

Piers Litherland

**The positioning and construction of royal monuments in the Royal Necropoleis at Thebes**

The Valley of the Kings was chosen for a combination of reasons: dynastic history, defined, accessible and easily guarded location; an enclosed space capable of accommodating numerous burials; burial in the body of Hathor; Hathor's body and dual role as consort of both Re and Amun allowed the separation of burials (the night journey of Re) and memorial temples (Amun). Water was all-important in choosing the locations of early kings' tombs. The well chamber was an inevitable result because there was rain in the XVIIIth dynasty. The geology of the Valley was learned – and forgotten – by trial and error of which KV39 and KV20 provide early examples. Therefore, the design of certain tombs was dictated by geology and not by religious dogma. KV43 and KV57 are prime examples of this. Royal consorts were buried in watercourses but in the case of the cliff-tombs this seems to have been for practical reasons since the ramps created by water flows were used to cut these elevated tombs. The consorts' tombs at WB1 offer prima facie evidence of existing bands of rock being used to facilitate design, but also of design having primacy over the rock when required. As with the Royal Tomb at Amarna the poor quality rock in the WB1 tombs was improved with plaster: pure gypsum in some places and gypsum mixed with mud in others. As in the Valley of the Kings (KV46) and Wadi D (ape burials) the WB1 site provides examples of the main tool used alongside chisels: the flint pounder. Different masons' marks offer indications of date (red before Amenhotep III, black thereafter) and of particular rock-cutting techniques. These raise questions about the date of KV46. Taken together with certain architectural features, masons' marks and workings offer insights into particular generations of workmen.

Peter F. Dorman

**Social Imperatives in the Placement and Construction of Private Tombs in Ancient Egypt**

This paper considers various social and physical parameters that seem to have been primarily instrumental in the development of cemeteries and individual tombs in Ancient Egypt, but more particularly in private tombs at Thebes. Beginning with general observations about the relationship between social expectations, cultural and religious beliefs, and mortuary landscape, the presentation dwells primarily on the New Kingdom cemeteries of western Thebes, which is the focus of much of my past research, but it will include parallels or contrasts to cemeteries at other sites and other chronological periods as well; including Giza, Middle Egypt, Abydos, and Elkab. A number of general issues will be addressed: how and where did cemeteries arise at specific locations, and what may have been the determining factors for their development? To what extent can we say that cemeteries were laid out on the basis of central planning? Were permissions or royal largesse required for the selection of particular tomb locations? In a mortuary landscape, did tombs tend to cluster closely together, or were they more widespread according to other dictates or personal preferences? What in fact is the function of a tomb in meeting social norms and expectations in Ancient Egypt, for both the living and the dead? Can we conclude that the placement of individual tombs reflects the status of tomb owners? To what extent was personal choice or preference critical to the physical layout and decoration of the burial complex? What limitations were implicitly imposed on tomb construction by local topographical and geological factors? A number of these questions are inevitably argumentative and several will not have conclusive answers, but it is hoped that they will provide food for thought as well as concrete material for debate.

Dimitri Laboury, Hugues Tavier, Stéphane Polis & Alexis den Doncker

**Practicalities of Elite Theban Tombs Making (in the New Kingdom)**

Egyptian Archaeology provides us with two kinds or sets of data to investigate how private tombs were practically made in the Theban Necropolis during the New Kingdom: the monuments themselves, of course; but also, a rather sizable quantity of administrative texts (more than a hundred preserved documents, published and unpublished, are directly relevant). A systematic survey of this textual corpus allows us to suggest definitions for problematic lexemes referring to various steps of the tomb production process (such as S(a)d, Aaa, dg(A), xma, etc.) and to specify the (chrono-)logical sequence of the actions referred to, investigating which activities were taking place at the same time, how the work was distributed between various categories of workmen or trades (such as the Xrtj.w, xma, sS-qd or sS), in which section of the tomb the work was conducted, and how its output was recorded and measured (with units of length or of volume: mH, dnj, nbj, tri.t, etc.). This emic approach can then be compared to the archaeological and material evidence of the tombs themselves. Such a combined analysis, complemented by an experimental dimension, certainly leads to some sort of a pattern or general — ideal — procedure but, maybe more importantly, also reveals a high degree of variability from case to case, according to different circumstances, including purely individual factors. It allows us as well to gauge the time-span needed to produce an excavated and decorated elite tomb of the Theban type, from a few months for the smallest to many years for the most ambitious ones, with a rather clear evolution in the invested economical means through time (including within the 18<sup>th</sup> dynasty). The different types of data converge to demonstrate the high level of specialization and expertise of the various practitioners involved in the making of such tombs, with consequences on their availability, employability and identity. At the end of the tomb making process, the painters —also responsible for the composition and so-called preliminary “drawings” of sculpted decoration — were experts in the art and technology of painting, but also in iconographic matters, showing a great ability in designing complete scenes with minimal information or indication. In this respect, the study of the *Vorlagen* material relating to their work sheds light on the range of freedom they could enjoy, as well as on differences to take into account between textual and iconographic production for the decoration of those tombs.

Betsy Bryan

**The practicalities of construction**

The chapter that I am planning will cover a number of topics relating to processes of tomb creation. In order to synthesize topics such as quarrying, personnel organization, logistics, and equipment for tomb construction, preparation, and decoration, this workshop will be critical in suggesting parameters of chronology, size, and patron types. Input from participants will be gratefully received in order to make sure that the chapter most usefully fulfills its role in the monograph. Currently the chapter is envisaged to heavily privilege Thebes, due to the author's experiential background. However, in particular regarding quarrying and alternative construction forms, other sites will be important (Sakkara, Amarna, etc). Syntheses of studies of both the archaeological contexts of tombs – finished and unfinished – and various types of textual data will be presented and considered. Case studies from unfinished or damaged tombs may be included, along with ostraca as well as inscriptions and markings from quarrying and/or tombs. An attempt will be made in the presentation to suggest how to limit the topics, with the hope that participants will offer more views. A sample bibliography will also be shared in the presentation, again with the expressed wish for other suggestions from those present.

Angus Graham

**From quarry to tomb in the New Kingdom: transport infrastructure and logistics**

I will present some of my thoughts on the delivery of non-local material for the tomb by water looking at the possible size and draught of boats required to deliver perhaps the heaviest single load for a tomb, the sarcophagus. The draught of the boats combined with an understanding of the annual cycle of the Nile allows us to consider whether or not such deliveries could take place year round. For the specific case of Thebes, I will introduce our recent finding of a secondary channel close to the West Bank desert edge that would have aided such deliveries (Toonen et al. 2017). Other areas that will be touched upon in the presentation concern the question of whether decoration was carried out on-site at the quarry or at/close to the tomb; and who was responsible for the transportation.

Anna Stevens

**Beyond the worksite: daily life and living conditions for tomb workers**

This paper expands our view from the tomb itself to the network of settlements and facilities that supported tomb workers' communities. The New Kingdom workers' villages of Deir el-Medina and Amarna, amongst the best-preserved settlements of any kind from pharaonic Egypt, provide a launching point for discussion. These villages were only part, however, of a broader network of facilities and places that supported workers and their labour, including huts close to tombs and smaller settlement and activity sites such as the Amarna Stone Village. This talk will consider how these spaces interconnected, and related to local landscape, to create a framework supporting tomb work on behalf of the state and its elites. It addresses the practicalities of setting up, provisioning and keeping workers' settlements running, and of connecting workers to tomb sites. It also considers the forces that modified these networks over time, whether changing political circumstances, religious revolution or internal agency, as workers and their families shaped their own homes, burial grounds and communities.

Anne Austin

**Accidents, injuries, and care while working on the Royal Tomb**

While working in the Valley of the Kings, the Deir el-Medina workforce had to constantly negotiate the potential dangers and commonplace injuries that came along with cutting and decorating the royal tombs. These injuries not only took their toll on individual workers, but also impacted the productivity of the workforce which was at times closely monitored. They therefore needed some form of care, provisions, and treatments to not only protect and improve the health of the workmen, but also to ensure their productivity. This chapter evaluates osteological and textual information about the injuries Deir el-Medina workmen experienced while working on the royal tombs as well as the kinds of care that were (or in some cases were not) provided to manage their welfare. Three disparate sources document the kinds of injuries that came along with tomb construction in the Valley of the Kings: (1) Traumatic injuries documented in the human remains recovered from TT290, (2) artistic depictions of workmen's injuries in TT217, and (3) absence records documenting specific injuries and the resulting duration of absence. These various sources tell us about some of the traumatic experiences that impacted workmen while constructing the tomb. Conversely, personal letters, ration texts, absence records, and medical texts tell us about how specific injuries were treated. By evaluating both workmen's injuries and their care, it is possible to determine some of the systematic ways the workforce dealt with injuries in order to maintain productivity. Simultaneously, examples of injury with little or no documented evidence for care may tell us just as much about the neglect for worker's health, especially when it did not slow down progress on the tomb. For example, there is little to no evidence for care related to joint injuries despite the presence of osteoarthritis at the site. Was such care so commonplace it did not need to be recorded or was it accepted as the kind of regular occupational stress the workmen were expected to endure?

Nico Staring

**New Kingdom tomb reuse for burial: a view from the Memphite necropolis**

The custom of tomb reuse in Ancient Egypt was a widespread. While in theory the offering cult was meant to be performed in perpetuity, the material evidence usually paints a rather different image. Nearly all tombs excavated to date show signs of reuse. Burials of the Late Period and Third Intermediate Period clearly left their mark on earlier tombs. As time passes, tomb owners disappear from memory; tombs cease to be visited and maintained, and eventually their locations might get lost. In these circumstances, it is easy to understand the motivations for later reuse. But what about the reuse of New Kingdom tombs during the New Kingdom? How can this form of reuse be explained? Did the administration provide any 'guidelines'? And how widespread was this practice? Despite the common practice of reuse, the number of holistic studies into this practice is rather scarce. Of course every tomb report (nowadays) pays attention to evidence for later use, but these usually focus on single monuments. In the last few decennia, a few scholars have aimed to address the issue of tomb reuse. As far as the New Kingdom is concerned, these studies focus exclusively on the Theban necropolis. In this paper, I will focus on the Memphite New Kingdom necropolis. In so doing, I hope to be able to assess how practices in the north compare to those already observed in the south. The main questions will therefore be; to what extent is New Kingdom tomb-building a question of the reuse and recycling of earlier structures? What forms do examples of reuse take? What is the extent of change and adaptation of earlier structures, e.g. in decoration, architecture, and inscriptions? What factors influence the decision to reuse an earlier tomb? After a short assessment of earlier (Theban) literature on the subject, I will continue to focus on the Memphite data. This will take the form of a survey of case studies, including: New Kingdom reuse of Old Kingdom tombs, reuse of New Kingdom tombs for burial during the New Kingdom, so-called usurpation: iconographic manifestations, 'tomb sharing', the case of unfinished tombs, and architectural changes to facilitate reuse. Following this survey, I will draw together the findings in a final, comprehensive and integrative conclusion, and propose lines of inquiry for further study.

Daniel Polz

**On the genesis of a New Kingdom necropolis at Thebes**

In my contribution, I will focus on specific questions in connection with the genesis of a necropolis. The point of departure will be 'Area H' in Dra Abu el-Naga/North. This area comprises a large number of tombs of various architectural forms (simple graves, shaft tombs, small single room rock cut tomb chapels, Saff-tombs of various dimensions, etc.). Most of these tombs were constructed in close vicinity of the mud brick pyramid of king Nub-Kheper-Ra Intef of the late 17<sup>th</sup> dynasty. However, already before the ruler had his pyramid erected in this place, there existed a cemetery of late 12<sup>th</sup> / early 13<sup>th</sup> dynasty rock cut shaft tombs. The tombs and other architectural features in 'Area H' were built over a time span of more than 1000 years, which makes the area an ideal starting point for tracing the history of a part of the Theban Necropolis. The first part of the contribution will centre on the origins and early architectural development of the New Kingdom Theban Tomb in general. It will be argued that the predominate T-shaped Theban Tombs derive directly from the Saff-tombs of the 11<sup>th</sup> and 12<sup>th</sup> dynasties, including additional architectural features. Two cases in 'Area H' will be presented which support the interpretation that Saff-tombs were erected soon after the beginning of the 18<sup>th</sup> dynasty, or even shortly before. The second part of the contribution will address a number of basic questions on the internal history and development of a necropolis, utilizing 'Area H' in Dra Abu el-Naga as a case study. These questions include: Why were places selected for the construction of tombs in the first place? When, why, and under what social, legal, administrative, and economic preconditions did individuals of later generations choose the same place/s for their tomb constructions or interments? What measures were taken in case of already existing structures? Were these incorporated, neglected, or destroyed, in order to create space for the new interments? In other words: An attempt will be made to trace the *use life* of a necropolis.

Andrea Loprieno-Gnirs

**Planning and Construction of a Theban Tomb Cluster**

Much has been said about Egyptian tomb types, typologies, and room functions based on the ground plan of tombs and the use of their walls for unrolling religious, cultural, and social elite ideas. Tomb publications often summarize construction procedures and phases, but mostly from the perspective of architecture and less in order to understand practices of stone-cutting and stonemasonry more thoroughly. Introductions into rock tomb building are provided in works on ancient Egyptian architecture in general; they contain information on tomb building techniques and tools, but they are rarely exhaustive and related to a precise archaeological context. In the archaeological project *Life Histories of Theban Tombs* (LHTT) housed at the University of Basel, focus is laid on the process of tomb construction itself and the techniques, procedures, and sequences involved, and attention is paid to the diversity of natural settings, built surroundings, and traces of human experiences and skills. Although certain procedures in tomb building can be universalized within a certain time frame, the way in which they were realized varies in each individual case, reflected in the tomb's physical biography, which again left its morphological imprint on the surrounding landscape. Since 2015, LHTT conducts scientific investigations of Middle – Late Bronze Age Theban tomb construction on the South-West hillside of Sheikh 'Abd el-Qurna in a group of mainly unfinished rock-cut tombs including big-scale tomb structures TT95 and TT84. In this workshop, I will discuss the influence of geological features on cutting techniques and procedures, the importance of tool marks, in particular, as personal markers, the implications and consequences of constructing in bad rock mass, the initialization of rock tomb building and the emergence of the 18<sup>th</sup> Dynasty micro-cemetery, and finally changes of building plans in tomb construction.