

Earthquake Map of Japan, 1624

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Among the early maps of Japan is a strange and fascinating collection (M. Harada Collection, 44x26.7cm.) called the “Earthquake Map of Japan” (Dainihonkoku jishin no zu), discovered in Noto, Ishikawa Prefecture. The most striking characteristics of this map, as noted in Figure 1, is that the rough outline of the homeland is framed with a sketch of a dragon, referred to as “dragon maps.”

At the time of the discovery of this map a decade or so ago, a report was made by this writer on the value of them in the study of the developmental history of Japanese



Fig. 1 “The Earthquake Map of Greater Japan” (Dai-Nihon koku jishin no zu), 1624. (From the Harada Collection).

cartography (Noma, 1965). "The earthquake map of Japan" (1624) which I introduce here, is very old both in its date as a printed map and as a "dragon map". On these points, somewhat must be explained. The earliest printed map of Japan now exists, is one in an encyclopaedia "Shugaisho", which is printed by wood-cut in the beginning of the 17th century. But this is a map as an illustration in a book, not a single-sheet block print. Accordingly, the "dragon map of Japan, 1624" is the oldest map now exist printed in a single-sheet.

There are a number of these dragon framed maps currently in existence, but little has been done in explaining the nature and significance of these maps. In the following paragraphs, an attempt will be made to explain or shed some light on this type of maps.

During the Heian period, which commenced with the removal of the imperial capital from Nara to Kyoto, a Buddhist priest by the name of Gyoki devised a rough outline map containing 66 "kunis" or provinces penetrated by roads. These maps were subsequently referred to as "Gyoki-maps" and was the only type prevalent until the middle of the Tokugawa Era and it has continued to exist until the Meiji Period. With the Gyoki-type maps as its base and drawing a dragon like frame around it, we have the "dragon-maps."

As a "Gyoki-map", apart from the dragon frame, this map in Harada collection resemble the "Gyoki Bodhisattva View; Greater Japan Map" (Gyoki Bosatsu Setsu, dai Nihon-koku zu) in outline and design, but are different from the map of Japan found in the encyclopedia *Shugaisho*, published during the beginning of the 17th Century or from that preserved in the manuscript (circa 1557) in the Toshodai Temple.

In looking at the map as shown in Figure 1, we can observe the caption at the top of the presentation titled "The Earthquake map of Greater Japan" (Dai-Nihon-koku jishin no zu). In the middle of each of the four sides are printed characters denoting compass direction; the top of the page indicating east, the lower portion west, the right margin south and the left margin north.

To facilitate the analysis of the map shown in Figure 1, a schematic outline has been made of it, and this appears as Figure 2 with the various parts being designated by capital letters of the alphabet, Arabic numbers with dots above them and Roman numerals. Each of the corresponding designation is listed below with explanation of what it represents.

While beyond the scope of this study or any extended discussion the various place names on the map suggest a strong medieval origin of the general text of this particular dragon map (Noma, 1966).

On the outer fringe of the fish-like body of the dragon, the months of the year are indicated in the form of a series of fins. Within this-fin-like space the months of the year are listed in a clock-wise sequence with important fortune-telling words or predictions included. Each month has the name of the God in control; *Ka-shin* is the reigning deity for the months of January, May, August, October, November and December; *Ryu-jin* for February, July and September; *Taishaku* for march; and *Konjin* for April. The names of these Gods are followed by the suffix "to" in each instance, and according to Imai, this suffix meant movement ("do") (Imai, 1969).

The prognostication for each of the months alluded to winds, rain, flood, drought, fire, rise in prices, rice and field crops, trouble or peace in the world, disease, death of people, cattle and wars. Earthquake was alluded to only for December of that year.

- A. The name of the fish-like dragon, *Dai tau ren* is listed here.
- B. The well-known 31 syllable earthquake poem related to the pivot stone of the Kashima Shrine is listed.
- C. This portion lists the number of shrines and temples in Japan.
- D. The inscription here lists the date of publication; May Certain day, 1924 (Kan-ei gannen gogatsu kichi jitsu).

The arabic numbers with dots over them indicate the following:

- (1) Number of villages (*mura*).
- (2) Number of hamlets (*sato*).
- (3) Number of provinces (*kuni*), counties (*gun*) and districts (*go*).
- (4) Elevation of Heaven.
- (5) Skyward distance.
- (6) Distance from Kyoto to Michi-no-ku (Northern part of Japan).
- (7) Distance from Kyoto to Nagato (Western end of Honshu).
- (8) Number of men.
- (9) Number of women.
- (10) Dimensions or area of rice fields.
- (11) Area of dry farm fields.

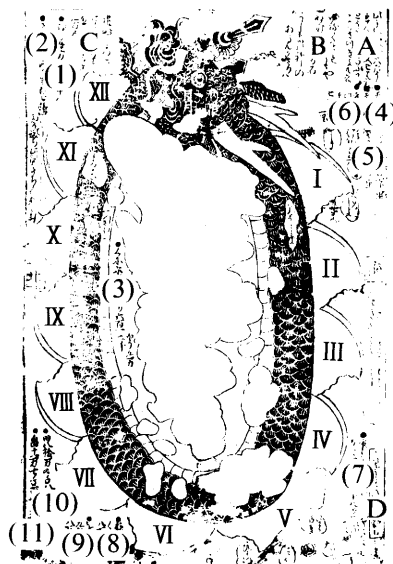


Fig. 2 A Schematic Outline of the "Earthquake Map of Greater Japan," as represented in Figure 1.

The dragon map of Isegoyomi, dated 1198 A. D. are a type of map that was not too prevalent, but they too contained references to astrology and earthquakes like the later dragon maps. However, when the Isegoyomi map is compared to that of the Greater Japan Earthquake Map, it is much simpler in form and less artistic than the latter. The astrological phrases are shorter and map of Japan is relatively crude.

Although the Isegoyomi map is listed as having been published in 1198 A. D., there is a question as to the authenticity of that date. There are those of the opinion that rather than the date indicated, the actual publication date may have been as late as the 18th Century (Akioka, 1955). Others presume that the printing was done in 1678 and the date was surreptitiously changed for some unexplained reasons (Koresawa, 1968).

Besides the earthquake and Isegoyomi maps, there are several other similar maps having serpent, catfish or dragon-fish-like frames around the map sketch with titles suggesting earthquakes. Figure 4 is an example of such related maps. Other examples are found in the maps entitled "The Sketch of a Catfish at the Bottom of the Earth" (*Chitei numazu no zu*) in the *Great Earthquake in Edo, An Eternal Discussion Topic* (*Edo oojishin matsudai hanashi no tane*), 1st edition, 1852, and in *Mampo daizassho sanzeso*, 1880. Also "The Sketch of a Catfish at the Bottom of the Earth: An Abbreviated Sketch of the Map of

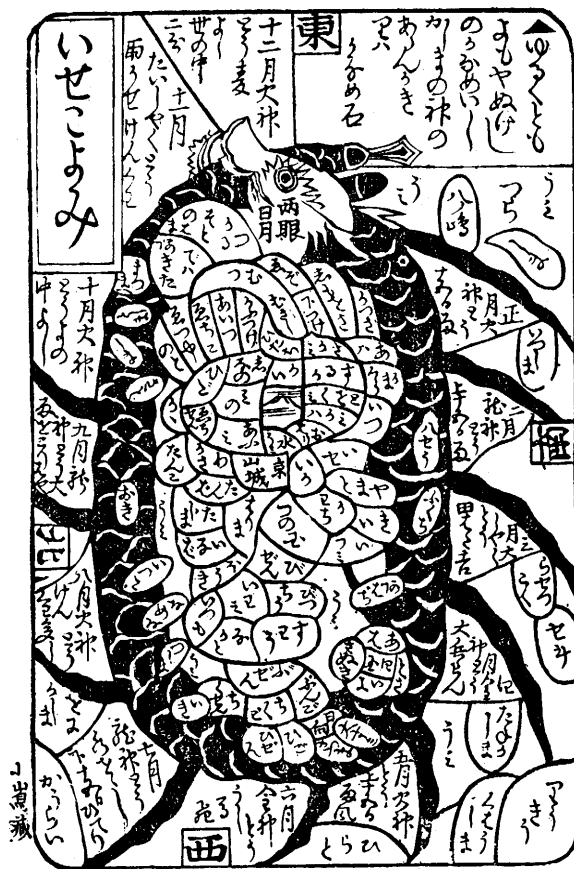


Fig. 3 "Isegoyomi Map," 1198.

Japan" (Chi no soko namazu, dai Nihon-koku ryaku no zu), in *Bunsei kaisei nendai cho-ho-ki* (Figure 5), and "earthquake maps" as seen in *Earthquake, Tidal Wave: Eternal Discussion Topics* (Jishin tsunami matsudai hanashi no tane), circa 1852 are the examples. For all that, there remain questions, why it shall be called earthquake map, why there may be drawn strange fish around Japan. For instance, Ouwehand said as follows, "Why such a representation appears on such an early map is a question to which, falling as it does outside the field of cartography Akioka gives no answer. But Fujisawa is certainly correct in seeing the serpent dragon as representing the (primeval) sea, surrounding and supporting the earth (i, e, Japan), a conception found in other cultures as well." (Ouwehand, 1964).

Some explanation as to why these maps were called "earthquake maps" could be given here. Initially, there are no signs or indications of earthquakes on these maps. While these are not necessarily clearcut, they are specifically labeled as earthquake maps and had the characteristic dragon or catfish when so indicated. Where and when earthquake arose or shall come out are not shown. Only in the "Dainihon koku jishin no zu" (1624) have a phrase "Kuni ugoku" (earth waves) as a forecast. There are no sign of actual fact concerning earthquake. Catfish, dragon, the earthquake poem "yurugu to mo" and the pivot stone and fortune telling, that is all. Why these maps shall be called earthquake map, and why map of



Fig. 4 “Earthquake Map with Catfish Border,” from *Jishin no ben*, 1852.

Japan encircled by dragon like fish may appear, these connections are not always clear. My inference is as follows. There were a number of publications issued annually, such as *Isegoyomi*, *Chohonendaiki*, *Eitaikeki* or *Daizassho*. These were one sheet yearly calendars containing such things as a list of the various eras, lineage and succession of shoguns or other useful tables. Additionally, there were other simplified publication of encyclopedia-like volumes or manuals called *Setsu-yo* or *Oorai*.

Within these manuals or “encyclopedia’s as well as calendars, a map of Japan was generally included (Fig. 6). These were simple outline maps indicating the various provinces and roadways. Occasionally a map appeared encircled or framed by a strange fish-like creature and labeled with such captions as “Picture of a Catfish at the Bottom of the Earth” or simply “Earthquake Maps” appeared. In ascertaining why these maps appeared only during certain years, the correlation emerges that the years of publication of the maps were also years of actual occurrence of major earthquakes, which are verifiable from existing records. The map entitled “The Picture of a Catfish at the Bottom of the Earth,” in *Edo oojishin matsudai hanashi no tane*, was listed as having been printed in 1852. In that same year a great earthquake occurred in Edo.

There are other parallel evidences to the aforementioned thesis that the publication of



Fig. 5 “Abbreviated Map of Greater Japan: Catfish at the koku-rayaku no zu), from Bunsei kaisei nendai cho-hoki,

earthquake maps framed with a dragon-like fish coincided with the occurrence of major earthquakes. In 1880, an earthquake map appeared in the *Mampo daizassho sanze-so*. According to the *Chronological Table of Earthquakes in Japan* (Dai-Nihon jishin shiryō, 1904), there was a severe earthquake in Yokohama during that year. Going back to an earlier period, the “Picture of the Catfish at the Bottom of the Earth: An Abbreviated Map of Greater Japan” (Chi no soko namazu dai-nihon koku ryaku no zu) in *Bunsei Kaisei nendai chohoki* (Noma Collection, Fig. 5), appeared in 1882, the year of a strong earthquake that occurred in Kyoto. A related map of an earthquake in *Jishin tsunami matsudai hanashi no tane*, 1852, (Namba Collection) should also be mentioned as fitting the time sequence of occurrence of earthquakes and publication of maps.

While considered to be of questionable authenticity in terms of its publication date, even the Isegoyomi map of 1198 relates to the occurrence of an earthquake. On April 5, 1198, a major earthquake did occur in Kyoto. Despite its dubious nature, it is interesting to note that the publication date still coincided with a recorded date of a major earthquake. Further examples may be drawn from the “Dai-Nihon koku jishin no zu, 1624”, which reflected the Edo earthquake of February 2, 1624 and that of Shimo-tsuke no kuni, March 4, 1624,



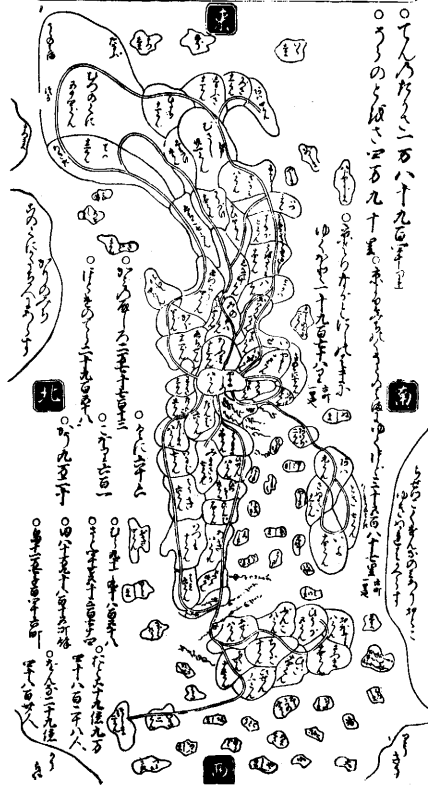
Bottom of the Earth," (Chino soko numazu. Dai Nihon 1822. (From the Noma Collection).

Even the well known map of Japan, circa 1305, preserved in the Kanazawa Bunko was said to have been published in the year that a major Kamakura earthquake occurred, April 6, 1305.

Bringing to a finish, I will guess the thread of connection between the map of Japan in Harada collection and another old maps of Japan. Between two dragon maps, the one in falsificated 1198 Isegoyomi and this new one of Harada collection, there are many resemblance in shape and matters of entry. The new map is the most detailed and well-ordered and that in Isegoyomi is naive, antiquated, and simple. But another maps other than these two and one in "Nendai Chohoki" (Fig. 5) are more simple, and becomes simpler as times go on. Heretofore, the forefather of the map of Japan in falsificated 1198 Isegoyomi was believed to be the "Gyoki Bosatsu setsu Dai Nihon-koku zu" (Fig. 7). Akioka maintained this opinion (Akioka, 1955 1-214-217), but the appearance of the new map made him to change his opinion, that the forefather may be the new map in Harada collection. For all



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↑ Fig. 6 “Map of Greater Japan” (Dai Nihon zu) in *Kyowa kaisei shin zassho, eitai-reki*, circa 1803. (From the Noma Collection).

← Fig. 7 “Gyoki Bodhisattva View: Greater Japan Map” (Gyoki Bosatus setsu, Dai Nihon-koku zu). This map is thought to have been produced prior to 1651. (From *Nihon chizu-shi*, 1955 by T. Akioka)

that, the forefather of new map may be the "Gyoki Bosatsu Setsu Dai Nihon-koku zu", he said to me in his letter. But I think otherwise. As seen in the map of Kanazawa Bunko, ca. 1305, map encircled by dragon like fish may have been published from fairly older time. These earthquake maps in calendar have disappeared. But they must have been inherited one after the other, changing gradually its shape and topographical names and items of entry. The new map of Harada collection and the map in falsificated 1198 Isegoyomi may have their own forefathers, no direct affinity between them I suppose.

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