
So Flat, So Cute!

Robots, Superflatness and Asian Architectural Futures

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Abstract

Many depictions of urban futures have a distinctly Asian flavour. There have been numerous visions of highly technological futures whose environments extrapolate present societies into futures technically, culturally and politically dominated by China or Japan. Such futures are portrayed as both exciting and threatening, to the point that the Japanese academic and cultural critic Toshiya Ueno used the term 'Techno-Orientalism' to describe the phenomenon.¹ Nevertheless, whether Western interest is Orientalist or not, Asian architects are also increasingly looking to their own contemporary and future cultures for inspiration. This paper will discuss two manifestations of this. The first is Thai architect Sumet Jumsai's Bank of Asia. Unlike contemporaneous English high-tech buildings, with their coldly mechanistic representation of ducts and struts, Jumsai's Bank of Asia, takes on the anthropomorphic character of Japanese sci-fi robots. It is endearing, friendly, even cute. The second example is what might be termed superflat architecture, from the term coined by the artist Takashi Murakami to describe an aesthetic of intrinsic flatness, eliminating depth in favour of skin and surface. The emergence of Techno-Cute and Superflat architecture suggest contemporary Asian architectural sensibilities that neither derive their aesthetic qualities solely from tradition nor from Western Modernism or Postmodernism.

The Robot

“It may surprise some of you when I say that I first began to acquire a knowledge of Buddhism through a study of robots, in which I am still engaged today. It may surprise you even more when I add that I believe that robots have Buddha-nature within them – that is, the potential for attaining Buddhahood.”²



Figure 1. Bank of Asia, Bangkok (photographs by author)
Left: view along Sathorn Road. Right: view of front.

The Thai architect Sumet Jumsai's Bank of Asia is one of the most distinctive sights on the Bangkok skyline. Approaching its twenty-storey bulk along Sathorn Road the building looms as a stack of giant cubic forms (Figure 1: left). However on closer inspection, it becomes clear that this stack of cubes is actually a giant robot. The building's tripartite vertical division can be distinguished as 'legs', 'body' and 'head', each articulated by strips of curtain walling (Figure 1: right). On each side of the 'legs', ground floor openings are surrounded by canopies that mimic robot tank-track feet (Figure 2: left). Oversized 'bolts' emerge from higher up (Figure 2: right), while at the front of the head facing the street, there are reflective glass 'eyeballs' are partially covered by louvred 'eyelids' and twin antennae. While all this is quite startling in a bank building, in a sense, the use of mechanistic imagery is not so strange. The bank was completed in 1986, in the same year as Richard Rogers' Lloyds Bank

and Norman Foster's Hongkong Shanghai Bank buildings. However, while the Bank of Asia's technologically-based imagery might be broadly comparable to these other banks, it has none of their coldly mechanistic representation of ducts, struts and pipes. Instead, Jumsai's robot is unashamedly anthropomorphic in its expression of technology. Its robot 'eyelids' were even intended to 'wink' at night, accompanied by lighting that pulsed to the rhythm of 'The Robot Symphony', a piece by a local composer.³



Figure 2. Bank of Asia, Bangkok (photographs by author)
Left: 'caterpillar tracks' on side of building
Right 'bolts' on side of building

By anthropologising the robot, the Bank of Asia blends humanity and technology in a manner similar to the Japanese toy robots from which its imagery is derived, and so renders explicit notions about technology that are quite different to its British high-tech contemporaries. It looks forward to a future in which the information age will be friendly and anthropomorphic. There is no sense of humanity's alienation from high technology, Moreover, the robot's expression is strangely endearing, even cute, a curious attribute for the twenty-storey headquarters of a major financial institution. The robot identity of the building is only skin-deep, especially now that the original foyer, adorned with rather anthro-technical

sculptures of Thaveechai Nitiprabha have been replaced by something more conventionally bland. The robot identity is now confined to the skin of the building.

Underneath its techno-cute packaging, the business that is the Bank of Asia is presumably no more endearing than any other financial institution. Yet the layering of such apparently contradictory expressions and attributes in Jumsai's design make it a fascinating subject, particularly if we place it in the context of more recent developments. Jumsai's robot is now over twenty years old, and since its completion Asia has developed enormously, economically and – especially in the case of Japan – in terms of its cultural impact on the globe. In the post-war period Japan was a land known in the West only for its clever imitation and enhancement of Western products. It then began to produce innovative but, as Koichi Iwabuchi describes them, 'culturally odourless' technological advancements such as Walkmans and karaoke.⁴ More recently, however, more overtly Japanese products such as *manga* and *anime* and video games have become popular outside Japan itself. The architecture of the Bank of Asia; in its use of the robot, pre-empts contemporary architectures that also derive their inspiration from Japanese pop culture. This paper will discuss some of these aspects; the choice of the robot, its particular aesthetic qualities, and its relationship to the idea of building, in turn.

Why the Robot?

Sumet Jumsai describes his design in the following terms;

But first, machine as we know it in this century has to be exorcised. It must no longer remain a separate entity or elevated on a pedestal to worship. This exorcism has been completed in the Sathorn Robot. Now the machine, this robot, is no longer a "big deal": it has become part of our daily lives, a friend, ourselves. It has entered the first phase of the 21st century revolution.⁵

This idea of the machine being not only a friend, but ‘ourselves’ is a critical point in Jumsai’s exorcism of the machine. In the unthreatening anthropomorphic guise of the robot, technology – so overwhelming and sublimely menacing in high-tech – is blended into the world of humanity. At the risk of essentialising, this is a particularly East Asian way of looking at the place of the robot. Whereas the friendly robot exists within Western popular culture, from the clowning Robbie the Robot from *Lost in Space*, to C3PO from *Star Wars*, they are definitively not human, no matter how much they emulate human behaviour. Mixtures of human and machine exist, but are rarely as friendly. They may be on the side of good, like Arnold Schwarzenegger’s Terminator, but they retain a sense of menacing and disconcerting otherness. More often, like *Star Trek*’s Borg, they represent the implacable horror of subsumption into the Other, into the imagined undifferentiatedness outside (Western) humanity.⁶

Taking this point further, identification of the cyborg with the automaton, and via the analogy of the doll, with the feminine, gives a misogynist undercurrent to this fear of the human-machine. A further discussion of the Borg, with their hive mind and bee-like queen, are certainly suggestive of this. Donna Haraway has outlined from a feminist viewpoint how the machine has been identified within Western culture as being opposed more specifically to masculine humanity. She counters this with the argument that the reality of existence is that we are all really cyborgs – part animal-part machine – and sees the figure of the cyborg as possibly redemptive in its disassociation from traditional structures; “a cyborg world might be about social and bodily realities in which people are not afraid of their joint kinship with animals and machines.”⁷ Rey Chow’s elaboration of this argument provides an interesting interpretation to the Robot building;

“Being automatised means being subjected to social exploitation whose origins are beyond one’s individual grasp, but it also means becoming a spectacle whose ‘aesthetic’ power increases with one’s increasing awkwardness and helplessness.”⁸

The Bank of Asia robot, in its anthropomorphism of the automaton, seems to do precisely this. Its visual impact is both tame and powerful, its expression of the technological future distilling the massive bulk of financial construction to a singular and personable image. We are intended to feel empathy with the building, to connect with its techno-animist spirit.



Figure 3. Japanese Robots, Fukuoka Japan.
Left: Aibo™ pet robot dogs
Centre: Robots in shop window
Right: Domestic robot with tank-tracks

In this, the building aligns with a tradition of empathetic robots. The Japanese have a particular fondness and interest in robots, not just in their practical capacities, but also for their ability to emulate humans, and their pets. From *Aibo*™ the robot dog, to *Asimo*™ the robot humanoid, there have in Japan been great efforts to make create personable and empathetic robots (Figure 3). There is even, conflating cuteness and cyborg technology to its extreme *Hello Kitty ROBO*™ and the *Therapeutic Robot: Paro*™ a baby robot seal.⁹ Japanese popular culture also abounds in robots, as well as human characters augmented by robot power-suits. Anime from *Kokaku kidotai* (*Ghost in the Shell*) to *Neon Genesis Evangelion* have protagonists that merge with machines in a manner portrayed as both

technologically spectacular and quite normal. While there are other pathologies within the genre, this easy acceptance of the infiltration of the machinic into the human contrasts with the dread with which such hybrids are held in their equivalents in the West. This contrast has its own consequences, Toshiya Ueno has termed techno-Orientalism, the way in which through Western eyes, the Japanese eagerness to embrace the robot is symptomatic of their intrinsic repression of human individuality.¹⁰ He sees in current Western depictions of Japan in particular and East Asia in general an echo of the Orientalist attitudes of their colonialist forbears, as so eloquently delineated by Edward Said. In this frame, Japanese are Japanoids, cyborgs with or without their robot suits and dogs. Conversely, as Masahiro Mori, a Japanese robotics engineer writing on Buddhism has suggested, such a conjoinment of human and machine is no less natural than any other phenomenon, and that the idea of a distinction, or opposition between humanity and machines – as between humanity and nature – is only a construct which obscures the acceptance of the Buddha-hood present not just in the human, but also in the cyborg and the robot.¹¹

This anthropomorphising of the robot brings us back to Jumsai's bank, for as he says, the exorcising of the machine involves seeing it as a mirror of the self, a portrait in a different medium. The robot is literally animated, endowed with a life-force that, drawing on the animist origins of Asian beliefs, lies inherent in all things. However, the deliberately endearing means of representing this quality draws in another pervasive aspect of Asian pop culture, and one which also disconcerts the cultural commentators of the West (as it does some in the East) – the realm of the cute.

This aspect of East Asian popular culture is by now a regional, and almost a global phenomenon. In utilising an endearing image, the bank joins a multitude of other corporate and institutional entities that project a cute image, often by the means of a cuddly cartoon creature (Figure 4). The reasons for this are complex. The Japanese term for cute, *kawaii* – which has itself become internationalised as its content – contains an older meaning, *kawaiso* (pitiful) which begs the question as to why an aesthetic of cuteness should be so

popular.¹² One explanation is that the cult of cuteness is a desire to extend (early) childhood, a reaction to the drudging inevitability of (particularly female) adulthood in societies that traditionally have had very strict social structures and hierarchies, but now are offering the ways and means to avoid or subvert them. A more pathological interpretation highlights the sometimes creepy juxtaposition of cheerily bland flatness and bodily deformity in cute characters, hinting, if not blatantly expressing the abjection and angst behind the apparently smiling innocent exterior, that like a roused Pokémon, swiftly turn from apparently inane happiness to startling fury.¹³ More prosaically, in East and Southeast Asian societies assertion and directness are generally considered lesser attributes than smiling deference. More specifically in relation to the robot building's Thai context, Philip Cornwel-Smith in his survey of Thai popular culture suggests that "*na rak* (cute) resonates with several core Thai values: *sanuk* (fun sensibility), *suay* (beauty), *sabai* (contentment) and *kreng jai* (deferential consideration)."¹⁴ The Bank of Asia's winking robot arguably embodies all of these qualities, and as Cornwel-Smith continues, "It is also urban, plastic and commercial, and thus pop. That suits another aspiration: looking *dern* (modern)."¹⁵



Figure 4. Cute public imagery in Japan (photographs by author)
Left: Logo for MOO shopping centre, Kushiro, Hokkaido
Centre: Logo for Eye Clinic, Fukuoka, Kyushu
Right: Snow warning sign, Sapporo, Hokkaido

While the imagery of the robot might be considered to be akin to the multitude of endearing characters utilised in the logos, mascots and other public imagery of many other Asian, especially Japanese, corporations, cuteness is not something commonly attributed to buildings themselves. In the West, architecture is usually considered to be too big, too permanent, too serious to be regarded as cute, though in Asia, this is not necessarily the case. In conjunction with the Tokyo Institute of Technology, the Japanese architecture studio Atelier Bow-wow has categorised some of the many buildings on tiny, marginal sites in Tokyo as 'Pet Architecture'. They argue that architecturally, such buildings occupy a place in relation to the larger surrounding buildings analogous to pets in relation to people, and so whatever their physical characteristics, they are "small, humorous and charming," offering visual approachability due not just to their size but also to the lack of design or technical sophistication in their composition.¹⁶ While the robot bank has no lack of design, technical sophistication is not part of its expression, subordinated in favour of the animated image.

Surface and Essence

The use of the robot also raises the question of the use of artifice more generally. At first glance the Bank of Asia's enormous bolts and fake caterpillar-tracks would appear to correlate with the contemporaneous wave of oversized Po-Mo pediments and candy-columns that were appliquéd to the buildings of the 1980s. Jumsai, however has clearly outlined a stance quite contrary to Post-Modern Classicism as well as High-Tech, and one which correlates with more recent developments in Asian art and architecture. His first point is that while the use of Classical pediments, capitals and columns looks backwards into the past – a specifically *Western* past, the robot looks towards the future, an *Eastern* future. The use of revivalist Classicism in Asia Jumsai sees as symptomatic of the legacy of Western cultural paternalism. That new faux-temple apartments are still as prevalent in contemporary Thailand and other Asian countries as they were in 1986 indicates the persistence of this legacy, but the difference in choice of decorative elements is not the only thing that distinguishes the robot from its 80s contemporaries. Taking up the argument that the robot

image has little to do with the purpose of the building, Jumsai suggests that the robot-wrapping has a certain transformative power;

“it need not be a robot. It could be a host of other metamorphoses as long as they act as agents to free the spirit from the present intellectual impasse and propel it forwards into the next century.”¹⁷

That the surface should have this power suggests a relationship between image and content that is quite removed from Western ideas of superficiality and essence – ideas that have discredited Western Post-Modernist architecture. Instead its exuberant surface recalls the sometimes intensely decorative but highly symbolic skins of traditional Thai *chedi* (stupas) that are encrusted with the symbolic meanings of Theravada Buddhism.¹⁸ Additionally – and Jumsai is explicit in his opinions about the possibilities of architectural connections between Southeast Asia and Japan¹⁹ – the robot image is connected with the ongoing Japanese interest in the power of the surface.

The word ‘superficial’ describes the literal and ontological emptiness of something whose surface hides a lack within. It is indicative of the modern Western view that the surface, be it wrapping, skin or container, is merely the covering of the essential thing inside it. The surface, in this estimation, may be truthful, obscurant or deceitful about its contents, but not productive. However in both traditional and contemporary Japanese terms, the surface is considerably more intrinsic to the thing that it wraps or contains. From the ritual roping of rocks in sacred Shinto places, to the elaborate wrapping of even ordinary retail items; from the artful plating of *kaiseki* meals to the presence of uniformed greeters in department stores; there is a belief that the image, impression or surface of a thing contributes to, if not helps to determine, its content. The quintessential Japanese garment, the kimono, provides an example. Kimono are renowned for their exquisite, often non-sequential or repeated decorative patterns, displayed to best effect by being hung flat, unlike a tailored garment which requires the form of a body underneath it to reveal its proper form. When a kimono is worn, it is the body that is modified to fit its ideal, compressed in some areas, and padded

out in others, so that the flat garment can be rolled around it in to form a perfect tube, an unbroken surface. This interest in the surface also has a specific history in Japanese art, traceable through traditions of painting and drawing, to contemporary popular media such as manga and anime. Conjecture about meanings, such as whether the emphasis on surface or container meaningfully contributes to, or merely represses what it represents or contains, have been debated in relation to these media. However, what is consistently argued is that depth and surface share a different relationship seen through Japanese perceptions of their meaning.²⁰ Japanese animated film-makers, for instance, unlike those of recent Disney or Pixar animations, have resisted the illusion of three-dimensionality offered via computer-generated imagery, retaining a visual style that has been described as 'almost in denial of their impulse to 'animate'.'²¹

In art, these meanings have recently been made explicit by Takashi Murakami in his promotion of the *superflat* movement, led by himself, Chiho Aoshima, Yoshitomo Nara and other artists. The term *superflat* was coined by Murakami to describe the aesthetic that is by its nature two-dimensional, but instead of alluding to depth, emphasises its intrinsic flatness.²² Hiroki Azuma describes Murakami's own art in the following terms;

"Resolutely planar, his works prevent the construction of visual depth. This is what Murakami means by Super Flat. That he occasionally refers to even to his three-dimensional sculptural work as Super Flat provides testament to the consistency of his sensibility. Murakami not only rejects the spatial in the planer, he sees space itself as an assemblage of planes."²³

A way of seeing is required that involves a steady moving gaze across a scene, Thus, while the overall effect might be curiously flat from a single perspectival viewpoint, its hierarchy of elements based on actual size and perceived importance becomes apparent as the viewer moves across it. One of Murakami's points of reference are the Edo era woodcuts of artists Karushika Hokusai and Hiroshige Ando. These artists were able to, and did, use single-point

perspective. However they did not always choose to employ it in a straightforward manner. As Thomas Looser describes, in drawings such as Hiroshige's *Landspar at Tango* and *The Ryogaku Bridge Riverbank*, perspective is used to position some elements, while others are portrayed within the same picture in a being within a depthlessly flat space, their importance overriding any conformation to perspectival rules.²⁴ At the same time, Murakami makes the assertion that "Super flatness" is an original concept of Japanese who have been completely Westernised."²⁵ Apart from the fact that Edo art was itself a partial product of the opening up of Japan during the Meiji Restoration, he also makes explicit reference to the legacies of twentieth century Western intervention, in particular the dropping of the atomic bomb on Japan, tracing superflatness back through the defining moments of nineteenth and twentieth century Japanese history.

Superflatness in Architecture

The architectural implications of such a sensibility have not been ignored by Japanese architects, as they too grapple with the entwined legacy of Western modernity and Japanese traditions. As Taro Igarashi relates, the current generation of younger Japanese architects such as Jun Aoki, Kazuyo Sejima and Momoyo Kaijima & Yoshiharu Tsukamoto (of Atelier Bow-wow) grew up with the first generation of *manga* such as the popular *Astro Boy* (1963-66) and more recent anime features such as *Akira* (1988) and *Neon-Genesis Evangelion* (1995-96).²⁶ As Igarashi also argues, the Japanese urban landscape of repetitive, non-hierarchical elements strewn along roadsides has itself a sense of depthlessness; forms are blurred or superimposed over each other with no discernable order, until from the point of the observer, they form a continuous surface, obscuring the purpose and nature of any spaces behind. Elements within such an urban landscape are arrayed in a floating, almost isographic environment, where perceptions of relative importance depend on the observer's movement across the image. As Toyo Ito describes it, signs are transformed into space. Any 'real' architecture is so covered in lights, signs, images and other accretions that its formal qualities are hidden and perceptually, only the surface remains.²⁷ Design as traditionally conceived in the West, as form and spatial substance, is barely apparent, dissolved into a plethora of other competing stimuli.



Figure 5. 21st Century Museum of Contemporary Art, Kanazawa, Japan (photographs by author)
Left: Exterior view, looking at glass wall
Right: Interior view, looking at glass wall

One approach to planarity and flatness can be identified in the architecture of SANAA, the duo Kazuyo Sejima and Ryue Nishizawa (Figure 5). Their 21st Century Museum of Contemporary Art in Kanazawa is in plan a perfect circle, within which are placed cubic, rectangular and other circular spaces of different areas on a single plane (there is also a basement gallery). Each of these internal volumes is separated completely from the others. There is no obvious hierarchy or sequential arrangement, either of volumes or of the spaces between them. From the outside what can be seen is a virtually unbroken curving glass plane, sitting within a flat park landscape. Any structure supporting this perimeter is hidden. Behind this glass wall, can be seen protruding the cubic forms of some of the gallery spaces. These are also flat unbroken surfaces, this time white and opaque. Both inside and outside there is no expression of structure, only the minimal articulation between planar sections. Like Murakami's art, this elimination of all but flat surfaces as the constituent parts of architecture posits space as an assemblage of planes. In Toyo Ito's concert hall in Matsumoto, the same treatment of skin and space can be seen. Here the amoebic form of the exterior wall is punctuated by small blob-shaped areas of translucent, and occasionally

transparent, glass. Inside, floors, ceilings and balustrades form distinct continuous surfaces, their materiality and the joints between them hidden, as is the structure, apart from thin white columns. The building's image is of a thin curved lattice, an abstracted surface that veils the diverse forms of the interior.



Figure 6. Tod's Store, Aoyama, Tokyo (photographs by author)
Left: close-up view of exterior wall
Right: View of side and rear facades, showing corner.

A number of recent buildings built for boutiques, including Ito's Tods and Mikimoto Buildings, and Aoki's Louis Vuitton stores in Tokyo's exclusive Aoyama district are emblematic of a superflat approach to skin and content. Each of them treat the exterior surface as independent of the form and layout within. The Tod's store is clad with a skin of concrete and glass formed to suggest a tree in winter, with concrete elements tapering and diminishing towards the top of the building and wrapping around its L-shaped plan. In this flat treatment there is no articulation of the corners. Like paper the tapering two-dimensional forms merely fold around each corner. There is no reference to either the plan layout of the building or the expensive but rather bland products it contains. The building is its skin.

The future of the robot – the robot in the future

As a building whose form is based on a Japanese robot, the Bank of Asia provides an interesting precursor to this dematerialised, superflat architecture, and to both the traditional and popular culture that it alludes. The image of the robot, as well as pointing towards the twenty-first century in expressive terms, wraps its content in a manner calculated to flatten other meanings. In its design, the Bank of Asia selectively represents and projects an image of an Asian future. In portraying a cute, playful surface image, it is, in a way a pioneer of a forward-looking, explicitly Asian architecture that deliberately blurs high modernity and the contemporary culture around it. However, the robot is now over twenty years old, and a view of Bangkok, like many Asian cities, still throws up more ersatz Classical revivalism and bland corporate Modernity every year. The exorcism started by the robot – while continued with Jumsai's own Nation Newspaper headquarters with its circuit-board graphic sides in 1991 – needs to be continued into the twenty-first century. So how might it express its intentions with contemporary impact? Perhaps it will form part of a world like that portrayed in the art of superflat artist Chiho Aoshima, integrating not only the endearingly anthropomorphic and the machinic but also the natural world. In her computer generated cityscape image *City Glow*, Aoshima brings Haraway's cyborgs to life as buildings with sweetly feminine faces, merging with an Arcadian landscape that has similar characteristics.²⁸ Both graphically flat and luxuriantly alive, the continuum of human-building-landscape in the artwork is suggestive of a sensual, technological and ecological future. The animist belief in the life-force within all things is brought to its logical post-human conclusion.

Endnotes

¹ Toshiya Ueno "Japanimation and Techno-Orientalism: Japan as the Sub-Empire of Signs", *Documentary Box*, 9 (1996), 1.

² Masahiro Mori, *The Buddha in the Robot: A Robot Engineer's Thoughts on Science and Religion*, (Tokyo, Kosei, 1982), 13.

³ Sumet Jumsai, "Bank of Asia, Bangkok", *Mimar: Architecture in Development*, 23 (March 1987), 77.

⁴ Koichi Iwabuchi, *Recentering Globalisation: Popular Culture and Japanese transnationalism* (Durham, Duke University, 2002), 27.

⁵ Sumet Jumsai, "Why the Robot?" *Mimar: Architecture in Development*, 23 (March 1987), 79-80.

- ⁶ Christine Wertheim, "Star Trek: First Contact: The Hybrid, the Whore and the Machine" in Ziauddin Sardar and Sean Cubitt [Eds.] *Aliens R Us - The Other in Science Fiction Cinema* (London: Pluto, 2004), 74-93.
- ⁷ Donna Haraway, *Simians, Cyborgs, and Women*, 154.
- ⁸ Rey Chow, "Postmodern Automaton" in *Writing Diaspora*.
- ⁹ Hello Kitty ROBO™ <http://www.business-design.co.jp>, *Therapeutic Robot: Paro™* <http://paro.jp>
- ¹⁰ Toshiya Ueno, "Japanimation: Techno-Orientalism, Media Tribes and Rave Culture", 94-110. Rey Chow, *Writing Diaspora: Tactics of Intervention in Contemporary Cultural Studies* (Indiana University, Bloomington 1993).
- ¹¹ Masahiro Mori, *The Buddha in the Robot*.
- ¹² Midori Matsui, "Beyond the Pleasure Room To A Chaotic Street: Transformations of Cute Subculture in the Art of the Japanese Nineties" in Takashi Murakami [ed.], *Little Boy The Arts of Japan's Exploding Subculture* (New York: The Japan Society, 2005), 210.
- ¹³ Kurt Brereton, *Hyper Taiwan: Art · Design · Culture* (Taipei, Art & Collection Group, 2005), 107.
- ¹⁴ Philip Cornwell-Smith, [photographs John Goss], *Very Thai: Everyday Popular Culture* (Bangkok: River, 2005), 120.
- ¹⁵ Cornwell-Smith, 120.
- ¹⁶ Yoshiharu Tsukamoto, "How to utilize PET ARCHITECTURE", Tokyo Institute of Technology Tsukamoto Architectural Laboratory and Atelier Bow-wow, *Pet Architecture Guide Book* (Tokyo: World Photo Press, 2002), 1.
- ¹⁷ Sumet Jumsai, "Why the Robot?", 79.
- ¹⁸ Brian McGrath, "Bangkok: Liquid Perception", *Architectural Design: Urban Flashes Asia*, September/October (2003), 79.
- ¹⁹ Sumet Jumsai, "The West Pacific Region versus Punk Architecture", *Mimar*, 19 January-March (1986), 22-23.
- ²⁰ Philip Brophy, *100 Anime* (London: British Film Institute, 2006), 14-15.
- ²¹ Philip Brophy, 3.
- ²² Takashi Murakami, "The Super Flat Manifesto", *Superflat*, 5.
- ²³ Hiroki Azuma, "Super Flat Speculation", *Superflat*, 147.
- ²⁴ Thomas Looser, "Superflat and the Layers of Image and History in 1990s Japan", Frency Lunning, [ed.], *Mechademia 1 – Emerging Worlds of Anime and Manga* (Minneapolis: University of Minnesota Press, 2006), 101.
- ²⁵ Takashi Murakami, "The Super Flat Manifesto", 5.
- ²⁶ Taro Igarashi, "Superflat Architecture and Japanese Subculture", *Towards Totalscape*, 98-101.
- ²⁷ Toyo Ito, "A Garden of Microchips", Andrea Maffei, *Toyo Ito: works projects writings* (Milano: Electa, 2001), 338.
- ²⁸ Midori Matsui, "Beyond the Pleasure Room to a Chaotic Street".