

8. Conclusion

The Plio-Pleistocene formations are widely distributed in the hills of the western part of the Kanto Tectonic Basin. Those are classified into the Yaoroshi, Hanno, Bushi Formations and Toyooka Gravel, in ascending order.

The Yaoroshi and Hanno Formations are traced over a wide area as available key-beds.

Over the terrace gravel the air-borne "Tama Volcanic Ash" is accumulated. The Tokyo Formation and its equivalents were deposited in the Paleo-Tokyo Bay. The Shimosueyoshi Volcanic Ash of the Omiya Plateau (Kawaguchi Clay) was deposited in the bay. The air-borne Tachikawa and Musashino Volcanic Ashes cover the Kawaguchi Clay. The terrace gravel overlay unconformably the Tokyo Formation in the Musashino Plateau.

The Kanto Volcanic Ash is deposited on the terrace gravels in the hills and plateaus. Order of succession of the volcanic ash layers is significant in chronology of the terrace formation. The particular tephra in the volcanic ash are available for time marker. Using them the present author clarified the geologic history and the geomorphic evolution of the studied area as mentioned below.

1. The age of the terrace formation corresponds to the age of formation of the terrace. In the Omiya Plateau (Omiya Terrace), the time of the emergence and the formation of the terrace was much later than the time of the deposition of the terrace formation in the Shimosueyoshi Plateau. The time of advent corresponds to emergence of the Musashino Terrace. The Shimosueyoshi Formation and its equivalents including the deposits of the Omiya Plateau had deposited in the age of the Shimosueyoshi Transgression. Those were supposed that the deposits were composed before the age of the terrace gravel building the Musashino Terrace. So the age of the Omiya Plateau was supposed to be the age of Shimosueyoshi Terrace.

The division of the terrace is better to be based on the age of completion of

terrace, that is, the age of emergence of the top surface of the terrace formation.

The layer built the terrace is the subaqueous Shimosueyoshi Volcanic Ash Formation (Kawaguchi Clay). The age of the Omiya Terrace is contemporaneous with that of the Musashino Terrace.

2. The deposition occurred along the upper stream and the erosion occurred along the down stream of the Tama River. The Tachikawa Terrace developed by the deposition of gravel of over 20 m thick along the upper stream which includes the Ome Sand and Gravel, and several meters thick along the down stream. The older gravel had been eroded slightly or not eroded before deposition or superposition of the younger gravel along the upper stream. These events occurred repeatedly. Finally, the Tachikawa Terrace was formed. Gradient of the Tama River became steeper in this time, because the floor was eroded with a lowering of sea level, while the erosion along the down stream was intensified. Many examples have been reported in the coastal areas of the Japanese Island (Nakagawa, 1961, for example).

3. The Omiya Plateau was the limnic area in the age of the Narimasu Gravel, and the streams in the Omiya Plateau flowed into Tokyo Bay and the Pacific Ocean as shown in Figure 6-11-1. According to the shift of the center of Kanto Tectonic Basin from the bay head of the present Tokyo Bay to the Koga and Kurihashi areas, the trend of the maximum gradient of the Omiya Plateau had been shifted from the southeast to the northeast. But the valleys in the Omiya Plateau had preserved as the old courses because the erosion was succeeded by extended river toward the Tokyo Bay.

4. According to the fission track age determination of the Bi ($55 \pm 7 \times 10^4$ y. B.P.) in the lower part of the "Tama Volcanic Ash", the age of the lower limit of the "Tama Volcanic Ash" is a little older than $55 \pm 7 \times 10^4$ y. B.P.

5. Judging from the fission track age determination of the Bi ($55 \pm 7 \times 10^4$ y. B.P.), the lower part of the "Tama Volcanic Ash" and the upper part of the marine Kasamori Formation in the Boso Peninsula are of the horizon of the same age.

6. Fission track age of the HBP ($38 \pm 7 \times 10^4$ y. B.P) obtained from the "Tama Volcanic Ash" in the Odamaki Hills, Chichibu City is appropriate value.

7. An appearance of many "iddingsites" is the particularity in the part around the boundary between the Musashino and Shimosueyoshi Volcanic Ashes. So the estimation of the boundary of the both layers is possible.

8. The terraces in the studied area are divided into, in descending order, the Sayama, Mine, Maeganuki, Tokorozawa, Yodobashi, Narimasu, Musashino (= Omiya), Naka-dai, Tachikawa, Aoyagi and Haijima.

9. The summit level of the hills and plateaus in the studied area decline toward the center of the Kanto Tectonic Basin. Around the Omiya Plateau, the hills and plateaus incline toward the Arakawa Lowland, between south of the Yoshimi Hills and north of Kawagoe City. This is a differentiated local structure that inclines toward the center of the Kanto Tectonic Basin.

10. The Yaoroshi Formation has been traced from its stratotype to the Tama Mausoleum in Hachioji City, Tokyo Metropolis and into the Oyabe Formation (Masuda, 1971) in the northwestern part of the Tama Hills.

11. The Hanno Formation defined herein is correlated with the Hirayama Sand of Masuda (1971). The Hirayama Sand is more graveliferous in the northwestern parts of the Tama Hills (Pl. 3, fig. 2) and is composed of sand at Hirayama, Hino City of its type locality (Pl. 4, fig. 1) nearby eastside of Plate 3, fig. 2 (Kitano Station, Hachioji City).

12. The Bushi Formation (Horiguchi *et al*, 1976) is traced into the lower part of the Renkoji Formation in the Tama Hills.

13. The inland limits of the Yaoroshi and Hanno Formations are beyond the western limit of the hills, and in the time of their deposition the boundary between the land and water areas was probably in the ridge in foreland of the Kanto Mountains.

14. The Arakawa River formed the Konan Plateau by the ancient southeast flowing streams, except of the east flowing stream at the present. The southeast flowing stream was a weaker in force of valley deepening than the east flowing stream. The southeast flowing stream becomes extinct before the formation of the Musashino Terrace. Judging from the geography, the Yoshimi Hills was surrounded by the distributary of the Arakawa River flowing east and southeast, and the Yoshimi Hills were isolated from the surrounding hills as an isle in the age of the Konan Gravel.

15. The Kanekozaka Gravel unconformably overlies the Toyooka Formation and is overlain conformably by the Tama I volcanic Ash. The author revised the name of the Upper Toyooka Gravel to the Kanekozaka Gravel, because the Kanekozaka Gravel is the terrace gravel as well as the Kamikayama and Imokubo Gravel.

16. The main part of the Hino Plateau is not correlated with the Shimosueyoshi Terrace, as the author stated in 1984. Judging from the succession of the volcanic ash covering the Hino Plateau, the Plateau is correlated with the Narimasu Terrace.