A Future Far Away: Forecasting and Society

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Introduction

The Third Millennium (1), written collaboratively by a sci-fi writer and a science writer in Britain, retrospectively describes the history of science, technology, and society from a 31st-century viewpoint. Written in 1985, its matter-of-fact narrative of the future as past is impressive: for instance, in terms of international politics, Australia becomes a major player in global sea politics, and Brazil is reduced to a protectorate under the United Nations after a devastating defeat in a nuclear war with neighboring Argentina (2). In contrast, the Soviet Union, whose collapse in the real world occurred in 1991, miraculously survives until the 31st century, whereas the development of China is not much emphasized in the book. A large part of Japanese territory has been submerged in the sea subsequent to a series of large earthquakes since the 23rd century, with the majority of the Japanese population having gone into the global diaspora (3).

In addition to the magnetism of its political historiography, The Third Millennium offers an impressive narrative on the progress of techno-science and its ensuing effects upon the transformation of global society. For instance, the book records the development of technology for freezing the human body from the 23rd century onward, whereas before this time, the technology faced such obstacles as the interruption of refrigeration caused by power failure and the immaturity of the technology itself at the time of its invention. In terms of the human lifespan, the real breakthrough takes place in the 24th century when the technology of rejuvenating nuclear acid is invented, enabling a dramatic extension in human life. The overwhelming effect of this discovery remains tangible in the 31st century.

Past and Future
This invented historiography for the rest of this millennium often seems highly realistic, though a slightly weird impression is inevitable as well. In our own historical narrative, the close past is usually described densely while the faraway past is written sparsely. Whatever the topic or chronological table used, events in a contemporary narrative (broadly speaking) are recorded in terms of months or even days, whereas the timespan of the Stone Age, for instance, is usually referred to by intervals of tens of thousands of years.

Exactly this point was the subject of a controversy between Jean-Paul Sartre and Claude Lévi-Strauss in the 1960s: the latter criticized Sartre for substantializing the momentum of history writ large, which Sartre believed would eventually eradicate primitive societies, in his book *The Critique of Dialectic Reason* (4). In contrast, Lévi-Strauss countered that historiography is, after all, a system of signs and classification, following the principle of the mind in the wild, his major argument in *The Savage Mind*. From the standpoint of this argument, *The Third Millennium* fails to convince readers, at least rhetorically, that it was written in the 31st century, as it does not quite escape the time of its publication date in the 1980s. As the account approaches the third millennium, its quasi-factual historiography gradually loses the descriptive density needed for retrospective historical narrative.

If we regard the book as a work of literature, however, such a loss is not bad because it actually provides a refined literary experience: as the 31st century approaches, the reader is furnished with a vast sense of the stream of historical currency, so that it is rather like reading the works of great Chinese poets like Li Bai or Du Fu in 7th-century China. However, such is a different story from what the authors of the book insisted they had told.

**Forecasting and Society**

The narrative of *The Third Millennium*—namely, in its style of describing what the authors forecasted before 1985 as a series of historical facts viewed retrospectively from the future—has a deeper implication for recent topics in the so-called science and technology studies.
The basic premise of our recently published book, *Forecasting and Society: How Scientific Narratives Construct Society* (6) is related to the recent interest in the role and functions of a variety of futuristic discourses as used to manage the trajectory of emerging techno-science. Such discourses may flourish in a wide range of topics, like population growth, economic prospects, and technology forecasting. As one instance, in recent years, predictions about the imminence of singularity—namely, the point at which the capacity of AI will preval over that of humans, anticipated around 2045—have been a subject of heated controversy, even as the academic premises for such a prediction have been examined little in public.

Part of the power of such forecasting lies in the reaction of society vis-a-vis the variety of discourses, with the unintended effect that forecast becomes the narrative of the future. This is one of the sources of the power of forecasting. Among the diverse aspects of futuristic discourse, it is the role of expectation to which science and technology studies have paid continuous attention (7). “Expectation” here refers to discourse on positive images for the future that any techno-scientific project might want to actualize. The discourse of expectation may stimulate potential stakeholders through a dreamy narrative about the rosy future of such technology; further, expectation grows to the degree that such dreams are shared by many stakeholders. The hope is that eventually, the expectations may result in a self-propelling project. Conversely, the under-achievement of such a project may deflate once swollen expectations, replacing the hype with a bitter sense of disappointment (8). Scholars have noted that this dynamic of up-and-down expectations is pivotal in understanding a certain aspect of the dynamism of techno-science in general.

In this sense, *The Third Millennium* is an intriguing example for understanding the complex trajectory of both forecasting and expectation in society. As written in the post-script by the translators of the book, the “historiography” is a mixture of both the Delphi technique, often used for technology forecasting, and sci-fi imagery. This hybridity provides both a quasi-realistic sense of the historical development of future techno-science and its gradual derailment from actual global history, as exemplified with the projected survival of the Soviet Union up to the fourth millennium. The very premise of the book—namely, as retrospective narrative from the 31st century—requires
a somewhat deterministic atmosphere in the prediction discourse, though the deviations from actual history reveal the limit of such a forecast, whatever the subject.

Architecture as Metaphor

Among the variety of emerging techno-sciences that the book describes, I was most impressed with the genesis of a new architectural style that is projected to dominate the global surface. American architect Leon Gantz invents a radically new method of biotechnological cementing by using diverse kinds of living organisms in place of the ferro-concrete now common in construction. This is Gantz’s revolutionary new cementation method, more simply referred to as “the Gantz method.” This radical method enables the construction of mound-like buildings fully covered with mud and plants except for the doors and windows.

The Gantz method (The Third Millennium, 1985, Knopf)

We scarcely need to refer specifically to the renowned argument of Kojin Karatani in Architecture as Metaphor(8) to know that terminologies related to architecture—such as structure, construction, and architecture itself—are imbued with multiple philosophical connotations. For instance, Hayek’s well-known criticism of socialism as rational constructivism—that is, the idea that society can be built in
accordance with rational planning by a few (10)—is an example of how architectural terminology also has strong political connotations. Hence, reflection on architectural metaphor overlaps almost completely with that upon both logic and society as well.

Regarding recent trends in which contemporary architects are discussing such issues as “architecture and nature,” the Gantz method—though a product of sci-fi imagination—is something that many architects have dreamed of. This dream may be the closest to becoming a reality.

**Spacecraft and Burial Mound**

My first glimpse of one plan for the New National Stadium Japan, which is to be completed for the 2020 Tokyo Olympic Games, was a revelation that Gantz architecture has actually come into existence. This plan, popularly called the “Kofun (Burial Mound) Stadium,” is by Tsuyoshi Tane, a young architect well-known for designing the Estonian National Museum and for his unique archeological method used to image the future. Although this unique Kofun-plan was not officially adopted—nor has Mr. Tane invented a new biological cementation method—it looked as if Mr. Gantz himself had made the plan. It was somewhat amusing that this plan was contrasted with a controversial one from Zaha Hadid, which looked like a huge spacecraft, and which was aborted after long and heated debates on how improper it would look in proximity to *Meiji-Jingu*, the highly historical site on which the stadium encroaches.
The contrast between the idea of a spacecraft and that of a burial mound is intriguing in that it may imply two different directions of the future, both hinted at in *The Third Millennium* in the concrete form of differing architectural designs. In fact, *The Third Millennium* suggests an image of the future that is divided into two distinct streams.

One stream posits that mankind has ventured out of the solar system to the wider universe, as the newly developed physiological characteristics are better accommodated to life within a spacecraft. This is enabled by the revolution stemming from the nuclear-acid rejuvenation technology mentioned above. As noted earlier, this story line sounds quite obscure, like mentioning a scarcely known antiquity, though these events would naturally be in the near past for the 31st century when the book is supposed to have been written. In sharp contrast, the other stream, the landscape of the near future from our own time, is portrayed as covered with buildings constructed according to the Gantz method, resembling quasi-mounds and tumuli. Paradoxically, these landscapes feel quite realistic, though they should be in the long-ago past from a 31st-century perspective.

Discussing the role of forecasting is equal to talking about the relation between the past and the future. The forecasts and predictions in our book (*Forecasting and Society*, referred to above) are diverse in both form and content. Such future discourses, because they are often imbued with scientific rhetoric, project an atmosphere of scientific determinism, which may lead us to believe that these images of the future are solid, possessed of a fair degree of certainty.

Examining their details closer, however, reveals that these are only a few possible scenarios among many in a future open to change, an outcome largely extrapolated from the limited data of the past, as well as from varying hypotheses for the future. Yet once any forecast or prediction is uttered, it starts to live a life of its own as living words. Consequently, the future described by these forecasts provides both hope and constraints, the latter binding us up and sometimes even leading us to feel suffocated.
**Imaginary architecture**

Because of its important philosophical role, architecture was a pivotal source of metaphor for our book as well. In this context, we relied on the diverse works of Minoru Nomata, a painter widely acclaimed for his works on imaginary buildings that arouse senses of both exoticism and nostalgia. We referred to his works precisely in search of hints for reflecting upon the role of forecasting as binding together the past and the future.

One of the candidates that caught our eye is titled *Enkei (Distant View)-3*, a beautiful piece reminiscent of Peter Brueghel’s *The Tower of Babel*. The other was titled *Ascending, descending-2*, a recent work that depicts a huge balloon in slow ascent. The latter is a rare work among others of Nomata’s, which are usually imaginary buildings that convey a sense of awe and of the sublime.
Enkei-3 seems to deliver a message of the processual nature of building our future in the shape of the Tower of Babel, which is under construction. This image can be construed either as a metaphor of hope that shows the continuity from the past to the future, or as a negative sign that we are gradually being deprived of our freedom in the completion of such a gigantic tower. We can even think of the latter construal as the embodiment of what sociologist Anthony Giddens describes as the colonization of the future through his reading of recent trends in risk analysis and futurology (11).

Eventually, we concluded that this interpretation of Enkei-3 was a little too heavy, too solemn, and multifarious in its implications. In fact, the future predicted by recent forecasting is filled with a sense of breathlessness. Such breathlessness derives not only from the actual predicament of contemporary society but also from the side-effect of our blind faith in the solidity of such forecasting narratives.

The reason Ascending, descending-2 caught our attention was that we perceived a refreshing lightness of the subject, in contrast to the artist’s more conventional paintings of solemn buildings. This enormous balloon appears to be launched rather haphazardly, slowly drifting up and down on gentle winds in the sky. Our future is, after all, similarly the outcome of such haphazardness and freedom.

The last chapter of The Third Millennium seems shrouded in obscurity, despite its premise that the book is written in the 31st century. Any forecasting, after all, is surely already out of breath in such a far future. The wider the gap between our time and another, the shadier both past and future become. In this sense, we cannot easily conclude that the spacecraft of Zaha Hadid may symbolize our future while Tane’s burial mound represents our past. Tane’s plan for the mound may be characterized only as a point of continuity between the past and the future like Nomata’s Enkei-2. However, Tane’s original idea of “the archaeology of the future” stipulates the past less as an agglomeration of constraints for the future—i.e., the negative aspects of forecasting—and more as a bundle of creative potentialities that offer multiple paths for imagining the future. That potentiality of the past, in terms of mounds and tumuli, rather amazingly resembles the forecasted future of architecture so vividly depicted in The Third Millennium.
All forecasting and predictions rely on data from the past, even as changes in the interpretation of these data accordingly produce new images of the future. In addition, the future is filled with accidents and events unknown from the past. Nomata, whose paintings have long portrayed a diverse range of imagined buildings, likely has already realized that both the Tower of Babel and a huge floating balloon are merely two different manifestations of exactly the same subject.

Notes
(2) In a Japanese TV interview, Emmanuel Todd, an internationally known population researcher, pointed out that Brazil is substantially bankrupt as a state.
(3) The publication in 1973 of *Japan Sinks*, a sci-fi novel by Sakyo Komatsu, and the release of its movie in 1975 may have influenced the authors’ description of Japan’s future course.
