DODONÆUS IN JAPAN
TRANSLATION AND THE SCIENTIFIC MIND
IN THE TOKUGAWA PERIOD

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REINTERPRETATION OF THE WESTERN LINEAR PERSPECTIVE IN EIGHTEENTH- AND NINETEENTH-CENTURY JAPAN: A CASE OF CULTURAL TRANSLATION

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Can the canon of one culture be translated into that of another without violating the integrity of the criteria that govern the latter? Here is a vital question pertaining to cultural translation. Let me take up the case of Western linear perspective and its reinterpretation in Tokugawa Japan as a case study in the cultural translation of a canon in non-verbal communications.¹

In a sense the linear perspective was more than a technique, it was a culture. For a long time, it represented, as a metaphor or a metonymy, Western science as a whole and incarnated the progress of modern knowledge. By virtue of its monopoly of the pictorial plane in Western academic education of the fine arts, its exclusive dominance as the unique grammar of architectural drawing, its rational determination and reduction of the three-dimensional space into two-dimensionality, its panopticonlike régime du regard, the linear perspective has occupied a position comparable to that of a kind of secularised monotheistic theology. Symbol of advanced technology, the linear perspective was believed to be universally valid and served not only as the measurement for the stage of psychological development of an individual, but also, in a larger context, as a sign of mental evolution and enlightenment of the races and mankind. Thus the linear perspective spread hand in hand with European expansion into the world.²

However, this absolute criterion in spatial construction was gradually to lose its supremacy over Western painting in the second half of the nineteenth century. Curiously enough, this period coincided with the vogue of Japanese art in Europe. It has been asserted that Japanese art served as a catalyst to Western artists by suggesting to them a new type of pictorial plane free from the restraint of the academic linear perspective. However, this assertion overlooks the fact that the linear perspective had been introduced in Japan in the second half of


² This interpretation is based on the works of the translators Ryōgoku Masako and Maruyama Takeshi, who have studied the exchange of ideas in the field of art.
it was a non-Western experience as the Imatlonality that the theistic llement was also in hand of the academic: that the academic that the academic the eighteenth century and was widely applied by ukiyo-e print design-
erers.1 Here the problem of cultural translation can be raised. How did
the Japanese craftsmen of the Tokugawa period (1600-1868) “trans-
late” Western linear perspective? To which extent was this translation
meaningful for the reconstruction of the pictorial plane and visual cul-
ture in Tokugawa Japan as well as in the late nineteenth-century West?
What was the contribution of this “translation” to the transformation
of the space conception and configuration in the context of the cultural
exchange between East and West, as well as in terms of the formation
of “Modernist aesthetics”? To answer these questions, let us briefly analyse the process of adap-
tation of the linear perspective in Tokugawa Japan. Okumura Masanobu (1686-1764) appears to have claimed for himself the title of ini-
tiator of the linear perspective (uki-e kongen). Enjoying the Cool at
Ryōgoku-Bridge (Ryōgokubashi yisuzumi, ca. 1745) [ill. 1], one of his
typical pieces, enables us to see Okumura’s way of “understanding”
and applying a new technique from abroad. While faithfully imitating
the linear perspective in frontal projection to depict the interior space
in the foreground—Masanobu could not apply
or rather did not feel it
necessary to apply the same principle to the exterior landscape
lying in the background. The popular quarter of Ryōgoku-Bridge is depicted
from a bird’s-eye view—the traditional and virtually only possible view-
point known to Japanese painters since the eleventh-century;’f(J1]'
side screens. As one can also see in View of the Port of Nagasaki
attributed to Ninomiya Okyo (1733-1795), the bird’s-eye view was the only way of depicting panoramic scenery available to the Oriental artist.

Looking at Enjoying the Cool at Ryōgoku-Bridge, modern viewers
will immediately detect a lack of unity between foreground and back-
ground. The bold superposition of the newly adapted Western tech-
nique upon the conventional pictorial space gives us the impression
that the hall in the foreground is floating in the air. Incidentally, uki-e
meant “floating pictures”. Modern mentality would find in this arbi-
trary composition evidence of a lack of understanding of, or a neglect
of the principle of the linear perspective.

However, what characterises Okumura’s way of translating precisely

Part II Translation and the Articulation of the Modern Episteme in Japan
consistently, the experience of the Rakuten in the 'islet of view', the ger islet of the view, the horizon that arouses a horizontal point a line in

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consists in the arbitrariness of this fanciful combination. Or more accurately, Okumura and his public probably did not find any inconvenience or arbitrariness in this combination. As is well known, in the Rakuchū-rakugai-zu byōbu screens of the sixteenth century as well as in the View of the Port of Nagasaki, the artist’s (and the viewer’s) point of view shifted easily and moved around on the pictorial plane. While the general scenes of the quarters of downtown Kyoto or the artificial islet of Deshima in the Nagasaki Bay were depicted from a bird’s-eye view, the details of the human figures on the streets as well as the ships that are minutely depicted in the Nagasaki Bay appear to be taken from a horizontal point of view. In addition, this constantly shifting viewpoint also accounts for another feature, i.e. the lack of a fixed horizon line in these Japanese bird’s-eye view panoramas.

Capriciously shifting viewpoints and the lack of horizon, both of these “Japanese” characteristics still remain intact in Masanobu’s Western-style trompe l’œil, and would look inconsistent and confusing to our modern eye. Still, these features may have contributed to accentuating the unexpected illusion of a receding background and may have aroused excitement among the contemporary public of Masanobu. Let us note that versatile adaptability in cultural translation was already at work in this experimental tentative of Masanobu. The superimposition of two pictorial layers enabled the combination of heterogeneous elements without taking into account the incompatibility of the linear perspective with such an offhanded combination. Instead of a struggle for supremacy or parasitic relation between Oriental conventions and Western criteria, a sort of symbiosis (or “cohabitation”) is realised, which we can compare, at least in a metaphorical sense, to the phenomenon named sumiwake by Japanese eco-biologists like Imanishi Kinji and Miyaji Denzaburō.

Theoretical-minded scholars will wonder what the origin of this Japanese trompe l’œil was. A pioneering work in this field, “The Origin and Development of Japanese Landscape Prints,” an unpublished Ph.D. thesis by Julian Lee (Washington, 1977), points to a Latin treatise by Andrea Pozzo, Perspectiva pictorum et architectorum (1693-96), translated into Chinese for the first time in 1729 and again in 1735 with illustrations. As Tokugawa Yoshimune had been promoting the importation of foreign scientific books since 1720, the Chinese translation of this work could theoretically have been accessible. However, no evidence has been found as to its diffusion and influence in Japan. Practi-
cally speaking, some examples of Westernised Suzhou prints, of which copies are known, were enough for Okumura Masanobu and other print designers to conceive and realise the imitations of linear perspective in their uki-e prints.4

It is noteworthy that this first generation of uki-e producers was not so much interested in the principle as in the effect of the linear perspective. As Kishi Fumikazu has recently pointed out, the early trompe l'oeil prints depicting the interior of Kabuki theatres did not necessarily search for an accurate application of the linear perspective. Instead of becoming progressively faithful to its principle, they rather manifested increasing deviation from it [31]. The unique vanishing point was sacrificed for the sake of the visibility of the famous characters and scenes on the Kabuki theatre stage, where vanishing lines suddenly disappear and are replaced by parallel lateral lines, just as had been the case in Heian period (Heian jidai, 794-1185) scrolls. Even the framing technique was introduced in the editing process. While reutilising again and again the same wood block for the theatre interior, the part of the block representing the stage would be cut out and replaced by a new block that was inserted into the old one, in an effort to catch up with the latest popular performance and favourite actors. Clearly, it was not the accuracy of linear perspective per se but the rapid printing with its possibilities of wide diffusion that was the primary concern of the Japanese editors (then and now).5

While the Edo theatre uki-e declined in the 1750's, from the end of that decade on Maruyama Ōkyo executed several megane-e, i.e. prints destined for optical view, which was then in vogue all over the world.6 The "naturalness" with which Ōkyo could combine architecture in linear perspective with natural sceneries is "remarkable," given the fact that such kind of integration was out of the question for the former uki-e prints. Still, one work, The Vendetta of the 47 Samurai [31] betrays that Ōkyo's understanding was no "better" than that of his predecessors. There are unnatural double vanishing points in the frontal projection of the interior of the mansion of Kira Kōzukenosuke. As a result, the elements situated in between the double vanishing lines confuse us. If we try to restore the building into a three-dimensional model, or simply to plot it on a floor plan, this part would remain indeterminable and impossible to explain.
Once again, what is at stake here is not the lack of coherence in geometrical operation, but the lack of consciousness to feel this incoherence as incoherent. Okyo was not so much interested in the objective rendition of the space in linear perspective as in the dramatic effect created by the illusion of depth. Rather than the homogeneous space that is presented to the fixed monocular viewpoint, it was the aesthetic singularity and supernaturalness of the bloody and atrocious scene of revenge that was pursued by the artist at the price of revealing his lack of respect for the principle of the linear perspective.

Shortly after Okyo’s *vue d’optique*, Utagawa Toyoharu (1735-1814) renovated the *trompe l’oeil* in the Edo of the *Meirei* period (1764-1772). *View of a Western Port (Uki-e Kōmō Furankai-ninato Banri dōkyō no zu)* [Ill. 6] has already been identified as an imitation of a copper etching of the Canal Grande in Venice by Antonio Vicentini.7 Harmonious in general, the details betray Toyoharu’s carefree attitude toward the original. The stairs on the quay at the right side, depicted either in parallel or even in diverging lines, do not follow the supposed vanishing lines, which remain difficult to locate. The vanishing point is also difficult to locate, and anyway would not converge on the horizon. This lack of consistency clearly reveals that the notion of horizon line was lacking when Toyoharu copied the original. Needless to say, the horizon line, as the viewer’s standpoint projected to the infinite distance, is the base line for the linear perspective construction as a whole. What interests us, in the context of cultural translation, however, is not Toyoharu’s evident “incomprehension” of this principle but rather the fact that Toyoharu, either consciously or unconsciously elected to ignore such principle in his adaptation of the linear perspective.

Later, Toyoharu did take notice of the horizon as the base line of the whole composition *Enjoying the evening Cool at the Shijōgawara in Kyoto (Uki-e Raknyō Shijōgawara yisuzumi-zu)* [Ill. 7] being an example. Still, the viewpoint is raised as if to reconcile it with the bird’s-eye view tradition. What are intriguing, however, in the generally seamless composition, are the lines of people walking across the foreground. As the Kamogawa River is flowing from the rear to the fore, a bank on which people are strolling seems to dam up the stream. Why did the artist make such an absurd and incomprehensible addition to the foreground? Toyoharu seems not to have been satisfied with leaving the foreground empty and filled it up with the mentioned motif. Although not reasonable from a realistic point of view, these additions were
In geometric composition, the coherency of projective perspective effect and the interrelation of space and time is a central aesthetic problem. The scene of Venice is lack of time.

Toyoharu (1759-1814) was a pupil of Hokusai (1760-1849). He etched many sacred objects and famous sites. In particular, his colorful etchings of shrines are so different from his figures. This was the fact that he was a master of the horizon. This, although it is true, is neglected by some critics.

What is the fact that Toyoharu paid attention to the fact that this was not ignored in the exhibition.
made so as to satisfy his aesthetic sensibilities. As we shall see, this apparently superfluous addition will account for the “Japanization” of the linear perspective in the following period.

The first attempt to formulate the rules of Western linear perspective was made by Satake Yoshiatsu (1748-1785), daimyō of Akita, also known by his artistic sobriquet Shozan, in a pair of short essays completed in 1778. Probably initiated by Hiraga Gennai (1728-1779), a polymath and Westernist, who had visited Akita in 1773, lord Satake began his study of Western painting. Among their main references that have been identified figure the so-called Groote Schilderboek by Gerard de Lairesse (1707), a pupil of Rembrandt, and Naeuwurige beschryvning van de natuur der viervoetige dieren, vissen en bloedloze waterdieren, vogelen, kronkel-dieren, slangen en draken (1660) by Jan Jonston [John Johnston], known as the “Zoological album”. In his treatise on Western painting, Gabo kōryō (1778), Shozan insisted on the practical utility of painting as visual information and severely criticised the conventions of Oriental painting, which could not discern either the colour or the convexity and concavity. He also attacked the absurdity of translating the relation of far/near in terms of upper/lower on the pictorial plane. He boasted that by his study of the principles of Western painting he could clearly discern far/near, high/low and clear/obscure etc. It is also in this treatise that the horizon is singled out and defined for the first time in Japan as the base line of the linear perspective.8

A striking implementation of this manifesto is the Pine Tree with Parrot [ILL 8]. Exaggerated foreshortening, clear-cut shading, contrast between the foreground in vivid colours and the background in pale blue, extremely lowered horizon line, dichotomic contrast between clear and obscure in the modelling, which gives the impression that the trunk of the pine tree is rectangular rather than round ... However the most striking feature in this work is the superposition of the gigantically magnified foreground on the extremely miniaturised background. It is possible that some etching illustration of fauna and flora in the Western encyclopaedias at his disposal had inspired this disproportionate contrast. Still the fact remains that Shozan perceived such a contrast as the essential lesson of Western science. In my view, here is the vital point in the reception and cultural translation of the linear perspective in Tokugawa Japan.
The linear perspective had been conceived and elaborated as a device for constructing a homogeneous pictorial plane. By projecting on a screen in front of the eye the configurations of the objects to be represented, it aims at determining their relative distances and positions on the two-dimensional plane by a series of purely geometrical and mechanical operations. By contrast, Shozan interpreted the same device as a tool of differentiation, exaggerating the heterogeneity between what is near and what is far away. Instead of establishing a unified homogeneous pictorial plane, Shozan took advantage of the linear perspective to realise polyvalent space, brought about by the contrast of heterogeneous elements, which he could clearly "discern", as he proudly put it.

Symptomatic in this regard was the term adopted by Shozan to designate linear perspective: "degree of far/near" (enkin no dosū). Shiba Kōkan (1748-1818) also spoke of the "reason of far/near" (enkin no ri) in his Seiyō gadan ("Essay on Western Pictures," 1799). Of course "far/near" (enkin) was the only Chinese term at their disposal to translate the idea of "perspective". Still, it is undeniable that this definition in dichotomic terms, typical of Chinese thought, contributed to underlining the effect of differentiation and contrast between the near and far. In Shozan's case, the pine tree in the foreground derives from the Kanō school screen painting, while the landscape in the background is an imitation of Dutch etching. These two contrasting elements could be put in the same pictorial plane thanks to the lack of an intermediate joining space in the middleground, which by its absence served as the transitional space. In this process of cultural translation, what was supposed to be faithful understanding of the Western linear perspective by Shozan himself, actually resulted in a remarkable deviation. What then does this deviation imply?

As early as 1978 I proposed to call this typical composition of the Akita school a still life-landscape combination, which marked the birth of a new genre in the history of Japanese painting. The Pond of Shinobazu [ill. 9] by Odano Naotake (1749-1780), one of Shozan's samurai subjects, shows more clearly the implication of this new combination. Here the peony flowers in the foreground "borrow," as it were, as their convenient "background" the Pond of Shinobazu. This "borrowing of the natural background" inevitably reminds us of shakkei, or "borrowing...
ing of the East and the West, were set. Here I want to figure an element of an entity that not only school, but the editing school was posing here the principle of evening.

Harunobu Chûryô (1724–1770)
Reinterpretation of the Western Linear Perspective

ing of the natural scenery,” a technique practised in the garden design of East Asia [ILL. 10]. Curiously enough, the adaptation of the linear perspective by the Akita school consequently amounted to the pictorial version of the shakkei garden, both of them sharing one and the same deep structure. Just as in the shakkei garden heterogeneous elements were set side-by-side in terms of far/near superimposition to constitute an entity for contemplation, the linear perspective, imported from the West, was transformed and reduced into the matrix that served the same effect of visual montage. 10

Here is a case of circular interplay between the translation of culture and culture of translation. While the linear perspective helped the Akita school inventing a new Westernised pictorial plane, the new pictorial plane in question turned out to be the manifestation of the way Far Eastern culture on the archipelago had incorporated the exterior elements. Thus, the linear perspective as it was translated by the Akita school, paradoxically revealed one of the constants of Japanese culture as a culture of translation. Here we can probably detect a secret in the mechanism of “Japanization”. And retrospectively, we now can see that not only the re-interpretation of the linear perspective by the Akita school, but also the spatial superimposition of Okumura Masanobu or the editing technique of wood block insertion practised by the Torii school were governed by the same principle, which consists of juxtaposing heterogeneous elements without respecting the governing principle of each of the incorporated elements. 11

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In connection with this “constant” in Japan’s culture of translation, I want to advance my last hypothesis as to the combination of a human figure and a landscape in the ukiyo-e prints. Early examples of this combination can be traced back to Suzuki Harunobu’s (-1770) series of Eight Scenes of Edo (Fûryû Edo bakkei). Just take one print, Enjoying the Evening Cool at Ryôgoku-Bridge (Ryôgokubashi yûsuzumi) [ILL. 11], where the beauties in the foreground are directly superimposed upon the background of Ryôgoku Bridge in bird’s-eye view. Still, it is impossible to find here any explicit trace of Western linear perspective.

Harunobu is remembered as the inventor of the nishiki-e, or the polychrome prints, which he first produced around 1765, and Morishima Chûryô (1754-1808) has suggested Gennai’s involvement in this inven-
Characteristic in Harunobu's later works was the trope named *mitate*. In the case of *Returning Sail at Shinagawa* (*Shinagawa Kihan*), the title evokes one of the eight poetic views of Xiao-Xiang in China (Ch. *Xiao-Xiang baijing*, Jap. *Shō-shō bakkei*), i.e. *Returning Sail at Yuan Pu* (*Enpo Kihan*), which was transposed in a diminutive version into *Returning Sail at Yabase* (*Yabase Kihan*), a scenic spot on Lake Biwa, of which *Returning Sail at Shinagawa* is an Edo version pastiche. Here we see a kind of rebus. In the foreground, a girl is looking at the bowl floating on the basin, which evokes and is echoed by the returning fishermen's boat depicted in the background. In this way, there is a secret correspondence between the foreground and the background. Although Harunobu himself does not seem to have been directly influenced by the Western linear perspective, this trope of *mitate*, or aesthetics of "seeing as," had something in common with the spatial combination invented by the Akita school of Western style painting. Curiously enough, a *vue d’optique* in a Westernised style, quite similar to the style of Odano Naotake, is known to exist, and seems to have served as a prototype of the Pond of Shinobazunoike in many *ukiyo-e* prints. An example by Toyoharu, with timid but typical small figures in procession in the foreground borrows for its background the same landscape around the islet Bentenjima, foreshortened in a strongly Western style.

But more striking is an example in a series by Isoda Koryūsai entitled *Eight Views of Edo* (*Fūryū Edo bakkei* [II. 13]). The landscape of the Pond of Shinobazunoike, clearly reflecting the foreshortening in the style of Odano Naotake, is evidently chosen as a relevant background and associated with the human figures in the foreground to evoke the secret meeting of the couple (*shinobi-ai*), faithful to the tradition of wordplay (*shinobu / shinobazu* connoting "secrecy") that typifies the trope of *mitate*. If Odano Naotake has borrowed the scene of the Pond of Shinobazunoike for the background of his still life of peony flowers,
Koryūsai seems to have replaced the flowers by the human figures of beauties.

In this way the landscape depicted in Western linear perspective finally served as the background to the ukiyo-e prints of beauties as a "borrowed landscape". Thus, we may assume that the still life-landscape and the figure-landscape were as it were twins and both were born from the translation and re-adaptation of linear perspective into Japan’s cultural climate.

It seems that one of the greatest influences that the Japanese ukiyo-e prints had on Western painters in the second half of the nineteenth century was exerted by the type of composition I have defined as still life-landscape and figure-landscape combinations. As I have tried to demonstrate in this paper, these combinations were mostly realised as the result of Japan’s translation of the Western linear perspective into “Japanese” pictorial language. However, this translation did not mean a passive acceptance of things Western. On the contrary, in the process of its translation into Japanese, Western linear perspective lost the supremacy it had enjoyed for several centuries as the absolute grammatical canon in Western fine arts. However this does not mean any more that the Western linear perspective was reduced to a mere vocabulary at the disposal of the Japanese. On the contrary, the translation of linear perspective did change the syntax of spatial configuration in Japanese painting. And yet, it cannot be denied that this change followed the same “transformation rule” (N. Chomsky) as was observed in the shakkei aesthetics.

The way Japanese painters translated Western linear perspective seems to have imparted a far-reaching lesson to the avant-garde Western artists in search of modernist aesthetics. They were convinced they would find in Japanese art some of the keys to get rid of the yoke of the academic tradition. Let me close this paper by quoting a statement that Ernest Fenollosa made in the last year of his life:

"The Oriental influence was no accident, no ephemeral ripple on the world’s art stream, but a second main current of human achievement sweeping around into the ancient European channel, and thus isolating the three-hundred years-long island of academic extravagance.”

“‘The Oriental influence’ here must be understood not in its essentialist sense but in terms of the Oriental art of translating Western culture.
This is an abbreviated and modified version of my “La transformation de la perspective linéaire au Japon (1740-1810) et son retour en France”, *Actes de la recherche en sciences sociales* 49 (1985): 29-46, which was based on my M.A. dissertation presented to the University of Tokyo in 1979.


Reinterpretation of the Western Linear Perspective

5 Koshi Fumikazu, Edo no enkin-hō, ukiyo no shibaku (The Perspective in Edo, the Perception of Ukiyo) (Tokyo: Keisōhōbi, 1994).
10 For a more generalised hypothesis on this function of "meditation" in Japanese space experience, see Gustave Beque, Vue de l'espace au Japon (Paris: Presses universitaires de France, 1981), last chapter.
11 As for the miniaturised mitate aesthetics in Japan, see Haga Tōru, "Fūki no hikaku bunkashi, Shōshō Hakkai to Ōmi Hakkai" (The Place in History of Mr. Whistler, Art Musée (1977)).

ILLUSTRATIONS

ILL. 1 Enjoying the Cool at Ryoigoku, by Okumura Masanobu, ca. 1745. Private collection.
ILL. 3 Interior view of a Kabuki theatre in trompe l'oeil, by Torii Kiyotada. Data from the Riccar Art Museum, Exhibition Catalogue Ukiyo (Tokyo, 1975) no. 4.
ILL. 4 Interior view of a Kabuki Theatre in trompe l'oeil, by Okumura Masanobu, Kobe City Museum of Nanban Art. Data from the Riccar Art Museum, Exhibition Catalogue. Ukiyo (Tokyo, 1975) no. 1. According to Koshi Fumikazu's hypothesis, Okumura committed intentionally a further deviation from the principle of linear perspective in his re-adaptation of Kiyotada's theatre interior (ill. 3).
ILL. 6 View of a Western Port, by Maruyama Ōkyo. Private collection.
ILL. 7 Enjoying the Evening Cool at the Shinjūgawa in Kyoto, by Maruyama Ōkyo. Data from the Riccar Art Museum, Exhibition Catalogue Ukiyo (Tokyo, 1975) no. 18.
ILL. 10 A photograph of Ōkōchi Sansō Garden in Arashiyama, Kyoto. The garden, located near the Tenryū-ji Temple, borrows as its background the natural sceneries of the Arashiyama Mountain, which extends across the Hozugawa River.

Part II Translation and the Articulation of the Modern Epistemology in Japan