1. Stone tool using people

1.1 Birth of the human species

Scientists now think that the first humans (hominins) appeared on the earth about seven million years ago. Human development is categorized into five broad stages: earliest hominins (7.0-4.0 million years ago), Australopithecines (4.0-2.3 million years ago), early *Homo* species (2.3-1.5 million years ago), *Homo erectus* (2.3-0.2 million years ago), and *Homo sapiens* (200,000 years ago to the present). The Neanderthals (200,000-35,000 years ago) are no longer thought to be our direct ancestors.

The oldest human fossil bones excavated in Japan are the Yamashita (36,000 years ago) and Minatogawa (20,000 years ago) skeletons from Okinawa. These both are classified as Homo sapiens, or fully modern humans like ourselves. When humans began to inhabit Japan, the climate was cold due to several consecutive ice ages affecting continental China, the Korean peninsula and the Japanese Archipelago.

There were three major Ice Ages in recent geological history. A major Ice Age increases glacier volume so the sea level decreases considerably, resulting in land-bridges between the continent and the Japanese Islands. At those times the Sea of Japan was an inland sea,

Fig.1 Major Paleolithic sites and sites yielding fossil humans.(References:BABA Hisao and NASAKI Shuichiro. Re-evaluation of the morphology of Japanese Pleistocene hominids. Inter-Congress of IUAES 2002, The Human Body in Anthropological Perspectives (Program & Abstracts)).

and the Tsushima, Tsugaru, Soya and other straits were closed or iced over. Therefore animals could migrate from the continent to Japan. Later, when the climate warmed, the sea level increased again and the coastline came to resemble the present one. The immigrant animals were isolated.

1.2 The Paleolithic Period in Japan

Human history can be partitioned according to tool materials, that is, the Stone, Bronze and Iron ages. The longest age was the Stone Age. The stone age can be further divided into the Paleolithic Period (when split stones were the main tools and were used for hunting, fishing and gathering) and the Neolithic Period (when sharpened and polished stone tools and earthenware were used for hunting, fishing, gathering and primitive farming).

For a long time it was considered that the Jomon Period, belonging to the Neolithic, was Japan's earliest stone tool age. However, an older culture, the Paleolithic Period, was found at Iwajuku Site in Gunma Prefecture in 1949. Since then, about 10,000 Paleolithic Period sites have been discovered all over Japan. Many Paleolithic Period sites have been discovered in the Tokyo region. Presently, the oldest fully accepted Paleolithic Period sites in Japan date only to about 40,000 years ago.

Subarctic fauna:			
Woolly mammoth	Mammuthus Pprimigenius	extinct	Hokkaido only
Steppe bison	Bison Ppriscus	extinct	to Tohoku
Auroch	Bos Pprimigenius	presently exotic	to Tohoku
Moose	Alces Aalces	presently exotic	to central Honshu
Brown Bbear	Ursus Aarctos	presently exotic	to western Honshu
Horse	Equus sp.	extinct	
Temperate fauna:			
Naumann's Elephant	Palaeoloxodon Naumanni	extinct	to central Hokkaido
Yabe's Elk	Sinomegaceros Yabei	extinc	to central Hokkaido
Ancient Japanese Deer	Cervus Praenipponicus	extinct	
Panther	Panthera Pardus	presently exotic	
Himalayan Black Bear	Selenarctos Thibetanus	present	
Shika Deer Cervus Nippon		present	
Japanese Macaque	Macaca Fuscata	present	
Japanese Hare	Lepus Brachyurus	present	
Raccoon Dog	Nyctereutes Psrocyonoides	present	
Red Fox	Vulpes Vulpes	present	
Shrew-mole	Anourosorex Japonicus	extinct	
Field Vole	Microtus Epiratticepoides	extinct	
Shinto Shrew	Sorex Shinto	presently high mountains	
Lesser Japanese Shrew-mole	Dymecodon Pilirostris	presently high mountains	
Old World Woods Rat	Apodemus Speciosus	present	
Japanese Dormouse	Glirulus Japonicus	present	
Ryukyu fauna:			
Wild Boar	Sus Scrofa	present	
Ryukyu Deer	Cervus Astylodon	extinct	
Roe Deer	Capreolus Miyakoensis	extinct	
Ryukyu Ancient Muntjac	Munitaicinae	extinct	
Spiny Rat	Tokudaia Osimensis	highly endemic	
Ryukyu Long-haired Rat	Diplothrix Legata	highly endemic	

Fig.2 Animals of the last Glacial Period in Japan(Reference: Last Glacial and Holocene Land Mammals of the Japanese Islands).

1.3 Paleolithic culture in the Tama region

The yellow clay covering the Musashino Plateau (the Kanto Loam stratum) consists of the Tachikawa Loam, Musashino Loam, Shimosueyoshi Loam and Tama Loam, from the surface layer downward. Many Paleolithic sites on the Musashino Plateau and in the Tama Hills have been excavated from the Tachikawa Loam layer which was formed 30,000 to 10,000 years ago. These sites are also located at the edge of the plateau where tributaries of the Tama and Ara rivers are located.

The sites discovered on the Musashino Plateau, centering the Nogawa River which is a tributary of the Tama River, are widely dispersed. Knife shaped stone implements (probably used for cutting food), spear head shaped stone points and other types of artifacts have been recovered from these sites. Their ages are estimated to be from 30,000 to 12,000 years ago. These archeological finds indicate that the flat land along the Nogawa River was a comfortable place to live. On the other hand, sites in the Tama Hills are comparatively smaller than those on the flat plateau, probably due to limited flat land.

Although many Paleolithic sites have been discovered elsewhere in the Tama region, no site has been discovered in Fussa City. However, there is a high probability of finding Paleolithic sites on the plateau of the city, because artifacts have been excavated from the plateau in the

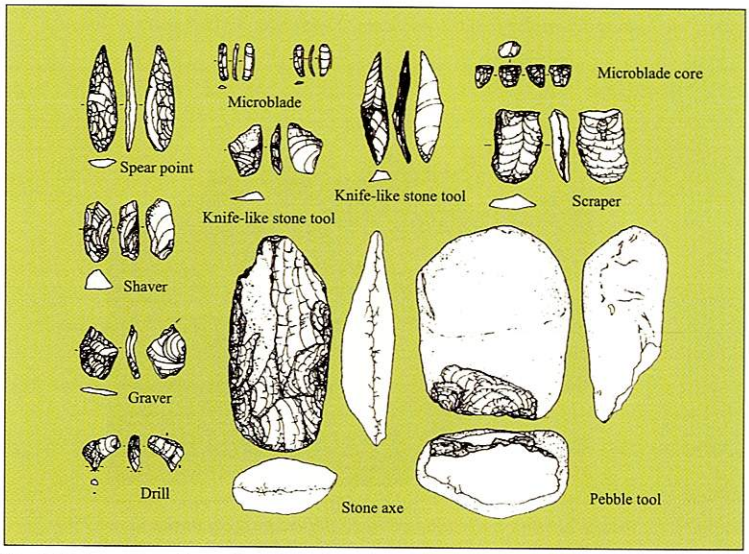

Fig.3 Main stone tools used in the Paleolithic Period.

neighboring Sunagawa district of Tachikawa City. This suggests a good Paleolithic human habitat also might have existed on the northeast Tama River terrace area of the city.

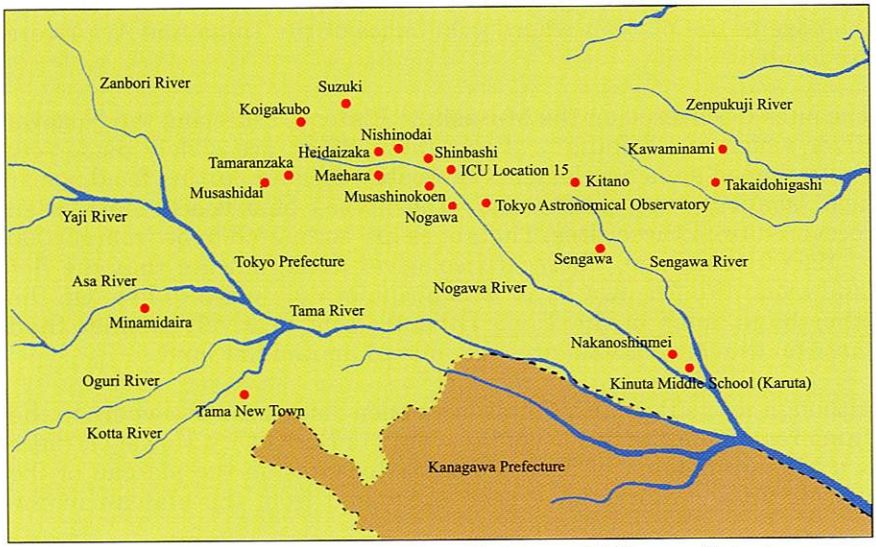

Fig.4 Major Paleolithic sites in the Tama River basin (Reference: 30,000 years of Tokyo).

Fig.5 Suzuki Site (Kodaira City). This is the most famous Paleolithic site (30,000 to 13,000 years ago) in the Kanto region. More than 110,000 artifacts have been unearthed there.