


# Beyond the Most Obviously Interesting

## Aims and Methods in Documenting and Processing Scarabs

Alexander Ilin-Tomich,\* Johannes Gutenberg University Mainz 

Vanessa Boschloos, Ghent University 

### *Abstract*

Publications of scarab finds from excavations in Egypt and beyond sometimes miss the level of detail required to address the research questions looming over modern scarab studies. The paper calls for more consideration.

## 1 Scarab studies and scarab documentation

Scarab-shaped seal amulets are small in size and complex in shape and details. They emerged as an omnipresent category of small finds in Egypt before spreading through much of the Mediterranean over time. Albeit ubiquitous, scarabs usually come in small numbers in almost every single excavation. Given that scarab studies are a marginal, not to say esoteric, subfield of Egyptian and Western Asian archaeology, the primary documentation and processing of scarab finds is often performed without considering the full potential research value of these objects.

Since the late 19<sup>th</sup> century, the interest in scarabs was mainly fuelled by the inscriptions on their undersides, as already expressed by William Matthew Flinders Petrie, who considered name scarabs as “the most obviously interesting class” of scarabs.<sup>1</sup> The 1970s and 1980s saw the rise of studies on decorative motifs on the undersides of uninscribed scarabs (so-called design scarabs), both as a means to dating<sup>2</sup> and as expressions of concepts important for scarab producers.<sup>3</sup> Other features, such as the rendering of a scarab’s back, head, and legs on longitudinal sides were considered insofar as they could be used to position a scarab within a chronological framework, often thought of as a temporal succession of rather broad scarab types. Several classification systems, developed in line with this approach,<sup>4</sup> cover only small segments of the scarab timeline.

---

\* Work supported by funding from the Fritz Thyssen Foundation. Many thanks are due to Ben Greet for sharing copies of his papers.

1 Petrie 1917: 1.

2 Tufnell 1975; Tufnell 1984.

3 Exemplarily: Keel 1977; Schroer 1989.

4 Overview: Keel 1995: 39–61.

It can thus be said that, up until recently, scarab studies took interest mainly in the inscription or decoration on the underside and in pigeonholing other sculptural features to classes defined with the aim of dating scarabs. These interests could be served well by the then common documentation and publication practices. In earlier scarab publications, the principal attention was paid to the underside, which could be reproduced by line art drawing or even photographically, whereas other sculptural features would be at best codenamed rather than reproduced.<sup>5</sup> Some early scarab documentation techniques used by Egyptologists were only applicable to the scarab base: rubbings, made with paper and pencil, wet paper, or tin-foil and toothbrush,<sup>6</sup> and impressions in diverse materials ranging from sealing wax to polymer modelling clay, the latter technique still practiced at museums and excavation sites until recently.

With time, scarab sides and backs were also increasingly reproduced, but the line art drawings, aimed at classifying scarabs, still prevailed.<sup>7</sup> In 1976, Erik Hornung and Elisabeth Staehelin made a strong point for reproducing all three scarab sides in larger than life macro photographs rather than drawings in their catalogue of the Basel scarab collection, illustrated by exemplary photos taken by Artur Brack.<sup>8</sup> The success of this approach was such, that this and similarly executed roughly contemporary scarab catalogues from Geneva by Irene Vodoz<sup>9</sup> and from Hannover by Irmtraut Munro<sup>10</sup> are often cited as representative catalogues of Egyptian scarabs in comparative studies;<sup>11</sup> although almost all scarabs in these catalogues come from the antiquities market and are of unknown provenance, the quality of reproductions make these publications more useful than most existing (contemporary) publications of scarabs from excavations.

Almost half a century after Hornung and Staehelin's book appeared, it must be stated that the high standard they have set has not yet become universally adopted in publications of scarab finds from excavations in Egypt and elsewhere, although now there are even more reasons to document scarabs thoroughly.

## 2 New research questions in scarab studies

A careful examination of stylistic and morphological features, material and technology can reveal much more information on the production and use of scarabs than previous approaches allowed. In recent years there is a growing number of studies moving from the traditional

5 Examples of this approach range from Petrie 1917 and 1925 to Rowe 1936, Vercoutter 1945, and Martin 1971, each utilizing a different classification system for sculptural features. Some of these publications occasionally reproduce scarab backs and sides, but never systematically.

6 Advocated by Petrie 1889: 11.

7 Among the most recent examples of this approach are Tufnell 1984, Mlinar 2004, Ben-Tor 2007.

8 Hornung/Staehelin 1976: 7–8.

9 Vodoz 1978.

10 Beste 1978–1979.

11 For example: Hölbl 1986: 170 n. 40; Ben-Tor 2017: 208.

agenda of scarab studies to fine-grained stylistic analyses focusing on small groups of objects sharing sets of common traits (regionality and workshop studies),<sup>12</sup> studies on stylistic imitations of particularly valued kinds of scarabs and emulations of historical scarab styles,<sup>13</sup> and examinations of production processes,<sup>14</sup> reworked scarabs, and use-wear patterns. These new analyses often rely on minute details, previously omitted in descriptions and reproductions of scarabs, including shapes of clypeus<sup>15</sup> and tail, perforation,<sup>16</sup> incision techniques, various discolorations, striations, and other defects. Thus, for example, definitions of scarab groups that can be tentatively associated with production units, can rely on concave head-sides, asymmetrical heads or the number of serrations on the clypeus<sup>17</sup> – details that cannot be studied through linear drawings, small or unsharp photographs.

This turn to the materiality and fine details cannot be sustained without better documentation practices, both in the field and in the museum settings.

### 3 Bringing documentation closer to research needs

Current practices in dealing with artefacts from archaeological excavations often make scarabs and other small finds virtually not rediscoverable after their initial processing by the excavators. Hence, it is particularly important to provide quality publications of scarabs from excavations, for their reproductions in excavation reports and final publications are likely to remain their only publications accessible to scholars. It would be unjust to our colleagues if we provide here specific examples of less useable scarab reproductions in recent publications of archaeological material. In each case, different factors may be at work that prevent researchers from providing scarab reproductions of sufficient quality, be it limitations set by editors on the number (and colour properties) of illustrations submitted for the publication, or unfavourable circumstances during the documentation process in the field. Summarily it may be said that some malpractices still frequently occur in publications, interfering with the rapid evolving field of scarab studies and new research questions, sometimes even hampering the study of the published scarab material and eventually causing a massive loss of information. It is not that examples of best practices and detailed discussions of practical scarab documentation<sup>18</sup> are not accessible, but we are forced to reiterate several points.

12 Mlinar 2004; Boschloos 2014; Boonstra 2019; Boonstra 2020; Ilin-Tomich 2023.

13 Keel and Mürger 2003; Boschloos 2016; Boschloos 2017: 164.

14 Ben-Marzouk et al. 2023; Solodenko-Vernovsky et al. 2023.

15 Ilin-Tomich 2023: 85.

16 Ilin-Tomich 2023: 143–146.

17 Examples taken from Ilin-Tomich 2023.

18 Keel 1995: 16–17. Most recently, Ben Greet has presented an elaborate description of a modern stamp seal photography method, Greet 2003: 286–288.

One obvious but still common shortcoming of some archaeological publications presenting scarabs is the lack of dimensions, whereas scarab size is one of the most widely used (even if not always correctly and meaningfully) criteria for their classification.<sup>19</sup>

Some publications offer only one or two views of the scarab: whereas the underside is always reproduced (except for blank scarabs), scarab backs or sides are still often omitted, as was common a hundred years ago, so that publications do not meet the minimum three-views-per-scarab standard (base, back and one of the longitudinal sides), set in the 1970s by Hornung and Staehelin's book.<sup>20</sup> In some cases, the two longitudinal sides of the same scarabs are demonstrably not identical, and some important features, such as the execution of the perforation, can be only discerned on the front and back sides of the scarab,<sup>21</sup> whence it is advisable to reproduce six views of each scarab, whenever possible.<sup>22</sup>

With the advent of the digital photography, there are no practical reasons to abstain from photographing scarabs; yet up to now some publications still only include drawings of scarabs (or reproduce some of the sides only as drawings). Such drawings are sometimes executed by archaeologists who are not scarab scholars and thus do not reproduce the diagnostic details that a scarab scholar expects to see on a scarab drawing. Yet even the best-informed scarab drawings remain subjective and can be misleading. One may compare the drawing of the only known scarab of king Sekheperenre (Second Intermediate Period, 14<sup>th</sup> dynasty) Ashmolean AN1935.100a in the book by Olga Tufnell and William Ward, who were leading scarab experts, with its photograph,<sup>23</sup> and see that the drawing misinterpreted cracks of the material on the back and in the corners of the head as features and overlooked actual features such as the horn and the lines running along the sides of the head, which indicate eyes.

Scarabs found in Egypt often retain at least remains of the original colour glazing, whereas those found in the Levant are mostly discoloured; hence, black and white photographs are not adequate for scarabs.

Even more importantly, scarabs are sculptures in miniature, and the finesse of scarab carvers excels the resolution of modern printing machines; hence, a great wealth of information about scarabs is lost when they are published at 1:1 scale or less. Scarab photographs should be larger than life, and best examples range from 2:1<sup>24</sup> to the splendid 3:1<sup>25</sup> scale.

The spread of digital point and shoot cameras and smartphones leaves a visible scar especially in preliminary archaeological reports that feature scarab finds. Scarabs, however, are not the easiest object to photograph and require at the least a tripod or a copy stand, adequate light and a camera able to produce close-up photographs (that is, in the general case, an interchange-

19 Keel 1995: 154–155.

20 Hornung/Staehelin 1976; for an advocacy of 3 views per scarab, see: Keel 1995: 16.

21 Ilin-Tomich 2023: 143–146. The flawed documentation of scarabs displaying two different sides was a problem addressed by Vanessa Boschloos in a talk given at the workshop held at the University of Zürich (9–10 February 2023) on 'Production, Distribution, and Groups in Stamp Seal Research: Old Problems, Innovative Solutions'.

22 So also Greet 2023: 286.

23 Tufnell 1984: pl. LXII (3465); Ilin-Tomich 2023: 145 fig. 95.

24 Keel 1995: 16–17.

25 As in Beste 1978–1979.

able lens camera fitted with a macro lens or another lens with a sufficiently small minimum focusing distance for the scarab to fill most of the shot). Beyond this basic equipment, more sophisticated techniques and devices can be successfully employed for documenting scarabs, depending on available resources. Focus stacking can drastically increase the depth of field of scarab photographs.<sup>26</sup> Compelling results can be attained with 3D<sup>27</sup> and 2.5D-imaging.<sup>28</sup>

## 4 Outlook

Scarabs are in most cases of subordinate importance for interpreting findings at a site, because scarab evidence is only telling when analysed in great numbers. The pitfalls of drawing conclusions from single scarab finds have been highlighted many times.<sup>29</sup> Hence, these are most often scarab scholars outside the excavation teams that require published scarab material for their analyses. This short publication encourages our colleagues in the archaeological community to question oneself: how efficient are published field reports and final publications in making the excavated scarab material accessible to scarab scholars? Are recent research questions in scarab studies taken into consideration when choosing how to process, document, and publish excavated scarabs?

## References

- Ben-Marzouk et al. 2023: Ben-Marzouk, N./Biermann, B./Fahrni, R./Greet, B./Höflmayer, F./Ranzer, N./Streit, K./Münger, S., “On vultures’ wings...”: a Recent Find from Tel Lachish (Israel) Displaying a Vulture, a Caprid, a Snake and a Twig, in: Münger, S./Rahn, N./Wyssmann, P. (eds), „Trinkt von dem Wein, den ich mischte!“ Festschrift für Silvia Schroer zum 65. Geburtstag, *Orbis Biblicus et Orientalis* 303, Leuven 2023, 50–69.
- Ben-Tor 2007: Ben-Tor, D., *Scarabs, Chronology, and Interconnections: Egypt and Palestine in the Second Intermediate Period*, *Orbis Biblicus et Orientalis Series Archaeologica* 27, Fribourg/Göttingen 2007.
- Ben-Tor 2017: Ben-Tor, D., *Ramesside Scarabs Simulating Middle Bronze Age Canaanite Prototypes: Canaanite or Egyptian?* in: *Ägypten und Levante* 27, 2017, 195–217.

<sup>26</sup> Greet 2003: 287.

<sup>27</sup> MacDonald/Hess 2023.

<sup>28</sup> Boschloos/Hameeuw/Van Quickelberghe 2014.

<sup>29</sup> On scarabs providing only a terminus post quem date for the contexts in which they are found and the resulting unreliability of single scarabs as dating criteria, see, for example, Cooney 2008; Levy/Piasetzky/Finkelstein 2020.

- Beste 1978–1979: Beste, I., *Skarabäen*, Vol. 1–3, *Corpus antiquitatum Aegyptiacarum: Loseblatt-Katalog ägyptischer Altertümer*. Kestner-Museum, Hannover 1–3, Mainz 1978–1979.
- Boonstra 2019: Boonstra, S. L., *Scarab and Seal Amulet Production in the early Eighteenth Dynasty: an Analysis of the Materials, Technology, and Surface Characteristics to Determine Seal Amulet Workshops*, University of Birmingham Ph.D. 2019, <http://etheses.bham.ac.uk/id/eprint/9730> [26.02.2024].
- Boonstra 2020: Boonstra, S. L., *Finding Scarab Amulet Workshops in Ancient Egypt and Beyond: “typological” vs. “material” Workshops*, in: Hodgkinson, A. K./Tvetmarken, C. L. (eds), *Approaches to the analysis of production activity at archaeological sites*, Oxford 2020, 65–83.
- Boschloos 2014: Boschloos, V., *Tyre, Achziv and Kition: Evidence for a Phoenician Iron Age II Scarab Seal Workshop*, in: Lohwasser, A. (ed.), *Skarabäen des 1. Jahrtausends: ein Workshop in Münster am 27. Oktober 2012*, *Orbis Biblicus et Orientalis* 269, Fribourg 2014, 5–36.
- Boschloos 2016: Boschloos, V., *Phoenician Identity through Retro Glyptic. Egyptian Pseudo-inscriptions and the neo-‘Hyksos’ Style on Iron Age II–III Phoenician and Hebrew Seals*, in: Garbati, G./Pedrazzi, T. (eds), *Transformations and Crisis in the Mediterranean: “Identity” and Interculturality in the Levant and Phoenician West during the 8th–5th Centuries BCE*, Rome 2016, 43–59.
- Boschloos 2017: Boschloos, V., *Traded, Copied, and Kept: the Ubiquitous Appeal of Scarabs*, in: Wilkinson, R. H./Creasman, P. P. (eds), *Pharaoh’s Land and Beyond: Ancient Egypt and its Neighbors*, New York 2017, 149–164.
- Boschloos/Hameeuw/VanQuickelberghe 2014: Boschloos, V./Hameeuw, H./VanQuickelberghe, E., *Scarabaei chanaanici iovanienses. Middle Bronze Age “Hyksos” Seal-amulets in the University Museums of Leuven and Louvain-la-Neuve (Belgium)*, in: *Res Antiquae* 11, 2014, 1–8.
- Cooney 2008: Cooney, K. M., in: Wendrich, W./Dieleman, J./Frood, E./Baines, J. (eds), *UCLA Encyclopedia of Egyptology*, Los Angeles 2008, s. v. *Scarab*, <http://escholarship.org/uc/item/13v7v5gd> [16.02.2024].
- Greet 2023: Greet, B., *New Precedents and Insights from Stamp Seal Photography*, in: *Near Eastern Archaeology* 86, 2023, 284–290.
- Hölbl 1986: Hölbl, G., *Ägyptisches Kulturgut im phönikischen und punischen Sardinien, Études préliminaires aux religions orientales dans l’Empire Romain* 102, Leiden 1986.
- Hornung/Staehelin 1976: Hornung, E./Staehelin, E., *Skarabäen und andere Siegelamulette aus Basler Sammlungen*, Mainz 1976.
- Ilin-Tomich 2023: Ilin-Tomich, A., *Egyptian Name Scarabs from the 12<sup>th</sup> to the 15<sup>th</sup> Dynasty: Geography and Chronology of Production, Contributions to the Archaeology of Egypt, Nubia and the Levant* 16, Wiesbaden 2023.
- Keel 1977: Keel, O., *Der Bogen als Herrschaftssymbol: einige unveröffentlichte Skarabäen aus Ägypten und Israel zum Thema “Jagd und Krieg”*, in: *Zeitschrift des Deutschen Palästina-Vereins* 93, 1977, 141–177.

- Keel 1995: Keel, O., *Corpus der Stempelsiegel-Amulette aus Palästina/Israel. Von den Anfängen bis zur Perserzeit. Einleitung*, Orbis Biblicus et Orientalis Series Archaeologica 10, Fribourg/Göttingen 1995.
- Keel/Münger 2003: Keel, O./Münger, S., Die Lotos-Kopfschild-Gruppe. Neo-Hyksos Skarabäen der Eisenzeit IIB (ca. 900–700 v. u. Z.), in: Fritz, V./Gijsbert den Hertog, C./Hübner, U./Münger, S. (eds), *Saxa loquentur: Studien zur Archäologie Palästinas/Israels: Festschrift für Volkmar Fritz zum 65. Geburtstag*, *Alter Orient und Altes Testament* 302, Münster 2003, 127–157.
- Levy/Piasetzky/Finkelstein 2020: Levy, E./Piasetzky, E./Finkelstein, I., Strata, Scarabs and Synchronisms: a Framework for Synchronizing Strata and Artifacts, in: *Journal of Computer Applications in Archaeology* 3, 2020, 1–17.
- MacDonald/Hess 2023: MacDonald, L./Hess, M., 3D Imaging, Colour and Specularity of an Egyptian Scarab, in: Guerra, M. F./Martinón-Torres, M./Quirke, S. (eds), *Ancient Egyptian Gold. Archaeology and Science in Jewellery (3500–1000 BC)*, Cambridge 2023, 165–173.
- Martin 1971: Martin, G. T., *Egyptian Administrative and Private-name Seals Principally of the Middle Kingdom and Second Intermediate Period*, Oxford 1971.
- Mlinar 2004: Mlinar, C., The Scarab Workshops of Tell el-Daba, in: Bietak, M./Czerny, E. (eds), *Scarabs of the Second Millennium BC from Egypt, Nubia, Crete and the Levant. Chronological and Historical Implications. Papers of a Symposium (Vienna, 10th–13th of January 2002)*, *Contributions to the Chronology of the Eastern Mediterranean* 7, Vienna 2004, 107–140.
- Petrie 1889: Petrie, W. M. F., *Historical Scarabs: a Series of Drawings from the Principal Collections*, London 1889.
- Petrie 1917: Petrie, W. M. F., *Scarabs and Cylinders with Names: Illustrated by the Egyptian Collection in University College, London*, British School of Archaeology in Egypt and Egyptian Research Account [29], London 1917.
- Petrie 1925: Petrie, W. M. F., *Buttons and Design Scarabs*, British School of Archaeology in Egypt Publications 38, London 1925.
- Rowe 1936: Rowe, A., *A Catalogue of Egyptian Scarabs, Scaraboids, Seals and Amulets in the Palestine Archaeological Museum, Le Caire* 1936.
- Schroer 1989: Schroer, S., Die Göttin auf den Stempelsiegeln aus Palästina/Israel, in: Keel, O./Keel-Leu, H./Schroer, S. (eds), *Studien zu den Stempelsiegeln aus Palästina/Israel*, vol. 2, Fribourg/Göttingen 1989, 89–207.
- Solodenko-Vernovsky et al. 2023: Solodenko-Vernovsky, N./Ranzer, N./Kuklin, A./Meyerson, I./Gasin, E./Koch, I., Leave your Stamp: Reconstruction of the Scarab Production Chain, in: *EXARC Journal* 2023/1, 2023. <https://exarc.net/ark:/88735/10674> [16.02.2024].
- Tufnell 1975: Tufnell, O., Seal Impressions from Kahûn Town and Uronarti Fort: a Comparison, in: *Journal of Egyptian Archaeology* 61, 1975, 67–101.
- Tufnell 1984: Tufnell, O., Scarab Seals and Their Contribution to History in the early Second Millennium B.C, *Studies on Scarab Seals* 2, Warminster 1984.

Vercoutter 1945: Vercoutter, J., Les objets égyptiens et égyptisants du mobilier funéraire carthaginois, Paris 1945.

Vodoz 1978: Vodoz, I., Les scarabées gravés du Musée d'Art et d'Histoire de Genève, *Aegyptiaca Helvetica* 6, Genève 1978.