of

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<sup>4</sup> This kind of transgression leading to cultural experimentation in digital cinematic aesthetics and productions also plays an important role in independent low-budget productions by new opportunities of production and distribution via digitalization and globalization, which deserves to be further studied (Grassilli, 2008; Tryon, 2009). But here I focus my study on cultural representations of major commercial digital cinematic productions in Hong Kong and China that, to a higher degree, lead the development of digital effects and computer animation to an unprecedented speed.

cultural representations of genre movie productions. Especially for hybrid genre movies, cross-cultural, cross-historical, cross-genre elements for cultural representations within new dynamics of digital media cultures and aesthetics highly influence the creative process of digital cinematic production in the era of globalization and digitalization (Berry, 2008; Dixon, 2000; Grassilli, 2008; Hesmondhalgh, 2002; Yin & He, 2009).

In this chapter, the innovative and imaginary power of digital effects and computer animation to cultural representations in new Chinese martial arts genre and hybrid genres of digitextuality by the increasing complexity of organization and interaction of collective imaginative inputs from creative managers and symbol creators in the creative process of digital cinematic production is studied from 2 cultural production practices: storyboarding and art direction. They include industrial-reflexive materials of visibility (Chow, 1995) and team performativity (Goffman, 1959) that are a kind of “de-representations” in the “spectrum of cultural representations” mostly hidden from the final cinematic presentation to audience perception and that are used to reduce complexity in organization, communication and interaction during the creative process of de-paradoxicalization. These reflexive visual references of performativity are useful ethnographic documentations in terms of the presentation of creative actors/selves in everyday enacted practices for studying the changing cultures and aesthetics of digital cinematic productions (Garfinkel, 1967, 1996, 2006; Goffman, 1959; Rawls, 2006). Especially under the art system of big budget transnational and translocal co-productions, storyboards and art direction references of both aesthetic and cognitive reflexivity are vital to allow and

to stabilize the process of cultural experimentation in digital cinematic aesthetics and productions (Lash & Urry, 1994; Luhmann, 2000a). Although both storyboarding and art directing are not new to cinematic production, digital cinematic aesthetics and productions provide new opportunities to recall the significance and indispensability of visual communication and coordination of collective activities during the processes of pre-production, production and post-production. It is especially obvious for the increasingly complex production of digital effects and computer animation in digital cinematic productions of alternative modes/choices of thoughts and interpretations of cultural representations by newcomers of flexibility and symbolic creativity in the globalized digital media industries, thus triggering internal modification and reform of the workflow of digital, as well as traditional, cinematic production. The changing modes of visual culture and communication in storyboarding and art directing demonstrate some flexible and contingent systems of organization and interaction of creative artists' collective imagination, some complex power relations of the expansively differentiated and de-differentiated positions and position-takings, and the new production contexts by digital cinematic aesthetics and productions. This is an art of equilibrium between the production practices by collaborating flexible labors/artists of creative autonomy and symbolic creativity and the "autopoietic" systems of organization and representation to sustain cultural production/reproduction within the dynamic systems/environments of creative and cultural industries of the "rationality of irrationality" (Bourdieu, 1993; Hesmondhalgh, 2002; Luhmann, 1995, 2000a; Ritzer, 2008; Seidl, 2005a).

## **Storyboarding and Visual Storytelling**

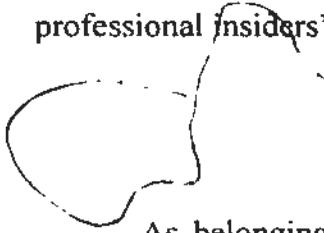
As most interviewed cultural producers agreed, storyboards are one of the most important pre-visualization tools for effective communication and collaboration during the complex process of digital effects and computer animation design in digital cinematic productions. Unlike many traditional literatures, cinema of visuality puts enormous amount of efforts on visual storytelling, which reminds us of the indispensable position of storyboarding as the first visual flow of narrative representations of cinema instead of scriptwriting. However, visual storytelling has a longer history compared with the relatively new concept of storyboarding as we know those pre-historic cave paintings are regarded as visual representations for storytelling quite similar to contemporary mood boards that show the look and feel instead of the precise narrative flow and action. Arguably, some might consider visual thinking of a script by film director and scriptwriter to be a visual representation. Unfortunately, most local filmmakers do not concretize their visual thinking as mood boards on papers for visual documentation and communication during production. Such popular loosely executed system of visual thinking (in mind) by local filmmakers that undermines the systematic development of storyboarding (on paper) or strengthens the belief of individual creative autonomy and flexibility in Hong Kong cinematic production gradually loses its effectiveness and persuasiveness in the creative process of the increasingly complex cultural representations in digital cinematic productions. Although we understand scriptwriting as one of the most important creative processes in cinematic production, showing instead of telling plays a more crucial role in contemporary visual representations of digital media and cinematic productions. Storyboards as the visual script involve logistical and aesthetic considerations for cultural production such as camera angles and visual

transitions, which contemporary scriptwriting style avoids describing (Begleiter, 2001; Janson & Janson, 2001; Tumminello, 2005).

We all dream. That is imagination at work... However, humans are the only creatures who can tell one another about imagination in words, pictures, or music. No other animal has ever been observed to draw a recognizable image spontaneously in the wild... This ability is one of our most distinctive features (Janson & Janson, 2001: 17).

Drawing is one of the distinctive skills of human beings to visually represent their imagination as social practices during communication, especially for inter-exchanging creative thoughts, that is the innovative power of collective representations by the networks of structural coupling via enacted practices (Brocklesby, 2009; Rawls, 1996, 2001). Even very well-experienced visual effects supervisors and computer animators highly rely on storyboards and mood boards to visually and effectively communicate with film director and other crew members in order to systematically coordinate collective imaginative inputs to create complex and innovative digital effects and computer animation. In this section, how storyboards and mood boards as visual references – a kind of de-representations – in the creative process of de-paradoxicalization help shape and reshape cultural representations in digital cinematic aesthetics and productions is going to be studied by juxtapositions of those industrial-reflexive materials as documentation of

collective imaginative inputs from creative managers and symbol creators and those professional insiders' discourses of enacted practices.



As belonging to the new Chinese martial arts genre, *Hero* and *A Battle of Wits* well demonstrate the functions of storyboards and mood boards to help creative managers make decision among alternative choices provided by collective imaginative inputs from collaborating symbol creators during pre-production, production and post-production. For instance, the discourse of a script that is ever kept changing in Hong Kong cinematic production can be reduced to more solid visual representations by storyboarding. And abundant different conceptual design of digital effects by visual effects supervisors and computer animators can be consolidated into a few storyboards and mood boards for effective communication between filmmakers and computer animators. It is undeniable that the systematic organization and interaction of collective imagination by storyboards and mood boards as a pre-planning process for “uncertainty absorption” during digital cinematic production is still luxury in most Hong Kong cinematic productions. Those new Chinese martial arts blockbusters like *Hero* and *A Battle of Wits* are exceptional cases because they are transnational co-productions of higher budgets and have more production time to allow developing (relatively) professional storyboards as de-representations. This facilitates cultural experimentation and de-paradoxicalizes the traditional systems of organization and representation in Hong Kong and Chinese cinematic productions (Begleiter, 2001; Qiao, 2005; Yang, 2007; Seidl, 2005a).

As Ellen Poon pinpointed, it was Zhang's first martial arts movie and also first international co-production of innumerable digital visual effects the movie had spent almost one and half year for pre-production and used half year to develop its storyboards when normally less than 3 months would be used to storyboarding in Hong Kong and Chinese cinematic productions. (Bearing in mind, as both L. Lee and Law mentioned, only some rough sketches as storyboards were drawn on location during the production of *Shaolin Soccer*.) Because Zhang had not had any prior experience in digital effects production, Poon and her team found storyboarding as the best way for communication with Zhang and other crew members who could more easily respond to those conceptual ideas for martial arts representations of the movie presented in storyboards as visual references. Indeed, Poon worked with a conceptual artist and a martial arts choreographer together to design those sequences of storyboards to explore disparate possible, as well as impossible, styles of fighting for the movie in accord with the director's style and taste. Over 20 different concepts had been developed, gradually reduced to 4 or 5, and then down to one in a complicated creative process, as Zhang wished to develop the martial arts genre to an unprecedented new direction by cultural experimentation. Poon pointed out that there were 2 main schemes for *Hero's* martial arts representations: a cyber-style performance like *The Matrix* and a more authentic style of traditional "qi-gong". Both schemes had been adapted by the final digital cinematic production that satisfies both the cyber-culture of younger generations and Zhang's favorite dramatic and romantic representations of "wen-wu" (文武) – literary-martial – dyad style. The power of the final strike of the assassin Nameless (無名) acted by Jet Li – "killer strike from 10 paces" (十步一殺) – is romantically and believably represented by

digital effects and compositing of his combat against another assassin Long Sky (長空) acted by Donnie Yen at the very beginning of the movie under the environment of lute and chess as the symbols of wen (Chen, 2005; Louie, 2008).

In Figure 8.1, Nameless' "killer strike from 10 paces" is first presented by "hyper-time" slow motion effects in regard to digital cinematic aesthetics inspired by *The Matrix's* cybernetic kung fu representations. On the one hand, this combat scene in *Hero* was considered to be an imitation of *The Matrix* and of low originality by some movie amateurs of the focus groups. On the other, it was agreed by many focus group audiences and film critics that this scene successfully offered audiences dazzling beauty and spectacular sensation by sophisticated digital compositing of the filmed/edited real martial arts performances by Li and Yen and the digital effects and computer animation in an unprecedented way (Jia, 2005; Zhang, 2005). As Poon mentioned, Zhang and other crew members could not fully understand how to shoot the combat in term of *The Matrix's* style until she showed them the concept in storyboards. Besides, we should perceive this scene in a holistic manner that Nameless and Long Sky are fighting both physically and spiritually represented by black and white and slow motion cinematography before this final strike. Especially the spiritual tournament, that is, a representation of the wen-style combat terminated when the strings of the lute suddenly break (see shot 1 in Figure 8.1), is replaced by the last killer strike of hyperreality represented by digital visual effects as a climax of the scene. The whole scene is a result of multi-layered cultural representations of martial arts, Hong Kong style of action choreography and international co-production of digital effects. From shots 7 to 12, Nameless and his sword pass through those

digital rain droplets to represent the extraordinary speed of his killer strike that almost freezes the moment of time by means of unprecedented imaginary perspectives and multiple-layered composition. This scene cannot be simply named as a mechanical reproduction of *The Matrix*'s cybernetic kung fu representation. Such digital effects and compositing help romanticize Zhang's scene of martial arts and create an unprecedented spectacle that satisfies diverse audiences (Zhang, 2005).

It is generally agreed that the new style of martial arts by digitalization is initiated and enhanced in a global scale, and is sophisticatedly deployed to a renowned new aesthetics of martial arts by *Crouching Tiger, Hidden Dragon* as Tsang mentioned. *Hero* reinforces such new style of martial arts and further romanticizes martial arts fighting into a kind of spectacular dance performance in accord with Zhang's "habits and temperament" whereupon romantic dance and pattern by digital visual effects replaces violent combat. Figure 8.2(a) shows some snapshots of the combat scene between Flying Snow (飛雪) acted by Maggie Cheung and Moon (如月) by Ziyi Zhang (章子怡) in a "hu-yang" forest, which is regarded as a dance performance of beauty more than a duel of life and death (Beardsley, 1982: 240-241; Jia, 2005). Compared with the location photo (see Figure 8.2(b)), we can discover that those twisting leaves in the combat scene that follow and dance with Flying Snow's sword in Figure 8.2(a) are digitally composited representations by collective imaginative inputs from the film director, visual effects supervisors and computer animators. Poon explained that she and her colleagues employed many storyboards in line with body language to show Zhang the abstract concept how powerful the "qi" of the sword is represented by the twisting

movements of those fallen leaves in the forest that need not be shot on location. Storyboarding plays a critical role in effective communication both logistically and aesthetically among filmmakers and computer animators, especially for this kind of abstract ideas that need their tight collaboration to prepare multiple layers of images for digital compositing of cinematic representations (Begleiter, 2001).



Figure 8.1: A duel (wu) in the rain after a spiritual tournament (wen) in *Hero*



Figure 8.1: A duel (wu) in the rain<sup>4</sup> after a spiritual tournament (wen) in *Hero*

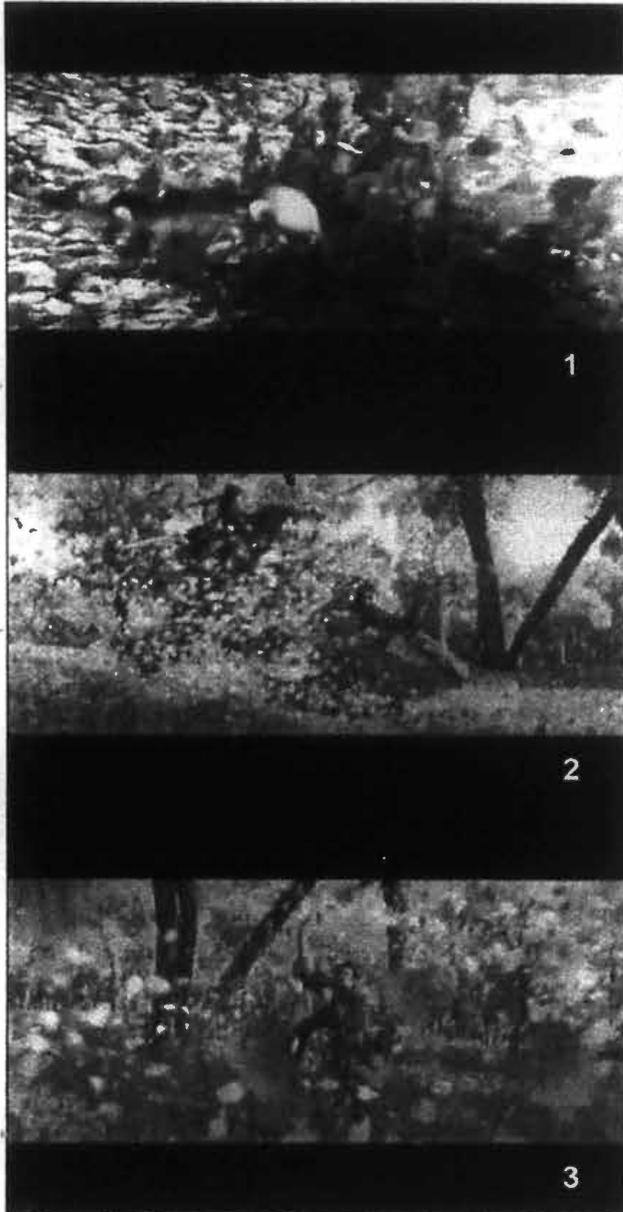


Figure 8.2(a): A fight or “dance” inside the “hu-yang” forest in *Hero*



Figure 8.2(b): Shooting of the fight inside the “hu-yang” forest in *Hero*

Similarly, storyboards play an important role in decision communication among creative managers and symbol creators such as the film director, cinematographer, martial arts choreographer, visual effects supervisor, computer animators and so forth for the unprecedented battle scene representations in *A Battle of Wits*. Indeed, I had seen some color layouts of the battle scene in Jacob Cheung's office around 2001 and 2002, and they had been developing conceptual storyboards, as well as mood boards<sup>5</sup>, for the movie before transnational co-producers and investors were confirmed. As many critics pinpointed, the development of the movie – Cheung's first martial arts movie – had lasted for a decade. However, indeed, most of the time was used for pre-production including seeking investors. Based upon the vivid original Japanese novel by Ken'ichi Sakemi (酒見賢一) and manga by Hideki Mori (森秀樹), the movie had developed unprecedentedly detailed scripts (the final script is the 10<sup>th</sup> version) and storyboards for the production and visual storytelling of invisible digitextuality and touching authenticity by means of cross-cultural transcription. This has amazed many audiences and critics being bored by the current of redundant Chinese martial arts blockbusters and also reminded us of the unique style and experience of cultural experimentation by cross-fertilization with comic in Hong Kong cinematic productions of digitextuality and postmodernity since the 1990s (“Hong Kong Action Film: A Decade of CG 1 & 2” in *Wuxia Gushi*, 2009; Liang, 2007; Liu, 2007; “Special Report: Hong Kong Digital Effects”, 2009; Wang, 2007; Zhou & Liu, 2007). As Yau mentioned, the well-developed conceptual storyboards (and mood boards) continuously served as a production “bible” for organization and interaction of collective imaginative inputs from creative managers

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<sup>5</sup> All mood boards used for comparative studies here are extracts from some conceptual storyboards in *A Battle of Wits*. They are regarded as mood boards because they are used for screen design rather than the visual flow of narrative of the movie.

and symbol creators during the processes of pre-production, production and post-production.

In Figures 8.3(a) and (b) and 8.4(a) and (b), we can see how the detailed and colored mood boards help Cheung and his Japanese cinematographer and Hong Kong martial arts choreographer collaboratively design and coordinate those untrained temporary casts to form the troops of stern military discipline in an enormously large field of location shooting. Especially in the battle scene of well-patterned phalanxes of Zhao's troops (see Figure 8.5(b)), only hundreds of temporary casts were organized to form the pattern of phalanx on location shooting and then computer animators duplicated and arranged the virtual phalanxes by digital compositing during post-production. Both crew members on location and computer animators inside post-production studio communicated and collaborated with each other at different times and spaces systematically in accord with the visual references of mood boards to create the consistent screen design of the battle scene representations. Indeed, as Shi mentioned, the creative process has started well before shooting on location during the brainstorming of storyboards and mood boards at the pre-production stage that is very important to the final outcome of a digital cinematic production (see Figures 8.5(a) and (b)).

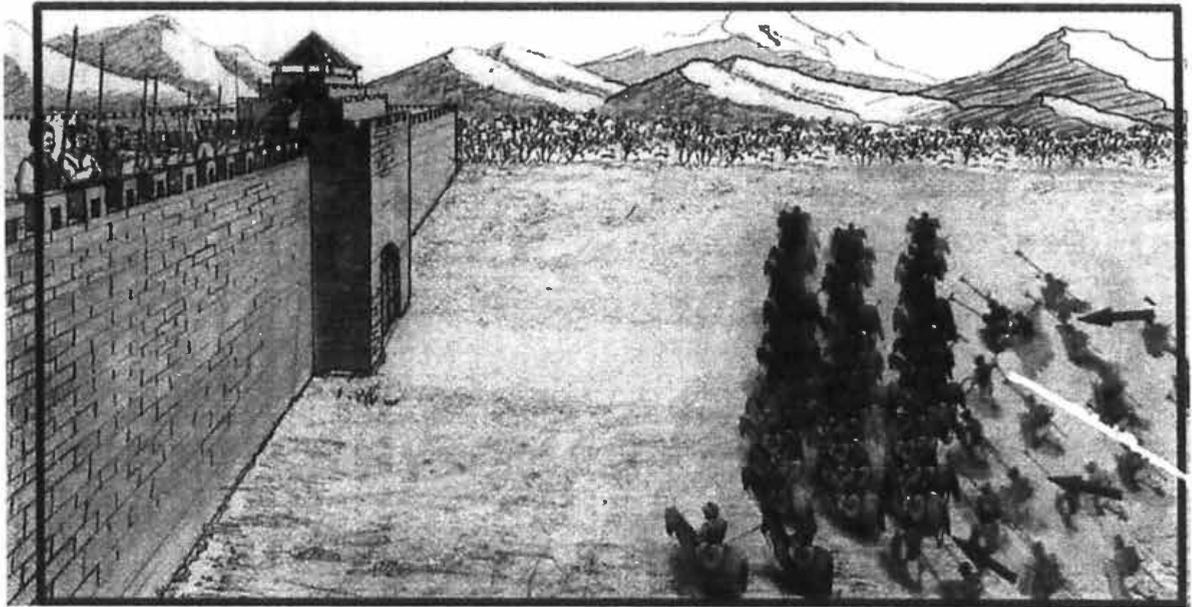


Figure 8.3(a): "Mood board" of the arrival of Zhao's troop at Liang's City in *A Battle of Wits*



Figure 8.3(b): Screen-shot of the arrival of Zhao's troop at Liang's City in *A Battle of Wits*

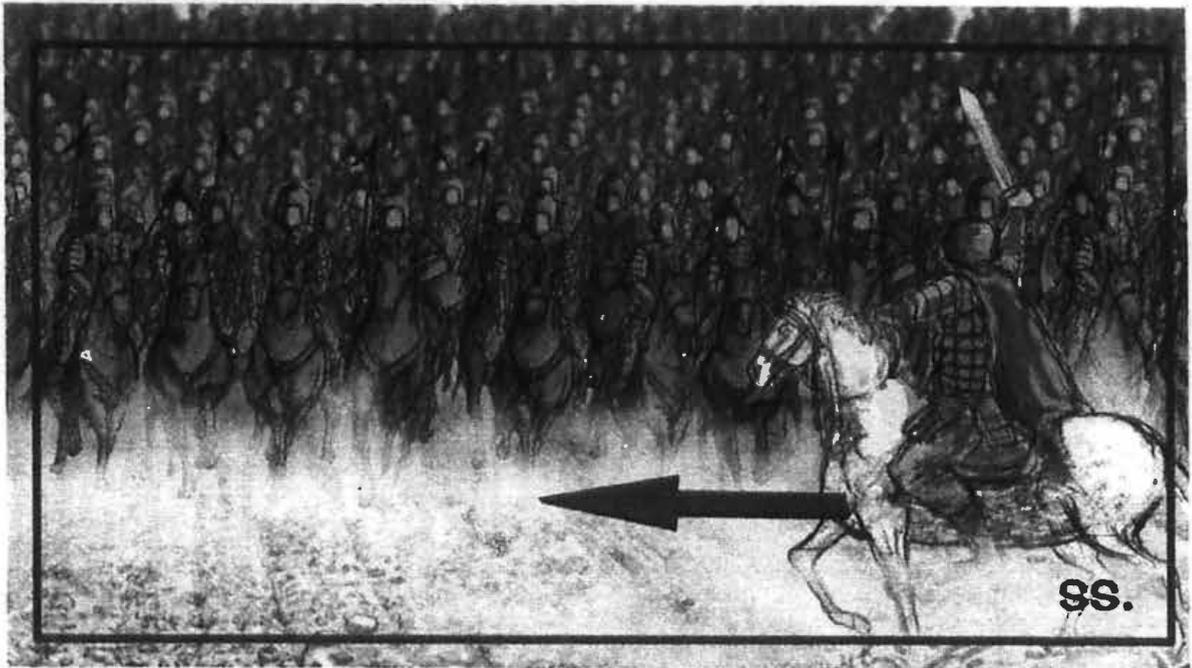


Figure 8.4(a): "Mood board" of Zhao's vanguard in *A Battle of Wits* that shows mini-details like camera movement and depth of field



Figure 8.4(b): Screen-shot of Zhao's vanguard in *A Battle of Wits*

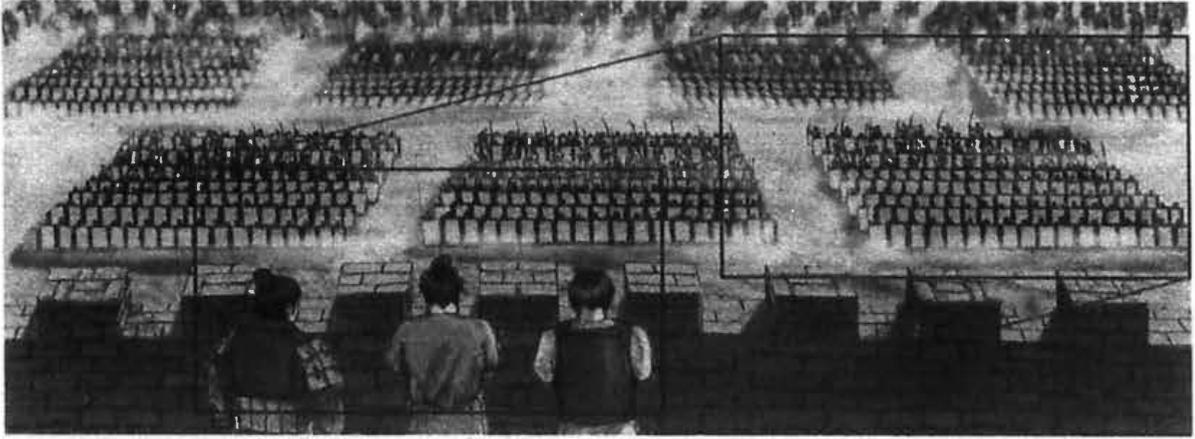


Figure 8.5(a): "Mood board" of Zhao's well-patterned phalanxes in *A Battle of Wits*

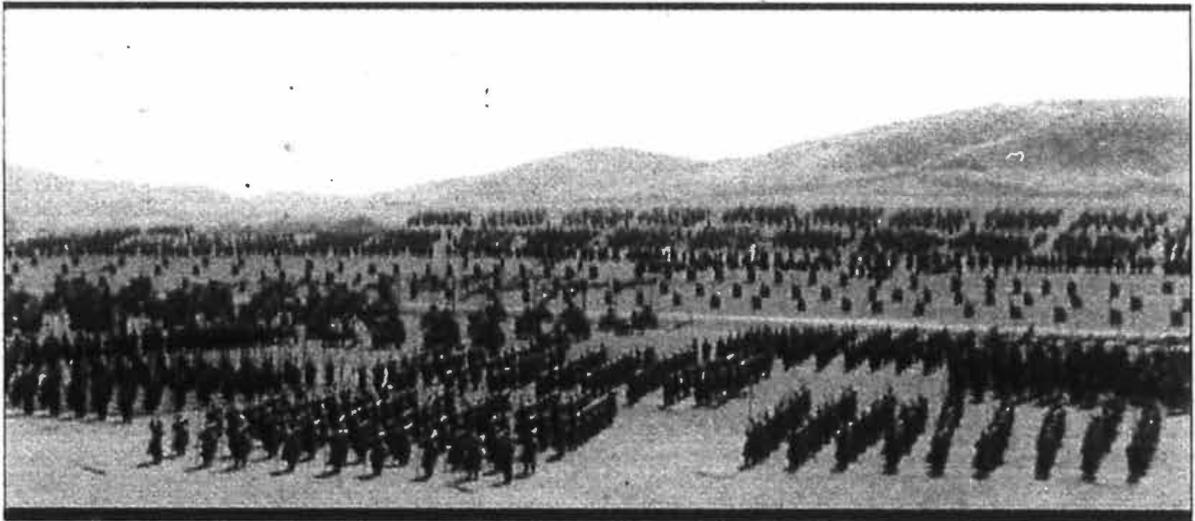


Figure 8.5(b): Screen-shot of Zhao's well-patterned phalanxes by digital compositing in *A Battle of Wits*

As a production “bible”, the detailed conceptual storyboards of *A Battle of Wits* create a dynamically stable system of organization and representation for this digital cinematic production of consistent aesthetics of invisibility in digital effects and computer animation that collaborating symbol creators of disparate media organizations follow to a great extent, though the storyboards have never been further developed to newer versions as the script did. Here an intensive comparative study of the visual power of storyboards to collective creative activities by cultural producers in digital cinematic production is conducted by comparing these conceptual storyboards with the final version of full script that was amended to a minor degree during shooting and the corresponding sequence-shots of the movie. Indeed, at the very early pre-production stage, 2 conceptual storyboards of defense battles, one at daytime and one at night, under Liang’s City were developed and continuously used to orientate the direction of those battle scene representations by invisible digital effects and computer animation. These storyboards help maintain the look and feel of authenticity and believability throughout this digital cinematic production.



Figure 8.6(a) is a part of the storyboards of a daytime battle that is partly adapted to the first defense battle under Liang’s City presented by the sequence-shots in Figure 8.6(b). As most interviewed cultural producers pinpointed, *A Battle of Wits* puts enormous emphasis on realistic representations by invisible effects to re-present or re-represent the battle scenes of authenticity in the Warring States Period of China. This creates the unique style of digital representations of this unprecedented digital cinematic production of martial arts that is not merely authentic but also spectacular

in a particular sense (Li, 2008; Ran, 2008; “Special Report: Hong Kong Digital Effects”, 2009). In storyboards 1, 2 and 5, the layout artist provides vivid visual references about the color scheme, depth of field, and dirt and dust of irregularity for cinematography and digital effects production. Although the narrative flow by storyboards 1 to 5 is not directly used in the final production, the vision and creative passion at the pre-production of such detailed storyboards is very important to sustaining long-term development of systematic production of digital cinema of increasing complexity. Under the flexible systems of Hong Kong cinema, no one knows whenever the storyboard or mood board design can directly or indirectly help reduce the complexity of digital cinematic production. The additional complexity/information of storyboard design always clarifies uncertainty and reduces complexity during production and post-production. For instance, shots 1 to 4 in Figure 8.6(b) reveal Zhao’s first attack to Liang’s City, which is correspondingly pre-visualized by storyboards 7 to 10 in Figure 8.6(a). Storyboards 7 and 8, indeed, clearly depict the camera dolly movement to capture the patterned actions of Zhao’s archers in the front line of the battlefield where they shoot their arrows to Liang’s City in response to commander’s order as similarly described in the final script as shots 1 and 2. Moreover, those archers did not have real arrows on their bows on location. On the one hand, the location shooting of Zhao’s archers presents the realistic layer of cinematic representation of irregular but authentic pattern of troops in a battlefield. This relies very much on systematic organization of collective activities of abundant temporary casts and collaborating crew members on location by creative managers like the film director, cinematographer and martial arts choreographer who made responsible and effective communication in accord with the storyboards. On the other, computer animators follow the storyboards and the filmed footages to add

layers of digital arrows on the archers' bows sophisticatedly, thus making those movements of arrows visible and spectacular by realistic representations of digitextuality and hyperreality. Like those digital arrows of fire and smoke in shot 4, only this kind of hyperreal digital representation can show nakedly the details of (unimaginable) arrow shooting to audiences by collective imagination of the filmmakers and computer animators. But such digital representations in the final composited images do not undermine the authenticity of cultural representations in the movie as a whole. Here the storyboards function as the communication "bible" to provide systematic visual references for organization and interaction of collective imaginative inputs from creative managers and symbol creators throughout the processes of pre-production, production and post-production consistently.<sup>6</sup> Nevertheless, some narrative details like shots 6 to 8 that "City's wall is on fire by arrows, defense soldiers protect Ge-li (革離) (acted by Andy Lau) by wooden shields from fire arrows, and he still takes the risk to monitor the situation outside" as stated in the final script are not pre-visualized by storyboards. In the meantime, storyboards 11 to 18 that visually present some details of Zhao's attack on Liang's City very close to some descriptions of the final script have never been produced in corresponding details in the final movie. This elucidates the contingent planning ability of local filmmakers and the flexibility of the director-oriented systems of Hong Kong cinematic production, which highly influences cultural representations in local digital cinematic aesthetics and productions. And local film director still plays an indispensable role in coordinating all collective activities during cinematic production leading to the unique digital cinematic aesthetics of Hong Kong

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<sup>6</sup> As Cheng and Yau mentioned, powerful notebook computers were used to immediately make rough tests of digital compositing on location to empirically evidence some digital effects for battle scene representations in *A Battle of Wits*.

characteristics under loose structures and systems of organization and representation. However, the well-prepared conceptual storyboards in *A Battle of Wits* evidence the social and cultural values of these visual references to create systems of organization and interaction in digital cinematic production. Such dynamic systems help the film director and other creative managers coordinate and consolidate collective imagination by collaborating symbol creators belonging to disparate social and psychic systems of the complex model of the “spectrum of cultural representations” in the globalized/glocalized creative media industries. This complexity model of cultural representations adds new dynamics in terms of technological and cultural/aesthetic knowledge like digital effects and computer animation to digital cinematic productions of remediating purposes that the traditional systems of the director-oriented cinema in Hong Kong and China always find difficulty to manage (Bolter & Grusin, 1999; Caldwell, 2008; Grassilli, 2008; Luhmann, 1995, 2000a).

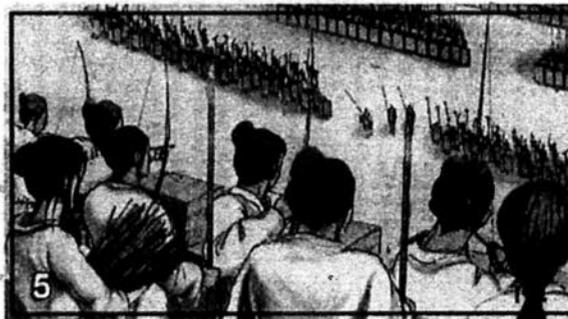
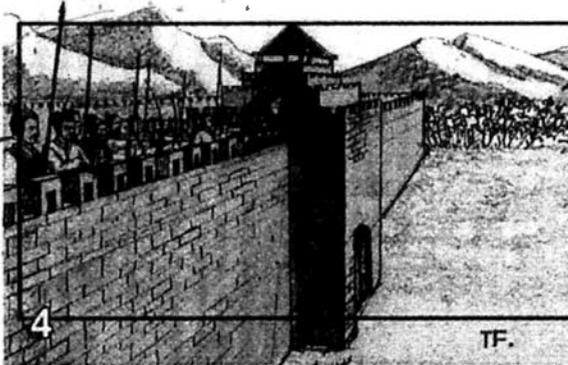
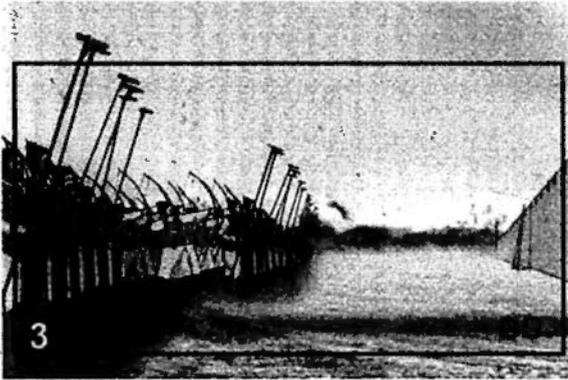
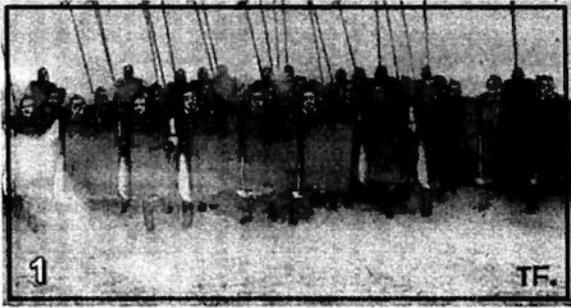


Figure 8.6(a): Storyboards of a daytime battle in *A Battle of Wits*

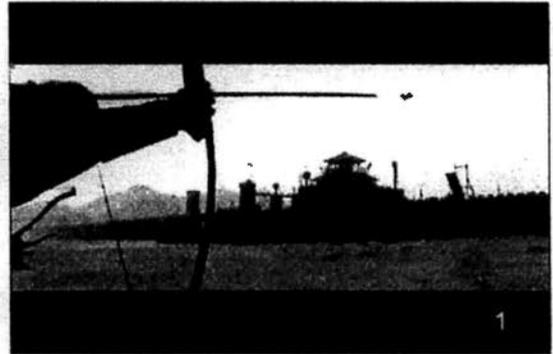
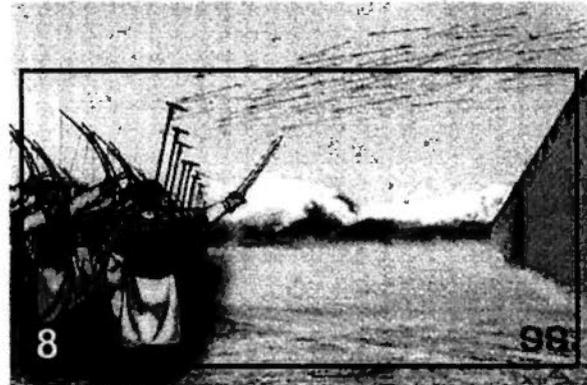
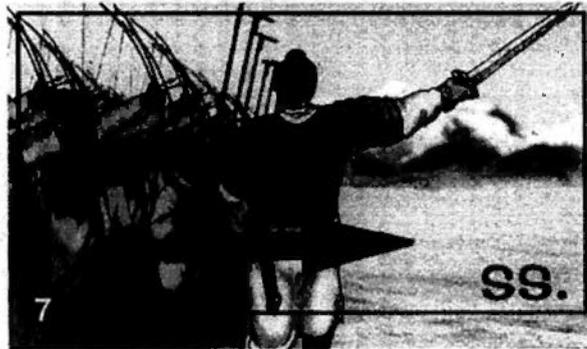


Figure 8.6(a): Storyboards of a daytime battle in *A Battle of Wits*

Figure 8.6(b): Sequence-shots of the first battle in *A Battle of Wits*

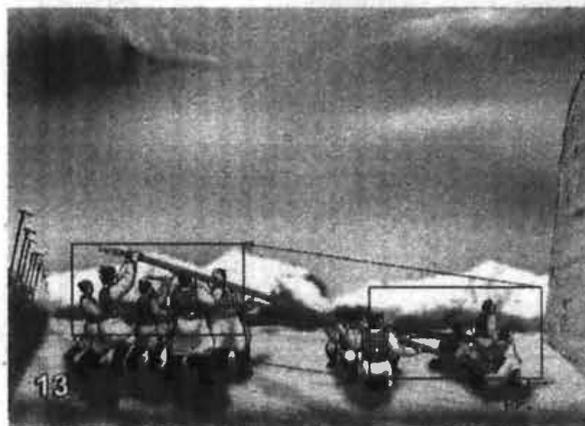
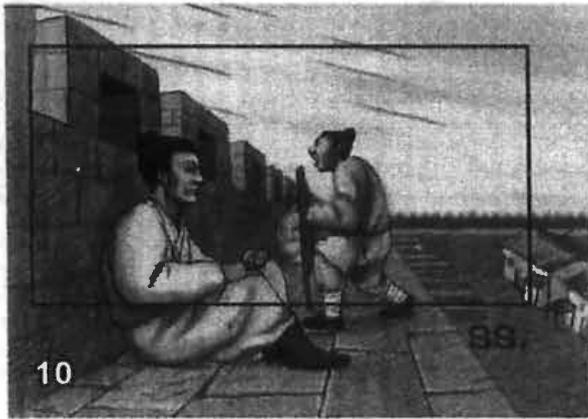


Figure 8.6(a): Storyboards of a daytime battle in *A Battle of Wits*

Figure 8.6(b): Sequence-shots of the first battle in *A Battle of Wits*

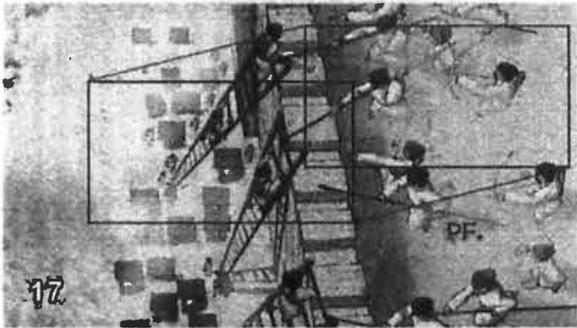


Figure 8.6(a): Storyboards of a daytime battle in *A Battle of Wits*

Figure 8.6(b): Sequence-shots of the first battle in *A Battle of Wits*

By comparing the storyboards in Figure 8.7(a) and the sequence-shots in Figure 8.7(b), we can discern how detailed pre-visualization references as de-representations help Director Cheung systematically coordinate and communicate with his crew members and computer animators of collective imagination and symbolic creativity to produce complex battle scenes of authenticity by multi-layered representations in *A Battle of Wits*. The shared creative passion among every cultural producers of unique repertoire from pre-production to post-production of the digital cinematic production plays an indispensable role in constructing those realistic and spectacular battle scene representations of complexity, digitextuality and authenticity. This re-articulates the aesthetics of new Chinese martial arts blockbusters by cultural appropriation and reinvigorates the spirit of cultural experimentation in Hong Kong cinematic production by unprecedented systematic organization and collective imagination via constitutive practices (Chan, 2002; Chan & Ma, 2002; Ju, 2009; Liang, 2007; Zhou & Liu, 2007). For instance, storyboards 1 to 9 depict some visual details of a night battle that have never been produced, and show the position and position-taking by layout designer in the creative process of pre-production that may influence the forthcoming processes of production and post-production in a chain reaction or interaction. Like storyboards 7 and 9, the detailed drawings of the beacons and the chariots respectively may become solid references to the production design of sets and props either physically in production or digitally in post-production. Certainly, storyboards as visual references for communication and production are still flexible and do not constrain creative collective inputs from other symbol creators during the process of digital cinematic production. In storyboards 10 to 13, the visual representations of the narrative flow are more close to the script that “General Xiang (acted by Sung-ki Ahn, 安聖基) immediately flags to order further

attack, the troop sees the flag signal and plays the drum, and phalanxes by hundred soldiers start to access Liang's City". In Figure 8.7(b), no shot of playing drum within Zhao's troops is produced. But General Xiang's flag signal and order is still used to start the imaginary authentic attack to Liang's City by more simple and realistic representations from shots 1 to 14. Furthermore, from shots 15 to 18, that is, a continuous dolly shot digitally composited by multiple layers of filmic and virtual images, this long shot that took the longest time for post-production follows the final script to represent the spectacular phalanxes of Zhao's troops accessing Liang's City in the movie. Many focus group audiences criticized the relatively unreal cloning effects of those troops and chariots in this shot whereas those digital arrows across the screen were regarded as realistic representations by invisible effects satisfying the aesthetics of authenticity of the movie. Some insiders told me that not enough production time is a constraint to further improve this shot of the largest scale of digital visual effects in this digital cinematic production, which the problematic is known and the result have not satisfied the filmmakers and computer animators themselves. Most likely, the lack of detailed storyboards as visual references for the post-production of this long shot of extraordinary complexity, to a great extent, influences systematic organization and interaction of collective imaginative inputs from those flexible filmmakers and computer animators of disparate media organizations and at different working times and places.

Authenticity and invisibility is very abstract concepts but the core and obvious mission and vision of the unprecedented cultural representations in terms of digital media aesthetics of "reality effects" in *A Battle of Wits* (Black, 2002), as both

Cheng and Yau pinpointed. Over 400 shots of digital visual effects by Menfond's computer animators were produced as invisible as possible. Unprecedentedly sufficient amounts of pre-production works such as scriptwriting (of 10 versions) and storyboarding by means of cross-fertilization with the original Japanese novel and manga and historical research of Mohism (墨家) and the Warring States Period define the outcome of the authentic aesthetics of cultural representations in this new Chinese martial arts blockbuster by Pan-Asian co-production (Ju, 2009; "Special Report: Hong Kong Digital Effects", 2009). Here we may further analyze how systematic organization and interaction of collective imagination by creative managers and symbol creators from pre-production to post-production functions to create realistic representations of authenticity and invisibility by juxtaposing the corresponding storyboards and sequence-shots of the movie based upon a scene of the script as follows.

#### Scene 31.7: Over Liang's City Wall

- △ There is only silence over the wall. Everybody waits for order. Finally, Ge-li swings a flag having been tightly held on his hand for a long time and some soldiers also immediately swing their bigger flags of the same shape to deliver the signal.
  
- △ Men and women on the main wall are hurry to use long torches to burn those grasses suspended onto the wall. The rear row of women then pours mud with sulphur onto the burnt grasses.

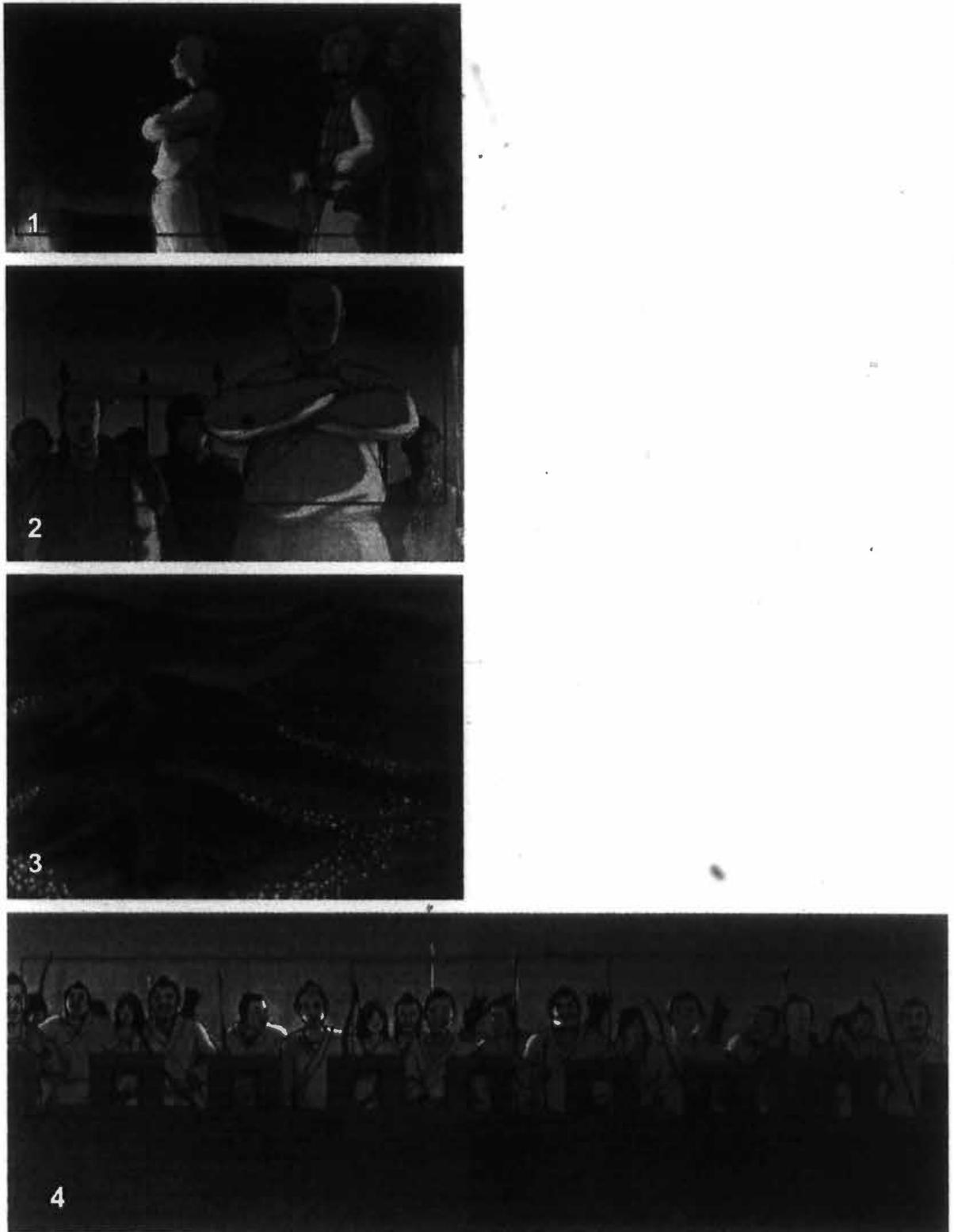
- Δ Mud with sulphur is heated and creates a great deal of yellowish smoke running down the wall from the grasses to the outer land like a waterfall.<sup>7</sup>

Shots 19 to 21 in Figure 8.7(b) more closely match with the narrative flow of Scene 31.7 of the final script than the visual representations in storyboards 15 to 19 in Figure 8.7(a). Ge-li's action to give flag signal in the storyboards is more detailed compared with the movie sequence. The storyboards seem to put more emphasis on the power of Ge-li and his individual decision. On the contrary, the sequence-shots follow tightly the final script to create more realistic representations of the battle scene focusing on team work rather than individualism. This reminds us of the earlier development of the conceptual storyboards that have not been revised as the script did, and recalls the significance of the flexible systems of location shooting by collective activities in Hong Kong cinema. Here the film director's coordination and crew members' collective imagination flexibly and contingently produces visual representations of the battle scene with reference to the final script. But this kind of flexible production without professional storyboards is risk-taking and not welcome to Hollywood blockbuster producers (Fu, 2007). Nonetheless, the conceptual storyboards 15 to 19 provide indirect visual references for the location shooting and make it easier to consolidate collaborating crew members' imaginary visual thinking. By comparing storyboards 20, 27 and 28 and shots 22, 23 and 24, it is not difficult to discover the systematic functions of storyboarding to reduce complexity and coordinate collective imaginative inputs by acting and directing, cinematography,

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<sup>7</sup> The original script is written in Chinese and I divide the original script to 3 paragraphs for easy reading here.

and art direction. Especially in shot 22, the production design of the fire plate and the posing of those non-professional casts are referring to some details in storyboard 20. The last 2 paragraphs of Scene 31.7 simply depict the imageries of the defense by sulphur smoke against Zhao's vanguards. The storyboards and sequence-shots show some variations to the script in their detailed visual representations of the scene. Shots 25 to 38 employ multiple angles to create the tempo and atmosphere of the defense while storyboards 29 to 36, less number of frames, help pre-visualize the look and feel and the major actions of the scene. These pre-visualized references not only facilitate visual communication among crew members on location who prepare those filmic image layers of realistic representations for post-production, but also give enabling and constraining guidance to computer animators to create digital layers of the yellowish smoke running down the wall in shots 34 to 38. Therefore, these conceptual storyboards are regarded as a production "bible" for cultural representations of consistent aesthetics of authenticity and invisibility in this digital cinematic production. The realistic and believable representations of this battle scene are, by and large, reliant upon consistent coordination and collaborative imagination by the film director, crew members and computer animators of symbolic creativity by means of systematic use of conceptual storyboards as continuous visual references for flexible but effective visual communication from pre-production to post-production.



**Figure 8.7(a):** Storyboards of a night battle in *A Battle of Wits*

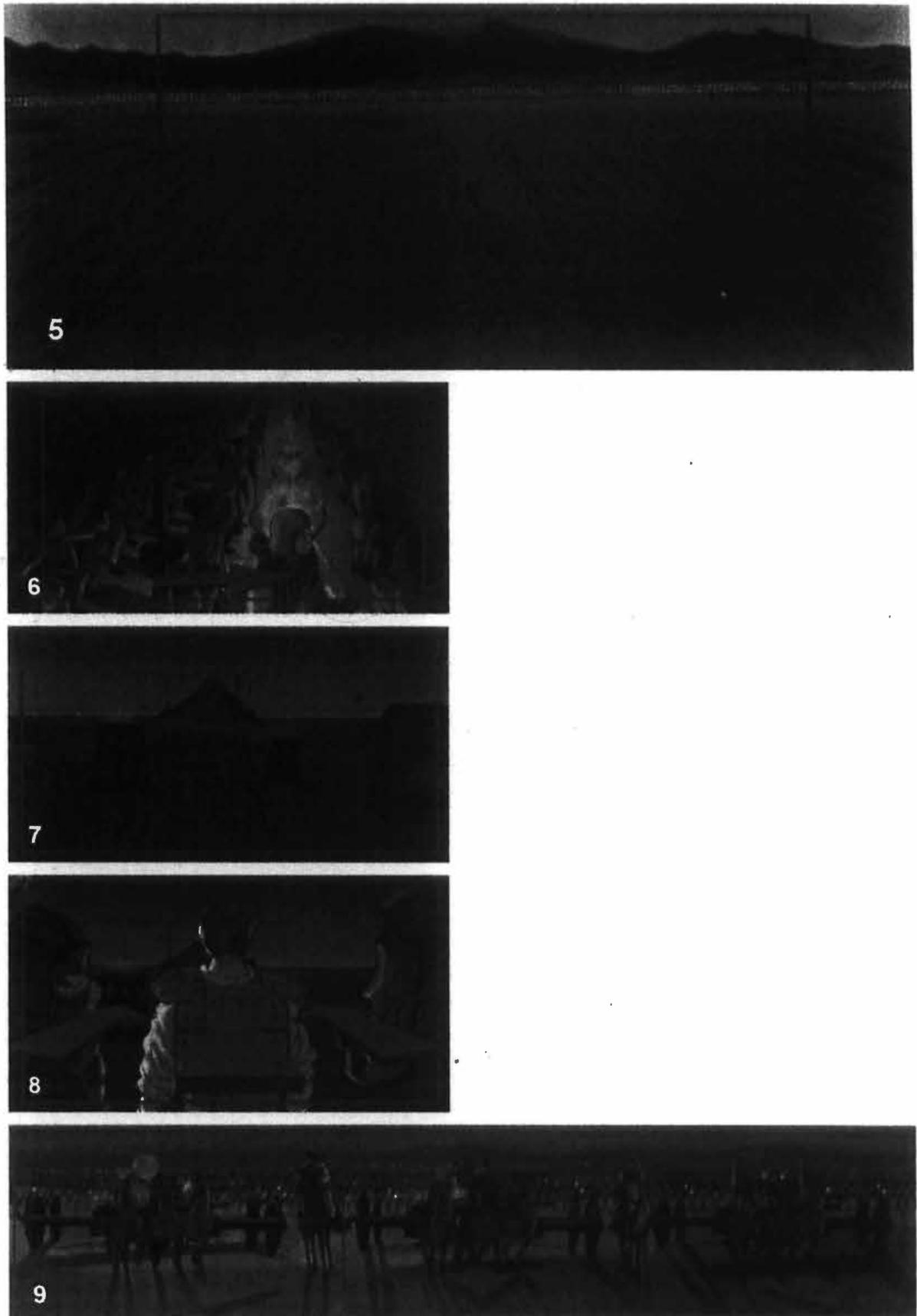


Figure 8.7(a): Storyboards of a night battle in *A Battle of Wits*



Figure 8.7(a): Storyboards of a night battle in *A Battle of Wits*



Figure 8.7(b): Sequence-shots of the first battle in *A Battle of Wits*

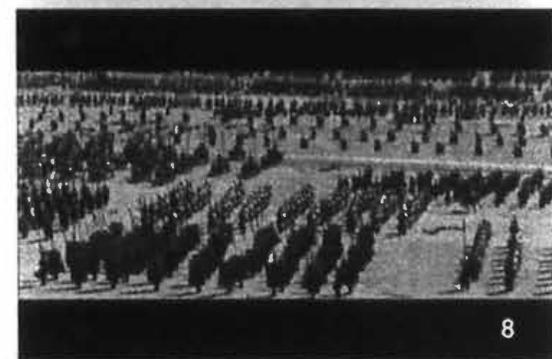


Figure 8.7(a): Storyboards of a night battle in *A Battle of Wits*

Figure 8.7(b): Sequence-shots of the first battle in *A Battle of Wits*

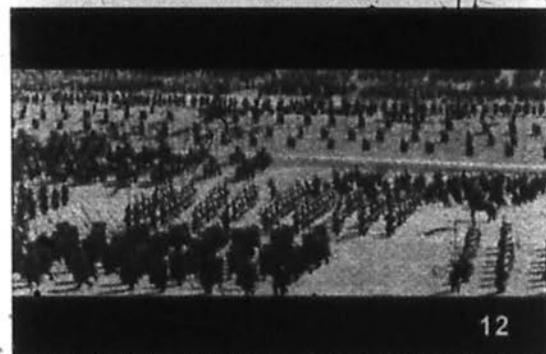


Figure 8.7(b): Sequence-shots of the first battle in *A Battle of Wits*

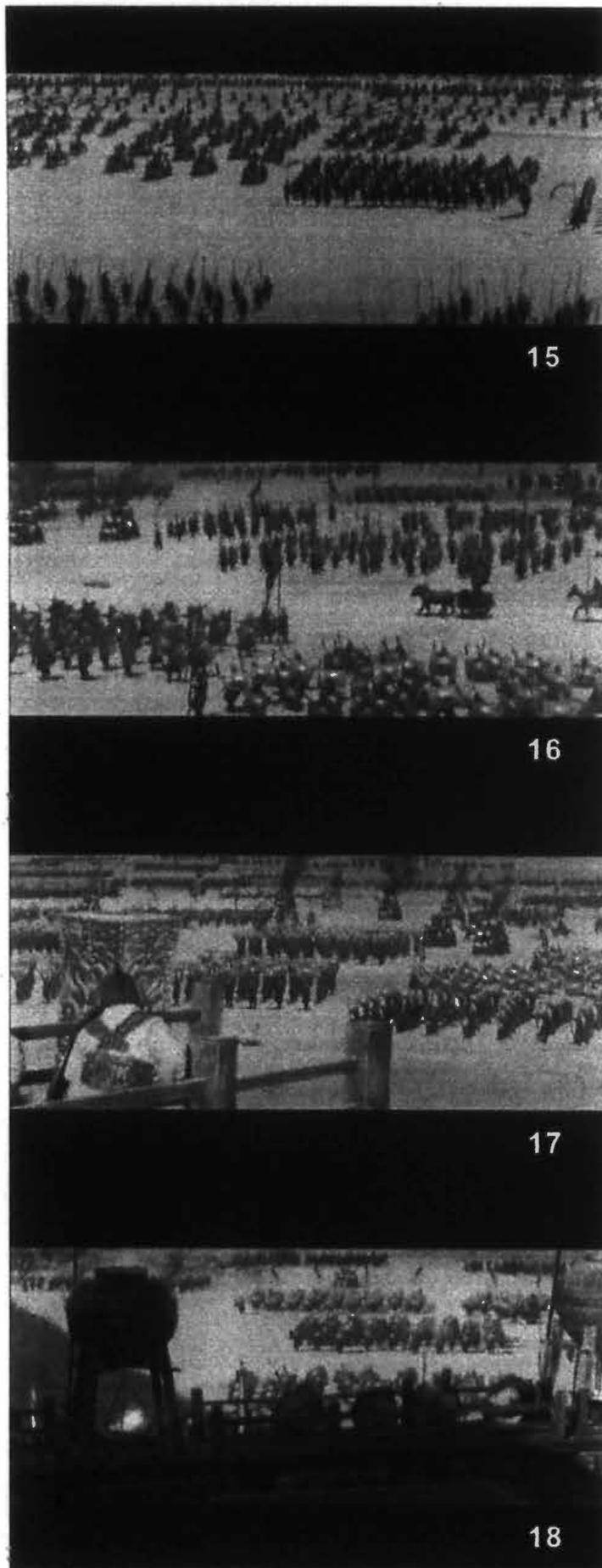


Figure 8.7(b): Sequence-shots of the first battle in *A Battle of Wits*



Figure 8.7(a): Storyboards of a night battle in *A Battle of Wits*

Figure 8.7(b): Sequence-shots of the first battle in *A Battle of Wits*



**Figure 8.7(a):** Storyboards of a night battle in *A Battle of Wits*



**Figure 8.7(b):** Sequence-shots of the first battle in *A Battle of Wits*



Figure 8.7(a): Storyboards of a night battle in *A Battle of Wits*



Figure 8.7(b): Sequence-shots of the first battle in *A Battle of Wits*

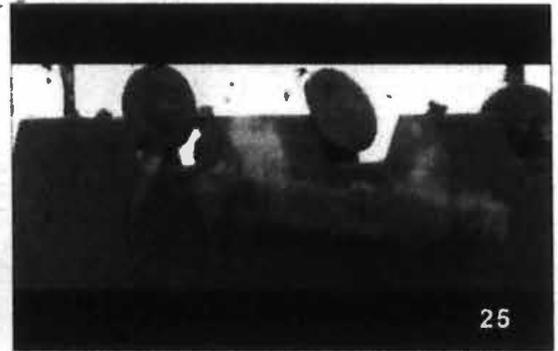


Figure 8.7(a): Storyboards of a night battle in *A Battle of Wits*

Figure 8.7(b): Sequence-shots of the first battle in *A Battle of Wits*

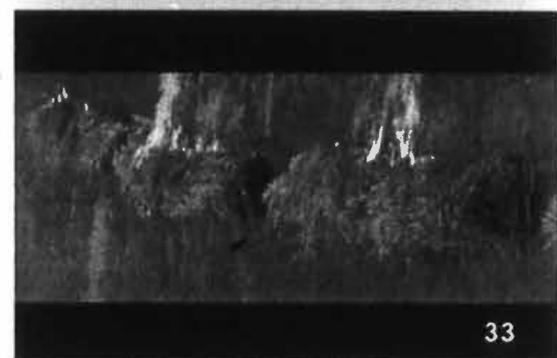


Figure 8.7(a): Storyboards of a night battle in *A Battle of Wits*

Figure 8.7(b): Sequence-shots of the first battle in *A Battle of Wits*

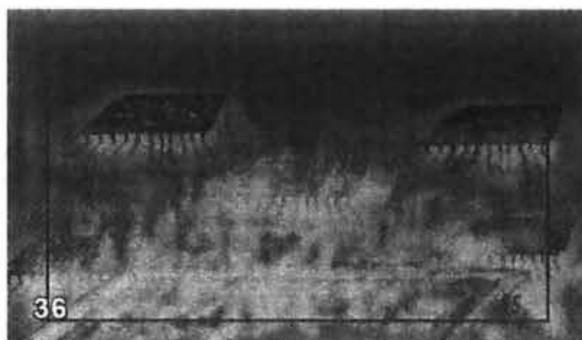
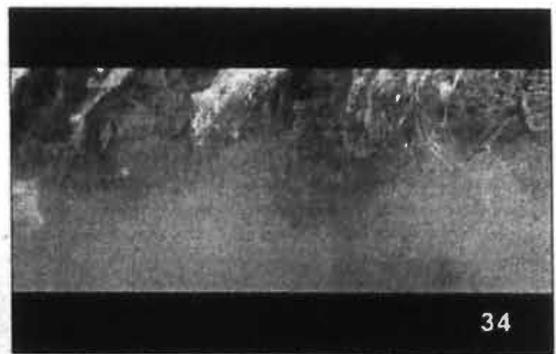
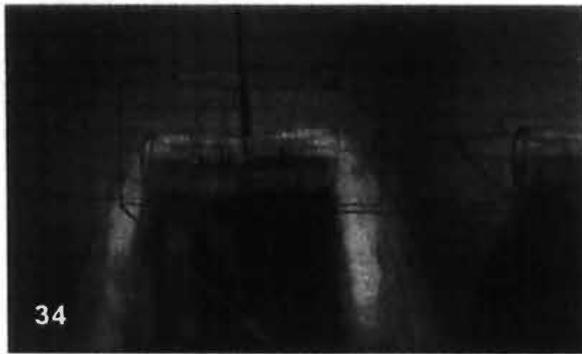


Figure 8.7(a): Storyboards of a night battle in *A Battle of Wits*

Figure 8.7(b): Sequence-shots of the first battle in *A Battle of Wits*

As many interviewed cultural producers mentioned, local filmmakers increasingly understand the importance of storyboarding and pre-visualization to digital cinematic production, especially for blockbusting production of high budget and complexity. More rigid systems of pre-production like storyboard and mood board design are vital to absorb uncertainty and to facilitate decision communication throughout the complex creative process of cultural representations in contemporary digital cinematic aesthetics and productions (Luhmann, 2005b; Seidl, 2005a). However, many Hong Kong and Chinese film directors still believe that detailed storyboards restrict their cultural practices and representations of symbolic creativity (by contingent feelings) in cinematic production on behalf of the traditional flexible systems of the director-oriented film industry. In Figure 8.8, the sequence of a duel between Ge-li and the vanguard Commander Gao inside Liang's bulwark in *A Battle of Wits* is quite different from the conceptual storyboards that the combat is a little bit simpler and happens outside the bulwark. Although the sequence is generally relevant to the narrative flow of the final script, Ge-li's performance in this duel interestingly and sophisticatedly presents his individual talent, as well as heroism, by mythical representations. This is distinguishable from the more authentic verbal representations of the final script. In the script, Ge-li tries to keep calm in despair when Commander Gao is quickly approaching him. He gets a broken sword on the ground to fight against Gao but his sword is thrown away by Gao's strong attack. More importantly, he only gets Gao down from his horse for close combat but has never killed the horse. In the movie sequence, Ge-li is more brave and calm, and sophisticatedly and fantastically utilizes his well-prepared dirk from his waist to kill Gao's horse by cutting wide open its abdomen (see shots 4 to 6). This reminds us of the flexibility of local cinematic production whereupon the final script can still be

changed during shooting. Certainly, those digital representations of this sequence that the (digital) horse is cut open in shot 6 and dying on (digital) fire and oil in shots 7 to 9 need collective imaginative inputs from the film director, crew members, visual effects supervisor and computer animators by time-consuming and back-and-forth communication during production and post-production, especially when there are no detailed storyboards to be followed to reduce complexity.

Nevertheless, the conceptual storyboards of the movie still provide some useful visual references, especially the consistent look and feel of authentic but spectacular representations by invisible effects, for the production of digital effects and computer animation in this sequence. As Chung mentioned from his solid experience in Centro, the digital effects production for *Kill Bill* is very easy and smooth for the very detailed storyboards of Hollywood standard that provide precise visual references for decision communication among collaborating flexible filmmakers and computer animators in both the United States and Hong Kong. On the one hand, the flexible systems of organization and representation in Hong Kong digital cinematic production favors cultural experimentation and creates the digital cinematic aesthetics of Hong Kong characteristics. On the other, the increasing complexity of cultural representations in digital cinematic productions in terms of social, cultural, technological, political and economic concerns, to a great extent, requires systematic modes of production like storyboarding to absorb uncertainty especially for high budget transnational co-productions. This equilibrium between the social and psychic systems of cultural production, between the rigid systems of organization of collective activities and the loose systems of flexible labors of creative autonomy and symbolic creativity, is important to the long-term

development of local, as well as glocal, digital cinematic aesthetics and productions via integrative economic-symbolic valorizations (Becker, 1974, 1976; Florida, 2002; Hesmondhalgh, 2002; Luhmann, 1995, 2002; Thompson, 1995).



Figure 8.8: Sequence-shots of a duel between Ge-li and Commander Gao inside Liang's bulwark in *A Battle of Wits*

## **Art Direction: Aesthetics from Pre-production to Post-production**

Similar to storyboarding, art directing also plays an indispensable role in molding visual storytelling and constitutes an important part of visual culture and communication in cinematic production. Storyboards and mood boards as de-representations are common visual references for systematic organization and interaction of collective imaginative inputs by art direction and computer animation in digital cinematic production. But, in this section, the comparative production analysis is focused on the micropolitics of cultural representations and interactive power relationships among art director, visual effects supervisor and computer animators of disparate flexible media organizations by juxtapositions of the production design and conceptual sketches of art direction and the screen-shots of digital effects and computer animation in line with some professional insiders' discourses. This concerns the continuously changing practices and representations in Hong Kong and Chinese digital cinematic productions that are shaping and being shaped by digital aesthetics of new media production cultures. Once again, it is difficult to get raw industrial-reflexive materials about art direction in local digital cinematic productions. Fortunately, Lui as the art director (美術指導) and the art consultant (美術總監)<sup>8</sup> of *The Twins Effect* and *A Chinese Tall Story* respectively, who always systematically documents his art directing research and design materials and even publishes his own practical works and experiences, had explained some recent transformations of art direction and production design with regard to technological and cultural discoveries and applications of digital effects and computer animation in local and global creative media and film industries. He also

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<sup>8</sup> In the production hierarchy, art consultant is given a higher level of creative autonomy and decision authority like martial arts director in contrast to the relatively lower positions of art director and martial arts choreographer respectively in Hong Kong cinema.

gave me some invaluable practical drawings and production design images as industrial self-theorizing references (Bordwell & Staiger, 1988; Caldwell, 2008; Lui, 2009). This is very helpful to understand the essence of art directing and production design as a kind of activity by doing creative research and design that defines the look and feel of cinematic production. Lui and other professional art directors are, indeed, active researchers and creative managers to help film director and producers decide the materiality of physical production in collaboration with other crew members and the visual and aesthetic direction for virtual reality production in collaboration with visual effects supervisor and computer animators in digital cinematic production. The differentiation and de-differentiation of the functions and roles of art direction by physical and digital productions redefines positions and position-takings, as well as status quo, of art director and visual effects supervisor in cultural representations of digital cinematic aesthetics and productions to a great extent (Bourdieu, 1993; Olson, 1999; Preston, 1994; Rizzo, 2005).

However, as Y. Wong said, not many local art directors can independently decide a holistic vision of cultural representations without film director's guidance and coordination in local cinematic production. Likewise, many interviewed cultural producers mentioned that most local visual effects supervisors are still fresh newcomers to the field of cinematic production and do not have enough experience to deal with the whole picture of art direction and visual representation of digital cinematic aesthetics and productions alone. In Hollywood, as Poon pointed out, some

production houses like ILM<sup>9</sup> have their own (visual effects) art directors to follow through the production of digital cinema, especially those parts of digital effects and computer animation, from pre-production to post-production. In Hong Kong cinema, visual representations of digital cinematic productions in terms of art direction and digital effects production rely extremely on the coordinating ability of film director to orientate collective imaginative inputs from art director, visual effects supervisor and computer animators under the director-oriented loose production systems. Because the art director and his/her production design team as flexible nomadic labors normally have been dismissed before the major post-production process of digital effects, the coordination by film director and visual effects supervisor and visual references as de-representations in the creative process of de-paradoxicalization are significant systems of organization and representation and concrete documentations to reduce complexity and to maintain consistency of art direction and visual representation by collective imagination during post-production (Caldwell, 2008; Luhmann, 1995, 2002, 2005a).

As Lui (2009) mentioned in his book *The Creative World of Film Production Designer Bill Lui* (豈只講張電影的皮－美術總監的創作天地), the efficient and professional production design in Ang Lee's *Lust, Caution* (色·戒, 2007) is, by and large, dependent upon disciplinary Hollywood production systems of organization and representation that Lee brings to this transnational co-production. In Figure 8.9,

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<sup>9</sup> ILM as a state-of-the-art production house has its own art department for cinematic production design. Therefore, their own art directors and production designers can work closely with their visual effects supervisors and computer animators for any digital cinematic production. Unlike Hollywood, Hong Kong cinematic productions, even blockbusters, are more reliant upon "hyper-flexible" labors of disparate local and global organizations.

we can see some Lui's working documents for his art direction/production design<sup>10</sup> of an old Hong Kong street at the pre-production stage of the movie; image 1 is a research photo of the trams in Connaught Road Central in the 1930s, image 2 is a photo of site-seeing (mostly art director is one of the pioneers for site-searching) in Malaysia, image 3 is an initial color sketch to provide visual impression for set design, and image 4 is a digital mock-up to give more detailed and realistic representations (or a visual plan) of the scene for production design on location. Finally, protagonists were acting inside an imitated but functional tram based on a researched production manual of the 1930s running on the reconstructed Hong Kong street in Malaysia, which makes believable re-representations of the 1930s Hong Kong in the movie. Lui said that such systematic production and representation in *Lust, Caution* has rarely been achieved in local cinematic productions. And he complained that a local film director did not follow the pre-set scheme of art direction and visual representation and changed his primary design at the post-production stage without consulting him as well as by ignoring opinions of other creative managers of digital effects production. Indeed, Lui is no longer belonging to the creative team during post-production, but some film directors like Jeff Lau would keep consulting him unofficially as an art director (of no further salary) or a friend for consistent visual representations during digital effects production. Nevertheless, the dismissed art director has become an outsider of a digital cinematic production in a particular sense and thus, dares not to critically comment on many post-production works, especially his/her unfamiliar problematic of digital effects and computer animation, as Lui pinpointed. Generally speaking, visual references shared among

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<sup>10</sup> Unlike Hollywood blockbuster productions that show more precise division of labor and complex functional differentiation, art director and production designer are always synonymous and interchangeable in Hong Kong cinema (Rizzo, 2005).

filmmakers and computer animators represent a vision and creative passion as deep feelings of symbolic values and provide empirically valid knowledge of mutual commitments to rules and routines of engagement in constitutive practices. They facilitate collective coordination and collaboration by systematic organization and representation and can, more objectively, make sure visual representations of consistent style and aesthetics from pre-production to post-production in digital cinematic production (Luhmann, 1998; Rawls, 1996, 2002, 2008; Watson, 2009).



Figure 8.9: Images for art direction and production design to imitate an old Hong Kong scene in *Lust, Caution*

It is generally agreed that film director is the mastermind to systematically and efficiently coordinate and orientate collective imaginative inputs from all other collaborating creative managers and symbol creators including art director, visual effects supervisor and computer animators in Hong Kong and Chinese digital cinematic productions, if possible. However, collaboration between art director and visual effect supervisor, between the art department of a film production agency and the digital/visual effects department of a post-production house, by effective and consecutive communication in terms of visual references as de-representations is more pervasive and important to ensure continuous visual representations of consistent style and aesthetics in a digital cinematic production. This is achieved by structural coupling of both social and psychic systems of organization and interaction among creative managers and symbol creators of art direction and digital effects production at disparate times, spaces and places. Such visual communication allows the development of a higher complexity and variety in cultural representations of digital cinematic productions (Luhmann, 2000a; Moeller, 2006). As Lui mentioned from his own collaborative working experiences with Menfond's visual effects supervisor(s) and computer animators, interactive communication is significant to the harmonization of cultural representations by digital compositing of production design and digital visual effects. This facilitates the innovation of glocalised digital cinematic aesthetics and productions like *The Twins Effect* and *A Chinese Tall Story* by cross-cultural, cross-historical, cross-genre experimentation and cross-fertilization with video game culture.

During the production of *The Twins Effect*, Lui and his design team, who had not concerned too much the possibility of an earlier involvement of visual effects supervisors/computer animators in the production design process, issued the fundamental design of a magic bible to let computer animators follow to create add-on digital visual effects, that is, the traditional workflow of special effects production in Hong Kong cinema. However, some passionate young computer animators of Menfond fed back to suggest a different design concept using a bat that is historically and culturally related to vampire in the West. Lui thought that the bat concept was good and interesting. But their initial design of the bat's claws held together on the book cover was a little bit too complicated when opening the book that meant killing film in unnecessary narrative flow and looked not good from the art direction perspective as Lui said. So, he reacted to that bat design concept to make amendment and suggested to open the book by dividing the bat's body into two. He praised this kind of interaction as innovative stimulus to digital cinematic production especially because they all could make good drawings for effective visual communication. And the final visual representations of the magic bible's opening by smooth and believable digital compositing of the prop and computer animation (see Figures 8.10(a) and (b)) are innovative and impressive because of the interactive collaboration between the art direction and computer animation teams with reference to some solid visual images-texts as the sites of interaction of social and cultural practices (Wright, 2008).

Similarly, other visual representations of consistent design aesthetics in *The Twins Effect* rely very much on the continuous mix-and-match of production design

and computer animation in accord with visual references like Lui's conceptual drawings of the church's exterior and interior in Figure 8.11(a). Nonetheless, sometimes the original design may be loosely followed by computer animators during post-production when the art director and his team have already been dismissed. By comparing image 1 in Figure 8.11(a) and shot 1 in Figure 8.11(b), we can see some minor difference of the final design of the digital matte painting that is used to saving production time and budget in digital cinematic production. As most interviewed computer animators said, all passionate creative artists would like to express their own symbolic creativity and design something new by creative autonomy unless they are confined by organization rules or production time limit. In conclusion, the innovative interpenetration of organization into interaction by visual communication, as well as film director's coordination, help symbolically integrate the creative power of art direction and computer animation into cultural representations of the increasingly complex mode of digital cinematic production. This elucidates the inevitable evolution of the art system in the era of digitalization, which influences the workflows of art direction and computer animation by changing production differentiation and de-differentiation and standard of digital media production. It also explicates, to a great extent, the innovative style and aesthetics of digitextuality and postmodernity in *The Twins Effect* by glocalization that reinvigorates the Hong Kong vampire genre by cross-cultural and cross-genre experimentation (Bordwell & Staiger, 1988; Hong, 2003: "Qian ji bian" in *Film Pictorial*, 2003).

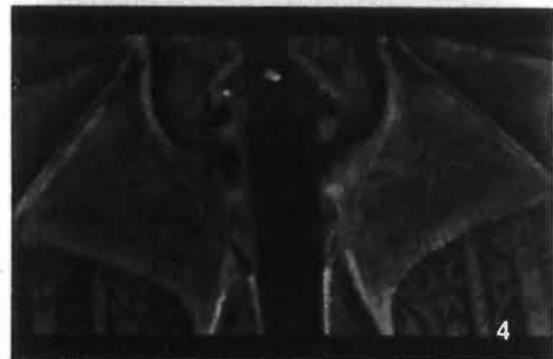
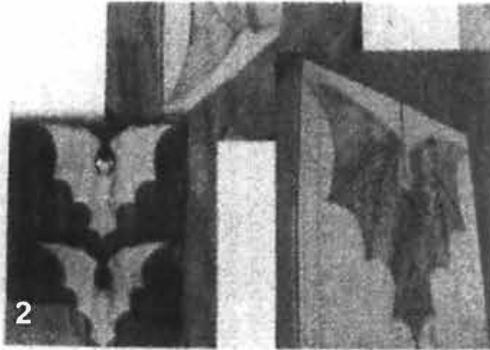
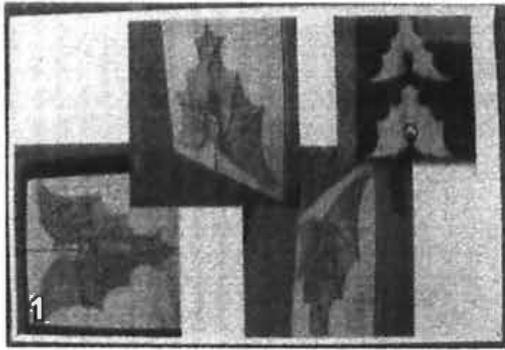


Figure 8.10(a): Prop design of the magic bible in *The Twins Effect*

Figure 8.10(b): Screen-shots of the opening of the magic bible in *The Twins Effect*

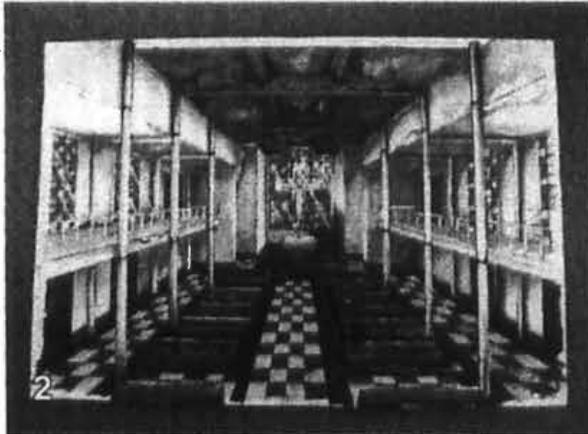


Figure 8.11(a): Church design by Art Director Bill Lui in *The Twins Effect*

Figure 8.11(b): Screen-shots of the church's exterior – digital matte painting (1) – and interior – real set plus digital effects (2) – in *The Twins Effect*

As regards a representative and long-awaited transnational co-production by Lau after a decade of his renowned postmodern “meaningless” comedy *A Chinese Odyssey* acted by Stephen Chow, *A Chinese Tall Story* is still a hybrid genre movie of postmodernity and Hong Kong style (science-fictional) fantasy but has failed to impress mainstream audiences for its messy visual storytelling of under-developed scenarios. The concentration on and selling-point of high-end digital effects and computer animation in visual representations of the movie is, on the one hand, criticized to be over-production useless to enhance the narratives, as most interviewed cultural producers and focus group audiences except some cult movie amateurs agreed. On the other, in terms of digital media aesthetics, this digital movie

plays an unforgettable role in exploring the possibility of sustainable development of visual representations and interactive power relations between art direction and digital effects production by its unprecedented cultural experimentation in local digital cinematic production (Lee, 2006; Li, 2006; “Special Report: Hong Kong Digital Effects”, 2009; Wang, 2006). While most interviewed visual effects supervisors did not agree with the concept of visual effects director that should be given the higher autonomy to supervise the whole process of digital effects production to the extent like the martial arts director, *A Chinese Tall Story* is the first local digital movie offering this title to the main creative managers of digital effects production officially. And, more importantly, it has marked a milestone to envisage the significant role of and cultural, as well as aesthetic, values of digital representations by computer animators in local cinematic production of increasing complexity and digitextuality. Here we can discern how some traditional production techniques like matte paintings and optical compositing are replaced by digital images and compositing respectively. In the meantime, some traditional production design is re-engineered to cooperate with digital effects and computer animation leading to increasing standard and novel aesthetics of photorealistic visual representations by collective imagination in digital cinematic production in accord with production/product differentiation and de-differentiation in the era of digitalization and globalization (Bordwell & Staiger, 1988; Chong, 2008; Manovich, 2001).

In the shooting location of *Swordsman II* (笑傲江湖 II—東方不敗, 1991), I worked as a temporary worker witnessing the tracking movement of Ching-hsia Lin

(林青霞) on a dolly in front of Hark Tsui's camera. There was a small set like a gate of a city wall behind her and its upper part was covered by some blue screen/cloth used to optically compositing the image of a physical matte painting of the rear part of the set onto the filmed footage during post-production, that is, a typical way of physical special effects production I mentioned in Chapter 2. Nowadays, digital matte painting and compositing have almost fully replaced those traditional ways of special effects in cinematic productions. However, some physical production design of materiality still plays important role in enhancing photorealism and believability of visual representations in digital cinematic productions. Figure 8.12(a) is some images of the front wall construction of the city in *A Chinese Tall Story* by the art department during pre-production. The set construction is physically functional (see image 3) to facilitate shooting real casts on the wall (see screen-shot 2 in Figure 8.12(b)) and minimal to save production budget by digital matte painting and computer animation to build the rear parts of the city. Indeed, the spectacularity and the 3 dimensionality of the digital city cannot be easily replaced by physical production and traditional matte painting respectively. The harmonic visual representations of production design and digital effects production in the movie's final composition is reliant upon effective communication and coordination of collective imagination among the film director, art director, production designers, visual effects directors/supervisors and computer animators from pre-production to post-production. As Lui mentioned, unlike his former working experience with Menfond's computer animators in *The Twins Effect*, the visual effects directors/supervisors joined in the production of *A Chinese Tall Story* at the earlier pre-production stage and almost followed through the whole digital cinematic production, whereas Lui and his art department had been officially dismissed after shooting. In

other words, the consistency of visual representations of local digital cinematic productions during post-production relies, to a great extent, on solo coordination by visual effects supervisor and/or film director.

It is possible that misconduct of visual effects supervisor(s) or computer animators because of inconsistent beliefs of media aesthetics under different systems of organization and representation may lead to the failure of consistent and expected visual representations during the digital effects production of a digital movie. The original consented visual design by collective imaginative inputs from both art director and visual effect supervisor may be forgotten or even disregarded by the last gatekeeper, that is, most likely either film director or visual effects supervisor, during post-production. On the other hand, poor planning of production design may also influence the creative process of digital effects production after shooting. “Compromise equilibrium” by the networks of structural coupling among social and psychic systems of creative managers and symbol creators is needed to achieve collective cultural representations by mutual commitments to rules and routines of engagement in constitutive production practices (Brocklesby, 2009; Rawls, 2001, 2002, 2008; Storey, 2010; Watson, 2009). Like Figure 8.13(a), the set design defines movements of casts and camera during shooting and provides enabling as well as constraining visual references for the post-production of digital effects and compositing in the heaven scene of *A Chinese Tall Story*. Those light brown columns looking like frozen twisters are specially designed as visual indicators for computer animators to digitally composite animated twisters onto the pre-filmed footages of the heaven (see screen-shots 1, 2 and 4 in Figure 8.13(b)). If not well-planned, those

columns would become obstacles for digital effects production and compositing. The color scheme of production design is also important to facilitate digital compositing of visual effects like the digital Buddha and those water ripples on the floor in screen-shot 3. In a nutshell, interactive communication between production designers and computer animators, as Lui demonstrated and praised, with respect to visual references as de-representations in the creative process of de-paradoxicalization constitutes more functional and reliable systems of organization and interaction of collective imaginative inputs by art direction and digital effects production to create consistent visual representations in the increasingly complex modes of cinematic production of digitextuality. Such systematic visual references lead collective imagination as creative ideas by collaborating creative managers and symbol creators to enabling resources of symbolic creativity rather than constraining obstacles (Hesmondhalgh, 2002; Luhmann, 2000a).

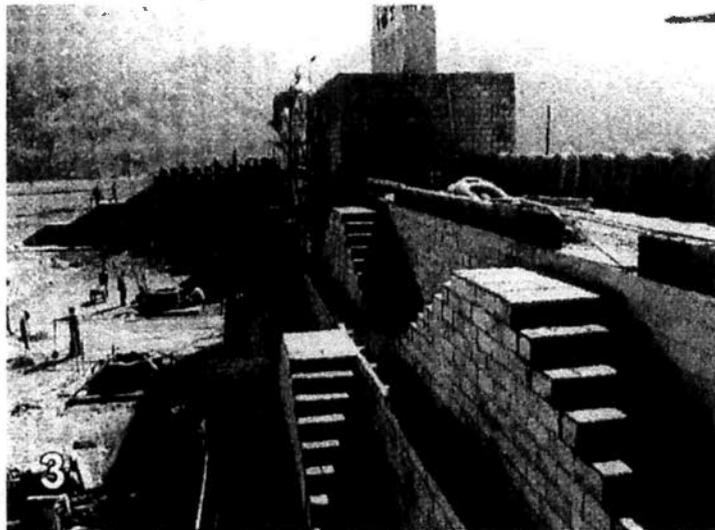
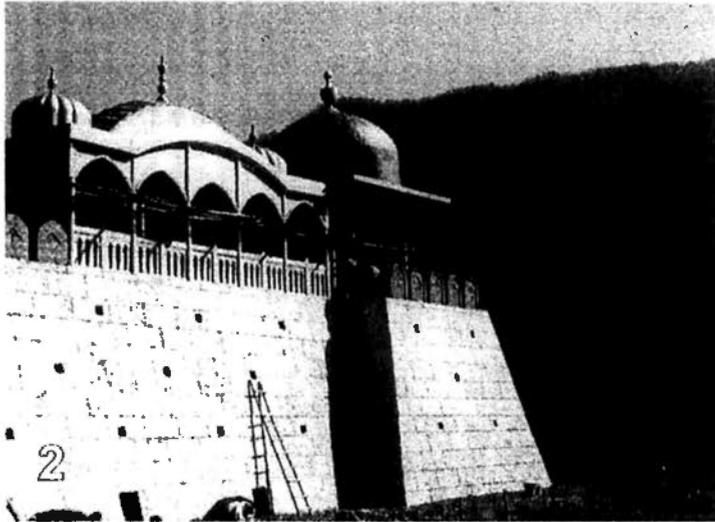
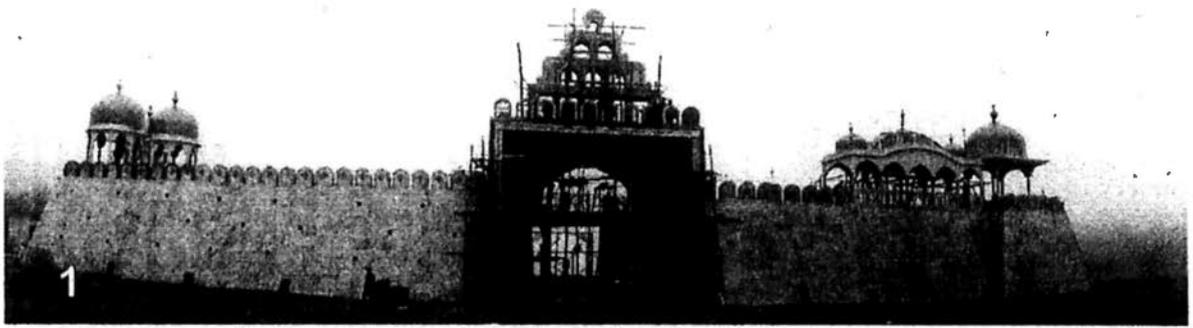


Figure 8.12(a): Production design of some physical parts of the city under construction in *A Chinese Tall Story*

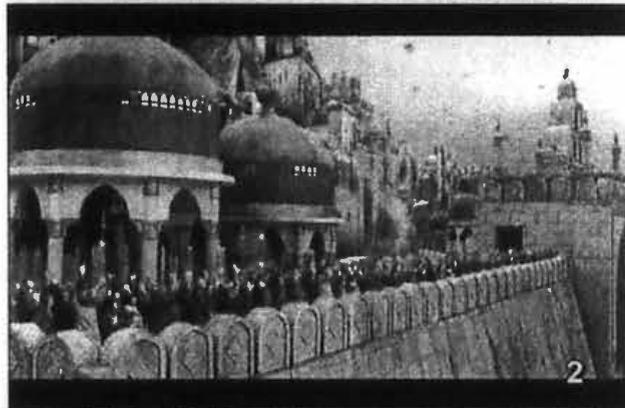


Figure 8.12(b): Screen-shots of the digitally composited city as a result of collective imagination by art direction and digital effects production in *A Chinese Tall Story*

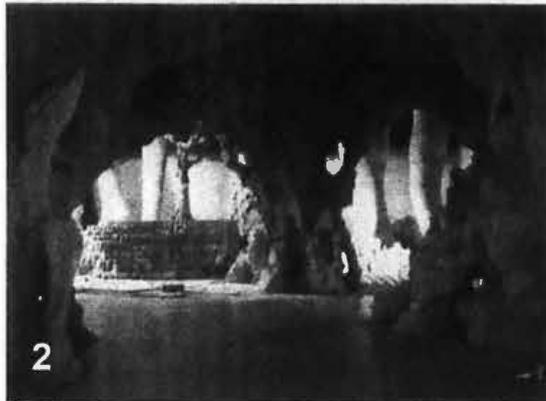
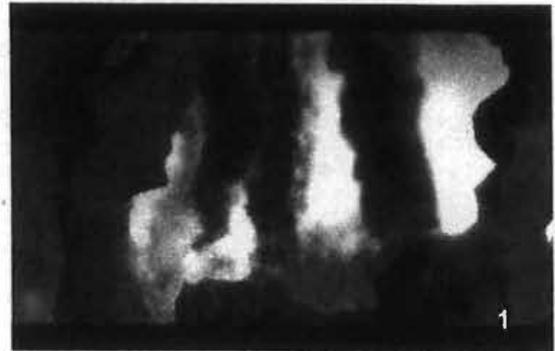
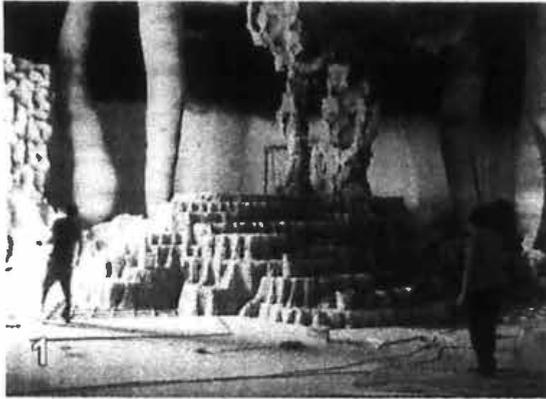


Figure 8.13(a): Physical set design of the heaven in *A Chinese Tall Story*

Figure 8.13(b): Screen-shots of the heaven scene in *A Chinese Tall Story*

## **Reducing Complexity of Visual Culture and Communication**

The rapidly changing visual culture and communication and the rapid reinstitutionalization of cultural production systems shape and are shaped by the new modes of cultural representations in contemporary digital cinematic productions in terms of new forms of narration and narrative and new media aesthetics of complexity and digitextuality (Everett, 2003; Peterson & Anand, 2004; Wright, 2008). This is an evolution of the art system as well as social structures whereupon the complex model of the “spectrum of cultural representations” proposed in this study reveals a paradigm shift in cinematic aesthetics and productions in the era of digitalization and globalization. The complexity and digitextuality by new media technologies and cultures is founded on the multi-layeredness of cultural representations in the spectrum of production and consumption. Such multi-layered representations or de-representations like storyboards, mood boards and art directing visual references of pre-production and multiple layers of digital effects and compositing of post-production play important roles in the creative process of de-paradoxicalization. This is a paradox that it should aim at reducing complexity to produce consistent styles and aesthetics of visual representations in digital cinematic productions by autopoietic systems of organization and representation in terms of reinvigorated and effective modes of visual culture and communication among creative managers and symbol creators. But their flexibility and symbolic creativity by cultural production differentiation and de-differentiation in creative media and film industries that adds complexity is necessary to sustain the development of digital cinematic aesthetics and productions by cultural experimentation and hybridization demonstrated by the case studies in this chapter (Chan, 2002; Hesmondhalgh, 2002; Luhmann, 2000a, 2002; Manovich, 2001; Seidl, 2005a).

A special attention is paid on those self-theorizing industrial materials of visual storytelling and art direction that define the visual and aesthetic directions and reveal cultural practices and representations by systematic organization and interaction of collective imaginative inputs from collaborating filmmakers and computer animators in digital cinematic productions. This production analysis of the data of aesthetics puts emphasis on those primary visual representations or de-representations – storyboards, mood boards, and images and conceptual drawings of art direction – of team performativity and practical actions and reasoning rather than post hoc discourses of interviews or media texts and critiques in the creative process of de-paradoxicalization (Caldwell, 2008; Garfinkel, 1967, 1996; Goffman, 1959; Ogien, 2009; Potter & Hepburn, 2010;). Nevertheless, discourses of professional insiders and textual analysis of the corresponding digital movies are useful and indispensable to construct the meanings of and to justify the face value of those visual representations from pre-production to post-production for solving aesthetic puzzlements in the complex language games of digital cinematic productions (Wittgenstein, 2007/1967). The cultural and aesthetic values of those visual representations of storyboarding and art directing are ineffable and contribute to the meaning-reference-construction process in digital cinematic productions by individual creative imagination as collective social and cultural practices (Appadurai, 1996). Such individual cultural imagination that takes place within the psychic system of oneself cannot be directly measured and can merely be social systematically communicated about by the interpenetration of the organization into the interaction among the social and psychic systems of collaborating individuals. This is the way I deploy in this chapter to understand the contribution of collective

imaginative inputs by storyboarding and art directing to the sustainable development of systems of organization and representation in the Hong Kong and Chinese digital cinematic productions by juxtaposing industrial-reflexive visual references and discursive practices of cultural producers. This “understanding” involves my inductive (enabling and constraining) selection of a particular distinction between the limited “information” – those rare storyboards and art directing visual references – as a repertoire of alternative possibilities and the “utterance” as different choices of interpretations for interactive and collaborative communication within a system of dynamic stability. It involves the structural coupling of both social and psychic systems of cultural practices and representations by individual creative managers and symbol creators during the processes of coordination and collaboration in digital cinematic production of common vision and mission or shared creative passion (Luhmann, 2000a, 2005a; Seidl, 2005a).

Four digital cinematic productions of rarely collected aesthetic data of industrial-reflexive materials are thoroughly studied by juxtapositions with discourses of cultural producers and media contents (Caldwell, 2008). Both *Hero* and *A Battle of Wits* as transnational co-productions of international standard of digital effects and computer animation sophisticatedly challenge the traditions of cultural representations in genre formation and thus, lead to the diversity of new Chinese martial arts blockbusters by unprecedented cultural experimentation and appropriation. The former creates romantic and spectacular representations of martial-arts-to-dance performances by hyperreal and visible effects with regard to Zhang’s taste and temperament of the “wen-wu” dyad (Berry, 2008; Grant, 2003; Jia,

2005; Liang, 2007; Louie, 2008; Qiao, 2005). The latter produces realistic and believable representations of battle scenes by digital effects and compositing in terms of authenticity and invisibility (McClean, 2007). Both demonstrate the significance of visual and interactive communication by storyboards and mood boards as de-representational references to systematically coordinate collective imagination by collaborating filmmakers and computer animators from pre-production to post-production in order to achieve consistent styles and aesthetics of cultural representations in digital cinematic productions. Similarly, visual references of art direction and production design in the production of *The Twins Effect* and *A Chinese Tall Story* also serve as cultural de-representations to help cultural producers make effective communication decision by systematic organization and interaction of collective imaginative inputs from art director, visual effects supervisor(s) and computer animators to create consistent design of art direction and digital effects production. Although audience perceptions and film critiques toward these 2 digital movies are quite inconsistent, their cultural representations by cross-cultural, cross-historical, cross-genre production and cross-fertilization with video game are meaningful and representative of the tradition/re-tradition of Hong Kong hybrid genre movie productions of locality, postmodernity and digitextuality by transgression (Hong, 2003; Lee, 2006; Li, 2006; Neale, 2003; Pierre, 2004; Wang, 2006). Moreover, the empirical analysis of their art direction and digital effects production by collective imagination evidences the collaborative efforts by their filmmakers and (Menfond's) computer animators on the sustaining development of digital cinematic aesthetics and productions of Hong Kong characteristics. This is achieved by transforming systems of organization and representation in regard to the complex modes of contemporary production/product differentiation and de-

differentiation and alternative thoughts of newcomers of new positions and position-takings within new dynamics of digital media cultures and technologies (Bordwell & Staiger, 1988; Bourdieu, 1993; Grassilli, 2008).

In view of the fact that traditional matte painting and optical printing are replaced by digital mattes and compositing respectively, the increasing complexity of cultural representations by digital effects and computer animation makes the coordination of collective imagination in contemporary digital cinematic productions become more difficult and interdependent. Not only film director but also cinematographer, art director, visual effects supervisor and computer animators, in other words, all creative managers and symbol creators of flexibility and symbolic creativity, need to work interdependently and interconnectedly to coordinate and produce cultural representations by collective imagination leading to new aesthetics of digital cinema. Like the production “bible” – the conceptual storyboards – of *A Battle of Wits*, in which a systematic mechanism of visual references/representations is formed to facilitate interactive communication of collective imagination as social practices in the process of cultural production of complexity and digitextuality, more rigid systems of organization and representation are necessary to globalize Hong Kong cinema and to sustain the development of local/glocal digital cinematic aesthetics and productions by leading collective activities of cultural producers of creative autonomy and flexibility to a harmony under a dynamically stable system/environment (Appadurai, 1996; Fu, 2007; Hesmondhalgh, 2002; Luhmann, 2000a). As an interviewed visual effects supervisor said, chaos instead of harmony is, more likely, the outcome of cultural representations in digital cinematic productions

like *The Promise* and *The Legend of Zu* with over-production and poor coordination of digital effects and computer animation, if every individual flexible creative artists act on their own ways.

## Chapter 9 Conclusion: More Challenges

This conclusion is not an end. The project, as a social and cultural exploration, illustrates a revolutionary and ongoing paradigmatic shift of the complex model of the “spectrum of cultural representations”. It is based on multi-faceted and multi-perspective investigations via all data of aesthetics on the basis of lived researchable experiences and constitutive practices; these are mutual commitments to rules and orders of engagement in creative media and cultural industries. All these investigations and engagements need to be continued. These data reveal the major development of digital cinematic, as well as media, aesthetics and productions in Hong Kong and global media within new dynamics of digitalization and globalization that I have experienced and researched since the 1990s. This thesis is built upon such multidimensional data collected by theoretically informed methodologies. Firstly, 11 Hong Kong and Chinese digital movies as case studies are chosen for textual and discourse analysis to reveal 10 inductive digital cinematic aesthetics. Secondly, 5 focus group discussions in accord with audience consumption exercises by unique repertoire of cultural practices are deployed to understand audience perceptions of digital cinematic aesthetics and productions and to unveil disjunctive interpretations of cultural representations among cultural producers and audiences in the spectrum of production and consumption. Thirdly, 18 interviews of cultural producers of cognitive, aesthetic and industrial reflexivity show the discursive formation of production practices in digital cinematic productions, leading to the advent of new aesthetics of digital cinema. Fourthly, industrial-reflexive materials such like storyboards and animatics and organization cultures and structures of creative media production companies such as Centro and Menfond are

used to investigate the multi-layeredness of cultural representations by collective imaginative inputs in digital cinematic aesthetics and productions under the rapidly changing systems of organization and representation. Lastly, corresponding creative passion shared among their creative workers/artists that shapes and is shaped by systems of organization and representation help understand the complexity and unpredictability of cultural representations during their collaboration with other nomadic labors of the increasingly complex but flexible creative media and film industries (Caldwell, 2008; Codde, 2003; Hall, 1997ac; Havens et al., 2009; Rawls, 2002, 2008; Watson, 2009). All these research data constitute information as a repertoire of alternative possibilities leading to a distinctive understanding of the meanings of cultural representations in digital cinematic aesthetics and productions via utterance as disparate choices of selectable forms of and reasons for a communication within a dynamically stable system/environment. This distinctive understanding shows its strength to empirically and social systematically evidence the complexity, unpredictability and contingency of the formation of the 10 new characteristics of digital cinematic aesthetics under the new model of the "spectrum of cultural representations". Its complex organization and structure are built upon mutually recognizable social and cultural practices by both producers and audiences during the creative production-and-consumption process. This elucidates its essence of contingency and non-generalizability from pragmatic perspectives. Thus, its generated knowledge of the meanings of life in terms of cultural representations needs to be further developed or kept growing by sustaining researches and constitutive practices "from within actual settings" and contexts, which is the core of autopoiesis whereupon systems either reproduce or paralyze (Garfinkel, 1967: viii, 1996; Kim, 2003; Luhmann, 2000a, 2003; Rawls, 2006; Seidl, 2005a).

Here I am going to summarize the findings and limitations of this study of cultural representations to briefly and conclusively answer those initial research questions and to pinpoint some required and potential insights for further research studies of the meanings and meaning construction process of cultural representations in the spectrum of production and consumption within dynamic systems of contemporary creative and cultural industries. This study puts emphasis on critical and contextual analysis of the shaping of the “spectrum of cultural representations” demonstrated by digital cinematic aesthetics and productions, especially in the Hong Kong cases of new glocalism. Throughout this research, we understand empirically the complexity, creativity and systemicity of the meaning construction of cultural representations within new dynamics of digital media technologies and cultures by means of the creative processes and practices of cultural production and consumption from transdisciplinary perspectives (Grassilli, 2008; Havens et al., 2009). Especially those digital effects and computer animation as cultural de-representations by collective imagination as social and cultural practices by both producers and audiences not only add complexity and creativity to cultural representations of digital cinematic aesthetics and productions, but also provide a mechanism to reduce complexity by seamless digital compositing of multi-layered images of “digitextuality” – multiple “media convergence phenomenon” – in the creative process of de-paradoxicalization, deconstruction and de-differentiation (Appadurai, 1996; Everett, 2003: 7; Luhmann, 2002, 2005a; Manovich, 2001). The increasingly complex processes of cultural production and consumption of digital media cultures are interdependent and interconnected. Systems of organization and representation are necessary to coordinate collective activities of those flexible creative managers

and symbol creators such as filmmakers and computer animators of collaborating creative media organizations during digital cinematic productions. And such systems should be deployed at the same time to discern audience perceptions of digital cinematic aesthetics and productions by unprecedented remediation of old and new media (Bolter & Grusin, 1999; Hesmondhalgh, 2002).

The contingency and flexibility of systems of organization and representation in digital cinematic production and its consumption reveals a paradox in the field of cultural production whereupon consumers/audiences play an indispensable but highly underestimated role. This paradox between production and consumption, structure and agency, producers and audiences needs to be de-paradoxicalized by a compromising process in a spectrum of mutually recognizable collective activities that is a duality rather than dualism and that allows the power struggling leading to creative production and consumption of cultural representations (Caves, 2000; Crane, 1992; Luhmann, 2005a; Storey, 2010). In other words, the contingent and flexible systems of organization and representation function to provide not merely rigid forms of organization culture and structure but also loose coupling elements of organization and creativity. Those structural coupling elements facilitate systematic organization and interaction of collective imaginative inputs from both producers and audiences leading to change, reform, or evolution in cultural representations of digital cinematic aesthetics and productions. This is achieved by the interpenetration among social systems of organization cultures and routines of creative media and film production companies and psychic systems of creative thoughts and perceptions by cultural producers and audiences (Luhmann, 2000a, 2003; Magalhães & Sanchez, 2009). “Compromise equilibrium” between cultural production and consumption is

necessary whereas too rigid and redundant the systems of organization and representation lead to paralysis and too loose and various the systems result in chaos (Moeller, 2006; Storey, 2010). For instance, the rigid organization culture of the director-oriented film production systems in Hong Kong and China favors media-centric bias in creation and coordination. This may result in wrong coordinating decision like over-production of digital cinematic effects in Lau's *A Chinese Tall Story* on behalf of an invalid prediction/guess of audience tastes and expectations of new media and video game cultures. Besides, the loose coordination and collaboration without sufficient pre-production and pre-visualization such as full script and professional storyboards may lead to chaotic digital cinematic productions. Like Chen's *The Promise*, the physical shooting of those live buffalos was replaced by digital character animation during post-production as a post hoc request. Only "compromise equilibrium" dynamically stabilizing collective activities on the spectrum of cultural production and consumption may drive people of symbolic creativity and shared creative passion on reform in autopoietic systems of organization and representation by alternative modes/choices of thoughts and interpretations. This is revealed by disjunctures and regularities of producers and audiences' discourses in this study. Such alternative possibilities sustain reproductive and consecutive communication decisions to shape and reshape the "spectrum/spectra of cultural representations" in networks of structural coupling between producers and audiences in the creative process of cultural production and consumption. In a nutshell, through the spectrum of production and consumption, autopoietic systems are able to contextualize the power relationships between producers and audiences and the meaning construction process by their constitutive practices to develop and reinvigorate cultural representations of digital cinematic

aesthetics and productions within the dynamics of digitalization and globalization (see Diagram 9) (Bourdieu, 1993; Brocklesby, 2009; Havens et al., 2009; Luhmann, 2000a, 2002; Seidl, 2005a; Storey, 2010).

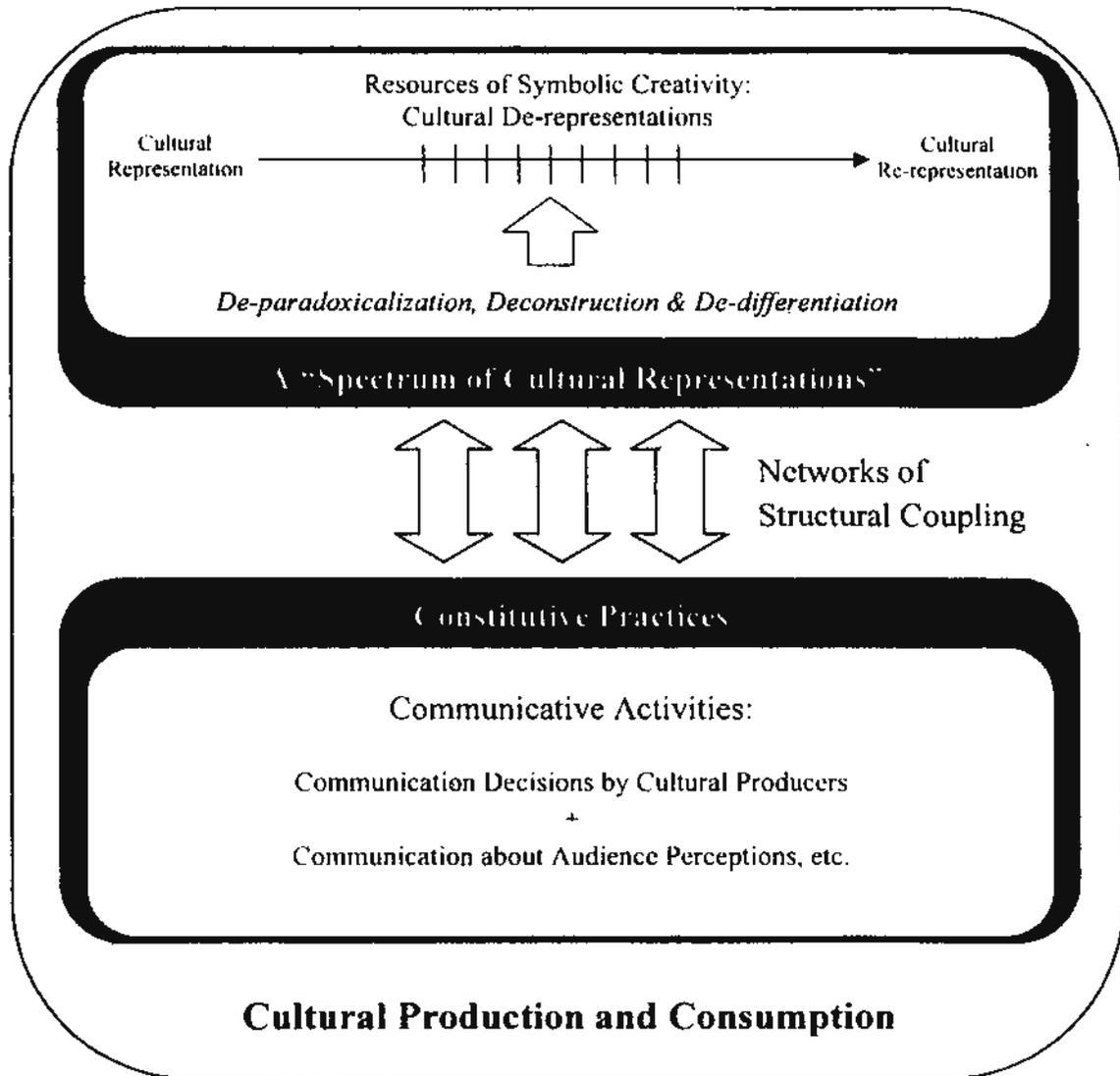


Diagram 9: Autopoietic systems of organization and representation in a spectrum of cultural production and consumption

Systems of organization and representation of the traditional Hong Kong director-oriented film industry show deficiencies, as well as some “ugly difficulties”, to deal with the processes of digital cinematic productions of increasing complexity and digitextuality by production/product differentiation and de-differentiation in the

era of globalization and digitalization (Bordwell & Staiger, 1988; Everett, 2003). On the one hand, without efficient producers-system, over workload and dependency upon individual film director in Hong Kong cinema makes organization and coordination of collective activities from pre-production to production and post-production in digital cinematic production more difficult, whereas most collaborating creative managers like cinematographer and art director who are supposed to share the coordination workloads are dismissed before the final stage of post-production. Thus, digital effects and computer animation production is terminally decided by film director and/or visual effects supervisor(s) in a particular sense. As newcomers in the field of cinematic production, most local visual effects supervisors are not independent enough to make decisions without consent from film director especially in the director-oriented Hong Kong cinema. Moreover, effective decision communication is difficult to be achieved because of inconsistent workflows by disparate creative managers and symbol creators working at different times, spaces and places with no consistent visual references like storyboards and art directing drawings for coordinating complex collaborative activities and sharing creative passion in digital cinematic production by trust systems of both faceless and facework commitments (Giddens, 1990; Hesmondhalgh, 2002). On the other hand, the loose and flexible systems of organization and representation, especially the limited production time and budget, in local digital cinematic productions indeed force local filmmakers and computer animators to employ alternative modes/choices of digital effects production via innovative situated practices by cultural experimentation under the socio-cultural contexts of “hyper-flexibility”. This leads to the advent of digital cinematic aesthetics and productions of Hong Kong

characteristics in both narration and narrative (Chan, 2002; Garfinkel, 1967; Hesmondhalgh, 2002; "Special Report: Hong Kong Digital Effects", 2009).

Chow's visual representations by digital amplification in his 3 digital cinematic productions are good examples of local innovative practices and representations/re-representations of increasing complexity and digitextuality by means of integrative economic-symbolic valorizations of Hong Kong hybrid cultures of "meaninglessness" and glocalized digital effects and computer animation of multi-layeredness. This facilitates the globalization/glocalization of his digital comedic movies by new visual culture and communication of unprecedented imaginary spaces and perspectives (Davis & Yeh, 2008; Lee, 2009; McClean, 2007; Thompson, 1995). Throughout the learning process of digital cinematic productions, some insights and contingent plans have been adopted by Hong Kong and Chinese cultural producers of creative media and film industries to shape and reshape the narrative and narration of digital cinema. They include the improvement of systems of coordination and interaction such as the outstandingly long and well-prepared pre-production for *Hero* and the unbelievably detailed conceptual storyboards as a production "bible" in *A Battle of Wits*. Such systems of organization and representation to reinforce effective communication and the interrelationships between pre-production, production and post-production facilitate innovative cultural practices and representations in digital cinematic productions by increasing complexity and digitextuality as well as by breaking those too familiar rules and routines of local film production culture. Unfortunately, they are still very limited to international/transnational co-productions of high concept and high budget that are, to a great extent, dominated by globally unique martial arts genres of non-Western fantasy in Hong Kong and Chinese

cinema (Luhmann, 2000a; Pang, 2007). However, such kind of blockbusting digital cinematic productions is usually reproduced in accord with stereotypical genre system and/or trial and error method without empirically valid consideration of audience tastes and aesthetic judgment by communication about audience perceptions. Such perceptions as mutually recognizable practices in the spectrum of cultural production and consumption are indispensable to achieve a harmonic understanding of the meanings and meaning construction of cultural representations in digital cinematic aesthetics and productions (Garfinkel, 1996; Grant, 2003; Neale, 2003; Rawls, 1996, 2002, 2006).

Although most local producers of creative media and film industries acknowledge the importance to arouse audience interest and appreciation of Hong Kong movies in order to reinvigorate local movie market and culture, they by no means put emphasis on any thorough understanding of audience perceptions and interpretations of digital cinematic aesthetics and productions. This is partly a result of the lack of reliable empirical research data in the field, but also partly a tradition of biased assumption of audience tastes and aesthetic values by producers' gut feeling (Chan et al., 2010; Crane, 1992). In this research, a special attention is paid to empirical analysis of audiences' roles in the meaning construction process of cultural representations by means of communication about their aesthetic perceptions of digital cinematic productions. Focus groups are used to study their unique repertoire of cultural practices as constitutive activities on the spectrum of cultural production and consumption to fully depict the complex power relationships between producers and audiences in a double contingency (Codde, 2003; Havens et al., 2009; Luhmann, 1995, 2000a). This audience reception/perception analysis helps understand how

audiences interpret the meanings of cultural representations as important “consumption harvest” as producers’ creative inscription of contingent preferred meanings on cultural production in an active relationship of structure and agency. It also explains how they receive or resist cultural representations of digital cinematic aesthetics via their selected encoding/decoding mechanisms with regard to their disparate movie-watching experiences and socio-cultural backgrounds (Hall, 1997c, 2006; Hartley, 2005; Storey, 2010). Although those focus group audiences’ perceptions of digital movies by a variety of cultural practices cannot define/determine the 10 digital cinematic aesthetics, their free play of imagination and interpretation of the meanings of cultural representations in digital cinematic productions vividly elucidates the empirical validity of those characteristics of digital cinematic aesthetics. And the polysemic meanings of cultural representations constructed by their enacted practices show the potential of sustainable development of digital cinematic aesthetics and productions by the imaginary space and power of digital effects and computer animation in unique, novel localism, globalism and glocalism under the Hong Kong hybrid and flexible media and cultural production systems. While most audiences agreed with the significance of seamlessness and believability and appreciated unprecedented spectacles by digital amplification and cinematic representations by imaginary perspectives and cross-historical, cross-cultural, cross-genre productions, free referencing, multiple-layered composition, patterning, collective imaginative inputs and cross-fertilization with comic as the new aesthetics of digital cinema are generally accepted and recognized to different extents. Nonetheless, many pinpointed the potential but immaturity of digital representations by cross-fertilization with video game in digital cinematic productions in terms of their practical actions and reasoning and in regard to their

understanding of the disjunctive experiences between movie-watching and game playing (Beardsley, 1982; Codde, 2003; Davis & Yeh, 2008; Garfinkel, 1967, 1996).

Individual interpretation of audience perception of digital cinematic aesthetics is meaningless, but audiences' discourses of interactive discussions that construct "collective representations" in line with producers' discourses of industrial-reflexive practices are meaningful, to the understanding of the "spectrum of cultural representations" within systems of organization and interaction in contemporary creative and cultural industries. Indeed, such collective representations as the categories of the understanding of the meanings of digital cinematic aesthetics and productions, especially in the creative process of de-paradoxicalization, are not individual choices, but are constructed and reconstructed by participants' (both cultural producers and audiences') collective activities as enacted practices in the spectrum of cultural production and consumption. These enacted and discursive practices, by means of interactive communication, help understand empirically the main gaps and trajectories of cultural practices and representations in dynamic relationships between producers and audiences as group members of "mutual intelligibility". This is "a mutual engagement between persons in a sequential production in which persons must make use of tactics and strategies" leading to "the possibility of communication" in the creative processes of cultural production and consumption (see Diagram 9), thus transforming the empirical validity of knowledge over abstract aesthetic arguments. In other words, their enacted and discursive practices in the complex model of the "spectrum of cultural representations" constitute and are constitutive of empirical evidences to support the advent of the 10 digital cinematic aesthetics as the meanings of life in the form of their creative

production and consumption (Caldwell, 2008; Durkheim, 1995; Ogien, 2009; Rawls, 1996, 2001, 2006: 38, 2008).

Throughout this research, cultural practices by members of production and consumption as primary social phenomena that construct “collective representations” or the “spectrum of cultural representations” as secondary phenomena are intensively studied to empirically discern the micropolitics of cultural representations and corresponding power relationships between producers and audiences and between organizations and human agents in terms of their aesthetic and cognitive reflexivity. Individual idea or representation like one’s creative passion (by individualism) is meaningless in terms of empirical validity unless it is shared to enact social and cultural practices in coordinating and collaborating systems of organization and representation, like those operational systems in contemporary creative and cultural industries (Durkheim, 1995; Havens et al., 2009; Lash & Urry, 1994; Rawls, 1996, 2001). Such shared creative passion as motivational power/thought to cultural appropriation and experimentation leading to innovative cultural representations of digital cinematic aesthetics and productions by structural coupling is nourished and sustained by the reward systems of organizations, peer groups of producers – especially those gatekeepers, and audiences. These reward systems are constituted by and constitutive of cultural producers and audiences’ enacted practices as mutual commitments to rules and orders of engagement in the spectrum of cultural production and consumption (Garfinkel, 1996, 2006; Peterson, 1994; Rawls, 1996, 2006; Watson, 2009).

Unfortunately, an initial plan of production analysis to follow through the overall creative processes of a local digital cinematic production, with a view to studying in situ production practices by complete participant observation, has been given up for some reasons of difficulty. Such production analysis of in situ practices of real life enactment “from within actual settings” and contexts is more trustworthy to construct the empirical validity of knowledge of cultural practices and representations rather than post hoc interviews with production insiders who may not recall all memories, may be biased for their preferred readings, and/or may veil some important details for non-disclosure and confidentiality agreements between imagined representative community members and film production companies (Caldwell, 2008; Garfinkel, 1967: viii; Rawls, 2006; Tashiro, 2002). Nevertheless, the validity of discourses of those in-depth interviews is enhanced by triangulation with discourses of other producers, media texts and focus group discussions, as well as some ethnographic studies of industrial-reflexive practices in the field of creative media and film industries. Indeed, this study has tried the best to achieve empirically valid knowledge of cultural practices and representations in digital cinema of complexity and uncertainty by a 3-dimensional investigational model concerning production, textuality and consumption in a holistic manner (Caldwell, 2008; Rose, 2007). But, to be honest, this research only represents a demonstration of the complex model of the “spectrum of cultural representations” by contingent practical actions and reasoning in digital cinematic aesthetics and productions (Garfinkel, 1967, 1996; Ogien, 2009). More empirical research studies of disparate systems of organization and representation and different members’ social and cultural practices of unique repertoires in different sectors of creative and cultural industries such like architecture, design, performance arts, digital entertainment and so forth need to be

conducted. They are required to evidence the validity of knowledge of this paradigmatic complexity model of cultural representations in our networked societies of the rapid reinstitutionalization of cultural production systems and the rapidly changing digital media technologies, cultures, aesthetics, as well as generations (Codde, 2003; Palfrey & Gasser, 2008; Peterson & Anand, 2004; Tomlinson, 2007).

### **New Waves from New Generation**

Indeed, some new creative media organizations of digital effects and computer animation founded by a new generation of entrepreneurs who are mostly former visual effects supervisors and computer animators of Centro and Menfond have just participated in new waves of digital cinematic productions and unveiled new insight of media aesthetics and production of cultural representations in Hong Kong and Chinese digital cinematic productions during the proceeding of this PhD research. These small (but more flexible) creative media production houses established after 2004 include Ko Fai's Fatface Production Limited ([www.fatface.hk](http://www.fatface.hk)), Ken Law's Different Digital Design Limited ([www.different.com.hk](http://www.different.com.hk)), Clement Cheng's Bravo Digital Design Corporate Limited<sup>1</sup>, and Yee and his partners' Free-D Workshop Limited ([www.freedworkshop.com](http://www.freedworkshop.com)). They are all new innovative task forces to digital media and cinematic productions in Hong Kong. All their founders and creative managers/gatekeepers were, fundamentally speaking, trained up to a great extent by former working practices in Centro and Menfond in collaboration with different flexible film and media production organizations and nomadic creative labors. Their industrial-reflexive production skills and status quo as trustable creative

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<sup>1</sup> Cheng, who was still visual effects supervisor of Menfond during my interview in 2008, has just established his own company with some colleagues in 2010. Moreover, he also collaborates with Law's company as a kind of production synergy of flexibility and reciprocity.

managers and symbol creators of digital effects production in the field are achieved by lived experiences as cumulative knowledge and mutual trust with collaborating media and film producers (Caldwell, 2008; Hesmondhalgh, 2002). They have, to a certain extent, answered Poon and Shi's query/worry about the coordination ability of local visual effects supervisors in digital cinematic productions. After a decade of working practices by cultural appropriation and experimentation, the new generation of digital media artists like Ko Fai, Law and Cheng has successfully constituted facework trust in/with people by their shared creative passion in digital cinematic aesthetics and productions. This is an important step of the long-term evolution of the power structure of cultural production systems whereupon this new generation of creative managers of symbolic creativity, in a vivid Cantonese slang "yau say" (getting the negotiation and coordination power) as Lui said, acquires an increasing level of symbolic power and creative autonomy during digital cinematic production. But we should bear in mind that that symbolic power during cultural production in the Hong Kong director-oriented cinema is still highly asymmetrical. Moreover, trust in systems of organization and representation in terms of faceless commitments to more rigid forms of rules and routines of cultural production like full script and professional storyboarding is slowly and unstably developed. It is quite stagnant in the face of controversial and paradoxical power struggling by structural coupling between social systems of institutional organization and psychic systems of individual creativity in local digital cinematic productions of inherited famously short production time, especially the pre-production and post-production periods. This makes it difficult to absorb uncertainty by effective decision communication in the process of digital cinematic production of increasing complexity and digitextuality and stifles the development of novel digital cinematic aesthetics in

Hong Kong by newcomers of symbolic creativity in the era of digitalization (Giddens, 1990; Hesmondhalgh, 2002; Luhmann, 2000a, 2005b; Seidl, 2005a; Stokes & Hoover, 1999; Thompson, 1995).

These mature visual effects supervisors and computer animators of the new generation of creative media organizations have similar prior working experiences and shared creative passion in the field and influence very much the new waves of development of digital cinematic aesthetics and productions in Hong Kong and China. Law still preserves and extends his belief of research and development by (local-style – more local-culture-driven and time-and-money resources limited) technical and cultural experimentation for innovative design to his colleagues, and is trying to further develop his idea of production synergy by global collaboration among nomadic computer animators all over the world under the convenient circumstances of globalization and digitalization. Indeed, he invited an experienced British freelance computer animator to help design photorealistic eyes for the extraterrestrial dog in *CJ7* via internet social network (see Chapter 7). Besides, Ko Fai's Fatface is probably the most outstanding representative of the new generation of creative media entrepreneurs in the field of digital cinematic productions. It have shortly achieved a number of Best Visual Effects awards at the 29<sup>th</sup> Hong Kong Film Awards in 2010 by the Pang Brothers' (彭氏兄弟) *The Storm Warriors* (風雲 II, 2009) – a sequel of *The Stormriders*, at the 2<sup>nd</sup> Asian Film Awards, the 27<sup>th</sup> Hong Kong Film Awards and the 45<sup>th</sup> Golden Horse Awards in 2008 by Peter Chan's (陳可辛) *The Warlords* (投名狀, 2007), and at the 26<sup>th</sup> Hong Kong Film Awards and the 27<sup>th</sup> Oporto International Film Festival in 2007 by the Pang Brothers' *Re-Cycle*

(鬼域, 2006). As Ko Fai mentioned, there are many outstanding computer animators in Hong Kong but coordinating collaboration is the key problematic in local digital cinematic productions. Owing to the bulky production scale of *Re-Cycle* that is Fatface's first digital cinematic production project, he decided to found his own production company to consolidate the creative power of a team of computer animators in 2004. However, as he said, his company is coordinated by his own means and follows his own personality – in other words, his shared creative passion, which his company and its creative artists deserve to have enough production time to experiment what they want to be innovative and to produce high quality digital effects and computer animation. Or, as he mentioned, those filmmakers of no time and patience should not find him and his company. This is not a false statement but the will power by creative passion shared among Ko Fai and his collaborative colleagues in Fatface. And such a shared passion towards creative production, to a great extent, reveals the new waves of digital cinematic aesthetics and productions in Hong Kong for further studies in response to this study of the complexity model of cultural representations via creative practices by integrative economic-symbolic valorizations.

Indeed, Fatface spent almost 2 years to prepare and produce those digital visual effects in both *Re-Cycle* and *The Storm Warriors*, that is, a relatively long period of pre-production and post-production comparable to *Hero* and *A Battle of Wits*. Especially in *The Storm Warriors*, the film shooting only took several months mainly in front of a green-screen studio in Thailand and almost 90% production budget was invested to digital effects production. Finally, the movie presents sophisticated, reinvigorated and awarded digital visual representations of comic-style

martial arts by a new wave of digital cinematic effects by means of cross-fertilization with local comic and glocal digital media cultures to a new standard in Hong Kong. Systematic preparation of pre-visualization like storyboarding and animatics, coordination on location shooting, and collaboration with filmmakers and his own colleagues are the beliefs and the symbolic power and values of Ko Fai and his Fatface to reduce mistakes and, in other words, to save time for innovative quality productions (“Cover Story: The Pang Brothers’ Storm Warriors” in *Hong Kong Film*, “風雲 II - 彭氏風雲”, 香港電影, 2008; “Special Report: Hong Kong Digital Effects”, 2009; see [http://www.cgvisual.com/headlines/Fatface\\_stormWarriors/CGVheadlines\\_StormWarriors\\_p1.html](http://www.cgvisual.com/headlines/Fatface_stormWarriors/CGVheadlines_StormWarriors_p1.html) and [http://www.cgvisual.com/headlines/ReCycle/CGV\\_headlines\\_ReCycle\\_p1.htm](http://www.cgvisual.com/headlines/ReCycle/CGV_headlines_ReCycle_p1.htm), cited in Dec. 22<sup>nd</sup> 2010). This empirically evidences the significance of systems of coordination and interaction in the creative process of cultural representations in digital cinematic aesthetics and productions of increasing complexity and flexibility. Such systems of organization and representation as those demonstrated by case studies in this research are reflected by the “spectrum of cultural representations” as a framework to understand the social functions of both producers and audiences to the meaning construction of new digital cinematic aesthetics.

Furthermore, we can see the advent of new waves of digital cinematic productions demonstrated by this new generation of creative media entrepreneurs of unprecedentedly fruitful, authentic and trustworthy practical experiences of digital effects production, as well as digital aesthetics, in the field. After acquiring trust from filmmakers, especially film directors, they are struggling for more reasonable production time and budget, and developing more reliable systems of organization

and representation, especially for pre-production and pre-visualization. All these are inevitable for the production of more rewarding innovative design of digital effects and computer animation in digital cinematic productions by means of effective (visual) communication and in terms of their shared creative passion. As a group leader or creative manager of a production team, Cheng, who cares very much of his family, told me that he would persuade his subordinates to go home earlier in order to save their physical energy and creative passion for long-term battles of digital media and cinematic productions. Similarly, Ko Fai also said that self-control is important to creative production whereupon one should not do everything he/she thinks. This is relevant to cultural production in contemporary creative and cultural industries contextualizing the interrelationships between complexity, creativity, and systemicity by the flexible and contingent coordination and collaboration among creative managers and symbol creators (Bourdieu, 1993, 1996; Hesmondhalgh, 2002, 2006). Redundant ideas are meaningless; enough variety to fit the purpose is the innovation. This is the shared creative passion leading to systematic organization and representation of digital cinematic and media productions in Fatface. Indeed, the local media ecology of digital effects and computer animation production is kept changing. The new waves of local digital cinematic productions put more emphasis on quality and believability as relevant to what most focus group audiences in this study requested to create either photorealistic imageries of (imagined) historic/nostalgic representations like *The Warlords* (see Figure 9.1) and *Bodyguards and Assassins* (十月圍城, 2009)<sup>2</sup> or spectacular images of fantastical representations

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<sup>2</sup> *Bodyguards and Assassins* won Best Film, Best Director (Teddy Chan, 陳德森) and many other awards at the 29<sup>th</sup> Hong Kong Film Awards in 2010. (It was also nominated for Best Visual Effects Award but defeated by *The Storm Warriors*; digital effects of both movies were produced by Fatface.) In the award ceremony, Peter Chan proudly accepted Best Film Award in the name of the movie's (Executive) Producer of symbolic creativity and clearly declared the important role of producer(s), as

like *Re-Cycle* (see Figure 9.2) and *The Storm Warriors*. Such new waves of digital cinematic representations by new generation of entrepreneurs as creative managers and gatekeepers of their unique and flexible practical actions and reasoning – their shared creative passion – in digital effects production to satisfy the changing demands of filmmakers', as well as audiences', cultural tastes and aesthetic values deserve to be further empirically studied via their social and cultural practices in the field (Caves, 2000; Fuller, 2005; Garfinkel, 1967, 1996).

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well as producers-system, in the development of Hong Kong cinema. This is relevant to the systems theory of cultural production of increasing complexity and digitextuality we are studying in this research.

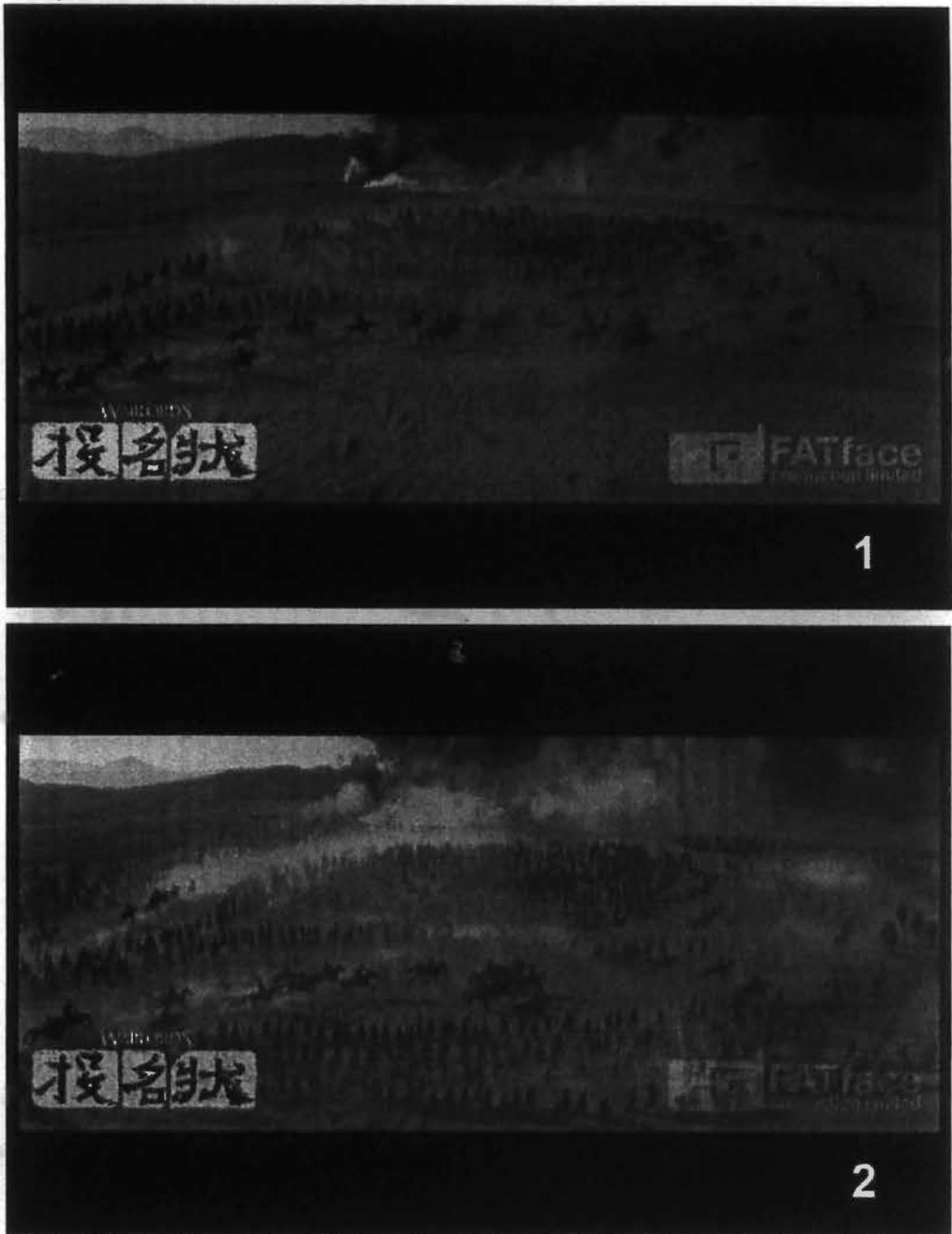


Figure 9.1: Screen-shots of Fatface's photorealistic digital effects and compositing in *The Warlords* (1: before compositing; 2: after compositing)

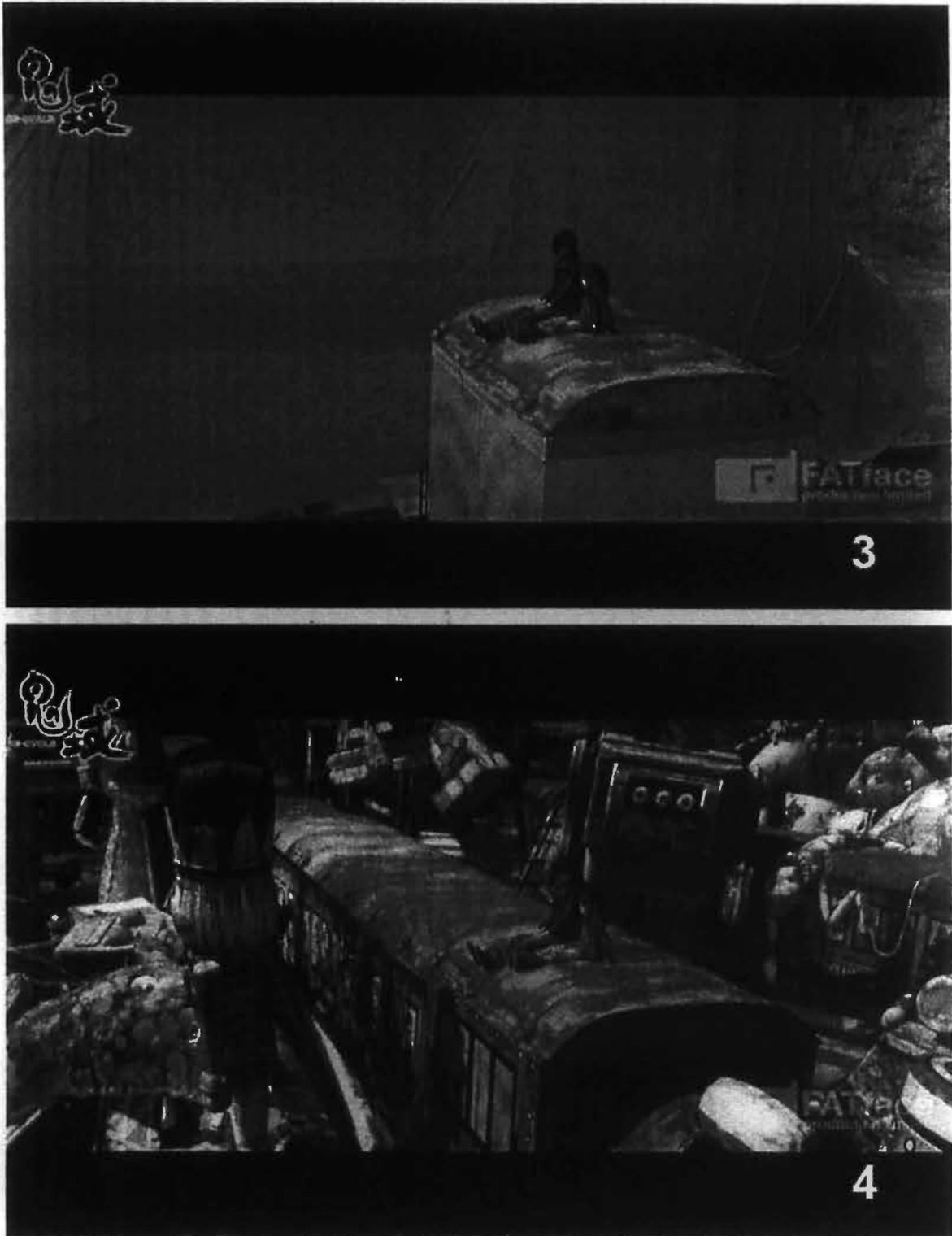


Figure 9.2: Screen-shots of Fatface's fantastical effects production in *Re-Cycle* (3: huge green-screen shooting on location; 4: digital compositing of hyperreality)

## **Paradox of Theory and Practice**

This study of autopoietic systems of organization and representation concerning cultural practices by both producers and audiences in the spectrum of production and consumption is paradoxical itself. Its theoretical frameworks of complexity, creativity and systemicity based on complexity and cultural theories of transdisciplinary perspectives and its investigational subject matter – digital cinematic aesthetics – are highly abstract and conceptual, that is, seemingly unfavorable to the empirical understanding of the “spectrum of cultural representations”. However, such complexity and abstraction is the essence of critical media and cultural studies looking for the power relations between producers and audiences during the meaning construction process rather than the definition(s) of cultural representations, and the social reality we have to encounter when we decide to build new theory and knowledge from past experiences and cumulative knowledge of human and social beings of increasing complexity and uncertainty in postmodern networked societies (Havens et al., 2009; Kim, 2003; Kuhn, 1996). It is clearly stated in the introduction that this research aims at building theory by grounded empirical studies. Constitutive practices of both producers and audiences of disparate unique repertoires as mutual commitments to members and rules and orders of engagement in the process of cultural production and consumption not merely provide empirical evidences for understanding the meaning construction of the “spectrum of cultural representations”, but also arouse a significant academic debate of the paradoxical relationship between theory and practice, which deserves to be further unfolded here before to close this thesis (Codde, 2003; Garfinkel, 2006; Rawls, 2002, 2006, 2008; Watson, 2009).

Dogmatic uses of analytic theories as dummy models are accused of hiding the details of working practices and thus, rendering social facts invisible; formal analytic practices of institutional empiricism favors taken-for-granted generalization leading to the crisis of knowledge. Although theory is a process of abstraction and conceptualization whose function is to rationalize, to explain, and to impart knowledge to our fellow scholars or candidates, it should create new knowledge in a way of advocating or enabling them to think creatively via practices but not in the form of dogma (Connolly, 2008; Popper, 1959). And practices that constitute and are constitutive of mutually recognizable collective activities of everyday lives represent a kind of accumulated wisdom based on past trial and error. This constructs empirical evidences that new knowledge of empirical validity arises from engaging in enacted social and cultural practices. In a nutshell, “practice and theory cannot exist without each other” (Connolly, 2008: 486; Garfinkel, 2002, 2006; Rawls, 1996, 2002, 2006). The discovery of new theoretical knowledge is from engagement in communicative activities via the wisdom of constitutive practices in life-worlds. This research of theory building by grounded empirical studies, indeed, demonstrates a de-paradoxicalizing mechanism to absorb uncertainty of theories and practices in a dialectic relationship that is porous to allow our free imagination and interpretation. More precisely speaking, complexity and cultural theories guide me to construct a conceptual and directional model of the “spectrum of cultural representations”, to begin the research of the empirical validation of knowledge via social and cultural practices of both producers and audiences “from within” actual contexts of digital cinematic productions and their consumption/aesthetic perceptions, and to proceed with multidimensional research methods and methodologies, with a view to producing new knowledge via practical actions and reasoning. This study leads to a

new theory and paradigm of cultural representations in digital cinematic aesthetics and productions in terms of autopoietic systems of organization and representation in contemporary creative and cultural industries of increasing complexity and digitextuality. It is conceptually abstract but empirically valid whereas theoretical thoughts are inevitably structurally coupled with social and cultural practices of our enacted lives (Connolly, 2008; Garfinkel, 1967, 2006; Luhmann, 2002, 2005a; Ogien, 2009; Rawls, 1996, 2006; Seidl, 2005a). The “spectrum of cultural representations” empirically evidences the complexity, creativity and systemicity of digital cinema leading to the advent of new digital cinematic aesthetics by both producers and audiences of unique repertoires of cultural practices within new dynamics of digitalization and globalization.

As Hall (1997c) mentions, the meaning of cultural representations is dependent on the relationship between conceptual systems and people’s practices, and has no single, unchanging, universal interpretation. In terms of Wittgenstein’s language games, it is shown but cannot be said by “obeying a rule” that is not the same thing as “interpreting a rule” and that is a practice instead of a thought (Connolly, 2008: 490; Monk, 2005; Wittgenstein, 1969). Besides, the implication of a work of art or representation does not always relate to direct physical reality and “mean rational logical implication”, like “the poem: Roses round the door, make me love mother more” (Garfinkel, 2006: 122). To perceive a representation is meant to locate it within the systems of organization and representation via constitutive practices of sociality and reflexivity by structural coupling between social and psychic systems. But the meaning(s) of perception that includes the abstract implication or expectation of the aesthetic pleasure by conscious/unconscious feeling

of cultural representation cannot be fully written and explained. As a poem's representations mediate its meaning by the distinction between actuality and possibility/impossibility, it cannot be interpreted as true or false (Bakken et al., 2009; Luhmann, 2000a). At the end of this transdisciplinary study of complexity theories and practices of humanities and social sciences, I vote to a special concern to hermeneutics that the meaning of cultural representations can be interpreted and communicated but only be terminally understood by one's consciousness. This explicates the immortal innovation by autopoietic systems of organization and interaction among people of symbolic creativity in creative and cultural industries. Let us finish this thesis by practicing our own perception of cultural representations in a work of art by complexity from simplicity like the feeling/reading/watching of a poem or digital cinema.

“詩的語言”

方文山

午夜的风聲 怎麼能被形容成一輪皎潔  
花的顏色 又怎麼會帶著 淡淡的離別  
所謂 憂鬱的空氣 落筆後要怎麼寫  
最後 一直到你的微笑 在我的面前 滿山遍野  
親愛的 我這才開始對詩的語言 有些 了解

“The Language of Poetry”

The sound of mid-night wind how can it be described as a clear and bright moon  
The color of flower how can it carry a light taste of farewell  
So-called the air of melancholy shall it be written  
Lastly until your smile before me blossoming over the mountain and the field  
Dear I have just started for the language of poetry to have a little understanding

(Fang, 2006: 211)

## Appendix I: List of 18 Production Interviews

- 1 Lewis Au  
Former junior computer animator of Centro, working for the production of *Shaolin Soccer*
- 2 Clement Cheng, 鄭耀明  
Former visual effects supervisor of Menfond, working for the production of *A Battle of Wits*; founder of Bravo Digital Design Corporate Ltd.
- 3 Felix Chong, 莊文強  
Scriptwriter and director
- 4 Frankie Chung, 鍾志行  
Former creative director and head of animation of Centro, working for the production of *The Stormriders*, *A Man Called Hero*, *Shaolin Soccer*, *Kung Fu Hustle*, and *The Promise*, etc.
- 5 Wellington Fung, 馮永  
Film producer; founding partner of Media Asia
- 6 Bismarck Ho  
Senior computer animator of Menfond, working for the production of *A Chinese Tall Story* and *CJ7*, etc.
- 7 Ken Law, 羅偉豪  
Former visual effects supervisor and computer animator of Centro and Menfond, and founder of Different Digital Design Ltd., working for the production of *Shaolin Soccer* and *CJ7* etc.
- 8 Lik-chee Lee, 李力持  
Director and scriptwriter, working for the production of *Shaolin Soccer*
- 9 Olive Leung, 梁善雯  
Former motion graphics designer of Centro; lecturer of applied and media art of Hong Kong Art School
- 10 Bill Lui, 雷楚雄  
Art director and consultant, working for the production of *The Twins Effect*, *A Chinese Tall Story*, and *Lust, Caution* etc.

Appendix I: List of 18 Production Interviews

- 11 Ko Fai (Yuen-fai Ng), 高輝 (吳炫輝)  
Former computer animator of Centro, working for the production of *A Man Called Hero*; founder and visual effects supervisor of Fatface Production Ltd., working for the production of *Re-Cycle*, *The Warlords*, *The Storm Warriors*, and *Bodyguards and Assassins* etc.
- 12 Ellen Poon, 潘國瑜  
Visual effects supervisor and consultant, working for the production of *The Stormriders and Hero* etc.
- 13 Nansun Shi, 施南生  
Producer and co-founder of Film Workshop, working for the production of *The Butterfly Murders*, *Zu: Warriors from the Magic Mountain*, and *The Legend of Zu* etc.
- 14 Nelson Tam, 譚海鳴  
Former computer animator of Menfond; lecturer of applied and media art of Hong Kong Art School
- 15 Kan-cheong Tsang, 曾瑾昌  
Scriptwriter, working for the production of *Shaolin Soccer*, *Kung Fu Hustle*, and *CJ7* etc.
- 16 Ain-ling Wong, 黃愛玲  
Film critic and researcher
- 17 Ying Wong, 黃英  
Animation producer, helping Cinefex Workshop set up the production division of computer animation and working for *A Chinese Ghost Story II*
- 18 Margaret Yau, 游潔晶  
Producer, working for the production of *A Battle of Wits*

## **Appendix II: Focus Group Research Design**

### **A. Focus Group Recruitment**

Snowball sampling via referrals among people of similar characteristics of the research purpose was used to recruit those focus group participants. Over 100 applications by a specifically designed recruitment questionnaire as a screening frame were received and finally, 5 focus groups of 37 participants, 7 to 8 in each group, were successfully conducted. They included 3 different age groups of general movie audiences: (A) 18 to 24, (B) 25 to 39, and (C) 40 or above, and 2 different age groups of movie amateurs: (E1) 18 to 24 and (E2) 25 to 39. Indeed, a group (D) of professional workers of digital cinematic productions and a group (E3) of movie amateurs aged 40 or above failed to be recruited for some authentic difficulties. Here the recruitment questionnaire is provided for understanding the logic of the sample screening. The original is in Chinese as the focus groups were all conducted in Cantonese; the English version is translated for non-Chinese readers only.

## 香港中文大學 新聞與傳播學院

“香港數碼特技電影” 博士研究 小組訪問 參與者申請表

香港中文大學新聞與傳播學院博士候選人林萃光正在進行一項關於香港數碼特技電影創作的研究，目的為探討香港市民對此類運用不少電腦動畫及視覺特技效果的香港電影的觀感或意見。

2009年一月至三月初期間，本人將就以上研究，進行小組訪問(七至八人一組，觀看短片後，由主持人發問問題，參與者說出自己看完短片後的感覺或意見)。

有興趣參與小組訪問的人士可於下表填妥基本資料，本人會於稍後時間聯絡被選中者。為答謝每位被選中而又能抽空參與小組訪問的人士，本人會給予每位參與者港幣XXX元作車馬費。以下為小組訪問的資料及參與者申請表格：

參加者資格:	18歲或以上的香港居民(說廣東話)
日期及時間:	2009年1月至3月初 星期一至五(晚上) 或 星期六/日(下午) (確實日期及時間待定)
地點:	沙田 - 中文大學 新亞書院 新聞與傳播學院 或 九龍塘 - 城市大學
訪問為時:	約一個半至兩小時
小組訪問人數:	每組8人
車馬費:	每位港幣XXX元
申請辦法:	請填妥本表格後，電郵至 <a href="mailto:sunny.xxx@gmail.com">sunny.xxx@gmail.com</a> 或 傳真到(852) 2603 xxx7 林萃光先生 收
查詢:	9xx3 3xx8 (林先生 - 中文大學 新聞與傳播學院 博士候選人)

**Part I:**

**參與者申請表格** (越多日子及地點可以出席，被選中的機會越高。所有提供的資料，絕對保密。)

姓名	性別	年齡	學歷	職業	聯絡電話	可以出席 或 不可以出席的日子 星期一至五(晚上) 星期六/日(下午) (o 代表可以出席) (x 代表不可以出席)							可以出席 或 不可以出席的地點 (o 代表可以出席) (x 代表不可以出席)	
						一	二	三	四	五	六	日	沙田 中文大學	九龍塘 城市大學

## Part II:

## 參與者 基本資料統計

(1) 過去一年你去過多少次電影院觀看電影? \_\_\_\_

請大約區分你過去一年在電影院所看電影的百分比(總和應為100%):

- (A) 香港或中港合資的電影 百分之 \_\_\_\_%
- (B) 荷里活或其他外國製作的電影 百分之 \_\_\_\_%

(2) 過去一年你有幾經常在家觀看電影(包括影碟或電視台播放的電影)? \_\_\_\_

請大約區分你過去一年在家觀看電影的百分比(總和應為100%):

- (A) 香港或中港合資的電影 百分之 \_\_\_\_%
- (B) 荷里活或其他外國製作的電影 百分之 \_\_\_\_%

(3) 請在你曾經看過的電影前面的方格  加上  號(包括在家中收看相關影碟或電視台的播放都計算在內)。

- a. 【風雲】(鄭伊健、郭富城)  b. 【中華英雄】(鄭伊健、謝霆鋒)  c. 【少林足球】(周星馳)
- d. 【功夫】(周星馳)  e. 【長江七號】(周星馳)  f. 【蜀山傳】(2001)
- g. 【英雄】(張藝謀)  h. 【無極】(陳凱歌)  i. 【墨攻】(張之亮)
- j. 【2002】(謝霆鋒、馮德倫)  k. 【千機變】(Twins, 2003)  l. 【情癡大聖】(2005)
- m. 【頭文字D】(周杰倫, 2005)  n. 【十面埋伏】(張藝謀)  o. 【畫皮】(甄子丹, 2008)
- p. 【Titanic】(鐵達尼號)  q. 【Fight Club】(搏擊會)
- r. 【The Matrix】(廿世紀殺人網絡)  s. 【The Lord of the Rings】(魔戒)  t. 【Spider Man】(蜘蛛俠)

(4) 你對以上所收看過的數碼特技電影的平均觀感是正面還是負面,請以0至10評分

(0為非常正面,10為非常負面)。

- a. \_\_\_\_ b. \_\_\_\_ c. \_\_\_\_ d. \_\_\_\_ e. \_\_\_\_ f. \_\_\_\_
- g. \_\_\_\_ h. \_\_\_\_ i. \_\_\_\_ j. \_\_\_\_ k. \_\_\_\_ l. \_\_\_\_
- m. \_\_\_\_ n. \_\_\_\_ o. \_\_\_\_ p. \_\_\_\_ q. \_\_\_\_ r. \_\_\_\_
- s. \_\_\_\_ t. \_\_\_\_

(5) 除了看電影,你也熱衷於以下那些的媒體娛樂消遣,請在你熱衷的項目旁邊的方格  加上  號。

- 卡拉OK  漫畫  小說
- 上網  動畫  電子遊戲
- 電視  其他(請註明: \_\_\_\_\_)

\*\*\* 你已經完成整份申請表格,請電郵或傳真給 林先生,謝謝你的幫忙 \*\*\*

**School of Journalism and Communication, Chinese University of Hong Kong**  
**“Hong Kong Digital Cinematic Productions” PhD Research**  
**Focus Group Application Form**

The PhD candidate - Sunny S. K. Lam of the School of Journalism and Communication in the Chinese University of Hong Kong is conducting a research about Hong Kong digital cinematic productions. The research purpose is to investigate the perceptions and opinions of Hong Kong audiences toward such kind of local movies of innumerable digital effects and computer animation.

From January to March 2009, I will conduct focus groups for the aforementioned research (7 to 8 persons per group will be watching movie footages together, a moderator will raise some questions and the focus group participants express their own feelings and opinions for the movies).

Person who is interested in joining the focus group can fill in this form and I will contact those selected people as soon as possible. For thanking those successfully participated people and compensating for their valuable time, each successful participant will be given an honorarium of HK\$XXX after finishing the focus group. Below is the information about the focus group and the application form:

- 
- Applicant criteria: 18 years old or above, Hong Kong residents (speaking Cantonese)
- Date and time: January to early March, 2009  
 Mon to Fri (evening) or Sat/Sun (afternoon)  
 (Exact date and time to be confirmed)
- Venue: School of Journalism and Communication, New Asia College, Chinese University of Hong Kong, Shatin, or City University of Hong Kong, Kowloon Tong
- Length: Around 1.5 to 2 hours
- Focus group size: 8 persons per group
- Honorarium: HK\$XXX
- Application method: Fill in this application form and then email to [sunny.xxx@gmail.com](mailto:sunny.xxx@gmail.com) or fax to (852) 2603 xxx7, attention to Mr. Lam
- Enquiry: 9xx3 3xx8 (Mr. Lam - PhD Candidate, School of Journalism and Communication, Chinese University of Hong Kong)

**Part I:**

**Application Form** (Higher availability, higher rate to be selected. All provided information will be kept confidential)

Name	Sex	Age	Qualification	Occupation	Contact Number	Date and Time available or Unavailable to attend <i>Mon to Fri (evening) Sat/Sun (afternoon)</i> (o means available) (x means unavailable)							Venues available or Unavailable to attend (o means available) (x means unavailable)	
						Mon	Tue	Wed	Thu	Fri	Sat	Sun	Chinese University, Shatin	City University, Kowloon Tong

**Part II:**

**Applicant's Information Survey**

(1) How many times did you go cinema to watch movies last year?

Approximately divide the ratio of movies you watched inside cinema (The sum is 100%):

- (A) Hong Kong or Hong Kong and China co-produced movies \_\_\_\_\_ %  
 (B) Hollywood and other foreign movies \_\_\_\_\_ %

(2) How frequent did you watch movies at home last year (including DVDs or movie screening on TV channels)?

Approximately divide the ratio of movies you watched at home (The sum is 100%):

- (A) Hong Kong or Hong Kong and China co-produced movies \_\_\_\_\_ %  
 (B) Hollywood and other foreign movies \_\_\_\_\_ %

(3) Put  inside  in front of each movie you had watched before (including DVDs or screenings on TV channels).

- |   |   |   |
|---|---|---|
| <input type="checkbox"/> a. The Stormriders       | <input type="checkbox"/> b. A Man Called Hero       | <input type="checkbox"/> c. Shaolin Soccer              |
| <input type="checkbox"/> d. Kung Fu Hustle        | <input type="checkbox"/> e. CJ7                     | <input type="checkbox"/> f. The Legend of Zu (2001)     |
| <input type="checkbox"/> g. Hero (2002)           | <input type="checkbox"/> h. The Promise (2005)      | <input type="checkbox"/> i. A Battle of Wits (2006)     |
| <input type="checkbox"/> j. 2002                  | <input type="checkbox"/> k. The Twins Effect (2003) | <input type="checkbox"/> l. A Chinese Tall Story (2005) |
| <input type="checkbox"/> m. Initial D (2005)      | <input type="checkbox"/> n. House of Flying Daggers | <input type="checkbox"/> o. Painted Skin (2008)         |
| <input type="checkbox"/> p. Titanic               | <input type="checkbox"/> q. Fight Club              | <input type="checkbox"/> r. The Matrix                  |
| <input type="checkbox"/> s. The Lord of the Rings | <input type="checkbox"/> t. Spider Man              |   |

(4) Use 0 to 10 to evaluate your feeling towards those movies you had watched in the list above

(0 means very positive feeling, 10 is very negative)

- |         |         |         |         |         |         |
|---------|---------|---------|---------|---------|---------|
| a. ____ | b. ____ | c. ____ | d. ____ | e. ____ | f. ____ |
| g. ____ | h. ____ | i. ____ | j. ____ | k. ____ | l. ____ |
| m. ____ | n. ____ | o. ____ | p. ____ | q. ____ | r. ____ |
| s. ____ | t. ____ |         |         |         |         |

(5) Apart from movie-watching, please put  inside  in front of your actively participated media entertainments.

- |                                   |  |                                     |
|-----------------------------------|--|-------------------------------------|
| <input type="checkbox"/> Karaoke  | <input type="checkbox"/> Comic                   | <input type="checkbox"/> Novel      |
| <input type="checkbox"/> Internet | <input type="checkbox"/> Animation               | <input type="checkbox"/> Video game |
| <input type="checkbox"/> TV       | <input type="checkbox"/> Other (Specify : _____) |                                     |

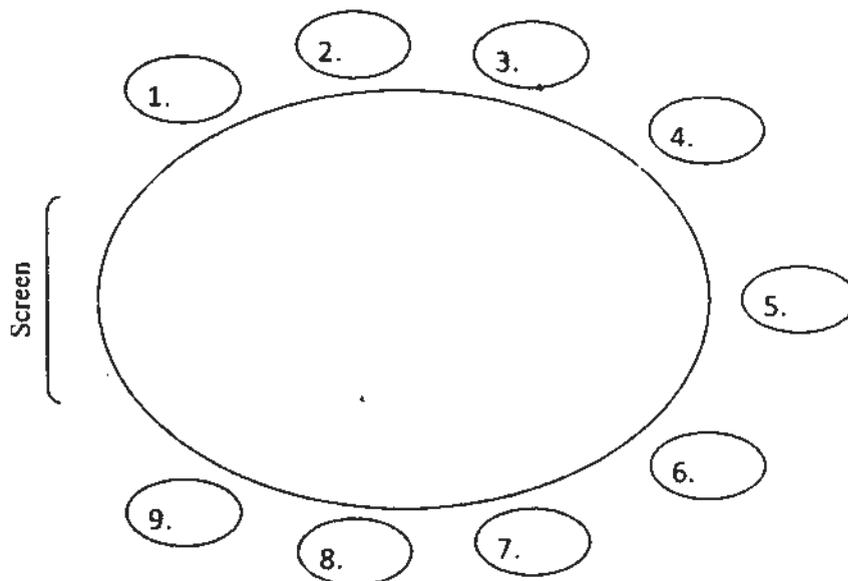
\*\*\* You have finished the application form. Please email or fax it to Mr. Lam. Thanks your help! \*\*\*

## B. Focus Group Proceeding

Finally, 4 focus groups were conducted in similar classrooms of the City University of Hong Kong in Kowloon Tong that is more accessible to most focus group applicants and 1 group of undergraduates was conducted in Hong Kong Shue Yan University. A student helper was responsible for picking up those participants except those undergraduates who came themselves from another classroom. I worked as the moderator preparing all the materials and equipments inside the classroom and welcoming those arrival participants. Throughout the focus group, soft drinks and refreshments were provided to maintain a casual, comfortable environment for open discussion.

### (1) Focus Group Seating Plan

Each focus group participant was pre-assigned a seat with his/her name written beside a number on the seating plan. The helper guided the arrival participant to get his/her corresponding sticker label of name and to seat accordingly. The moderator seated in between the focus group participants and no 2 friends were seated beside each other except the group of undergraduate classmates.



### (2) Focus Group Procedure

Since the focus groups were all conducted in Cantonese, Chinese wordings and proceeding had been the original and followed. The English version of the process is only written in this thesis for those readers who cannot understand Chinese.

## “香港數碼特技電影”研究 聚焦小組討論 - 議題及流程

### (一) 開始準備功夫及收集“同意書”簽名

- a. 為每位到場參與小組討論的人士貼上寫有他的名稱之標籤
- b. 傳遞小組討論“同意書”予所有到場參與討論人士簽署。
- c. 解釋小組討論完畢之後，會向每位參與小組討論人士發放 XXX 港元，作為車馬費，感謝各位百忙中抽空參與及支持是次研究。

### (二) 小組討論流程簡介

我哋以下將會開始今次呢個關於“香港數碼特技電影”研究嘅聚焦小組討論。以下討論我哋會進行錄音，所以希望大家可以先將你哋嘅手機或者其他響鬧裝置嘅聲音關上，多謝大家嘅合作。

大家應該都已經簽左“同意書”，我可以保證大家嘅真實姓名絕對唔會係最終嘅研究報告中出現，所以大家一陣可以放心暢所欲言。

跟住落嚟嘅小組討論將會分為六個環節。喺每一個環節，我都會向大家提出一啲問題，俾大家自由參與討論。第一個環節會係對於“數碼特技電影”觀感嘅分享，第二至六個環節會深入討論幾部“香港數碼特技電影”。而喺第二至六，五個環節嘅討論開始之前，會各有 3 至 5 分鐘嘅電影片段播放，幫助大家回憶過去收睇呢啲電影嘅觀感同經驗。睇完片段之後，我會向大家提出一啲問題，大家可以自由發揮，積極咁去參與討論。

現在我哋就正式開始今日嘅小組討論。（開始錄音。）

## (三) 正式開始聚焦小組討論

項目	時間	活動及問題	主要議題
1	15分鐘	<p>首先簡單介紹本研究的目的。</p> <p>今次嘅研究主要係想收集大家過去睇數碼特技電影嘅一啲經驗同感覺。</p> <p>大家可以講吓你睇數碼特技電影嘅經驗？或者喜歡邊套特技電影？</p> <p>你對香港數碼特技電影有乜感覺？點解呢？</p>	<p><u>對香港數碼特技電影的觀感和認識</u></p> <ul style="list-style-type: none"> <li>- 電腦動畫同數碼特技對香港電影業同電影文化有冇影響？你對呢啲發展有乜感覺呢？</li> <li>- 有冇特別鍾意或者唔鍾意香港嘅數碼特技電影？點解呢？</li> </ul> <p><u>對香港數碼特技電影的文化認同</u></p> <ul style="list-style-type: none"> <li>- 香港數碼特技電影跟荷里活嘅數碼特技電影有冇唔同呢？</li> <li>- 你認為香港數碼特技電影有乜代表性？點解呢？</li> </ul>
2	5分鐘	<p>首先播放電影片段(1)：周星馳電影【少林足球】、【功夫】和【長江七號】剪輯片段</p>	
	20分鐘	<p>我想強調所有播放嘅片段，只係用嚟幫助大家回憶過去觀看呢啲電影嘅觀感同經驗，大家可以盡量依據當初你睇呢啲電影嘅感覺去討論。</p> <p>你對周星馳呢三部大量使用數碼特技同電腦動畫嘅電影有乜睇法同感覺呢？點解呢？</p>	<p><u>周星馳「無厘頭」電影文化的演變</u></p> <ul style="list-style-type: none"> <li>- 睇過呢幾部電影之後，有冇覺得同周星馳（星爺）以前啲電影有唔同嘅地方？邊方面呢？</li> <li>- 你喜歡聽星爺佢哋用對白講笑話，抑或睇用左電腦特技啲誇張兼無厘頭嘅場景？點解呢？</li> <li>- 用視覺特效演繹嘅無厘頭文化，會唔會更加有電影感，更加國際化呢？</li> </ul> <p><u>電影的跨文化歷史和懷舊特質</u></p> <ul style="list-style-type: none"> <li>- 睇到星爺係個交通燈台度打啲掌印出嚟，同幾場唔同高手，例如包租婆、火雲邪神等人係「豬籠城寨」嘅打鬥，有乜嘢聯想到呢？點解呢？</li> <li>- 呢啲懷舊橋段有冇加強你對電影嘅感覺同關係？又覺唔覺得呢啲懷舊事物得到新嘅演繹？</li> </ul>

項目	時間	活動及問題	主要議題
3	3分鐘	首先播放電影片段(2): 動漫風格電影【風雲】和 【中華英雄】剪輯片段	
	15分鐘	睇過以上嘅片段,有冇令你回想起第一次睇呢兩部香港數碼特技電影時,嘅感覺同經驗呢?  你覺得呢兩部電影嘅風格上有冇特別?	<p><u>電影與動漫文化的交融</u></p> <ul style="list-style-type: none"> <li>- 以你最初睇呢兩部電影嘅經驗來講,你覺得有冇特別元素?你對呢啲元素又有冇感覺呢?</li> <li>- 電腦特技可唔可以拉近電影同動漫文化嘅關係呢?最初會唔會都係因為咁而去睇呢類電影?</li> </ul> <p><u>電影的跨類型及演員、動畫師的共同創作</u></p> <ul style="list-style-type: none"> <li>- 呢兩部電影都係改編自本地漫畫,當年或者最初睇嘅感覺同經驗係點架呢?</li> <li>- 對於演員嘅形象同演繹有冇感覺呢?演員演技同數碼特技嘅配合重唔重要呢?</li> <li>- 當時第一次睇果啲冇中生有嘅功夫同打鬥場面有冇感覺?對於果啲特技場景,好似洛山大佛同自由神像,觀感同印象係點架呢?</li> </ul>
4	3分鐘	首先播放電影片段(3): 動漫風格電影【千機變】 和【情癡大聖】剪輯片段	
	15分鐘	你第一次睇呢兩部數碼特技電影,有冇乜嘢感覺?點解呢?  你覺得呢兩部電影嘅風格上有冇特別?	<p><u>電影與電玩和動漫文化的交融</u></p> <ul style="list-style-type: none"> <li>- 呢兩部電影有冇特別元素?你對呢啲元素又有冇感覺呢?</li> <li>- 電腦特技有冇拉近電影同年輕一代嘅電玩同動漫文化呢?會唔會因為咁而去睇呢類電影?</li> <li>- 呢啲電影嘅數碼特技用左好多層嘅影像同電腦動畫組合而成,會唔會更加類似電腦遊戲嘅畫面?真實感重唔重要呢?</li> </ul> <p><u>數碼特技電影的跨類型可塑性</u></p> <ul style="list-style-type: none"> <li>- 由先前睇過周星馳嘅三部近作,到之後呢幾部動漫風格嘅電影,會唔會覺得電腦特技可以幫助香港更多元化嘅電影創作呢?點解呢?</li> </ul>

項目	時間	活動及問題	主要議題
5	3分鐘	首先播放電影片段(4): 數碼特技電影【英雄】和【墨攻】賦史詩式美學風格的剪輯片段	
	15分鐘	當初你睇呢兩部電影嘅時候,有啲乜嘢經驗同感覺呢?  睇過呢兩部數碼特技電影,你有冇留意到一啲特別嘅影像風格?感覺如何呢?	<p>數碼特技電影的模樣(patterning)和想像空間</p> <ul style="list-style-type: none"> <li>- 有冇留意好多電腦特技都有一定嘅排列,可以非常齊整,就算亂中亦會有序,你對呢啲效果有乜感覺?點解呢?</li> <li>- 電影敘事嘅時空同鏡頭又有啲乜嘢特質?你嘅感覺又如何呢?</li> </ul> <p>令人信服的特技和集體創作精神的重要性</p> <ul style="list-style-type: none"> <li>- 有瑕疵(seamless)而富真實感嘅電腦特技,係唔係更加可以令觀眾投入欣賞電影?感覺會唔會有好大分別呢?</li> <li>- 真實感等唔等於現實感(reality),抑或只要令人信服(make believable)就可以呢?</li> </ul>
6	3分鐘	首先播放電影片段(5): 數碼特技電影【蜀山傳】和【無極】超現實風格的剪輯片段	
	15分鐘	當初睇呢兩部數碼特技電影有啲乜嘢嘅感覺同經驗呢?  呢兩部數碼特技電影,有冇俾到啲特別嘅影像風格感覺你呢?覺得點樣呢?	<p>特技電影的故事敘述和想像空間</p> <ul style="list-style-type: none"> <li>- 對電影故事嘅時空、鏡頭同背景有啲乜嘢特別睇法?你嘅感覺又如何呢?</li> <li>- 電影拍攝嘅影像、演員嘅表現,同電腦特技之間嘅配合,你又點睇呢?</li> </ul> <p>令人信服的特技和集體創作精神的重要性</p> <ul style="list-style-type: none"> <li>- 你認為徐克嘅【蜀山傳】同陳凱歌嘅【無極】有冇乜嘢問題?原因係邊呢?</li> <li>- 啲電腦特技同其他影像圖層嘅合成,有冇影響你對呢兩部電影嘅觀感?</li> <li>- 現實事物嘅觀念同經驗,跟電影故事、場景嘅關連,對你嘅觀賞有冇一定嘅影響呢?</li> </ul>
7	5分鐘	總結: 其他關於數碼特技電影的觀感與經驗	最後,大家可以就住先前討論未有提及嘅感覺同經驗,發表你嘅意見。

(四) 總結及簽收車馬費

a. 總結整個聚焦小組討論的目的：

今日呢個小組討論經已完成，再次多謝大家嘅參與同幫忙。大家今日嘅討論會用喺學術研究之中，幫助我哋去驗證香港數碼特技電影嘅創作同埋美學風格。大家嘅姓名同身份將會絕對保密，喺文章上面會用假名代替。不過，呢個研究重有其他小組將會喺二／三月其間進行，因為大家嘅親友亦可能會係下一次聚焦小組嘅參與人士，所以希望大家暫時唔好同其他親友講述今日呢個小組討論嘅具體內容。多謝各位！

b. 向每位參與討論小組的人士，發放及簽收 XXX 港元的車馬費

## **“Hong Kong Digital Cinematic Productions” Research Focus Group – Discussion Topics and Procedure**

- (1) Preparation and collection of signed consent form
  - a. Help each arrival participant to have his/her name sticker
  - b. Pass the “consent form” to each arrival participant to sign on it
  - c. Tell participants that an honorarium of HK\$XXX will be issued to each person after completion of the focus group to thank for their help and contribution to this research
  
- (2) Briefing of the process of focus group

**We are going to start this focus group of a research about “Hong Kong movies of digital effects”. We will have tape recording for the following discussion and so, please turn off the alarm of your mobile phones or other devices. Thank you very much!**

**Everybody has already signed the “consent form”. I can ensure you that everybody’s real name will not appear in the final research report. So, everybody can take it easy and freely express your opinion in the coming discussion.**

**The following group discussion will be divided into 6 sessions. In each session, I will raise some questions for your engagement in free discussion. The first session is about the watching experience and feeling of movies of digital effects, and the sessions 2 to 6 will intensively discuss some Hong Kong movies of digital effects. In sessions 2 to 6, 3 to 5 minutes of movie footages will be screened at the very beginning of each session to help everybody recall your past experiences and feelings of these movies. After screening, I will raise some questions and everybody can freely and actively join in the discussion.**

**We start today’s group discussion now. (Start tape recording.)**

## (3) Start the focus group discussion

Item	Time	Activities and Questions	Main Topics
1	15 min	<p>Introduce the purpose of this research.</p> <p><b>This research aims to collect information of your past experiences and feelings when watching movies of digital effects.</b></p> <p><b>Can you share your experiences of watching digital cinematic productions? Or which one digital movie is your favorite?</b></p> <p><b>What are your feelings about Hong Kong movies of digital effects? Why?</b></p>	<p><u>Perception and understanding of Hong Kong digital cinematic productions</u></p> <ul style="list-style-type: none"> <li>- Are there any impacts by digital effects and computer animation on Hong Kong cinema and its culture? What do you feel about such development?</li> <li>- Any special feeling to like or dislike Hong Kong movies of digital effects? Why?</li> </ul> <p><u>Cultural recognition of Hong Kong digital cinematic productions</u></p> <ul style="list-style-type: none"> <li>- Any differences between Hong Kong and Hollywood movies of digital effects?</li> <li>- What do you think the <b>representativeness</b> of Hong Kong movies of digital effects? Why?</li> </ul>
2	5 min	<p>Play movie footages (1) : Edited footages of Stephen Chow's <i>Shaolin Soccer</i>, <i>Kung Fu Hustle</i> and <i>CJ7</i></p>	
	20 min	<p><b>I would like to emphasize that all edited footages here are used to recall your past experiences and feelings about these movies. You can discuss these movies on the basis of your initial feelings when you first watched them.</b></p> <p><b>What do you think and feel about Chow's 3 digital movies using enormous amount of digital effects and computer animation? Why?</b></p>	<p><u>Evolution of Chow's "meaningless" film culture</u></p> <ul style="list-style-type: none"> <li>- Do you find any differences in these 3 movies from Chow's previous movies? What sort of differences are they?</li> <li>- Do you like hearing Chow's verbal gags or watching those <b>exaggerated</b> and "meaningless" scenes by digital effects? Why?</li> <li>- Would those performances of "meaningless" culture using digital visual effects provide stronger film sense and look more <b>globalized</b>?</li> </ul> <p><u>Transcultural history and nostalgia in movie</u></p> <ul style="list-style-type: none"> <li>- What <b>association</b> do you have when watching Chow's palm prints onto the traffic station and other fighting scenes by those kung fu masters like the landlady, Fire-cloud Beast and so on in Pig Sty Alley? Why?</li> <li>- Do these nostalgic scenarios strengthen your feeling and relationship to the movie? And do you think those nostalgic elements have achieved <b>new forms of representation</b>?</li> </ul>

Item	Time	Activities and Questions	Main Topics
3	3 min	Play movie footages (2) : Comic-style movies: <i>The Stormriders</i> and <i>A Man Called Hero</i>	
	15 min	<p><b>Do these footages help recall your feeling and experience when you first watched these 2 movies of digital effects?</b></p> <p><b>What are the special characteristics of the style of these 2 movies you feel?</b></p>	<p><u>Cross-fertilization between film and comic</u></p> <ul style="list-style-type: none"> <li>- From your initial watching experience of these 2 movies, what kind of special elements did you get? What is your feeling towards such elements?</li> <li>- Do digital effects help correlate movie and comic cultures? Would this relationship be the initial cause why you are watching such kind of movies?</li> </ul> <p><u>Hybrid genres and collective creation by protagonists and animators in movie</u></p> <ul style="list-style-type: none"> <li>- What were your initial feelings and watching experiences when watching these 2 movies of local comics?</li> <li>- What do you feel about protagonists' images and <b>performances</b>? Is the <b>matching</b> between performance and digital effects important?</li> <li>- What was your initial feeling about those imagined kung fu combat scenes? What do you think and feel about some effect scenes like Giant Buddha of Leshan and the Statue of Liberty?</li> </ul>
4	3 min	Play movie footages (3) : Game-like movies: <i>The Twins Effect</i> and <i>A Chinese Tall Story</i>	
	15 min	<p><b>What was your feeling when you first watched these 2 movies of digital effects? Why?</b></p> <p><b>What are the special characteristics of the style of these 2 movies you feel?</b></p>	<p><u>Cross-fertilization between film and video game</u></p> <ul style="list-style-type: none"> <li>- What special elements do these 2 movies have? What is your feeling towards such elements?</li> <li>- Do digital effects close the gap between film and youth culture of <b>video game, comic and animation</b>? Would this affect your decision to watch such kind of movies?</li> <li>- Do those digital effects by <b>multi-layered</b> composition make those movie images look more like video game? Is <b>believability</b> important?</li> </ul> <p><u>Possibility of hybrid genres in digital movies</u></p> <ul style="list-style-type: none"> <li>- From Chow's movies to these comic-style and game-like movies, do you think digital effects can help hybridize Hong Kong cinematic productions? Why?</li> </ul>

Item	Time	Activities and Questions	Main Topics
5	3 min	Play movie footages (4) : Movies of epic style and aesthetics: <i>Hero</i> and <i>A Battle of Wits</i>	
	15 min	<p><b>What were your past experiences and feelings about these 2 movies when you first watched them?</b></p> <p><b>Do you get any special image styles from these 2 movies?</b></p> <p><b>What is the feeling?</b></p>	<p><u>Patterning and imaginary perspectives of digital cinematic productions</u></p> <ul style="list-style-type: none"> <li>- Have you recognized that many digital effects show <b>orderly patterns</b> and what do you feel about it? Why?</li> <li>- What are the characteristics of <b>time and space</b> as well as <b>camera shots</b> in film narrative? What do you feel?</li> </ul> <p><u>Importance of make-believable effects and collective imaginative inputs</u></p> <ul style="list-style-type: none"> <li>- Do <b>seamless</b> and believable digital effects make audiences more engage in movie-watching? How big is the difference?</li> <li>- Is believability equal to reality, or only <b>making believable</b> acceptable?</li> </ul>
6	3 min	Play movie footages (5) : Movies of surrealistic style: <i>The Legend of Zu</i> and <i>The Promise</i>	
	15 min	<p><b>What was your feeling when you first watched these 2 movies of digital effects?</b></p> <p><b>Do these 2 digital movies convey some special image styles to you?</b></p> <p><b>What do you feel?</b></p>	<p><u>Storytelling and imaginary space of digital cinematic productions</u></p> <ul style="list-style-type: none"> <li>- What are your opinions about film narrative, <b>time and space</b>, <b>camera shots</b>, and <b>background images</b>? What do you feel?</li> <li>- What do you think the <b>matching</b> between those images, acting and performance, and digital effects in the movies?</li> </ul> <p><u>Importance of make-believable effects and shared creative passion</u></p> <ul style="list-style-type: none"> <li>- Do you think there are any problems in Tsui's <i>The Legend of Zu</i> and Chen's <i>The Promise</i>? What are the causes?</li> <li>- Are those digital compositing of digital effects and other <b>image layers</b> influencing your feeling towards the movies?</li> <li>- Does the <b>correlation</b> between lived experiences and movie story and scenes affect your appreciation of the movies?</li> </ul>
7	5 min	Conclusion : Other feelings and experiences about digital movies	<b>Everybody can express your feelings and experiences that we have not discussed yet.</b>

(4) Conclusion and sign to accept the honorarium

- a. Briefing the purpose of the focus group:

**Today's focus group has just finished. Thanks again for your participation and help. All your discussions will be used in an academic research to analyze the styles and aesthetics of digital cinematic productions in Hong Kong. Your name and identity will be kept confidential. Only pseudonyms will be used in the research report. However, this research will conduct some other focus groups within February and March, and your relatives and friends may be participants of the next group. So, please don't talk about those precise contents of today's focus group with others within this period. Thank you very much!**

- b. Issue HK\$XXX to each focus group participant

C. Demographics of Focus Group Participants

**Group A (18 to 24 years old)**

Name	Sex	Highest Qualification	Occupation
Joe	M	Undergraduate	Student
Man	M	Undergraduate	Student
Lun	M	Undergraduate	Student
Parker	M	Undergraduate	Student
Cat	F	Undergraduate	Student
Lam	F	Undergraduate	Student
Jenny	F	Undergraduate	Student
Kitty	F	Undergraduate	Student

Venue: Hong Kong Shue Yan University

Date: Feb. 4, 2009 (3:40pm)

\* For participants' privacy, all names of focus group participants in this thesis are pseudonyms. But all other demographic references are real for comparative study.

**Group B (25 to 39 years old)**

Name	Sex	Highest Qualification	Occupation
Po	F	Degree	Media
Karen	F	Associate Degree	Executive Assistant
Louis	M	Degree	Design
Chiu	M	MA	Editor
Fat	M	MA	NGO
Catherine	F	MA	Fundraiser
Gordon	M	MA	Cinema Operator

Venue: City University of Hong Kong

Date: Jan. 29, 2009 (7:00pm)

**Group C (40 years old or above)**

Name	Sex	Highest Qualification	Occupation
Fanny	F	Postgraduate	Film Translation
Wai	M	Degree	Education
Ping	F	Degree	Education
Ching	F	Secondary School	Civil Service
Yee	F	MA	Lecturer
Kee	M	Secondary School	Store Controller
Tak	M	MA	Library

Venue: City University of Hong Kong

Date: Feb. 28, 2009 (3:00pm)

**Group E1 (Movie amateur: 18 to 24 years old)**

Name	Sex	Highest Qualification	Occupation
Kay	F	Undergraduate	Student
James	M	Undergraduate	Student
Peggy	F	Higher Diploma	Theatre Operation
Ray	M	Undergraduate	Student
Sing	M	Undergraduate	Student
Susan	F	Undergraduate	Student
Sean	M	Undergraduate	Student
Tom	M	Undergraduate	Student

Venue: City University of Hong Kong

Date: Mar. 4, 2009 (7:00pm)

**Group E2 (Movie amateur: 25 to 39 years old)**

Name	Sex	Highest Qualification	Occupation
Tina	F	Degree	Assistant Tutor
King	M	Degree	Producer
Lin	M	Degree	Marketing
Monica	F	MA	Freelance Copywriter
Yung	F	Diploma	Multimedia Designer
Eva	F	Degree	PR
Don	M	MA	Journalist

Venue: City University of Hong Kong

Date: Mar. 11, 2009 (7:00pm)

Appendix III: Comparative Summaries of Focus Groups for Audience Perceptions of Digital Cinematic Productions

	A (Age: 18 – 24) ~ Believability important	B (Age: 25 – 39) ~ Believability important	C (Age: 40 or above) ~ Invisible effects more believable	E1 (Amateur: 18 – 24) ~ CG background + real actors more believable	E2 (Amateur: 25 – 39)
Introductory	<p>~ Story important</p> <p>~ CG: - ok for comic-style &amp; sci-fi but not HK action films - needed but HK CG weak &amp; hard sell; cost &amp; quality problem</p>	<p>~ Story important</p> <p>~ CG: - transcription of comic or novel useful; sci-fi &amp; fantasy ok; good for unimaginable - HK CG weak &amp; over; cost problem - visible CG spectacle ok; invisible better - DVFX: only comfortable or not</p>	<p>~ Story very important</p> <p>~ CG: - good for comic, sci-fi &amp; unimaginable - messy images, over &amp; redundant CG not good - DVFX is easy; more respect to old SFX (ET better than CJ7)</p> <p>~ Audiences need engagement &amp; self-imaginary space; mostly original novels better than movies</p>	<p>~ CG: - game &amp; comic feel, but may not work - Hollywood CG better; cost &amp; quality problem - need stronger spectacle, or no feeling</p> <p>~ Director's inputs critical; making-of useful</p>	<p>~ Story important</p> <p>~ CG: - ok for comic but need to match style; spectacle + story - blockbusters need spectacular CG; invisible better - DVFX needs to be comfortable</p>
Session 1: Stephen Chow's Digital Cinematic Productions	~ Globalization: visual gags ok	~ Global markets need visual representations	~ Globalization: CG improved & maturing	~ Trend: CG comedy ok	~ Use more Western and China's elements; less HK

<p>Shaolin Soccer (SS) Kung Fu Hustle (KF) Chang Jiang 7 (CJ7)</p>	<p>~ Nostalgia as imagined &amp; needs less reference; CG good for incredible</p> <p>~ Amplification: - CG &amp; comic-style ok - CJ7: over-exaggerated; CG + actor layers = low believability - females: KF not real and over, game-style not good; males: comic kung fu ok</p>	<p>~ Strong nostalgia: - references to old films and comics</p> <p>~ Amplification: - believable CG; spectacle ok - HK CG improved - Chow's inputs</p>	<p>~ Like nostalgic scenarios; indigenous CG in SS shows local meaningless culture</p> <p>~ Amplification: - CG spectacle ok - comic &amp; cartoon style; exaggeration - SS: high originality &amp; creativity</p>	<p>~ Nostalgia: - CG not good - reference to comic ok</p> <p>~ Amplification: - exaggeration ok; CG good for unimaginable - CJ7 for kids; cheap game CG look - females: real reference better, like former Chow's style more; males: comic &amp; cartoon style CG ok, no need to be real</p>	<p>~ Nostalgia ok; indigenous CG shows local meaningless culture</p> <p>~ Amplification is decreasing: SS&gt;KF&gt;CJ7 - cartoon &amp; kung fu style CG ok, but like former Chow's films a little bit more - Chow's change: creativity &amp; individualism</p>
<p>Session 2: Comic-transcribed Digital Cinematic Productions <i>The Stormriders</i> (SR) <i>A Man Called Hero</i> (CH)</p>	<p>~ Referencing: - SR: Buddha's statue not real but acceptable; CH: the Statue of Liberty unacceptable for real reference by lived experience</p> <p>~ Cross-fertilization with comic: - CG spectacle needed ~ SR: good comic style CG; CH: bad, unreal CG - CG good for</p>	<p>~ Referencing: - fans: comic books better, more imaginary space - girls watched not for comics but idols - better to watch films before reading comic books</p> <p>~ Cross-fertilization with comic: - CG were selling points - SR: good; CH: fair but bad for fans</p>	<p>~ Referencing: - the Statue of Liberty not good - HK comic style</p> <p>~ Cross-fertilization with comic: - CG spectacle ok - CG good, abstract comic kung fu - indigenous comic style CG</p>	<p>~ Referencing: - the Statue of Liberty unreal - comic style good, vivid &amp; fast rhythm; martial arts too slow rhythm, boring</p> <p>~ Cross-fertilization with comic: - CG spectacle ok - HK indigenous style CG - females: comic-style CG ok, helpful to</p>	<p>~ Referencing: - the Statue of Liberty like cartoon + real actors = not good, unbelievable - comic fans: CH not good; non-fans: both SR &amp; CH ok</p> <p>~ Cross-fertilization with comic: - SR: many CG spectacles, good; CH: not good, unreal CG - local CG good &amp; advanced</p>

Appendix III: Comparative Summaries of Focus Groups for Audience Perceptions of Digital Cinematic Productions

<p>hyperreality - CG + actor layers believability: SR good; CH bad - game image look</p>	<p>~ Genre: - TE: vampire genre ok - TS: mixed styles of sci-fi &amp; Chinese story not good, unreal</p>	<p>~ Genre: - TE: copycat of B grade Hollywood vampire genre</p>	<p>~ Acting important</p>	<p>visualize; males: CG visualization not as good as comic books and one's imagination</p> <p>~ Acting &amp; directing important</p>	<p>~ Acting important</p>
<p>Session 3: Game-like Digital Cinematic Productions <i>The Twins Effect</i> (TE) <i>A Chinese Tall Story</i> (TS)</p>	<p>~ Genre: - TE: vampire genre ok - TS: mixed styles of sci-fi &amp; Chinese story not good, unreal</p> <p>~ Game-like CG: - TE: CG relevant to story - TS: CG images like bugs; game-layer look horrible, unlike game images - TS: CG creatures + real actors = not match</p> <p>~ CG needs to match story; CG quality important</p>	<p>~ Genre: - TE: copycat of B grade Hollywood vampire genre</p> <p>~ Game-like CG: - TE: CG + real images in balance = good; more spectacles expected - TS: CG poor than Japanese games - one general audience: TE &amp; TS CG target young game players; a game player: no strong feeling of game</p> <p>~ CG over story; no expectation for stories in such films; poor acting</p>	<p>~ Genre: - TE: copy vampire &amp; adventure genre; outdated vampire genre - TS : experimental; too many elements</p> <p>~ Game-like CG: - no feeling of spectacle compared with Hollywood - TS: story &amp; CG ok &amp; creative - game-like &amp; fast rhythm target youngsters</p> <p>~ No contents; poor acting</p>	<p>~ Genre: - TE: vampire genre ok - TS: experimental, cult film; too messy</p> <p>~ Game-like CG: - TE: CG good - TS: cartoonish CG + real actors = not good - game-style CG ok; TS: not good, CG over - dislike slow rhythm CG spectacle - CG, costume &amp; set not matching</p> <p>~ weak storylines; poor acting</p>	<p>~ Genre: - mixed genres ok; but TS too messy</p> <p>~ Game-like CG: - spectacle ok - TS: experimental CG ok; CG too exaggerated - game feel, like RPG; imitate game screens - real game images better than TS CG - each layer ok; composite image poor</p> <p>~ weak storylines but entertaining; acting ok</p>



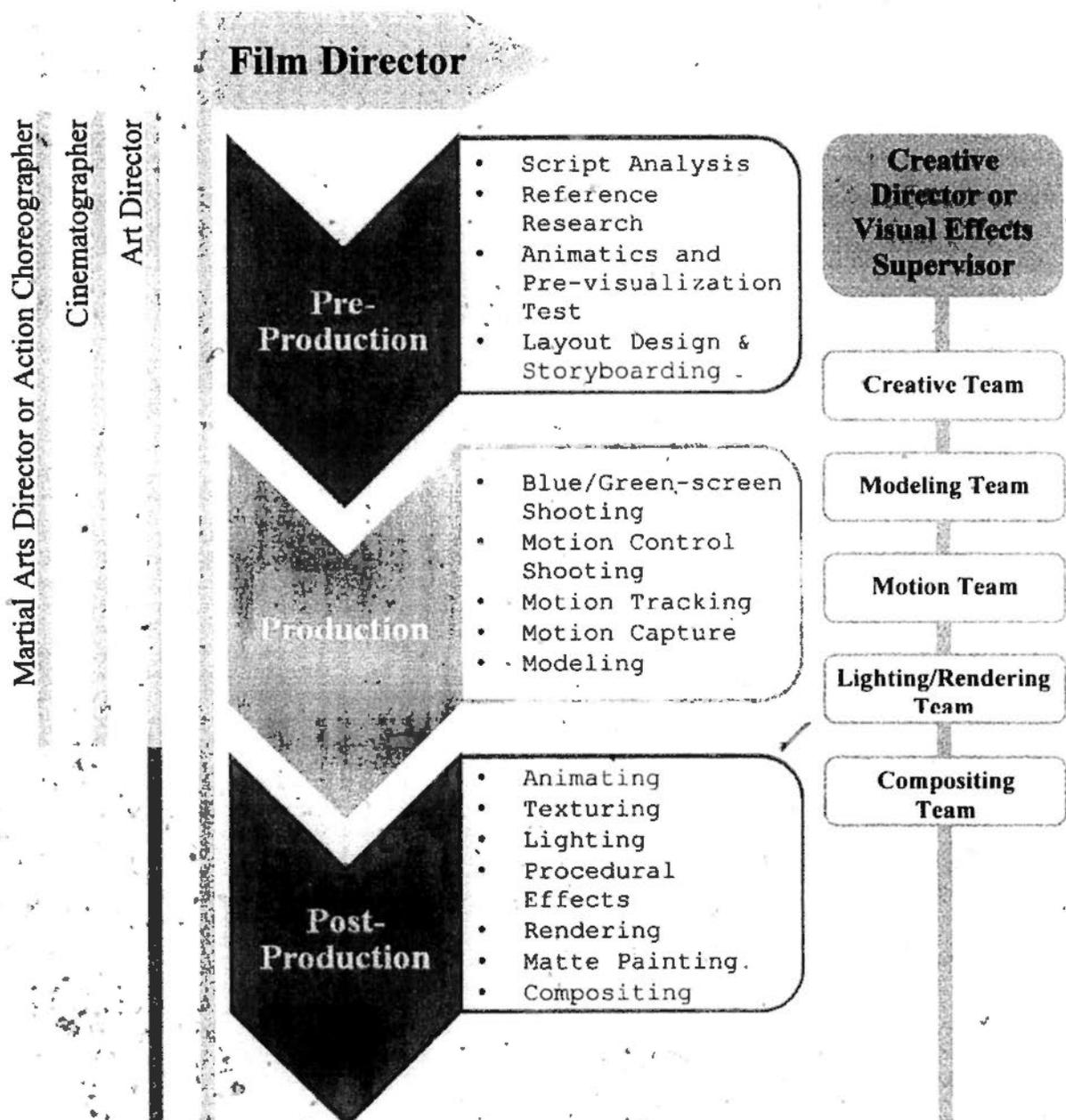
Appendix III: Comparative Summaries of Focus Groups for Audience Perceptions of Digital Cinematic Productions

	actor layers look unreal, cost or technical problem	elements - P: CG & actors not matching, feel unreal, uncomfortable; separate CG images ok & beautiful	stylish & creative	images beautiful	CG + real actor layers = very poor - P: running scene too comedic
	~ Collective imagination: - old Zu using SFX better - ZU: comic style more acceptable; CG poor but fast rhythm clever - P: weak story but good acting	~ Collective imagination: - old Zu better, SFX more honest & believable - ZU: not Chinese enough; P: less Chinese, more imaginary - CG + weak Chinese story = strange feeling - Directors get lost	~ Collective imagination: - old Zu better - ZU: original novel very fantastic; CG poor - P: too complex production; unknown genre, not Chinese - martial arts: unreal spectacle ok - poor acting & coordination	~ Collective imagination: - old Zu better - P: spectacular CG speed fast ok; dislike slow motion, too artificial - P: romanticism & Chinese myth ok - comic kung fu style better than traditional martial arts - self-imagination more important	~ Collective imagination: - ZU better than old Zu; comic style & mythic, unreal but ok - P: poor unknown genre, not martial arts, not myth, mixed but messy - P: very Chinese background, but CG not matching - P: Director of poor CG skills & weak coordination
Round up	~ CG: - overuse of CG not good - CG + real scene layers better	~ CG: - some HK films overuse CG - gangster genre not good to use CG; real fights better ~ CG needs to match storyline	~ CG: - ghost genre or fantasy films + CG = ok - Hollywood CG much better than HK	~ CG: - HK indigenous style CG needed - cult film + CG = ok ~ CG needs to match storyline	~ CG: - spectacular CG ok - movie-going not for CG ~ CG should help storytelling

Remarks: CG stands for computer graphics and animation; DVFX for digital visual effects; SFX for traditional, physical special effects; POV for point-of-view camera. old Zu for Hark Tsui's movie *Zu: Warriors from the Magic Mountain* (1983).

## Appendix IV: Working Pipeline for Digital Effects and Computer Animation in Digital Cinematic Production

This working pipeline for digital effects and computer animation production is designed on the basis of some conversational interviews with some industrial practitioners and my research and working experiences in the field of digital media and cinematic production in Hong Kong, as well as Hollywood. Not all parts of the pre-production, production and post-production are necessary to be conducted in every digital cinematic production under the “hyper-flexible” systems of creative media and film industries in Hong Kong.

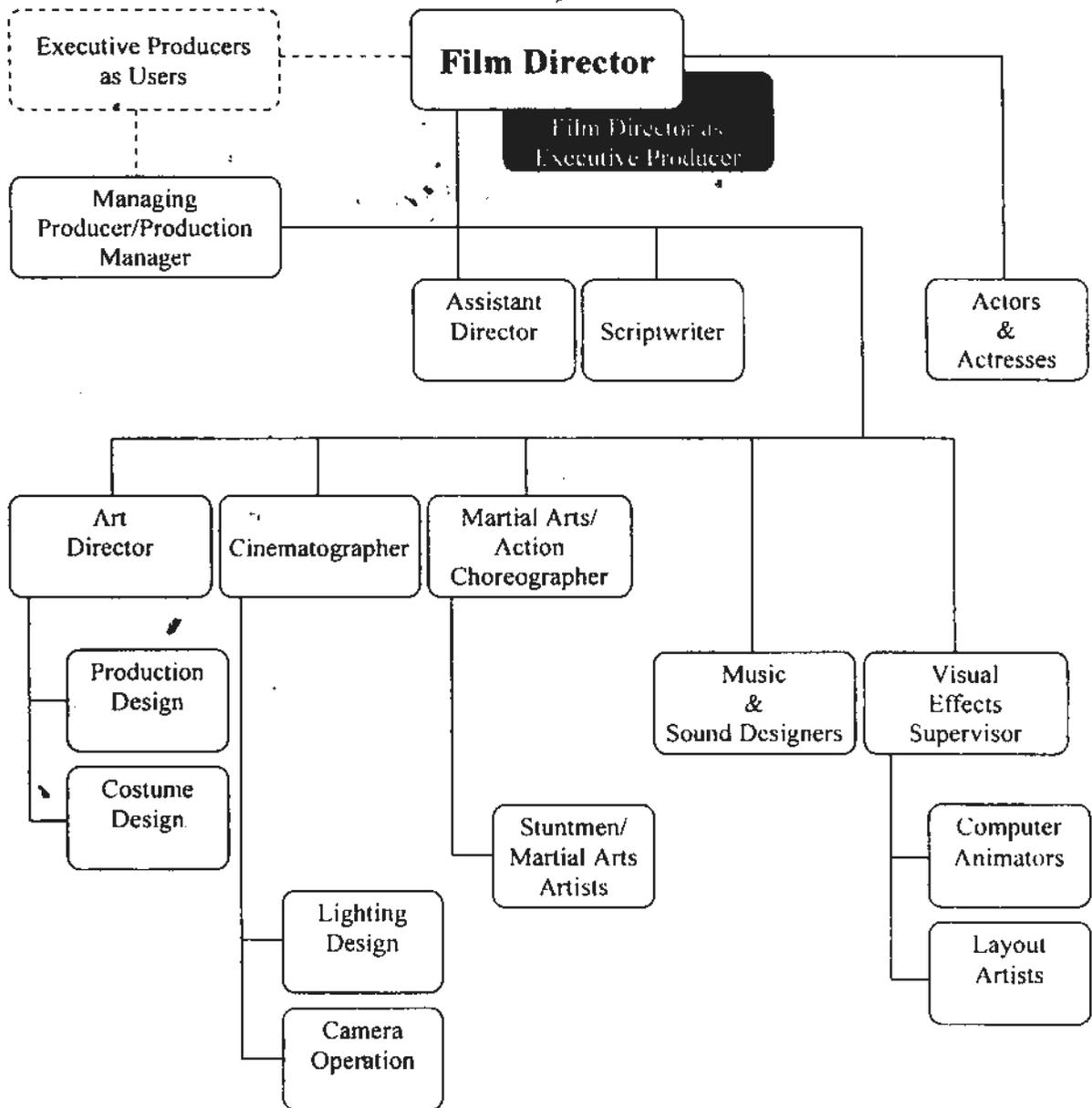


■ Unofficial engagement in post-production (like Bill Liu in *A Chinese Tall Story*)

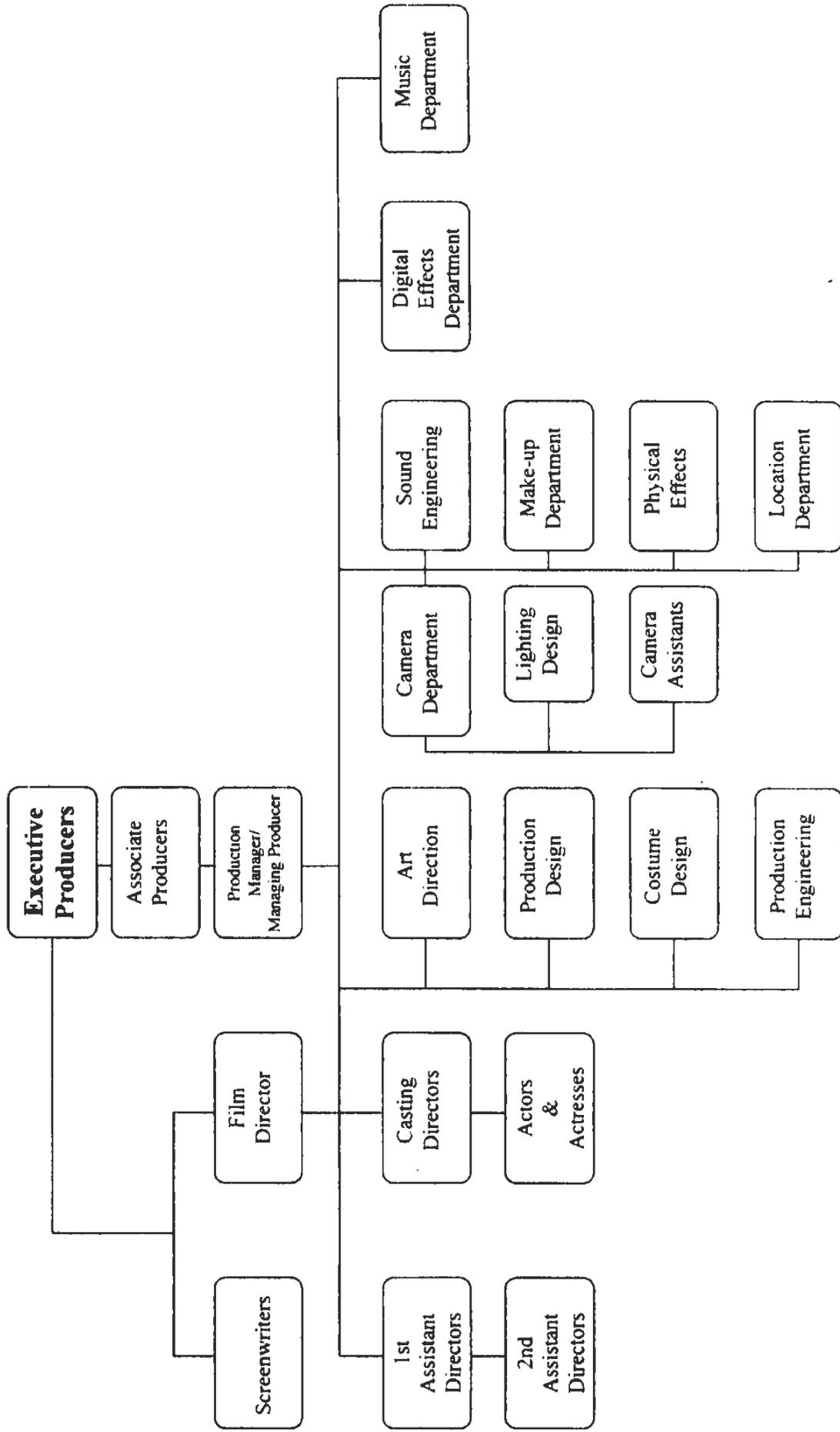
## Appendix V: Hierarchy of Cinematic Production Systems

The following organization charts of cinematic production systems show the major differences in the hierarchical positions of producers and film director between Hong Kong cinema and Hollywood. The systems in Hollywood generally provide higher authority to producers over film director and follow more rigid production workflows by expert systems of different departments. Hollywood producers as creative managers of both symbolic power and creativity not merely look after economic valorization in cultural production but also put emphasis on symbolic valorization in cinematic representation. In contemporary Hong Kong cinema, film director who sometimes also serves as executive producer at the same time for cinematic production generally possesses the highest symbolic power and creativity while executive producers as users who are investors of not much symbolic creativity concern more economic values rather than symbolic ones in cinematic productions. More precisely speaking, those executive producers as users are not belonging to the systems of cinematic production of symbolic creativity. Executive producers of both strong symbolic power and creativity like Peter Chan who can collaborate symbiotically with film directors like Teddy Chan in contemporary Hong Kong cinematic productions such as *Bodyguards and Assassins* are very exceptional.

### General Organization Chart in Hong Kong Cinema



**Simplified Organization Chart in Hollywood Production**



## Bibliography

- Abrahamson, M. (2004). *Global Cities*. New York: Oxford University Press.
- Anderson, B. (1991). *Imagined Communities: Reflections on the Origin and Spread of Nationalism*. London; New York: Verso.
- Appadurai, A. (1996). *Modernity at Large: Cultural Dimensions of Globalization*. Minneapolis, Minn.: University of Minnesota Press.
- Bagwell, S. (2008). Creative Clusters and City Growth. *Creative Industries Journal*, 1(1), 31-46.
- Bakken, T., Hernes, T., & Wiik, E. (2009). Innovation and Organization: An Overview from the Perspective of Luhmann's Autopoiesis. In R. Magalhães, & R. Sanchez (Eds.), *Autopoiesis in Organization Theory and Practice* (1st ed., pp. 69-88). Bingley, UK: Emerald.
- Bal, M. (1997). *Narratology: Introduction to the Theory of Narrative* [Theorie van vertellen en verhalen. English] (2nd ed.). Toronto; Buffalo: University of Toronto Press.
- Barker, C. (2003). *Cultural Studies: Theory and Practice* (2nd ed.). London: SAGE Publications.
- Beardsley, M. C. (1982). In Wreen M. J., Callen D. M. (Eds.), *The Aesthetic Point of View: Selected Essays*. Ithaca, N.Y.: Cornell University Press.
- Beck, U., & Beck-Gernsheim, E. (2001). *Individualization: Institutionalized Individualism and its Social and Political Consequences*. London; Thousand Oaks, California; New Delhi: SAGE Publications.
- Becker, H. S. (1974). Art as Collective Action. *American Sociological Review*, 39(6), 767-776.
- Becker, H. S. (1976). Art Worlds and Social Types. *The American Behavioral Scientist (Pre-1986)*, 19(6), 703.
- Begleiter, M. (2001). *From Word to Image: Storyboarding and the Filmmaking Process*. Studio City, CA: Michael Wiese Productions.
- Belsey, C. (2002). *Poststructuralism: A very Short Introduction*. Oxford; New York: Oxford University Press.
- Bendazzi, G. (1994). *Cartoons: One Hundred Years of Cinema Animation*. London: John Libbey.



- Berger, J. (1985/1972). *Ways of Seeing*. London: British Broadcasting Corporation and Penguin Books, 1985 printing.
- Berry, C. (2008). Introduction: One Film at a Time - again. In C. Berry (Ed.), *Chinese Films in Focus II* (2nd ed., pp. 1-8). Basingstoke England; New York: BFI/Palgrave Macmillan.
- Birkinshaw, J., & Heywood, S. (2010, May). Creativity narratives among college students: Sociability and everyday creativity. *McKinsey Quarterly*, 1-9.
- Black, J. (2002). *The Reality Effect: Film Culture and the Graphic Imperative*. New York: Routledge.
- Blythe, M. (2001). The Work of Art in the Age of Digital Reproduction: The Significance of the Creative Industries. *International Journal of Art & Design Education*, 20(2), 144-150.
- Bolter, J. D., & Grusin, R. (1999). *Remediation: Understanding New Media*. Cambridge, Massachusetts: The MIT Press.
- Bordwell, D. (2000). *Planet Hong Kong: Popular Cinema and the Art of Entertainment*. Cambridge, Mass.: Harvard University Press.
- Bordwell, D. (2006). *The Way Hollywood Tells it: Story and Style in Modern Movies*. Berkeley: University of California Press.
- Bordwell, D., & Staiger, J. (1988). Technology, Style and Mode of Production. In D. Bordwell, J. Staiger & K. Thompson (Eds.), *The Classical Hollywood Cinema: Film Style & Mode of Production to 1960* (pp. 243-261). London: Routledge.
- Bordwell, D., & Thompson, K. (1986). *Film Art: An Introduction* (2nd ed.). New York: Knopf.
- Bourdieu, P. (1993). In Johnson R. (Ed.), *The Field of Cultural Production: Essays on Art and Literature*. Cambridge: Polity Press.
- Bourdieu, P. (1996). *The Rules of Art: Genesis and Structure of the Literary Field*. Stanford, California: Stanford University Press.
- Brocklesby, J. (2009). Plugging the Theoretical Gaps: How Autopoietic Theory can Contribute to Process-Based Organizational Research. In R. Magalhães, & R. Sanchez (Eds.), *Autopoiesis in Organization Theory and Practice* (1st ed., pp. 149-167). Bingley, UK: Emerald.
- Brummett, B. (1999). *Rhetoric of Machine Aesthetics*. London, Westport, Connecticut: Praeger.

- Brunette, P. (2000). Post-Structuralism and Deconstruction. In R. Dyer, P. C. Gibson, J. Hill, E. A. Kaplan & P. Willemen (Eds.), *Film Studies: Critical Approaches* (pp. 89-93). Oxford; New York: Oxford University Press.
- Bunny. (2005). Yi Wu Fa Wei You Fa - Yan Xu Li Xiao Long Jing Shen. In P. Lam (Ed.), *2004 Xianggang Dian Ying Hui Gu* (pp. 60-63). Hong Kong: Hong Kong Film Critics Society. 實尼.
- (2005). 以無法為有法 - 延續李小龍精神. In 林震宇 (Ed.), *2004 香港電影回顧* (pp. 60-63). 香港: 香港電影評論學會.
- Bustamante, E. (2004). Cultural Industries in the Digital Age: Some Provisional Conclusions. *Media, Culture & Society*, 26(6), 803.
- Butler, C. (2002). *Postmodernism: A very Short Introduction*. Oxford; New York: Oxford University Press.
- Cai, R. (2005). Gender Imaginations in Crouching Tiger, Hidden Dragon and the Wuxia World. *Positions*, 13(2), 441-471.
- Caldwell, J. T. (2008). *Production Culture: Industrial Reflexivity and Critical Practice in Film and Television*. Durham; London: Duke University Press.
- Caputo, J. D. (1997). *Deconstruction in a Nutshell: A Conversation with Jacques Derrida*. New York: Fordham University Press.
- Castells, M. (1996). *The Rise of the Network Society*. Cambridge, Mass.: Blackwell Publishers.
- Caves, R. E. (2000). *Creative Industries: Contracts between Art and Commerce*. Cambridge, Mass.; London: Harvard University Press.
- Chan, F. (2008). Crouching Tiger, Hidden Dragon: Cultural Migrancy and Translatability. In C. Berry (Ed.), *Chinese Films in Focus II* (2nd ed., pp. 73-81). Basingstoke England; New York: BFI/Palgrave Macmillan.
- Chan, J. M. (2002). Disneyfying and Globalizing the Chinese Legend Mulan: A Study of Transculturation. In J. M. Chan, & B. T. McIntyre (Eds.), *In Search of Boundaries: Communication, Nation-States and Cultural Identities* (pp. 225-248). Westport, Connecticut: Ablex Publishing.
- Chan, J. M., Fung, A. Y. H., & Ng, C. H. (2010). *Policies for the Sustainable Development of the Hong Kong Film Industry*. Hong Kong: Hong Kong Institute of Asia-Pacific Studies, The Chinese University of Hong Kong.

- Chan, J. M., & Ma, E. (2002). Transculturating Modernity: A Reinterpretation of Cultural Globalization. In J. M. Chan, & B. T. McIntyre (Eds.), *In Search of Boundaries: Communication, Nation-States and Cultural Identities* (pp. 3-18). Westport, Connecticut: Ablex Publishing.
- Chan, J. M., & McIntyre, B. T. (2002). Introduction. In J. M. Chan, & B. T. McIntyre (Eds.), *In Search of Boundaries: Communication, Nation-States and Cultural Identities* (pp. xiii-xxvi). Westport, Connecticut: Ablex Publishing.
- Chartier, R. (2003). From Mechanical Reproduction to Electronic Representation. In H. U. Gumbrecht, & M. Marrinan (Eds.), *Mapping Benjamin: The Work of Art in the Digital Age* (pp. 109-113). Stanford, California: Stanford University Press.
- Chen, C. (2008, February 18). 'Chang jiang qi hao' di mang ran. *Outlook Weekly*, 6-7, 95. 陳沉. (2008, February 18). 《長江七號》的茫然. *瞭望*, 6-7, 95.
- Chen, M. (2005). *Zhongguo Wu Xiu Dian Ying Shi* (1st ed.). Beijing: Zhongguo dian ying chu ban she. 陳翠. (2005). *中國武俠電影史* (第1版). 北京: 中國電影出版社.
- Cheuk, P. (2000). From Digital Effects to Cross Border Co-Productions. *Hong Kong Cinema Retrospective: Border Crossings in Hong Kong Cinema* (pp. 92-99). Hong Kong: Leisure and Cultural Services Department. 卓伯棠. (2000). 從數碼特技看跨國合資影片. *香港電影回顧專題: 跨界的香港電影* (pp. 92-99). 香港: 康樂及文化事務署.
- Chong, A. (2008). *Digital Animation*. Switzerland: AVA Publishing SA.
- Chow, R. (1995). *Primitive Passions: Visuality, Sexuality, Ethnography, and Contemporary Chinese Cinema*. New York: Columbia University Press.
- Chung, S. P. (2007). *Xianggang Bai Nian Guang Ying* (1st ed.). Beijing: Peking University Press. 鍾寶賢. (2007). *香港百年光影* (第1版). 北京市: 北京大學出版社.
- Cilliers, P. (1998). *Complexity and Postmodernism : Understanding Complex Systems*. London and New York: Routledge.
- Codde, P. (2003). Polysystem Theory Revisited: A New Comparative Introduction. *Poetics Today*, 24(1), 91-126.
- Connolly, A. (2008). Some Brief Considerations on the Relationship between Theory and Practice. *Journal of Analytical Psychology*, 53(4), 481-499.

- Constable, C. (2009). *Adapting Philosophy: Jean Baudrillard and the Matrix Trilogy*. Manchester, UK; New York: Manchester University Press.
- Cooper, W. (1999). Pragmatism and Radical Empiricism. *Inquiry*, 42(3), 371-383.
- Cover Story: The Pang Brothers' Storm Warriors (風雲II - 彭氏風雲). (2008, July). *Hong Kong Film (香港電影)*, 9, 14-49.
- Crane, D. (1992). *The Production of Culture: Media and the Urban Arts*. Newbury Park; London; New Delhi: SAGE Publications.
- Crane, D. (1994). Introduction: The Challenge of the Sociology of Culture to Sociology as a Discipline. In D. Crane (Ed.), *The Sociology of Culture: Emerging Theoretical Perspectives* (pp. 1-19). Cambridge, Mass.: Blackwell.
- Crane, D. (2002). Culture and Globalization: Theoretical Models and Emerging Trends. In D. Crane, N. Kawashima & K. Kawasaki (Eds.), *Global Culture: Media, Arts, Policy, and Globalization* (pp. 1-25). New York; London: Routledge.
- Cubitt, S. (1998). *Digital Aesthetics*. London; Thousand Oaks; New Delhi: SAGE Publications.
- Cubitt, S. (2004). *The Cinema Effect*. Cambridge, Mass.: The MIT Press.
- Currah, A. (2003). Digital Effects in the Spatial Economy of Film: Towards a Research Agenda. *Area*, 35, 64-73.
- Curran, J. (2008). Communication and History. In B. Zelizer (Ed.), *Explorations in Communication and History* (pp. 46-59). Milton Park, Abingdon, Oxon; New York: Routledge.
- Curtin, M. (2007). *Playing to the World's Biggest Audience: The Globalization of Chinese Film and TV*. Berkeley: University of California Press.
- Czarniawska, B. (2005). On Gorgon Sisters: Organizational Action in the Face of Paradox. In D. Seidl, & K. H. Becker (Eds.), *Niklas Luhmann and Organization Studies* (pp. 127-143). Malmö: Liber & Copenhagen Business School Press.
- Darley, A. (2000). *Visual Digital Culture: Surface Play and Spectacle in New Media Genres*. London; New York: Routledge.
- Davis, D. W., & Yeh, E. Y. (2008). *East Asian Screen Industries*. London: British Film Institute.
- Dewey, J. (1980). *Art as Experience*. New York: Wideview/Perigee Book.

- Dixon, W. W. (2000). Introduction: The New Genre Cinema. In W. W. Dixon (Ed.), *Film Genre 2000: New Critical Essays* (pp. 1-12). Albany: State University of New York Press.
- Douglas, S. J. (2008). Does Textual Analysis Tell Us Anything about Past Audiences? In B. Zelizer (Ed.), *Explorations in Communication and History* (pp. 66-76). Milton Park, Abingdon, Oxon; New York: Routledge.
- Dumas, R. (2009). Kung Fu Production for Global Consumption: The Depoliticization of Kung Fu in Stephen Chow's Kung Fu Hustle. *Style*, 43(1), 65-85.
- Duncan, J. (1997, December). Titanic aftermath. *Cinefex: The Journal of Cinematic Illusions*, 72, 137-176.
- Duncan, J. (2002, July). Love & war. *Cinefex*, 90, 60-119.
- Durkheim, E. (1995). In Fields K. E. (Ed.), *The Elementary Forms of Religious Life* [Formes élémentaires de la vie religieuse. English] (K. E. Fields Trans.). New York: Free Press.
- Dyer, R. (2000). Introduction to Film Studies. In R. Dyer, P. C. Gibson, J. Hill, E. A. Kaplan & P. Willemsen (Eds.), *Film Studies: Critical Approaches* (pp. 1-8). Oxford; New York: Oxford University Press.
- Edwards, R., & Miller, N. (2000). Go Your Own Way: Lifelong Learning and Reflexive Autobiographies in Postmodernity. *International Journal of Lifelong Education*, 19(2), 126-140.
- Everett, A. (2003). Digitextuality and Click Theory: Theses on Convergence Media in the Digital Age. In A. Everett, & J. T. Caldwell (Eds.), *New Media: Theories and Practices of Digitextuality* (pp. 3-28). New York: Routledge.
- Everett, A., & Caldwell, J. T. (2003). Introduction: Issues in the Theory and Practice of Media Convergence. In A. Everett, & J. T. Caldwell (Eds.), *New Media: Theories and Practices of Digitextuality* (pp. xi-xxx). New York: Routledge.
- Fabe, M. (2004). *Closely Watched Films: An Introduction to the Art of Narrative Film Technique*. Berkeley: University of California Press.
- Fairclough, N. (1992). *Discourse and Social Change*. Cambridge; Cambridge, Mass.: Polity Press.
- Fairclough, N. (1995a). *Critical Discourse Analysis: Papers in the Critical Study of Language*. London; New York: Longman.
- Fairclough, N. (1995b). *Media Discourse*. London; New York: Arnold.

- Fang, W. (2006). *Guan Yu Fang Wen-Shan De Su Yan Yun Jiao Shi* (1st ed.). Taipei: China Field Publishing. 方文山. (2006). 關於方文山的素顏韻腳詩(第1版). 台北市: 華人版圖文化.
- Featherstone, M. (1991). *Consumer Culture and Postmodernism*. London; Newbury Park, California: SAGE Publications.
- Featherstone, M. (1993). Global and Local Cultures. In J. Bird, B. Curtis, T. Putnam, G. Robertson & L. Tickner (Eds.), *Mapping the Futures: Local Cultures, Global Change* (pp. 169-187). London; New York: Routledge.
- Field, J. (2000). Researching Lifelong Learning through Focus Groups. *Journal of Further & Higher Education*, 24(3), 323-335.
- Finlayson, J. G. (2005). *Habermas: A very Short Introduction*. Oxford; New York: Oxford University Press.
- Fiske, J. (1989/1987). *Television Culture*. London: Routledge.
- Florida, R. L. (2002). *The Rise of the Creative Class: And How it's Transforming Work, Leisure, Community and Everyday Life*. New York, NY: Basic Books.
- Florida, R. L. (2005). *Cities and the Creative Class*. New York; London: Routledge.
- Fludernik, M. (2009). *An Introduction to Narratology*. New York: Routledge.
- Fordham, J. (2003, January). Middle-earth strikes back. *Cinefex*, 92, 70-142.
- Fu, P. (2007). China global: Hong Kong cinema after 1997. *Contemporary Cinema*, 4, 52-56. 傅葆石. (2007). 中國全球: 1997年后的香港電影. *當代電影*, 4, 52-56.
- Fuller, M. (2005). *Media Ecologies: Materialist Energies in Art and Technoculture*. Cambridge, Mass.: The MIT Press.
- Garfinkel, H. (1967). *Studies in Ethnomethodology*. Englewood Cliffs, N.J.: Prentice Hall.
- Garfinkel, H. (1996). Ethnomethodology's Program. *Social Psychology Quarterly*, 59(1), 5-21.
- Garfinkel, H. (2002). In Rawls A. W. (Ed.), *Ethnomethodology's Program: Working Out Durkheim's Aphorism*. Lanham, Md.: Rowman & Littlefield Publishers.
- Garfinkel, H. (2006). In Rawls A. W. (Ed.), *Seeing Sociologically: The Routine Grounds of Social Action*. Boulder, Colo.: Paradigm Publishers.

- Garfinkel, H. (2008). In Rawls A. W. (Ed.), *Toward a Sociological Theory of Information*. Boulder: Paradigm Publishers.
- Garnham, N. (2005). A Personal Intellectual Memoir. *Media, Culture & Society*, 27(4), 469-493.
- Gaut, B. (2009). Digital Cinema. In P. Livingston, & C. R. Plantinga (Eds.), *The Routledge Companion to Philosophy and Film* (pp. 75-85). London; New York: Routledge.
- Gerth, H. H., & Mills, C. W. (1958). Introduction: The Man and His Work. In H. H. Gerth, & C. W. Mills (Ed.), *From Max Weber: Essays in Sociology* (pp. 1-74), by M. Weber. New York: Oxford University Press.
- Gibson, C., Murphy, P., & Freestone, R. (2002). Employment and Socio-Spatial Relations in Australia's Cultural Economy. *Australian Geographer*, 33(2), 173-189.
- Giddens, A. (1971). *Capitalism and Modern Social Theory: An Analysis of the Writings of Marx, Durkheim and Max Weber*. Cambridge: University Press.
- Giddens, A. (1990). *The Consequences of Modernity*. Stanford, California: Stanford University Press.
- Goffman, E. (1959). *The Presentation of Self in Everyday Life*. Garden City, N.Y.: Doubleday.
- Goldspink, C., & Kay, R. (2009). Autopoiesis and Organization: A Biological View of Social System Change and Methods for their Studies. In R. Magalhães, & R. Sanchez (Eds.), *Autopoiesis in Organization Theory and Practice* (1st ed., pp. 89-110). Bingley, UK: Emerald.
- González-Díaz, E. (2004). Paradox, Time, and De-Paradoxication in Luhmann: No Easy Way Out. *World Futures: The Journal of General Evolution*, 60(1), 15-27.
- Gottdiener, M. (1995). *Postmodern Semiotics: Material Culture and the Forms of Postmodern Life*. Oxford; Cambridge, Mass.: Blackwell.
- Grant, B. K. (2003). Introduction. In B. K. Grant (Ed.), *Film Genre Reader III* (pp. xv-xx). Austin, Tex.: University of Texas Press.
- Grassilli, M. (2008). Migrant Cinema: Transnational and Guerrilla Practices of Film Production and Representation. *Journal of Ethnic & Migration Studies*, 34(8), 1237-1255.
- Gray, M. T. (2004). Philosophical Inquiry in Nursing: Argument for Radical Empiricism as a Philosophical Framework for the Phenomenology of Addiction. *Qualitative Health Research*, 14(8), 1151-1164.

- Gripsrud, J. (2000). Film Audiences. In R. Dyer, P. C. Gibson, J. Hill, E. A. Kaplan & P. Willemen (Eds.), *Film Studies: Critical Approaches* (pp. 200-209). Oxford; New York: Oxford University Press.
- Grove, D. J. (2007). Global Cultural Fragmentation: A Bourdieuan Perspective. *Globalizations*, 4(2), 157-169.
- Hall, S. (1981). Notes on Deconstructing 'the Popular'. In R. Samuel (Ed.), *People's History and Socialist Theory* (pp. 227-240). London; Boston; Henley: Routledge & Kegan Paul.
- Hall, S. (1997a). Introduction. In S. Hall (Ed.), *Representation: Cultural Representations and Signifying Practices* (pp. 1-11). London: SAGE Publications.
- Hall, S. (1997b). The Spectacle of the 'Other'. In S. Hall (Ed.), *Representation: Cultural Representations and Signifying Practices* (pp. 223-290). London: SAGE Publications.
- Hall, S. (1997c). The Work of Representation. In S. Hall (Ed.), *Representation: Cultural Representations and Signifying Practices* (pp. 13-74). London: SAGE Publications.
- Hall, S. (2006). Encoding/Decoding. In M. G. Durham, & D. Kellner (Eds.), *Media and Cultural Studies: Keywords* (Rev ed., pp. 163-173). Malden, MA: Blackwell.
- Halsall, F. (2007). No Medium just a Shell: How Works of Art Configure their Medium. *Journal of Visual Art Practice*, 6(1), 45-59.
- Hao, Y. (2002). *Zhongguo Xian Dai Wen Hua De Fa Sheng Yu Chuan Bo: Guan Yu Wu Si Xin Wen Hua Yun Dong De Chuan Bo Xue Yan Jiu* (1st ed.). Shanghai: Shanghai da xue chu ban she. 郝雨. (2002). 中國現代文化的發生與傳播: 關於五四新文化運動的傳播學研究 (第1版). 上海: 上海大學出版社.
- Harland, R. (1991). *Superstructuralism: The Philosophy of Structuralism and Post-Structuralism*. London: Routledge.
- Hartley, G. (2003). *The Abyss of Representation: Marxism and the Postmodern Sublime*. Durham: Duke University Press.
- Hartley, J. (2005). Creative Industries. In J. Hartley (Ed.), *Creative Industries* (pp. 1-40). Malden, MA: Blackwell Publishing.

- Harvey, D. (1993). From Space to Place and Back again: Reflections on the Condition of Postmodernity. In J. Bird, B. Curtis, T. Putnam, G. Robertson & L. Tickner (Eds.), *Mapping the Futures: Local Cultures, Global Change* (pp. 3-29). London; New York: Routledge.
- Have, P. t. (2004). *Understanding Qualitative Research and Ethnomethodology*. London; Thousand Oaks; New Delhi: SAGE Publications.
- Havens, T., Lotz, A. D., & Tinic, S. (2009). Critical Media Industry Studies: A Research Approach. *Communication, Culture & Critique*, 2(2), 234-253.
- Hawkins, M. (2006). *Global Structures, Local Cultures*. South Melbourne, Vic.: Oxford University Press.
- Hayim, G. J. (2006). *Instability, Complexity, and Cultural Change: An Autopoiesis Approach*. Lewiston, N.Y.: The Edwin Mellen Press.
- Heartfield, J. (2008). Creativity as Ideology. *Renewal: A Journal of Labour Politics*, 16(2), 28.
- Hernes, T., & Bakken, T. (2003). Introduction: Niklas Luhmann's Autopoietic Theory and Organization Studies - A Space of Connections. In T. Bakken, & T. Hernes (Eds.), *Autopoietic Organization Theory: Drawing on Niklas Luhmann's Social Systems Perspective* (pp. 9-22). Oslo, Norway: Abstrakt Forlag.
- Hesmondhalgh, D. (2002). *The Cultural Industries*. London; Thousand Oaks; New Delhi: SAGE Publications.
- Hesmondhalgh, D. (2006). Bourdieu, the Media and Cultural Production. *Media, Culture & Society*, 28(2), 211-231.
- Higgs, P., & Cunningham, S. (2008). Creative Industries Mapping: Where have we come from and where are we going? *Creative Industries Journal*, 1(1), 7-30.
- Highmore, B. (2009). *A Passion for Cultural Studies*. Basingstoke: Palgrave Macmillan.
- Hill, J. (2000). Film and Postmodernism. In R. Dyer, P. C. Gibson, J. Hill, E. A. Kaplan & P. Willemen (Eds.), *Film Studies: Critical Approaches* (pp. 94-103). Oxford; New York: Oxford University Press.
- Ho, S. (2002). Introduction. In S. Ho, & W. Ho (Eds.), *The Swordsman and His Jiang Hu: Tsui Hark and Hong Kong Film* (1st ed., pp. iii-xiv). Hong Kong: Hong Kong Film Archive. 何思穎. (2002). 序言. In 何思穎, 何慧玲 (Eds.), *劍嘯江湖: 徐克與香港電影* (初版, pp. iii-xiv). 香港: 香港電影資料館.

- Ho, S., & Ho, W. (2002). Tsui Hark on Tsui Hark - Three Hong Kong Film Archive Interviews. In S. Ho, & W. Ho (Eds.), *The Swordsman and His Jiang Hu: Tsui Hark and Hong Kong Film* (1st ed., pp. 150-195). Hong Kong: Hong Kong Film Archive. 何思穎, 衛靈. (2002). 徐克夫子白道 - 三個訪問. In 何思穎, 何慧玲 (Eds.), *劍嘯江湖: 徐克與香港電影* (初版, pp. 150-195). 香港: 香港電影資料館.
- Ho, W. (2002). From the Local to the Virtual: On Special Effects. In S. Ho, & W. Ho (Eds.), *The Swordsman and His Jiang Hu: Tsui Hark and Hong Kong Film* (1st ed., pp. 218-239). Hong Kong: Hong Kong Film Archive. 衛靈. (2002). 從上法到電腦 - 一個抱負. In 何思穎, 何慧玲 (Eds.), *劍嘯江湖: 徐克與香港電影* (初版, pp. 218-239). 香港: 香港電影資料館.
- Hong Kong Action Film: A Decade of CG 1, 香港動作電影 CG 十年(上). (2009, July). *Wuxia Gushi, 武俠故事*, 13, 136-147.
- Hong Kong Action Film: A Decade of CG 2, 香港動作電影 CG 十年(下). (2009, July). *Wuxia Gushi, 武俠故事*, 14, 142-153.
- Hong Kong Film Archive (Ed.). (1999). *The Making of Martial Arts Films: As Told by Filmmakers and Stars*. Hong Kong: The Provisional Urban Council. 香港電影資料館 (Ed.). (1999). *電影門 迹歷史展覽之《再現江湖》*. 香港: 臨時市政局.
- Hong Kong Film Archive (Ed.). (2001). *Hong Kong Cinema from Handicraft to High Tech*. Hong Kong: Leisure and Cultural Services Department. 香港電影資料館 (Ed.). (2001). *從手藝到科技: 香港電影的技術進程*. 香港: 康樂及文化事務署.
- Hong Jing Su Hong Bu Dong Ai. (2003). "Qian ji bian": Pian xian zai li ying yu mei ying zhi jian di qing chun wu zi. *Movie Review*, 9, 30-31. 紅警蘇紅不懂愛. (2003). 《千機變》: 翩躚在麗影與魅影之間青春舞姿. *電影評介*, 9, 30-31.
- Horner, J. R. (2008). Introduction: Audiences, Communication and History. In B. Zelizer (Ed.), *Explorations in Communication and History* (pp. 63-65). Milton Park, Abingdon, Oxon; New York: Routledge.
- Hozic, A. A. (1997). *The Rise of the Merchant Economy: Industrial Change in the American Film Industry*. Unpublished PhD dissertation, University of Virginia.
- Hozic, A. A. (2001). *Hollyworld: Space, Power, and Fantasy in the American Economy*. Ithaca; London: Cornell University Press.

- Ip, H. (2005). Da Zhou Gong Fu Qi Hao Fan Gong Fu. In P. Lam (Ed.), *2004 Xianggang Dian Ying Hui Gu* (pp. 64-65). Hong Kong: Hong Kong Film Critics Society. 葉愷. (2005). 打著功夫旗號反功夫. In 林震宇 (Ed.), *2004 香港電影回顧* (pp. 64-65). 香港: 香港電影評論學會.
- Irwin, W. (Ed.). (2002). *The Matrix and Philosophy: Welcome to the Desert of the Real*. Chicago: Open Court.
- Irwin, W. (Ed.). (2005). *More Matrix and Philosophy: Revolutions and Reloaded Decoded*. Chicago: Open Court.
- Jameson, F. (1991). *Postmodernism, Or, the Cultural Logic of Late Capitalism*. Durham: Duke University Press.
- Jannidis, F. (2003). Narratology and the Narrative. In T. Kindt, & H. Muller (Eds.), *Narratologia: What is Narratology?: Questions and Answers regarding the Status of a Theory* (pp. 35-54). Berlin: DEU: Walter de Gruyter & Co. KG Publishers.
- Janson, H. W., & Janson, A. F. (2001). *History of Art* (6th ed.). New York: Harry N. Abrams, Inc.
- Jeffcutt, P., & Pratt, A. C. (2002). Managing Creativity in the Cultural Industries. *Creativity and Innovation Management*, 11(4), 225-233.
- Jia, L. (2005). *Zhongguo Wuxia Dian Ying Shi* (1st ed.). Beijing: Wen hua yi shu chu ban she. 賈磊磊. (2005). *中國武俠電影史* (第1版). 北京市: 文化藝術出版社.
- Jiao, T. (Ed.). (2007). *The Best Taiwanese Poetry 2006*. Taipei: Er yu wen hua. 焦桐 (Ed.). (2007). *2006 臺灣詩選*. 台北市: 二魚文化.
- Ju, C. (2009). 'Mo gong': Wen hua nei han di shen ceng jie du. *Movie Review*, 2, 35. 巨傳友. (2009). 《墨攻》文化內涵的深層解讀. *電影評介*, 2, 35.
- Kaelber, L. (2003). Max Weber's Dissertation. *History of the Human Sciences*, 16(2), 27-56.
- Kellner, D. (1999). Culture Industries. In T. Miller, & R. Stam (Eds.), *A Companion to Film Theory* (pp. 202-220). Malden, Mass.: Blackwell.
- Kellner, D. M., & Durham, M. G. (2006). Adventures in Media and Cultural Studies: Introducing the Keyworks. In M. G. Durham, & D. M. Kellner (Eds.), *Media and Cultural Studies: Keyworks* (Rev ed., pp. ix-xxxviii). Malden, MA: Blackwell.
- Kelly, D. (2001). *Character Animation with LightWave (6)*. Scottsdale, Ariz.: Coriolis Group Books.

- Kent, R. (1994). *Measuring Media Audiences: An Overview*. In R. Kent (Ed.), *Measuring Media Audiences* (pp. 1-21). London; New York: Routledge.
- Kerlow, I. V. (2000). *The Art of 3-D: Computer Animation and Imaging* (2nd ed.). New York: John Wiley & Sons.
- Kim, K. (2003). *Order and Agency in Modernity: Talcott Parsons, Erving Goffman, and Harold Garfinkel*. Albany: State University of New York Press.
- King, N. (2000). Hermeneutics, Reception Aesthetics, and Film Interpretation. In R. Dyer, P. C. Gibson, J. Hill, E. A. Kaplan & P. Willemen (Eds.), *Film Studies: Critical Approaches* (pp. 210-221). Oxford; New York: Oxford University Press.
- Kirsner, S. (2008). *Inventing the Movies: Hollywood's Epic Battle between Innovation and the Status Quo, from Thomas Edison to Steve Jobs*. USA: CinemaTech Books.
- Klinenberg, E., & Benzecry, C. (2005). Introduction. In E. Klinenberg (Ed.), *Cultural Production in a Digital Age* (pp. 6-18). Thousand Oaks; London: SAGE Publications.
- Knudsen, M. (2005). Displacing the Paradox of Decision Making. In D. Seidl, & K. H. Becker (Eds.), *Niklas Luhmann and Organization Studies* (pp. 107-126). Malmö: Liber & Copenhagen Business School Press.
- Koch, J. (2005). Luhmann's Systems Theory and Postmodernism. In D. Seidl, & K. H. Becker (Eds.), *Niklas Luhmann and Organization Studies* (pp. 262-281). Malmö: Liber & Copenhagen Business School Press.
- Krueger, R. A. (1994). *Focus Groups: A Practical Guide for Applied Research*. Thousand Oaks, California: SAGE Publications.
- Kuhn, T. S. (1977). *The Essential Tension: Selected Studies in Scientific Tradition and Change*. Chicago; London: University of Chicago Press.
- Kuhn, T. S. (1996). *The Structure of Scientific Revolutions* (3rd ed.). Chicago; London: University of Chicago Press.
- Lam, S. S. K. (1996). *The Impact of Translated Japanese Comics on Hong Kong Cinematic Production: Cultural Imperialism or Local Redeployment?* Unpublished MPhil dissertation, University of Hong Kong, Hong Kong.
- Lam, S. S. K. (2010). 'Global Corporate Cultural Capital' as a Drag on Glocalization: Disneyland's Promotion of the Halloween Festival. *Media, Culture & Society*, 32(4), 631-648.

- Lampel, J., Shamsie, J., & Lant, T. K. (2006). Toward a Deeper Understanding of Cultural Industries. In J. Lampel, J. Shamsie & T. K. Lant (Eds.), *The Business of Culture: Strategic Perspectives on Entertainment and Media* (pp. 3-14). Mahwah, NJ: Lawrence Erlbaum Associates.
- Lang, R. E., & Florida, R. (2005). Review Roundtable: Cities and the Creative Class/Discussion/Response. *Journal of the American Planning Association*, 71(2), 203.
- Lash, S., & Urry, J. (1994). *Economies of Signs and Space*. London; Thousand Oaks; New Delhi: SAGE Publications.
- Laszlo, E., Masulli, I., Artigiani, R., & Csányi, V. (1993). Introduction. In E. Laszlo, I. Masulli, R. Artigiani & V. Csányi (Eds.), *The Evolution of Cognitive Maps: New Paradigms for the Twenty-First Century* (pp. 1-19). Yverdon, Switzerland and Langhorne, Pa.: Gordon and Breach.
- Lau, T. (1999). Conflict and Desire - Dialogues between the Hong Kong Martial Arts Genre and Social Issues in the Past 40 Years. In Hong Kong Film Archive (Ed.), *The Making of Martial Arts Films: As Told by Filmmakers and Stars* (pp. 25-34). Hong Kong: The Provisional Urban Council. 劉大木. (1999). 挑燈看劍索夢回 - 四十年來武打片與社會事件的對話. In 香港電影資料館 (Ed.), *電影口述歷史展覽之《再現江湖》* (pp. 25-34). 香港: 臨時市政局.
- Lauer, J. (2008). Introduction: Communication and History. In B. Zelizer (Ed.), *Explorations in Communication and History* (pp. 15-18). Milton Park, Abingdon, Oxon; New York: Routledge.
- Law, K., Bren, F., & Ho, S. (2004). *Hong Kong Cinema: A Cross-Cultural View*. Lanham, Maryland; Toronto; Oxford: The Scarecrow Press.
- Law, W. (2005). Zhen Gong Fu, Zhen Xianggang -- You Li Xiao-Long Dao Zhou Xing-Chi. In P. Lam (Ed.), *2004 Xianggang Dian Ying Hui Gu* (pp. 56-59). Hong Kong: Hong Kong Film Critics Society. 羅維明. (2005). 真功夫, 真香港 - 由李小龍到周星馳. In 林震宇 (Ed.), *2004 香港電影回顧* (pp. 56-59). 香港: 香港電影評論學會.
- Lawler, A. (2001). New Imaging Tools Put the Art Back into Science. *Science*, 292(551), 1044.
- Lee, B. (2003). Yong Bao Da Zhong Hua - Stephen Chow's New Stage. In J. Ng (Ed.), *2001 Xianggang Dian Ying Hui Gu* (pp. 70-76). Hong Kong: Hong Kong Film Critics Society. 龐奴 (李照興). (2003). 擁抱大中華 - 周星馳新階段. In 吳君玉 (Ed.), *2001 香港電影回顧* (pp. 70-76). 香港: 香港電影評論學會.
- Lee, B. (2006). 'Qing Dian Da Sheng' - Hui Bu Qu Le. In C. Cheng (Ed.), *2005 Xianggang Dian Ying Hui Gu* (pp. 194-196). Hong Kong: Hong Kong Film Critics Society. 龐奴 (李照興). (2006).

- 《情癡大聖》- 回不去了 In 鄭傳錦 (Ed.), 2005 *香港電影回顧* (pp. 194-196). 香港: 香港電影評論學會.
- Lee, B. (2010). Bruce Lee, an Iconography. In *Bruce Lee Lives* (1st ed., pp. 48-57). Hong Kong: Hong Kong International Film Festival Society. 李照興 (龐奴). (2010). 符號李小龍. In *小龍不死* (1st ed., pp. 48-57). 香港: 香港國際電影節協會.
- Lee, P. S. N. (2002). Three Processes of Dissolving Boundaries: Internationalization, Marketization and Acculturation. In J. M. Chan, & B. T. McIntyre (Eds.), *In Search of Boundaries: Communication, Nation-States and Cultural Identities* (pp. 58-71). Westport, Connecticut: Ablex Publishing.
- Lee, V. P. Y. (2009). *Hong Kong Cinema since 1997: The Post-Nostalgic Imagination*. New York: Palgrave Macmillan.
- Lemert, C. (2006). Foreword: The Indexical Properties of Sociological Time. In *Seeing Sociologically: The Routine Grounds of Social Action* (pp. vii-xiii), by H. Garfinkel. Boulder, Colo.: Paradigm Publishers.
- Leon, P. (1953). Aesthetic Knowledge. In E. Vivas, & M. Krieger (Eds.), *The Problems of Aesthetics: A Book of Readings* (pp. 619-625). New York: Rinehart.
- Li, C. (2002). Through Thick and Thin: The Ever-Changing Tsui Hark and the Hong Kong Cinema. In S. Ho, & W. Ho (Eds.), *The Swordsman and His Jiang Hu: Tsui Hark and Hong Kong Film* (1st ed., pp. 2-23). Hong Kong: Hong Kong Film Archive. 李焯桃. (2002). 百變徐克與香港電影的互動. In 何思穎, & 何慧玲 (Eds.), *劍嘯江湖 徐克與香港電影* (初版, pp. 2-23). 香港: 香港電影資料館.
- Li, X. (2006, January-February). 'Qing dian da sheng': Shi nian mo yi jian, ci qing yi wang ran. *New Films*, 1, 29-30. 李雪. (2006, January-February). 《情癡大聖》: 十年磨一劍, 此情已惘然. *電影新作*, 1, 29-30.
- Li, Z. (2008, April). Fang zhu yu you li - cong 'ye yan', 'mo gong' guan dian ying zhong di cun zai. *Movie Literature*, 8, 73. 李真. (2008, April). 放逐與游離 - 從《夜宴》, 《墨攻》觀電影中的存在. *電影文學*, 8, 73.
- Li, Z. (2005). Jie gou 'san bao' yu gong neng 'san wei' - du zhou xing chi 2004 nian dian ying 'gong fu'. *Film Literature*, 4, 10-11. 李稚田. (2005). 結構“三寶”與功能“三味” - 讀周星馳 2004 年電影《功夫》. *電影文學*, 4, 10-11.

- Liang, Z. (2007, November-December). 'Zhongguo shi' da pian: Xuan hua yu zhuan lie - jian lun 'mo gong'. *Criticism and Creation*, 6, 106-110. 梁振華. (2007, November-December). "中國式"大片: 喧嘩與轉捩 - 兼論《墨攻》. *理論與創作*, 6, 106-110
- Lindlof, T. R., & Taylor, B. C. (2002). *Qualitative Communication Research Methods* (2nd ed.). Thousand Oaks, California: SAGE Publications.
- Liu, X. (2007, January). Cong man hua dao dian ying: Xianggang dian ying di yi zhong biao da. *Movie*, 1, 64-65. 劉秀梅. (2007, January). 從漫畫到電影: 香港電影的一種表達. *電影*, 1, 64-65.
- Liu, Y. (2008). CJ7: Dian xing di ya zhou guo ji hua ying pian zhi zuo - yu huang hong-xian tan 'chang jiang qi huo' te xiao zhi zuo. *Film Art*, 3, 117-122. 劉言韜. (2008). CJ7: 典型的亞洲國際化影片制作 與黃宏顯談《長江7號》特效制作. *電影藝術*, 3, 117-122.
- Longtin. (2003). Zhi She Zhong Gang Zu Qiu Gong Lu Di Dian Zi You Xi Shi Jie. In J. Ng (Ed.), *2001 Xianggang Dian Ying Hui Gu* (pp. 12-15). Hong Kong: Hong Kong Film Critics Society. 朗天. (2003). 指涉中港足球攻略的電子遊戲世界. In 吳君玉 (Ed.), *2001 香港電影回顧* (pp. 12-15). 香港: 香港電影評論學會.
- Longtin. (2005). Cong 'Gong Fu' Kan Wu Li Tou Xi Ju Di Bian Hua. In P. Lam (Ed.), *2004 Xianggang Dian Ying Hui Gu* (pp. 67-69). Hong Kong: Hong Kong Film Critics Society. 朗天. (2005). 從《功夫》看無厘頭喜劇的變化. In 林震宇 (Ed.), *2004 香港電影回顧* (pp. 67-69). 香港: 香港電影評論學會.
- Longtin. (2009). Stephen Chow's Death and Rebirth. In W. Cheung (Ed.), *2008 Xianggang Dian Ying Hui Gu* (pp. 70-73). Hong Kong: Hong Kong Film Critics Society. 朗天. (2009). 周星馳的終結與重生. In 張偉雄 (Ed.), *2008 香港電影回顧* (pp. 70-73). 香港: 香港電影評論學會.
- Louie, K. (2008). Hero: The Return of a Traditional Masculine Ideal in China. In C. Berry (Ed.), *Chinese Films in Focus II* (2nd ed., pp. 137-143). Basingstoke England: New York: BFI/Palgrave Macmillan.
- Lovejoy, M. (2004). *Digital Currents: Art in the Electronic Age*. New York; London: Routledge.
- Lu, J., & Zhang, Y. (2008). *Learn from Stephen Chow*. Taipei: Heliopolis Publishing Ltd. 盧俊, 張永美. (2008). *向周星馳學成功* (初版). 台北市: 日月文化出版股份有限公司.
- Lu, X. (2004). *Diary of Madman* (1st ed.). Hong Kong: San lian shu dian (Xianggang) you xian gong si. 魯迅. (2004). *狂人日記* (第1版). 香港: 三聯書店香港有限公司.

- Luhmann, N. (1979). *Trust and Power: Two Works by Niklas Luhmann* [Vertrauen. English]. Chichester; New York: John Wiley & Sons.
- Luhmann, N. (1995). *Social Systems*. Stanford, California: Stanford University Press.
- Luhmann, N. (1998). *Love as Passion. The Codification of Intimacy*. Stanford, California: Stanford University Press.
- Luhmann, N. (2000a). *Art as a Social System* (E. Knodt Trans.). Stanford, California: Stanford University Press.
- Luhmann, N. (2000b). *The Reality of the Mass Media*. Stanford, California: Stanford University Press.
- Luhmann, N. (2002). *Theories of Distinction: Redescribing the Descriptions of Modernity*. Stanford, California: Stanford University Press.
- Luhmann, N. (2003). Organization. In T. Bakken, & T. Hernes (Eds.), *Autopoietic Organization Theory: Drawing on Niklas Luhmann's Social Systems Perspective* (pp. 31-52). Oslo, Norway: Abstrakt Forlag.
- Luhmann, N. (2005a). The Autopoiesis of Social Systems. In D. Seidl, & K. H. Becker (Eds.), *Niklas Luhmann and Organization Studies* (pp. 64-82). Malmö: Liber & Copenhagen Business School Press.
- Luhmann, N. (2005b). The Paradox of Decision Making. In D. Seidl, & K. H. Becker (Eds.), *Niklas Luhmann and Organization Studies* (pp. 85-106). Malmö: Liber & Copenhagen Business School Press.
- Lui, B. (2009). *The Creative World of Film Production Designer Bill Lui* (1st ed.). Hong Kong: Cognizance Publishing Company Ltd. 雷楚雄. (2009). *以貝雷張電幕的皮: 美術總監的創作天地* (香港第 1 版). 香港: 知出版有限公司.
- Luo, M. (2007). 2006 Special Collection of Postmodern Animation. In T. Jiao (Ed.), *The Best Taiwanese Poetry 2006* (pp. 70-78). Taipei: Er yu wen hua. 羅門. (2007). 二〇〇六年後現代動畫特輯. In 焦桐 (Ed.), *2006 臺灣詩選* (pp. 70-78). 台北市: 二魚文化.
- Magalhães, R., & Sanchez, R. (2009). Autopoiesis Theory and Organization: An Overview. In R. Magalhães, & R. Sanchez (Eds.), *Autopoiesis in Organization Theory and Practice* (1st ed., pp. 3-25). Bingley, UK: Emerald.
- Manovich, L. (2001). *The Language of New Media*. Cambridge, Massachusetts: The MIT Press.

- Marin, L. (2001). *On Representation* (C. Porter Trans.). Stanford, California: Stanford University Press.
- Marshall, P. D. (2004). *New Media Cultures*. London: Arnold; New York: Oxford University Press.
- Martin, K. H. (1999, October). Jacking into the matrix. *Cinefex: The Journal of Cinematic Illusions*, 79, 66-89.
- Mathews, G. (2000). *Global Culture/Individual Identity: Searching for Home in the Cultural Supermarket*. London; New York: Routledge.
- Mayer, V. (2008). Studying Up and F\*\*cking Up: Ethnographic Interviewing in Production Studies. *Cinema Journal*, 47(2), 141-148.
- McClellan, S. T. (2007). *Digital Storytelling: The Narrative Power of Visual Effects in Film*. Cambridge, Mass.: The MIT Press.
- McCormick, P. J. (1990). *Modernity, Aesthetics, and the Bounds of Art*. Ithaca and London: Cornell University Press.
- McGranahan, D. A., & Wojan, T. R. (2007). The Creative Class: A Key to Rural Growth. *Amber Waves*, 5(2), 16.
- McQuail, D. (1997). *Audience Analysis*. Thousand Oaks, Calif.; London; New Delhi: SAGE Publications.
- Metcalf, P. (2001). Global 'Disjuncture' and the 'Sites' of Anthropology. *Cultural Anthropology*, 16(2), 165.
- Moeller, H. (2006). *Luhmann Explained: From Souls to Systems*. Chicago and La Salle, Illinois: Open Court.
- Monk, R. (2005). *How to Read Wittgenstein* (1 American ed.). New York: Norton.
- Morgan, D. L. (1998). *The Focus Group Guidebook (Focus Group Kit)*. London; New Delhi: SAGE Publications.
- Morris, C. W. (1953). Science, Art and Technology. In E. Vivas, & M. Krieger (Eds.), *The Problems of Aesthetics: A Book of Readings* (pp. 105-115). New York: Rinehart.
- Morrison, D. E. (1998). *The Search for a Method: Focus Groups and the Development of Mass Communication Research*. Luton, Bedfordshire, U.K.: University of Luton Press.

- Mould, O., Vorley, T., & Roodhouse, S. (2008). Realizing Capabilities - Academic Creativity and the Creative Industries. *Creative Industries Journal*, 1(2), 137-150.
- Neale, S. (2003). Questions of Genre. In B. K. Grant (Ed.), *Film Genre Reader III* (pp. 160-184). Austin, Tex.: University of Texas Press.
- Negus, K. (2006). Rethinking Creative Production Away from the Cultural Industries. In J. Curran, & D. Morley (Eds.), *Media and Cultural Theory* (pp. 197-208). London; New York: Routledge.
- Nerone, J. (2006). The Future of Communication History. *Critical Studies in Media Communication*, 23(3), 254-262.
- Nerone, J. (2008). Newswork, Technology, and Cultural Form, 1837-1920. In B. Zelizer (Ed.), *Explorations in Communication and History* (pp. 136-156). Milton Park, Abingdon, Oxon; New York: Routledge.
- Ogien, A. (2009). Rules and Details: From Wittgenstein and Rawls to the Study of Practices. *Journal of Classical Sociology*, 9(4), 450-474.
- Olson, R. L. (1999). *Art Direction for Film and Video* (2nd ed.). Boston: Focal Press.
- Pachucki, M. A., Lena, J. C., & Tepper, S. J. (2010). Creativity Narratives among College Students: Sociability and Everyday Creativity. *The Sociological Quarterly*, 51, 122-149.
- Palfrey, J., & Gasser, U. (2008). *Born Digital: Understanding the First Generation of Digital Natives*. New York: Basic Books.
- Pang, L. (2007). Postcolonial Hong Kong Cinema: Utilitarianism and (Trans)local. *Postcolonial Studies*, 10(4), 413-430.
- Patmore, C. (2003). *The Complete Animation Course: The Principles, Practice and Techniques of Successful Animation*. New York: Barron's educational Series, Inc.
- Peterson, R. A. (1994). Culture Studies through the Production Perspective: Progress and Prospects. In D. Crane (Ed.), *The Sociology of Culture: Emerging Theoretical Perspectives* (pp. 163-189). Cambridge, Mass.: Blackwell.
- Peterson, R. A., & Anand, N. (2004). The Production of Culture Perspective. *Annual Review of Sociology*, 30(1), 311-334.

- Pierre. (2004). All about Twins Effect. In Longtin (Ed.), *2003 Xianggang Dian Ying Hui Gu* (pp. 72-73). Hong Kong: Hong Kong Film Critics Society. 皮亞. (2004). 一切都是 Twins Effect. In 朗天 (Ed.), *2003 香港電影回顧* (pp. 72-73). 香港: 香港電影評論學會.
- Popper, K. R. (1959). *The Logic of Scientific Discovery* [Logik der Forschung. English]. London: Hutchinson.
- Potter, J., & Hepburn, A. (2010). A Kind of Governance: Rules, Time and Psychology in Organisations. In N. Llewellyn, & J. Hindmarsh (Eds.), *Organisation, Interaction and Practice: Studies in Ethnomethodology and Conversation Analysis* (pp. 49-73). Cambridge, UK; New York: Cambridge University Press.
- Preston, W. (1994). *What an Art Director does: An Introduction to Motion Picture Production Design* (1st ed.). Los Angeles: Silman-James Press.
- Punday, D. (2003). *Narrative Bodies. Toward a Corporeal Narratology* (1st ed.). New York: Palgrave Macmillan.
- 'Qian ji bian': Xianggang kong bu pian. (2003, August). *Film Pictorial*, 8, 30-31. 《千機變》: 香港恐怖片. (2003, August). *電影畫刊*, 8, 30-31.
- Qiao, J. (2005). Some Thoughts on the Evolution of the New-Version Knight-Errant Films in the 21st Century and the Tendency of such Movies. *Journal of Liuzhou Teachers College*, 20(1), 137-140. 喬潔瓊. (2005). 新武俠電影的發展與新世紀武俠電影的思考. *柳州師專學報*, 20(1), 137-140.
- Ran, L. (2008, October). Yan mo di jue xue, yao yuan di jue xiang: Cong dian ying 'mo gong' kan mo jia si xiang. *Sichuan Drama*, 5, 95-96. 冉隆平. (2008, October). 湮沒的絕學, 遙遠的絕響——從電影《墨攻》看墨家思想. *四川戲劇*, 5, 95-96.
- Rasch, W. (2002). Introduction: The Self-Positing Society. In *Theories of Distinction: Redescribing the Descriptions of Modernity* (pp. 1-30), by N. Luhmann. Stanford, California: Stanford University Press.
- Rawls, A. W. (1996). Durkheim's Epistemology: The Neglected Argument. *The American Journal of Sociology*, 102(2), 430-482.
- Rawls, A. W. (2001). Durkheim's Treatment of Practice: Concrete Practice Vs Representations as the Foundation of Reason. *Journal of Classical Sociology*, 1(1), 33-68.

- Rawls, A. W. (2002). Editor's Introduction. In *Ethnomethodology's Program: Working Out Durkheim's Aphorism* (pp. 1-64), by H. Garfinkel. Lanham, Md.: Rowman & Littlefield Publishers.
- Rawls, A. W. (2006). Respecifying the Study of Social Order - Garfinkel's Transition from Theoretical Conceptualization to Practices in Details. In *Seeing Sociologically: The Routine Grounds of Social Action* (pp. 1-97), by H. Garfinkel. Boulder, Colo.: Paradigm Publishers.
- Rawls, A. W. (2008). Editor's Introduction. In *Toward a Sociological Theory of Information* (pp. 1-100), by H. Garfinkel. Boulder: Paradigm Publishers.
- Redner, H. (2004). *Conserving Cultures: Technology, Globalization, and the Future of Local Cultures*. Lanham, Md.: Rowman & Littlefield Publishers.
- Rieckitt, R. (2000). *Special Effects: The History and Technique*. New York: Billboard Books.
- Ritzer, G. (2008). *The McDonaldization of Society 5*. Los Angeles: Pine Forge Press.
- Rizzo, M. (2005). *The Art Direction Handbook for Film*. Amsterdam; Boston: Focal Press.
- Robertson, R. (1995). Globalization: Time-Space and Homogeneity-Heterogeneity. In M. Featherstone, S. Lash & R. Robertson (Eds.), *Global Modernities* (pp. 25-44). London; Thousand Oaks; New Delhi: SAGE Publications.
- Robins, K. (1996). *Into the Image: Culture and Politics in the Field of Vision*. London; New York: Routledge.
- Rombes, N. (2009). *Cinema in the Digital Age*. London; New York: Wallflower Press.
- Rose, G. (2007). *Visual Methodologies: An Introduction to the Interpretation of Visual Materials* (2nd ed.). London; Thousand Oaks, California: SAGE Publications.
- Sarafian, K. (2003). Flashing Digital Animations: Pixar's Digital Aesthetic. In A. Everett, & J. T. Caldwell (Eds.), *New Media: Theories and Practices of Digitextuality* (pp. 209-224). New York: Routledge.
- Schroeder, A. (2004). *Tsui Hark's Zu: Warriors from the Magic Mountain*. Hong Kong: Hong Kong University Press.
- Seegmiller, D. (2004). *Digital Character Design and Painting: The Photoshop CS Edition* (Photoshop CS, 1st ed.). Hingham, Mass.: Charles River Media.

- Seidl, D. (2005a). The Basic Concepts of Luhmann's Theory of Social Systems. In D. Seidl, & K. H. Becker (Eds.), *Niklas Luhmann and Organization Studies* (pp. 21-53). Malmö: Liber & Copenhagen Business School Press.
- Seidl, D. (2005b). Organization and Interaction. In D. Seidl, & K. H. Becker (Eds.), *Niklas Luhmann and Organization Studies* (pp. 145-170). Malmö: Liber & Copenhagen Business School Press.
- Seidl, D., & Becker, K. H. (2005). Introduction: Niklas Luhmann and Organization Studies. In D. Seidl, & K. H. Becker (Eds.), *Niklas Luhmann and Organization Studies* (pp. 8-19). Malmö: Liber & Copenhagen Business School Press.
- Sek Kei. (2002). Struggle, Battle, Victory, Buddhism: Tsui Hark and the Force. In S. Ho, & W. Ho (Eds.), *The Swordsman and His Jiang Hu: Tsui Hark and Hong Kong Film* (1st ed., pp. 24-45). Hong Kong: Hong Kong Film Archive. 石琪. (2002). 鬥, 戰, 勝, 佛——徐克的電影動力. In 何思穎, 何慧玲 (Eds.), *劍膽江湖: 徐克與香港電影* (初版, pp. 24-45). 香港: 香港電影資料館.
- Shay, D. (1996, March). Dennis Muren: Playing it unsafe. *Cinefex: The Journal of Cinematic Illusions*, 65, 98-111.
- Shay, D. (1997, December). Back to Titanic. *Cinefex: The Journal of Cinematic Illusions*, 72, 15-76.
- Shay, D., & Duncan, J. (1993). *The Making of Jurassic Park*. London: New York: Bantam; Ballantine Books.
- Shay, D., & Duncan, J. (2001, April). 2001: A time capsule. *Cinefex: The Journal of Cinematic Illusions*, 85, 73-117.
- Shusterman, R. (1986). Wittgenstein and Critical Reasoning. *Philosophy and Phenomenological Research*, 47(1), 91-110.
- Smith, T. G. (1986). *Industrial Light & Magic: The Art of Special Effects* (1st ed.). New York: Ballantine Books.
- Special Report: Hong Kong Digital Effects (香港特效: 不能不說的秘密). (2009, August). *Hong Kong Film* (香港電影), 21, 28-41.
- Staiger, J. (2000). *Perverse Spectators: The Practices of Film Reception*. New York: New York University Press.
- Stewart, C. O. (2009). Socioscientific Controversies: A Theoretical and Methodological Framework. *Communication Theory*, 19(2), 124-145.

- Stokes, L. O., & Hoover, M. (1999). *City on Fire: Hong Kong Cinema*. London; New York: Verso.
- Stokes, M. (2001). Introduction: Historical Hollywood Spectatorship. In M. Stokes, & R. Maltby (Eds.), *Hollywood Spectatorship: Changing Perceptions of Cinema Audiences* (pp. 1-16). London: British Film Institute.
- Storey, J. (2010). *Culture and Power in Cultural Studies: The Politics of Signification*. Edinburgh: Edinburgh University Press.
- Straubhaar, J. D. (1991). Beyond Media Imperialism: Asymmetrical Interdependence and Cultural Proximity. *Critical Studies in Mass Communication*, 8, 1-11.
- Straubhaar, J. D. (2007). *World Television: From Global to Local*. Los Angeles; London; New Delhi; Singapore: SAGE Publications.
- Sun, S. (2009). Translocality and 'Non-Locality': Globalization and Chinese Blockbusters. *The Chinese Journal of Communication and Society*, 7, 61-79. 孫紹誼. (2009). 跨地域性與「無地域空間」：全球化語境中的華語商業電影. *傳播與社會學刊*, 7, 61-79.
- Tashiro, C. S. (2002). The Twilight Zone of Contemporary Hollywood Production. *Cinema Journal*, 41(3), 27-37.
- Taylor, L., & Willis, A. (1999). *Media Studies: Texts, Institutions and Audiences*. Oxford, UK; Malden, Mass.: Blackwell Publishers.
- Teo, S. (1997). *Hong Kong Cinema: The Extra Dimensions*. London: British Film Institute Publishing.
- Teo, S. (2008). Promise and perhaps Love: Pan-Asian Production and the Hong Kong-China Interrelationship. *Inter-Asia Cultural Studies*, 9(3), 341-358.
- Thomas, F., & Johnston, O. (1995). *The Illusion of Life: Disney Animation* (1 Hyperion ed.). New York: Hyperion.
- Thompson, J. B. (1990). *Ideology and Modern Culture: Critical Social Theory in the Era of Mass Communication*. Stanford, California: Stanford University Press.
- Thompson, J. B. (1995). *The Media and Modernity: A Social Theory of the Media*. Stanford, California: Stanford University Press.
- Thompson, J. B. (2005a). *Books in the Digital Age: The Transformation of Academic and Higher Education Publishing in Britain and the United States*. Cambridge, UK; Malden, MA: Polity Press.

- Thompson, J. B. (2005b). The New Visibility. *Theory, Culture & Society*, 22(6), 31-51.
- Tomlinson, J. (2007). *The Culture of Speed: The Coming of Immediacy*. Los Angeles; London; New Delhi; Singapore: SAGE Publications.
- Toulet, E. (1995). *Cinema is 100 Years Old*. London: Thames and Hudson.
- Tryon, C. (2009). *Reinventing Cinema: Movies in the Age of Media Convergence*. New Brunswick, N.J.: Rutgers University Press.
- Tudor, A. (2003). Genre. In B. K. Grant (Ed.), *Film Genre Reader III* (pp. 3-11). Austin, Tex.: University of Texas Press.
- Tumminello, W. (2005). *Exploring Storyboarding*. Australia; Clifton Park, NY: Thomson-Delmar Learning.
- Turner, G. (2000). Cultural Studies and Film. In R. Dyer, P. C. Gibson, J. Hill, E. A. Kaplan & P. Willemen (Eds.), *Film Studies: Critical Approaches* (pp. 193-199). Oxford; New York: Oxford University Press.
- Urry, J. (2005). The Complexity Turn. *Theory, Culture & Society*, 22(5), 1-14.
- Urry, J. (2007). *Mobilities*. Cambridge, UK; Malden, MA: Polity Press.
- Vaz, M. C., & Duignan, P. R. (1996). *Industrial Light & Magic: Into the Digital Realm*. New York: Ballantine Books.
- Villarejo, A. (2007). *Film Studies: The Basics*. London; New York: Routledge.
- Vivas, E., & Krieger, M. (1953). The Discipline of Aesthetics: The Nature, the Teaching, and the Problems of Aesthetics. In E. Vivas, & M. Krieger (Eds.), *The Problems of Aesthetics: A Book of Readings* (pp. 1-19). New York: Rinehart.
- Waisbord, S. (2004). McTV: Understanding the Global Popularity of Television Formats. *Television & New Media*, 5(4), 359-383.
- Wang, D. D. (1992). *Fictional Realism in Twentieth-Century China: Mao Dun, Lao She, Shen Congwen*. New York: Columbia University Press.
- Wahg, D. D. (2008). *Yi Jiu Si Jiu: 'Shang Hen Shu Xie Yu Guo Jia Wen Xue* (1st ed.). Hong Kong: San lian shu dian (Xianggang) you xian gong si. 王德威. (2008). *一九四九：傷痕書寫與國家文學* (香港第1版). 香港：三聯書店香港有限公司.

- Wang, G. (2006). Yi ge gao ke ji di xiu hua zhen tou - 'qing dian da sheng'. *Popular Cinema*, 4, 34. 王國平. (2006). 一個高科技的綉花枕頭 《情癡大聖》. *大眾電影*, 4, 34.
- Wang, G. (2007). Qian qiao shen kan zong xiang yi - 'mo gong'. *Popular Cinema*, 2, 30. 王國平. (2007). 淺瞧深看總相宜 — 《墨攻》. *大眾電影*, 2, 30.
- Wang, Y. (2008). Zhou Xing-chi zheng zai can shi wo men di nai xin. *Wen Zhou Liao Wang*, 5, 93. 王永勝. (2008). 周星馳正在蠶食我們的耐心. *溫州瞭望*, 5, 93.
- Watson, R. (2009). Constitutive Practices and Garfinkel's Notion of Trust: Revisited. *Journal of Classical Sociology*, 9(4), 475-499.
- Whissel, K. (2006). Tales of Upward Mobility the New Verticality and Digital Special Effects. *Film Quarterly*, 59, 23-34.
- Williams, R. (1961). *The Long Revolution*. London: Chatto & Windus.
- Williams, R. (1985). *Keywords: A Vocabulary of Culture and Society*. New York: Oxford University Press.
- Wilson, B. (2006). Ethnography, the Internet, and Youth Culture: Strategies for Examining Social Resistance and 'Online-Offline' Relationships. *Canadian Journal of Education*, 29(1), 307.
- Wittgenstein, L. (1969). *Preliminary Studies for the 'Philosophical Investigations': Generally Known as the Blue and Brown Books* (2d ed.). London: Blackwell.
- Wittgenstein, L. (2007/1967). In Barrett C. (Ed.), *Lectures and Conversations on Aesthetics, Psychology, and Religious Belief*. Berkeley: University of California Press.
- Wolfe, A. S., & Haefner, M. (1996). Taste Cultures, Culture Classes, Affective Alliances, and Popular Music Reception: Theory, Methodology, and an Application to a Beatles Song. *Popular Music & Society*, 20(4), 127.
- Wong, R. (1998). *Myths of Cinema City*. Hong Kong: Cosmos Books Ltd. 黃百鳴. (1998). *新藝城神話*. 香港: 天地圖書有限公司.
- Wright, T. (2008). *Visual Impact: Culture and the Meaning of Images* (English ed.). Oxford; New York: Berg.
- Wu, Q., & Wang, G. (2008, June). 'Chang jiang qi hao' di wu du. *Movie Review*, 12, 43. 吳茜, 王剛. (2008, June). 《長江七號》的誤讀. *電影評介*, 12, 43.

- Xu, L. (2009). *The Cultural Track of Hong Kong Film (1958-2007)*. Beijing: Zhongguo dian ying chu ban she. 許樂. (2009). *香港電影的文化歷程 (1958-2007)*. 北京: 中國電影出版社.
- Yang, C. (2007). Animadversion on Hot Action Movies in Ancient Costume. *Journal of Taiyuan Normal University (Social Science Edition)*, 6(5), 96-112. 楊巖. (2007). 古裝動作大片批判. *太原師範學院學報(社會科學版)*, 6(5), 96-112.
- Yang, G. (2009). *The Power of the Internet in China: Citizen Activism Online*. New York: Columbia University Press.
- Yang, Y. (2005). Zhen han shi jue di dong zuo di guo - man yi 'gong fu' zhong di jing dian wu da qiao duan. *Film Art*, 3, 57-59. 楊陽. (2005). 震撼視覺的動作帝國 - 漫議《功夫》中的經典武打橋段. *電影藝術*, 3, 57-59.
- Yeffeth, G. (Ed.). (2003). *Taking the Red Pill: Science, Philosophy and Religion in the Matrix*. Chichester: Summersdale.
- Yin, H., & He, M. (2009). Chinese Films After the Period of Co-Production: The Historical Development of Mainland-HK Co-Production in the Chinese Movie Industry. *The Chinese Journal of Communication and Society*, 7, 31-60. 尹鴻, 何美. (2009). 走向後合拍時代的華語電影: 中國內地與香港電影的合作/合拍歷程. *傳播與社會學刊*, 7, 31-60.
- Yoon, S. (2009). The Neoliberal World Order and Patriarchal Power: A Discursive Study of Korean Cinema and International Co-Production. *Visual Anthropology*, 22(2), 200-210.
- Yu, M. (1994). *Xianggang Dian Ying Ba Shi Nian*. Hong Kong: Hong Kong Regional Council. 余慕雲. (1994). *香港電影八十年*. 香港: 香港區域市政局.
- Zelizer, B. (2008). When Disciplines Engage. In B. Zelizer (Ed.), *Explorations in Communication and History* (pp. 1-12). Milton Park, Abingdon, Oxon; New York: Routledge.
- Zelizer, B. (2009). My Media Studies: The Hubris of it all .... *Television & New Media*, 10(1), 173-174.
- Zhang, C. (1999). Creating the Martial Arts Film and the Hong Kong Cinema Style. In Hong Kong Film Archive (Ed.), *The Making of Martial Arts Films: As Told by Filmmakers and Stars* (pp. 10-24). Hong Kong: The Provisional Urban Council. 張徹. (1999). 武俠片與港片風格之創建. In 香港電影資料館 (Ed.), *電影口述歷史展覽之《再現江湖》* (pp. 10-24). 香港: 臨時市政局.
- Zhang, J. (2005). Hero. *Film Quarterly*, 58(4), 47-52.

Zhou, X., & Liu, T. (2007, January-February). Zhong guo da pian di xian zhuang yu wen ti di bian xi.  
*New Films, 1*, 40-45. 周星, 柳天星. (2007, January-February). 中國大片的現狀與問題的辨析.  
*電影新作, 1*, 40-45.

## **Filmography**

*2001: A Space Odyssey* (1968), by Stanley Kubrick

*A Battle of Wits* (2006), by Jacob Cheung

*A Chinese Ghost Story I* (1987), by Siu-tung Ching

*A Chinese Ghost Story II* (1990), by Siu-tung Ching

*A Chinese Ghost Story III* (1991), by Siu-tung Ching

*A Chinese Odyssey* (1994), by Jeff Lau

*A Chinese Tall Story* (2005), by Jeff Lau

*A Man Called Hero* (1999), by Andrew Lau

*A Trip to the Moon* (1902), by Georges Méliès

*Artificial Intelligence: AI* (2001), by Steven Spielberg

*Avatar* (2009), by James Cameron

*Blade Runner* (1982), by Ridley Scott

*Bodyguards and Assassins* (2009), by Teddy Chan

*Buddha's Palm* (1964), by Ling Wan

*Come Drink with Me* (1966), by King Hu

*CJ7/A Hope* (2008), by Stephen Chow

*Crouching Tiger, Hidden Dragon* (2000), by Ang Lee

*Dr No* (1962), by Terence Young

*Drunken Master* (1978), by Woo-ping Yuen

*E.T.: The Extra-Terrestrial* (1982), by Steven Spielberg

*Feline Follies* (1919), by Pat Sullivan

*Fight Club* (1999), by David Fincher

*Final Fantasy: The Spirit Within* (2001), by Hironobu Sakaguchi

*Fist of Fury/The Chinese Connection* (1972), by Wei Lo

*Forrest Gump* (1994), by Robert Zemeckis

*Frankenstein* (1931), by James Whale

*From Beijing with Love* (1994), by Stephen Chow & Lik-chee Lee

*Gertie the Dinosaur* (1914), by Winsor McCay

*Gone with the Wind* (1939), by Victor Fleming

*Hero* (2002), by Yimou Zhang

*House of Flying Daggers* (2004), by Yimou Zhang

*Ice Age* (2002), by Chris Wedge

*Independence Day* (1996), by Roland Emmerich

*Indian Rubber Head* (1902), by Georges Méliès

*Infernal Affairs* (2002), by Andrew Lau & Alan Mak

*Jurassic Park* (1993), by Steven Spielberg

*Kill Bill* (2003), by Quentin Tarantino

*King Kong* (1933), by Merian C. Cooper & Ernest B. Schoedsack

*King Kong* (2005), by Peter Jackson

*Kung Fu Hustle* (2004), by Stephen Chow

*Lights of New York* (1928), by Bryan Foy

*Lust, Caution* (2007), by Ang Lee

*Luxo Jr* (1986), by John Lasseter

*Magic Crystal* (1986), by Jing Wong

*Magic Cup* (1961), by Lung To

*Mary Poppins* (1964), by Robert Stevenson

*Master Q 2001* (2001), by Herman Yau

*Monsters Inc.* (2001), by Peter Docter, David Silverman & Lee Unkrich

*Once upon a Time in China* (1991), by Hark Tsui

*Police Story* (1985), by Jackie Chan

*Re-Cycle* (2006), by Danny and Oxide Pang

*Robots* (2005), by Chris Wedge

*Shaolin Soccer* (2001), by Stephen Chow

*Star Trek* (1979), by Robert Wise

*Star Trek II: The Wrath of Khan* (1982), by Nicholas Meyer

*Star Wars Episode I – The Phantom Menace* (1999), by George Lucas

*Star Wars Episode II – Attack of the Clones* (2002), by George Lucas

*Star Wars Episode III – Revenge of the Sith* (2005), by George Lucas

*Star Wars Episode IV – A New Hope* (1977), by George Lucas

*Star Wars Episode V – The Empire Strikes Back* (1980), by Irvin Kershner

*Star Wars Episode VI – Return of the Jedi* (1983), by Richard Marquand

*Superman* (1978), by Richard Donner

*Swordsman I* (1990), by Siu-tung Ching, King Hu, Raymond Lee & Hark Tsui

*Swordsman II* (1991), by Siu-tung Ching & Stanley Tong

*Ten Brothers vs the Sea Monster* (1960), by Wui Ng

*Terminator 2: Judgment Day* (1991), by James Cameron

*Timecode* (2000), by Mike Figgis

*The Abyss* (1989), by James Cameron

*The Birds* (1963), by Alfred Hitchcock

*The Burning of the Red Lotus Monastery* (1928), by Shichuan Zhang

*The Butterfly Murders* (1979), by Hark Tsui

*The Champions* (1983), by Chun-yeung Yuen

*The Curious Case of Benjamin Button* (2008), by David Fincher

*The Departed* (2006), by Martin Scorsese

*The Flirting Scholar* (1993), by Lik-chee Lee

*The Four Troublesome Heads* (1898), by Georges Méliès

*The Furious Buddha's Palm* (1965), by Ling Wan

*The House of 72 Tenants* (1973), by Chor Yuen

*The Incredibles* (2004), by Brad Bird

*The Legend of Wisely* (1987), by Teddy Robin Kwan

*The Legend of Zu* (2001), by Hark Tsui

*The Lord of the Rings: The Fellowship of the Ring* (2001), by Peter Jackson

*The Lord of the Rings: The Two Towers* (2002), by Peter Jackson

*The Lord of the Rings: The Return of the King* (2003), by Peter Jackson

*The Lost World* (1925), by Harry O. Hoyt

*The Lost World: Jurassic Park* (1997), by Steven Spielberg

*The Matrix* (1999), by Larry and Andy Wachowski

*The Matrix Reloaded* (2003), by Larry and Andy Wachowski

*The Matrix Revolutions* (2003), by Larry and Andy Wachowski

*The One-armed Swordsman* (1967), by Che Zhang

*The Perfect Storm* (2000), by Wolfgang Petersen

*The Prince of Egypt* (1998), by Brenda Chapman & Steve Hickner

*The Promise* (2005), by Kaige Chen

*The Sand Pebbles* (1966), by Robert Wise

*The Six-fingered Lord of the Lute* (1965), by Lit-ban Chan

*The Storm Warriors* (2009), by Danny and Oxide Pang

*The Stormriders* (1998), by Andrew Lau

*The Story of Wong Fei-hung/True Story of Wong Fei Hung Volume 1* (1949), by Pang Wu

*The Thief of Bagdad* (1940), by Ludwig Berger, Michael Powell & Tim Whelan

*The Twins Effect* (2003), by Dante Lam

*The Twins Effect II* (2004), by Patrick Leung & Corey Yuen

*The Umbrella Story* (1995), by Chi-sum Ko

*The Warlords* (2007), by Peter Chan

*Till Death Do We Scare* (1982), by Kar-wing Lau

*Titanic* (1997), by James Cameron

*Toy Story* (1995), by John Lasseter

*Toy Story 2* (1999), by John Lasseter

*Toy Story 3* (2010), by Lee Unkrich

*Transformers* (2007), by Michael Bay



*Tron* (1982), by Steven Lisberger

*Wicked City* (1992), by Peter Mak

*X-Men* (2000), by Bryan Singer

*Young and Dangerous* (1996), by Andrew Lau

*Young Sherlock Holmes* (1985), by Barry Levinson

*Zu: Warriors from the Magic Mountain* (1983), by Hark Tsui