

Swarthmore College

## Works

---

Japanese Faculty Works

Japanese

---

12-1-2011

### The 1970 Osaka Expo And/As Science Fiction

William O. Gardner

*Swarthmore College*, [wgardne1@swarthmore.edu](mailto:wgardne1@swarthmore.edu)

Follow this and additional works at: <https://works.swarthmore.edu/fac-japanese>



Part of the [Japanese Studies Commons](#)

---

#### Recommended Citation

William O. Gardner. (2011). "The 1970 Osaka Expo And/As Science Fiction". *Review Of Japanese Culture And Society*. Volume 28, 26-43.

<https://works.swarthmore.edu/fac-japanese/16>

This work is brought to you for free by Swarthmore College Libraries' Works. It has been accepted for inclusion in Japanese Faculty Works by an authorized administrator of Works. For more information, please contact [myworks@swarthmore.edu](mailto:myworks@swarthmore.edu).

# The 1970 Osaka Expo and/ as Science Fiction

William O. Gardner

The Japan World Exposition of 1970, hosted by the city of Suita, Osaka and organized around the idealistic theme of the “Progress and Harmony for Mankind,” was the first world’s fair held in an Asian country, and attracted a record 64 million visitors. Through its integration of advanced technology, immersive multi-media environments, and eye-popping architecture, Expo ’70 projected Japan as a simulation-site for a future society. Indeed, many journalistic accounts heralded the expo as “*mirai no toshi*” (city of the future), just as the 1939-40 New York World’s Fair had been cast as the “World of Tomorrow.” At the same time, Expo ’70 enacted an elaborate staging of Japan’s relationship with the outside world, through massive “international” events such as the opening ceremony attended by the Shōwa emperor. Together these national and international elements created a bubble of “progress and harmony” within a nation torn by virulent protests against the U.S.-Japan Security Treaty and the Vietnam War. Yet beyond the apparent optimism of the expo’s theme, the futuristic visions elaborated in its architecture and display environments were considerably more complex. In this essay, I will examine how an eclectic group of Japanese intellectuals used Expo ’70 as a drawing board for visions of a future society poised between utopia and collapse. In particular, I will focus on the role of science fiction (SF) author Komatsu Sakyō as a figure connecting the worlds of academic research, future studies, and science fiction, through several phases of critical engagement, planning, and production of Expo ’70.

## Japanese Science Fiction and Expo ’70

Despite the conspicuous role of Japanese SF talent in Expo ’70, it bears mentioning that, as a commercial publishing genre and fan culture, science fiction was still relatively young in Japan in 1970, and had just entered into what some consider its “golden age.” Although we can cite numerous examples of science fiction or speculative fiction works

from the Meiji period onwards, and especially during the first flowering of Japanese popular fiction amid the publishing boom of the late 1920s and 1930s, it was not until the 1960s that science fiction was firmly established as a genre, following the founding of the first SF coterie magazine *Uchūjin* (Space Dust) in 1957, as well as the commercial *SF Magajin* by Hayakawa Publishing in 1959, which was initially dominated by translations of foreign works but increasingly also featured domestic authors. Japanese SF came of age in the shadow of translated science fiction and the American-Soviet space race, just as the Apollo moon rock in the American Pavilion, as well as the cosmonautics display in the Soviet Pavilion, generated the greatest lines of visitors at Expo '70. The institutional growth of domestic science fiction continued throughout the 1960s, with the first Japanese SF Convention in 1962 (Nihon esu efu taikai), the founding of the Japan SF Writers Association (Nihon SF Sakka Kurabu) in 1963, and the creation of the *Seiunshō* award for science fiction in 1970. By 1970, such major authors as Hoshi Shin'ichi, Tsutsui Yasutaka, and Komatsu Sakyō had established themselves at the forefront of the domestic SF scene, while at the same time, the Apollo 11 moon landing in 1969 and the film *2001: A Space Odyssey* from 1968 galvanized Japanese as well as international attention around the imagination of mankind's future in the context of the space race and cold war.

In addition to the creative and critical participation of Komatsu Sakyō, we can cite multiple examples of science fiction writers and artists involved in Expo '70. Such contributions include the Fujipan Robot Pavilion produced by the famous manga artist Tezuka Osamu; a farcical multi-screen science fiction film created by writer Abe Kōbō and filmmaker Teshigahara Hiroshi for the Auto Pavilion;<sup>1</sup> and the Mitsubishi Future Pavilion, realized by a team of science fiction auteurs including special effects wizard Tsuburaya Eiji of *Godzilla* and *Ultraman* fame, together with science fiction writers Fukushima Masami, Hoshi Shin'ichi, and Yano Testu, and illustrator Manabe Hiroshi, all working under the direction of producer Tanaka Tomoyuki from the Tōhō film studio. Furthermore, an International Symposium of Science Fiction, timed to coincide with Expo '70, was held in Japan from August 31 through September 3, featuring events in Tokyo, Nagoya, and Ōtsu, and a tour of the expo site. Representing one of the first meetings between science fiction authors from both sides of the iron curtain, this symposium included Brian W. Aldiss and Arthur C. Clarke from the UK; Judith Merrill and Frederik Pohl from Canada and the U.S.; and Vasilii Pavlovich Berezhnoi, Yulii Iosifovich Kagarlitskii (aka Julius Kagarlitsky), Ieremei Iudovich Parnov, and Vasilii Dmitrievich Zackharchenko from the Soviet Union; joining Japanese writers including Komatsu, Fukushima, and Hoshi.<sup>2</sup>

Appearances of the Expo '70 and the "expo" theme in science fiction works include Mayumura Taku's novel *Expo '87*, first published in 1968, which describes the competition among businesses to establish an edge in the entertainment, leisure, and information industries through their exhibits in a fictional Tokaidō Expo held in

the twenty-years hence future of 1987, and Tsutsui's satirical stories "The Great Dis-Harmony of Mankind" (*Jinrui no daifuchōwa*, 1970) and "The Expo at Midnight" (*Shinya no bankokuhaku*, 1970). The latter story provides a farcical take on cold-war theatrics of the competing American and Soviet Pavilions: an international spy battle erupts on the expo grounds, climaxing in the saucer-shaped American Pavilion floating into the air as a flying saucer.<sup>3</sup> Expo '70 was also featured as a location for the *kaijū* (monster) film *Gamera vs. Jiger* (*Gamera tai daimajū Jaigā*, dir. Yuasa Noriaki, 1970), and more recently played an important role in the best-selling manga *Twentieth Century Boys* (*Nijūseiki shōnen*, 1999-2006) by Urasawa Naoki, as well as a film trilogy based on the manga (dir. Tsutsumi Yukihiko, Tōhō Studios, 2008-2009). However, while these fictional characterizations of the expo are intriguing, in this article I will focus on the development of Expo '70 itself as a locus of both collaborative and contending ideas about the future—in other words, the expo site as a multivalent, multi-authored "science fiction."

### The "Thinking the Expo" Group and Origins of the Expo's Themes

Expo '70 was one part of a massive infrastructure development of the Suita region during the apex of the high growth era, which included the extension of the Hankyū Senri railway line (completed 1967), construction of the Meishin Expressway (1963-65), and the development of the Senri New Town, a planned development of over 1000 hectares adjacent to the future expo site, built to accommodate a population of 150,000, whose first units opened in 1962. The Ministry of International Trade (MITI) proposed the expo to the International Exhibitions Bureau (BIE) in 1964 as a showcase for Japanese postwar recovery and modernization, and as an economic stimulus, and stimulus to further infrastructure development for the Kansai region, just as the 1964 Tokyo Olympics had stimulated redevelopment for Tokyo and the Kantō region. Just as the Olympics had been criticized by the Japanese left as diversion from the protest movement that had galvanized over the 1960 renewal of the U.S.-Japan Security Treaty, the left also expressed suspicion over Expo '70, especially as its scheduled opening coincided with the 10-year automatic renewal of the Security Treaty. Suspicion about the motives of the expo, together with critique of the ideology expressed by the event, fueled a lively and creative protest movement throughout the period of its planning and execution.<sup>4</sup>

However, the announcement of the bid to host a world exposition in Osaka was also met by constructive critical engagement from a group of Kansai-based intellectuals with connections to Kyoto University. The study group "Thinking the Expo" (*Bankokuhaku o Kangaeru Kai*) founded in July 1964, was spearheaded by anthropology Professor Umesao Tadao, communication scholar and media theorist Katō Hidetoshi, and Kyoto University graduate Komatsu Sakyō, who was then working as a journalist and radio scriptwriter while beginning his career as a science fiction author (fig. 3.1).<sup>5</sup> This circle, which became an important intellectual nexus connecting production



3.1  
A meeting of the “Thinking the Expo” study group. From left to right: Katō Hidetoshi, Umesao Tadao, Hayashi Yūjirō, Kawazoe Noboru, and Komatsu Sakyō. (Photo courtesy of Komatsu Sakyō Office.)

of Expo 70’s central “theme zone” with the emergence of *miraigaku*, or future studies, in Japan, was initially formed around the journal *Hōsō Asahi* (Broadcast Asahi), published by the Osaka Asahi Broadcasting Corporation, to which Komatsu, Katō, and Umesao were frequent contributors. Indeed, the *Hōsō Asahi* editorial staff provided key logistical support throughout the development of the “Thinking the Expo” group, and the editorial trends of this journal, which were unusually ambitious for what was ostensibly a public relations magazine for a media company, provide important

context for understanding the intellectual background and developing role of the “Thinking the Expo” group.<sup>6</sup>

From September 1963 through 1966, Komatsu contributed a regular series of articles to *Hōsō Asahi* entitled “Journeying Across the Area” (*Eria o yuku*), featuring reports on regional cultural history from across the Kansai area.<sup>7</sup> In addition to Komatsu’s articles on Kansai geography and local culture, *Hōsō Asahi* featured numerous articles on anthropology and comparative cultural research by a number of members of the Kyoto University Institute for Research in Humanities, including Umesao, Katō, and Institute co-director Kuwahara Takeo.<sup>8</sup> This institutional nexus serves as background to the expo’s eventual thematic embrace, under the influence of the “Thinking the Expo” group, of a relativistic, multi-polar humanism, which attempted to highlight the knowledge or “wisdom” (*chie*) of Asian and African cultures in the first world exposition hosted by an Asian nation.

Furthermore, given the importance of the concepts of “information” and the “information society” to the thematic development of Expo ’70, it is significant that *Hōsō Asahi* was the initial publication forum for Umesao’s groundbreaking article “On Information Industries” in January 1963, which is credited for starting the journalistic boom of interest in information theory, “informatization” (*jōhōka*) and the “information society” (*jōhō shakai*). According to communications scholar Itō Yōichi, the actual term “information society,” which was not employed in Umesao’s original article, was first used in a roundtable discussion published in *Hōsō Asahi* in January 1964, and the “information industries” (*jōhō sangyō*) were the subject of a series of articles in *Hōsō Asahi* from November 1964 through July 1966.<sup>9</sup> Thus, we can see that the members of the “Thinking the Expo” research group were at the forefront of thinking on information systems, computerization, and mediatization of contemporary society at exactly the

same time as they were beginning to participate in this study group, and continued to be active in the development of research and theorization on these topics simultaneously with their engagement with the expo throughout the late 1960s.

The members of the “Thinking the Expo” group researched the history of world fairs, paying particular attention to the thematic development of postwar expositions since the Brussels World’s Fair of 1958, and studied the ongoing 1964 New York World’s Exposition and the planning for the 1967 Montreal World’s Exposition, in addition to exchanging ideas and critical opinions regarding the Japanese proposal. Concerned by the lack of vision expressed in MITI’s initial proposal to the BIE, the group offered a series of public critiques that were to have a significant impact on the development of Expo ’70. To summarize, the group argued: first, that it must not simply be a “trade show” designed to feature Japanese products and economic progress, but instead must have clearly articulated themes and serve as a site for exchange of knowledge and information—including information on such complex global problems as, for example, pollution; material scarcity and distribution; and genetic erosion and diversity.<sup>10</sup> Secondly, expo planners should not miss the importance of the expo as the first Asian world exposition and must emphasize the participation of Asian and African countries. Third, the molding of the expo environment must not be carried out by conservative bureaucrats, but rather planners should give cutting-edge artists and architects free rein to realize innovative visions.

After a year of functioning as a voluntary, private research circle, the “Thinking the Expo” group attempted to convey its conclusions to the public, and to open them to further discussion and debate, in its first and only general conference, at the Osaka Science and Engineering Center on September 15, 1965, one day after the official announcement confirming that Osaka would be the host city for the 1970 Japan expo. The 36 participants in the conference included core “Thinking the Expo” study group members Komatsu and Katō (Umesao was absent due to illness), as well as invited guests including artist Okamoto Tarō (who had not yet been tapped as an artist-producer for the expo), architects Yoshizaka Takamasa and Mizutani Eisuke, architectural critic Hamaguchi Ryūichi, historian Hagiwara Nobutoshi, illustrator Manabe Hiroshi, and science fiction author Hoshi Shin’ichi.<sup>11</sup>

While the “Thinking the Expo” group originally took its mission as pure research, or at most the provision of contextualization and constructive criticism from the outside, they were soon called upon to consult with local Osaka officials about the planning for the expo, and the expo’s Central Planning Committee adopted their suggestion to articulate a set of themes for the expo. Several of the members, including Komatsu and Katō, were soon drafted as Theme Committee members, together with Katō and Umesao’s senior colleague from the Kyoto University Institute for Research in Humanities, professor of French Kuwahara Takeo, who was responsible for the final written draft of expo themes. Ultimately, the theme committee emerged with the theme of “Progress and Harmony for

Mankind” (*Jinrui no shinpo to chōwa*). A subsequent Sub-Theme Committee elaborated this motto with an equally idealistic set of supporting themes: “Toward the Realization of a Richer Life,” “Toward the Utilization of a More Bountiful Nature,” “Toward the Design of Better Lifestyles,” and “Toward Deeper Mutual Understanding.”<sup>12</sup>

The theme “Progress and Harmony for Mankind” was later lampooned by Komatsu’s science fiction colleague Tsutsui Yasutaka in “The Great Dis-harmony of Mankind.” In this story, a mysterious “ghost pavilion,” the Son My Village Pavilion, reappears every morning in different locations on the expo grounds. The name of this pavilion refers to the site of the mass murder of several hundred unarmed Vietnamese civilians by the U.S. Army in 1968, known in Japanese as the *Sonmi mura gyakusatsu jiken* (Son My Massacre), but better known in the U.S. as the My Lai Massacre. In Tsutsui’s story, U.S. soldiers storm the hut-like pavilion every morning, killing women, children, and the elderly, but even though the local authorities collect the bodies and destroy the pavilion every afternoon, it reappears again the next morning. In addition, another ghost pavilion appears: the Biafra Pavilion, referring to the secessionist state declared during the Nigerian civil war of 1967-70, which was blockaded, leading to widespread famine and disease. In Tsutsui’s story, refugees from this pavilion appear in the expo’s various restaurants and cafeterias to beg for food. Finally, in an effort to expiate itself before the various national representatives inconvenienced by the ghost pavilions, the Japanese government offers to share the embarrassment by setting up its own “Nanking Massacre Pavilion.” Needless to say, the stubborn reappearance of past and contemporary “dis-harmony” in Tsutsui’s short story belies the utopian (or bureaucratic/consumer capitalist) attempt to create an artificial entertainment zone dedicated to “the harmony of mankind.”

Nevertheless, despite the rose-colored sloganeering of the official theme satirized by Tsutsui and widely scorned in left-leaning media and intellectual circles, much of the discussion in the Theme Committee actually focused on the contradictions, disharmony, and danger in the world of the mid-1960s, including the Cold War, the threat of nuclear apocalypse, and problems of overpopulation, social inequality, and pollution. Indeed, even the official theme statement reflects these underlying concerns:

Nevertheless, when we look at the situation of the world [...] [we see that] mankind is beset by many forms of disharmony. Due to the high level of development of technical civilization, mankind today is undergoing a fundamental revolution in our entire way of life, but the many problems that arise from this are not yet resolved. Furthermore, in every region of the world, large inequities exist, and not only is the exchange, both spiritual and material, between each region clearly inadequate, but frequently, understanding and tolerance are lost and friction and tensions erupt. Even science and technology themselves, if they are applied incorrectly, hold the possibility of leading mankind to ruin.

With its characteristic rhetoric of multi-polar humanism, the text goes on to assert that wisdom to avoid such a dire fate and unlock the “prosperity of mankind” can be found not in one place but “wherever human beings can be found.” “If the diverse wisdoms of mankind can be effectively exchanged and [allowed to] mutually stimulate each other,” the text continues, “a higher level of knowledge can appear, and from the understanding and tolerance between different traditions, we can achieve the harmonious development of a better life for all of mankind.”<sup>13</sup> Thus, the idea of contemporary “disharmony” forms the backdrop of the official expo theme of “harmony,” and a subtle criticism of Western universalism underlies its expression, through the suggestion that the wisdom to solve mankind’s problems can be found not in one single source (i.e., Western civilization and enlightenment), but throughout the world.<sup>14</sup> In addition, the text establishes international intellectual, artistic, and human “exchange” as a central goal of the expo—framing a key tenet of the “Thinking the Expo” group in a way that would influence the design and discourse surrounding the central “Theme Zone” of the expo site. Nevertheless, for the vast majority of visitors and critics, it was not the statement of the Theme Committee in its entirety, but simply the bromidic “Progress and Harmony of Mankind,” which was remembered as the official slogan of the event. The tension between the sunny exterior of the official slogan and the underlying debate over the articulation of more critical viewpoints would be repeated in other forms as the expo unfolded.

### Expo '70 and Future Studies

In terms of the intellectual networks outlined in this article, the Sub-Theme Committee was significant as the meeting place between Komatsu Sakyō, Umesao Tadao, and Katō Hidetoshi of the Kansai-based “Thinking the Expo” group with Kantō-based architecture critic Kawazoe Noboru and economist Hayashi Yūjirō, all of whom were later active in the founding of *miraigaku*, or Japanese future studies. Komatsu traces the genesis of the Future Studies Research Group (*Miraigaku kenkyūkai*) out of a trip that he took in May 1966 with fellow core “Thinking the Expo” members Umesao and Katō to observe the preparations for the Montreal Expo, including stops in the U.S. and Mexico as well as Canada, which furthered the trio’s interest in overarching issues of culture and civilization:

While traveling through Canada, America, and Mexico, we continually discussed “culture” and “civilization.” The issues that we had been grappling with for nearly two years in the “Thinking the Expo” group were now transcending the question of “world’s expositions” and were becoming the subjects of our interest [in themselves]. In considering the sub-themes [for the Osaka Expo], we were forced to ponder the “conditions of humanity” (*jinrui no jōken*) from a general perspective. The total inheritance from the past, the diversity of cultures and civilizations, the relationships between nature and man that were being elucidated in every direction by modern science, [...] the changes that scientific technology was bringing to



societies worldwide [...] in the process of thinking about the “expo” we had been pressed by the need to think holistically about such issues. However, we had begun to discuss whether there could be a “forum” (*ba*), where we could consider such issues outside of the context of the expo.<sup>15</sup>

Thus, Komatsu writes, he suggested the idea of future studies in the course of a dialogue with Umesao in the *Weekly Asahi* magazine soon after their return from North America. According to Komatsu, this idea was quickly seized upon by Hayashi and Kawazoe, whose credentials as intellectuals with an interest in future societies were unquestionable. Kawazoe, among other activities, had been a co-author of the internationally noted futuristic architectural and design manifesto *Metabolism 1960*,<sup>16</sup> while Hayashi, as Director of the Economic Research Institute of the National Economic Planning Agency in 1965, had co-authored an influential report on the lifestyles of Japanese in the 20-years hence future of 1985.<sup>17</sup> Furthermore, in 1969, after his extensive contacts with the “Thinking the Expo” group members, Hayashi was to publish arguably the most popular and influential book of its era on the “information society,” *The Information Society: From “Hard” to “Soft” Society*.<sup>18</sup>

In the fall of 1966, the Future Studies Research Group was founded by Komatsu, Umesao, Katō, Kawazoe, and Hayashi, and expanded in 1968 into the Japanese Association for Future Studies (Nihon Mirai Gakkai), which hosted the second International Futures Research Conference in Kyoto in April 1970.<sup>19</sup> Of course, despite Komatsu’s narrative of the genesis of Japanese future studies as a continuation of the work of the “Thinking the Expo” study group, future(s) studies and futurology had been percolating as an area of inquiry worldwide in the 1960s,<sup>20</sup> culminating in the first International Futures Research Conference in Oslo in 1967, which laid the groundwork for the establishment of the Futures Research Federation in 1973.<sup>21</sup>

Thus, Expo ’70 emerged as a convergence point in the articulation of ideas of the “future” in the context of the overlapping discourses of future studies, comparative cultural studies, media theory and the “information society,” and architecture and urban planning. In an article entitled “The Expo’s Vision” (Bankokuhaku no bijon) for the *Yomiuri* newspaper in 1967, Kawazoe expressed the convergence of these issues and discourses as follows: “Japan is not only continuing its high growth. It is the society where population density and mediatization have progressed the furthest, and Japan itself has become a laboratory for a new civilization. Therefore, the Japan expo is not only about the search for Japan’s future, but has a [broader] significance in the history of civilization.”<sup>22</sup>

Similarly, in an essay on “The Plan of the Expo Site: From Survey to Design” for the magazine *Kenchiku zasshi* (Journal of Architecture and Building Science), architect and urban planner Nishiyama Uzō, who collaborated with Tange Kenzō on the initial drafts of the site design, described the expo site as “a model for the city of the future”

(*mirai toshi no moderu*). Touching on many of the official themes worked out by the Theme Committee, Nishiyama writes:

The concentration of population in cities is advancing at a rapid pace in our country, and it is said that soon the great majority of Japanese will live in a belt zone connecting Tokyo and Osaka. From a worldwide perspective, the living space of humans is, of necessity, in a trend towards urbanization. Due to this, however, pollution, natural disasters, and every form of paralysis, disharmony, and degradation of the living environment is also progressing.

[...] To create a living space with a high degree of density, which would overcome the various faults that have appeared in contemporary cities, and to give people the physical experience of such a space—this would certainly give substance to [the ideal of] “progress and harmony” through the site design. This was the reason I endeavored to create the model of a “core of a future city.”<sup>23</sup>

To this end, Nishiyama offered four principles for his initial site design: 1) to revive the “correct cycle of nature” in the face of contemporary environmental pollution through the design of recycling and purifying air and water systems and artificial lakes; 2) to create a central “festival plaza” where humans can have direct, face-to-face contact; 3) to develop advanced computerized systems to efficiently control the various functions of the site; and 4) drawing upon these systems, to effectively control the flow of the anticipated massive crowds of people in and out of the site.<sup>24</sup> While Nishiyama’s involvement was curtailed after the early stages of the site design, and not all of his ideals were fully realized in the final site, his conceptualization of the expo site as the core of a “future city” infused the concept of the “future” even further into the rhetoric surrounding the site, and left important conceptual and physical traces on the evolving Expo ’70.

### **“Symbol Zone” Design and the Architectural Translation of Expo Themes**

As the expo planning progressed, the site was divided into spaces for national pavilions, corporate pavilions, peripheral areas, and a central “Symbol Zone,” where the themes of the expo would be articulated through architecture and design. After the initial drafts by Nishiyama, much of the final site design and execution was overseen by internationally recognized architect Tange Kenzō.<sup>25</sup> In part through the lobbying of the “Thinking the Expo” group to involve innovative artists in the highest levels of planning, the design of exhibition space in the central Symbol Zone and Theme Pavilion was turned over to artist Okamoto Tarō, who proposed the audacious Tower of the Sun bursting through the roof of Tange’s central Festival Plaza. Also crucial to the conception and design of the site was the transportation infrastructure, as mentioned by Nishiyama above, including moving sidewalks connecting the Festival Plaza to a radial set of sub-plazas, a monorail encircling the site, and portals connecting the site to outside rail and highway networks.

Both the central Symbol Zone and the prominent transportation network were elements of the expo's thematic emphasis on circulation, encounters, and information exchange, which were conceived as illustration, instruction, and acclimatization for the dawning post-industrial "information age." In a discussion with Kawazoe Noboru published in the May 1970 issue of the journal *Shin kenchiku* (New Architecture), Tange develops several themes first articulated by the "Thinking the Expo" members:

During the stage of an industrial society, world expositions had the cultural-historical significance of 'exposing' physical things, such as technology and the fruits of scientific engineering. However, such a form [of display] doesn't have much meaning in the current age, in which we are progressing into an 'information society.' Rather than displaying hardware, or going to see it, isn't it more meaningful to create a software-like environment? Instead [of the old type of expo], we should gather together to exchange direct communication between people, each bringing our own cultures or non-physical traditions to exchange. Rather than an exposition, it would be a festival.<sup>26</sup>

Tange's remarks reflect the influence of the "Thinking the Expo" team's rhetorical emphasis on the importance of the expo as a site of communication and exchange rather than simply a display of goods. Furthermore, in his use of the key term "information society" to contextualize the social significance of the expo, he uses a term developed in part by the "Thinking the Expo" research group members, and also employs the distinction between "hardware" and "software," used metaphorically to distinguish different sectors or stages of development of society, that was popularized in Hayashi book from a year before, *The Information Society: From "Hard" to "Soft" Society*.<sup>27</sup>

In addition to articulating the conception of "information-age" architecture and design shared in various ways by many of the prominent contributors to the expo's design, Tange's remarks also testify to the emergence of the concept of "festival," which was not initially part of the expo's thematic framework. First proposed by Nishiyama and promoted both by Tange and Okamoto, the idea of the "festival" had different meanings for each figure. For Tange, the "festival" was "the interchange of human energy, the exchange of human wisdom and creativity."<sup>28</sup> For Okamoto, "festival" had a more anarchic, primal valance: "The expo is a festival [...] I don't think that expositions are fundamentally about learning various types of scientific knowledge. Rather, [they are a place where] surprise and joy are commingled, where old concepts and scientific knowledge are wiped away and tossed aside."<sup>29</sup>

The Symbol Zone, which represented a compromise or juxtaposition between the two figures' visions in execution of the expo's thematic program, elaborated the official expo theme of "Progress and Harmony," together with concepts of "exchange of information" and the "festival" through its articulation of space. The official theme of "progress" was articulated through the "mandala"-like temporal

and spatial layering of the Symbol Zone's Theme Pavilion architecture, with an Underground Exhibition space representing the "Past: The World of Origins," the Ground Level Exhibition, or "Festival Plaza" representing the "Present: World of Harmony," and the Aerial Exhibition installed in the giant "space frame" ceiling covering the vast "Festival Plaza," representing the "Future: The World of Progress." Finally, all three layers were interpenetrated by the Tower of the Sun, representing Okamoto's primal "Energy of Life."<sup>30</sup> Komatsu and Kawazoe, two of the Sub-Theme Committee members, were called upon to be sub-producers for different regions of the Theme Pavilion: Kawazoe was responsible for the Aerial Exhibition representing the Future, while Komatsu was tapped as sub-producer for the Underground Exhibition, representing the Past (which Komatsu and his colleagues interpreted on a cosmic scale, creating an environment that represented the development of atoms and the molecular building blocks of life, from proteins and nucleotides such as ATP to larger structures such as RNA and DNA, before moving on to depict the development of organisms, human beings, and human cultures).<sup>31</sup>

Notably, while the Underground and Aerial spaces featured extensive displays consistent with their themes of past and future, the Festival Plaza representing the present was intentionally kept largely devoid of display: rather, the giant roofed open-air plaza was the "hardware" shell to house public events and daily exchanges of people that were to comprise the "software" of the event. This emphasis on public spectacle and exchange was furthered by the placement of technological event "systems," designed by avant-garde architect Arata Isozaki, most notably the giant robots "Deme" and "Deku," designed to control lighting, move stage components, and otherwise facilitate expo events.<sup>32</sup> Furthermore, this conceptual emphasis on "software" and "information exchange" was intensified both in the Symbol Zone and throughout the expo's various pavilions by the omnipresence of sound and video projection, multi-screen displays, and other multimedia environments. Thus, in its conceptualization and realization, the Expo '70 site in general and its core Symbol Zone in particular could be called a proto "cyber city" designed to herald the advent of the "information age."<sup>33</sup>

### **Emergence of the "City of the Future"**

In addition to the "mandala"-like temporal-spatial arrangement of the Theme Pavilion in the Symbol Zone dramatizing the progression from past to future, many of the national and corporate pavilions also placed a heavy emphasis on temporality, specifically the emergence of the society of the future, in their architecture and choice of displays. This was generally in keeping with the tone of utopian future-thinking that had been a major component of world's fairs from the Crystal Palace of the Great Exhibition in London in 1851, through the World of Tomorrow exhibits at the New York World Exposition of 1939-1940, to the progressive housing complex Habitat '67 and Buckminster Fuller's geodesic dome at the 1967 Montreal Expo.

The two most popular national pavilions at Expo '70, the American and Soviet Pavilions, both highlighted the exploration and future development of space, through the exhibit of NASA technology, and a "moon rock" collected by the Apollo 12 astronauts in 1969 in the American Pavilion, and a life-size model of a Soyuz-4 and other spacecraft in the Soviet Pavilion. The corporate pavilions, dominated by domestic Japanese pavilions, also featured various visions of the future, starting with the Mitsubishi Future Pavilion, which was divided into a display of the untamed elemental power of "Japan's Nature" followed by "Japan's Sky" "Japan's Sea" and "Japan's Earth" as they would be developed in the twenty-first century: space stations and a weather monitoring and control center in the sky; an underwater city, "marine pasture," and power plant in the sea; and a twenty-first century city on land. Other corporate pavilions, especially the Sanyo Pavilion, Midori Pavilion, and Takara Beautilion, presented visions of future lifestyles and consumer products, including the celebrated "human washing machine," or ultrasonic bath pod in the Sanyo Pavilion; while technologies of the future, including flight simulators and wireless mobile telephones, were demonstrated in such pavilions as the Hitachi Group Pavilion, IBM Pavilion, and Electronic Communications Pavilion.<sup>34</sup>

However, arguably the greatest factor in creating the public image of Expo '70 as a "city of the future" would be the dense juxtaposition of innovative architectural forms, including Tange's Grand Roof, the low inflated dome of the American Pavilion and aggressively pitched roof of the Soviet Pavilion, and most especially, the contributions of the young Japanese architects associated with the Metabolist movement, including Kikutake Kiyonori's Expo Tower and Kurokawa Kishō's Toshiba IHI Pavilion and Takara Beautilion, all interpenetrated by the futuristic transportation infrastructure of monorails and moving sidewalks. This was the eclectic architectural gestalt that would be extensively publicized in the Japanese press as the "city of the future" (*mirai no toshi*).

### **"Managed" Utopia and Hidden Apocalypse**

Many of the visions of the future offered by the expo pavilions were fundamentally utopian in nature, from the convenient ultra-modern lifestyles promoted by the Sanyo and Takara pavilions to the promise of technological advancement offered by the electronics and communications displays. Perhaps the most clearly and conventionally utopian of these future visions was the Mitsubishi Future Pavilion, in which the power of nature would be tamed and every aspect of air, land, and sea would be peacefully developed under mankind's "management." The overall expo site design and Symbol Zone design, while more sophisticated and innovative, also offered a vision of the future city as a place of social management through a combination of spatial design and computerized systems that would monitor and manage the flow of people, and promote carefully controlled interpersonal exchanges—a "science fiction" of the future city as a bureaucratically managed "information society."<sup>35</sup> However, despite this vision of future "Progress and Harmony" through progressive urban planning and technological management, darker

possibilities for the future could not be completely suppressed from the expo site and the discourse surrounding it.<sup>36</sup>

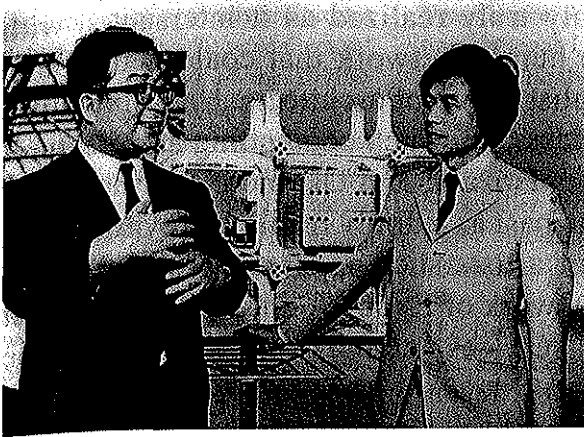
Within the Symbol Zone of the expo itself, Kawazoe, as sub-producer of the “World of the Future” aerial exhibition, tried to address concerns about the dystopian possibilities for mankind’s future through the inclusion of a “Wall of Contradictions,” which sought to draw attention to the possibility of both the “instantaneous destruction” of nuclear war, and the “gradual destruction” of environmental damage, as well as the lingering global “contradictions” of racial discrimination and other social ills through displays of photos and photo montages.<sup>37</sup>

Similarly, in the article “Turning from Expo to Pollution,” published soon after the closing of the expo, Komatsu warned of the potential destruction of modern civilization by environmental imbalance and catastrophic climate change—a warning that the endless “progress” and development promised by the official expo thematic program might not be sustainable:

If the “accumulation of heat and carbon gas” in the air and water resulting from the enormous energy consumption of our giant industrial society reaches a certain level, then the “thermal balance” of the atmosphere and oceans will naturally collapse. If this happens, the polar ice might melt and cause a great advance of the oceans, or cloud cover might increase, causing a “man-made ice age.” This is not simply a science fiction fantasy. [...] In the near future—probably, nearer than we expect—our civilization may have to live much more modestly—more from the restrictions of “environmental balance” than from the [limitations] of natural resources. I have my doubts, however, about whether our hypertrophied “industrial civilization” can learn to “behave modestly” before it is visited with destruction.<sup>38</sup>

However, as Komatsu’s article bitterly notes, elements of critique and warning regarding the “Progress and Harmony of Mankind” in the expo were actively suppressed by government officials. Most conspicuously, the Symbol Zone producers were compelled to remove from the “Wall of Contradictions” graphic documentary photographs of corpses and keloid scars of Hiroshima victims, intended to illustrate the horror of nuclear warfare, leaving a toned-down photomontage of mushroom clouds and urban destruction in its place.<sup>39</sup>

Surprisingly, Komatsu, the science fiction writer so intimately involved with the expo, did not take up the expo directly in any of his fictional works. Nevertheless, the themes that Komatsu explored through his varied research, committee, and production work with the expo, as well as his related research and writing on future studies, did leave their mark on his fiction. Perhaps the closest to an “expo” work by Komatsu would be his novel for young readers, *Floating City 008* (Kūchū toshi 008), from 1969, in which Komatsu elaborated on an ideal city of the future, while explicitly referencing



3.2  
Komatsu Sakyō (left) with Kurokawa Kishō (right) in 1969, in front of a model of Kurokawa's Takara Beautilion for Expo '70. (Photo courtesy of Komatsu Sakyō Office.)

ideas of Metabolist architects, to which he was exposed through his work on the expo (fig. 3.2). However, in contrast to the utopian description of future life in *Floating City 008*, it was his increasing attention to the apocalyptic possibilities for human civilization that had been suppressed from the expo, together with his insights into the functioning of the Japanese bureaucracy as a member of the expo production team, which informed his simulation of a nationwide seismological disaster in his magnum opus, the best-selling *Japan Sinks* (*Nihon chinbotsu*) from 1973.

In spite of such limited attempts to address the “contradictions” of industrial civilization through the display of a “Wall of Contradictions,” the consciousness of apocalyptic possibility shared by several key expo visionaries was eclipsed by the overall atmosphere of kitschy exuberance that seemed not merely to embrace but almost to parody the official theme of “Progress and Harmony of Mankind”—what art critic Sawaragi Noi has called the expo’s “eccentric brightness” (*kikyō na akarusa*).<sup>40</sup> As such, the expo may have been one of the last expressions of the age of industry’s belief in a utopian future, albeit one that already seems to anticipate both post-modern irony and post-industrial collapse through its very excess.

More recently, for a younger generation of Japanese artists, exposed to the kitsch aesthetics and hyper-mediated environment of the expo as children, the expo seems to have taken on a multivalent significance as both the vision of a utopian future fully realized only in the imaginative realm of popular culture, and the prediction of a future apocalypse that may have already arrived. For example, in Urasawa Naoki’s bestselling manga *20<sup>th</sup> Century Boys* (*Nijūseiki shōnen*), Okamoto’s Tower of the Sun re-appears as a giant mecha in an apocalyptic near future to do battle with an evil robot.<sup>41</sup> Meanwhile, artist Yanobe Kenji, who grew up near the expo site, has probed both the hopeful and melancholic resonances of the largely dismantled site in a number of performances and art projects from 1998 through the present decade, wearing his post-apocalyptic “atom suit,” to explore the ruins of the expo.<sup>42</sup> It is fascinating that this younger generation of artists has picked up on the partially suppressed apocalyptic undercurrent of the expo, while also claiming its eclectic, kitschy, and media-saturated aesthetics as part of their own artistic DNA.

While this article has focused primarily on the role of Komatsu Sakyō and the “Thinking the Expo” research group as a catalyst for the development of certain

key expo themes, this group's role was only truly realized as it intersected with other nodes and clusters in the remarkable human network that coalesced around Expo '70: Kawazoe Noboru and the Metabolist group of architects, Hayashi Yūjirō and the Japanese Association for Future Studies, and such contending architectural and artistic visionaries as Nishiyama, Tange, Isozaki, and Okamoto. Furthermore, rather than allowing Expo '70 to fade into the past as a dimly recalled "fever dream" of the high growth era, a new generation of artists such as Urasawa and Yanobe have extended the artistic and intellectual network of Expo '70 into the twenty-first century, while exploring both the prismatic surfaces and dark undercurrents of the expo's collaborative "science fiction."

Notes

Research for this article was supported by an ACLS/SSRC/NEH Area Studies Fellowship. The author would like to thank Komatsu Sakyō, Kawazoe Noboru, and Professor Tatsumi Takayuki for their assistance during research. Any inaccuracies in the article are the sole responsibility of the author.

1. The four-screen color film *240 Hours in One Day* (Ichinichi niyaku jonjū jikan). The scenario for this film can be found in Abe Kōbō, *Abe Kōbō zenshū* [Complete Works of Abe Kōbō], vol. 23 (Tokyo: Shinchōsha, 1999), 63-84.
2. Komatsu Sakyō, *SF Damashi* [SF Spirit] (Tokyo: Shinchōsha, 2006), 120. As with the expo, Komatsu played a key behind-the-scenes role in helping to organize this event. The symposium is also discussed in Brian W. Aldiss's autobiography *The Twinkling of an Eye: My Life as an Englishman* (New York: St. Martin's Press, 1998), 283-85.
3. Mayumura Taku, *Expo '87* (Tokyo: Kadokawa Shoten, 1968); "Shinya no bankokuhaku" was first collected in Tsutsui's short story collection *Bōshizō* [Portrait of Mother and

- Child] (Tokyo: Kōdansha, 1970), while "Jinrui no daifuchōwa" was first collected in the short story collection *Uma wa doyō ni aozameru* [The Horse Turns Pale on Saturday] (Tokyo: Hayakawa Shobō, 1970).
4. See KuroDalaiJee's contribution to this volume for more information on the protest movement.
  5. Komatsu's SF debut was with the story "Peace on Earth" (Chi ni wa heiwa o) in December 1959; his major works published while he was active with the expo research and planning include *The Japanese Apache Tribe* (Nihon Apacchi zoku) and *Day of Resurrection, aka Virus* (Fukkatsu no hi) from 1964, *At the End of the Endless Flow* (Hateshi naki nagare no hate ni) from 1966, and *Who Will Inherit?* (Tsugu no wa dare?) from 1970.
  6. The three initial "Thinking the Expo" members were soon joined by anthropologist Kawakita Jirō, critic and French scholar Tada Michitarō, and economist Kamakura Noboru.
  7. These articles were later collected in the volumes *Chizu no shisō* (The Philosophy of Maps) (Tokyo: Kōdansha, 1965) and *Tanken no shisō* (The Philosophy of Explora-

- tion) (Tokyo: Kōdansha, 1966).
8. This institute was a lively center of interdisciplinary research throughout the postwar era. Founded in 1939, in the postwar it was divided into a Japanese Department, Oriental Department, and Western Department, with French Professor Kuwahara Takeo heading the latter.
  9. Youichi Ito, "The Birth of Jōhō Shakai and Jōhōka Concepts in Japan and Their Diffusion Outside Japan," *Keio Communications Review* 13 (1991): 3-6. Umesao's article was republished in *Chūo kōron* three months later: Umesao Tadao, "Jōhō sangyō ron" [A Theory of Information Industries], *Chūo korōn* (March 1963): 45-58.
  10. Komatsu Sakyō, "Bankokuhaku wa mō hajimatte iru" [The Expo Has Already Begun], in *Bankokuhaku shiryō* [Expo Documents], ed. A. A. P. (Osaka: A.A.P., 1966), 61, 64-65.
  11. According to Komatsu's account, the conference was at best a mixed success in terms of public relations, as the study group members had difficulty making their position understood to the press as an unofficial academic study group seeking to



offer constructive criticism. Komatsu Sakyō, "Nippon - 70 nendai zenya" [Japan on the Eve of the 1970s], *Bungei shunjū* (February 1971): 246. This article is collected in Komatsu Sakyō, *Kyōdai purojectuo ugoku* [Giant Projects Move] (Tokyo: Kōsaidō, 1994), 151-261. Komatsu also discusses the "Thinking the Expo" group and his experiences with the expo in *SF Damashi* [SF Spirit] (Tokyo: Shinchōsha, 2006), 75-85, 102-14.

12. My translation of the Japanese version of the sub-themes, as listed in *Nihon bankoku hakurankai kōshiki kiroku*, vol. 1. [Official Records of the Japan Expo, vol. 1] (Osaka: Nihon Bankoku Hakurankai Kinen Kyōkai, 1972), 62.

13. My translation and summary of the Japanese version of the theme statement. "Nihon bankokuhaku no kihon rinen to tēma" [Fundamental Principles and Themes of the Japan Expo], in *Nihon bankoku hakurankai kōshiki kiroku*, vol. 1, 57.

14. See also Yoshimi Shunya, *Banpaku gensō: sengo seiji no jubaku* [Expo Illusions: The Spell of Postwar Politics] (Tokyo: Chikuma Shobō, 2005), 45-53, for a discussion of the debate over the expo's theme.

15. Komatsu, "Nippon - 70 nendai zenya," 261.

16. In addition to Kawazoe, *Metabolism 1960* was co-written by architects and designers including Kikutake Kiyonori, Kurokawa Kishō, and Kiyoshi Awazu, all of whom eventually played important roles in the design of the expo environment. For more on Metabolism in the expo, see Hyunjung Cho's article in this issue.

17. See Hayashi Yūjirō, *Nijūnengo no Nihon: yutaka na kokumin seikatsu e no hitotsu no bijon* [Japan Twenty

Years Hence: A Vision for a Prosperous National Life] (Tokyo: Nihon Seisansei Honbu, 1966).

18. Hayashi Yūjirō, *Jōhōka shakai: hādo na shakai kara sofuto na shakai e* [The Information Society: From "Hard" to "Soft" Society] (Tokyo: Kōdansha, 1969).

19. The first International Futures Research Conference was held in Oslo in 1967. See the "History of WFSF" World Future Studies Federation website, accessed 3/6/11. [http://www.wfsf.org/index.php?option=com\\_content&view=article&id=46&Itemid=60](http://www.wfsf.org/index.php?option=com_content&view=article&id=46&Itemid=60).

20. See Wendell Bell, *Foundations of Futures Studies: Human Science for a New Era* (New Brunswick, NJ: Transaction Publishers, 1997).

21. In the United States, futurology would soon be popularized through such works as Alvin Toffler's *Future Shock* (1970) and Daniel Bell's *The Coming of Post-Industrial Society: A Venture in Social Forecasting* (1973). In Japan, the activities of the Future Studies Research Group helped to stimulate a media "boom" in interest in the topic in the late 1960s, a few years prior to a similar wave in the United States. Core publications of the members of the Future Studies Group in Japan include *Miraigaku no teishō* (Proposals for Future Studies), co-authored by Umesao Tadao, Katō Hidetoshi, Kawazoe Noboru, Komatsu Sakyō, and Hayashi Yūjirō (Tokyo: Nihon Seisansei Honbu, 1967); *Shinpojiamu mirai keikaku* (Symposium: Future Planning), ed. Komatsu Sakyō, with Kawazoe Noboru, Kawakita Jirō, and Katō Hideyoshi (Tokyo: Kōdansha, 1967); Komatsu Sakyō, *Mirai no shisō: bunmei no shinka to jinrui* (The Philosophy of the Future: Human Beings and the Evolution of Civilization) (Tokyo:

Chūō Kōronsha, 1967) and Komatsu Sakyō with Kurokawa Kishō, *Nihon taimu toraberu* (Japan Time Travel) (Yomiuri Shimbunsha, 1969). See also Yujiro Hayashi, "Futures Research in Japan," in J. Fowles, ed., *Handbook of Futures Research* (Westport, CT: Greenwood, 1978), 31-38.

22. "Bankokuhaku no bijon" [The Vision of the Expo], in *Kawazoe Noboru hyōronshū* [Collected Critical Writings of Kawazoe Noboru], vol. 2 (Tokyo: Sangyō Nōritsu Tanki Daigaku Shuppanbu, 1976), 201. Originally appeared as an article for the *Yomiuri Shimbun*, 14 November 1967.

23. Nishiyama Uzō, "Bankokuhaku kaijō keikaku: chōsa kara kikaku e" [The Expo Site Plan: From Survey to Design], *Kenchiku zasshi* 85.1021 (March 1970): 197.

24. *Ibid.*, 197-98. According to Kasahara Kazuto, Nishiyama was responsible for the first two drafts of the site plan, and Tange for drafts three and four. "'Omatsuri hiroba' no tanjō" [The Birth of "Festival Plaza"], in Nakawada Minami, *Expo '70: Kyōgaku! Ōsaka bankoku hakurankai no subete* [Amazing: All About the Osaka Expo] (Tokyo: Daiyamondōsha, 2005), 48-49. For further discussion of Nishiyama's plan, see Yoshimi Shunya, *Hakurankai no seijigaku* [The Politics of Expositions] (Tokyo: Chūō Kōronsha, 1992), 235.

25. Tange had previously been involved in high-profile State-sponsored projects including the Hiroshima Peace Memorial and the Tokyo Olympics. Tange, in turn, encouraged the involvement of young and upcoming architects, including Isozaki Arata and the members of the Metabolist group. See Hyunjung Cho's article in this volume for more discussion

of Tange's role in the development of the expo site, as well as that of Isozaki and the Metabolists.

26.

"Nihon bankoku hakurankai no motarasu mono" [What the Japan Expo Will Bring About], *taidan* dialogue between Tange Kenzō and Kawazoe Noboru, *Shin kenchiku* (May 1970): 147.

27.

See footnote 16 above.

28.

Tange Kenzō, "Bankokuhaku kaijō keikaku: kikaku kara keikaku e" [The Expo Site Plan: From Design to Plan], *Kenchiku zasshi* 85.1021 (March 1970): 203.

29.

Quoted in Yoshimi, *Banpaku gensō: sengo seiji no jubaku*, 58:

30.

The figure of the "mandala" was often employed to describe the spacio-temporal layout of the Theme Pavilion, eg. *Nihon bankoku hakurankai kōshiki kiroku*, vol 1, 476.

31.

The vast time-scale of this display is reminiscent of Komatsu's major novel *At the End of the Endless Flow* (Hateshi naki nagare no hate ni) from 1966, the year before he began work as sub-producer for the Theme Pavilion.

32.

See the article by Hyunjung Cho in this volume.

33.

On the expo media environments, see Kawazoe Noboru, "Bankokuhaku to kenchiku" [Expo and Architecture], in *Nihon bankokuhaku: kenchiku, zōkei* [The Japan Expo: Architecture and the Plastic Arts], ed. Okamoto Tarō and Tange Kenzō (Tokyo: Kōbunsha, 1971), 209-12; "Bankokuhaku wa kankaku no kakumei" [The Expo Is a Revolution of the Senses] [originally published in *Yomiuri Shimbun*, 28 February 1969], in *Kawazoe Noboru hyōronshū* [Collected Critical Works

of Kawazoe Noboru], vol. 2, 203-207, and Martin Pawley, "Architecture Versus the Movies, or, Form Versus Content," *Architectural Design* 40.482 (June 1970): 288-309.

34.

The Hitachi Group Pavilion featured a flight simulator, while the IBM Pavilion (IBM Japan) included a moon landing simulator. The wireless telephone developed by NTT was one of the first public demonstrations of this now ubiquitous technology.

35.

On the expo as harbinger of a "managed society," see Funakoshi Mikio, "Nihon bankoku hakurankai: 'Seiji no kisetsu' to 'keizai no kisetsu' no hazama de" [The Japanese Expo: Between the "Age of Politics" and the "Age of the Economy"], in *Banpaku kaifū: taimu kapuseru Expo '70 to Ōsaka banpaku* [Opening the Seal on Expo: The Expo '70 Time Capsule and the Osaka Expo], ed. Ōsaka Shiritsu Hakubutsukan (Osaka: Ōsaka Shiritsu Hakubutsukan, 2000), 15.

36.

In his study *Sensō to banpaku* [Wars and World's Fairs], art critic Sawaragi Noi discusses the apocalyptic undercurrent to the expo, referring to the association of Kawazoe, Komatsu, and expo planner Asada Takashi as "a sort of apocalyptic theory coalition." Sawaragi Noi, *Sensō to banpaku* (Tokyo: Bijutsu Shuppansha), 34-35.

37.

Graphic designer Kimura Tsunehisa coordinated the photomontage. According to the text of the planning document cited by photographer Tamai Mizuo, who assisted Kimura, the montage was created in order to show the possibility of "gradual" or "instantaneous" threat to the "continuation of human life," which is an issue "of concern throughout the world" that "cannot be omitted from the expo." Tamai Mizuo, "Posutarization ni yoru Ōsaka banpaku: tēman no kūchū tenji" [Osaka Expo Poster-

ized: The Theme Pavilion Aerial Exhibition], Tamai Mizui intānetto shashinkan part 36 [Tamai Mizui Internet Photography Museum]), accessed 21 May 2011, <http://www2.dokidoki.ne.jp/bellrose/museum/part36/part36.html>. Some images from the "Wall of Contradictions" photomontages can be seen in the official documentary film of the expo, *Kōshiki chōhen kiroku eiga: Nihon bankokuhaku* [Official Feature-Length Documentary Film: The Japan Expo], dir. Taniguchi Senkichi, 1971; minutes 32:00 through 33:02.

38.

Komatsu Sakyō, "Banpaku kara kōgai e: miraigaku no atarashii dankai" [From Expo to Pollution: The New Stage of Future Studies], *Jiyū* (December 1970): 50.

39.

For coverage of this issue, see "Hiroshima no utae kiesō" [Hiroshima's Appeal Seems about to Disappear] *Chūgoku Shimbun*, 6 February 1970; "Genbaku tenji usumeta mama" [Atomic Bomb Exhibit Carried Out in Weakened Form], *Chūgoku Shimbun*, 14 March 1970.

40.

Sawaragi, 102-106. The expo's seemingly shallow exuberance may have received its most gently cutting criticism in the words of science fiction pioneer Hoshi Shin'ichi, who remarked, "What is most important in a *matsuri* (festival) is pathos. Pathos is completely absent from this exposition." Quoted in "Tōtaru skōpu tokubetuban: SF sakka bankokuhaku o yuku" [Total Scope Special Edition: SF Writers Go to the Expo], *SF Magajin* (June 1970): 133.

41.

Urasawa Naoki, *Nijūseiki shōnen* [Twentieth Century Boy] (Tokyo: Shōgakkān, 2000-2006). See especially vols. 8, 15, and 22 for the episodes alluding to the Expo '70.

42.

See the catalogue *Kenji Yanobe*

1969-2005 (Kyoto: Seigensha Art Publishing, 2005). See also Gunhild Borggreen, "Ruins of the Future:

Yanobe Kenji Revisits Expo '70," *Performance Paradigm Journal*, no. 2 (March 2006) 119-31. <http://www.>

[performanceparadigm.net/wp-content/uploads/2007/06/10borggreen.pdf](http://www.performanceparadigm.net/wp-content/uploads/2007/06/10borggreen.pdf) Accessed 31 May 2011.

---