This paper presents the overview on the study of Middle Palaeolithic cultures and Late Palaeolithic cultures alongside Nile River Valley from Sudan to Upper Egypt. After the Nubian salvage campaign, many Palaeolithic assemblages were found within the context of the Nile silt sediment that gave them correct age. Many prehistoric investigation shed new light on the Palaeolithic cultures and societies there. Many fruits of the research deserve special attention because they not only offer excellent data on Palaeolithic assemblage there but also they give us some important clue to understand social condition in the Palaeolithic age.

Keywords: Middle Palaeolithic, Late Palaeolithic, subsistence activities, Mining pit, severe conflict

Introduction

A very clear picture of Palaeolithic culture of Nile River Valley has been put forward in 1960 by the foreign research teams, mainly American and Poland Combined Expedition. Until then, main academic concern was to make chronological framework from scattered materials found on the surface of the river terrace by comparing relative elevation (Vignard 1954, Sandford 1958). Egyptian Palaeolithic culture was believed to be more or less stagnated and retarded than any other country in Near East and Europe where typical blade technology developed. People believed that Egyptian Palaeolithic was culturally blind alley without any innovation and influence from outside, developed indigenous culture. Some author referred that Neanderthal like human being were lingering alongside the Nile River Valley at Late Palaeolithic age whereas in Europe and Near East old type of people was replaced by newly arrived anatomically modern human equipped with new stone knapping technology (D.Garrod 1960).

After Unesco Salvage campaign to rescue cultural heritage in Nubia, Palaeolithic studies developed drastically by foreign research teams. Extensive field work downward from Aswan to Esna was conducted mainly by combined
expedition of SMU team and Poland Science Academy. New lithic assemblages so far unknown were discovered in abundance packed in Old Nile silt. One of the most important discoveries was the Upper Palaeolithic type of assemblage based on true blade technology that altered the old hypotheses mentioned above.

I. Middle Palaeolithic Culture

Early Palaeolithic culture in Egypt are not wellknown in details. Acheulean implements were collected on the terrace of Nile River Valley (Currely 1915, Sandford 1958). The most eminent and important example are discovered at Kharga Oasis where many Hand axes were recovered in Tufa deposit (Caton-Thompson 1952). Also at Dakhra Oasis, many Hand axes were recovered (F. wendorf 1970). It must be assumed that good environmental condition encouraged Homo Erectus to go into the Sahara at that time.

However, rich materials were recovered from Middle Palaeolithic age sites in Egypt as well as in Sudan (Fig.1).

Near Luxor, at the East end of the plateau, steep cliff arise directly from lower desert. In the western mountain area and on lower promontory, many Middle Palaeolithic implements are scattered on the surface of the ground without being covered by sand deposit. So it is very easy to find out Palaeolithic sites, without excavation. Middle Palaeolithic sites are tremendously found on the surface of the area. We, member of Waseda University Archeological expedition had general surveyed Middle Palaeolithhic sites in 1974 near Malkata site that are famous for King Amenophis 3rd palace and related monuments. About 10 (Loc.A~Loc.J) sites were visited and collected stone implements and analyzed (Fig.2). Each site located on the top and hillside slopes of the promontories that were formed under the plateau. The most indicative site named Loc.A and Loc.B site are intensively collected and small area was excavated at Loc.B site in 1984. All the lithic assemblages are divided into 3 categories according to tool types and tool size, technological point of view.

II. Lithic industries and tool assemblages found around Luxor

At Loc.B site, 3 spacial concentrations of stone implements and debitage are discriminated. Each differs in size, maximum size is 80m in diameter at Loc.B-1 and minimum size is 20m in diameter at Loc.B-3. Details of site information should be referenced on our formal report (Takahashi et al 1986).

Three categories of lithic industry group divided at Loc.B site are as follow.

A Group: (Fig.3: 1~19)

A relatively massive stone tools made of Levallois technique, composed of
Fig. 1 The distribution of Middle Palaeolithic sites in Egypt
Fig. 2 The site location of Middle Palaeolithic age around Luxor, Egypt.

Fig. 3 Middle Palaeolithic implements found at Loc.B-1 site
some scrapers, some Levallois points, Hollow scraper (so called spoke shaves), Bifacial spear heads etc. These assemblages are typically found at Loc.B-1, Loc.B-2 and Loc.C site. Raw material are local lime stone.

B Group: (Fig.4: 1~20)

Materials found at Loc.A site, Loc.D and Loc. E site are typical. Small size of the tools are marked and diminutive size of Levallois cores are noted. Levallois flakes and points, abruptly retouched scrapers, notched scrapers, some burins consist mainly of tool kit. Scrapers are made on Levallois flakes absolutely. Levallois cores are dominant in number. Bifacial lancerate points and Hollow scrapers are absent at all. Also material are local lime stone.

C Group: (Fig.5: 1~31)

Materials found at Loc.B-3 site and Loc.I site are representative. Small size of tools and core are dominated. Levallois flakes and points are detached from small Levallois cores. Typical tools are burins, almost halves are made on Levallois flakes, and another halves are on blades. Special interest is dominance of small blades and blade cores. Small blade cores include single platform cores and opposed platform cores types. Typical assemblage was found only at Loc.B-3. Also material are local lime stone.

All of 3 industries have technological base on Levallois technique. But each differs in size and tool types. A Group are marked by Hollow scrapers and Bifacial spear heads. These tools are reported from Thebe by Currely in the Catalogue General (C.T.Currely 1913). Debono named them Gebel Suhan industry (I.Debono 1981). Same assemblage were collected at Abu-sir site near Saqqara 400 km to the north away from Luxor (R.Takahashi and J. Nagasaki 1999).

Special attention should be paid to the procedure of making hollow scrapers that are reconstructed previously (R.Takahashi 1986). Large Levallios like scares on the dorsal faces of the hollow scrapers are quite similar to main scars that are found on Levallois cores ventral faces, which indicates a same detouching technique are employed.

At once Caton-Thompson remarked the limited areal distribution of Hollow scrapers alongside the Nile River Valley about 500 km ranging from Cairo to Luxor (G.Caton-Thompson and E.W.Gardner 1934).

B group are marked by the dominance of Levallois technique. But they differ from A group not only in size of tools and cores, but also tool types. B Group lacks Hollow scrapers and Bifacial spear heads, but abundant in peculiar abrupt retouched scrapers on Levallois flakes. This industry are quite similar to those that were reported 60 years ago by Caton-Thompson as Khargan
Fig. 4 Middle Palaeolithic implements found at Loc. A site

Fig. 5 Palaeolithic implements found at Loc. B-3 site
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(G. Caton-Thompson 1946). Twenty years later, almost same industry were reported from Dungla Oasis (Hester, J. and P. Hoebler 1969).

Professor Huzayyin pointed out the tendency of decreasing size of the Middle Palaeolithic tolls and Levallois cores which he called them Diminutive Levalloisian (Huzayyin 1939).

C Group are special interest because they consist of both Levallois technique and blade technique. Tools also contains late Palaeolithic type tools such as burins, that are made of both Levallois flakes and blades. They are also diminutive in tool size. Blade cores has two types, one is single platform core and another opposed platform core. These Late Palaeolithic types cores are dominant in Late Palaeolithic sites such as Dier el Fakhri and other Esnan sites. But C Group are made of local lime stone whereas Esnan group and other assemblages are made of Nile chart. They are quite different in materials employed. Most important difference lies absence of such evolved types of tools as backed blades, double backed perforators and end scrapers in C group. We are not sure whether C Group belong to late Palaeolithic age or Middle Palaeolithic.

Bifacial spear heads that are found in abundance around Luxor could not be seen in Western Asia nor in Sahara. In Magrib and Cyrenaica, Bifacial point are known as Tabelbala point, that are quite different from Luxor. On the other hand, at Kor Abu Anga site in Sudan, Bifacial spear heads are rich in the assemblage. Cultural affiliation could be assumed between Middle Palaeolithic of Middle Egypt and Sudan. F. Wendorf pointed out the existence of Bifacial spear heads in Nubian Middle Plaeolithic that he refered to Sangoan and Lepenban cultures in central Africa (F. Wendorf 1960).

The Middle Palaeolithic culture alongside the Nile River Valley are quite different from Western Asia and Europe because they lack Mousterian points and Quina type scrapers. But Mousterian point are reported from inland Sahara, such as BT14 site. Mousterian of BT14 site seem to have some relations to south Mediterranean coast.

III. Subsistence activities of Middle Palaeolithic age

Many Middle Palaeolithic sites are found in today sear desert environment in Luxor. There should be supposed some precipitation in nowadays desert area when Middle Palaeolithic people activated and went into the mountains area as seen in the distribution of Middle Palaeolithic sites in western desert. Savanna like environment are assumed to have prevailed in Middle Palaeolithic age that permitted human activities which include hunting animals and gathering plants. Human being might have utilized resources from inland as well as from Nile.
River. No animal bones were recovered from archaeological sites so far, so it is impossible to infer their foods correctly. Ethiopian fauna would be supposed here because bone of Gazell were recovered from inland Sahara BT11 site (F.Wendorf and R.Schild 1990) and other. Aurocks are assumed for Kormusan people of Nubia in early late Palaeolithic age (F.Wendorf 1978). They are indicative to infer the subsistence activities of Middle Palaeolithic people. Nile River also might have supplied many fish and reptiles and mammals as the staple foods for the people.

From archaeological point of view, Bifacial spear heads, Levallois points and Hollow scrapers that are thought to have been used to shave shafts whose tips were hafted with stone point, indicate some hunting activities, especially large animals hunting. In Sahara BT14 site (Wendorf, F. and R.Schild 1980), Gazell are reported to have hunted by Mousterian point that are quite different equipment from Bifacial spear heads alongside Nile River Valley that indicates the different adaptation to each environment.

It is special feature that in northern Africa, Middle Palaeolithic people adapted to each separate microenvironment that are shown by different types of tool kit. D.Clark indicated from 4 to 5 separate industries were juxtaposed alongside southern Mediterranean coast from Morocain to Egyptian Nile Valley via Algeria, Tunisia, and Lybia. They were named Morrocan type, Adrar Bou type, Mousterian-Early Aterian (El Guettar), Djebenna type, Western Desert Aterian-Kharga type, Western Desert denticulate Mousterian type, Nile Valley Mousterian, Khormusan type from west to east (D.Clark 1980). It should be noted that Nile Valley Mousterian are divided into two or three facies, one of which is marked by A Group, the assemblage consisted of Bifacial spear heads and Hollow scrapers.

A specific industry of A group occupied area from Cairo to Luxor about 500 km alongside Nile River Valley. It also consists small regional variability as seen in Northern Africa. The great trend of reduction of tools and cores size, that some author termed" Diminutive Levalloisian" (Huzayyin 1941) and other termed "Epi-Levalloisian" (G.Caton-Thompson 1946) was not yet recognized as regional phenomenon or not.

IV. Discovery of Mining Pits

Special attention should be paid to the fact that Middle Palaeolithic people living alongside Nile River Valley could extract their raw materials for stone tool making abundantly from everywhere such as wadi terrace and its deposits. They got lime stone, sand stone and flint of local origin as raw materials from
mining pits. Archaeologists so far have believed that raw materials were brought up from the wadi bed to the hillside settlement to make stone tools there. But recent excavation at Nazlet Safafa and Nazlet Khater site near Nag Hamadhi and Ashuute by Belgian team revealed quarry sites that date back to Middle palaeolithic age (Fig.6). They are divided into 3 types of mining pits from their shape. First is a shaft and second is tunnel, third gallery (Vermeersch et al 2002). Shaft are feature dug out in the ground from the surface to gravel layer vertically with assistance of animal antler as a pick. When people reached gravel layer they stopped digging downward, they picked up suitable gravels. People, when reached gravel layer after digging downward, changed direction from vertical to horizontal. When they continued horizontal digging, they left tunnel behind them. In some case people dug horizontally open air gravel layer from the first, they left the gallery behind them. When ceiling of tunnel collapsed down, they seemed to be gallery like feature.

One shaft which we found on the hill top of Abu-Sir near Saqqara, has same feature as those found at Nazlet Safafa. The shaft were filled with white aeolian sand when discovered under the Pharaohnic monument. It was dug 1.5m in diameter and 1.3 m in depth from the surface vertically (Fig. 7). There many shafts are supposed near the monuments.

Nazlet Safafa is estimated older than Nazlet Khater which dates back to about 40000 years ago by C14 dating. Shaft is supposed to be the oldest feature of the 3 categories. At Nazlet Safafa, estimated older than Nazlet Khater site, vertical shafts are dominant in number. It is reasonable to assume that the oldest type of quarry is shaft succeeded by tunnel and gallery methods.

In Europe, Grand Pressigny, a Upper Palaeolithic site in France, and Grimes Graves, a Neolithic age in England are famous for their early emergence of quarry in prehistoric age. Though Egyptian Middle Palaeolithic examples are small size and seem primitive when compared to French Upper Palaeolithic one and English Neolithic ones, it should be noted that Egyptian examples date back to Middle Palaeolithic age, several decade of thousands years ago. At present, there are no questions that they are the one of the oldest quarry sites in the world. Advanced technological innovation will be perceived from the fact.

V. Mobility tactics in Middle Palaeolithic age

Middle Palaeolithic subsistence activities will be reconstructed from Archaeological evidence that are found on the ground surface of hill tops and slopes. Settlement space marked by the distribution of Middle Palaeolithic implements varied from several decade meters to nearly 100 meter. Because
they had been left on the surface ground for several decades of thousands years without covered with any deposits, it is impossible to single out a occupational unit. One may think that large numbers of people came there and stayed for a short time at once that caused large distributional area. Another may think small numbers of people visited there many times repeatedly and stayed for long time that resulted same situation. It is also very hard to think large numbers of people came and stayed for long time, because not so many people other than band organization and sedentary life could be supposed unless plenty of foods resource could be available all year round. Seasonal foods fluctuation depends on climatic condition.

Climatic condition which are reconstructed from Archaeological evidence inland Sahara show seasonal precipitation. Climatic condition of Sahara depends on how the ITCZ (Inter Tropical Convergent Zone) could sìft northward year round. In summer when Saint Helena High Pressure on the South Atlantic Ocean are stronger than Azores High Pressure of North Atlantic Ocean, ITCZ sìft
northward which bring much precipitation in Sahel and sub-Sahara area. In winter when ITCZ sifts southward near the Equator because Azores High Pressure is stronger than Saint Herena High Pressure, it bring low latitude area much precipitation (Kadomura 1986).

Normally ITCZ go and away seasonally which bring the area a dry season and rainy season alternatively in a year. How the inland Sahara could receive precipitation depend how ITCZ could move northward. When it move to Northward enough, it could bring much precipitation in Sahara.

Considering the mechanism of ITCZ, it would be probable that the Egyptian Sahara at that time received some precipitation. It is also supported by Archaeological evidence that at Bir Tarfawi 14 site (BT14) and Bir Sahara 11 site (BS11), excavation revealed Ethiopian Fauna dominant that indicates savanna like condition at Middle Palaeolithic age (Wendorf, F. and R. Schild 1980).

If same is true alongside the Nile River Valley, Middle Palaeolithic people also could enjoy 2 seasons, dry and rainy season in a year.

It will be reasonable to assume that small band of group went there repeatedly and stayed for a short time to make stone implements. When seen from the distributional point of view, it is noteworthy that Hollow scrapers could not be found uniformly, but some concentrated locations of Hollow scrapers could be discerned in Loc.B-1. Within the distributional area of Loc.B-1, from 4 to 5 concentrated locations of 2 or 3 meters in diameter could been found. In each location many Hollow scrapers and by-products debitages were found, as if Hollow scrapers had been manufactured and remedied at same location every time.

How can it be understandable? One of the idea is that manufacturing the Hollow scrapers and wood working were curried out at the fixed locations. It would be understood that tool manufacturing and wood working were done repeatedly for many years at the same locations.

On the other hand, concentration of specific tool influence a great deal to the analysis of assemblage variability. When Statistic calculation include these specific tools in a assemblage, it would lead to correct analysis. But when unfortunately not included specific tools in a assemblage because of their peculiar distributional pattern, it would lead to misunderstanding of tool assemblage.

How people managed to the large size tools such as Hollow scrapers, when they moved to other sites? Would it be sure that people carried them to new site? If so, many Hollow scrapers could no be left concentrated densely in a site.
It seems to have some relation between their mobility tactics and an abundance of many Hollow scrapers were left on the site. Because Hollow scrapers are not directly related hunting activities, they could not have been curried to hunting place. Because they are supposed to have served to shapen wooden shafts which projectile point would be attached to, they seem to have been utilized for preparation before hunting activities. Considering the long way in hunting activities, it would be disadvantage to bring them in hunting. Hollow scraper are very heavy tool ranging from 50-100g at minimum weight to 500-550g at maximum weight, averagely 250-300g. It would be advantageous for the hunters to leave them in the base camp rather than to go out to the field currying them. It assumes that hunting activities need some base camp locations, from which hunters go out for hunting. Loc.B-1 is thought to be one of the base camps where hunting troop stayed for a while until moving to next site. Because periodically they would come back again there cyclically in rainy season, they probably left heavy duty tools there. It would be thought that it was their tactics to leave heavy duty tools in the determined spot of the site anticipating next coming and use.

Their mobility tactics depends on their environment and climatic condition. Dry and wet season were supposed for the Sahara and sub-Sahara area. In Middle Palaeolithic age, ecological factors determine the pattern of culture, society and subsistence activities of the people. Comparative study of similar ecological situation between modern central Africa and Sahara and Nile Valley would be profitable. In Kalahari desert in central Africa, Koi-San people depend their lives on hunting and gathering, sifting their settlement over 10 times in a year. They travel a routin several hundred kilometer within a year and come back again the first place. J.Wooburn has suggested IRS (Immediate Return System) strategy for Bushmans' subsistence. Same subsistence pattern are also supposed for the Middle Palaeolithic people in the Sahara and Nile River Valley.

VI. Late Palaeolithic culture

From the beginning of twenty century, archaeologists like Vignard and others have known that Egyptian Late Palaeolithic were discovered in the context of Nile alluvial silt. However the chronology of the Old Nile silt was not exactly developed then, only the relative chronological position were assigned for each industries (Vignard 1905). Only after the excavations of Nubian rescue salvage campaign when many Palaeolithic site were studied in a context of Nile silt, Nile silt was studied closely by full-dress investigation. After then, extensive field research downstream from Aswan to Esna have
contributed great deal to the understanding of Nile silt and its relation to lithic assemblages. The alluvial formation were divided into several phases by Nilotic aggradation and separated each other by degradation (downcutting) episodes. Three times aggradation phases of Dibeira-Jar formation, followed by ballana-Masmas formation, and Sahaba formation, separated each by 2 times downcutting episodes of Diel-el-Fakhri formation, and Birbet formation. These chronological framework was strengthened by C14 dating. Also excavation at Wadi Kubbaniya site has added more to the real understanding of local stratigraphy of the silt formations downstream to Esna.

VII. Late Palaeolithic assemblages and Nilotic silt

Normally Nilotic silt stratigraphy are always refered to compare local formation. At Malkata site western side of Luxor, when senior members of Waseda University Expedition team conducted excavation in 1974 at fringe of cultivated land, they found Late Palaeolithic industry in Sahaba formation. They consist of backed elements and some end scrapers and burins. Type tools comparison and cumulative frequency analysis revealed that our materials of Malakata South site has common characteristic shared by Deil-el-Fakhri
industry of Esna (Fig.8). Fakhrian was well analyzed and clearly defined (D. Lubell 1974, F. Wendorf and R. Schild 1976). Assemblage of Malkata South has also some affiliation to the Industry D of E71K12 (J. Phillips 1973, F. Wendorf and R. Schild 1976). Though Backed Bladelet are numerous, Double Backed Perforators that are found many in Industry D at E71K12 site at Esna could not be found in Malakata South assemblage.

Though many assemblages that dated back to twenty thousands years ago to eighteen thousands years ago are clarified (Fig.10), the gap between these industries and Middle Palaeolithic are not bridged so far. Today, most expected candidates are those of Nazlet Khater 4 site and Shuwikhat 1 industry that are composed of blades and single platform cores and opposed platform cores (P. M. Vermeersch et al 1982, 1990). They are made of large core over ten centimeter rather than small blade core. It is not sure whether new napping technology were introduced from outside such as western Asia or developed indigenously within Nile River Valley.

How can we make clear the chronological position of our materials, C group (Loc.B-3). The assemblage of Nazlet Khater 4 site is dominated by blades and blade core from the beginning. Should C Group assemblage be thought to date back to very old, Middle Palaeolithic age? It is uncertain whether Late Palaeolithic type tool of burin in C Group are the equivalent to Khormusans’ case. If so, some specific advanced type tool, such as burin were innovated alongside Nile River Valley.

VIII. The Co-existence of distinctive assemblages

Many distinctive assemblages seem to have co-existed from twenty thousands years ago to eighteen thousands years ago and thereafter. This period climatically was marked by hyperarid condition. Many groups with different assemblage and technology were thought to have been attracted to alongside Nile River Valley from outside of the Valley, that offered them hospitality and some refugee. It might have great potentiality to afford the residents many foods and other resources. F. Wendorf and A. Close had an idea that fish, especially catfish, and some tuber played most important role (F. Wendorf and A. Close 1990).

A very complex social relations would be supposed especially near Luxor and Esna (Fig.9). Several different assemblages were juxtaposed simultaneously in very close environment. Did it mean that distinctive assemblages indicate different culture groups respectively? It is very difficult problem to answer.

It is also uncertain whether distinct residents built up peaceful relation each
Fig. 9 Varieties of Late Palaeolithic assemblages found near Esna
Fig. 10  Chronological table from Middle to Late Palaeolithic Cultures alongside Nile River Valley

Fig. 11  Head orientation of the dead discovered at the cemetery of Jebel Sahaba 117 site
other because they shared common microenvironment or not. However when we met some trace of ancient fights and struggle, latter would be supported correct.

At Wadi Kubbaniya, young male skeleton was excavated buried in the ground. He was believed to have been killed by the bladelet found in his abdomen (F. Wendorf and A. Close 1986, 1990). Before his death, it also turned out that he got injured twice. When he had been stabbed by spear in his arm, the remnant of broken spear was retained in it.

Another example were more direct and tragic. At Jebel Sahaba 117 site, a few kilometer upstream from Wadi Halfa. The site is famous for its misery cemetery. About 40% of the dead are estimated to have killed violently regardless of age and sex (F. Wendorf 1960, F. Wendorf and A. Close 1990). Some were presumed to have stabbed their bodies by spear or arrow. Some were broken their arms by club blowing. Sever inter group conflicts are indicated.

When seen from the head orientation analysis and posture of the dead, there seem common disposal of the bodies shown (Fig.11). They were sniped regardless of age and sex by enemy. Sniper might attack families in the night or early in the morning. Severe and merciless murder often might occurred almost every occasion.

**Conclusion**

Palaeolithic cultures and societies of the Nile River Valley can not be talked about without referring to ecological situation that Nile River and its environment offered. At Middle Palaeolithic, people exploited the riverine resource, and when climate was amenable people advanced into the inland environment for hunting big games. It must be deserved attention that Middle Palaeolithic people extracted their raw materials for stone implement production from mining pits which are the oldest example in the world. Further investigation will enhance the possibility that many mining pits would be found even inland on the plateau.

Many Late Palaeolithic sites are known alongside the Nile River Valley. Late Palaeolithic people are believed to have sifted their habitat from place to place after a few days subsistence activities. On the contrary, as Wadi Kubbaniya sites indicate, year round activities would be supposed that in summer people fished many fish (catfish etc) and mammals as well as reptile and in winter waterfowl and migratory bidrs (Wendorf, F. and R. Schild 1989).

People are believed to have developed high level of social structure against the background of rich resource that Nile Valley offered. At Jebel Sahaba 117 site near Wadi Halfa, Late Palaeolithic cemetery (Qadan) was explored to reveal
some unified social regulation as the mortuary practice on the dead regardless to age and sex.

Social leader are presumed from the evidence that at Tushka 8905 site some horn-cores of wild cattle (Bos. Primigenius) were discovered to put on some human burials as if they were grave markers. Bitter competition and severe conflicts between social groups were indicated by the fact at Wadi Kubbaniya and Jebel Sahaba 117 site, many arrow heads or stone points were found shoot in human bodies, in some case stuck in bones.

Some relation between bitter competition and conflict among the social groups and wild cattle as well as appearance of some social leader might be understood relevant to social complexity.

Bibliography


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XX.


Smith, P. E. L. 1967: New Investigation in the Late Pleistocene Archaeology of the Kom Ombo Plain (Upper Egypt),” Quaternaria 9.


Takahashi, R. 1990 Middle Palaeolithic Culture in Egypt, Tama Kouko, No.20 (in Japanese)

Takahashi, R. 1991 A Late Palaeolithic Industry at Loc.B-3 site near Luxor, Egypt and its Chronological Correlation to Nubia and Upper Egypt, in Bulletin of the School of Literature, Arts and Cultural Studies

Takahashi, R. 1993 Mortuary Practice and Society in Late Palaeolithic Age in Nile River Valley, in Bulletin of the School of Literature, Arts and Cultural Studies vol.3 No.1 Department of Liberal Arts, Kinki University


Takahashi, R. and M. Aoki 2006 Stone Implements, in Abu-Sir South (II), Institute of Egyptology in Waseda University

Vol. XLIII 2008 21
Vermeersch, P. M. 1978: *ELKAB II. L’Elkabien, Epipaleolithique de la Vallee du Nil Egyptien.*


Vermeersch, P. M. et al. 2002 *Palaeolithic Quarrying Sites in Upper and Middle Egypt* Pierre M. Vermeersch(ed.) Leuven University Press


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