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The Digital Illusion: Chinese New Media Artists Exploring the Phenomenology of Space

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Abstract

This article examines how Chinese new media artists negotiate the symbolic nature of urban space via 3D-modelled simulations and augmented and mixed reality. Via semiotic and media analysis, the article scrutinises the ontology of these media in their deployment of spatial parameters such as proportion, perspective, stasis, and motion to create spatial narratives. The article contrasts the imaginary of architecture and space in the independent 3D animation Mist by Zhang Xiaotao and the Second Life project RMB City by Cao Fei against the implementation of video art in the mixed-reality performance Wearable Urban Routine by Zhu Xiaowen and the augmented-reality app Statue of Democracy & Tank Man by artist collective 4 Gentlemen. In all of the discussed works, the use of the digital medium serves to create a temporary illusion whereby the ephemeral experience of a virtual world can help inform the role of the human in actual, physical space which adopts particular importance in the context of a radically transforming country. This study contributes to the growing scholarship on the interlinkages between Chinese art, architecture, and the city and on the use of technology in Chinese cultural production.

Keywords: Chinese contemporary art, urban space, architecture, digital media, 3D animation, augmented reality, embodiment

Introduction

In contemporary China, artists have, for many years now, set their eyes on the city as subject matter. The negotiation of urban space has become a highly important subject in the wake of China's reform and opening up process which engendered redevelopment projects throughout the country that led to the destruction of thousands of square kilometres of vernacular space for the sake of modernization or "urban renewal" (chengshi gengxin 城市更新). Moreover, the expansion of cities (chengshi kuozhang 城市扩张) led to the devouring of farmland and turned large parts of the country into construction sites which displaced millions of residents who had to leave profitable building plots. The result of this process has been a complete refashioning of the Chinese landscape, with some cities having become nearly unrecognizable and featuring the most iconic landmarks of modernity. Numerous Chinese artists have reflected on this extraordinary urban transformation via more traditional media, including photography, video art, and installations, including Song Dong 宋冬 (b. 1966), Yin Xiuzhen 尹秀珍 (b. 1963), Zhan Wang 展望 (b. 1962) and the Gao Brothers 高氏兄弟 (高兟 b. 1956, 高强 b. 1962), to name just a few. In such works rubble and debris tend to feature prominently, serving as trope that expresses the largescale destruction. In this article I will examine four artworks from the realm of new media which investigate the configuration of urban space and its implication for the human body and mind. I use "new media" to denote media art in which the work is either created, stored, and presented by way of digital technologies or which includes a digitally produced component. I moreover address new media artworks in light of the notion of the "virtual" and how virtual representation or recreation of space can serve as an instance in the remediation of the role of the human in factual

and physical urban space. Amidst the various strands of scholarly debate on "virtuality" (which range from debates on the illusionistic spaces created in ceiling frescoes (Grau, 2003) to the immersive virtual realities (VR) of today that "convince . . . the participant that . . . [they are] actually in another place by substituting the primary sensory input with data" (Heim, 1998: 221), I choose in this article to use the "virtual" as that which "create[s] a synthetic view of reality" (Damer and Hinrichs, 2014: 18) by means of digital technology and which serves to create temporary spatial simulations and illusions.

The visually most climactic element of the dramatic urban transformation that has taken place in China since the reform and opening up period was initiated is arguably the emergence of the super-tall skyscraper in China, whose symbolic nature is explored in Zhang Xiaotao's 张小涛 animation Mist 迷雾, as well as in Cao Fei's 曹斐 Second Life spectacle RMB City (Renmin chengzhai 人民城寨). Meanwhile, artist collective 4 Gentlemen negotiate the loss of meaning in physical space in Beijing through their reification of the past through augmented reality (AR). I also decided to include Zhu Xiaowen's 朱晓闻 performance in the city of Rotterdam in the Netherlands, given the relevance of the work to the questions at hand and led by the desire to avoid a culturalist, ethnographic perspective that fails to acknowledge the transnational nature of technology as well as of artistic production today. This article aims, therefore, to gain insights into the wider implications of the relationship between mediality, performativity, and urban space. These works will be examined in light of the role of the virtual in negotiating the hegemonic forces of physical space. It will be examined whether virtuality, as Michael Heim suggests, can somehow "dissolve the constraints of the anchored world [in order to] . . . lift anchor" (Heim, 1993: 136) and whether the destabilization of meaning in virtual climes can alter our understanding of the meaning of factual, physical space. Moreover, it will be analysed how movement through virtual time and space can impact the formation of cultural identities in real life. The works examined here clearly articulate new or altered spatial subjectivities and it will be argued that they destabilise conventional semantics of factual space and instead carve out the complex and multi-layered nature of cities today. Read together, these works also provide insights into the ontology of new media and the capacity of varying instances of virtuality to remediate the real world.

Spatial Illusion in Traditional Media

Before proceeding to look at new media, however, it is useful to take a look at traditional media's representation of space to get a better understanding of the new possibilities and limitations that new media affords. The representation of space in Western art (Giedion, 1966; White, 1987; Panofsky, 1991; Gombrich, 2000) differs in many ways from traditional Chinese landscape painting, which invented intricate techniques to represent three-dimensional landscapes but also focussed largely on the creation of symbolic, illusionistic space (Sullivan, 1962; Cahill, 1982; Fong, 1992; McCausland and Hwang, 2014). These differences are – in part – due to differing understandings of the concept of space. The intellectual history of East and West has brought forth notions of space that varied according to cosmological, theological, and scientific perspectives which, moreover, resulted in debates about the absolute or relative nature of space, whether it was finite or infinite and whether it was defined by substance or void. In premodern China, there were numerous terminologies that suggested notions of space whereby "some refer to a place or location (e.g., chu [處], di [地], difang [地方], suo [所]), direction (shangxia sifang [上 下四方]), temporal or spatial intervals or gaps (kong [空], jian [間]), or the cosmos (yuzhou [宇宙])" (Liu, 2016: 198). These terms denote varying instances of materiality and immateriality as well as cosmological beliefs, and the term for space in modern Chinese, kongjian 空间, interestingly emphasises both emptiness and in-betweenness. The digital media of today raise equally complex questions about the nature and definition of "space," which are further complicated by the

differentiation between virtual, augmented, and mixed realities which represent entirely new visual aesthetics (Manovich, n.d.). As has been examined by a number of scholars (Bolter and Grusin, 1999; Manovich, 2002), the new technologies deployed in artistic production are ontologically not too dissimilar from the earlier forms of media upon which they are largely modelled. Attempts to create virtual, illusionistic space have a long history and for centuries did not even require digital technologies. Anamorphism, for instance, denotes the creation of an illusionistic spatial experience, drawing on geometric conceptual frameworks as well as on sensual experiences to achieve a deliberate distortion of realistic perspective. Examples include the trompe l'oeil by which a painter could achieve deceiving verisimilitude, for instance by painting a window onto a plain wall or by making something appear three-dimensional despite its two-dimensional materiality. The art theorists of the baroque period thereby attributed spiritual qualities to illusionism as they "saw geometric perspective as mediating between man and the world by revealing God's order through mathematical proportions" (Pérez Gómez, 1997: 141– 147, 215). In premodern China, too, Tang (618–907 CE) and Song (Northern Song 960–1127 CE; Southern Song 1127–1279 CE) imperial tombs, for instance, were intent on creating visual illusions in relation to the afterlife by deploying horizontal spatial recessions to engender a sense of three-dimensionality. The illusionism of Buddhist murals, too, suggested "a porous boundary between human and other worlds" (Kleutghen, 2015: 28), something that is also suggested in Zhu Xiaowen's technology-enhanced performance in the contemporary city of today.

The (Im)materiality of New Media

These questions of the materiality and immateriality of space and traditional media's capacity to create spatial illusions take on renewed importance in new media art. The digital medium is often described in terms of its immateriality, a notion which is, however, controversial and extensively debated in the literature, given the rather "material" effect; as, for instance, when a human plays a chess game against a computer. Despite its ambiguous materiality, the digital medium is arguably viscerally spatial. Not only does it allow for intriguing simulations via 3D graphics in which fantastical virtual and augmented realities allow for the defiance of the constraints of the physical world, but our everyday physical involvement in the city, too, leaves digital traces, such as the GPS data tracked by our smartphones, or our use of credit cards in different venues. Even the topography of the city itself is increasingly a product of digital architectural design, such as in the case of deconstructivist architecture with its curvilinearity and fold which is the result of complex algorithmic processes. An example of such architecture in China is the National Stadium in Beijing, whose complex shape has engendered its nickname, the "Bird's Nest," and which is critically discussed in Cao Fei's virtual city in Second Life. The use of digital media in the negotiation of landscape in the realm of art can therefore be seen as an inevitable and logical response to the constantly evolving technology and information networks that are linked to the city and which already shape the semantics of landscape today.

Meanwhile, the body of scholarship on new media art defies any succinct summary as it addresses varying subjects ranging from survey examinations (Paul, 2016; Jenkins, 2006); to its philosophical implications and relationship to traditional media (Manovich, 2002; Grau, 2003); to feminist perspectives (Zobl and Drüeke, 2014; Mondloch, 2018); or the relationship of art and the network economy (Cornell and Halter, 2015). In recent years, a turn towards the post-digital or to object-based artistic practice among young artists cannot overshadow the fact that the increase in data-processing power and the speed of data transfer across networks, as well as the advancement in interactive tools, including touchscreens, wearables and VR glasses, will see continuous explorations of the affordances of new technologies in the realm of art. Academic attention has undergone parallel shifts which, in the context of China, has seen an increasing interest in the examination of digital layers in the enhancement of physical space via augmented reality (AR) (Hillenbrand, 2017) or the interrelationship of art and the Chinese internet (Holmes, 2018). The scholarly examinations that address specifically the subject of urban space in Chinese art (Wu, 2004, 2012; Braester, 2010, 2013; Visser, 2010, 2013; Kóvskaya, 2006; Berry, 2015, Ortells-Nicolau, 2017) are growing, however, digital art usually merely features alongside analysis of more traditional media. Interesting investigations of Chinese (urban) space and its relationship to the human are often still relegated to the realm of architecture and urban studies (Li, 2008; Nanfang dushibao, 2012; Li and Yang, 2007), whereas the impact that the perusal of digital (artistic) media can have on the psychology of the mind and embodiment is mostly addressed in the realm of science (see, for instance, Stanford University, 2017). This article aims to address this gap by attempting to establish a link between the digital medium, virtuality, and embodiment in urban space. It thereby aims to contribute to the wider discourse on virtuality in Chinese culture that has also been intriguingly examined in the field of literature (Inwood, 2014; Hockx, 2015).

RMB City – Contested Meanings in Second Life

In the realm of Chinese contemporary art, it was arguably the Second Life art project RMB City by Guangzhou artist Cao Fei (b. 1978) that increased academic interest in the deployment of new media in the artistic exploration of space. One of China's most prominent media artists, Cao Fei works with 3D animation to create a re-enactment of the Chinese city in an interactive, virtual realm. It is an "urban planning" art project created in collaboration with Vitamin Creative Space that was online on the internet platform Second Life between 2007 and 2011, and which the artist herself calls a "city utopia" (Cao Fei, 2008). Second Life is a multi-user virtual environment, operated by US company Linden Lab, in which people can create, navigate, and have an impact on 3D online spaces. They operate via their online avatars, or personifications of themselves called "residents" who communicate with each other via instant messaging and form human connections through their virtual presence. Cao Fei, via her own avatar called China Tracy devised a fantastical virtual city that referenced many recognizable icons of the factual cities of Beijing, Shanghai, and Hong Kong. These include the iconic Bank of China building in Hong Kong and the Oriental Pearl Tower in Shanghai's Pudong area, which was the highest building in China in the latter half of the 1990s before it was surpassed and dwarfed in the new millennium by even higher neighbouring structures. These "supertall" buildings, as they are called in architecturespeak, set out to become the tallest in the world and are the architectural embodiment of China's rise to global superpower status. In RMB City these skyscrapers don't get a favourable review but are accompanied by other architectural landmarks of an equally symbolic nature. A simulacrum of the Forbidden City in Beijing, a symbol of China's long imperial past but also of the country's centralised political power, features prominently in Cao Fei's virtual city, yet the imposing portrait of Mao Zedong that usually adorns the gate is irreverently substituted by an image of a panda bear. Meanwhile, Beijing's hypermodern "CCTV building," a folded skyscraper designed by international star architect Rem Koolhaas's firm OMA (Office of Metropolitan Architecture, Rotterdam) can be found in RMB City as well. Hailed as the reinvention of the skyscraper, it houses the eponymous state broadcaster in Beijing and is in Cao Fei's virtual city precariously hanging from an enormous crane. The CCTV building and the crane both symbolise the country's building frenzy as well as the country's aspiration to become the leading nation in the realization of pricey, unconventional, and imposing architecture often designed by star architects from around the world. In RMB City a giant shopping trolley floats in the water and is filled with nothing less than a couple of skyscrapers, which further critiques the commercialization of the city. In the case of the CCTV building, however, which was indeed built for the state's own broadcaster, criticism of the ostentatious building frenzy would unexpectedly come from the foremost representative of the state itself. In 2014 President Xi Jinping deprecated the CCTV building as "weird" (giqi guaiguai 奇奇怪怪) and criticised it as architecture that was undesirably xenocentric and oversized ('Xi Jinping cheng "Bu yao gao qiqiguaiguai de jianzhu" huo wangmin chengzan', 2014). Cao Fei's work satirises this complex tension of the factual Chinese city, which oscillates between capitalist globalisation with its profitable alliance between the state and property developers (regularly at the expense of the disenfranchised, who are unable to resist evictions) and the observant and unpredictable ideological conservatism of the one-party state on the other. In RMB City verisimilitude is juxtaposed with abstraction and hyperbole which further puts into question the meaning of any recognisable signifiers: a variation of the Chinese national flag, for instance, flies above the city like a magic carpet, carried by four corporeal yellow stars that seem to have cheekily escaped their place on the flag. A giant panda bear, the stereotypical symbol of Chinese national identity and arguably the cutest token of the country's soft power and zoo diplomacy floats in the sky, too, next to an imaginary oversized Ferris wheel whose rather absurd existence further destabilises any conventional meaning. The experience on Second Life resembles a game and enables a creative social interaction between avatars and their "dwelling" in the virtual realm. In RMB City all avatars can fly and teleport and experience the fantastical city from ever newer perspectives.

Not dissimilar to live action cinema, the virtual space then serves as a setting for virtual filmmaking, a process called "machinima," which can document what happens in the virtual realm. A characteristic of machinima is that it allows for participatory involvement by the online avatars, who can also direct films about themselves. Cao Fei herself describes her early ventures into this kind of filmmaking and its affective and cognitive implications:

I was directly recording myself as I moved through Second Life, but as I'm watching myself, I'm also controlling myself; I'm simultaneously director and actor. But I enjoy exploring everything and not knowing what will happen in the next step. A lot of the process is waiting for something to happen, and I didn't try to make something fake. (Cited in Kóvskaya, 2006: 83)

Machinima hence creates a palpable document of this movement of the imagined self through a contingent virtual time and space while being directed by the real-world self. This can be viewed as an anthropology of modernity that is at once virtual and real, that negotiates the local by way of the transnational and which, too, bridges the gap between the immaterial and material. Another connection between the virtual and the real are the various real-life events that accompanied the artwork. For instance, Cao Fei presented her imaginary Chinese city at the Venice Biennale in 2007 in a physical pavilion which was the real-life counterpart of a pavilion in the virtual place. Visitors to the Venice pavilion could then attend the livestreaming of the pavilion opening in Second Life. (Leung, 2006: 32). At an event at Art Basel, Cao Fei also effectively sold a building unit in her virtual city which was purchased with real money and which linked the virtual city to the factual money economy. Moreover, numerous well-known figures of the world of contemporary art participated in various events via their avatars, including Swiss collector Uli Sigg; Jerome Sans, the former director of the Ullens Center for Contemporary Art (UCCA) in Beijing; and curator Hans-Ulrich Obrist, who even had the honour to be named RMB City's first mayor. Their involvement suggests that computer-generated virtual image spaces are increasingly adopting a relevance on par with that of the physical gallery and that growing attention is paid to the relevance of non-human bodies and their virtual interactions.

State Illusion and Artistic Illusion

The place that Cao Fei envisions in this virtual work is not a fixed space but transforms through interactivity and community involvement. This is clearly in contrast to the factual Chinese city and its reliance on top-down developmental decisions. RMB City therefore parodies the inevitability of the real Chinese city by wittily thwarting the symbolic essence of factual landmarks, statues, and geographical markers. The National Stadium (or "Bird's Nest") in Beijing, for instance, is in Cao Fei's virtual imaginary irreverently rendered as a rusty, decrepit skeleton which is half submerged in water. The factual building, however, had only just been finished by the time RMB City was launched and became indeed the architectural embodiment of national

pride surrounding the Olympic Games in 2008. The stadium then served as ubiquitous icon on television and urban propaganda posters and was widely discussed in the field of architecture. Cao Fei's virtual imaginary of the National Stadium therefore adds a discursive layer to the ongoing debate in China on landmark architecture and the problematic relevance of Olympic architecture after the great event is over (Liu and Lin, 2012; Li et al, 2013). It is important to note that artist Ai Weiwei $\forall \pm \pm$ (b. 1957), known for stirring regular controversies, served as artistic consultant to the Swiss architects Jacques Herzog and Pierre de Meuron who designed the stadium as a commission by the national and city government. Consequently, Ai Weiwei helped the state create the "illusion" for the world's gaze yet later distanced himself from the stadium, arguing the building represented the "fake smile" of the Chinese Communist Party.

In another short film shot inside Second Life, entitled Live in RMB City, Cao Fei introduces us to her real-life baby's avatar, called China Sun, and discloses her critical attitude towards the modernised city which she deliberately disfigures in her virtual imaginary. In the film, the baby avatar is told: "The buildings in this city are merely incarnations of your parents, in another time and space, they reverberate with the hollow shells of despair. In your world, the buildings are crooked, like useless, manmade objects" (RMBCityHall, 2011). Moreover, in one instance in the machinima film, a mimesis of the Guggenheim Museum in New York (and indeed called "Guggenheim of RMB City"), transforms at the blink of an eye into different illusionistic shapes akin to those of a snail's shell. Mao Zedong, who is named the "People's Patron Saint" in RMB City, features prominently, too, and is rendered as floating in the sea, which not only deprives him of his axiomatic respectability but also allegorically condemns him to submergence and oblivion.

Cao Fei deploys the digital medium to literally recode the city into a surreal hotchpotch of past and present, navigated by alternative virtual identities. In an interview, Cao Fei discusses her ideas behind the project by referring to herself in the third person by her online avatar name China Tracy. When asked about her avatar, Cao explained that "China Tracy felt that since most cities within Second Life were Western in style, she wanted to represent some of her concepts about Chinese urban development in a space that incorporated Chinese aesthetics and identity, albeit in a surreal hybrid style" (Cao Fei, 2008).

Reification of Buried History: 4 Gentlemen's Augmented Reality

An ephemeral spatial alternative is also what is generated in the augmented reality art by the anonymous artistic collective 4 Gentlemen. According to their blog, 4 Gentlemen is comprised of "Chinese artists in exile" as well as American artist(s) and is linked to the New York-based artist studio of Lily and Honglei (杨熙瑛, 李宏磊). The web presence of 4 Gentlemen explains that the pseudonym "4 Gentlemen" or sijunzi 四君子 references a group of Chinese intellectuals, namely Liu Xiaobo 刘晓波 (1955–2017), Hou Dejian 侯德健 (b. 1956), Zhou Duo 周舵 (b. 1947), and Gao Xin 高新 (b. 1956) ("About 4 Gentlemen," n.d.). All four were intellectuals who had a prominent role during the protests in Tiananmen Square in 1989 and who jointly initiated a hunger strike prior to the violent crackdown. After June 4 they either fled abroad or suffered repeated imprisonment, such as Liu Xiaobo, who was in 2010 awarded the Nobel Peace Prize "for his long and non-violent struggle for fundamental human rights in China" (Norwegian Nobel Institute, n.d.) while serving an eleven-year prison sentence for "inciting subversion of state power" (Lin, 2013).



Figure 1: 4 Gentlemen, Tiananmen SquARed and Tank Man, 2011. Computer 3D models, augmented reality application for mobile and tablets. Still courtesy of the artists.

4 Gentlemen's deployment of digital technology for the exploration of physical space is even more prominently marked by a critical engagement with the political and symbolic encumbrance of space. The artists encoded a smartphone and tablet app in order to overlay the factual landscape with dynamic information. Entitled Tiananmen SquARed the app negotiates the political symbolism of Tiananmen Square and its neighbouring Chang'an Avenue via a visualisation of the historic iconicity of the "Tank Man" image and the "Statue of Democracy" erected during the 1989 protests.



Figure 2: 4 Gentlemen, Tiananmen SquARed and Tank Man, 2011. Computer 3D models, augmented reality application for mobile and tablets. Still courtesy of the artists.

The Statue (or Goddess) of Democracy was a ten-metre high sculpture built by students of the Central Academy of Fine Arts and displayed during the student-led protests on Tiananmen Square in 1989 as a monument to and embodiment of the quest for political and societal change.

The Tank Man, possibly internationally more widely known than the statue, also refers to 1989 and specifically to the day of June 5 when a hitherto unknown man positioned himself in the way of the tanks that were sent onto the square following the violent crackdown on June 4. 4 Gentlemen overlay the historical sites of the appearance of the Tank Man and the Statue of Democracy with Google geolocation software so that, when one uses the app on both Tiananmen Square and Chang'an Avenue and directs the smartphone or tablet in a particular direction, virtual sculptures of the Statue of Democracy and Tank Man appear on the screen. In coding the appearance of these sculptures onto the mobile screens of the app users, 4 Gentlemen reinscribe their own visualisation of history into factual space, which is nowadays devoid of any visible traces of this past. As they point out on their blog, their work is intended as a reminder:

Although it has been more than twenty years since [the] Tiananmen Protest took place in 1989, the authority persistently uses all means erasing [sic] the facts that Chinese people pursued democracy in this democratic and anti-corruption movement. In China, nowadays, young people are not aware [of] the courageous actions, such as "Tank Man" and erecting [the] "Statue of Democracy" facing Mao's portrait on Tiananmen . . . , [which] emerged during [the] student movement of 1989. Nonetheless, history should not be forgotten. ("Tiananmen Square Augmented Reality," 2011: n.p.)

They use the locative medium of AR as an appeal to remember which is a defiance of the heavy censorship of the protests in mainland China today. Even the mere accounting of the events of 1989, even if unaccompanied by any normative comment or political claim, is one of the most severely censored and most thoroughly banned topics from the Chinese public sphere, no matter whether in textual or visual form. Yet the photograph of the Tank Man has adopted the role of a symbolic icon of resistance that has long transgressed the borders of China. In her analysis of the legacy of Tank Man in China, Margaret Hillenbrand argues that the minimalist aesthetic of the photographic documentation could potentially be at risk of reducing political complexity into facile image narratives. However she attests that the photograph "offered to Western audiences what Slavoj Žižek... calls 'a moment of transparent clarity' about China after Mao and revolution" (Hillenbrand, 2017: 131). She underlines that the photograph, despite its arguably predominant appropriation for US (and international) neoliberal narratives, is still continuously remediated and repurposed by Chinese artists as well (Hillenbrand, 2017: 131).

4 Gentlemen make their political message available more widely and added Tahrir Square (Cairo, Egypt) and Occupy Wall Street (New York) as similarly politically charged spaces where the Tank Man and Goddess of Democracy could be visualised. Similar to Cao Fei's connection to art events in the physical world, 4 Gentlemen, too, included the geolocations of art events, such Saint Mark's Square during the Venice Biennale in 2011 and the Boston Institute of Contemporary Art (ICA). Not dissimilar to Cao Fei's virtual urban landscape in which symbolically charged visual icons are juxtaposed or represented in unconventional, subversive ways, 4 Gentlemen, too, use the possibilities of technology and virtuality to playfully undermine and revert the forced dissociation of factual, real landscape from its historical meaning and attached memories. They create a kind of historical archive engendered by bodily movement in space which can then performatively do "revelatory justice" to what has long since become a "public secret" in China (Hillenbrand, 2017: 153).

Digitally Enhanced Self-Discovery: Zhu Xiaowen's Mixed-Media Performance

Berlin-based media artist Zhu Xiaowen (b. 1986), on the other hand, is less concerned with the political nature of the cityscape but with its impact on body and mind of busy urbanites. She does so via a site-specific corporeal intervention, in which she includes time-based video recordings and projections. Zhu Xiaowen's Wearable Urban Routine is a series of walking performances

(and an ensuing twelve-channel video installation), which took place in the streets of Rotterdam over the course of twelve days in 2011.



Figure 3: Zhu Xiaowen, Wearable Urban Routine, 2011, twelve-channel HD video documentation. Still courtesy of the artist.

This project was supported by the Tsinghua Art and Science Media Laboratory and the V2 Institute for the Unstable Media in Rotterdam, one of the pioneers in new media and architectural research. The idea of the performance was to walk the same path through the city of Rotterdam for twelve consecutive days. During these walks, the artist wore a long and idiosyncratically shaped headset.



Figure 4: Zhu Xiaowen, Wearable Urban Routine, 2011, performance, wearable digital device. Photograph courtesy of the artist.

A camera was attached to the back of the hat in order to record Zhu Xiaowen's walk. At the front of the hat, a small projector served to project onto the path before her a recording of the walk that she had undertaken the previous day on the same circuit. This performance was inspired by kaihōgyō 回峰行, a practice of continuous walking done by a community of monks in Mount Hiei 比叡山, northeast of Kyoto 京都, as a way to reference Buddhist asceticism. Kaihōgyō is a strenuous physical exercise that is accompanied by deprivation of water, food, and rest over long periods of time. The nod to this practice also finds reflection in Zhu Xiaowen's attire, which is a long gown in white, given that the monks wear white, the traditional colour of death, which references the near-death experience that is implied in their extreme practice. The walks of these Japanese monks can last up to seven consecutive years and comprise one-hundred days of walking each year (Lobetti, 2014: 77).



Figure 5: Zhu Xiaowen, Wearable Urban Routine, 2011, performance, wearable digital device. Photograph courtesy of the artist.

Zhu Xiaowen transposes the spiritual practice from the mountainous areas of Japan to the mundane realm of the European city. She does not aim to emulate the Buddhist practice of kaihōgyō as such, yet in her work she seeks to crystallise its essence and to carve out its applicability for the understanding of the role of the human in space. According to the artist, the effect of the monks' efforts is "to distance themselves from physical and materialistic desires, and to attain a heightened sense of sound and vision not perceivable to them before their activity" (Zhu Xiaowen, n.d.). This exercise can also be described as "to attain enlightenment by facing death in current life" (V2 Lab for the Unstable Media, n.d.). Zhu Xiaowen's performance, which she undertook for only one hour per day, though likely arduous as well, was burdened with less physical challenges than those faced by the Japanese monks. Zhu makes recourse instead to contemporary technology to additionally heighten the synaesthetic experience of space. She aims for what she calls "autoscophy," a psychic illusory visual experience in which one's own body is perceived in space, either from an internal perspective or as if mirrored from the outside (Zhu Xiaowen, n.d.). The use of the combined media of performative spatial intervention and video projection thereby seems adequate for Zhu's search for autoscophy, given that new media are

sometimes described as enabling the externalisation and objectification of the mind (Manovich, 2002: 57). Lev Manovich elaborates on this objectification and references early theories of cinema put forth in 1916 by Harvard Professor of Psychology Hugo Münsterberg and in 1920 by filmmaker Sergei Eisenstein, who both ascribed to film the capacity to reproduce, externalise, and ultimately control thinking. In the 1980s, Jaron Lanier spun that thought even further by arguing that virtual reality was not only capable of objectifying mental processes but even of allowing for a fusion with them (Manovich, 2002: 58). Zhu Xiaowen's performance is a form of VR despite the absence of the headsets, goggles, and motion-sensing gear popularly associated with VR that assists in providing an enhanced immersive experience. Her performance, however, during which she avoided any social interaction with people she encountered on the street, seems to testify to the assumption that human cognitive processes can impinge on digitally engendered realities: the video projection of previous walks helps Zhu to relive gestures and pathways. This creates a repetitiveness that offsets her meditative state, in which the mind can be closed off to the mundanity of the physical world and simultaneously opened up to a kinetic, transcendental experience of space. Zhu thereby highlights the phenomenological idea of embodiment, this sense of being in space, and transports her own sensory experience into the public sphere. On her website, the artist tellingly describes her thought processes during her performance:

Walking is simple. Simple is difficult. Walking is difficult. I walk, trying hard to follow the same path, motion, pace and gesture every day. I walk, trying not to respond to urban noise and people's reaction. I walk, trying not to think about the fact that I am walking. The moment while I am walking, I forget who I am and realize who I really am. (Zhu Xiaowen, n.d.)

This is reminiscent of how Cao Fei describes the movement of her avatar in virtual space and the cognitive effort she makes to distinguish between the virtual experience and her real-life documentation of it. In Zhu's case, what seems an individual meditative process, can also serve to inquire into the more universal ontology of the urban landscape and the social behaviour it generates. Zhu's performance is also a reflection on the busy urbanites and their frenzy daily routine amidst countless other, assiduous city commuters. The repetitive nature of this routine is carved out through the video-projected simultaneity of identical instances of past and present. And just as Zhu Xiaowen contradictorily rearranges the deliberately ascetic practice of the mountain monks to take place in the consumption-laden space of the city, she also imbues the seemingly senseless real-life setting for the urban routine with a new spiritual value: that of meditative self-discovery.

3D Animated Anti-spectacle: Mist

Another contemporary Chinese artist who has negotiated the symbolic nature of architecture and space in his new media art is Beijing-based Zhang Xiaotao (b. 1970). A graduate of the Central Academy of Fine Arts in Beijing and the Sichuan Academy of Fine Arts in Chongqing, Zhang has for many years discussed the predicaments of the socioeconomic transformation of Chinese society via representations of urban subject matters and the disappearance of physical space. Zhang became well known in the 1990s for his large-format oil paintings in which he deals with the fragility of the human in the face of death, illness, and decay, symbolised via mouldy food or ensanguined condoms. Since 2006 he created several 3D computer animations in which he translated his socially engaged urban agenda into virtual narratives. During the 55th Venice Biennale in 2013, Zhang was one of seven artists who represented his country at the China pavilion curated by Wang Chunchen $\pm \overline{a}\overline{k}$. Zhang has, moreover, taken a very personal interest in China's fast-paced urban transformation as part of a group of artists who opposed a planned redevelopment project of the 798 Art District in Beijing, in which Zhang Xiaotao has held a studio since the early days of the artistic usage of the formerly industrial space. In the episodic film Mist

(2006–2008), Zhang engages with the symbolism of the Chinese skyscraper, which he transposes into the virtual realm of a 3D-modelled virtual environment. He describes an imaginary glass high-rise that climactically appears at the end of a dystopian narrative characterised by violence, social struggle, and fast-paced development. It is specifically at the apocalyptic end of the film, when the extraordinarily high glass skyscraper buries the landscape beneath rubble and dust, that – similarly to Cao Fei – Zhang maps the myriad predicaments of China's socioeconomic transition onto the built environment.



Figure 6: Zhang Xiaotao, Mist (2006–2008), 3D animation. Still referencing the factual Chongqing Steel and Iron Factory.



Figure 7: Zhang Xiaotao, Mist, still of an iguana.

Zhang Xiaotao begins his sombre film by taking the spectator on an epic 3D-animated journey that tells the story of the rise and demise of an industrialising society whose population is made of ants and iguanas. Issues of labour, exploitation, and revolution are equally at stake, as is the negotiation of architecture and the ephemeral spectacle of development that accompanies the fragile human condition. The story begins in a primeval landscape of water and mountains which sees the earth erupt, thrusting out innumerable ants that, together with iguanas, populate

the hitherto lifeless and non-built-up planet. Throughout the film, the viewer follows the animals with occasional journeys through a vast scaffolding, which stands symbolically for China's building boom and the ubiquity of its construction sites.



Figure 8: Zhang Xiaotao, Mist, still of scaffolding.



Figure 9: Zhang Xiaotao, Mist, still of the interior world inside the scaffolding.

Scaffolding as Modality of Travel through Space and Time

The scaffolding in Mist features a vast interior world of its own with seemingly endless layers of dynamic grids that create a disorienting illusion. The scaffolding is also a modality of travel through time and space, as every time the animals move through its grids they miraculously arrive in a new era where, tellingly, vast developmental stages seem to have been completed in mere seconds. The virtual camera navigates through the scaffolding in an extensive and fast-paced fly-through, and the result is a motion blur that aesthetically reflects the accelerated pace of development in China. After the animals' first trip through such a scaffolding, they arrive, it seems, at the industrial age, where the previous virgin forest has disappeared. A vast factory compound features ubiquitous cranes and bulldozers, and funnels modularly assemble as if by an invisible hand while construction workers – who tend to be migrant workers in contemporary China – are

peculiarly absent. It is unclear whether this suggests an automated city in which the primacy of (technological) progress has dislocated and uprooted the very human for which it was originally conceived. Alternatively, the workers could be symbolised by the innumerable ants who fall from lofty funnels on the construction site and die while shedding histrionic amounts of deep red blood. In any case, Zhang's frequent camera switches from the worm's eye to the bird's eye perspective underline the intimidating and metonymic height of the newly built environment as well as the insignificance and fragility of the ants.

The abstraction and painterly beauty of the animation is suffused with hints of realism, such as when a mammoth industrial building (a reference to the actual Chongqing Steel and Iron Factory in Zhang Xiaotao's home province of Sichuan) is revealed to be a death trap in which conveyor belts transport skeletons and dead animals to a deadly furnace. Inside the factory building we gain insights into the essence of the society portrayed by Zhang: productivity and development is achieved by using its very members as fuel, and the cremation process creates a death-infused mist that explains the film's seemingly innocuous title. What follows is the cathartic downfall of this system, sparked by fights between armies of skeletons which reference Pieter Bruegel the Elder's The Triumph of Death (c. 1562), a painting in which the dead "swarm from their graves to snatch the living from their daily business and pastimes" (Gibson, 2006: 147). By resuscitating the dead, Zhang chronicles Chinese history and the reference to the Chongqing factory establishes a link to socialist industrialization under Mao as well as to the political struggles and upheavals of the time.

The animals then visit a rendering of the Window of the World (Shijie zhi chuang 世界之 窗) in Shenzhen – a factual entertainment park which features small-scale global landmark buildings – until a last journey through the scaffolding leads to the film's climax: the construction of a gargantuan glass skyscraper which towers over the landscape and which peaks through the clouds high up in the air.



Figure 10: Zhang Xiaotao, Mist.

 instead of displaying a modernity grown from vernacular culture and tradition, or "soil" (turang \pm 壤), China had opted for an unreflective modernization that was moreover accompanied by a lack of dialogue between the government and the people (Lung Ying-tai, 2013: 207). Just like the funnels in previous developmental stages, Zhang lets this skyscraper build itself in the blink of an eye and while glass plates still to self-assemble, masses of ants, iguanas, and skeletons simultaneously scramble towards the sky with a zeal that may again symbolise the aforementioned Chinese borrowism and craving for the world's tallest buildings. However, while the construction process is still ongoing, a threatening swarm of bats, usually an auspicious symbol in Chinese art, appears and evokes Alfred Hitchcock's 1963 horror film The Birds. The bats crash into the building in an unmistakable likeness of the terror attacks of September 11, 2011 in New York and the tower collapses dramatically, burying the entire landscape with glass shards, rubble, and dust. By now, the virtual camera floats much more slowly through the ruined space, lengthily indulging in the aesthetics of apocalyptic wreckage. Here, the debris and rubble that have come to symbolise the destruction of the vernacular Chinese city are oxymoronically imposed onto the shiny new skyscraper in a sort of vengeful urban anti-spectacle.



Figure 11: Zhang Xiaotao, Mist, still of bats flying towards the skyscraper.



Figure 12: Zhang Xiaotao, Mist, bats fly into the skyscraper.



Figure 13: Zhang Xiaotao, Mist, the skyscraper collapses while skeletons continue to climb upwards.



Figure 14: Zhang Xiaotao, Mist, still of the wreckage.

Some Deliberations: The Digital Medium, Embodiment, and Freedom

The creation of a 3D-animated parallel universe allows Zhang Xiaotao to adopt the narrative and aesthetic freedom necessary to make China's urbanization process imaginatively turn against itself. Rather than representing the vast-scale annihilation of old, vernacular architecture and space that is so characteristic of the real Chinese city, Zhang instead opts to curse the refashioned city with its spectacular skyscrapers and landmarks of capitalist modernity. In Cao Fei's riposte to the Chinese city, the freedom of the virtual lies similarly in the provision of an alternative reading of iconic buildings and symbols by rendering icons of national pride as derelict, rusting, and obsolete. 4 Gentlemen's app, too, defies the rules of the censored and "cleaned up" public place and turns it into a remediated private realm of mnemonic freedom where usually undesired motifs are stubbornly made to reappear. Zhu Xiaowen equally resists the real city and her creation of a hybrid of the real and the projected emphasises her quest for liberation of the city's distressing body politics.

In light of these artworks' critical relationship to the factual city I would like to come back to Michael Heim who, as I mentioned earlier, argues that virtuality allows for some form of

liberation. Heim contends that "the final point of a virtual world is to dissolve the constraints of the anchored world so we can lift anchor," and that while "danger and caution pervade the real (existential) world, . . . virtual reality can offer total safety, like the law of sanctuary in religious cultures" (Heim, 1993: 137). This understanding of virtuality as a liberated sphere is persuasive and the discussed works indeed seem to overcome the boundaries of certain coercions that are anchored in the physical world. (Heim, 1993: 136). All of these works therefore articulate new or altered spatial subjectivities and disavowals of the hegemonic elements of factual space. In the works of Zhang Xiaotao, 4 Gentlemen, and Cao Fei, the contestation lies in the narrative and aesthetic reversal of familiar spatial and temporal semantics. In Zhang Xiaotao's 3D animation it is the reversal of high and low, embodied in the biblical skyscraper whose exaggerated heights are razed (alongside all its sociopolitical connotations) to the insignificance of dust and shards. Zhang's skyscraper is thereby a postmodern icon, in that it aestheticizes "the mixture of opposing periods – the past, present and future – to create a miniature 'time-city'" (Jencks, 2011: 9), and hence blends in with a postmodern tradition of dramatic architectural cataclysms, such as the dynamiting of Yamasaki Minoru's 山崎實 Pruitt-Igoe complex in Saint Louis in 1972, which is considered to be the archetypal instance of postmodernity. The urban geographer David Harvey describes the Pruitt–Igoe building as "that great symbol of modernist failure," which, in his view, was doomed to failure, not because of its architectural form, but due to the social conditions it housed, which belied the utopian ideals with which the modernist project had once set out (Harvey, 1991: 116). By condemning his skyscraper to a spectacular failure, Zhang, too, deprives it of any possible utopian associations and further establishes a link with the catastrophe of 9/11. The twin World Trade Center towers were, guite ironically, realised by the same architect (Yamasaki) and some argue that their collapse was indeed the true beginning of postmodernism and the ultimate end of the grand narrative (Brown, 2005: 734). The hyperbolic height of buildings in Zhang Xiaotao's animation is moreover reminiscent of similar responses to urban development in cartoons and films of the early twentieth century in Shanghai, in which a building's height was commonly taken as a symbol of the gap between the rich and the poor (Lee, 1999: 12).

Cao Fei's RMB City, on the other hand, substitutes notions of reverence with irrelevance, and temporal notions of the new with the prematurely decrepit. This encourages the reconsideration of urban epistemologies and how we cognitively link the mediated virtual city with its real-life counterpart. The defiance of linear notions of space and time, and the subversion of the constraints of the physical city through fantastically surreal buildings that change their shape while you look at them is thereby highly symbolic. When discussing the shifting aesthetics in both architecture and art, David Joselit asserts that "objects characterized by discernible limits and relative stability lend themselves to singular meaning – almost as though well-defined forms are destined to contain a significance" (Joselit, 2013: 43). This can be applied to Cao Fei's morphing museum just as it can to the brittle animated skyscraper in Zhang Xiaotao's Mist, which never achieves a clear-cut shape as its components already begin to disintegrate during construction. The digital illusions that these artists create can therefore be seen as a vehicle to criticise architectural icons that feign grand narratives of collective identity and pride by transforming them into that which they precisely do not set out to be: inept and inconclusive urban signifiers. This destabilization of meaning in the virtual realm therefore arguably inspires a reconsideration of our interpretation of physical space. A similar surpassing of the spatio-temporal constraints of the physical world and its prescribed meaning can be seen in 4 Gentlemen's app that visualises Tank Man and the Statue of Democracy. The dichotomy of presence and absence, past and present is defiantly unravelled via the ephemeral reification of and tribute to what the artist duo underlines as heroic dissidence. In this work the projection of virtual information onto factual landscape thereby enables the utterance of the otherwise unspeakable. Jaron Lanier argues that virtual reality can take over human memory and claims that virtual reality inaugurated the age of "post-symbolic communication," by which he referred to communication without language or other symbols (cited in Manovich, 2002: 57–59). 4 Gentlemen's AR art indeed makes any

textual or verbal discourse unnecessary, yet it draws on visual symbols that still require historical knowledge on the part of the beholder. Yet in the age of big data the notion of "freedom" revolving around the virtual will be of a rather fragile nature. AR, on one hand, enables the flow of data into physical space (filling it with dynamic information) but, on the other, it technically also enables a flow in the reverse direction, that is a flow from physical space in the form of the gathering of monitoring and tracking information (Manovich, 2005: 5). Given the low threshold of tolerance Chinese authorities have when it comes to any manifestation of the events of 1989, this represents a particular risk for this AR work.

4 Gentlemen's AR apps and Zhu Xiaowen's performance are both embodied experiences in physical urban space. 4 Gentlemen's AR app thereby links the disjointed virtual and the real to synthesize a more truthful historiography. Both works are bound to specific physical locations outside the traditional gallery or museum space and therefore blur the boundaries of lived and image space. In both cases, the digital component is key to the enactment of the work and to a phenomenological experience that transcends that of habitual sensory exposure. In Zhu's Wearable Urban Routine, it is the virtual component of her performance which helps her disconnect from the real city in order to attain an analogue inner peace. In Cao Fei's RMB City, on the other hand, selfhoods are precisely constructed by way of digital avatars whose telepresence can be styled, named, and fashioned in a way that approximates one's dream identity. These identities are then performed and internalised via quasi-social interactions that require the imagined virtual city as setting.

The case studies here are intriguing examples of mediated realities and virtual fictions. Yet this analysis has also demonstrated that even ephemeral virtual illusions can have a tangible impact on identity formation in real life and our perception and interpretation of factual, physical space. This question is of global relevance in our digital age, but it attains particular importance in China, where a radical urban transformation is forcing the individual to adapt to ever changing surroundings and to decode ever new meanings of landscape. The possibilities to represent and mediate space via digital art will evolve in intriguing ways and will involve enhanced sensory bodily experiences in the future. Meanwhile, traditional media maintain their allure and their capacity to transport us to imaginary places. Ultimately, what unifies traditional and new media is the creation of an illusion. This illusion is one which, independent of the specific choice of medium, incites us to contemplate the symbolic meaning of landscape and, most importantly, our sense of being within it.

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