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New Light on *The Desert Fayum*: Restudying Gertrude Caton-Thompson's Fayum Lithic Collections in London

Introduction

The British archaeologist Gertrude Caton-Thompson has carried out the first academic fieldwork in the Fayum in the 1920s. Her monograph entitled *The Desert Fayum* and published in 1934 is still regarded as the most authentic source of information about the prehistory of the Fayum, even though she did not publish every single find in this monograph. Regardless of whether published or unpublished, her finds which are presently stored in museums and other institutions around the world are worth restudying for information which one cannot obtain through new fieldwork anymore, as archaeological sites in the Fayum have been disturbed by antiquarians' collecting activities and archaeologists' fieldwork since her time and are being rapidly destroyed by modern land use activities like clay mining and agriculture. I had an opportunity to be based in London and to study her Fayum lithic collections at three institutions there. This article briefly overviews her fieldwork and the distribution of her finds, and presents what were found through this study.

1. Caton-Thompson's fieldwork in the Fayum

Caton-Thompson had three seasons of fieldwork in the Fayum (Caton-Thompson 1983: 101-109; Caton-Thompson and Gardner 1934: 3-11). The first season in

1924-5 was for gaining the first impression about the geology and archaeology of the concession area. She surveyed the large area around the north shore of Lake Qarun from Dimai in the west to Kom Aushim in the east (Fig. 1), and spotted promising sites for excavation. She also recognised the necessity of the participation of a geologist in the next season's fieldwork.



Fig. 1. Caton-Thompson's archaeological sites on the north shore of Lake Qarun

The second season in 1925-6 was most productive. A large number of elaborate stone tools, complete pottery vessels and miscellaneous artefacts were obtained through excavations at prominent sites like Kom W, Kom K and Upper K Pits, and the Neolithic status of artefact assemblages found *in situ* at these sites was confirmed. Similar artefacts from many other surface sites were also considered to be dated to the Neolithic. Moreover, Caton-Thompson was joined by the geologist Elinor Gardner, who concentrated on surveying and mapping the large concession area. The first two seasons of fieldwork were sponsored by the British School of Archaeology in Egypt, and the two ladies could be engaged in their work without being bothered by financial and administrative problems.

The third season in 1927-8 had a lot of trouble before its start. Due to the loss of the sponsorship of the British School of Archaeology in Egypt and the overlap of the research area with other researchers' one, the research concession was not granted as originally scheduled. Fortunately, the Royal Anthropological Institute in London became the main sponsor, and the last season's fieldwork was carried out in the end. However, it was not a productive season, because the research area

was restricted and the fieldwork period was shortened. The planned participation of Dorothy Garrod for studying Middle Palaeolithic artefacts was cancelled. In this situation, Caton-Thompson and Gardner have worked not only within the restricted concession area but also outside of it. Much time was spent working at post-Neolithic sites, and the knowledge about the human life and material culture of the Predynastic, Old Kingdom, Ptolemaic and Roman periods was augmented.

2. Division and distribution of Caton-Thompson's Fayum finds

At the end of the second and third seasons, her finds were transported to Cairo for the official division at the Department of Antiquities of Egypt, and only small portions of her finds were left in the Egyptian Museum in Cairo. The rest of her finds were given to her and shipped to the United Kingdom. Upon arrival in London, her finds were divided further into small portions and distributed to many institutions in the United Kingdom and abroad as the reward for their financial support. When *The Desert Fayum* was out in 1934, the distribution had already been completed, and Caton-Thompson published a list of the finds distribution (Caton-Thompson and Gardner 1934: xiv). According to this list, her Fayum finds were finally distributed to 31 institutions in nine countries including Australia, Canada, Egypt, France, Ireland, Japan, the Netherlands, the United Kingdom and the United States, but no information about exactly how many and which finds were distributed to which institutions was provided. Unless the institutions which received her Fayum finds publish the accession list or any other data, there is no means to know which finds are there (Shirai 2011a).

I studied the portions of her finds which are presently stored in the Petrie Museum of Egyptian Archaeology, the British Museum, and the UCL Institute of Archaeology. These institutions have online catalogues of their collections, and these catalogues are the first clue to knowing which finds are stored there. However, these catalogues are incomplete and not informative, and it was not until I studied their collections that the whole picture of Caton-Thompson's Fayum finds became clearer.

3. Caton-Thompson's Fayum lithic collections in London

The Petrie Museum has the largest portion of Caton-Thompson's Fayum finds, and there are 1580 accessioned objects including approximately 1400 lithic artefacts but debitage products are few. More than half of all accessioned objects are

from the 1925-6 season. At present, 63 Neolithic stone tools from Kom W, Kom K, Upper K Pits and some surface sites, and three Predynastic stone tools are on display in a showcase in the main gallery of the museum. All other artefacts except Neolithic pottery vessels and sherds displayed in the pottery gallery can be seen not only in the showcase of the main gallery but also in the glass-covered drawers under the showcase (Fig. 2). As far as I checked, the photographs and/or illustrations of 331 stone tools including 50 Epipalaeolithic ones, 266 Neolithic ones, 10 Predynastic ones and five Old Kingdom ones in the Petrie Museum were published in *The Desert Fayum*.

Caton-Thompson's Fayum finds in the British Museum are not many, and the total number of artefacts is 80. All of the artefacts are from the 1925-6 season only and were accessioned in 1927. There are 58 stone tools including two Epipalaeolithic ones, 55 Neolithic ones and one Old Kingdom one. There are also pottery vessels, a basket, a complete wooden sickle with flint blades, wooden sticks for uncertain use, bone points, and a fragment of woven linen. As far as I checked, the illustrations and/or photographs of 37 artefacts (including 22 stone tools) out of the 80 artefacts were published in *The Desert Fayum*, and some of them have



Fig. 2. Drawer containing lithic artefacts from Kom W in the Petrie Museum. Photograph taken by the author by courtesy of the Petrie Museum of Egyptian Archaeology, UCL



Fig. 3. Caton-Thompson's Fayum finds on display in the British Museum. Photograph taken by the author by courtesy of the British Museum

were mentioned with the accession numbers given by the museum in the monograph. About one third of all artefacts representing the Fayum Neolithic culture have been on display in the Early Egypt gallery of the museum and well known to the general public as well as academics. In 2014, this gallery was completely refurbished, and the number of Caton-Thompson's Fayum finds on display was reduced to 21 including 15 stone tools, a complete wooden sickle with flint blades, a basket, and five pottery vessels, all of which are Neolithic (Fig. 3).

Caton-Thompson's Fayum finds in the UCL Institute of Archaeology have not been known even to academics because of their accession history and state of storage in the Institute. It is a portion which was originally given to the Wellcome Historical Medical Museum in London, as simply indicated as 'Wellcome Historical' in Caton-Thompson's distribution list. Its founder Henry Wellcome was a pharmaceutical entrepreneur and a keen collector of medical artefacts as well as archaeological and ethnological artefacts. After his death in 1936, his collection in this museum was divided and distributed, and part of his archaeological collection including Caton-Thompson's Fayum finds came to the Institute (Russell 1986). For unknown reasons, only half of all artefacts were accessioned when they arrived at the Institute in 1955, but the rest of artefacts have been left unaccessioned until I started to study them in 2014. The total number of accessioned artefacts is 250, and 247 are lithic artefacts including many formal tools as well as some cores. However, 52 lithic artefacts which are all described as arrowheads in the accession list made in 1955 could not be found in the storage of the Institute during my stay in London. At present, there are 192 tools including 73 Epipalaeolithic ones, 96 Neolithic ones, 22 Old Kingdom ones, and one Middle Kingdom one. None of them is on display in the Institute. More than half of all accessioned artefacts are from the 1927-8 season. As far as I checked, the photographs of nine Neolithic stone tools and four Old Kingdom stone tools in the Institute were published in *The Desert Fayum*.

As mentioned above, Predynastic and Old Kingdom stone tools are not many in the three institutions in London. Caton-Thompson has sometimes found Predynastic and Old Kingdom stone tools at Neolithic surface sites and wrongly published some of those tools as of the Neolithic. Apart from the wrong ones, she recognised what Predynastic and Old Kingdom stone tools looked like, and published the Predynastic and Old Kingdom stone tool assemblages from particular sites like Qasr Qarun and Kom IV in Plates LIII, LIV, LV, LVI, LVII, LXVII, LXVIII, LXIX, LXXIX, LXXX, LXXXI and LXXXII of *The Desert Fayum*. However, none of the Predynastic stone tools and few Old Kingdom stone tools in these plates were found stored in the three institutions in London.

4. The Dark Side of *The Desert Fayum*

The Desert Fayum was published in 5-6 years after the end of fieldwork. This quick publication is truly admirable, given that Caton-Thompson was extremely busy with other fieldwork in Zimbabwe and Egypt in this period (Caton-Thompson 1983: 114-163). In addition, the prehistoric archaeology and geology of the Fayum were described on an unprecedented regional scale. Caton-Thompson dismissed the involvement of the British School of Archaeology in Egypt in the publication work, in order to protect her own interpretations on archaeological and geological issues from the objections of Flinders Petrie (Caton-Thompson and Gardner 1934: 11-12). Moreover, the beautiful and accurate illustrations of lithic artefacts published in this monograph were made by the hands of Olga Tufnell and Mary Leakey (nee Nicol), who were very early in their archaeological career at that time but later became renowned archaeologists.

Despite these positive things, there are many flaws in this monograph. Firstly, even though Caton-Thompson published a considerable number of lithic artefacts, hundreds or thousands of artefacts are actually left unpublished. Secondly, many lithic artefact photographs published in this monograph are printed in mirror image. Thirdly, some important lithic artefacts were published with wrong information about their provenances. Fourthly, small details of lithic artefacts were neither noted nor illustrated. Lastly, damaged lithic artefacts and the lithic artefacts of uncertain date were not published.

5. A considerable number of unpublished lithic artefacts

When I studied Caton-Thompson's Fayum finds collections in London, I usually checked which artefacts in the collections were published in *The Desert Fayum*. I realised that Caton-Thompson often marked the lithic artefacts which she intended to publish with a black ink dot. Such a black dot on the surface of lithic artefacts is clearly seen in many photographs published in *The Desert Fayum* and also in several photographs in this article (Figs. 4, 6-8 and 10). However, I found that not all artefacts published in *The Desert Fayum* were marked with a black dot, and that more than 20 lithic artefacts which were marked with a black dot were left unpublished in the Petrie Museum.

The photographs and/or illustrations of 541 lithic artefacts were published by her as of the A group (presently known as the Neolithic), the B group (presently known as the Epipalaeolithic) and uncertain dates (presently known as the Neolithic), and I found that 330 out of the 541 lithic artefacts are presently stored in the Petrie Mu-

seum. This means that her publication relied heavily on the Petrie Museum collection and that she published only one quarter of her Fayum finds stored there. A considerable number of lithic artefacts are left unpublished even in the Petrie Museum alone. There is little doubt that countless numbers of valuable lithic artefacts remain untouched and unrecognised in other museums and institutions around the world.

6. Lithic artefact photographs printed in mirror image

It is obvious to the readers of *The Desert Fayum* that many lithic artefact photographs like Plate XXXV-2, 3, 7, 21 and 22, Plate XXXVI-8 and 14, Plate XXXVIII-8, Plate XL-4 and 9, Plate XLI-6, 11, 17 and 19, and Plate XLV-1 are printed in mirror image, because ink inscriptions on the artefact surface are mirror images (Fig. 4). However, as I compared real artefacts in my hand with their photographs in the



Fig. 4. Gouges from Site T (bottom left: UC3699) and Site N (bottom right: UC3620) with Plate XXXV-2 and 3 (top: © 1934 The Royal Anthropological Institute). Photograph taken by the author by courtesy of the Petrie Museum of Egyptian Archaeology, UCL

plates of *The Desert Fayum*, I realised that far more lithic artefact photographs are indeed printed in mirror image. While there is no problem in Plates VIII, X, XXII, XXXIII, XLIX and L, all photographs of the lithic artefacts which I handled in Plates XXXV, XXXVI, XXXVII, XXXVIII, XL, XLI, XLIII and XLV are printed in mirror image. It is hard to know why such errors occurred, as Caton-Thompson did not mention anything about who took, printed and laid out lithic artefact photographs in her note on publication (Caton-Thompson and Gardner 1934: 11-12).

7. Wrong provenances of lithic artefacts

It was also found that there are several discrepancies between the ink inscription about the provenance of an artefact on the artefact surface and the description about the artefact provenance attached to the artefact illustration in *The Desert Fayum*. For instance, one side-blow flake scraper (Plate XLIV-11) is described as from Site X. I found this artefact in the British Museum, and the ink inscription on its surface reads that it is not from Site X but from the Area between Camp II and Kom W (Fig. 5). One polyhedral drill (Plate XLVIII-24) is described as from Site Z. This artefact was found in the Petrie Museum, and the ink inscription on its surface reads that it is not from

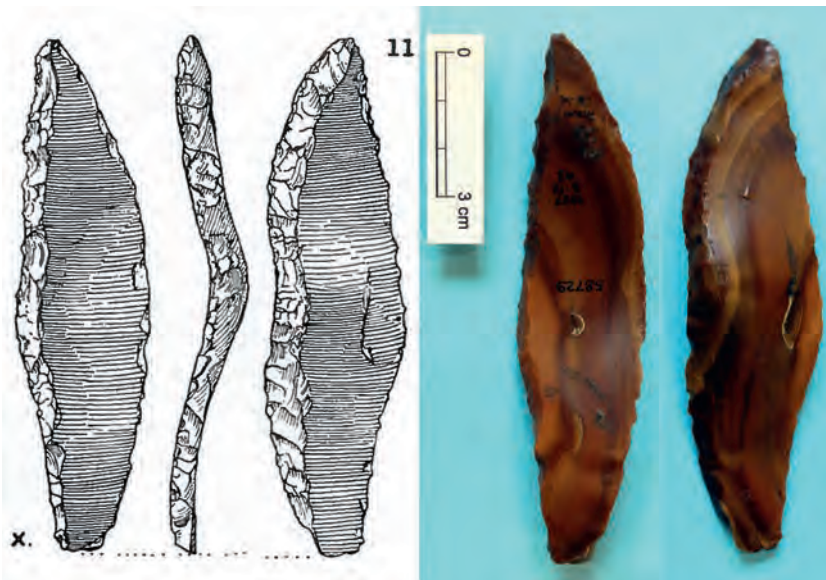


Fig. 5. Side-blow flake scraper from the Area between Camp II and Kom W (right: EA58729) with Plate XLIV-11 (left: © 1934 The Royal Anthropological Institute). Photograph taken by the author by courtesy of the British Museum

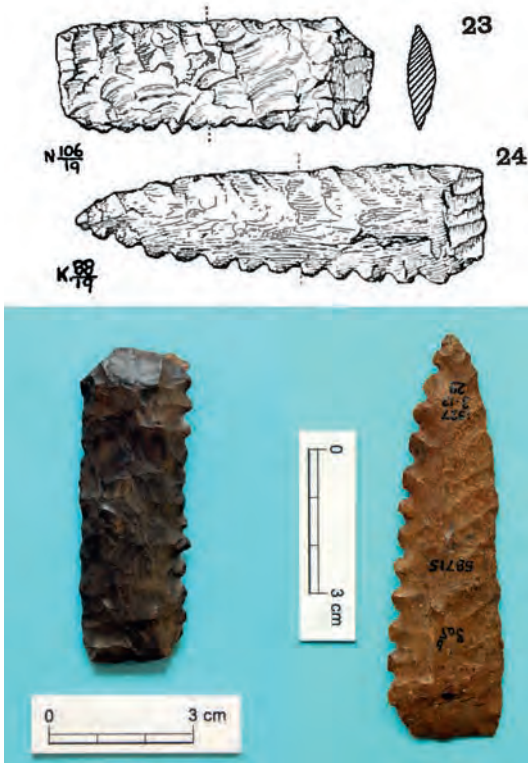


Fig. 6. Sickles blades from Site N (bottom left: EA58714) and Site V (bottom right: EA58715) with Plate XI-23 and 24 (top: © 1934 The Royal Anthropological Institute). Photograph taken by the author by courtesy of the British Museum

Site Z but from the L Basin Bench Mark. One blade (Plate LXXXII-1) is described as from Site N. This artefact was found in the Petrie Museum, and the ink inscription on its surface reads that it is actually from Camp II Basin. These discrepancies may be careless mistakes.

Moreover, such discrepancies were found among lithic artefacts from Kom W. Plate XI in *The Desert Fayum* shows representative stone tools from this most important site of the Fayum Neolithic. Two sickle blades at the lower left corner of the plate (Plate XI-23 and 24) have unique numbers (N106/19 and K88/19) as indicated near the illustrations. I found these sickle blades illustrated in this plate in the British Museum, and the ink inscriptions on their surface read that they are not from Kom W but from Site N and Site V respectively (Fig. 6). The real artefacts with these unique numbers stored in the Petrie Museum (Fig. 7 and Fig. 8)

are apparently different from the illustrations with these numbers in the plate. Another discrepancy was found with one concave-based arrowhead at the upper right corner of the plate (Plate XI-7). I found this concave-based arrowhead in the British Museum, and the ink inscription on its surface reads that it is not from Kom W but from Site Z (Fig. 9). These discrepancies cannot be tolerated as careless mistakes.

It is probable that Caton-Thompson sometimes did not have necessary illustrations of the right artefacts to fill empty spaces in a plate and hence substituted with the illustrations of similar artefacts from different sites. As far as I checked her Fayum finds collections in London, no more instances of such discrepancies exist. However, more instances may be found as her Fayum finds stored elsewhere are studied carefully.



Fig. 7. Sickle blade from Kom W (UC2595, N106/19). Photograph taken by the author by courtesy of the Petrie Museum of Egyptian Archaeology, UCL

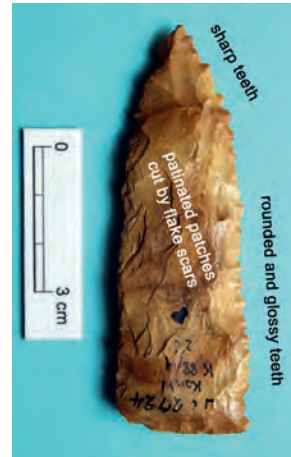


Fig. 8. Sickle blade from Kom W (UC2724, K88/19). Photograph taken by the author by courtesy of the Petrie Museum of Egyptian Archaeology, UCL

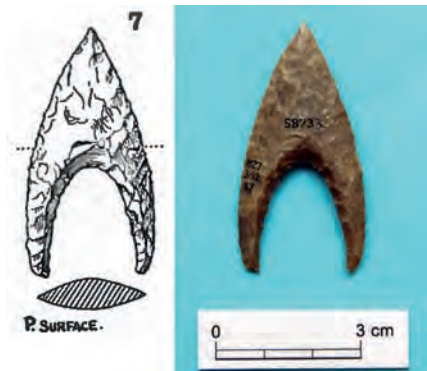


Fig. 9. Concave-based arrowhead from Site Z (right: EA58733) with Plate XI-7 (left: © 1934 The Royal Anthropological Institute). Photograph taken by the author by courtesy of the British Museum

8. Small details of lithic artefacts missed by Caton-Thompson

It is important to study small details of lithic artefacts, which Caton-Thompson did not mention in her monograph. For instance, she described that various Neolithic flint tools in the Fayum such as axes, knife blades and spearheads were made by thorough bifacial flaking, but she did not describe the raw materials of those tools very well. It was noted through my study on hundreds of examples that one or both faces of those bifacially flaked tools often retain patinated patches which are cut by flake scars (Fig. 8). This means that toolmakers did not always use fresh flakes which were just knapped from flint cobbles but picked up naturally

split and already aged flakes of suitable size and thickness in source areas. This is a smart way of saving time and labour for toolmaking. As evidenced by a number of flint cobbles found at residential and task sites on former lakeshores (Caton-Thompson and Gardner 1934; Shirai 2010), Fayum Neolithic people transported flint cobbles which did not naturally occur in their habitat from distant source areas. However, it must be reconsidered that they also transported a number of flakes which were ready for toolmaking.

While lithic artefacts collected on the desert surface are normally abraded by sandblasting, the preservation of stone tools excavated at Kom W and stored in the Petrie Museum is generally very good. Such well-preserved stone tools give interesting information about how they have been used. For instance, as Caton-Thompson has pointed out (Caton-Thompson and Gardner 1934: 29), serrated working edges of many sickle blades are glossed, and it is evident that they have been used for



Fig. 10. Sickle blades from Site X (from left to right: UC3189, UC3186, UC3188 and UC3187). Photograph taken by the author by courtesy of the Petrie Museum of Egyptian Archaeology, UCL

cutting siliceous cereal culms. When looking at the working edges more carefully, I noted on several pointed sickle blades that the teeth on the tapered part of the blades are still sharp and not glossed while the teeth on the straight part of the blades are heavily worn and glossed (Fig. 8). This means that the tapered part of the blades has not frequently contacted cereal culms being cut and was not functional. In the case of rectangular sickle blades, the serrated working edges of the entire stretch of straight blades are equally worn and glossed. Caton-Thompson has pointed out that the majority of sickle blades in the Fayum Neolithic were in the pointed form, but has not commented on the functional difference between the two forms (Caton-Thompson and Gardner 1934: 21). A question is why the majority of sickle blades were made pointed in spite of no functional merit in that form.

In relation to this question, another variation in sickle blades needs to be considered. As Caton-Thompson has mentioned in her description of this tool class, great variation is seen in the fineness/coarseness of working edge serration (Fig. 10). Another question is whether such variation reflects different functions or different ages. As it has not been made clear whether coarsely serrated sickle blades and finely serrated sickle blades had co-existed at the same time at any sites in the Fayum, a seriation study is important for understanding the development of sickle blades and discussing functional and non-functional aspects of the variation in body form and working edge serration.



Fig. 11. Damaged axes from Kom W (from left to right: UC2820, UC2667 and UC2634). Photograph taken by the author by courtesy of the Petrie Museum of Egyptian Archaeology, UCL

9. Negligence of the lithic artefacts of little aesthetic value and uncertain date

Caton-Thompson collected 75 axes at Kom W (Caton-Thompson and Gardner 1934: 25) and published 29 axes out of them with photographs and illustrations in Plates VIII and IX of *The Desert Fayum*. Most of the published axes are intact and good-looking examples. However, I realised through the study of all axes from Kom W which are stored in the Petrie Museum that half of all axes are badly damaged and that several examples have traces of repair and recycling (Fig. 11). From an aesthetic point of view, it is understandable that Caton-Thompson did not publish the damaged axes, but it is significant to focus on the unpublished axes in order to gain information about how these tools have been used. Many damaged axes suggest that there was a great need of tree cutting around Kom W.

Caton-Thompson collected 230 small arrowheads at a surface site named Camp II and more at nearby surface sites like Site V and Site Z (Caton-Thompson and Gardner 1934: 75-79), but she was not sure about their date, and published only 10% of them as of uncertain date in Plate LI of *The Desert Fayum*. Among the unpublished arrowheads, the most notable ones are Ounan points. It seems that she did not know the importance of these arrowheads, as more than 10

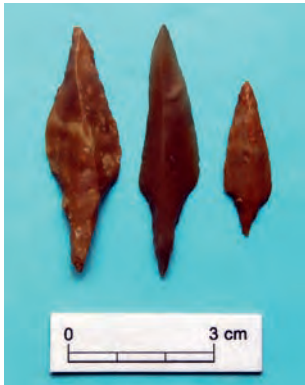


Fig. 12. Ounan points from Camp II (from left to right: UC3436, UC3435 and UC3438). Photograph taken by the author by courtesy of the Petrie Museum of Egyptian Archaeology, UCL

examples of these arrowheads are left untouched in the Petrie Museum (Fig. 12). Ounan point is a typical arrowhead in North Africa in the Early Holocene, but its existence in the Fayum has long been unknown and has recently been confirmed by my fieldwork (Shirai 2012). Caton-Thompson's unpublished finds reconfirmed the existence of Ounan points in the Fayum Epipalaeolithic.

As for other undated small arrowheads made by unifacial or bifacial flaking, I have argued elsewhere that they are similar to the arrowheads of the Pottery Neolithic culture in the southern Levant, which are called Haparsa point (winged and tanged arrowhead), Nizzanim point (shouldered and tanged arrowhead) and Herzliya point (lens-shaped arrowhead)

(Shirai 2010; 2011a; 2011b; 2015) (Fig. 13). This similarity suggests that these arrowheads may be dated from the middle 7th millennium to middle 6th millennium BC. In particular, Haparsa point has not been found in other part of the Egyptian Western Desert, and it is highly possible that this type of arrowhead in the Fayum derived from the southern Levant.

This possibility may be expanded to consider the origin of concave-based arrowheads. Caton-Thompson did not publish any large examples of winged and tanged arrowheads, but they are certainly included in her Fayum finds stored in the Petrie Museum (Fig. 14). Such unique large arrowheads are unlikely to appear suddenly out of nowhere but could have developed from small ones which had existed in the Fayum. It is probable that toolmakers removed the tang of the winged arrowhead for some technical reasons like reducing the weight of the arrowhead or attaching the arrowhead to the foreshaft in a different way. Concave-based arrowheads have been common at other contemporary sites in Egypt, but those in the Fayum have the greatest variation in form and size among all other concave-based arrowheads found in Egypt. It is most likely that the Fayum was a centre where many experimental arrowheads have been made and selected, and that only selected ones have spread to other regions and have been inherited over generations. Again, this is where a more detailed seriation study is needed.



Fig. 13. Herziya points from Camp II (from left to right: UC3449, UC3456, UC3451, UC3450 and UC3455). Photograph taken by the author by courtesy of the Petrie Museum of Egyptian Archaeology, UCL



Fig. 14. Haparsa points from Camp II (from left to right: UC3444, UC3445, UC3440 and UC3418). Photograph taken by the author by courtesy of the Petrie Museum of Egyptian Archaeology, UCL

Conclusion

There is no doubt that *The Desert Fayum* is still the primary reference for understanding the prehistory of the Fayum from the Epipalaeolithic to the Neolithic. However, it must be kept in mind that there are problems in its contents, and that many of Caton-Thompson's finds remain unpublished. As stated in the introduction, it is significant to restudy her finds in museums and other institutions, not only because it is not possible to make such excellent collections in the field anymore, but also because one can obtain information which she did not publish. In particular, new ideas about how Neolithic stone tools were made and used, and how certain types of Neolithic stone tools have developed can be gained through carefully noting small details of the tools and sorting their various forms. A further study on old collections will provide fresh insights into the prehistory of the Fayum.

Acknowledgements

I would like to thank all of the staff of the Department of Ancient Egypt and Sudan in the British Museum, the Petrie Museum of Egyptian Archaeology, and the UCL Institute of Archaeology for accommodating my research on Gertrude Caton-Thompson's Fayum lithic collection. I am grateful to the Royal Anthropological Institute for granting me permission to reproduce part of several plates in *The Desert Fayum* for this article. My research based at the UCL Institute of Archaeology was made possible by the Marie Curie postdoctoral fellowship of the Gerda Henkel Foundation's M4HUMAN Programme (file number: AZ45/EU/12). I sincerely appreciate their support.

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