

Funerary Models vs. Wall Scenes: A Study of Agricultural Pursuits and Food Production to the End of the Middle Kingdom

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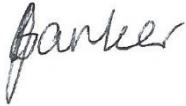
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Declaration

I, Georgia Barker, certify that this thesis has not been submitted for a higher degree to any other university or institution.

A handwritten signature in cursive script, appearing to read 'Barker', written in dark ink.

Date: 10 October 2016

Summary of Thesis

Funerary models and wall scenes served as important means of providing for the deceased in the afterlife and were accordingly included in ancient Egyptian tombs. It was the aim of this project to further understand the relationship between the two artistic media and their purpose in the tomb. This was achieved through a detailed study of both models and wall scenes from the sites of Meir, El-Bersha and Beni Hassan during the late Old Kingdom to the end of the Middle Kingdom. Examples were collected that represent the themes of agricultural pursuits and food production as these were commonly included in the artistic repertoire, serving as a source of eternal nourishment for the deceased. Careful analysis has revealed that each medium was bound by specific technical limitations that impacted the themes represented. Overall, the models give greater emphasis to food production, whereas the wall scenes depict many of the stages involved in both the agricultural cycle and food manufacture. Both media were able to serve the deceased in the afterlife and each tomb owner was able to choose one or both types of design according to his purposes and means.

Table of Contents

List of Plates	ix
Acknowledgements	xiii
Introduction.....	1
Agricultural Pursuits	11
Ploughing and Sowing	13
Harvesting	21
Transportation of the Harvest.....	23
Threshing and Winnowing	29
The Granary.....	31
Food Production.....	41
Preparing the Dough.....	43
Baking Bread.....	51
Straining Mash	57
Storing Beer.....	65
Conclusion	69
Bibliography	73
Plates	83

List of Plates

Agricultural Pursuits

Meir

1. Model from the tomb of Niankh-Pepy-Kem (A1), Dynasty 6
2. Model from unknown tomb, Dynasty 12
3. Model from unknown tomb, Dynasty 12
4. South wall of the burial chamber of Niankh-Pepy-Kem (A1), Dynasty 6
5. West wall of the tomb of Pepyankh the Middle (D2), Dynasty 6
6. West wall of the tomb of Pepyankh the Middle (D2), Dynasty 6
7. South wall of the burial chamber of Pepyankh the Middle (D2), Dynasty 6
8. South wall of the burial chamber of Hewetiaah (D2), Dynasty 6
9. East wall of the tomb of Pepyankh the Black (A2), Dynasty 6
10. South wall of the tomb of Pepyankh the Black (A2), Dynasty 6
11. North wall of the tomb of Senbi (B1), Dynasty 12
12. East wall of the tomb of Ukh-hotep (B2), Dynasty 12

El-Bersha

13. Model from the tomb of Djehuty-nakht (No. 10A), Dynasty 11
14. Model from the tomb of Djehuty-nakht (No. 10A), Dynasty 11
15. Model from the tomb of Djehuty-nakht (No. 10A), Dynasty 11
16. Model from the tomb of Djehuty-nakht (No. 10A), Dynasty 11
17. Model from the tomb of Djehuty-nakht (No. 10A), Dynasty 11
18. Model from the tomb of Sepi III, Dynasty 11
19. Front wall of the tomb of Ahanakht (No. 5), Dynasty 11
20. Fragment of a wall scene from the tomb of Nehri I (No. 19), Dynasty 12
21. Right-hand wall of the tomb of Djehuty-nakht (No. 1), Dynasty 12
22. Right-hand wall of the tomb of Djehuty-hotep (No. 2), Dynasty 12

Beni Hassan

23. Model from the tomb of Ipi (707 Lower Cemetery (LC)), First Intermediate Period
24. Model from the tomb of Intef (1 LC), Dynasty 11
25. Model from the tomb of Nefery (116 LC), Dynasty 12
26. Model from the tomb of Nefwa (186 LC), Dynasty 12

27. Model from the tomb of Khety (366 LC), Dynasty 12
28. Model from the tomb of Khety-aa (575 LC), Dynasty 12
29. Model from unknown tomb, Dynasty 12
30. Model from the tomb (260 LC), Middle Kingdom
31. Model from the tomb of Khnum-Nakhti and Netjer-Nakhti (585 LC), Middle Kingdom
32. Model from the tomb of Khnum-Nakhti and Netjer-Nakhti (585 LC), Middle Kingdom
33. Model from the tomb of Sobek-hotepi (723 LC), Middle Kingdom
34. South wall of the tomb of Baqet I (29 Upper Cemetery (UC)), Dynasty 11
35. South wall of the tomb of Khety (17 UC), Dynasty 11
36. West wall of the tomb of Amenemhat (2 UC), Dynasty 12
37. North wall of the tomb of Amenemhat (2 UC), Dynasty 12
38. West wall of the tomb of Khnumhotep II (3 UC), Dynasty 12
39. West wall of the tomb of Khnumhotep II (3 UC), Dynasty 12

Food Production

Meir

40. Model from the tomb of Niankh-Pepy-Kem (A1), Dynasty 6
41. Model from the tomb of Niankh-Pepy-Kem (A1), Dynasty 6
42. Model from the tomb of Niankh-Pepy-Kem (A1), Dynasty 6
43. Model from the tomb of Niankh-Pepy-Kem (A1), Dynasty 6
44. Model from the tomb of Niankh-Pepy-Kem (A1), Dynasty 6
45. Model from the tomb of Niankh-Pepy-Kem (A1), Dynasty 6
46. Model from the tomb of Niankh-Pepy-Kem (A1), Dynasty 6
47. Model from the tomb of Niankh-Pepy-Kem (A1), Dynasty 6
48. Model from the tomb of Niankh-Pepy-Kem (A1), Dynasty 6
49. Model from the tomb of Niankh-Pepy-Kem (A1), Dynasty 6
50. Model from the tomb of Niankh-Pepy-Kem (A1), Dynasty 6
51. Model from unknown tomb, Dynasty 12
52. Model from unknown tomb, Dynasty 12
53. East wall of the tomb of Pepi (D1), Dynasty 6
54. West wall of the tomb of Meniu (E1), Dynasty 6
55. West wall of the tomb of Pepyankh the Middle (D2), Dynasty 6

El-Bersha

- 56. Model from the tomb of Henu (Shaft 16H50/1C), First Intermediate Period
- 57. Model from the tomb of Henu (Shaft 16H50/1C), First Intermediate Period
- 58. Model from the tomb of Henu (Shaft 16H50/1C), First Intermediate Period
- 59. Model from the tomb of Djehuty-nakht (No. 10A), Dynasty 11
- 60. Model from the tomb of Djehuty-nakht (No. 10A), Dynasty 11
- 61. Model from unknown tomb, Dynasty 12
- 62. Model from unknown tomb, Middle Kingdom
- 63. Right-hand wall of the tomb of Djehuty-hotep (No. 2), Dynasty 12

Beni Hassan

- 64. Model from the tomb of Ipi (707 LC), First Intermediate Period
- 65. Model from the tomb of Intef (1 LC), Dynasty 11
- 66. Model from the tomb of Intef (1 LC), Dynasty 11
- 67. Model from the tomb of Nefery (116 LC), Dynasty 12
- 68. Model from the tomb of Nefery (116 LC), Dynasty 12
- 69. Model from the tomb of Nefwa (186 LC), Dynasty 12
- 70. Model from the tomb of Za'ay (275 LC), Dynasty 12
- 71. Model from the tomb of Khety (366 LC), Dynasty 12
- 72. Model from the tomb of Senbu (487 LC), Dynasty 12
- 73. Model from the tomb of Khety-aa (575 LC), Dynasty 12
- 74. Model from unknown tomb, Dynasty 12
- 75. Model from unknown tomb, Dynasty 12
- 76. Model from unknown tomb, Dynasty 12
- 77. Model from the tomb of Khnum-Nakhti and Netjer-Nakhti (585 LC), Middle Kingdom
- 78. Model from the tomb of Khnum-Nakhti and Netjer-Nakhti (585 LC), Middle Kingdom
- 79. Model from the tomb of Sobek-hotepi (723 LC), Middle Kingdom
- 80. South wall of the tomb of Baqet III (15 UC), Dynasty 11
- 81. West wall of the tomb of Khety (17 UC), Dynasty 11
- 82. West wall of the tomb of Amenemhat (2 UC), Dynasty 12
- 83. West wall of the tomb of Khnumhotep II (3 UC), Dynasty 12

Additional Sources

- 84. Statue of Nikare from Saqqara, Dynasty 5
- 85. Model from the tomb of Meketre at Thebes, Dynasty 12
- 86. North wall of the tomb of Remni at Saqqara, Dynasty 6
- 87. North wall of the tomb of Niankh-Pepy-Kem at Meir, Dynasty 6
- 88. East wall of the tomb of Niankh-Pepy-Kem at Meir, Dynasty 6
- 89. East wall of the tomb of Ka-hep/Tjeti-iker at El-Hawawish, Dynasty 6

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Introduction

In order to obtain an eternal existence in the afterlife, the ancient Egyptian was required to prepare a tomb equipped with the necessary resources. It was essential that the tomb could house the body of the deceased and provide him with an eternal source of nourishment. Each role was largely designated to a separate area of the tomb: the substructure and superstructure respectively.¹ One of the major ways in which the deceased was sustained in the afterlife was through including artistic representations in his tomb. These artworks came in both two- and three-dimensional forms, namely wall scenes and funerary models. Both of these media depicted servants carrying out tasks that would benefit the deceased's existence in the afterlife.² The ancient Egyptian believed that to speak, write or draw something gave it existence, enabling artistic representations to come to life and serve the deceased for eternity.³ It is commonly stated amongst scholarship that the two media served this same purpose in the tomb, but very little attention has been given to understanding the relationship between them. This study has undertaken a detailed comparison and analysis of the two media in order to determine the advantages and disadvantages of each type of design and to further understand how these features impacted the themes that could be represented.

Wall scenes consist of two-dimensional artworks painted or carved in relief onto the walls of the tomb. Although some are found in the burial chamber, most were located in the tomb-chapel. The scenes commonly represented have been divided by Kanawati into seven main categories: the tomb owner and his family; rural life; fishing, fowling and the desert hunt; professions and industries; sport and recreation; funerary rites; and the afterlife.⁴ While the offering-table scene was the first to be included in tomb decoration, scenes of daily life appeared later in the 4th Dynasty.⁵ As no two tombs are identical in decoration, it appears that

¹ S. D'Auria, P. Lacovara & C.H. Roehrig, *Mummies and Magic: The Funerary Arts of Ancient Egypt* (Boston, 1988), p. 20.

² A.M.J. Tooley, *Egyptian Models and Scenes* (Princes Risborough, 1995), p. 20.; G. Robins, *The Art of Ancient Egypt*, revised edition, (Cambridge, 2008), pp. 20, 74-75.

³ A.J. Spencer, *Death in Ancient Egypt* (Harmondsworth, 1982), pp. 69-70.; A. Dodson & S. Ikram, *The Tomb in Ancient Egypt: Royal and Private Sepulchres from the Early Dynastic Period to the Romans* (London, 2008), p. 77.

⁴ N. Kanawati, *The Tomb and Beyond: Burial Customs of Egyptian Officials* (Wiltshire, 2001), pp. 83-112.

⁵ It was during the 5th and 6th Dynasties that the repertoire of daily life scenes significantly expanded. While these scenes remained constant during the First Intermediate Period, subtle additions were introduced in the Middle Kingdom. A number of innovations can be identified in the Middle Kingdom tombs of Beni Hassan. Mythical animals were introduced to the repertoire and scenes of warfare, wrestling and entertainment were expanded upon. Similar modifications can be witnessed in the contemporary tombs at Thebes, Meir and El-Bersha.

J.H. Taylor, *Death and the Afterlife in Ancient Egypt* (London, 2001), pp. 97-98.; M. Müller, "Relief Sculpture", in D.B. Redford (ed.), *The Oxford Encyclopedia of Ancient Egypt* (2005), <<http://www.oxfordreference.com>>;

each individual tomb owner could choose which themes to include in his decorative scheme. While the factors that determined the choice of scenes remain uncertain, it is possible that a number of features were involved, including the tomb owner's personal preferences, the training and experience of the artist, the style of the period, the location of the tomb and the amount of wall space available.⁶ The artist of the wall scene was a scribe, and as such, was highly trained in both hieroglyphs and painting.⁷ He was bound by strict conventions which gave wall scenes a distinctive character evident in tombs throughout the Pharaonic Period.⁸

Funerary models comprise small statuettes depicting objects and people from everyday life which were designed to magically serve the deceased in the afterlife.⁹ The creator of these works was not a scribe like the artist, but a sculptor.¹⁰ Accordingly, he did not receive the same level of training as the artist. The themes he represented have been divided by Tooley into five main categories: agriculture and animal husbandry; food preparation; industrial processes; offering bearers; and boats.¹¹ Many of these themes overlap with those portrayed by the wall scenes. However, unlike wall scenes, the occurrence of models in tombs is restricted to a shorter time period. The first examples are identified in tombs of the late 4th Dynasty and consist of individual figures fashioned of stone.¹² It was not until the late 6th Dynasty that the model evolved into its more common form: a group of servants fashioned out of wood and placed on a single base.¹³ This type of representation became increasingly common until the end of the Middle Kingdom when the model was replaced by the shabti.¹⁴

Dodson & Ikram, *The Tomb in Ancient Egypt*, pp. 186, 200.; Robins, *The Art of Ancient Egypt*, p. 67.; N. Kanawati & A. Woods, *Beni Hassan: Art and Daily Life in an Egyptian Province* (Cairo, 2010), p. 81.

⁶ Kanawati, *The Tomb and Beyond*, pp. 83-84.; N. Staring, "Fixed Rules or Personal Choice? On the Composition and Arrangement of Daily Life Scenes in Old Kingdom Elite Tombs", in N. Strudwick & H. Strudwick (eds.), *Old Kingdom, New Perspectives: Egyptian Art and Archaeology 2750-2150 BC* (Oxford, 2011), p. 258.

⁷ The artist was called *sš kdw* which translates as 'scribe of the shape'. The scribe was the most prestigious profession in ancient Egypt. As the artist also held this position, he too held the most honoured occupation in the country. More than one artist likely worked on each artwork, but very few are known by name.

M. Eaton-Krauss, "Artists and Artisans", in D.B. Redford (ed.), *The Oxford Encyclopedia of Ancient Egypt* (2005), <<http://www.oxfordreference.com>>; R.E. Freed, "Art", in D.B. Redford (ed.), *The Oxford Encyclopedia of Ancient Egypt* (2005), <<http://www.oxfordreference.com>>.

⁸ G. Robins, *Egyptian Painting and Relief* (Aylesbury, 1986), p. 11.

⁹ A.M.J. Tooley, "Models", in D.B. Redford (ed.), *The Oxford Encyclopedia of Ancient Egypt* (2005), <<http://www.oxfordreference.com>>.

¹⁰ The sculptor was called *ksty* which translates as 'sculptor'. The models he created varied greatly in quality. Some were so rough in appearance that the figures represented are difficult to recognise.

Tooley, *Egyptian Models and Scenes*, p. 63.

¹¹ Tooley, "Models", <<http://www.oxfordreference.com>>.

¹² Tooley, *Egyptian Models and Scenes*, p. 8.

¹³ Tooley, *Egyptian Models and Scenes*, p. 17.

¹⁴ The first examples of the shabti date to the Herakleopolitan Period and the 11th Dynasty. However, it did not take on its more typical form until the 18th Dynasty. At this time, its agricultural role was heightened with the inclusion of agricultural tools and an expanded version of a spell from the Book of the Dead which commanded the figure to perform specific agricultural tasks on the deceased's behalf in the afterlife. The last known examples of the shabti date to the Ptolemaic Period.

Models were stored in the burial chamber, ideally to the left of the coffin and directly next to the eye-panel and false door.¹⁵ This chamber was less easily accessed by robbers than the tomb-chapel, providing a further level of protection for the deceased's food source. This was especially significant during the late Old Kingdom when the power of the king was diminishing and many tombs seem to have been destroyed through quarrying and pillaging.¹⁶ Wall scenes were also included in the burial chamber during this time as a further form of protection.¹⁷ However, this practice was soon abandoned, with the last known examples of wall scenes in the burial chamber dating to the 11th Dynasty.¹⁸ Models, on the other hand, became a more prevalent feature of grave goods in the Middle Kingdom. The three-dimensional medium served as an additional means to guarantee the eternal provision of food for the deceased.

While both wall scenes and models have been studied quite extensively in scholarship, very little attention has been given to the relationship between the two modes of representation. General art-historical studies include comprehensive discussions of Egyptian art, but only dedicate brief sections to each type of artwork. One leading example is Robins' publication, *The Art of Ancient Egypt*, which presents a chronological survey of Egyptian art from the Early Dynastic Period to the Ptolemaic Period.¹⁹ Each chapter is divided into two main sections: artwork associated with the king and artwork connected with the elite. Robins does not analyse the artistic representations primarily for their stylistic development, but rather for

Spencer, *Death in Ancient Egypt*, p. 69.; H.M. Stewart, *Egyptian Shabtis* (Buckinghamshire, 1995), p. 9.; D.B. Spinel, "Funerary Figurines", in D.B. Redford (ed.), *The Oxford Encyclopedia of Ancient Egypt* (2005b), <<http://www.oxfordreference.com>>.

¹⁵ It was believed that the deceased was able to receive sustenance and exit the coffin through these decorative elements. It is likely that models that were not placed in this position were moved due to the space available in the burial chamber as well as their type and size.

A.M.J. Tooley, "Middle Kingdom Burial Customs: A Study of Wooden Models and Related Material. Volume I", PhD thesis, University of Liverpool (Liverpool, 1989), 77, 83.

¹⁶ A. Badawy, *A History of Egyptian Architecture: The First Intermediate Period, the Middle Kingdom, and the Second Intermediate Period* (Berkley, Los Angeles, 1966), p. 1.; A.R. David, *The Ancient Egyptians: Religious Beliefs and Practices* (London, 1982), p. 76.

¹⁷ The first known examples date to the 5th Dynasty. Scholars regularly associate the origins of the decorated burial chamber with the introduction of the Pyramid Texts in the royal burial chamber, first witnessed in the pyramid of King Unis. This is certainly a possible conclusion. It is likely that the decoration of private burial chambers was inspired by the same ideological and religious doctrines attested in the Pyramid Texts.

K. Daoud, "Animate Decoration and Burial Chambers of Private Tombs during the Old Kingdom: New Evidence from the tomb of Kairer at Saqqara", *Travaux de la Maison de l'Orient et de la Méditerranée* 40.1, (2005), 109.; N. Kanawati, "Decoration of Burial Chambers, Sarcophagi and Coffins in the Old Kingdom", in K. Daoud, S. Bedier & S. Abd El-Fatah (eds.), *Studies in Honor of Ali Radwan. Volume II* (Cairo, 2005), pp. 56-57.; N. Kanawati, *Decorated Burial Chambers of the Old Kingdom* (Cairo, 2010), pp. 43, 75.

¹⁸ Daoud, "Animate Decoration and Burial Chambers of Private Tombs during the Old Kingdom", 111.

¹⁹ Robins, *The Art of Ancient Egypt*.

their importance to society, unlike other published works.²⁰ While Robins does cover both two- and three-dimensional artistic representations including statuary, reliefs and paintings, due to the wide time period she embraces, each medium is only briefly addressed. Instead, the importance of the publication is found in its role as a general overview of Egyptian art.

In contrast, other scholars have published more technical analyses of ancient Egyptian art, leading among which is Schäfer's work, *Principles of Egyptian Art*.²¹ Originally published in 1919, his work still remains the pioneering book devoted to a detailed discussion of the nature of Egyptian art and its foundational rules.²² Schäfer argues that Egyptian art was a highly sophisticated system of representation that was formulated through depicting objects by their most characteristic form.²³ While this publication is mostly dedicated to two-dimensional representations, one chapter on the nature of three-dimensional art is included at the end of the work. Here, Schäfer argues that, like the two-dimensional artist, the sculptor based his designs on frontal images.²⁴ Even though the connections between the two media are discussed, this does not form the focus of his work. Further study is required to more deeply comprehend the connections between the two media.

Most art-historical publications focus their analysis on wall scenes, with models receiving less attention in scholarship.²⁵ However, one work that is entirely dedicated to the model was published by Tooley in 1995.²⁶ This publication forms a foundational study on the three-dimensional artwork as all of its artistic features are discussed. Even though the publication is comprehensive, one would have wished to see a comparison of the model and the wall scene. Tooley only makes a single remark on their connection, noting that the models were “designed to replace or supplement painted scenes on tomb chapel walls”.²⁷ There are many

²⁰ For example, Harpur, in her 1987 publication, outlines the specific location and orientation of certain themes depicted in wall scenes and how the representation of these themes developed throughout the Old Kingdom. Her close analysis focuses on the stylistic development of the scenes rather than their importance to society. Y. Harpur, *Decoration in Egyptian Tombs of the Old Kingdom: Studies in Orientation and Scene Content* (London, 1987).

²¹ H. Schäfer, *Principles of Egyptian Art*, revised edition, (Oxford, 2002).

²² The original publication was composed in German. In 1974, his work was translated into English by Baines which made it accessible to a wider audience and allowed for amendments to be made to align the work with modern scholarship.

²³ Schäfer, *Principles of Egyptian Art*, p. 310.

²⁴ Schäfer, *Principles of Egyptian Art*, p. 335.

²⁵ Even though many works published on Egyptian art include some discussion of the model, this is generally only brief. More attention is regularly given to the wall scene. For example, both Smith and Malek have published works entirely dedicated to ancient Egyptian art, but both scholars only make a few very brief remarks on the model.

W.S. Smith, *The Art and Architecture of Ancient Egypt*, 3rd edition, (New Haven, 1998), pp. 81-82, 89-90.; J. Malek, *Egyptian Art* (London, 1999), p. 146.

²⁶ Tooley, *Egyptian Models and Scenes*.

²⁷ Tooley, *Egyptian Models and Scenes*, p. 8.

similarities between the two types of representation, but these connections have not been adequately addressed.

Most other publications on three-dimensional funerary artworks focus their attention on the statue rather than the statuette or model. The statue was a large-scale formal representation of the tomb owner and occasionally members of his family, while the statuette was a much smaller representation of a servant undertaking a diverse range of tasks.²⁸ Scholarship has given greater attention to the elite tomb owner and accordingly, the statue rather than the statuette. This can be seen in a publication by Harvey that consists of a catalogue of all private wooden statues of the Old Kingdom.²⁹ While this collection is extensive, it does not include any examples of servant figures. Further study is required to more comprehensively understand the importance of the model.

Only one publication presents a detailed comparison of two- and three-dimensional funerary artworks: *The Representations of Statuary in Private Tombs of the Old Kingdom* by Eaton-Krauss.³⁰ This study aims to identify the types of statues collected and compare them with the two-dimensional representations.³¹ While this publication does present a comprehensive study of two- and three-dimensional artworks, it only focuses on one type of representation: the statue. Again, scholarship's focus on the tomb owner is evident. However, this study is of benefit to this project as it provides an example of how the two media can be compared. Eaton-Krauss' conclusions rely on the minute details identified in each artwork. Likewise, this project has studied the intricate details of the primary material in order to draw noteworthy conclusions directly from the evidence. The aim of this study is therefore to add to our understanding of the role of each medium and their relationship to one another.

This project has involved the analysis of funerary models stored in museum collections that were obtained through catalogues of exhibitions, online databases and modern publications.³² Likewise, wall scenes documented through both photographs and line drawings that were

²⁸ The statue was designed to play a primary role in the cult of the deceased. The figure was always represented in a formal pose and was fashioned by a sculptor of considerable skill. In contrast, the tasks of the statuette required great variation in movement which caused the emphasis of these figures to be on the activity rather than the individuals.

Robins, *The Art of Ancient Egypt*, pp. 19, 75-76.

²⁹ This publication is formed of an updated version of Harvey's doctoral thesis. A total of 240 wooden statues that date to the Old Kingdom were compiled.

J. Harvey, *Wooden Statues of the Old Kingdom: A Typological Study* (Leiden, 2001).

³⁰ M. Eaton-Krauss, *The Representations of Statuary in Private Tombs of the Old Kingdom* (Wiesbaden, 1984).

³¹ Eaton-Krauss, *The Representations of Statuary*, p. 1.

³² In particular, the publications of Garstang and Breasted have provided comprehensive collections of funerary models that have benefited this project.

J. Garstang, *The Burial Customs of Ancient Egypt as Illustrated by the Tombs of the Middle Kingdom* (London, 1907).; J.H. Breasted, *Egyptian Servant Statues* (Washington, 1948).

obtained through studying excavation reports were also examined. This close analysis highlighted the similarities and differences between the two media. All images have been compiled in an appendix at the end of this work.³³ The sources have been divided firstly according to the themes of agriculture and food production, and secondly into the three individual sites with the models placed before the wall scenes in each. Each source has then been ordered chronologically.³⁴ For the purposes of this study, the term ‘artist’ is used to describe the creator of the wall scene, while the term ‘sculptor’ refers to the producer of the model.

Due to the time and word constraints of this project, the vast corpus of ancient Egyptian models and wall scenes needed to be restricted. Firstly, this was achieved through a refined selection of the themes studied. Only representations of agricultural pursuits and food production were selected.³⁵ These themes were commonly portrayed in both two- and three-dimensions as they depicted the processes involved in the creation of foodstuffs which would sustain the deceased in the afterlife.³⁶ Food was so essential to the deceased that tomb owners took extensive measures to ensure an eternal supply was available. A mortuary cult was regularly established by the tomb owner which ensured that family members and priests would bring offerings of food and drink to the tomb.³⁷ However, in case such offerings ceased to be supplied, further safeguards were implemented. By the 2nd Dynasty, meals of food and drink were carefully laid out in the tomb for the deceased to enjoy.³⁸ Later, magical methods were added with the inscription of offering-lists on tomb walls and an appeal to the living to

³³ The following sources were identified in this study, but were unable to be obtained through images: three ploughing models from Meir and one from El-Bersha (Breasted, *Egyptian Servant Statues*, p. 7), four transportation models from Meir (Breasted, *Egyptian Servant Statues*, p. 72.; the Metropolitan Museum of Art: 11.150.28), one granary model from Meir (Breasted, *Egyptian Servant Statues*, p. 15), four granary models from El-Bersha (R.E. Freed & D.M. Doxey, “The Djehutynakhts’ Models”, in R.E. Freed, L.M. Berman, D.M. Doxey & N.S. Picardo (eds.), *The Secrets of Tomb 10A. Egypt 2000 BC* (Boston, 2009), p. 162.), one granary model from Beni Hassan (British Museum: EA65613), the remains of 44 granary models from tombs in the Lower Cemetery at Beni Hassan (Garstang, *The Burial Customs of Ancient Egypt*, appendix.), one granary wall scene from the burial chamber of Pepyankh the Black at Meir (N. Kanawati & L. Evans, *The Cemetery of Meir. Volume II: The Tomb of Pepyankh the Black* (Oxford, 2014a), p. 62), and the remains of 52 models of baking and/or brewing from the Lower Cemetery at Beni Hassan (Garstang, *The Burial Customs of Ancient Egypt*, appendix.). The precise tasks represented in these food production models remain unknown as no images could be obtained. Accordingly, all of these sources could not be analysed in this project.

³⁴ However, where more precise dates were unattainable, they were ordered according to tomb number.

³⁵ Only the activities involved in these processes that are represented artistically in both media have been studied. It is not the aim of this project to understand the details of the actual tasks involved, but rather how they were represented. Additionally, the study of the food production process has only encompassed the stages involved in the manufacture of bread and beer.

³⁶ Taylor, *Death and the Afterlife*, p. 92.

³⁷ By the Middle Kingdom, this cult could be combined with a nearby temple to further ensure the continued provision of food.

David, *The Ancient Egyptians*, p. 79.; Spencer, *Death in Ancient Egypt*, p. 54.; Taylor, *Death and the Afterlife*, p. 95.

³⁸ Spencer, *Death in Ancient Egypt*, p. 49.

present offerings.³⁹ Artistic representations served as an additional means to ensure a continued supply of food.⁴⁰ Portrayals of the agricultural cycle and the production of bread and beer were selected as these themes were of great importance to the tomb owner.

Secondly, the material was contained through a restriction of the sites studied. In particular, only the artworks from the cemeteries of Meir, El-Bersha and Beni Hassan were collected. These cemeteries served as the burial grounds of the governors and inhabitants of the 14th to 16th Upper Egyptian nomes from the end of the Old Kingdom until the time of Senusret III in Dynasty 12 when only smaller and poorer burials are found.⁴¹ This region of Egypt was particularly wealthy, with a modern study conducted by official Egyptian sources revealing that the area between the 9th and 20th Upper Egyptian nomes yields the most productive land in the entire country.⁴² This agricultural wealth is reflected in the large tombs of the nobles that have been extensively and elaborately decorated.⁴³ Additionally, these tombs have been well-preserved and well-documented, allowing a relatively complete study of the artworks to be conducted. The three sites were significant to the Egyptian in ancient times and serve as important sources of evidence to the scholar.

³⁹ N. Kanawati, *The Tomb and its Significance in Ancient Egypt* (Guizeh, 1987), p. 54.; S. Ikram, *Death and Burial in Ancient Egypt* (London, 2003), p. 132.; G. Englund, "Offerings: An Overview", in D.B. Redford (ed.), *The Oxford Encyclopedia of Ancient Egypt* (2005), <<http://www.oxfordreference.com>>.

⁴⁰ The offering-table scene was particularly significant and was the most commonly included scene on tomb walls from the Old Kingdom to the Ptolemaic Period as it was believed that the piles of offerings would be available for the deceased's consumption in the afterlife.

G. Robins, "Piles of Offerings: Paradigms of Limitation and Creativity in Ancient Egyptian Art", in C.J. Eyre (ed.), *Proceedings of the Seventh International Congress of Egyptologists, Cambridge, 3-9 September 1995* (Leuven, 1998), p. 957.

⁴¹ The cemetery of Meir was used during the second half of the 6th Dynasty, possibly during the First Intermediate Period and in the 11th and 12th Dynasties. El-Bersha contains two areas of tombs from the Old Kingdom as well as the tombs of the nomarchs of the 11th and 12th Dynasties. Beni Hassan was used from the late 6th Dynasty until the first half of the 12th Dynasty and further into the early 13th Dynasty when the governors were no longer buried there.

The reign of Senusret III marks the end of the burial of governors in the provinces. After this time, a reduction in the size and decoration of the tombs is witnessed. While it has been thought that this king took deliberate action by eliminating the power of the nomarchs, it seems more likely that there was a gradual process of gaining favour with the provinces through training the sons of the nobles in the residence.

D. Franke, "The Career of Khnumhotep III of Beni Hasan and the so-called 'Decline of the Nomarchs'", in S. Quirke (ed.), *Middle Kingdom Studies* (New Malden, 1991), pp. 51, 63-64.; W. Grajetzki, *The Middle Kingdom of Ancient Egypt: History, Archaeology and Society* (London, 2006), pp. 109-115.; M. De Meyer, "Old Kingdom Rock Tombs at Dayr al-Barshā. Volume I: Texts and Excavations in Zone 4", PhD thesis, Katholieke Universiteit (Leuven, 2008a), 2.; W. Grajetzki, *Court Officials of the Egyptian Middle Kingdom* (London, 2009), p. 118.; Kanawati & Woods, *Beni Hassan*, p. 5.; S. Snape, *Ancient Egyptian Tombs: The Culture of Life and Death* (West Sussex, 2011), p. 156.; J. Kamrin, "The Decoration of Elite Tombs: Connecting the Living and the Dead", in A. Oppenheim, D. Arnold, D. Arnold & K. Yamamoto (eds.), *Ancient Egypt Transformed: The Middle Kingdom* (New York, 2015), p. 29.

⁴² While it is certain that the topographic features of the Delta have changed between the Old Kingdom and the time of the study, it is less likely that they have changed for Upper Egypt. These results, however, must still be used with caution, but it seems likely that this region was also highly productive in ancient times. The results of the study have been published by Fisher.

W.B. Fisher, *The Middle East: A Physical, Social and Regional Geography*, 7th edition, (London, 1978), p. 523.; N. Kanawati, *Governmental Reforms in Old Kingdom Egypt* (Warminster, 1980a), pp. 8-10.

⁴³ Kanawati & Woods, *Beni Hassan*, p. 8.

A third form of restriction was achieved through a carefully defined time period. The period from the late Old Kingdom until the end of the Middle Kingdom was chosen as it was during this time that both media were introduced and developed. This has allowed for models and wall scenes produced during the same time period to be compared and for the prominence of each medium to be understood.

Although these restrictions were carefully selected, they have limited the capacity of this project. A larger study would be desirable as it would demonstrate if the conclusions found are true for the whole of Egypt or only the selected region of Middle Egypt. Furthermore, a greater understanding of the media would be obtained through studying all of the themes represented and a larger time period. This would provide further insight into the selection process of the decorative scheme for each individual's tomb. It is hoped that this project will enable further research to be conducted in this area.

A number of difficulties were also encountered during the research process. In particular, the problem of preservation has prevented the analysis of some artworks. Many objects have been removed from their original location in the tomb and have lost their provenance.⁴⁴ This is particularly a problem for easily moveable works such as models. While approximate dates can be obtained through studying stylistic developments, analysis of these unprovenanced objects will remain incomplete.⁴⁵ Additionally, the elite nature of the burials needed to be considered in this project. Our main source of knowledge of the life and death of the ancient Egyptians comes from the tombs, especially those of the wealthy.⁴⁶ It cannot be certain if these beliefs and practices were shared by members of the lower classes.⁴⁷ This is unfortunately an unavoidable limitation of the evidence that needs to be considered in all studies involving ancient Egyptian funerary monuments.

Furthermore, modern documentation of the ancient sources has also hindered this research project. The photographic documentation of tombs by early excavators was made on a selective basis and the line drawings did not include the intricate details of the hieroglyphs

⁴⁴ This has resulted from the looting of tombs both in antiquity and in the modern era, as well as the uncontrolled manner of early excavations.

⁴⁵ This study was unable to include any completely unprovenanced material in its analysis as the scope of the project was limited to three specific sites.

⁴⁶ W.C. Hayes, *The Sceptre of Egypt: A Background for the Study of the Egyptian Antiquities in the Metropolitan Museum of Art. Part I: From the Earliest Times to the End of the Middle Kingdom*, revised edition, (New York, 1990), p. 87.

⁴⁷ J. Kamrin, *The Cosmos of Khnumhotep II at Beni Hasan* (London, New York, 1999), p. 3.; J. Baines & P. Lacovara, "Burial and the Dead in Ancient Egyptian Society: Respect, Formalism, Neglect", *Journal of Social Archaeology* 2.1, (2002), 5.

and figures.⁴⁸ Accordingly, many of the details of the wall scenes studied in this project could not be determined. Similarly, many of the photographs obtained of the models were taken in the first half of the 20th century and have not captured the colour or details of the figures.⁴⁹ This has limited the amount of information that can be obtained from these sources. Although these difficulties hindered the research project, a sufficient quantity of material could be obtained for the purposes of this study.

Both two- and three-dimensional artistic representations served as important means to provide the deceased with the necessary sustenance in the afterlife. Their prominence in the tombs of Meir, El-Bersha and Beni Hassan highlight their significance to the ancient Egyptian burial. In studying the two media in one project, it is hoped that the advantages and disadvantages of each have become clearer, highlighting the ability of each form of design to represent the necessary themes for the deceased's use in the afterlife.

⁴⁸ N. Kanawati & L. Evans, *Beni Hassan. Volume I: The Tomb of Khnumhotep II* (Oxford, 2014b), p. 9.

⁴⁹ Three of the main compilations of funerary models are found in the publications of Garstang, Borchardt and Breasted which date to 1907, 1911 and 1948 respectively. Garstang, *The Burial Customs of Ancient Egypt*; L. Borchardt, *Statuen und Statuetten von Konigen und Privatleuten im Museum von Kairo, Nr. 1-1294* (Berlin, 1911); Breasted, *Egyptian Servant Statues*.

Agricultural Pursuits

Ploughing and Sowing

Preparing the land for the season's crops was an essential part of the beginning of the agricultural process. After the flood waters of the Nile had receded, the soft land could be prepared for cultivation.⁵⁰ A number of tasks are associated with this early stage in the agricultural cycle, including ploughing, hoeing the earth, sowing seed and trampling it into the ground. While no tomb studied in this project depicts all of these activities, many of them portray at least one.⁵¹

The role of the plough was essential as it broke the clods of soil and created furrows into which the seed could be cast.⁵² This activity was conducted by a ploughing team consisting of a pair of oxen, a ploughman who guided the plough and a fieldhand who urged the animals forwards.⁵³ In every representation collected, the ploughman steps forwards with one leg as he bends over the plough to exert pressure onto the handles, causing the blade to turn up the soil.⁵⁴ One example of this can be seen on the west wall of the tomb of Khnumhotep II, where the two ploughmen step forwards with their left legs as they move towards the right of the register [Pl. 38a]. While the striding leg conveys the movement of the worker, it also enables the artist to include both legs in his design. Every effort was taken in Egyptian art to avoid concealing any part of the body.⁵⁵ As the figure could only be represented from one side on the two-dimensional wall surface, the leg furthest from view would be hidden unless it was positioned in front or behind the other. Schäfer has argued that Egyptian artists preferred, where possible, to depict figures facing right.⁵⁶ Accordingly, the left leg was extended forwards, as can be seen in the tomb of Khnumhotep II.

Interestingly, a similar posture can be witnessed in the ploughing models. In one example from the tomb of Djehuty-nakht, the ploughman steps forwards with his left leg [Pl. 13]. As the three-dimensional medium could be viewed from every angle, the sculptor was not hindered in his portrayal of the human body like the artist. Even though both legs could

⁵⁰ This took place during the second season of *peret*.

R. Siebels, "Agricultural Scenes", in L. Donovan & K. McCorquodale (eds.), *Egyptian Art: Principles and Themes in Wall Scenes* (Guizeh, 2000a), p. 55.

⁵¹ A total of nine wall scenes and eight models have been identified from the sites under study. While images of all nine wall scenes could be obtained, images of only three of the models could be found, causing only these examples to be closely examined.

⁵² R. Siebels, "Agriculture in Old Kingdom Tomb Decoration: An Analysis of Scenes and Inscriptions. Part I: Text", PhD thesis, Macquarie University (Sydney, 2000b), 44-45.

⁵³ Siebels, "Agricultural Scenes", p. 56.

⁵⁴ Siebels, "Agriculture in Old Kingdom Tomb Decoration. Part I", 67.

⁵⁵ W. Davis, *The Canonical Tradition in Ancient Egyptian Art* (Cambridge, 1989), p. 13.; Kanawati, *The Tomb and Beyond*, p. 78.

⁵⁶ Figures only face left when constrained by rules of symmetry or available wall space. Schäfer, *Principles of Egyptian Art*, p. 322.

readily be seen, the sculptor has chosen to depict the figure striding forwards. While this may have been a means to convey the pressure exerted by the figure, it is interesting to note that it is the left leg that is positioned in front. Schäfer has further argued that the sculptor began his work by drawing the design onto the side of the wooden block, causing it to appear similar to the two-dimensional wall scene.⁵⁷ Consequently, it is the left leg that steps forward in the model as this was the preferred movement portrayed by artists.⁵⁸ The fact that the sculptor chose to include a feature that was created to overcome a limitation specific to the two-dimensional surface demonstrates that he was in some way influenced by the work of the artist.

One note of difference between the two media is found in their representation of the feet of the workmen. In the models of Djehuty-nakht [Pl. 13] and Niankh-Pepy-Kem [Pl. 1], the workmen are represented without feet. All of the wall scenes, in contrast, depict the feet of the fieldhands firmly planted on the baseline.⁵⁹ Breasted has argued that the exclusion of the feet in the models was a means for sculptors to indicate that the men walked in soft post-inundation mud.⁶⁰ Tiradritti, likewise, has adopted this interpretation, arguing that streaks of grey paint were included around the man's ankles in Niankh-Pepy-Kem's model to symbolise mud.⁶¹ However, such an interpretation fails to recognise the technical aspects involved in creating a model. Each figure had to be firmly secured to the baseboard. This was either achieved by carving the feet out of the same piece of wood as the legs and attaching them through the use of pegs, or by terminating the legs at the ankles and setting them into holes supported by plaster.⁶² While it is possible that the sculptors used the latter method to indicate the soft mud worked in by the men, it is rather due to the technical difficulty of securing the figure to the baseboard that this element was included. This is further evidenced by comparing the men with the oxen in Djehuty-nakht's model. While the men's feet have not been included, all eight hooves have been fashioned. As the oxen are heavier than the men,

⁵⁷ Schäfer, *Principles of Egyptian Art*, pp. 322-323.

⁵⁸ The same posture of the ploughman is also seen in a model from Meir where the figure steps forward with his left leg [Pl. 2].

⁵⁹ The only example identified in the wall scenes where the feet have not been included is found on the west wall of the tomb of Khnumhotep II [Pl. 38a]. Three men are represented hoeing the earth near the right end of the register. They are displayed closely overlapping each other in order to indicate that they are working directly side-by-side. The feet of the man furthest from view have not been drawn into the scene. This method of depiction, however, seems to be a result of the overlapping nature of the men, causing the artist to not have enough room to detail all of their feet.

Robins, *The Art of Ancient Egypt*, p. 21.

⁶⁰ Breasted, *Egyptian Servant Statues*, p. 6.

⁶¹ F. Tiradritti, *Egyptian Wall Painting* (New York, London, 2008), p. 125.

⁶² In the latter of the two methods, the feet were sometimes modelled out of plaster and added while still soft. H.E. Winlock, *Models of Daily Life in Ancient Egypt from the Tomb of Meket-Re' at Thebes* (Cambridge, 1955), p. 74.

their hooves should also have sunk into the base of the model if the sculptor desired to indicate the alluvial nature of the mud. This, however, has not been achieved. As the animals have four legs, they were able to stand without being secured to the baseboard, unlike the humans. Accordingly, the exclusion of the feet was a technical limitation of the model.

The fieldhand who accompanies the ploughing team undertakes an important role, witnessed in his presence in every artistic representation collected in this study.⁶³ It was his task to encourage the animals to walk forwards which he achieved through the use of a stick.⁶⁴ This tool was represented differently by each medium. All four fieldhands on the south wall of the tomb of Khety brandish sticks that appear to be tree branches [Pl. 35a]. Each stick ends in a fork, showing the small twigs to still be connected. In contrast, the models do not include this same level of detail. An example from Meir depicts the fieldhand holding a long, smooth stick in his right hand which he rests on the back of an ox [Pl. 2]. The smooth stick was much easier to craft out of wood than the twigs of the tree branch. As the wall scene was more flexible in its design, it could include greater detail in its representations.

Both the wall scenes and models convey the ploughing team itself to consist of two oxen that drive the plough along its course.⁶⁵ The animals work side-by-side as they are attached to a yoke.⁶⁶ In two-dimensions, this spatial relationship was conveyed through overlapping.⁶⁷ However, this mode of representation caused difficulty in distinguishing between the pair of animals. In order to overcome this hindrance, artists altered the decoration of the animals' hides so that each may be clearly identified.⁶⁸ This was generally achieved through changes in colour and patterning.⁶⁹ On the west wall of the tomb of Pepyankh the Middle, each ploughing team consists of two oxen decorated with different markings [Pls. 5a, 5b]. On the right of register four, for example, the ox furthest from view is painted white with large black

⁶³ Harpur notes in her study of Old Kingdom tomb scenes that it is very rare for a ploughing team to be represented without an accompanying fieldhand.

Harpur, *Decoration in Egyptian Tombs of the Old Kingdom*, p. 161.

⁶⁴ The artworks convey the stick being held in a number of different positions, but most commonly raised in the air either above the man's head or above the animals. Siebels notes that although there is great variety in the wall scenes, the stick is never held down at the animals' legs. Additionally, the wall scenes convey the use of two sticks, as can be seen in the third register on the west wall of the tomb of Pepyankh the Middle [Pl. 5a]. Kanawati has suggested that two sticks were used to produce a beat which encouraged the animals to move. Harpur, *Decoration in Egyptian Tombs of the Old Kingdom*, p. 161.; Siebels, "Agriculture in Old Kingdom Tomb Decoration. Part I", 62.; N. Kanawati, *The Cemetery of Meir. Volume I: The Tomb of Pepyankh the Middle* (Oxford, 2012), p. 49.

⁶⁵ Cattle, especially males of the long-horned variety, were the traditional draft animals of ancient Egyptian agriculture.

P.F. Houlihan, *The Animal World of the Pharaohs* (London, 1996), p. 17.

⁶⁶ Siebels, "Agricultural Scenes", p. 56.

⁶⁷ G. Robins, *Proportion and Style in Ancient Egyptian Art* (Austin, 1994), p. 8.

⁶⁸ Schäfer, *Principles of Egyptian Art*, p. 181.

⁶⁹ Siebels, "Agricultural Scenes", p. 56.

patches, while its partner in full view is painted white with many red spots. This type of distinction, however, is not necessary in three-dimensions as each ox can be seen in full by the viewer. In a model from the tomb of Djehuty-nakht, both oxen are painted identically with a white coat and large black spots [Pl. 13]. The models were not hindered by the same technical limitation as the wall scenes and could convey the actual markings of the animals.

The advantage of the three-dimensional medium in portraying a sense of depth is further witnessed in its representation of the beam of the plough. This beam formed the connection between the plough and the yoke which was attached to the horns of the oxen.⁷⁰ It traversed in between each pair of animals. As the models can be viewed from every angle, they can portray the entire beam extending between the oxen. Examples can be found in models from the tomb of Djehuty-nakht [Pl. 13] and from Meir [Pl. 2]. The two-dimensional medium, in contrast, could not portray both the beam in its entirety and its position between the animals as only one perspective could be provided. In two examples collected, the beam is shown passing over the length of the animal on the outside of each pair.⁷¹ Both of these date to Dynasty 6 and originate from the site of Meir [Pls. 5a, 9]. This representation was chosen as it enabled the entire beam to be seen by the viewer. In contrast, all of the later wall scenes chose to extend the beam in between the animals, creating a more accurate representation, but hiding the object from view. One example can be seen on the north wall of the tomb of Senbi where the beam extends between the two oxen and disappears behind the body of the ox in full view [Pl. 11a]. Artists were hindered from including both aspects in their designs and had to choose which feature to represent.

However, the three-dimensional medium was restricted in its representation of more minute details, such as the plough's handles. The plough itself consisted of a wooden blade that was operated by a man through the use of two long and slightly bent handles.⁷² In two-dimensions the curved handles could be drawn easily into the scene. On the west wall of the tomb of Amenemhat in register seven, the handles operated by each ploughman are very well-defined [Pl. 36]. However, not all two-dimensional representations were as precise. The depiction of this detail was highly dependent upon the skill of each artist. For example, all of the ploughs represented on the west wall of the tomb of Pepyankh the Middle consist of thick blades with short handles extending off them [Pl. 5a].⁷³ The three-dimensional models were not able to

⁷⁰ Siebels, "Agricultural Scenes", p. 56.

⁷¹ Siebels, "Agriculture in Old Kingdom Tomb Decoration. Part I", 53-54.

⁷² Siebels, "Agriculture in Old Kingdom Tomb Decoration. Part I", 53.

⁷³ In order to operate the short handles, the ploughmen have to bend further down to the ground. Typically, the ploughman would stand with straight or relatively straight legs and bend over the plough. For example, all of the

achieve such variety and detail in their designs. In a model from the tomb of Djehuty-nakht, the handles of the plough are not distinct, but rather consist of small extensions off the side of the main beam [Pl. 13]. Additionally, there is no clear blade nor is there any identifiable form of attachment to the animals. This lack of detail is due to the technical difficulty of crafting minute details out of wood as well as the more limited ability of the sculptor. However, it is important to note that the plough is only partly preserved.⁷⁴ This means that some additional features may have originally been included in the model but have since been lost. Nevertheless, it is clear that the wall scenes were able to provide greater detail in their representations of minute details.

The process of hoeing the earth was an important part of preparing the land for cultivation, although it was not always necessary. The hoe could be used for a variety of purposes, such as preparing the land prior to sowing, covering sown seed, breaking up clods of dirt after ploughing or sowing, and weeding.⁷⁵ Sist argues that the hoe was especially required when preparing land furthest from the Nile as this area was first to emerge from the inundation and harder to work.⁷⁶ In the artistic representations, the exact role of the hoe in the agricultural cycle is easier to determine in wall scenes than in models as more than one scene could be included on a single wall. Regularly, scenes that occurred together in reality were organised on the same section of a tomb wall.⁷⁷ In particular, agricultural scenes were often represented in a successive order, enabling the connections between the activities to be made clear to the viewer.⁷⁸ As the hoe could be used for a variety of purposes, studying the surrounding scenes provides further insight into its exact role. In the scenes collected in this study, the man working the hoe could appear alongside a sower,⁷⁹ accompany a ploughing team,⁸⁰ or work

ploughmen in a scene from the tomb of Djehuty-nakht stand with straight legs as they bend over to operate the plough [Pl. 21a]. Pepyankh the Middle's scene, in contrast, presents an extreme gesture of activity.

Siebels, "Agriculture in Old Kingdom Tomb Decoration. Part I", 67, 70.

⁷⁴ Freed & Doxey, "The Djehutynakhts' Models", p. 161.

⁷⁵ M.A. Murray, "Cereal Production and Processing", in P.T. Nicholson & I. Shaw (eds.), *Ancient Egyptian Materials and Technology* (Cambridge, 2000), p. 517.

⁷⁶ L. Sist, "Food Production", in A.M. Donadoni Roveri (ed.), *Egyptian Civilization: Daily Life* (Milan, 1988), p. 50.

⁷⁷ Dodson & Ikram, *The Tomb in Ancient Egypt*, pp. 84-85.

⁷⁸ In the Old Kingdom, scenes were generally ordered over a series of registers chronologically from top to bottom, while in the New Kingdom this order was reversed. In the Middle Kingdom, either direction could be utilised.

G.A. Gaballa, *Narrative in Egyptian Art* (Mainz am Rhein, 1976), p. 27.

⁷⁹ For example, on the north wall of the tomb of Senbi, a man hoeing the earth works just in front of a man sowing seed [Pl. 11a]. In fact, the seed of the sower falls on the ground directly at the point where the man is hoeing, suggesting that the two processes are closely connected.

⁸⁰ On the west wall of the tomb of Amenemhat, a man with a hoe works in between two ploughing teams [Pl. 36]. Similarly, on the west wall of the tomb of Khnumhotep II, three men work with hoes immediately in front of a ploughing team [Pl. 38a].

after the trampling of seed.⁸¹ However, the three-dimensional medium did not portray these same connections. All of the agricultural models collected in this study depict a single activity and do not display the surrounding processes. While it is clear that the man in a model from the tomb of Niankh-Pepy-Kem is hoeing the earth, his specific role in the agricultural cycle remains unknown [Pl. 1]. Models depicting single figures were hindered in their ability to convey relations between different activities. It is only in conjunction with the wall scenes that the importance of the processes can be fully understood.

Sowing seed, in contrast, is only represented in the two-dimensional examples collected. This task is symbolised through the presence of a fieldhand who scatters a stream of seed from one upraised hand while cradling a seed-bag in the other.⁸² Portraying this stream of seed was the most important part of the representation as it defined the work of the fieldhand. On the east wall of the tomb of Pepyankh the Black, the two sowers raise their right arms in the air as they scatter seed to the ground [Pl. 9]. The seed is represented as falling in one long straight line and landing just in front of their feet. This is the most typical portrayal of falling seed.⁸³ Additional details could also be included, such as giving the line a textured quality to indicate the individual seeds,⁸⁴ or painting the stream in a colour imitating reality.⁸⁵ The three-dimensional medium, in contrast, could not represent this stream of seed and as such, could not depict the sower. Freed and Doxey have argued against this, suggesting that the fieldhand in the ploughing model from the tomb of Djehuty-nakht is a sower [Pl. 13]. They propose that a seed-bag originally hung from the man's left shoulder and that his right arm is extended to scatter the seed.⁸⁶ This interpretation has not fully acknowledged the posture of the fieldhand. The sower, as represented in the wall scenes, always raises one arm above his head to scatter the seed rather than out in front of him, whereas this man's outstretched hand more closely resembles the posture of a fieldhand who urges the animals forwards with a stick.⁸⁷ Furthermore, he stands beside the ploughing team rather than in front of them, once again

⁸¹ In the tomb of Djehuty-hotep, a team of sheep work to trample the seed into the ground [Pl. 22a]. Beside them stands a man working with a hoe.

⁸² The seed-bag could be cradled in one arm, slung around the neck or hung over one shoulder.

R. Siebels, "Agricultural Activities", in A. McFarlane & A. Mourad (eds.), *Behind the Scenes: Daily Life in Old Kingdom Egypt* (Oxford, 2012), p. 78.

⁸³ Siebels, "Agriculture in Old Kingdom Tomb Decoration. Part I", 84-85.

⁸⁴ This can be found in both the tombs of Pepyankh the Black [Pl. 9] and Djehuty-nakht [Pl. 21b].

Siebels, "Agriculture in Old Kingdom Tomb Decoration. Part I", 84-85.

⁸⁵ The stream of seed in the tomb of Djehuty-nakht has been painted yellow, a colour often used to represent grain [Pl. 21b].

D. Bussman, "Materials and Techniques", in L. Donovan & K. McCorquodale (eds.), *Egyptian Art: Principles and Themes in Wall Scenes* (Guizeh, 2000), p. 26.

⁸⁶ Freed & Doxey, "The Djehutynakhts' Models", p. 162.

⁸⁷ It is possible that he originally held a stick in his right hand to urge the oxen forwards. His posture resembles that of the two fieldhands in register three on the west wall of the tomb of Khnumhotep II [Pl. 38a].

mirroring the role of the fieldhand.⁸⁸ The sculptor's inability to portray the falling stream of seed restricted the variety of processes he could represent.

One final stage according to the artistic representations involved in preparing the land for cultivation was the trampling of seed. This process, which protected the seed from unwanted prey and facilitated germination, was mostly conducted by a flock of sheep.⁸⁹ One example of this can be found in the first register of a scene from the tomb of Djehuty-hotep [Pl. 22a]. While Newberry claims the accompanying inscription identifies the task as 'ploughing', the scene itself resembles a trampling scene.⁹⁰ Instead, the caption appears to record some dialogue between the workers, with one herdsman ordering another to control the sheep.⁹¹ The three shepherds who accompany the large flock of sheep wield implements to urge the animals forward.⁹² Siebels has identified this scene as the latest known surviving sheep trampling scene, with the tomb being dated to Dynasty 12.⁹³ This scene was more common during the Old Kingdom and likely explains why this activity is not found amongst the models.⁹⁴ Model production was at its height during the Middle Kingdom, when the greatest number and variety were produced.⁹⁵ At this time, representations of trampling were uncommon. This scene of Djehuty-hotep is unique in this study and cannot be compared with any similar models.

⁸⁸ Whereas the fieldhand stands behind or beside the ploughing team, the sower stands in front. In all the wall scenes collected in this study, the sower works in front of a ploughing team. Indeed, this is the most common placement of the figure in all Old Kingdom agricultural wall scenes.

Siebels, "Agriculture in Old Kingdom Tomb Decoration. Part I", 87.

⁸⁹ Murray, "Cereal Production and Processing", p. 519.

⁹⁰ The only indication that this may not be a trampling scene is found in the small bushes that appear on the register line under the sheep, giving an indication of the environment in which the animals are working. The bushes suggest that they are at work in the fields rather than in the alluvial mud. Accordingly, this could be interpreted as a herding scene rather than a trampling scene. While the exact nature of the task cannot be determined with certainty, there is no indication that the scene represents ploughing.

P.E. Newberry, *El Bersheh. Part I: The Tomb of Tehuti-hetep* (London, 1894a), p. 34.

⁹¹ Unfortunately, the inscription has incurred significant damage, preventing a complete translation from being offered.

⁹² All of the sheep in the flock are firmly planted on the baseline and closely overlap each other. This positioning enables the artist to convey a sense of depth and forward movement.

L. Evans, *Animal Behaviour in Egyptian Art: Representations of the Natural World in Memphite Tomb Scenes* (Oxford, 2010), p. 8.

⁹³ The tomb has been securely dated through an inscription that records the names of Dynasty 12 kings. Djehuty-hotep writes that he was given important offices by Senusret II and continued as an important official into the reign of Senusret III when he constructed his tomb.

W.S. Smith, "Paintings of the Egyptian Middle Kingdom at Bersheh", *American Journal of Archaeology* 55.4, (1951), 321.; Grajetzki, *The Middle Kingdom of Ancient Egypt*, p. 110.; Siebels, "Agriculture in Old Kingdom Tomb Decoration. Part I", 101.

⁹⁴ K. McCorquodale, "Characteristics and Styles of Egyptian Art from the Old Kingdom to the Middle Kingdom", in L. Donovan & K. McCorquodale (eds.), *Egyptian Art: Principles and Themes in Wall Scenes* (Guizeh, 2000), p. 3.

⁹⁵ Tooley, *Egyptian Models and Scenes*, p. 17.

As can be witnessed in the trampling scene of Djehuty-hotep, accompanying inscriptions can enable the wall scenes to be understood with greater clarity. These texts include captions identifying the names and titles of the figures, dialogue between the workers and explanations of the activities portrayed.⁹⁶ For example, on the west wall of the tomb of Pepyankh the Middle, the ploughmen in the second register are identified as ‘Setjiankh’ and ‘Itsenuet’ [Pl. 5a].⁹⁷ Furthermore, conversation between the workers is recorded in the tomb of Pepyankh the Black, where the ploughman warns the youth: *jw hn... hr m33 sk3 hpr.s* ‘Hen... is watching the ploughing as it happens’, to which the youth responds: *mdw m hrp sk3 jmjw jhw jw(.j) hr jrt(.j)* ‘the stick is directing, the drovers are ploughing and I am at my task’ [Pl. 9].⁹⁸ Such inscriptions were smoothly intertwined with the images due to the pictorial nature of the hieroglyphs.⁹⁹ Figures and text were heavily integrated to the extent that little empty space was left.¹⁰⁰ The three-dimensional medium, on the other hand, did not include this aspect in its designs as it lacked the ability to intertwine text and image. While it is possible that inscriptions could be carved onto the bases of the models, this would not have integrated the text into the picture as was easily achieved on the two-dimensional surface. Accordingly, the additional detail provided by the inscriptions is unique to the wall scenes.

While the processes involved in preparing the land for cultivation are represented in both two- and three-dimensions, it is the wall scenes that figure them most prominently. This medium was able to include greater detail in its representations and depict a wider variety of processes. Across both media, it is the task of ploughing that is most commonly represented from the beginning of the agricultural cycle.¹⁰¹ As the first task, it was considered one of the most significant stages in funerary artworks.

⁹⁶ Kanawati, *The Tomb and Beyond*, p. 83.

⁹⁷ Kanawati, *The Cemetery of Meir. Volume I*, p. 48.

⁹⁸ Kanawati & Evans, *The Cemetery of Meir. Volume II*, pp. 51-52.

⁹⁹ J. Baines, *Visual and Written Culture in Ancient Egypt* (Oxford, 2007), p. 12.

¹⁰⁰ Kanawati, *The Tomb and its Significance*, p. 107.

¹⁰¹ Ploughing is represented in all of the wall scenes identified in this study and six of the eight models. The other two models depict the process of hoeing the earth.

Harvesting

The next stage of the agricultural cycle represented in the artworks was the harvest of grain which occurred during the season of *shemu*.¹⁰² Three principal crops were harvested by the ancient Egyptians: barley, emmer wheat and flax. Barley and emmer wheat were used in the manufacture of bread and beer,¹⁰³ while flax was used to make linen, string, rope and oil.¹⁰⁴ Flax was the first of the crops to be harvested as it needed to be obtained while the fibre was still soft, and is consequently represented first in wall scenes.¹⁰⁵ A total of eight wall scenes representing the harvest of barley and/or emmer wheat were collected in this study.¹⁰⁶

Harvesting was the most important stage in the agricultural cycle as it formed the end of the process of grain cultivation. In Egyptian artistic representations, it was always the beginning and end of each process that were most significant, with the middle stages of less importance.¹⁰⁷ This is certainly true for the portrayal of the agricultural cycle in wall scenes. Representations of ploughing and sowing, followed by harvesting, are the most commonly attested agricultural scenes on tomb walls.¹⁰⁸ These two activities are displayed immediately next to one another, as if no time had passed and with no record of the growth and care of the crops that took place during this interim period.¹⁰⁹ The cultivation of these crops was essential to the tomb owner as it provided him with his basic food requirements in both life and death.¹¹⁰ A good harvest was fundamental for the welfare of the country each year, and its representation in the tomb ensured this would continue for the tomb owner in the afterlife.¹¹¹

While harvesting formed a dominant part of agricultural wall scenes, the models present a different image of grain cultivation. Not a single model representing the harvest has been

¹⁰² Siebels, "Agricultural Activities", p. 78.

¹⁰³ It appears that barley was the predominant cereal used during the Old and Middle Kingdoms, while emmer wheat was the principal cereal employed from the late New Kingdom onwards. In the Ptolemaic Period, however, emmer wheat seems to have lost its importance and was replaced by free-threshing wheats.

Murray, "Cereal Production and Processing", pp. 512-513.

¹⁰⁴ W. Wetterstrom, & M.A. Murray, "Agriculture", in D.B. Redford (ed.), *The Oxford Encyclopedia of Ancient Egypt* (2005), <<http://www.oxfordreference.com>>.

¹⁰⁵ Siebels, "Agricultural Scenes", p. 58.

¹⁰⁶ The representations of barley and emmer wheat are very similar, making it impossible to distinguish between them. This is only achievable when captions are included that identify the type of grain being cultivated. As this project is a study of the stages involved in the production of bread and beer, scenes portraying the harvest of flax were not collected.

Siebels, "Agricultural Scenes", p. 82.

¹⁰⁷ Kanawati, *The Tomb and Beyond*, p. 88.

¹⁰⁸ Kanawati, *The Tomb and its Significance*, p. 111.

¹⁰⁹ On the north wall of the tomb of Senbi, the harvesters work immediately after the ploughing team [Pls. 11a, 11b]. Likewise, in a scene from the tomb of Djehuty-nakht, a group of men harvesting are at work immediately to the right of two ploughing teams accompanied by sowers and a man hoeing the earth [Pl. 21a].

Siebels, "Agriculture in Old Kingdom Tomb Decoration. Part I", 117.

¹¹⁰ Siebels, "Agricultural Scenes", p. 55.

¹¹¹ Kamrin, *The Cosmos of Khnumhotep II*, p. 72.

attested at the sites of Meir, El-Bersha and Beni Hassan. A further search determined that this was in fact true for the whole of Egypt. While this initially appeared to indicate that a different concept lay behind the creation of the model, more careful analysis demonstrated that the exclusion of the harvest was due to the nature of the medium exploited. The two-dimensional surface enabled a wide variety of themes to be represented as figures and objects could be easily drawn into the scenes.¹¹² The sculptor, in contrast, was restricted by the problems of perspective as he worked with a three-dimensional medium. While some processes could be rendered easily in three-dimensions, such as the farmers and oxen required in representations of ploughing, others were too technically difficult to be fashioned in this way. The stems of the crops required in the portrayal of the harvest were too fine to be modelled out of wood. It was due to the limited flexibility of the sculptor working in three-dimensions that certain processes such as harvesting could not be portrayed.

¹¹² Objects were rendered from their most easily recognisable aspect, causing scenes to be composed of a collection of viewpoints. Artists chose to depict what they knew about an object rather than a realistic image, and as a result, chose to exclude depth from their artworks.

Robins, *Proportion and Style*, p. 3.; Robins, *The Art of Ancient Egypt*, p. 21.; N. Kanawati & A. Woods, *Artists in the Old Kingdom: Techniques and Achievements* (Cairo, 2009), p. 30.

Transportation of the Harvest

Transportation was required to remove the sheaves cut during the harvest from the field to the threshing-floor.¹¹³ Typically, this involved storing the bundled sheaves in baskets or sacks and loading them onto the backs of donkeys who were escorted by fieldhands.¹¹⁴ This task was not always included in artistic representations of the agricultural cycle, and has only been identified in seven wall scenes and five models in this study.¹¹⁵

Although each of these representations depicts the transportation process, some portray the journey to the threshing-floor while others the journey away. Wall scenes are able to convey the exact nature of this journey more clearly than models as they can include a number of additional artistic features. One means by which this was achieved involved carefully arranging the scenes in each register. On the west wall of the tomb of Amenemhat, the donkey and its fieldhand reside in the middle of register six in between the harvest and the threshing-floor [Pl. 36]. The fieldhand faces towards the threshing-floor and unloads the baskets from the donkey, suggesting that the load was being delivered for the threshing process. Even though the harvest and threshing-floor are depicted immediately beside each other, in reality they would have been some distance apart, otherwise the need for the donkey would have been made redundant. Rather, the agricultural cycle was expressed through the compilation of single successive scenes.¹¹⁶ As was seen in models of hoeing the earth, the three-dimensional medium did not convey the progression from one activity to the next as each of the agricultural models collected depicts a single process.

Another means by which wall scenes portrayed the exact role of the transportation team was through including minor artistic details. One example can be found in the tomb of Ahanakht where a small fragment remains of a transportation scene [Pl. 19].¹¹⁷ A single donkey with a blanket hung over its back is preserved in the top register. The blanket was used to prevent chaffing on the donkey's skin from the sack or basket.¹¹⁸ As in this example, it is most commonly represented as an undecorated rectangle falling down the near side of the donkey's

¹¹³ Like the process of harvesting, this activity took place during the season of *shemu*.

Siebels, "Agricultural Scenes", p. 55.

¹¹⁴ Siebels, "Agricultural Scenes", p. 60.

¹¹⁵ Unfortunately, only one of the models was obtainable through images, preventing the other four from being properly examined. All five of the models are briefly described by Breasted.

Breasted, *Egyptian Servant Statues*, p. 72.

¹¹⁶ Gaballa, *Narrative in Egyptian Art*, p. 6.

¹¹⁷ The tomb has been significantly damaged by quarrying and earthquakes. Little of the decoration on this wall remains.

P.E. Newberry & F.L. Griffith, *El Bersheh. Part II* (London, 1894b), p. 30.

¹¹⁸ Siebels, "Agriculture in Old Kingdom Tomb Decoration. Part I", 250.

back.¹¹⁹ As only the blanket has been included in this design, it suggests that the artist was portraying the return journey from the threshing-floor after the load had been delivered.¹²⁰ The models collected in this study, on the other hand, do not include this same level of detail. As can be seen in a model from Meir, each donkey is loaded with two sacks but without the supporting blanket [Pl. 3a].¹²¹ Consequently, the three-dimensional medium did not express the direction of the journey.

The donkey was the most commonly utilised animal in the transportation process according to the artistic representations. Siebels has noted that all transportation wall scenes from the Old Kingdom depict this animal.¹²² However, variation can be found amongst the models with one example from the 6th Dynasty tomb of Niankh-Pepy-Kem depicting an ox carrying out this task.¹²³ Even though this tomb dates to the same time period as the wall scenes studied by Siebels, it deviates from the usual artistic design by portraying an ox rather than a donkey.¹²⁴ This demonstrates that the sculptor was able to include unique features in his design and was not limited to copying the two-dimensional example.

Amongst the representations of the donkeys, a variety of levels of artistic skill can be witnessed. While all of the two-dimensional examples depict the donkey with considerable detail, the two donkeys in a model from Meir are crudely made [Pl. 3a]. Each donkey is formed of a rectangular body with no alterations in shape to indicate muscle. Furthermore, they each have four straight stick-like legs and a small head with no facial features painted on. Instead, only small indentations for the eyes and small protrusions for the ears are present. While it is possible that some of these details were originally included but have since been lost, it is clear that the sculptor was quite limited in his skill. This is especially noticeable when compared with the wall scenes. On the west wall of the tomb of Khnumhotep II, the donkey has been intricately drawn [Pl. 39]. It has four clearly defined hooves, a long tail and mane, two long pointed ears and detailed facial features. This representation is much more

¹¹⁹ The rug was an innovation of the Saqqara school of art and was the inspiration for many later provincial copies.

Siebels, "Agriculture in Old Kingdom Tomb Decoration. Part I", 250-251.

¹²⁰ Siebels, "Agriculture in Old Kingdom Tomb Decoration. Part I", 267.

¹²¹ Although only this one model could be studied through images, Breasted's description of the other four examples suggests that each animal was loaded with a sack.

Breasted, *Egyptian Servant Statues*, p. 72.

¹²² Siebels, "Agricultural Activities", p. 85.

¹²³ Unfortunately, no image of this model could be obtained. Breasted describes the ox as having black spots on a white coat but without any horns or ears. The animal was once driven by a man, but only his feet are still preserved.

Breasted, *Egyptian Servant Statues*, p. 72.

¹²⁴ The tomb has been dated to late in the reign of Pepy II in Dynasty 6.

N. Kanawati, L. Evans, M. Lashien, A.L. Mourad & A. Senussi, *The Cemetery of Meir. Volume III: The Tomb of Niankhpepy the Black* (Oxford, 2015), p. 18.

realistic in appearance than the model from Meir. In part this is due to the different levels of skill between the artists and sculptors. The advanced training received by the artist is reflected in the higher quality of his artistic design. However, the difference in quality is also due to the contrasting nature of the two media. Features could be more easily drawn onto the two-dimensional wall surface than modelled out of wood in three-dimensions, enabling finer detail to be included by artists.

One advantage of the three-dimensional medium was that it could clearly convey the spatial relationships between the donkeys. Like the oxen in the ploughing models, the donkeys could stand side-by-side. In a model from Meir, the two animals stand next to one another, although one is positioned slightly in front [Pl. 3a]. The wall scene, in contrast, did not have this same freedom of design. One of two main ways was used to convey spatial relationships. Firstly, figures could overlap while standing on the same baseline.¹²⁵ This was the preferred method in the ploughing wall scenes, but only appears in one transportation scene.¹²⁶ The second technique involved placing each figure one in front of the other in a line across the register.¹²⁷ This was the more common portrayal in the transportation scenes. A clear example of this can be found on the south wall of the tomb of Khety where five donkeys walk in a line across the middle of register three [Pl. 35a]. Such a representation could either indicate that the animals were walking one behind the other or next to each other.¹²⁸ Even though wall scenes could not convey the same sense of depth as models, artists utilised these two different methods to overcome this limitation.

Common across the artistic representations was the transportation of the sheaves in either sacks or baskets, portrayed in a large variety of shapes and sizes.¹²⁹ The three-dimensional medium had the advantage of displaying both sides of the load hanging over the donkeys' backs. In a model from Meir, two sacks hang over the backs of each donkey [Pls. 3a, 3b]. The sacks are rectangular in shape and have a simple box-like pattern carved into them. Wall

¹²⁵ Schäfer, *Principles of Egyptian Art*, p. 179.

¹²⁶ This is found in register three on the west wall of the tomb of Pepyankh the Middle where two groups of donkeys work to transport the sheaves [Pl. 6a]. The donkeys in each group closely overlap one another. Not only is this a unique find in the three sites under study, but it is also a rare example amongst all Old Kingdom wall scenes.

Siebels, "Agriculture in Old Kingdom Tomb Decoration. Part I", 249.

¹²⁷ Schäfer, *Principles of Egyptian Art*, p. 172.

¹²⁸ Schäfer, *Principles of Egyptian Art*, p. 172.

¹²⁹ Siebels has divided the loads found in Old Kingdom wall scenes into three main types: sacks that have the appearance of a formless bundle; sacks with a dish-shaped base and a rectangle placed across the top; and sacks with bulging sides and a low-hanging base. However, she also notes that the great variety of representations makes it difficult to classify them all with certainty. Such variety has also been found in the scenes collected in this study. Some display hexagonal structures [Pl. 6a], while others depict small trapezoidal loads [Pl. 12], or further, baskets with curved edges [Pl. 39].

Siebels, "Agriculture in Old Kingdom Tomb Decoration. Part I", 211, 213, 239-246.

scenes, in contrast, do not have this same flexibility of design as only one side of the load can be portrayed. It is clear that artists were aware of this technical limitation of the wall surface as examples can be found where they have attempted to overcome this difficulty. In the middle of the sixth register on the west wall of the tomb of Amenemhat, a fieldhand unloads the baskets from a donkey and places them beside the threshing-floor [Pl. 36]. What is striking about this image is that he stacks the baskets end-on-end when in reality this placement could not have been achieved. This unusual design is an attempt by the artist to convey both sides of the load carried by the donkey.

The representation of unloading the donkeys forms a major note of difference between the two media. While this task appears in some of the wall scenes, it is not included in the three-dimensional examples collected. The scene did not properly develop until the Middle Kingdom, with very few examples found in Old Kingdom tombs.¹³⁰ One of these rare examples can be found on the south wall of the 6th Dynasty tomb of Pepyankh the Black [Pl. 10].¹³¹ In the first register, a man stands between a transportation team and the threshing-floor while emptying the contents of a sack.¹³² It is not until the Middle Kingdom that this scene is more regularly included, with this study identifying three examples, all dating to Dynasty 12.¹³³ The scene that displays the most detail is found on the west wall of the tomb of Khnumhotep II [Pl. 39]. Both the tasks of filling a basket with sheaves and securing the load onto the donkey's back are illustrated in the second register. A man and a woman stand amongst the harvest and work together to prepare the sheaves for transportation. The accompanying inscription records the man's command to the woman to *sr(w)d* 'make it firm' as they secure the load for transportation.¹³⁴ The man who stands before the donkey rests his hands on the basket, suggesting that he secures the load.¹³⁵ Such details give further insight into the transportation process, information that is not provided in the models.

¹³⁰ Siebels, "Agriculture in Old Kingdom Tomb Decoration. Part I", 259.

¹³¹ The tomb has been dated to the latter part of the reign of Pepy II in Dynasty 6.

Kanawati & Evans, *The Cemetery of Meir. Volume II*, p. 18.

¹³² Siebels, "Agriculture in Old Kingdom Tomb Decoration. Part I", 260.

¹³³ One is found on the east wall of the tomb of Ukh-hotep [Pl. 12]. This scene portrays two men either loading or unloading a basket with the support of a beam. Blackman has dated Ukh-hotep to the reign of Senusret I in Dynasty 12. A second example is found on the west wall of the tomb of Amenemhat where a man is seen stacking two baskets beside the threshing-floor which he has removed from the donkey's back [Pl. 36]. The tomb has been dated to the reign of Senusret I in Dynasty 12 by Grajetzki. The third example is from the tomb of Khnumhotep II, dated securely through an inscription to the reign of Amenemhat II in Dynasty 12 [Pl. 39].

A.M. Blackman, *The Rock Tombs of Meir. Part II: The Tomb-Chapel of Senbi's Son Ukh-hotep (B, No. 2)* (London, 1915a), p. 11.; Grajetzki, *The Middle Kingdom of Ancient Egypt*, p. 113.; Kanawati & Evans, *Beni Hassan. Volume I*, p. 25.

¹³⁴ Kanawati & Evans, *Beni Hassan. Volume I*, p. 37.

¹³⁵ Kanawati & Evans, *Beni Hassan. Volume I*, p. 37.

A unique feature of the wall scenes, exemplified in a transportation scene from the tomb of Ukh-hotep [Pl. 12], is that they could be left unfinished. Only one vignette of this wall's design was begun, consisting of a preliminary sketch in red ink of a donkey alongside two men with a basket.¹³⁶ Presumably, the rest of the wall was intended to be decorated with agricultural scenes.¹³⁷ Incomplete wall scenes such as this provide insight into the techniques employed by artists. The first step in executing relief involved outlining the figures in red ink, as has been achieved in the tomb of Ukh-hotep.¹³⁸ After this, the figures were outlined in black before the relief work itself began.¹³⁹ The models, in contrast, cannot provide this same insight into the techniques employed by sculptors as they were only stored in the tombs once complete.¹⁴⁰ Unlike wall scenes that were designed on a structural feature of the tomb, models were portable objects fashioned in workshops.¹⁴¹ Consequently, unfinished wall scenes are regularly found in tombs while models only appear in a completed state. While many wall scenes may have been left unfinished due to the premature death of the tomb owner, the large number of examples identified suggests that many were deliberately left incomplete.¹⁴² It has been proposed that this was done so that the tomb was not ready to receive the body of the owner, postponing his death.¹⁴³ This seems a likely explanation, providing further insight into the funerary beliefs of the ancient Egyptians.

While representations of the transportation process appear in both wall scenes and models, they do not figure prominently in either, suggesting that this stage in the agricultural cycle was not artistically essential. Nevertheless, the wall scene was able to provide greater detail in its designs and insight into the training and techniques of the artists.

¹³⁶ Blackman, *The Rock Tombs of Meir. Part II*, p. 15.

¹³⁷ Blackman, *The Rock Tombs of Meir. Part II*, p. 15.

¹³⁸ All four walls of Ukh-hotep's tomb chapel were intended to be decorated with reliefs. However, this was never completed. While most of the reliefs were executed on the north and south walls, it is clear that they did not receive their finishing touches. The only reliefs that did receive colour are found in the statue-recess.

Blackman, *The Rock Tombs of Meir. Part II*, pp. 10-11.

¹³⁹ Schäfer, *Principles of Egyptian Art*, p. 76.

¹⁴⁰ Incomplete models found in tombs are a result of destruction rather than being left unfinished by the sculptor. Such damage was caused through plundering which occurred in both ancient and modern times, as well as through natural decay. Wood, in particular, is susceptible to destruction by insects and the effects of water. As the majority of models are fashioned of wood, many of them have deteriorated over time.

Eaton-Krauss, *The Representations of Statuary*, p. 6.; Tooley, *Egyptian Models and Scenes*, p. 11.; Harvey, *Wooden Statues of the Old Kingdom*, p. 1.

¹⁴¹ D. Arnold, "The Architecture of Meketre's Slaughterhouse and Other Early Twelfth Dynasty Wooden Models", in P. Jánosi (ed.), *Structure and Significance: Thoughts on Ancient Egyptian Architecture* (Wien, 2005), p. 33.

¹⁴² Kanawati, *The Tomb and Beyond*, p. 122.

¹⁴³ F. Tiradritti, "Painting", in M.K. Hartwig (ed.), *A Companion to Ancient Egyptian Art* (West Sussex, 2015), pp. 253-254.

Threshing and Winnowing

The sheaves of grain required further processing before storage. This was achieved through two main tasks: threshing and winnowing, both of which took place after transportation during the season of *shemu*.¹⁴⁴ The process of threshing separated the emmer spikelets and hulled barley grains from the cereal straw.¹⁴⁵ According to artistic representations, this task was mostly carried out by donkeys or cattle which trampled the grain on the threshing-floor.¹⁴⁶ While in reality the threshing-floor was circular in shape, wall scenes convey it as a narrow, curved band above the register line as artists could only accommodate one side in their designs.¹⁴⁷

Once this process was complete, the tasks of winnowing and sieving were required to clean the grain. These activities were carried out by women who tossed the grain into the air, allowing the lighter chaff to be carried away by the breeze.¹⁴⁸ This was the final stage in preparing the grain before storage in granaries.

While both of these stages are important in the agricultural cycle, they do not figure prominently in artistic representations. Only six wall scenes depicting the task of threshing were collected in this study and only one wall scene representing the process of winnowing.¹⁴⁹ As it was the beginning and final stages of the agricultural process that were most significant in artistic representations, middle stages such as these were not considered essential.¹⁵⁰

The three-dimensional medium highlights this more clearly. Not a single model representing threshing or winnowing was identified at any of the three cemeteries under study. A further search demonstrated that this was also true for the whole of Egypt. Like the absence of harvest models, this is an unusual find. While it appears that the harvest was too technically difficult to represent in three-dimensions, this is not the same situation for threshing. This process only required the representation of two fieldhands, some oxen or donkeys and a

¹⁴⁴ Siebels, "Agricultural Scenes", p. 55.

¹⁴⁵ Murray, "Cereal Production and Processing", p. 524.

¹⁴⁶ Murray, "Cereal Production and Processing", p. 524.

¹⁴⁷ An example of this can be found in the second register on the west wall of the tomb of Khnumhotep II where oxen are at work on a threshing-floor symbolised by a thin band positioned on the baseline [Pl. 39]. This example, however, is rectangular in shape rather than curved. Siebels notes that in Old Kingdom scenes the band was generally rectangular, while the curved band developed later. This example, however, dates to Dynasty 12 in the Middle Kingdom, demonstrating that the rectangular shape was still used by later artists.

Siebels, "Agricultural Scenes", p. 62.

¹⁴⁸ The workers made use of a sieve, a pair of winnowing scoops and a long-handled brush as they completed this task.

Siebels, "Agricultural Scenes", p. 62.

¹⁴⁹ The sole winnowing scene can be found on the north wall of the tomb of Senbi [Pl. 11b].

¹⁵⁰ Kanawati, *The Tomb and Beyond*, p. 88.

circular baseboard. Models representing the processes of ploughing and the transportation of the harvest indicate that sculptors had the ability to produce the necessary elements of the threshing process. It is therefore curious that no models were fashioned that depict this task.¹⁵¹ One can only hypothesise as to why this is the case. It is clear from the wall scenes that not every stage of the agricultural cycle was required by the deceased in the afterlife. Each tomb owner could determine which processes he desired to include in his decorative scheme.¹⁵² The models also convey this condensed version of the agricultural cycle, but on a greater scale as less intermediary processes are represented. While the first stage of ploughing is regularly portrayed in three-dimensions, it is the final task of storing the grain in granaries that is most dominant. As intermediary processes, the tasks of threshing and winnowing were considered less essential.

¹⁵¹ A similar situation can be identified for the task of sieving. As can be seen in food production models, it was possible for sculptors to depict a figure working with a sieve in three-dimensions. One example can be found in a model from the tomb of Khety where a woman squats in one corner of the model while holding a sieve with both hands [Pl. 71b]. Therefore, it was not a technical limitation that prevented this task from being represented. However, it is possible that the process of winnowing was restricted by technical limitations. Like the stream of seed required in the representation of sowing, the falling grain which was essential for winnowing could not be conveyed in three-dimensions. Even though there is a technical hindrance in portraying winnowing in the models, the fact that the other intermediary activities were also not represented suggests that it was excluded as it was considered unnecessary rather than for technical reasons.

¹⁵² The extent to which the tomb owner chose the decorative scheme of his tomb has not yet been determined. He must have worked in association with the artists and builders and been guided by some sort of selection criteria. His choice also would have been impacted by the means he had available to afford such decoration. Kanawati & Woods, *Artists in the Old Kingdom*, p. 41.

The Granary

The final stage of the agricultural cycle involved storing grain in granaries.¹⁵³ This grain was essential to ancient Egyptian society as not only did it provide the basis of the Egyptian's diet, it was further exploited during seasons of poor harvest and for the next season's crops.¹⁵⁴ In artistic representations, this activity was undertaken by workmen who carried the grain to the granary where a scribe kept careful records of the exact quantities of grain being stored or removed.¹⁵⁵ While this process was depicted in both two- and three-dimensional forms, there is a vast discrepancy between the number of representations in each medium. A total of 65 models depicting the granary have been identified from the three sites under study,¹⁵⁶ in contrast to only seven wall scenes,¹⁵⁷ demonstrating that it was more significant to the sculptor. Granaries are not commonplace amongst the small stone statuettes of the Old Kingdom, but rather become more prevalent in the wooden models from the late 6th Dynasty onwards.¹⁵⁸ The vast number of representations collected demonstrates that it was an important process which displayed the individual's desire to be well-supplied with food for eternity.

There are a number of similarities in the portrayal of the storage process between the two media, particularly noticeable in their representation of the tasks of the workmen. Not only does every model and tomb-chapel wall scene collected in this study include a workman, each representation portrays him carrying out one of two tasks: collecting or transporting the grain.¹⁵⁹ Buckets were used to scoop up the grain from a pile.¹⁶⁰ In models, such as one from

¹⁵³ Like the earlier processes, this took place during the season of *shemu*.

Siebels, "Agricultural Scenes", p. 55.

¹⁵⁴ Siebels, "Agricultural Scenes", p. 63.

¹⁵⁵ Siebels, "Agricultural Activities", p. 93.

¹⁵⁶ Only 16 of these models were obtainable through images. Accordingly, analysis has only involved these 16 examples that could be closely studied.

¹⁵⁷ One of these wall scenes could not be studied as the wall is in a very poor state of preservation. This was found in the burial chamber of Pepyankh the Black at Meir.

Kanawati & Evans, *The Cemetery of Meir. Volume II*, p. 62.

¹⁵⁸ One unusual example from a tomb at Beni Hassan, now located in the British Museum [EA65613], is fashioned of pottery. Most pottery models date to the Predynastic and Early Dynastic periods. This example, however, dates to the Middle Kingdom. Unfortunately, an image of the model could not be obtained.

Breasted, *Egyptian Servant Statues*, p. 12.; Tooley, *Egyptian Models and Scenes*, p. 36.; Tooley, "Models", <<http://www.oxfordreference.com>>.

¹⁵⁹ This, however, does not apply to the four wall scenes located in the burial chamber, three of which were obtainable through images [Pls. 4, 7a, 8a]. Animate figures were excluded from these designs so that the body may be protected from any harm posed by the figures. While the first examples of decorated burial chambers did include animate figures, this practice was soon abandoned. All four examples date to Dynasty 6 when human figures were excluded from the two-dimensional designs in burial chambers.

A.O. Bolshakov, *Man and his Double in Egyptian Ideology of the Old Kingdom* (Wiesbaden, 1997), p. 118.; Daoud, "Animate Decoration and Burial Chambers of Private Tombs during the Old Kingdom", 111.; Kanawati, *Decorated Burial Chambers*, pp. 53-57.

¹⁶⁰ Siebels, "Agriculture in Old Kingdom Tomb Decoration. Part I", 406.

the tomb of Djehuty-nakht [Pl. 14], these are fashioned into cylindrical shapes regularly painted white with three dark-coloured bands around it. The workman grips the bucket with both hands, one supporting each end.¹⁶¹ This portrayal can be paralleled in a wall scene from the tomb of Khnumhotep II, where a worker bends over to scoop up grain from a pile in the first register [Pl. 39]. His bucket is rectangular in shape with curved edges, suggesting it symbolises a cylindrical vessel.¹⁶²

Further similarities can be identified in the portrayal of the sack in each medium. This item was used to transport the grain to the silos for storage and is generally represented as a large rectangle with curved edges, suggesting it was completely filled with grain.¹⁶³ It could be carried either on the shoulder or across the back of the workman. Examples of both methods can be identified in the two media. In a model from the tomb of Khety, one workman carries a sack on his left shoulder while supporting it with his right hand which extends over his head [Pl. 27]. Similarly, on the north wall of the tomb of Amenemhat, all three workers carry a sack on their left shoulders while extending their right hands over their heads to support the top of the loads [Pl. 37]. Conversely, the sack could be carried across the back of the workman, as is accomplished by four of the workers represented in a model from the tomb of Sepi III [Pl. 18]. Likewise, on the south wall of the tomb of Khety, a workman carries a sack of grain up the stairs on his back while supporting it with both hands [Pl. 35c]. These similarities of design between the two media demonstrate that both were able to accurately capture the movement of the workmen.

The presence of a scribe is another feature identified in all models and tomb-chapel wall scenes collected in this study.¹⁶⁴ Scribes were very important within the operation of the Egyptian state as they kept records in all levels of the administration.¹⁶⁵ As an important administrative system itself, the granary required the presence of a scribe who kept careful records of the amount of grain being deposited or withdrawn.¹⁶⁶ Regularly, he is situated at an

¹⁶¹ Siebels, "Agriculture in Old Kingdom Tomb Decoration. Part I", 406.

¹⁶² Like Djehuty-nakht's model, the bucket has three horizontal bands for decoration.

¹⁶³ Siebels, "Agriculture in Old Kingdom Tomb Decoration. Part I", 407.

¹⁶⁴ Once again, this does not apply to the wall scenes located in the burial chamber as animate figures were avoided.

¹⁶⁵ Their role was considered one of the noblest professions of ancient Egypt. This is evident in the Instruction texts which emphasise the importance of the role of the scribe, including 'The Instruction of Ptahhotep', 'The Instruction of Any' and 'The Instruction of Amenemope'.

M. Lichtheim, *Ancient Egyptian Literature. Volume I: The Old and Middle Kingdoms* (Berkeley, Los Angeles, London, 1975), pp. 61-82.; M. Lichtheim, *Ancient Egyptian Literature. Volume II: The New Kingdom* (Berkeley, Los Angeles, London, 1976), pp. 135-166.; P. Piacentini, "Scribes", in D.B. Redford (ed.), *The Oxford Encyclopedia of Ancient Egypt* (2005), <<http://www.oxfordreference.com>>.

¹⁶⁶ Grain served as wages for Egyptian workers and was an essential part of the administrative system.

elevated position in the granary in order to watch over the activities of the workmen below. In a model from the tomb of Khety, the scribe sits on the upper level of the granary and looks upon the activities occurring in the courtyard [Pl. 27]. Wall scenes similarly convey this elevated position. Three scribes appear in the granary scene on the west wall of the tomb of Khnumhotep II [Pl. 39]. Two are seated on the lower level with the workers while the third is situated on top of the silos. Of the two on the lower level, the scribe on the left appears to have a higher status than the one on the right.¹⁶⁷ He wears a cloak that covers his body and he sits on a raised platform. Additionally, he is identified by the accompanying inscription as *jmj-r pr n pr n dt* ‘the overseer of the house of the funerary estate’.¹⁶⁸ In contrast, the scribe on the right has the lower title of *sš* ‘scribe’ and only wears a short skirt.¹⁶⁹ He kneels on the ground on his near leg and has his further leg raised and bent at the knee. While this is the typical posture of a scribe in wall scenes, it is more likely that their actual pose resembles the cross-legged position found in Old Kingdom scribal statues.¹⁷⁰ The third scribe in the scene is given an elevated position as he sits on top of the silos.¹⁷¹ The accompanying caption identifies him as *jmj-r pr n d3wt Ntrw-htp(.w)* ‘the overseer of the house of the estates, Netjeruhotep’, a position held by a scribe during Khnumhotep II’s lifetime, reflecting the tomb owner’s wealth on earth and in the afterlife.¹⁷² These examples demonstrate that both artists and sculptors desired to convey the importance of the scribe in the granary by providing him with an elevated position.

Additionally, many of the representations include an overseer who accompanies the scribe and watches over the workmen. In each example, the overseer is given some form of distinguishing feature that separates him from the workmen. One of the ways in which the three-dimensional models achieved this was through dressing the overseer in a cloth garment, such as in a model from the tomb of Ipi [Pl. 23]. This overseer has a piece of cloth tied around his waist as he squats on the upper level next to the scribe, distinguishing him from all the

Murray, “Cereal Production and Processing”, p. 506.; Siebels, “Agricultural Activities”, pp. 93-94.; W. Grajetzki, “The Pharaoh’s Subjects: Court and Provinces”, in A. Oppenheim, D. Arnold, D. Arnold & K. Yamamoto (eds.), *Ancient Egypt Transformed: The Middle Kingdom* (New York, 2015), p. 158.

¹⁶⁷ These two scribes keep records of the amount of grain being collected by the workers.

¹⁶⁸ Kanawati & Evans, *Beni Hassan. Volume I*, p. 36.

¹⁶⁹ Kanawati & Evans, *Beni Hassan. Volume I*, p. 36.

¹⁷⁰ An example can be seen in a statue of Nikare from Saqqara [Pl. 84]. He sits in the typical scribal position and has an unrolled papyrus on his lap.

Although not as finely carved as the statues, the models could also convey the more realistic seated position of the scribe. One example can be found in a model from the tomb of Intef where the scribe is seated on the roof of the silos with his palette resting across his legs [Pl. 24].

Siebels, “Agriculture in Old Kingdom Tomb Decoration. Part I”, 424.

¹⁷¹ His role is to record the amount of grain being stored in the granary.

¹⁷² Kanawati & Evans, *Beni Hassan. Volume I*, p. 36.

other figures who wear painted skirts.¹⁷³ This is a distinctive feature of the model that could not be paralleled in wall scenes.

On the other hand, wall scenes could portray the overseer in a way that the three-dimensional medium could not achieve. The overseer who stands amongst the grain in the scene on the west wall of the tomb of Khnumhotep II is represented with an enlarged breast and rolls of fat across his chest and stomach [Pl. 39].¹⁷⁴ This portrayal stands him in stark contrast to the thin-bodied workers around him. In the three-dimensional medium, such diversity in body weight was more difficult to achieve. Rather, it was easier to fashion figures in one standard shape, causing them all to appear almost identical.¹⁷⁵ The sculptor did not have the same flexibility as the artist in creating variation in his designs.

A number of types of granaries are known from Egyptian artistic representations. The models collected in this study can be divided into three main types: single-room structures, granaries with closed silos, and granaries with open silos. All the examples of single-room structures come from the tomb of Djehuty-nakht at El-Bersha.¹⁷⁶ Djehuty-nakht held the position of nomarch of the Hare nome, most likely during the late 11th Dynasty.¹⁷⁷ His tomb-chapel consisted of a single chamber, but damage to the tomb has caused the wall scenes to be lost.¹⁷⁸ However, the contents of his burial chamber were recovered, comprising the largest collection of wooden models from the Middle Kingdom.¹⁷⁹ A total of eight granaries were

¹⁷³ Other examples can be found in models from the tombs of Khety [Pl. 27] and Khety-aa [Pl. 28], where the overseer in each example wears a linen skirt while the workers wear painted ones.

Tooley, *Egyptian Models and Scenes*, p. 65.

¹⁷⁴ Imperfect characteristics such as obesity as well as disease, balding and hunger appear occasionally in representations of minor figures. In contrast, major figures such as the tomb owner were always displayed in idealised form.

Robins, *Egyptian Painting and Relief*, pp. 38-39.; Siebels, "Agriculture in Old Kingdom Tomb Decoration. Part I", 459.; Kanawati & Evans, *Beni Hassan. Volume I*, p. 36.

¹⁷⁵ For example, all of the figures in a model from the tomb of Khety are a similar shape and size [Pl. 27]. Each man has a thin body without any variations in shape to indicate fat or muscle.

¹⁷⁶ Shaft A of tomb 10 housed the burials of Djehuty-nakht and his wife, also named Djehuty-nakht.

D.M. Doxey, "Funerary Beliefs and Practices in the Middle Kingdom", in R.E. Freed, L.M. Berman, D.M. Doxey & N.S. Picardo (eds.), *The Secrets of Tomb 10A. Egypt 2000 BC* (Boston, 2009), p. 346.

¹⁷⁷ Despite the importance of the tomb, its date has remained uncertain. The most reasonable dating, based on the artistic and archaeological remains of the tomb, is to the very end of Dynasty 11 and into the reign of Amenemhat I at the beginning of Dynasty 12.

L.M. Berman, D.M. Doxey & R.E. Freed, "Dating Tomb 10A", in R.E. Freed, L.M. Berman, D.M. Doxey & N.S. Picardo (eds.), *The Secrets of Tomb 10A. Egypt 2000 BC* (Boston, 2009), pp. 183-187.

¹⁷⁸ After interment, the tomb remained untouched for at least 2000 years before it was partly robbed by the Romans. Later, earthquakes caused great masses of rock to fall at the site of El-Bersha which also caused great damage to the tomb, particularly the tomb-chapel.

Newberry & Griffith, *El Bersheh. Part II*, p. 43.; D. Dunham, "The Tomb of Dehuti-nekht and His Wife, about 2000 B.C.", *Museum of Fine Arts Bulletin* 19.114, (1921), 43.

¹⁷⁹ The collection consisted of over 100 models, including 58 boats, about a dozen offering-bearers and eight granaries. However, the models were found scattered around the chamber and in the fill of the shaft due to the plundering of the tomb. While it is thought that the two Djehuty-nakhts had separate groups of models, it is impossible to determine which models belonged to which Djehuty-nakht.

identified, forming the largest number of granaries in a single tomb from the three sites under study. Each of these granary models is simple in size and architectural complexity, consisting of a single room without any defined silos for the storage of grain.¹⁸⁰ However, detail has been included in forming the top corners of each building, with all rising to meet at peaks. This is a common feature across many of the models, first appearing in the 11th Dynasty.¹⁸¹ Not only are the peaked corners identified in artworks, they are evident in the hieroglyph used for the term *šnw.t* ‘granary’.¹⁸² It appears that this feature served to indicate a domed roof, the most common type of granary structure, while still allowing the interior to remain visible.¹⁸³ This enabled the model to encapsulate a holistic view of the granary’s architectural design.

The granary could also be fashioned in three-dimensions into different sections and levels. Such models include silos in their design that serve as storage containers for the grain. In many of these examples, the silos are covered by a flat roof, forming the second major category.¹⁸⁴ This platform provided an elevated level for the scribe to sit on and a surface for the workmen to traverse when depositing the grain.¹⁸⁵ A number of small circular holes were carved into the roof, providing openings through which the grain could be poured.¹⁸⁶ A model from the tomb of Intef includes one row of silos covered by a flat roof [Pl. 24]. A workman stands at the bottom of the staircase, preparing to take his load of grain to the scribe on the upper level before depositing it in the silos. An additional feature included in this type of roofed silo is a rectangular aperture in one side wall. This opening allowed the grain to spill out onto the floor and be collected by the workmen.¹⁸⁷ A model from the tomb of Nefery includes two rows of roofed silos that are separated by a courtyard [Pl. 25]. A series of rectangular access doors are situated along the interior walls of the silos, one aligning with each circular opening in the roof. Each rectangular door has been cut into the wood and outlined in paint for greater emphasis.¹⁸⁸ As the model can be viewed from all sides, these two openings on the side and top of each silo can be clearly seen.

D’Auria, Lacovara & Roehrig, *Mummies and Magic*, pp. 109, 112.; Freed & Doxey, “The Djehutynakhts’ Models”, pp. 151-152.

¹⁸⁰ While a total of eight granaries have been identified from the burial, five of these were found disassembled. Only four could be studied in this project through images. [Pls. 14-17].

Freed & Doxey, “The Djehutynakhts’ Models”, p. 162.

¹⁸¹ D’Auria, Lacovara & Roehrig, *Mummies and Magic*, p. 113.

¹⁸² Grajetzki, “The Pharaoh’s Subjects”, p. 158.

¹⁸³ Badawy, *A History of Egyptian Architecture*, p. 31.

¹⁸⁴ See Pls. 23, 24, 25, 27, 31 as examples of this type of structure.

¹⁸⁵ Badawy, *A History of Egyptian Architecture*, p. 33.

¹⁸⁶ Breasted, *Egyptian Servant Statues*, p. 12.

¹⁸⁷ Siebels, “Agricultural Activities”, p. 93.

¹⁸⁸ Garstang, *The Burial Customs of Ancient Egypt*, p. 72.

Conversely, the third category of granary model left its silos uncovered, allowing its contents to be seen. Like the previous category, the interior of the structure was divided into two main sections: the courtyard and the silos. However, the absence of a roof prevented the scribe from being raised in the same manner. Each sculptor instead found innovative ways to overcome this difficulty and still elevate the scribe. In a model from the tomb of Sepi III, the scribe is not physically raised, but rather sits on the ground level underneath a canopy [Pl. 18].¹⁸⁹ This covering separates him from the workmen operating in the courtyard, allowing his status rather than his physical position to be elevated. A different approach was taken by the sculptor of a model from the tomb of Sobek-hotepi who still chose to physically raise the scribe [Pl. 33]. A thin wall divides the granary, creating two distinct sections: a courtyard and a silo, both of which are uncovered. The sculptor chose to position the scribe on the thin dividing wall, enabling both the contents of the silos to remain visible and the scribe to be physically elevated.¹⁹⁰ These three different categories demonstrate the diversity of the three-dimensional medium and its ability to encapsulate an entire architectural structure.¹⁹¹

While wall scenes can also convey the general architectural shape of the granary, they are unable to provide the same comprehensive picture as the models. This can be demonstrated in a scene on the south wall of the tomb of Khety, where two rows of 10 adjoining silos stand in two sub-registers [Pl. 35c]. Like the models, a rectangular aperture is painted onto the side of each silo, allowing the grain to be extracted. However, unlike the models, the circular openings on top of each silo cannot be seen by the viewer. Only one side of the structure can be portrayed in two-dimensions and the artist has chosen to display its side rather than its top.¹⁹² It can be assumed, however, that as the workman walks up the staircase while carrying a sack of grain, there must be small openings in the roof through which the grain can be poured.¹⁹³ The artist was restricted in the number of viewpoints he could portray.

Furthermore, the wall scene could also convey the domed roof in its designs. On the south wall of the burial chamber of Pepyankh the Middle, a row of six granaries is depicted in the

¹⁸⁹ Tooley, *Egyptian Models and Scenes*, p. 41.

¹⁹⁰ Similar methods have been employed by the sculptors of other models. One example from the tomb of Khety-aa has a thin board covering half of a single silo onto which the scribe and overseer sit [Pl. 28]. The models from the tombs of Nefwa [Pl. 26], and Khnum-Nakhti and Netjer-Nakhti [Pl. 32] each cover one silo with a thin board which serves as a platform for the officials to sit on.

¹⁹¹ Taylor, *Death and the Afterlife*, p. 101.

¹⁹² This is the most characteristic side of the silo and is likely why it was chosen. The viewer would be able to immediately recognise the structure.

Kanawati & Woods, *Artists in the Old Kingdom*, p. 29.

¹⁹³ Siebels, "Agricultural Scenes", p. 63.

upper register [Pls. 7a, 7b]. Each granary has a domed roof with peaked corners.¹⁹⁴ However, unlike the sculptor, the artist could not also depict the interior of the structure as he could only portray one perspective. On the other hand, this example includes a feature not present in the models: a raised platform. All six granaries are placed on a rectangular platform that Siebels has suggested served as a means to protect the granaries and their contents from the rising floodwaters.¹⁹⁵ This feature could be distinguished in two-dimensions as the artist focused on the side of the structure. In contrast, each granary model was constructed on a thin wooden baseboard that served to connect the figures rather than convey this structural feature. It was the exterior of the granary that figured more prominently in the wall scenes.

All of the granary models include an entry doorway in one exterior wall, providing access to the structure's interior. These doors could be painted on the wall,¹⁹⁶ or carved into the model.¹⁹⁷ The latter are most significant as they form a unique element of the three-dimensional medium. Such doors were carved out of wood and attached to the structure with hinges, allowing them to open and close. A single door found in tomb no. 260 at Beni Hassan includes hinges, indicating that it would facilitate movement when attached to the model [Pl. 30]. The final placement of such a door can be seen in a model from the tomb of Nefery [Pl. 25]. The hinges were inserted into a hole in the floor and a hole in the doorframe above.¹⁹⁸ Including a real-working door provides the models with a sense of realism that cannot be achieved in two-dimensions. Rather, access to the granary in wall scenes was achieved through an archway painted either at the top or bottom of the staircase. On the north wall of the tomb of Amenemhat, the workmen walk through an archway on top of the silos before presenting their load to the overseer [Pl. 37].¹⁹⁹ The two-dimensional wall surface could not include real-working features, so the artist was required to convey the entryway in this alternate manner.

¹⁹⁴ This same shape can be witnessed in the granaries represented in the wall scenes found in the burial chambers of Niankh-Pepy-Kem [Pl. 4] and Hewetiaah [Pls. 8a, 8b].

¹⁹⁵ Siebels, "Agriculture in Old Kingdom Tomb Decoration. Part I", 404.

¹⁹⁶ See Pls. 14, 16, 24, 29, 31, 32, 33.

¹⁹⁷ See Pls. 23, 25, 26, 28.

¹⁹⁸ Breasted, *Egyptian Servant Statues*, p. 12.

¹⁹⁹ Similar archways can be seen in the tombs of Khety and Khnumhotep II. On the south wall of the tomb of Khety, an archway resides at the bottom of the stairs in front of the lower row of silos [Pl. 35c]. It consists of a thick rectangular outline coloured red. The granary scene in the tomb of Khnumhotep II involves three doorways [Pl. 39]. One gives access to a structure in which two of the scribes sit, while the other two are associated with the grain silos. One of these resides at the bottom of the staircase while the other is located at the top. All three archways are rectangular in shape.

Another unique feature of the three-dimensional representation of the granary was the inclusion of real grain.²⁰⁰ A model from the tomb of Khety-aa was completely filled with grain [Pl. 28]. The men working in the courtyard stand amongst the seeds, with only their upper bodies visible.²⁰¹ While wall scenes also portray men working amongst piles of grain, artists were restricted by certain limitations of the two-dimensional design. Real grain could not be included on the wall surface, so artists were required to find other means to depict this. On the west wall of the tomb of Khnumhotep II, two workmen bend over to scoop up grain in buckets while an overseer stands amongst the pile [Pl. 39]. The artist has drawn small circles onto this pile to indicate individual pieces of grain.²⁰² While sculptors had the advantage of incorporating real grain in their designs, artists could only convey this element through providing decorative alterations.

An unusual feature of the granary models is their inclusion of textual inscriptions.²⁰³ Two examples have been identified, forming the only models collected in this entire study that include any form of inscription. Garstang has identified three hieratic signs on a model from the tomb of Nefery [Pl. 25]. They are located on the outer wall to the left of the door, but are too difficult to read.²⁰⁴ Similarly, some hieratic jottings have been identified by the British Museum on the interior wall of a model from the tomb of Sobek-hotepi [Pl. 33].²⁰⁵ Unfortunately, these have remained untranslated. Perhaps they indicate the types of grain being stored in the silos.²⁰⁶ While the meaning of these inscriptions remains unknown, these examples demonstrate that it was possible for models to include some form of accompanying inscription.

²⁰⁰ It cannot be certain if all of the models originally stored real grain or if it was only included in some examples. It is possible that grain that was once stored in some of the models has been lost over time, particularly as many models were not found in their original locations in the burials.

²⁰¹ Other models only included a thin layer of grain, an example of which can be found in a model from the tomb of Nefery [Pl. 25]. As the silos in this model are roofed, it is not clear if these chambers were also filled with grain.

²⁰² A different method has been adopted by the artist of the tomb of Khety. On the south wall of the tomb, two men stand beside a small domed shape which has been painted yellow to represent grain [Pl. 35c].

²⁰³ Interestingly, the granary wall scenes include less textual inscriptions than other agricultural scenes. Amongst those located in the tomb-chapel, only the scene from the tomb of Khnumhotep II includes any text. This consists of captions identifying the names and titles of the scribes as well as a label designating the activity of the workmen near the pile of grain [Pl. 39]. While the examples located in the burial chamber also exclude text identifying the contents of the granaries, two of those studied include an inscription describing an offering. These are found in the burial chambers of Niankh-Pepy-Kem [Pl. 4] and Hewetiaah [Pl. 8a].

Kanawati, *The Cemetery of Meir. Volume I*, p. 64.; Kanawati & Evans, *Beni Hassan. Volume I*, p. 36.; Kanawati, Evans, Lashien, Mourad & Senussi, *The Cemetery of Meir. Volume III*, p. 46.

²⁰⁴ Garstang, *The Burial Customs of Ancient Egypt*, p. 73.

²⁰⁵ The British Museum, London, *Collection Online*, viewed 17 March 2016, <http://www.britishmuseum.org/research/collection_online/search.aspx>.

²⁰⁶ Siebels notes that wall scenes sometimes include inscriptions on the side of the granaries which indicate the nature of their contents. Perhaps this practice has been adopted by the models.

Siebels, "Agricultural Scenes", p. 63.

Of the 72 models and wall scenes depicting the granary collected in this study, 58 of these originate from the site of Beni Hassan. The agricultural cycle was an important decorative theme at all sites, but the representation of the storage of grain is much more prominent at Beni Hassan than at Meir and El-Bersha. Kanawati and Woods have attributed the dominance of this theme at the site to the agricultural wealth of the province.²⁰⁷ This suggests that funerary artworks not only provide the tomb owner with access to an eternal supply of grain in the afterlife, but also serve as a reflection of his wealth during his lifetime.

Furthermore, almost all of the granaries collected in this study are represented in three-dimensions, most of which come from the Lower Cemetery at Beni Hassan. These burials either did not have tomb-chapels or left them undecorated and so did not include two-dimensional scenes in their decoration.²⁰⁸ A total of 888 tombs are located in the Lower Cemetery, each consisting of a similar design.²⁰⁹ Their owners were presumably inhabitants of the region who served the nobles buried in the Upper Cemetery as well as members of their families.²¹⁰ For some of these individuals who could not afford a tomb with a diverse range of decoration, a single model could suffice. In such instances, the granary was the most significant agricultural stage to be represented as it provided the deceased with an eternal source of grain for use in the afterlife. This storage process was less vital in the wall scenes as more stages of the agricultural process could be represented. The granary model was especially important to lower officials as it provided them with a miniature image of a real granary, operating to serve them in the afterlife.

²⁰⁷ Kanawati & Woods, *Beni Hassan*, p. 74.

²⁰⁸ D.B. Spinel, "Beni Hasan", in D.B. Redford (ed.), *The Oxford Encyclopedia of Ancient Egypt* (2005a), <<http://www.oxfordreference.com>>.

²⁰⁹ This plan comprised a vertical shaft descending through the rock that led to a small chamber or recess in which the coffin and grave goods were stored.

Garstang, *The Burial Customs of Ancient Egypt*, p. 45.

²¹⁰ Grajetzki, *The Middle Kingdom of Ancient Egypt*, pp. 111-112.; Kanawati & Woods, *Beni Hassan*, p. 5.

Food Production

Preparing the Dough

The artistic record presents a condensed image of the baking process, with only a select number of steps represented.²¹¹ Three of the most prominent stages depicted in both two- and three-dimensions were pounding, grinding and kneading. These processes turned the grain obtained through the agricultural cycle into dough that was ready to be baked into bread.²¹²

The first of these stages involved pounding the grain in a mortar with a pestle in order to remove the chaff. Samuel has suggested that the grain was stored in the granaries still hulled.²¹³ This means that the chaff needed to be removed during food processing so that the dough might stick together and absorb nutrients.²¹⁴ For this process to be efficient, the grain in the mortar needed to be dampened before the pestle could separate the grain from the chaff.²¹⁵

The task of pounding grain is almost entirely depicted as being carried out by men in both two- and three-dimensional representations. Of the nine models portraying pounding grain collected in this study, only one example displays a woman completing this task. This model was found in the tomb of Henu at El-Bersha and includes a single figure standing behind a large mortar while holding a long pestle [Pl. 57]. She is represented with yellow skin and stands entirely nude. Her pubic area is indicated by a black triangle and her nipples consist of painted black dots.²¹⁶ This depiction stands her in contrast to the three-dimensional representation of men completing this activity. The man pounding grain in a model from the tomb of Khety presents a typical representation [Pl. 71a]. He has red skin and wears a long white skirt with a material garment wrapped around his legs. The woman is distinguished

²¹¹ Rarely is an entire sequence of activities represented in a single tomb. More commonly, a select number of processes are displayed and this selection will be different in every monument.

M. Müller, "Iconography: Basic Problems of the Classification of Scenes", *Sesto Congresso Internazionale di Egittologia: Atti 2*, (1993), 338.; J. Swinton, "Food and Drink", in A. McFarlane & A. Mourad (eds.), *Behind the Scenes: Daily Life in Old Kingdom Egypt* (Oxford, 2012), p. 40.

²¹² This dough was used in the production of both bread and beer. Baking and brewing were commonly represented in the same scenes and models as they shared many of the same ingredients and processes. As a result, the representations of preparing the dough analysed in this section could be representations of preparing bread for either baking or brewing. It is often difficult to distinguish in the artworks what the resulting bread was to be used for.

Breasted, *Egyptian Servant Statues*, p. 37.; A. Ford, "The Staples of Life: Bread and Beer", in L. Donovan & K. McCorquodale (eds.), *Egyptian Art: Principles and Themes in Wall Scenes* (Guizeh, 2000), p. 142.

²¹³ D. Samuel, "Ancient Egyptian Cereal Processing: Beyond the Artistic Record", *Cambridge Archaeological Journal* 3.2, (1993), 278.; D. Samuel, "Brewing and Baking", in P.T. Nicholson & I. Shaw (eds.), *Ancient Egyptian Materials and Technology* (Cambridge, 2000), p. 545.

²¹⁴ This stage was important in the production of bread and was not utilised in the brewing process. The grain used to make beer was not cleaned of chaff until a later sieving process.

Samuel, "Brewing and Baking", pp. 557, 569.

²¹⁵ M. De Meyer, "Old Kingdom Rock Tombs at Dayr al-Barshā. Volume II: Excavations in Zone 7 and Plates", PhD thesis, Katholieke Universiteit (Leuven, 2008b), 619.

²¹⁶ De Meyer, "Old Kingdom Rock Tombs at Dayr al-Barshā. Volume II", 619.

from the men through her skin colour and lack of clothing. Not one of the men pounding grain in the models is depicted nude.

Likewise, only one wall scene collected in this study depicts women carrying out this initial task.²¹⁷ In register seven on the west wall of the tomb of Amenemhat, two women stand beside a mortar, one on each side [Pls. 82a, 82b].²¹⁸ The woman on the right has, like Henu's model, yellow skin and short black hair. However, unlike the model, she wears a short white skirt. These two outlying examples demonstrate that both artists and sculptors were able to deviate from the standard design and show some level of individuality.

One major note of difference between the two media in their portrayal of the process of pounding grain is the number of people shown to be involved. In every model collected in this study which depicts this initial process, a single figure pounds the grain. The typical position of such a figure can be seen in a model from Meir [Pl. 52a]. The man stands with both arms held out straight in front of him. He grips the pestle with both hands and holds it so that the bottom rests inside the mortar. Presumably he moves the pestle around the mortar until the grain has been completely crushed.

The wall scenes, in contrast, represent two figures undertaking this activity. Three wall scenes that include this process were collected, all of which depict two workers completing this task. One example is found in a scene on the south wall of the tomb of Baqet III [Pl. 80]. On the left end of the fifth register, two men stand on either side of a mortar, each holding a long pestle. The man on the right holds his pestle vertically with one hand, while the man on the left grips his pestle with both hands and angles it towards the mortar. The apparently more relaxed stance of the man on the right suggests that he has just finished pounding, while the man on the left stands in a stronger position with both hands directing the pestle. The two figures must alternate the role of pounding. This difference in the number of figures involved between the media is constant across all of the artworks, demonstrating that the models had their own design and were not exact replicas of the wall scenes.

²¹⁷ A second wall scene may be added to this exception. In a scene from the tomb of Djehuty-hotep at El-Bersha, a woman kneels while holding a small pestle in one hand and supporting a vessel on the ground in the other [Pl. 63b]. However, it is unclear if she is mixing dough or pounding grain. While Newberry is unable to determine which activity she is undertaking, it appears more likely that she is mixing dough due to the size of the pestle and her kneeling position.

The rarity of a female figure pounding grain is also noticeable at other sites. A unique example from the site of El-Hawawish, found in the tomb of Ka-hep, depicts a woman working opposite a man at the same mortar while pounding grain [Pl. 89].

Newberry, *El Bersheh. Part I*, p. 35.

²¹⁸ Unfortunately, damage to the scene prevents a clear image of the woman on the left from being obtained.

One standard feature across all of the two- and three-dimensional representations is the shape of the pestle. All of the examples create a distinction in size between the top and bottom of the tool, with the end used for pounding always thicker and more rounded than the top. However, each artist and sculptor conveyed this in his own way. Most of the models depict the pestle as one long stick with a thin point gradually swelling to a broad, rounded bottom.²¹⁹ One example of this can be found in a model from the tomb of Khety where a man holds a pestle with both hands, his right gripping the slender handle and his left further down towards the rounded base [Pl. 71a]. Other models conveyed this shape in a different manner, such as one from Meir that combines two sticks of different widths rather than gradually extending the width of a single stick [Pl. 52a]. The thinner one is positioned on top and serves as the handle for the man to hold with both hands. In this way the sculptor was still able to portray the characteristic wider end of the pestle necessary for pounding.

The wall scenes also depict the pestle with a rounded end, but are able to achieve a clearer distinction between its body and its base. In the baking scene on the south wall of the tomb of Baqet III, the two pestles consist of long, thin sticks with clearly defined rounded ends [Pl. 80]. While the artist could easily draw this detail into the scene, it was more difficult for the sculptor to fashion this shape in three-dimensions.

The second major stage in preparing dough commonly represented in both two- and three-dimensions was the grinding of grain into flour. This is the most prominent of the three major stages of preparing dough in the artworks, appearing in 23 of the 32 examples collected in this study. The clean grain that was obtained through pounding was subsequently milled into flour.²²⁰ The saddle quern was the preferred tool for grinding in ancient Egypt until the Graeco-Roman Period when the rotary quern was introduced.²²¹ Samuel has identified that during the Old Kingdom the saddle quern was depicted in wall scenes as resting on the floor, but by the Middle Kingdom it was raised onto a platform.²²² A similar trend has been recognised in the models by Tooley. Those dating to the Old Kingdom represent the miller kneeling over a quern residing on the base of the model. This was continued in the First Intermediate Period, but was replaced in the Middle Kingdom with a taller quern at which the

²¹⁹ Winlock, *Models of Daily Life in Ancient Egypt*, p. 28.

²²⁰ This stage was completed for bread used in both baking and brewing. Samuel, "Brewing and Baking", pp. 560, 569.

²²¹ Raising the stone off the ground made the task of grinding faster, easier and more comfortable.

D. Samuel, "A New Look at Old Bread: Ancient Egyptian Baking", *Archaeology International* 3, (1999), 30.; Samuel, "Brewing and Baking", p. 538.

²²² D. Samuel, "Bread", in D.B. Redford (ed.), *The Oxford Encyclopedia of Ancient Egypt* (2005), <<http://www.oxfordreference.com>>.

millers would stand.²²³ This chronological development can be witnessed in both the models and wall scenes collected in this study.

In a model from the tomb of Niankh-Pepy-Kem, dating to Dynasty 6, two female millers each kneel while leaning far over a low quern [Pl. 40]. The two querns are rectangular in shape and rest on the base of the model. They slope downwards away from each figure, allowing the ground grain to fall into a small catchment between the two.²²⁴ A similar representation is witnessed in a second model from the same burial, but only a single figure is involved in the task [Pl. 43]. Such single figures were the most common three-dimensional representation of food production in the Old Kingdom.²²⁵

The transition from low querns on the ground to raised querns can be seen in a few models from the First Intermediate Period and the early Middle Kingdom. One example from the tomb of Henu, dating to the latter part of the First Intermediate Period, depicts three women kneeling behind querns [Pls. 56a, 56b]. The women are positioned side-by-side with their knees against the large grinding stones. While the querns are still positioned on the ground, they are slightly taller than the querns in the models of Niankh-Pepy-Kem, causing the women not to have to bend over as far. Another example also depicts the millers leaning over low querns. It likely dates to early Dynasty 12 and was found at Beni Hassan [Pl. 74].²²⁶ In this example, however, the women are not kneeling, but rather standing and leaning forwards. This presents an interesting transition as although the low quern is still incorporated, the figures are no longer kneeling.

The models collected in this study that date to the Middle Kingdom have replaced the low quern with a raised one. These are fashioned in two different ways: querns set in waist-high casings and querns positioned on a table.²²⁷ The former appears as one tall, enclosed quern that the miller stands at and leans over. An example can be seen in a model from the tomb of Ipi where two female millers stand side-by-side behind two querns that are rectangular in shape [Pl. 64]. The querns are raised off the ground by the casing, allowing the women to stand rather than kneel as they work. They slope downwards slightly away from the women,

²²³ Tooley, *Egyptian Models and Scenes*, p. 28.

²²⁴ Breasted, *Egyptian Servant Statues*, p. 21.

²²⁵ However, this model from the tomb of Niankh-Pepy-Kem includes a second figure who is involved in baking bread. The most common Old Kingdom food production models depicted solely the single figure grinding grain. Tooley, "Models", <<http://www.oxfordreference.com>>.

²²⁶ Unfortunately, a more precise date is not known for this model. Based on the size of the quern, it seems more likely to be from early Dynasty 12. However, this cannot be certain as the exact provenance remains unknown.

²²⁷ Tooley, *Egyptian Models and Scenes*, p. 28.

causing the grain to fall in a heap at the foot of the tray.²²⁸ The second type of raised quern can be seen in a model from the tomb of Nefery [Pl. 68]. A woman stands at one end of a quern and leans forward to carry out her work. The quern is raised off the ground by two wooden legs, creating a gap between the bottom of the quern and the base of the model, unlike the quern set in casing. All of the Middle Kingdom models collected in this study present one of these two types, demonstrating the developments that occurred in the three-dimensional medium.

Likewise, the wall scenes present a similar chronological development in their depiction of the quern. All of the examples collected in this study date to the First Intermediate Period and Middle Kingdom, with no Old Kingdom examples of low querns identified.²²⁹ However, the wall scenes of later date do illustrate the same two types of raised querns as the models. On the west wall of the 12th Dynasty tomb of Amenemhat, two women stand in register six while leaning over querns set in casings [Pls. 82a, 82b].²³⁰ They stand opposite each other and lean forward with their knees against the top of the querns. The querns slope downwards away from the women, leading to a small catchment. The tops of the querns are painted red and the catchments are filled with small mounds that are painted white, presumably to indicate flour.²³¹ In contrast, a scene on the west wall of the tomb of Khnumhotep II, dated to Dynasty 12, illustrates the second type of representation [Pl. 83].²³² The miller stands at one end of the

²²⁸ This type of quern also appears in a model from Meir without any millers operating it [Pl. 52a]. Two querns are situated to one side of the model. The casings are painted yellow while the tops of the querns are painted white, presumably to indicate that they are covered with flour. This example demonstrates that the processes involved in food manufacture could be represented by their equipment alone. However, Breasted suggests that originally two millers were likely included in the model, but have since been lost. While this is possible, the objects in the model are positioned very close together, leaving little space for two additional figures to have been included. It seems more likely that the figures were never included in the model. Aiding this interpretation is the well-preserved nature of the model. Very little damage has been incurred, making it unlikely that two whole figures would have been lost.

Breasted, *Egyptian Servant Statues*, pp. 37-38, 41.

²²⁹ One possible exception can be found on the west wall of the tomb of Meniu, dating to Dynasty 6 [Pl. 54]. A woman in the third register has been identified by Blackman and Apted as performing the task of grinding grain on a hand-mill. However, this scene has been significantly damaged and only her knees and one hand are still preserved. This makes her role very difficult to determine.

A.M. Blackman & M.R. Apted, *The Rock Tombs of Meir. Part V: The Tomb-Chapels of A, No. 1 (That of Ni'ankh-Pepi the Black), A, No. 2 (That of Pepi'onkh with the 'Good Name' of Heny the Black), A, No. 4 (That of Hapi the Black), D. No. 1 (That of Pepi), and E, Nos. 1-4 (Those of Meniu, Nenki, Pepi'onkh and Tjetu)* (London, 1953a), p. 59.

²³⁰ Amenemhat records in his biography that the construction of his tomb took place in the 43rd year of the reign of Senusret I in Dynasty 12. It is likely that he continued to live under Amenemhat II and Senusret III.

Kanawati & Woods, *Beni Hassan*, p. 22.

²³¹ Colours were generally used to convey the category of an object rather than its specific appearance.

J. Baines, "Color Terminology and Color Classification: Ancient Egyptian Color Terminology and Polychromy", *American Anthropologist, New Series* 87.2, (1985), 285.

²³² The tomb of Khnumhotep II at Beni Hassan dates to the reign of Amenemhat II in the early 12th Dynasty. He was appointed to his positions in Year 19 of that king's reign. He seems to have fashioned his tomb after that of Amenemhat situated next to it.

Kamrin, *The Cosmos of Khnumhotep II*, p. 1.; Kanawati & Woods, *Beni Hassan*, pp. 21-22.

quern and leans forward to carry out her work. The quern is raised off the ground by two legs, one at each end. While both media illustrate these two types of querns, the wall scenes are only able to present one side of the tool, whereas models can capture a holistic perspective as they can be viewed from every angle. Nevertheless, the same stylistic development in the representation of the quern is witnessed in both media, suggesting that both artists and sculptors adapted their designs to align with the changing practices of real-life food production.

The third and final stage in the preparation of dough that was commonly represented artistically is kneading. Due to the close similarity between the representation of a figure grinding grain and kneading dough, it can often be difficult to determine which activity is portrayed. In a number of instances, the two were combined into a single figure. For example, a model from the tomb of Henu depicts three women grinding grain and kneading dough on querns [Pl. 56b]. De Meyer has identified the rounded heap positioned on each of the three querns near the women as a ball of dough.²³³ Additionally, each woman holds a grinding stone with both hands. The inclusion of both a ball of dough and a grinding stone demonstrates that the women performed both actions, first grinding grain, then kneading dough.

In other examples, the distinction between the two roles is clearer. The determinative factor is often the equipment used by the workers. In a model from Meir, a man is seated while kneading dough on a thin, flat board [Pl. 52a]. Both the top of the board and the man's hands are painted white, suggesting he is working with flour.²³⁴ This representation can be contrasted with a model from the tomb of Khety-aa that depicts two women grinding grain [Pl. 73a]. Each woman holds a small, black grinding stone on top of a sloping quern. It is clear that this model depicts a different process to the previous example. The querns of the women slope downwards while the man's board is flat. The flat board is more suitable for kneading. Additionally, the women hold grinding stones to work the flour, while the man uses his hands. Both his hands and the board are covered with flour, demonstrating that he is forming dough.²³⁵ Although the three-dimensional representations of grinding and kneading are often quite similar, these examples reveal that the models were capable of making a clear distinction between the two.

²³³ De Meyer, "Old Kingdom Rock Tombs at Dayr al-Barshā. Volume II", 618.

²³⁴ Additionally, a cylindrical vessel is situated to the left of the man. Its sides are painted red, but its top is painted white, indicating that it is filled with flour. It is likely that the man uses this flour to knead dough on the board.

²³⁵ Tooley, *Egyptian Models and Scenes*, p. 29.

Similarly, the two-dimensional representations of kneading can be difficult to distinguish from portrayals of grinding. However, the wall scene is able to include the additional feature of accompanying captions which makes the distinction clearer. In a scene from the tomb of Djehuty-hotep, a man squats before a small table and rests his hands on it [Pl. 63a]. There does not appear to be a grinding stone or heap of dough on the table, making it difficult to be certain of his task. Instead, this can be determined through the caption written above him: *jrt ḥs3* ‘making dough’.²³⁶ This additional feature unique to the wall scene enables the process to be conveyed with greater clarity.

Not only was the dough kneaded in this final stage, it was also shaped into loaves. This was the last step before baking as represented in both two- and three-dimensions. However, it is much more prominent amongst the wall scenes. Only one model collected in this study presents a pile of loaves that have been shaped, ready for baking. This was found in the tomb of Niankh-Pepy-Kem [Pl. 41]. Breasted has identified two piles of five white rectangular loaves situated on the left of the baseboard.²³⁷ These loaves have been shaped by the man on his kneading board. This is an unusual example as most of the kneading models do not include shaped loaves.

In contrast, wall scenes convey the wide variety of shapes into which the loaves were fashioned. They varied greatly in size, shape and decoration as well as texture.²³⁸ Such shapes regularly depicted in wall scenes include circles, ovals, triangles, indented squares and ring-shapes, all of which could be decorated on the surface.²³⁹ An example can be found in the sixth register on the west wall of the tomb of Amenemhat [Pls. 82a, 82b]. A man kneels while kneading and shaping dough into loaves on a board. In the space above him, a number of different shaped loaves are seen, including five circles, two indented triangles and one rectangle. All appear to be painted white, indicating that they are made from flour. The nature of the two-dimensional wall surface enabled a wide variety of shapes of dough to be easily drawn into the scene. Such variation in shape was more difficult to fashion in three-dimensions, causing sculptors to give greater attention to kneading rather than shaping in their artistic repertoire.

²³⁶ Newberry, *El Bersheh. Part I*, p. 34.

²³⁷ Unfortunately, the image obtained is not clear enough for these loaves to be seen.

Breasted, *Egyptian Servant Statues*, p. 27.

²³⁸ D. Samuel, “Investigation of Ancient Egyptian Baking and Brewing Methods by Correlative Microscopy”, *Science* 273.5274, (1996b), 488.

²³⁹ More innovative shapes were introduced in the New Kingdom, including humans and animals.

Sist, “Food Production”, p. 55.; H. Wilson, *Egyptian Food and Drink* (Aylesbury, 1988), p. 16.

The three major stages involved in preparing the dough for baking are prevalent in both two- and three-dimensional representations. Although there are slight variations between the two media, both display the same main features and stylistic developments.

Baking Bread

The task of baking dough was the final stage in the production of bread. A total of 24 two- and three-dimensional artworks were collected in this study that depict this process, all of which feature two main elements: the baker and the oven with bread moulds or loaves.²⁴⁰

Women generally predominate in the tasks associated with the production of bread, with men only occasionally involved.²⁴¹ This is especially noticeable in the baking models collected as each one displays a woman completing this task, with only one example depicting a male baker. The women are distinguished by their yellow skin and occasionally long black hair. In a model from the tomb of Khety, the female baker, as well as the other women in the model, has long black hair tied up in a red band [Pl. 71a].²⁴² As all of these women are involved in the production of bread, it is likely that this ribbon kept their long hair from interfering with their work. This is in contrast to the representation of the sole male baker found in a model from Meir [Pl. 52a].²⁴³ All of the figures included in this model are male and are identified by their red skin. The strong presence of women acting as the baker in the models likely reflects the situation of everyday life.²⁴⁴ The unique portrayal found in the model from Meir reflects the creativity or the realism of the sculptor. Even though he was bound by the strict conventions of Egyptian art, he had some freedom to alter his design.²⁴⁵

Wall scenes, in contrast, are less strict in their portrayal of the baker's gender. Of the four scenes collected in this study, two include female bakers and two depict male bakers.²⁴⁶ The two examples involving women are very similar to the three-dimensional representations. Like the women in Khety's model, the baker in the third register on the east wall of the tomb

²⁴⁰ This number only includes the examples that were obtainable through images. The precise tasks in the other known examples could not be identified with certainty.

²⁴¹ Ford, "The Staples of Life", p. 142.

²⁴² J. Bourriau, *Pharaohs and Mortals: Egyptian Art in the Middle Kingdom* (Cambridge, 1988), p. 105.

²⁴³ A possible second example can be added to this exception. The baker in a model from the tomb of Khnum-Nakhti and Netjer-Nakhti has been identified by Gartsang as female [Pl. 78]. However, her skin colour appears to be darker and more red than the two women grinding grain beside her, suggesting that the figure is male. However, one cannot judge by skin colour alone as women were occasionally depicted with dark skin like men. This can be seen in the representation of Niankh-Pepy-Kem's wives in the wall scenes of his tomb. Although both of his wives are portrayed with yellow skin, his second wife [Pl. 88] has much darker skin than his first wife [Pl. 87]. Dark skin may reflect the woman's real skin colour and perhaps some Nubian influence. It therefore cannot be certain if the figure in this model is male or female.

Garstang, *The Burial Customs of Ancient Egypt*, p. 95.; Kanawati, Evans, Lashien, Mourad & Senussi, *The Cemetery of Meir. Volume III*, pp. 42-43.

²⁴⁴ Women baked bread in the home prior to the New Kingdom when commercial bakeries appeared.

J.P. Alcock, *Food in the Ancient World* (Connecticut, 2006), p. 140.

²⁴⁵ J. Malek, *In the Shadow of the Pyramids: Egypt during the Old Kingdom* (London, 1986), p. 113.

²⁴⁶ Those from the tombs of Pepi (Dynasty 6) [Pl. 53] and Amenemhat (Dynasty 12) [Pl. 82b] portray female bakers, while those from the tombs of Pepyankh the Middle (Dynasty 6) [Pl. 55] and Khnumhotep II (Dynasty 12) [Pl. 83] represent males. This is not a chronological development in the artistic design as both female and male bakers are depicted in the Old and Middle Kingdoms, but rather a deliberate decision by each artist.

of Pepi wears a band in her hair [Pl. 53]. The second example, found on the west wall of the tomb of Amenemhat, displays the characteristic yellow skin of the female figure [Pl. 82b]. Here, she stands while tending an oven in the seventh register. The hair band and yellow skin are typical features of the female figures which are included in both two- and three-dimensional artworks.

The greater prominence of the male baker in the wall scenes over the models forms a clear distinction between the two media. Of particular interest is a scene on the west wall of the tomb of Pepyankh the Middle where all three bakers included are male [Pl. 55]. Two ovens are depicted in the third register, with a man squatting beside each one. A third man stands between the two and places loaves of bread on top of one of the ovens. This is the only example in both the two- and three-dimensional representations collected that includes more than one baker. The baking process is an important part of this vignette, occupying almost the entire register. As all three bakers are male, it appears that the artist was more comfortable deviating from the standard design than the sculptor.

A dominant feature in the representation of the baker in both models and wall scenes is the figure's raised hand, although it is not apparent in every example. When present, the baker raises one hand in front of them to protect their face from the heat and/or glare of the flame from the oven.²⁴⁷ In many of the examples the baker's palm was kept flat to provide greater protection from the flame. The hand could be held close to the face or close to the oven. In a model from Beni Hassan, the female baker holds her hand immediately in front of her face [Pl. 75a]. Similarly, the baker in a wall scene from the tomb of Pepi holds her left hand so close to her face that it appears to be touching [Pl. 53]. While this is the preferred position in wall scenes, models also represent the hand held closer to the oven. The baker in a model from the tomb of Khety stretches her left arm out in front of her and holds it just above the oven [Pl. 71a]. In some instances, this positioning appears to be the result of the lesser skill of the sculptor. All the figures, including the baker, in a model from the tomb of Djehuty-nakht have crudely formed limbs without defined hands [Pl. 60a]. The left arm of the baker is held out straight towards the oven seemingly due to the sculptor's inability to craft detail in the human figures. The raised hand was a central part of the representations and likely reflects the techniques employed by ancient Egyptian bakers.

Another feature that is constant across the artworks is the baker's use of a poker to tend the fire. Even in examples where the poker is not represented, the baker generally extends one

²⁴⁷ Kanawati, *The Cemetery of Meir. Volume I*, p. 52.

hand towards the oven, indicating that they are treating the fire in some way.²⁴⁸ The poker was an important tool as it enabled the baker to safely stoke the flames in the oven.²⁴⁹ Each sculptor has fashioned the poker as a thin, long, smooth stick.²⁵⁰ In all of the models it is held low to the ground and angled towards the oven's base, as can be seen in a model from the tomb of Sobek-hotepi [Pl. 79]. The female baker holds her right arm straight down by her side and grips a poker in her right hand. This position was likely adopted as the baker extended the poker towards the fire located at the base of the oven.

Similarly, the bakers in the wall scenes also appear to have angled pokers towards the flame. However, damage to the scenes has caused this feature in three of the four examples collected to no longer be preserved.²⁵¹ Nevertheless, as each of the bakers represented in these scenes holds one arm towards the ground, it can be assumed that they were indeed stoking the fire.²⁵² The one scene where the poker is still partially preserved is found in register seven on the west wall of the tomb of Amenemhat [Pl. 82a]. Here, the baker stands while angling her poker towards the top of the oven rather than the bottom. This position seems to have been selected as the flames of the fire extend out the top of the oven rather than from the base. The poker itself appears to be very similar to those found in the models. Although the artist, working in two-dimensions, could only portray one side of the tool, he could still encapsulate its shape as a long, thin stick. The modified position of the baker in this example demonstrates that the artist was able to freely adjust minor elements in his design to convey a realistic scene.

The oven is the second of the two major elements in artistic representations of baking bread. As there is great variety in the types of ovens portrayed, there does not appear to be a set design in either medium. Amongst the models particularly, a diverse range of ovens are portrayed. One type is formed of large circular disks, as seen in a model from the tomb of Niankh-Pepy-Kem [Pl. 44].²⁵³ Three large disks stand upright with a fourth lying across the

²⁴⁸ In many of these models it appears that the absence of a poker is due to the poor preservation of the artwork.

²⁴⁹ Garstang, *The Burial Customs of Ancient Egypt*, p. 76.; Winlock, *Models of Daily Life in Ancient Egypt*, p. 29.

²⁵⁰ One example where the shape of the poker can be clearly seen is found in a model from Beni Hassan [Pl. 75b].

²⁵¹ These wall scenes are found in the tombs of Pepi [Pl. 53], Pepyankh the Middle [Pl. 55] and Khnumhotep II [Pl. 83].

²⁵² While the baker in a scene from the tomb of Khnumhotep II does not hold one hand towards the ground, he does extend it towards the flame of the oven [Pl. 83]. This change in position can be attributed to the standing posture of the baker as well as the different type of oven.

Kanawati, *The Cemetery of Meir. Volume I*, p. 52.

²⁵³ A similar representation can be found in a model from El-Bersha [Pl. 62]. What appears to be an oven formed of large circular disks resides in one corner of the model, but remains unattended. Breasted has noted that the figures are unusually arranged on the baseboard and suggests that the model has been tampered with by antiquity dealers. This makes the exact nature and role of the objects and figures difficult to determine.

Breasted, *Egyptian Servant Statues*, p. 40.

top. One side is left open, giving the baker access to the fire within.²⁵⁴ This was one of the earliest types of ovens used by the Egyptians.²⁵⁵ Another type consists of a domed structure, an example of which can be found in a model from Beni Hassan [Pl. 74]. It is situated on one corner of the baseboard and is painted white with a series of black vertical lines extending down from the top. Breasted has identified a triangular opening at the bottom of the oven, presumably giving access to an internal fire.²⁵⁶ While the domed oven appears in a number of the models, variation was achieved by the sculptor through the use of decoration.

This same model from Beni Hassan illustrates a third type of oven which is cylindrical in shape with clearly defined rows [Pl. 74]. Each row is incised with vertical lines, creating a rectangular pattern which has been painted red. It seems likely that this pattern represents bread moulds stacked around a fire, conveying one of the ways in which bread was baked.²⁵⁷ Moulds form a central part of the representation of the oven. The three-dimensional nature of the model enabled the moulds to be portrayed in a number of different ways. In addition to incising a rectangular pattern, the sculptor could fashion the moulds out of wood. In a model from the tomb of Niankh-Pepy-Kem, the oven is formed of a pile of bread moulds, each of which has been carved out of wood [Pl. 43]. The moulds are stacked in a pile and lean outwards from the core of the structure. Alternatively, the sculptor could paint the moulds onto the model. In an example from the tomb of Khety, red conical moulds have been painted onto the rectangular oven [Pl. 71a]. Garstang has identified these red lines as the flames of the fire, but it seems more likely that they represent bread moulds.²⁵⁸ Each one is conical in shape and leans outwards away from the centre of the structure, forming the typical shape and positioning of bread moulds stacked on an oven. The three-dimensional nature of the model allowed the sculptor to fashion moulds in a number of different ways, creating a great variety of designs.

A similar representation of bread moulds is found in wall scenes. In the third register on the west wall of the tomb of Pepyankh the Middle, the oven on the left consists of a stack of bread moulds [Pl. 55]. The moulds are quite wide and robust, a typical shape of the Old

²⁵⁴ Breasted, *Egyptian Servant Statues*, p. 28.

²⁵⁵ W.J. Darby, P. Ghalioungui & L. Grivetti, *Food: The Gift of Osiris. Volume 2* (London, New York, 1977), p. 512.

²⁵⁶ Breasted, *Egyptian Servant Statues*, p. 39.

²⁵⁷ Darby, Ghalioungui & Grivetti, *Food. Volume 2*, p. 512.; Samuel, "Bread", <<http://www.oxfordreference.com>>.

²⁵⁸ Garstang, *The Burial Customs of Ancient Egypt*, p. 128.

Kingdom, and are stacked in a very tall pile.²⁵⁹ Like the moulds in the models, each one leans outwards away from the core of the structure. However, the wall scenes also portrayed the moulds stacked in neat piles on top of one another. This can be seen on the west wall of the tomb of Amenemhat where two piles of conical moulds are baking in a domed oven [Pl. 82a]. The moulds in this scene are thinner and more cylindrical as is common in the Middle Kingdom, and are stacked in neat piles rather than at angles.²⁶⁰ While artists could include different mould shapes in their designs, they did not have the same amount of crafting methods as the sculptor. The artist was restricted to drawing different shapes on the wall surface, whereas the sculptor could achieve variation through the techniques of carving, incising and painting.²⁶¹

Bread could also be baked in loaves shaped by hand rather than in moulds.²⁶² This process is represented in wall scenes, but is not found in any of the models collected. The contrast between the depiction of loaves and moulds is witnessed in a wall scene from the tomb of Pepyankh the Middle [Pl. 55]. The two processes of baking are represented in the third register. The oven on the left consists of a stack of bread moulds, while the one on the right is formed of a pile of loaves.²⁶³ Even though both types of bread are stacked, they can be distinguished from one another by their shape. The loaves consist of curved rectangles while the conical moulds are more angular. Including both types of baking methods and bread types in the one scene demonstrates that the artist had the ability to portray both types and the freedom to choose to depict one or both in his design.

Even though the process of baking bread in loaves is not witnessed in the models, the three-dimensional artwork was able to include this feature in a different form, namely a figure carrying a tray of loaves to the oven. This element is found in three of the models collected in this study.²⁶⁴ Each of these examples features a woman standing while carrying a tray either on her shoulder or on her head. On top of the tray in a model from the tomb of Djehuty-nakht, a series of lines have been incised [Pl. 60b]. Breasted has suggested that these lines represent

²⁵⁹ This type of bread mould is also commonly found at other sites from the Old Kingdom. One example can be found in a wall scene from the tomb of Remni at Saqqara where a woman is sitting in front of an oven that has been stacked with bread moulds [Pl. 86].

Samuel, "Brewing and Baking", p. 565.

²⁶⁰ Samuel, "Brewing and Baking", p. 565.

²⁶¹ Although the artist could either carve his designs in relief or paint them onto a plastered surface, this did not allow him to create the same variety in his designs as the sculptor.

²⁶² Wilson, *Egyptian Food and Drink*, pp. 13-14.

²⁶³ Kanawati, *The Cemetery of Meir. Volume I*, p. 52.

²⁶⁴ These were found in the tombs of Djehuty-nakht [Pls. 59, 60a] and Za'ay [Pl. 70]. One of the models from the tomb of Djehuty-nakht does not include an oven [Pl. 59]. It is possible that the woman carrying the tray in this example symbolises the entire baking process.

the loaves of bread, marking off one piece from another.²⁶⁵ This seems likely as the woman faces towards the baker who will subsequently bake the loaves. Such a figure is unique to the models and enabled the sculptor to include hand-shaped loaves in his designs.

Although each of the artworks is unique in its representation of baking bread, each example includes the necessary elements: the baker and the oven with bread moulds or loaves. The portrayal of these elements highlights how artists and sculptors were able to achieve individuality in their works while still abiding by strict artistic conventions.

²⁶⁵ Breasted, *Egyptian Servant Statues*, p. 39.

Straining Mash

Straining beer-mash forms one of the major steps involved in producing beer and is often the only stage represented artistically from the entire brewing process.²⁶⁶ During this task, bread loaves were crumbled, mixed with water to form a mash and strained through a sieve into a large vessel where the mixture was left to ferment.²⁶⁷ The brewer is identifiable in the artworks by his characteristic stance.²⁶⁸ The main elements of this include the figure leaning forwards over a vessel, while their arms are bent and crossed over each other. Although not every representation depicts all of these features, incorporating at least one of them forms a clear way of recognising the brewer.

Both the two- and three-dimensional media had the capacity to portray the brewer leaning over a large vessel. Differences in representation occur due to the size of the vessel at which the brewer works. The smaller the vessel, the further the brewer was required to bend over. In a model from the tomb of Niankh-Pepy-Kem, the two brewers bend quite far forwards as the vessels only reach to the height of their knees [Pl. 48]. Similarly, on the left of the fourth register on the west wall of the tomb of Khnumhotep II, two male brewers bend sharply over vessels to carry out their work [Pl. 83]. One note of contrast between these two examples is that the model depicts the figures with bent knees while the wall scene portrays the brewers with straight legs. The bent knees of the brewer are noticed in many of the models, but are not present in any of the wall scenes. All of the two-dimensional brewers stand with straight legs and lean over their vessels by bending their backs. In contrast, the three-dimensional brewers regularly bend their knees to bring them closer to the vessels. This difference between the representations is likely connected with the restrictions of the two-dimensional wall surface. Each figure was required to stand with one foot in front of the other in order to prevent any part of the body from being obscured from view.²⁶⁹ The three-dimensional model, in contrast, was not restricted in this way as it could be viewed from every angle. As a result, the sculptor was able to convey the brewers in their actual stance with their legs together and their knees bent.

Another characteristic feature of the brewer's posture involved the figure bending their arms and crossing one over the other. This enabled the brewer to put extra weight into pressing the

²⁶⁶ Taylor, *Death and the Afterlife*, p. 101.

²⁶⁷ Alcock, *Food in the Ancient World*, pp. 137-138.

²⁶⁸ While both men and women were involved in brewing, the artistic representations have a greater preference for conveying men completing this task. Ford, "The Staples of Life", p. 142.

²⁶⁹ Kanawati, *The Tomb and Beyond*, p. 78.

mash. Some of the models, however, do not include this element, choosing instead to convey the brewer with straight arms. In most cases, this appears to be due to the lesser skill of the sculptor. A model from the tomb of Intef conveys the brewer with long, straight arms that rest on the large vessel [Pl. 66]. The model as a whole is quite crudely fashioned, particularly witnessed in the exclusion of the man's facial features. This suggests that the whole design is restricted by the sculptor's technical abilities.²⁷⁰ This can further be demonstrated in a model from the tomb of Senbu [Pl. 72]. This example is so crudely fashioned that it is almost impossible to determine the task of the figure. Through a comparison with other models, it appears that it depicts a brewer leaning over a vessel with outstretched arms resting upon it.²⁷¹ Of particular significance is that the model is fashioned of earthenware.²⁷² Clay was used to form the earliest models dating from the Predynastic Period.²⁷³ However, this example dates to the 12th Dynasty when wood was the predominate material.²⁷⁴ Models such as this seem to have belonged to people with less wealth who could not equip their tomb with the same standard of grave goods as people of higher status.²⁷⁵ Accordingly, the ability to include more detail in a model was highly dependent upon the wealth of the tomb owner and the skill of the sculptor.

However, sculptors of greater proficiency were able to fashion further detail into the brewer's arms. In many of the models, the brewer is portrayed with both hands on top of the vessel with one hand over the other. This can be witnessed, for example, in all four brewing models from the tomb of Niankh-Pepy-Kem [Pls. 46-49]. Each brewer holds one hand on top of the other and presses the mash with both hands. In other examples, the brewer was depicted with their entire arms crossed over each other, as can be seen in a model from Beni Hassan [Pl. 74]. The brewer's right arm is crossed over his left while his left hand rests on the edge of the sieve. Depicting the brewer with either crossed hands or arms is prominent amongst the three-dimensional representations.

²⁷⁰ While it is possible that his facial features were painted on and that the colour has not survived, it is clear that this detail was never carved into the wood as was achieved in many of the other models. Garstang notes that the lack of detail included in the model makes it difficult to determine the task being portrayed.

Garstang, *The Burial Customs of Ancient Egypt*, p. 63.

²⁷¹ Breasted has identified the model to represent a man standing beside a jar with his knees bent and reaching into it with both hands. This stance resembles that of a brewer.

Breasted, *Egyptian Servant Statues*, p. 33.

²⁷² Garstang, *The Burial Customs of Ancient Egypt*, p. 146.

²⁷³ Tooley, *Egyptian Models and Scenes*, p. 16.

²⁷⁴ Breasted has dated the model to the 12th Dynasty.

Breasted, *Egyptian Servant Statues*, p. 33.

²⁷⁵ Tooley, *Egyptian Models and Scenes*, p. 19.

While the wall scenes also convey this feature, the limitations of the two-dimensional surface have caused differences in representation. A few of the artists have attempted to portray the brewer with crossed over arms, but have encountered difficulties. This is mostly due to the problem of drawing the shoulders in two-dimensions when the figure is engaged in an activity. Representing the human body in two-dimensions required the combination of a number of perspectives. While the head and chest were shown in profile, the shoulders were depicted in frontal view.²⁷⁶ This often created difficulty in conveying the movement of the shoulders in two-dimensions, but was not a problem that was encountered by the sculptor.²⁷⁷ On the west wall of the tomb of Khnumhotep II, two brewers are seen at work on the left of the fourth register [Pl. 83]. Each man crosses one arm over the other, but the man on the left rests both hands flat on the sieve while the man on the right holds his hands in the air and angles them towards the vessel. Their shoulders have been drawn awkwardly as the artist has attempted to convey movement.²⁷⁸ Even though this causes an unnatural portrayal, the crossed over arms were still included as they form one of the brewer's characteristic features.

In other examples, the artist has been able to convey the brewer's arms in a more naturalistic manner. On the south wall of the tomb of Baqet III, the second man from the left in the sixth register bends his elbows outwards and brings his hands together on top of the sieve [Pl. 80]. His arms are not crossed over, but it appears that one hand rests on top of the other. This representation has allowed the artist to convey the crossed over hands of the brewer while not compromising the appearance of the shoulders, overcoming this limitation of the two-dimensional surface.

The vessel used during the straining process, like the brewer, has defining features that constitute its form in all of the representations. In particular, the sieve on top of the vessel is always distinguished in some way from the vessel itself. Firstly, the sieve could be identified through its size and shape. In many artworks the sieve is portrayed as wider than the vessel. This is particularly common amongst the models. In some of these instances, the sieve is solely distinguished by its width, without any additional decorative features, including one example from the tomb of Ipi [Pl. 64]. The sieve is left plain in decoration but has a wider diameter than the vessel, creating a clear contrast between the two. Such differentiation in size

²⁷⁶ Kanawati, *The Tomb and Beyond*, p. 77.; Robins, *The Art of Ancient Egypt*, p. 21.

²⁷⁷ Schäfer, *Principles of Egyptian Art*, p. 332.

²⁷⁸ This same difficulty is witnessed in the representation of human figures undertaking a number of other activities. For example, the ploughing scene also found in the tomb of Khnumhotep II, displays this problem encountered by the artist [Pl. 38a]. The shoulders of the two men guiding the ploughing teams as well as those of the figures hoeing the earth have all been drawn awkwardly. Each figure is engaged in movement which the artist had difficulty capturing in two-dimensions.

enables a plain sieve to still be identified. While wall scenes also create this distinction through size, they also achieve this through shape. In many of the two-dimensional examples, the sieves have curved edges, creating a bowl-like appearance. This is in contrast to the models which generally depict sieves with straight sides.²⁷⁹ The brewer in register five on the west wall of the tomb of Amenemhat works with a sieve that is not only wider than the vessel it is situated upon, but also has curved edges that meet at tall points [Pl. 82a]. By providing the sieve with a different shape to the vessel, the wall scenes have created an additional way of distinguishing between the two objects.

A second means to separate the sieve from the vessel was through the use of different colours. In a model from the tomb of Djehuty-nakht, the brewer stands before a vessel with a sieve of almost identical width, preventing the objects from being distinguished by their size [Pl. 60a]. Instead, the sculptor has created a distinction through colour. The vessel is painted red while the sieve is painted a light brown. In contrast, many wall scenes carved in relief were left unpainted, inhibiting the use of this feature.²⁸⁰ However, the examples that were painted sometimes chose to utilise this form of distinction. On the west wall of the tomb of Amenemhat, the brewer on the right of the fifth register stands before a vessel which has been painted [Pl. 82b]. Even though the colour in this section of the scene is not well-preserved, the design of the sieve and vessel can still be identified. The vessel appears to be painted red while the sieve seems to be white. The use of colour is an important aspect of both models and wall scenes as it enabled variation in the designs to be achieved.

Thirdly, the distinction between the sieve and vessel could be achieved through the use of decoration. In both two- and three-dimensional artworks, a series of lines in a grid-pattern could be painted onto the centre of the sieve. This symbolised the mesh through which the mash was strained.²⁸¹ One clear example is found in a model from the tomb of Khnum-Nakhti and Netjer-Nakhti [Pl. 78]. While this sieve is also distinguished from the vessel through its size and colour, the addition of the mesh-pattern provides a clear indication of the purpose of the vessel. Similarly, two of the wall scenes collected include the grid-pattern on their sieves. In the tomb of Amenemhat, the sieve in register five includes a small section of the mesh-

²⁷⁹ See, for example, the models from the tombs of Ipi [Pl. 64] and Nefery [Pl. 67]. The sieves are wider than the vessels, but are not distinguishable in their shape. Each sieve has straight sides rather than the curved ones that appear in the wall scenes.

²⁸⁰ While Baines notes that all artistic representations were designed to be painted in full colour, this was not always achieved. Many wall scenes were left unpainted and unfinished. For example, the reliefs carved in the tomb of Pepi show no sign of ever having been painted [Pl. 53].

Blackman & Apton, *The Rock Tombs of Meir. Part V*, p. 57.; Baines, "Color Terminology and Color Classification", 285.; Kanawati & Woods, *Artists in the Old Kingdom*, p. 2.

²⁸¹ Breasted, *Egyptian Servant Statues*, p. 39.

pattern across its middle [Pl. 82a]. In contrast, the sieve in the fourth register on the west wall of the tomb of Khnumhotep II is completely covered with the pattern [Pl. 83]. Both artists have portrayed the grid-pattern on the side of the sieve even though in reality it would have resided on top. As the two-dimensional surface could only accommodate one viewpoint, the artists have combined two alternate angles to depict the object with its most characteristic feature.²⁸² Due to the importance of the mesh-pattern, artists desired to overcome this limitation of the two-dimensional wall surface.

Another form of decoration used to highlight the sieve is only prevalent in the models. This is due to the fact that it is reliant upon the three-dimensional nature of the medium. In a number of the models, the doughy remains of the beer-mash are fashioned on top of the sieve. In a model from the tomb of Khety, rolls of greyish mash are lined around one half of the sieve [Pl. 71b]. Garstang has identified these rolls as loaves of dough that have been worked by the man standing at the vessel. Accordingly, he has classified the task as shaping dough rather than straining mash.²⁸³ This interpretation does not consider the surrounding evidence. The stance of the figure and the equipment he uses clearly indicate that he is involved in the brewing process. De Meyer has offered a contrasting interpretation of the portrayal of these doughy rolls on the sieve based on a model from the tomb of Henu [Pl. 58b]. As the beer-mash was pressed through the sieve, substantial amounts of a thick chaffy mass remained which was subsequently rolled.²⁸⁴ De Meyer states that the ancient Egyptians kept these rolls due to their high level of nutrition.²⁸⁵ In models, the rolls were always represented around the edge of the sieve and were regularly fashioned of plaster rather than wood. This forms a unique element of the three-dimensional medium.

In addition to the large vessel and sieve, a number of other vessels were regularly included in artistic representations of straining mash. The most common of these in the three-dimensional artworks consists of a tall, thin jar.²⁸⁶ It is likely that beer was stored in such jars to allow for

²⁸² S. Binder, "Representing the Physical World", in L. Donovan & K. McCorquodale (eds.), *Egyptian Art: Principles and Themes in Wall Scenes* (Guizeh, 2000), p. 29.; Robins, *The Art of Ancient Egypt*, p. 21.

²⁸³ Garstang, *The Burial Customs of Ancient Egypt*, pp. 126-128.

²⁸⁴ This chaffy mixture resulted from the ingredients that were used in the production of beer. The grain contained high amounts of chaff and fibres which needed to be removed from the mixture. These would be separated from the liquid during the sieving process.

De Meyer, "Old Kingdom Rock Tombs at Dayr al-Barshā. Volume II", 620-621.

²⁸⁵ The rolls were chewed and sucked on with the chaff spat out.

De Meyer, "Old Kingdom Rock Tombs at Dayr al-Barshā. Volume II", 620-621.

²⁸⁶ The wall scenes do not give great attention to this type of vessel. Instead, they focus on the process of decanting the liquid into smaller jars. This will be discussed in the subsequent section.

fermentation, an integral step in the brewing process.²⁸⁷ Many of the models portray this vessel, including an example from the tomb of Khety-aa where two such vessels are placed to the brewer's left [Pl. 73b]. These are painted red, indicating either the nature of their contents or the material with which they are made.²⁸⁸ This is clearer in a model from the tomb of Khety which depicts one fermentation vessel in front of the brewer [Pl. 71b]. This vessel is painted white, but also has some red lines travelling down the side, suggesting that it is overflowing with beer.²⁸⁹ Including such vessels in the representations likely symbolises the entire fermentation process.²⁹⁰

A different type of vessel was also included in a few of the models. This comprises one or more large vessels lying on their side, argued by Samuel to denote the process of malting.²⁹¹ He uses two main examples that correlate with the sites incorporated in this study: a model from the tomb of Nefery which includes six large vessels lying on their sides [Pl. 67], and a model from the tomb of Khnum-Nakhti and Netjer-Nakhti which depicts two vessels on their sides with mesh covering their mouths [Pl. 78]. He argues that a side-turned jar would have provided a greater surface area for the grain to be spread upon and for it to be regularly rolled.²⁹² However, the inclusion of malting in the brewing process, let alone the representation of it, is much debated by scholars. Lucas and Harris agree that malting may have been used during brewing, but argue against its representation in artworks.²⁹³ Darby, Ghalioungui and Grivetti conversely suggest that the process does appear in a number of artistic representations.²⁹⁴ While it is possible that the side-turned vessels symbolise malting, it is clear that the models display a wide variety of the vessels required for brewing.

Another feature associated with the brewer straining mash in the artworks is the presence of a water-carrier. This figure is much more prevalent amongst the models, only appearing in one

²⁸⁷ D. Samuel, "Archaeology of Ancient Egyptian Beer", *Journal of the American Society of Brewing Chemists* 54.1, (1996a), 3.; Samuel, "Brewing and Baking", p. 569.

²⁸⁸ Red was commonly used to depict food and drink items, including beer.

Kanawati, *The Tomb and Beyond*, p. 76.

²⁸⁹ A similar painting technique is also witnessed in a model from the tomb of Henu [Pl. 58a]. Two additional vessels are situated in front of the brewer. The rim of each vessel is painted red and streaks of red paint traverse down its sides. De Meyer has suggested that these lines are indicative of the overflowing beer. This interpretation likewise can apply to the model from the tomb of Khety.

De Meyer, "Old Kingdom Rock Tombs at Dayr al-Barshā. Volume II", 621.

²⁹⁰ The process of fermentation was often left up to the imagination of the viewer. When it is represented, it is encapsulated by such a vessel.

Darby, Ghalioungui & Grivetti, *Food. Volume 2*, p. 539.

²⁹¹ Samuel, "Brewing and Baking", pp. 552-553.

²⁹² The precise details of the malting process are yet to be clarified. This method forms one possible technique used during malting.

Samuel, "Brewing and Baking", pp. 552-553.

²⁹³ A. Lucas & J.R. Harris, *Ancient Egyptian Materials and Industries*, 4th edition, (Mineola, 1999), p. 14.

²⁹⁴ Darby, Ghalioungui & Grivetti, *Food. Volume 2*, p. 534.

wall scene collected in this study. Each water-carrier is represented holding a yoke across his shoulders with two vessels suspended from it. The yoke could be rested upon one shoulder, as seen in a model from the tomb of Ipi [Pl. 64], or more commonly could traverse both shoulders, as found in a model from the tomb of Nefery [Pl. 67]. As a number of materials could be incorporated into the three-dimensional design, some of the sculptors used rope to suspend the vessels. In a model from Beni Hassan, both ends of the yoke are slightly thicker than the rest of the beam in order to prevent the rope from sliding off [Pl. 75a]. This is a technical feature of the model, but also likely reflects the actual yoke carried by water-bearers. The sole wall scene to include this figure, found on the west wall of the tomb of Amenemhat, also reflects this situation [Pl. 82a]. Although real rope could not be included in the scene, the technical features of the yoke are still portrayed by the artist. Each end of the yoke curves upwards to prevent the rope from falling off. Even though the two-dimensional medium could not incorporate the same materials as the model, it was still able to include details that reflected the real-life situation.

The position of the water-carrier in the artworks is also of importance as it provides insight into the specific role of the figure. This is particularly noticeable amongst models depicting groups of figures. Each figure has been carefully placed on the baseboard, allowing the spatial relationships between the figures to convey certain connections.²⁹⁵ The water-carriers face towards one of two figures: the brewer or the baker. Water was utilised in both the baking and brewing processes, and the position of the water-carrier likely reflects which of these two situations was portrayed.²⁹⁶ In a model from Beni Hassan, the water-carrier stands beside a baker, suggesting that the water is required in the baking process [Pl. 75a]. In fact, a brewer is not even included in the model, making the purpose of the water-carrier even more definite. Other models display a connection between the water-carrier and the brewer, such as a model from the tomb of Nefery where two water-carriers walk towards the brewers [Pl. 67]. Alternatively, models could include both roles of the water-carrier. In a model from the tomb of Khety, two water-carriers are represented [Pl. 71b]. One faces towards the baker while the other walks towards the brewer. The sculptor was aware of the dual purpose of the water-carrier and could convey one or both roles through the utilisation of depth.

²⁹⁵ Smith, *The Art and Architecture of Ancient Egypt*, pp. 89-90.

²⁹⁶ In the brewing process, bread loaves were crumbled, mixed with water and strained through the sieve. The use of water has been identified in beer residues. Similarly, water was required during the baking process. It was added to the grain before pounding to enable the chaff to be easily separated and it was also added to the ground flour to prepare it for kneading.

Darby, Ghalioungui & Grivetti, *Food. Volume 2*, p. 506.; Sist, "Food Production", p. 56.; Samuel, "Archaeology of Ancient Egyptian Beer", 3.; Lucas & Harris, *Ancient Egyptian Materials and Industries*, p. 15.

While artists did not include depth in their designs, they could still convey spatial relationships by carefully arranging the figures on register lines.²⁹⁷ These lines served as an essential means to order the scenes on the two-dimensional wall surface and highlight connections between certain themes.²⁹⁸ The water-carrier in the tomb of Amenemhat stands on the left of the brewer in register five [Pl. 82a]. The brewer faces left while the water-carrier faces right, creating a direct connection between the two figures. This suggests that the water was to be used in the brewing process. However, this scene may not necessarily reflect the actual position of the figures as this placement could indicate that the men stand opposite one another or next to each other.²⁹⁹ While it was important in both two- and three-dimensions to convey relationships between figures through spatial positioning, it was the sculptor who could achieve this with greater clarity through the advantage of depth.

Although each medium was bound by its own technical limitations, both artists and sculptors were able to overcome these difficulties in order to include the necessary features of the brewing process.

²⁹⁷ J.B. Anderson, "Spatial Distribution", in L. Donovan & K. McCorquodale (eds.), *Egyptian Art: Principles and Themes in Wall Scenes* (Guizeh, 2000), p. 40.

²⁹⁸ Robins, *Egyptian Painting and Relief*, pp. 17-18.; Kanawati, *The Tomb and Beyond*, p. 82.

²⁹⁹ Schäfer, *Principles of Egyptian Art*, p. 172.

Storing Beer

The final stage in the production of beer involved transferring the strained beer into smaller jars sealed for storage. This process is only represented in a small number of models, but appears in every wall scene that depicts the task of straining beer-mash, highlighting a close relation between the two activities.³⁰⁰ Beer was an important part of the burial equipment from as early as the Predynastic Period and was included in almost every burial.³⁰¹ It is possible that the process of storing beer was less commonly represented in the models as the deceased was already provided for with the inclusion of actual beer amongst the grave goods.³⁰² According to the artistic representations, storing beer involved three main tasks: preparing the jars, filling them with beer and sealing them with stoppers. While some of the artworks depict all three stages, one could sufficiently symbolise the entire process.

Beer-jars are an essential feature of all three stages and can be easily identified in artworks through their shape. Characteristically, they are represented as a narrow jar with a pointed base.³⁰³ This can be clearly seen in a model from the tomb of Niankh-Pepy-Kem where twelve jars are all fashioned in this form [Pl. 49]. However, the pointed base of each jar prevents them from standing on their own accord. The sculptor overcame this challenge in artistic design by crafting a wooden frame of two rectangular boards for the jars to lean against.³⁰⁴ This feature enabled the sculptor to incorporate the actual shape of the jar in his work despite the technical difficulties of the three-dimensional medium. The two-dimensional surface, in contrast, was not hindered by this limitation. The jar could have a pointed base while simultaneously standing upright on its own accord. On the east wall of the tomb of Pepi, a series of seven beer-jars stand on the baseline in the second register [Pl. 53]. Each jar has a pointed base but does not require a structure to lean against as it was drawn onto the wall surface.³⁰⁵

³⁰⁰ Four of the five models collected that depict this process also represent the task of straining mash [Pls. 49, 52b, 67, 69]. However, most of the models analysed in the previous section that portray straining mash do not include the task of storing beer.

³⁰¹ Taylor, *Death and the Afterlife*, p. 92.

³⁰² This was more significant in the tombs of the ordinary population where the models are more prevalent. The tomb owner could not afford to include as much decoration and funerary equipment in his tomb and accordingly excluded a number of elements. As actual beer-jars were essential to the burial, the artistic representation of them was less significant in these tombs.

³⁰³ Sist, "Food Production", p. 60.

³⁰⁴ A similar structure is seen in another model from the tomb of Niankh-Pepy-Kem which is made of three boards [Pl. 50].

Breasted, *Egyptian Servant Statues*, p. 16.

³⁰⁵ Although the artists were free to include this feature in their designs, many of them still chose to exclude the pointed base. In a scene from the tomb of Pepyankh the Middle, the jars do narrow towards the bottom, but have been given a flat base on which they stand [Pl. 55]. A similar situation is found in the sixth register on the south

The artistic portrayal of the first stage of preparing the beer-jars typically includes a figure with one hand thrust inside a jar. It has been suggested that the inner surfaces of the jars were smeared with clay to make them impermeable before being filled with liquid.³⁰⁶ Accordingly, the figure carries out this task by extending one hand into the jar.³⁰⁷ Two models and two wall scenes depict this process, all of which include two main elements: a seated figure and the right hand thrust into a jar. While the seated position could be easily encapsulated by the sculptor working in three-dimensions, artists encountered difficulty in portraying both legs of the figure in this position.³⁰⁸ The artist of a scene from the tomb of Pepyankh the Middle chose to portray the man with his legs stretched out in front of him in the upper register [Pl. 55]. This portrayal only included his right leg, with his left leg hidden from view. A different approach was taken by the artist of a scene in the tomb of Meniu [Pl. 54]. In the second register, the seated man has his left knee bent and his right out straight. This position enabled the artist to include both legs in his two-dimensional design. When depicting standing figures, one leg is almost always shown in front of the other so that both legs can be seen by the viewer.³⁰⁹ Although this was more difficult to achieve when portraying seated figures, artists such as this found means to overcome this limitation.

The second vital component of this process was the portrayal of one hand extended into the jar. In all four of the artworks, it is the right hand of the figure that completes this action. In both of the wall scenes this is the result of the right-facing position of the figure, causing the right side of the body to be more prominent. It appears that the models have also adopted this position even though both sides of the body are clearly visible in three-dimensions. Schäfer has argued that the Egyptians preferred to depict their figures facing right and that the sculptor likewise chose to adopt this positioning.³¹⁰ The use of the right hand is indeed constant across the representations and suggests an imitation of the wall scenes by the sculptors in regards to this feature. However, this could also be a result of the fact that most Egyptians were likely right-handed, implying that the artworks reflected the real-life process.

wall of the tomb of Baqet III [Pl. 80], demonstrating that the two-dimensional medium could incorporate a wide variety of designs.

³⁰⁶ Darby, Ghalioungui, & Grivetti, *Food. Volume 2*, p. 547.

³⁰⁷ Kanawati has suggested, based on a scene in the upper register of the west wall of the tomb of Pepyankh the Middle [Pl. 55], that this posture may represent the task of cleaning jars. It is possible that this was an additional role of the seated figure. However, it is important to note that the figure's hands and the object he works with have not been well-preserved. As a result, it cannot be certain if this man has one hand thrust into a jar or if he is completing a slightly different task.

Kanawati, *The Cemetery of Meir. Volume I*, p. 52.

³⁰⁸ In one of the models the figure has his legs out straight [Pl. 49], while in the other example he has his knees bent up in front of him [Pl. 50].

³⁰⁹ Kanawati, *The Tomb and Beyond*, p. 78.

³¹⁰ Schäfer, *Principles of Egyptian Art*, pp. 322-323.

This characteristic may have impacted the two-dimensional designs, causing the sculptor to be influenced by both the wall scenes and the actual task.

The second stage involved in storing beer requires the jars to be filled with liquid. In the two-dimensional representations, this is conveyed through a figure leaning over a beer-jar and pouring liquid into it by means of another vessel. One clear example is found on the left of the upper register in a scene from the tomb of Pepyankh the Middle [Pl. 55]. A standing man leans over a row of beer-jars while angling a smaller vessel towards them. A stream of liquid flows from this vessel into one of the jars. The models, in contrast, do not convey this process in the same manner, likely due to the fact that they could not include this stream of beer. The two-dimensional surface could easily represent the liquid as a thin line. In three-dimensions, however, this was impossible to achieve. Instead, this process is symbolised through a larger cylindrical vessel containing the strained beer. The transferral of the beer itself is not depicted, but is rather left to the viewer's imagination.³¹¹ In a model from Meir, four large vessels surround a seated figure, two of which contain the beer ready to be transferred [Pl. 52b]. The vessel on the man's right is painted red around the side and white on top. The liquid nature of the contents is made clear by the streaks of paint that traverse down the sides, indicating that the contents are overflowing. The jar is then to be sealed as has already been executed to the two jars on the man's left.³¹² Although the three-dimensional medium was hindered from portraying the actual pouring of the beer, sculptors were still able to symbolise this task.

Sealing the jars forms the final process involved in the storage of beer according to the artistic representations. A clay stopper was positioned on top of each jar, sealing its contents.³¹³ In the artworks, the stopper was represented through providing the jar with a pointed top which was often painted black, distinguishing it from the red colour of the jar. A number of the wall scenes portray figures working with clay which is to be fashioned into stoppers. One example is found in the middle register on the west wall of the tomb of Pepyankh the Middle where a man holds a small amount of clay in each hand [Pl. 55]. He raises one hand high above the other, suggesting he will clap them together. The accompanying inscription makes his role

³¹¹ A wider search revealed that the sculptor of a model from the tomb of Meketre at Thebes did attempt to portray this task [Pls. 85a, 85b]. While the stream of beer itself could not be represented, the sculptor still chose to fashion a figure in the act of pouring. The figure stands and leans over a jar while angling a smaller vessel towards it. Three jars stand next to it, already sealed, suggesting that the jar being worked with will also be sealed once the beer has been poured. This portrayal more closely resembles those found in wall scenes, but it is still restricted from including a stream of liquid.

³¹² Both types of jars are included in the model to symbolise the tasks carried out by the seated figure. Winlock, *Models of Daily Life in Ancient Egypt*, p. 29.

³¹³ Sist, "Food Production", p. 60.

clearer: *ḥw sjn r qrhṯ* ‘beating clay for the jar’.³¹⁴ This clay will be used to seal the jars once they have been filled with beer.³¹⁵

While a number of the wall scenes do convey the actual process of sealing the beer-jars, most of the artworks do not portray this task. Instead, the process is symbolised through depicting a number of jars already sealed. In a model from the tomb of Niankh-Pepy-Kem, eleven jars stand in front of the seated figure, each of which has been sealed by a pointed black stopper [Pl. 49].³¹⁶ Artists likewise chose to convey sealed jars in this same manner. In the fifth register on the west wall of the tomb of Amenemhat, two rows of beer-jars reside on tables [Pls. 82a, 82b]. Although there is some variety in the shape and decoration of the jars, the one constant feature is a pointed stopper.³¹⁷ The seal was essential to the representations as it conveyed that the jars were ready for storage.

Both the wall scenes and models were able to convey the necessary elements of the three stages involved in the storage of beer. However, it was artists who could more easily include additional details in their designs.

³¹⁴ Kanawati, *The Cemetery of Meir. Volume I*, p. 52.

³¹⁵ A similar situation can be found on the west wall of the tomb of Meniu [Pl. 54]. Accompanying the seated figure in the middle register is a small mound, interpreted by Blackman and Apted as a pile of grain. However, this interpretation seems unlikely as the two figures portrayed in this register are performing tasks associated with brewing rather than baking. Instead, it may be a mound of clay that is used to prepare the jars for beer. Blackman & Apted, *The Rock Tombs of Meir. Part V*, p. 59.

³¹⁶ The only jar not to be sealed is the one with which the figure is working. This is the twelfth jar in the model.

³¹⁷ The jars in the bottom row are painted dark red with a white stripe across the middle. Four of the jars in the upper row are thinner in shape and are painted a lighter red with a black horizontal stripe. The other two jars in this row have a more clearly defined neck and are coloured yellow with a black stripe across them. It is possible that these three different types of jars hold different types of beer or that they are to be used for varying purposes. The one standard feature across all three types is the inclusion of a pointed stopper.

Conclusion

Although both funerary models and wall scenes convey the themes of agricultural pursuits and food production, their individual advantages and disadvantages have caused differences in detail and theme choice between the two media. The artists and sculptors were bound by specific technical limitations which influenced their choice of artistic design.

The three-dimensional model benefited from a number of unique features. One of the most significant of these is the possibility of viewing it from every angle. This characteristic enabled the sculptor to convey spatial relationships through carefully placing figures on the baseboard and to express a sense of depth. Additionally, it allowed him to portray more than one side of each individual object, presenting a more complete image of each feature in his design. A second advantage is found in the sculptor's ability to present comprehensive representations of architectural structures, particularly noticeable in the model granaries. While a diverse range of structures are identified amongst the models, all are able to encapsulate the structure as a whole. Furthermore, the model was able to include real-working features such as moveable doors as well as a number of different materials including cloth, grain and rope in its designs. These details enabled the sculptor to reflect the aspects involved in the real-life processes he portrayed. All of these advantages allowed the three-dimensional medium to function as a miniature representation of each process.

While the model enjoyed the above advantages, it was also hindered by a number of technical limitations. One of these restrictions resulted from the need to secure each figure to the baseboard. The sculptor regularly had to exclude minute features from his design as a result of this, such as the feet of human figures. Secondly, text could not be incorporated into the model, causing the medium to rely on image alone to convey meaning. Furthermore, models representing a single process were restricted in conveying relationships between different activities. It is only in models depicting groups of figures that such associations could be portrayed. Due to the technical difficulty of fashioning certain objects in three-dimensions, a number of features lacked detail and entire processes were excluded from the artistic repertoire. This is particularly noticeable in the portrayal of the agricultural cycle with the omission of the processes of sowing, harvesting and winnowing due to the problems encountered by the sculptor. As a result, the detail and variety of themes represented in three-dimensions were significantly limited.

On the other hand, the two-dimensional nature of the wall surface produced different advantages and disadvantages. As minute details could be easily drawn onto the wall surface, artists were able to incorporate greater detail in their designs. This resulted in the representation of a wider variety of themes, especially witnessed in the depiction of the agricultural cycle. Additionally, the wall scene was able to closely intertwine text and image, providing greater insight into the characters and processes represented. This was further enhanced by the artist's ability to carefully arrange a number of scenes on each wall, highlighting the relationships between each of the activities portrayed. Accordingly, he was able to depict the successive stages of the agricultural cycle in an almost cinematic fashion. All of these advantages enabled the wall scene to incorporate a high level of detail in its designs and to depict a wide variety of themes.

However, the two-dimensional medium was also restricted by a number of technical limitations. As only one side of each object could be portrayed in two-dimensions, the artist could not convey the same realistic picture of the spatial relationships between figures as the sculptor. Many artists altered their designs in order to prevent certain features from being hidden from view, particularly in regards to the human figure. However, they remained unable to convey a sense of depth in their artworks. It was the strict conventions of Egyptian art that prevented artists from portraying naturalistic scenes, particularly witnessed in their difficulty in conveying movement in the shoulders of human figures. Furthermore, while wall scenes were unable to incorporate different materials and real-working features like the model, the artist found alternate means to convey these features in his designs. Incorporating a variety of colours and patterns as well as combining a number of viewpoints allowed him to overcome these limitations imposed by the strict artistic canon.

Despite their unique technical limitations, both models and wall scenes were able to represent the themes of agricultural pursuits and food production. However, a significant difference in emphasis is noticed between the two media. While models and wall scenes depict a similar number of processes involved in the production of bread and beer, the models convey significantly less stages of the agricultural cycle. The three-dimensional medium gives most of its attention to food production, further witnessed in the dominance of the granary amongst the agricultural models. While this can be attributed to the technical limitations that prevented the model from depicting many agricultural tasks, it can also be ascribed to a number of other factors. Firstly, the structure and artistic design of a tomb was largely dependent upon the wealth of the tomb owner. Individuals with less wealth could not afford a wide variety of decoration in their burials, often only including a single model. As a result, it was more

important for food production to be represented in three-dimensions as it might be the only form of sustenance the tomb owner could afford. A second factor can be attributed to the skill of the artists and sculptors who created the artworks. The artist appears to have been more highly trained than the sculptor and could create works of a more superior standard. This difference in ability can account for many of the variations noted between the two media.

Thirdly, the location of each medium in the burial can also account for this difference in emphasis. While daily life scenes are almost entirely restricted to the tomb-chapel, models are mostly found in the burial chamber. The superstructure was accessible to the living and served as the centre of the cult of the deceased. The decoration on the walls of the chapel was designed to celebrate the achievements of the tomb owner during his life, impress visitors of the tomb who would present offerings and provide magically for the deceased in the afterlife. As a result, a wider variety of themes were represented in two-dimensions to accommodate these different purposes. On the other hand, models were stored in the burial chamber where they were only viewed by the deceased. Accordingly, their sole purpose was to serve the tomb owner in the afterlife. Representations of the production of food were especially important in the burial chamber as these assured the deceased that he would be eternally nourished.

This raises an interesting problem regarding the role of decoration in the burial chamber. It was not until the end of the 5th Dynasty that the first wall scenes appeared in burial chambers. While these early examples did include animate figures in their designs, this practice was soon abandoned so that the body would be protected from any harm posed by the figures. The rare occurrence of such decoration raises a complication regarding the location of models in the burial chamber. Models depicted animate figures, yet were included in burials across a much wider time period than the incorporation of wall scenes in burial chambers. If both wall scenes and models were believed to magically come to life to serve the deceased in the afterlife, then it is unusual that models could be included in the burial chamber when wall scenes could not. Further investigation is required to reconcile these apparently contradicting phenomena.

While models are more prevalent amongst poorer burials, they were also stored in tombs of the wealthy. Consequently, some tombs included both two- and three-dimensional artworks in their decorative schemes. However, as many of the tombs, particularly those of the wealthy, have been looted, many of these artworks have been lost. This makes it difficult to determine the extent to which tombs decorated with wall scenes also housed models in their burial chambers. Amongst the models collected in this study, only those belonging to Niankh-Pepy-

Kem (A1) at Meir and Djehuty-nakht (10A) at El-Bersha came from tombs with decorated chapels. None of the scenes in Niankh-Pepy-Kem's tomb-chapel correlate with the agricultural and food production models found in his burial chamber. This variation in themes suggests that the two media complemented each other in their service of the deceased rather than providing duplicates. Less information can be determined for the burial of Djehuty-nakht as his chapel was not found in the same state of preservation as the models in the burial chamber. Any similarities between the scenes and models in his tomb cannot be identified. However, it is clear that both media could be included in a single burial and that both contributed to the service of the deceased in the afterlife.

Food was a central requirement for the deceased's eternal existence and extensive measures were taken to ensure that a perpetual supply was provided. Artistic representations of the production of such food, from the beginning of the agricultural cycle to its final product, served as one important means to achieve this. Both two- and three-dimensional media were able to successfully serve the deceased in the afterlife, allowing tomb owners to choose one or both according to their means. Although each medium had its own distinct advantages and limitations, both were able to represent the necessary themes to sustain the deceased in the afterlife.

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Plates

Agricultural Pursuits

Meir

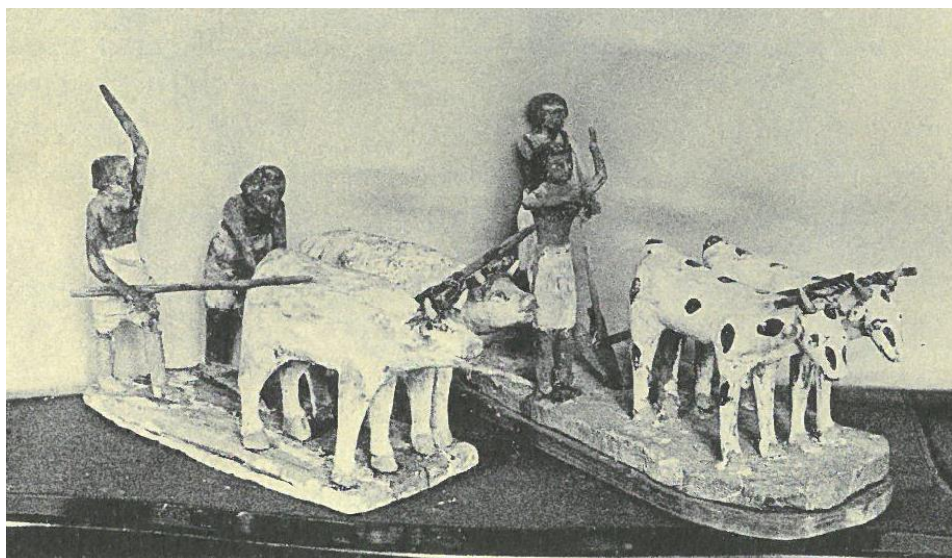
Models

Plate 1: Tomb of Niankh-Pepy-Kem (A1). Dynasty 6



Source: F. Tiradritti, *Ancient Egypt: Art, Architecture and History* (London, 2002), p. 41

Plate 2: Tomb Unknown. Dynasty 12 [Model on the Left]



Source: J.H. Breasted, *Egyptian Servant Statues* (Washington, 1948), pl. 2b.

Plate 3a: Tomb Unknown. Dynasty 12



Source: The Metropolitan Museum of Art: 11.150.8.

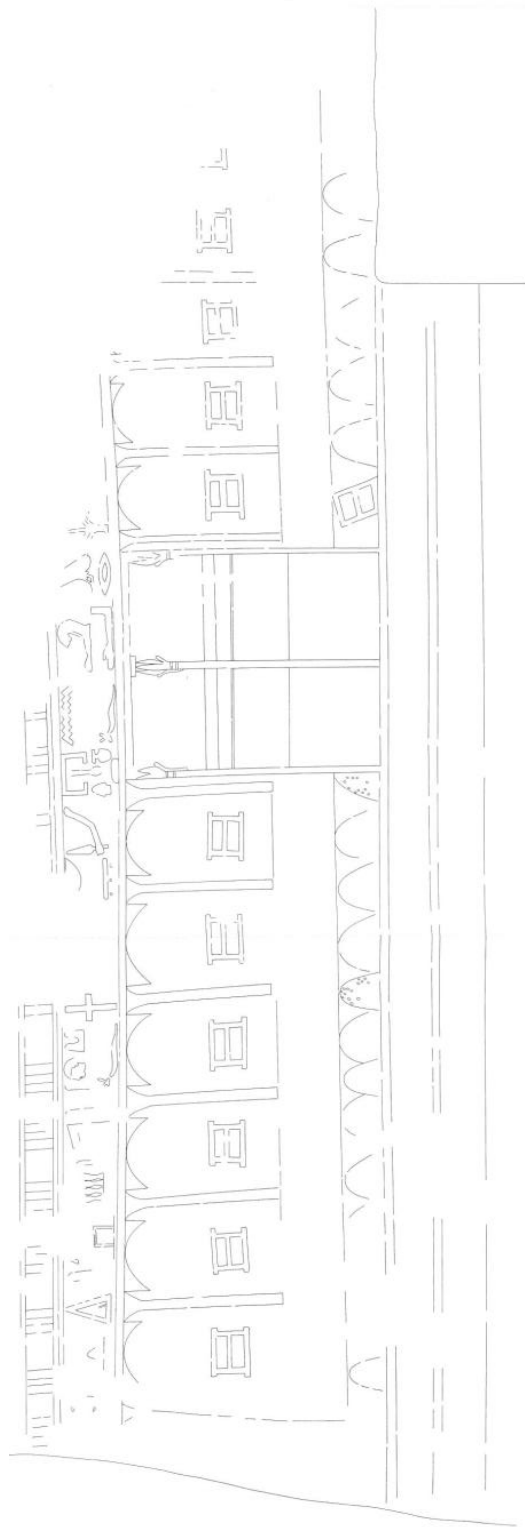
Plate 3b: Tomb Unknown. Dynasty 12



Source: The Metropolitan Museum of Art: 11.150.8.

Wall Scenes

Plate 4: Burial Chamber of Niankh-Pepy-Kem (A1). South Wall. Dynasty 6



Source: N. Kanawati, L. Evans, M. Lashien, A.L. Mourad & A. Senussi, *The Cemetery of Meir. Volume III: The Tomb of Niankhpepy the Black* (Oxford, 2015), pl. 70a.

Plate 5a: Tomb of Pepyankh the Middle (D2). West Wall. Dynasty 6



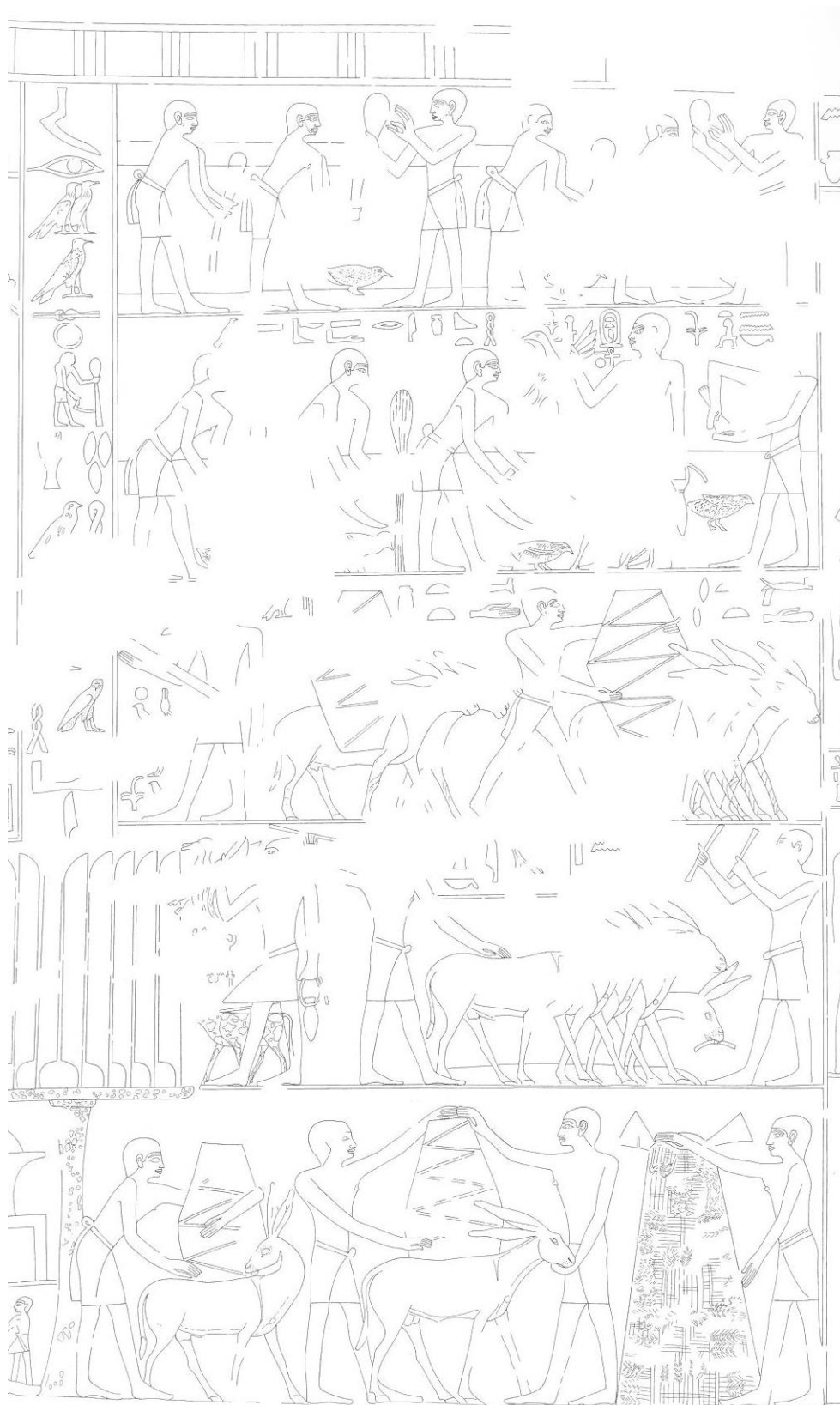
Source: N. Kanawati, *The Cemetery of Meir. Volume I: The Tomb of Pepyankh the Middle* (Oxford, 2012), pl. 84.

Plate 5b: Tomb of Pepyankh the Middle (D2). West Wall, Registers 3-4. Dynasty 6



Source: Kanawati, *The Cemetery of Meir. Volume I*, pl. 42a.

Plate 6a: Tomb of Pepyankh the Middle (D2). West Wall. Dynasty 6



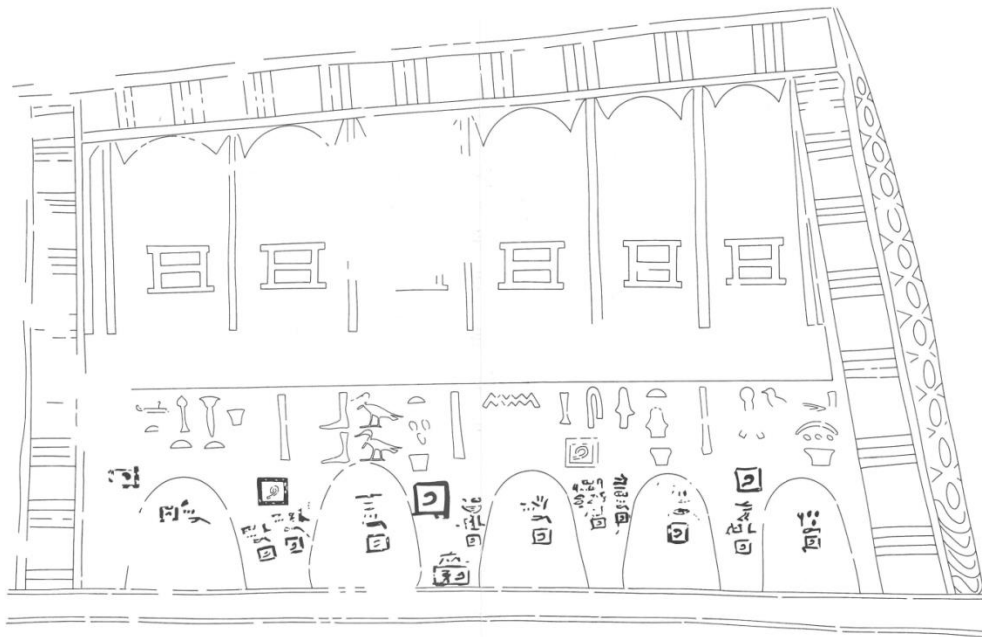
Source: Kanawati, *The Cemetery of Meir. Volume I*, pl. 84.

Plate 6b: Tomb of Pepyankh the Middle (D2). West Wall. Dynasty 6



Source: Kanawati, *The Cemetery of Meir. Volume I*, pl. 45b.

Plate 7a: Burial Chamber of Pepyankh the Middle (D2). South Wall. Dynasty 6



Source: Kanawati, *The Cemetery of Meir. Volume I*, pl. 92.

Plate 7b: Burial Chamber of Pepyankh the Middle (D2). South Wall. Dynasty 6



Source: N. Kanawati, *Decorated Burial Chambers of the Old Kingdom* (Cairo, 2010), pl. 104.

Plate 8a: Burial Chamber of Hewetiaah (D2). South Wall. Dynasty 6



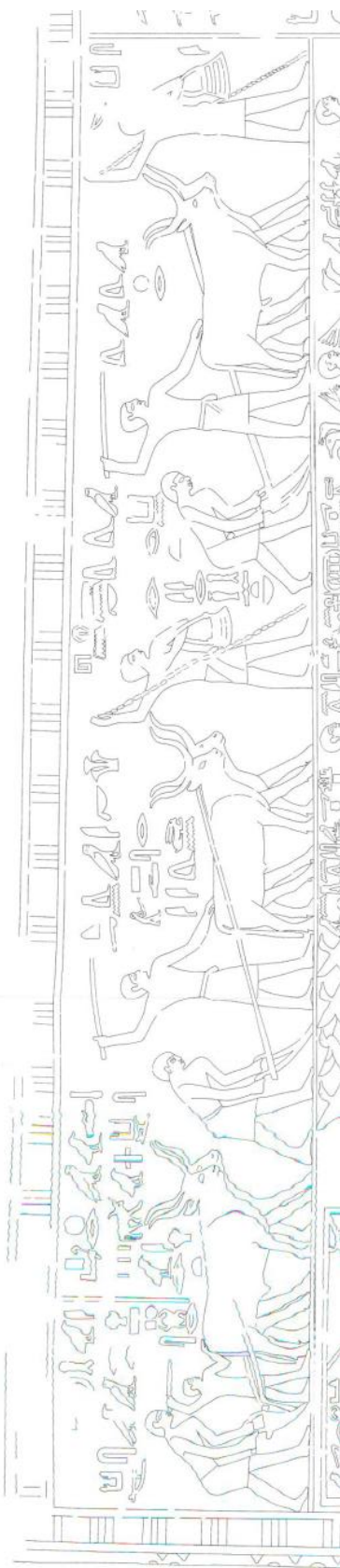
Source: Kanawati, *The Cemetery of Meir. Volume I*, pl. 94.

Plate 8b: Burial Chamber of Hewetiaah (D2). South Wall. Dynasty 6



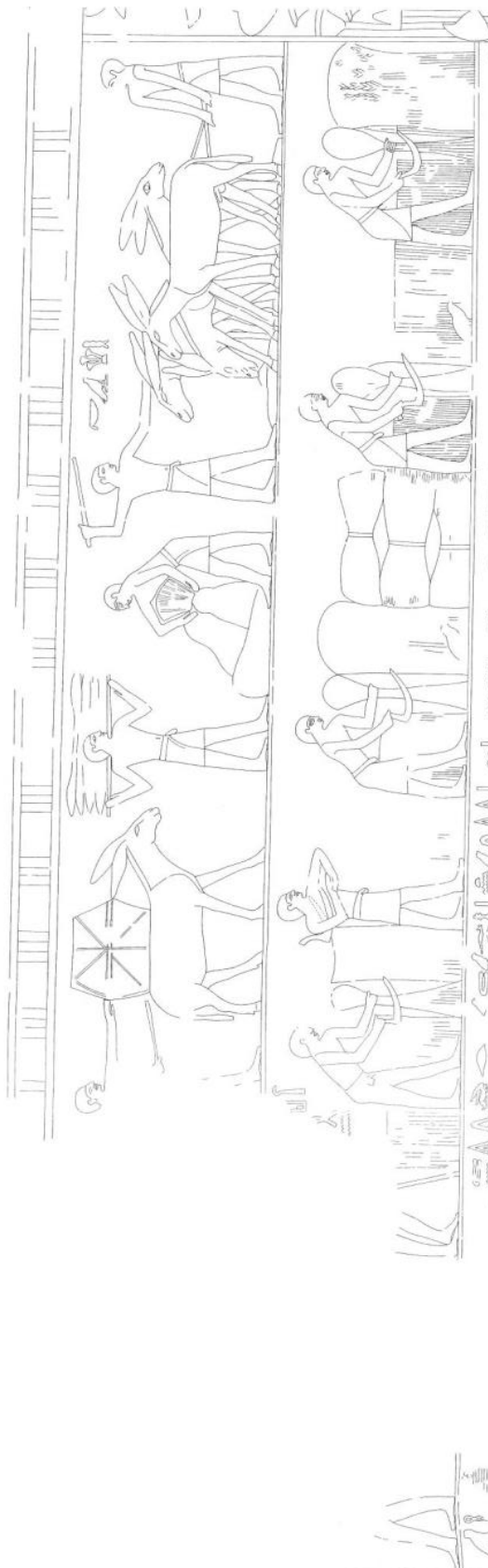
Source: Kanawati, *Decorated Burial Chambers*, pl. 111.

Plate 9: Tomb of Pepyankh the Black (A2). East Wall, Register 1. Dynasty 6



Source: N. Kanawati & L. Evans, *The Cemetery of Meir. Volume II: The Tomb of Pepyankh the Black* (Oxford, 2014a), pl. 90.

Plate 10: Tomb of Pepyankh the Black (A2). South Wall, Registers 1-2. Dynasty 6



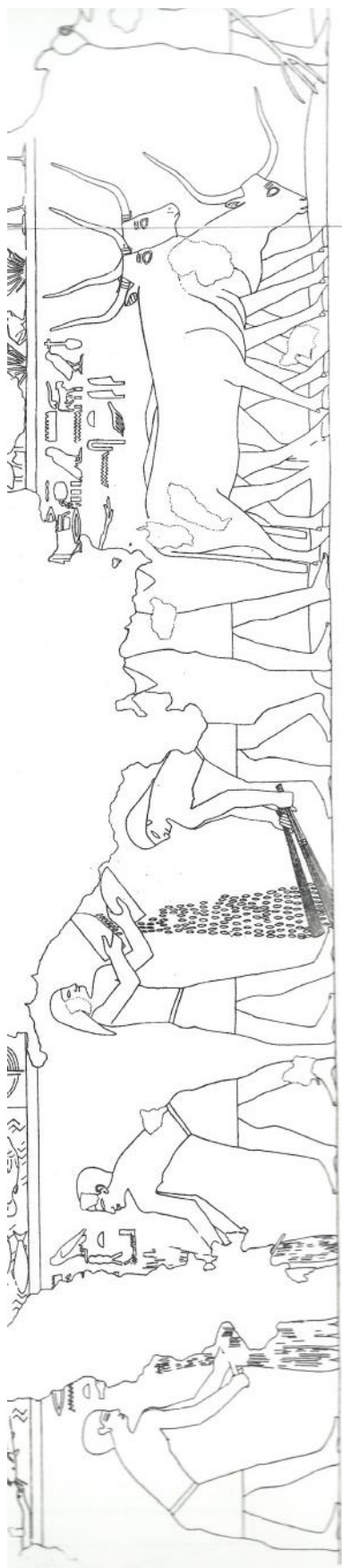
Source: Kanawati & Evans, *The Cemetery of Meir. Volume II*, pl. 83b.

Plate 11a: Tomb of Senbi (B1). North Wall, Register 4 [Left]. Dynasty 12



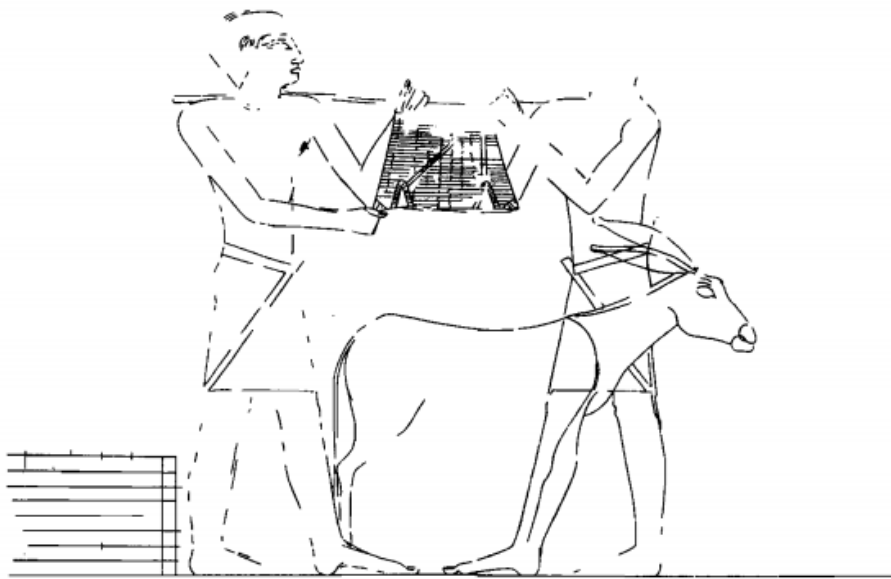
Source: A.M. Blackman, *The Rock Tombs of Meir. Volume I: The Tomb-Chapel of Ukh-hotp's Son Senbi* (London, 1914), pl. III.

Plate 11b: Tomb of Senbi (B1). North Wall, Register 4 [Right]. Dynasty 12



Source: Blackman, *The Rock Tombs of Meir. Volume I*, pl. IV.

Plate 12: Tomb of Ukh-hotep (B2). East Wall. Dynasty 12



Source: A.M. Blackman, *The Rock Tombs of Meir. Part II: The Tomb-Chapel of Senbi's Son Ukh-hotep (B, No. 2)* (London, 1915a), pl. V.1.

El-Bersha

Models

Plate 13: Tomb of Djehuty-nakht (No. 10A). Dynasty 11



Source: Museum of Fine Arts, Boston: 21.408.

Plate 14: Tomb of Djehuty-nakht (No. 10A). Dynasty 11



Source: Museum of Fine Arts, Boston: 21.409.

Plate 15: Tomb of Djehuty-nakht (No. 10A). Dynasty 11



Source: Museum of Fine Arts, Boston: 21.410.

Plate 16: Tomb of Djehuty-nakht (No. 10A). Dynasty 11



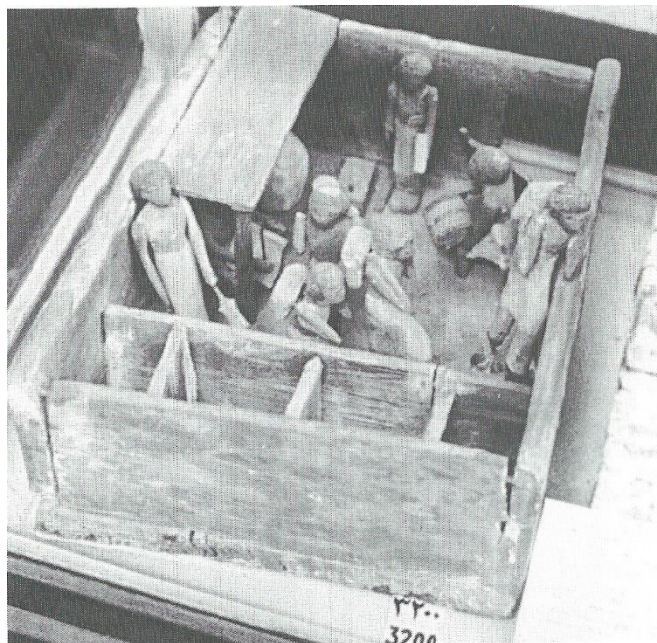
Source: Museum of Fine Arts, Boston: 21.808.

Plate 17: Tomb of Djehuty-nakht (No. 10A). Dynasty 11



Source: Museum of Fine Arts, Boston: 15-5-409.

Plate 18: Tomb of Sepi III. Dynasty 11



Source: A.M.J. Tooley, *Egyptian Models and Scenes* (Princes Risborough, 1995), fig. 39.

Wall Scenes

Plate 19: Tomb of Ahanakht (No. 5). Front Wall.³¹⁸ Dynasty 11



Source: P.E. Newberry & F.L. Griffith, *El Bersheh. Part II* (London, 1894b), pl. XV.

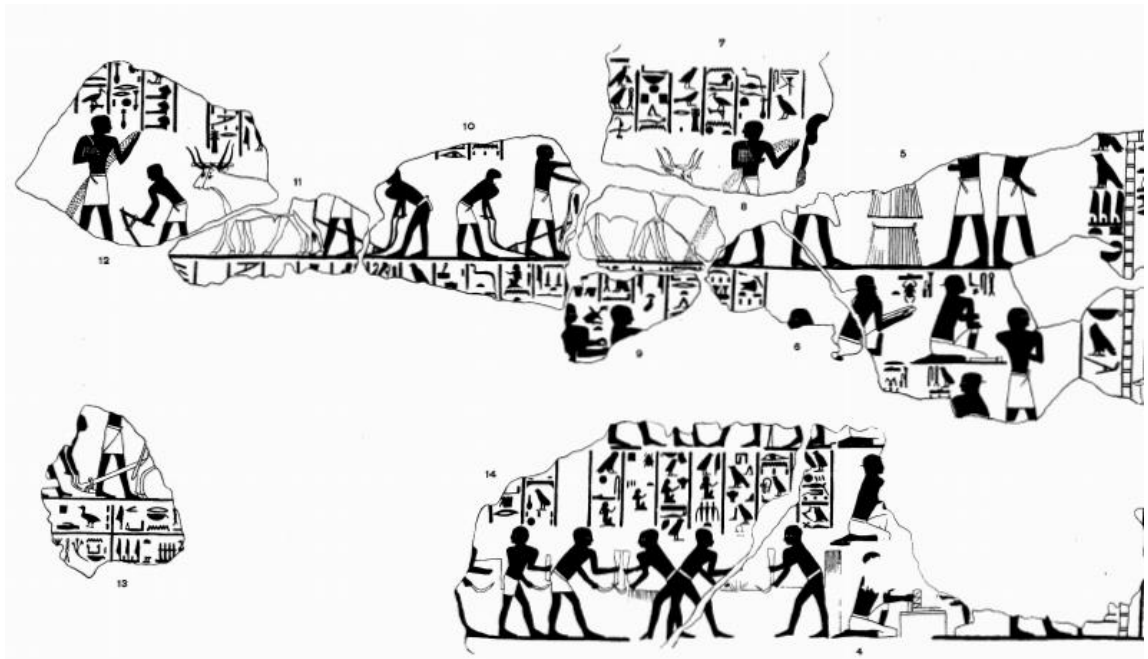
Plate 20: Tomb of Nehri I (No. 19). Fragment found on the Terrace. Dynasty 12



Source: M. Robinson, D.P. Silverman & E. Brovarski, “Tombs on the High Terrace”, in D.P. Silverman (ed.), *Bersheh Reports I* (Boston, 1992), fig. 30.

³¹⁸ Direction according to Newberry.

Plate 21a: Tomb of Djehuty-nakht (No. 1). Right-hand Wall. Dynasty 12



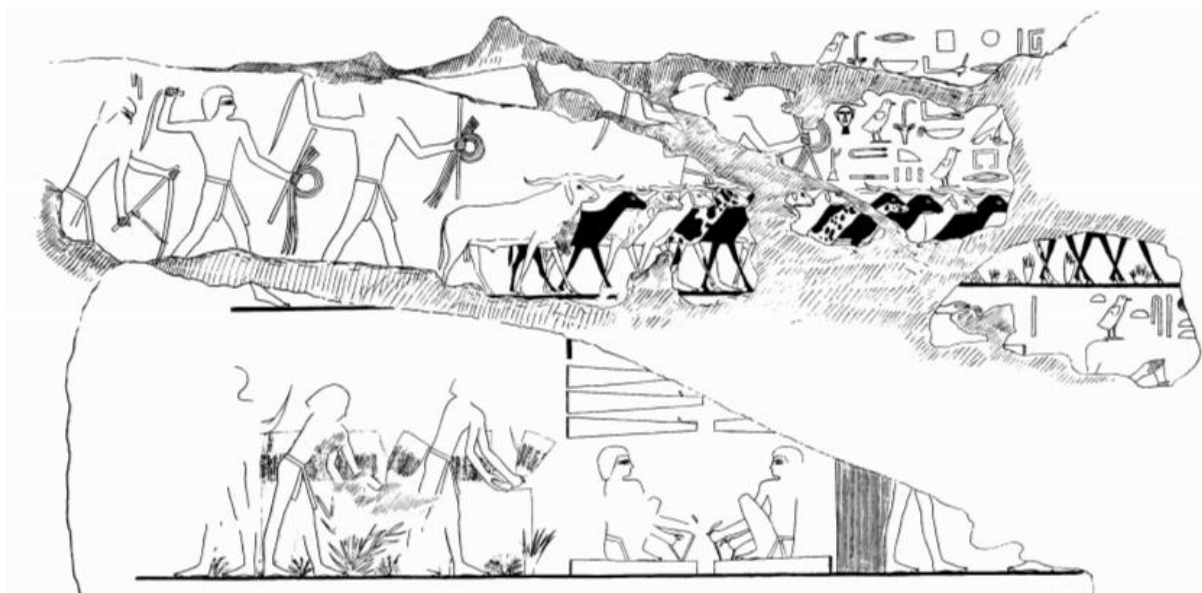
Source: Newberry & Griffith, *El Bersheh. Part II*, pl. VIII.

Plate 21b: Tomb of Djehuty-nakht (No. 1). Right-hand Wall. Dynasty 12



Source: G. Robins, *The Art of Ancient Egypt*, revised edition, (Cambridge, 2008), pl. 108.

Plate 22a: Tomb of Djehuty-hotep (No. 2). Right-hand Wall, Registers 1-2. Dynasty 12



Source: P.E. Newberry, *El Bersheh. Part I: The Tomb of Tehuti-hetep* (London, 1894a), pl. XXV.

Plate 22b: Tomb of Djehuty-hotep (No. 2). Right-hand Wall, Register 2. Dynasty 12



Source: Newberry, *El Bersheh. Part I*, pl. XXXI.

Beni Hassan

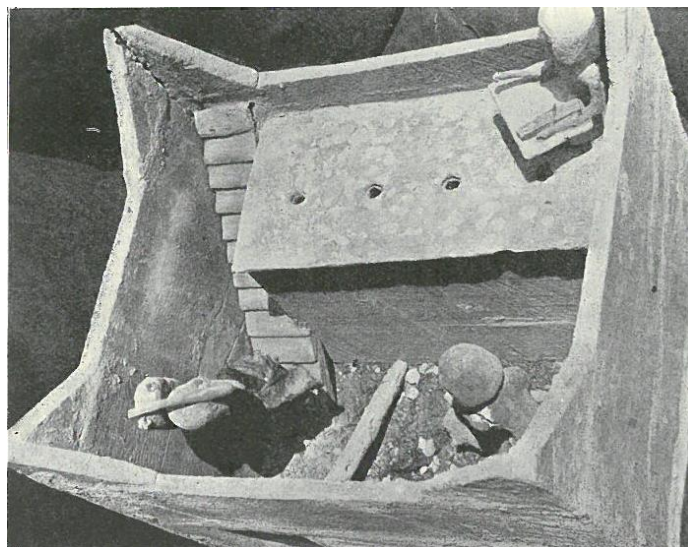
Models

Plate 23: Tomb of Ipi (707 Lower Cemetery (LC)). First Intermediate Period



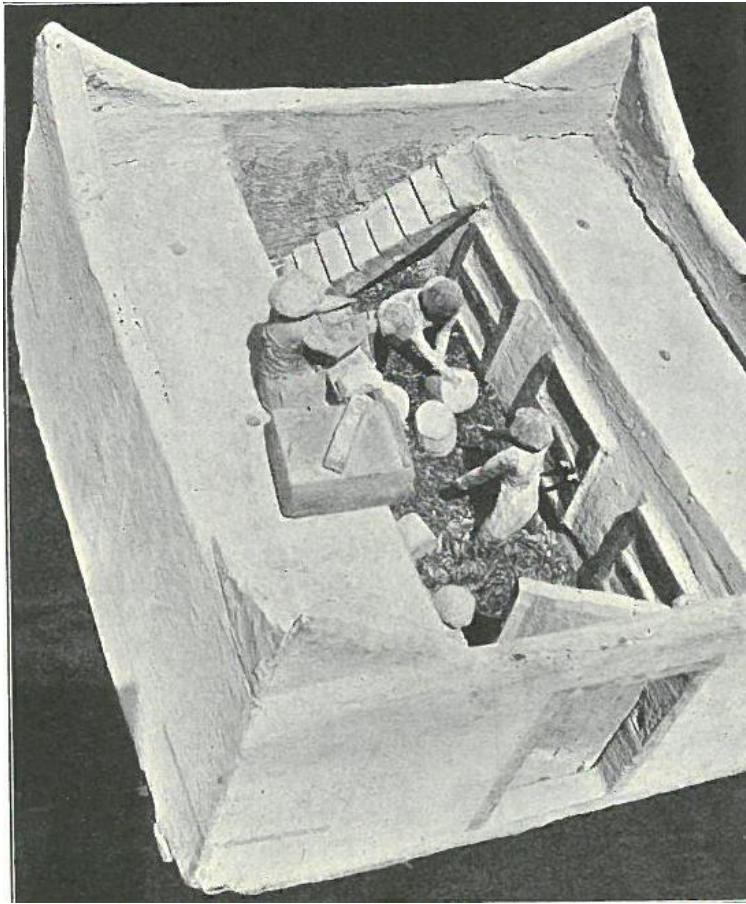
Source: J. Garstang, *The Burial Customs of Ancient Egypt as Illustrated by the Tombs of the Middle Kingdom* (London, 1907), fig. 120.

Plate 24: Tomb of Intef (1 LC). Dynasty 11



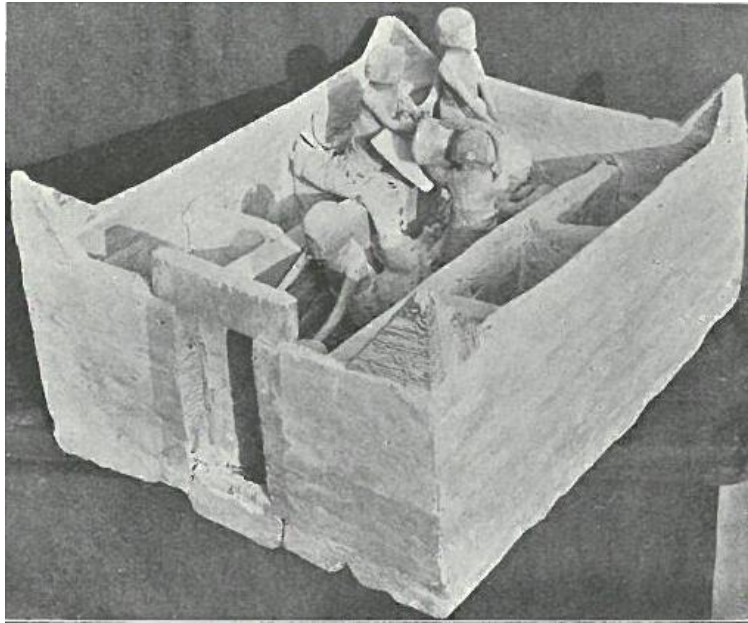
Source: Garstang, *The Burial Customs of Ancient Egypt*, fig. 44.

Plate 25: Tomb of Nefery (116 LC). Dynasty 12



Source: Garstang, *The Burial Customs of Ancient Egypt*, fig. 60.

Plate 26: Tomb of Nefwa (186 LC). Dynasty 12



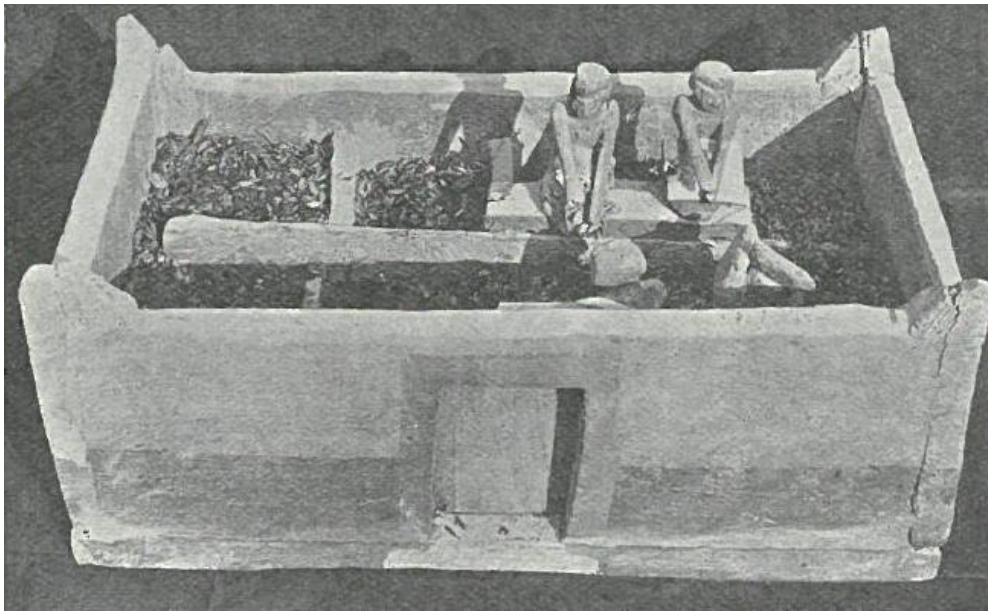
Source: Garstang, *The Burial Customs of Ancient Egypt*, fig. 76.

Plate 27: Tomb of Khety (366 LC). Dynasty 12



Source: The Fitzwilliam Museum: E.71e.1903.

Plate 28: Tomb of Khety-aa (575 LC). Dynasty 12



Source: Garstang, *The Burial Customs of Ancient Egypt*, fig. 121.

Plate 29: Tomb Unknown. Dynasty 12



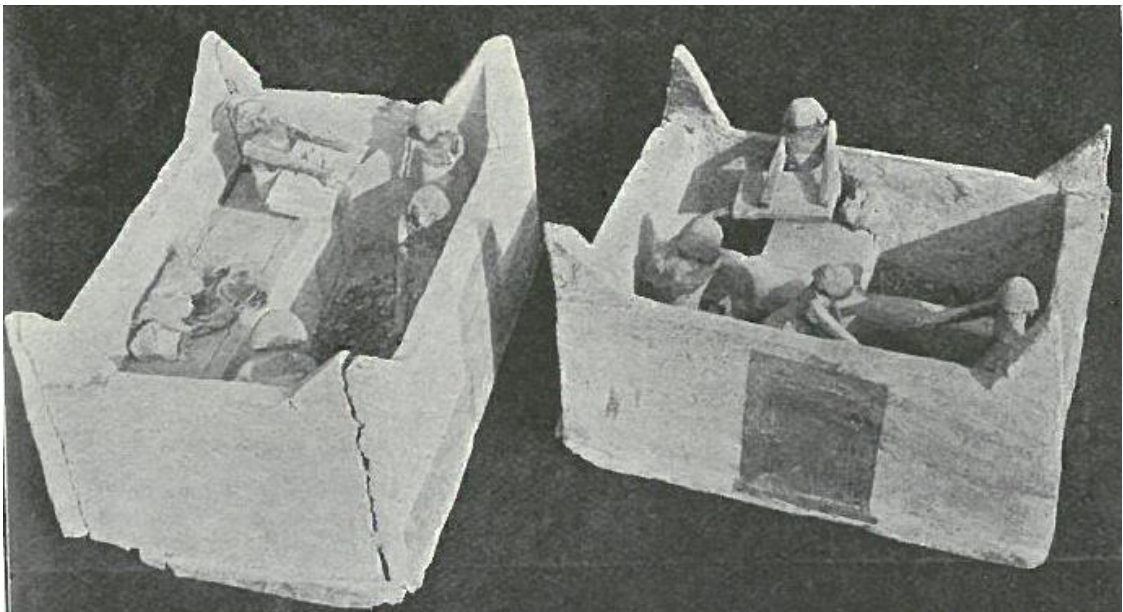
Source: University of Aberdeen Museum, ABDUA: 22166.

Plate 30: (260 LC). Middle Kingdom



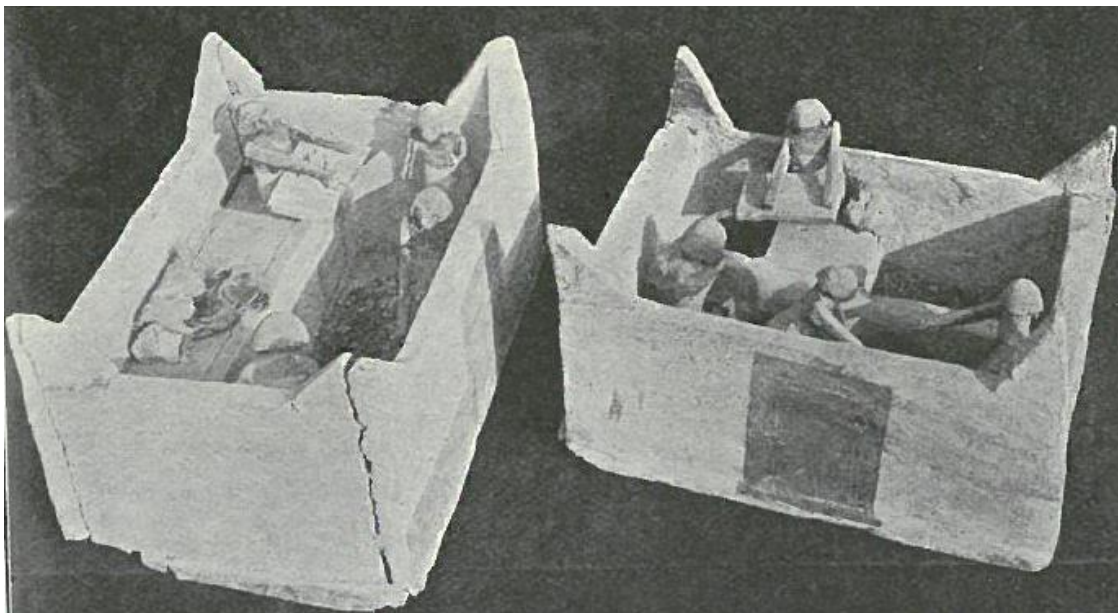
Source: The Fitzwilliam Museum: E.175.1903.

Plate 31: Tomb of Khnum-Nakhti and Netjer-Nakhti (585 LC). Middle Kingdom [Model on the Left]



Source: Garstang, *The Burial Customs of Ancient Egypt*, fig. 90.

Plate 32: Tomb of Khnum-Nakhti and Netjer-Nakhti (585 LC). Middle Kingdom [Model on the Right]



Source: Garstang, *The Burial Customs of Ancient Egypt*, fig. 90.

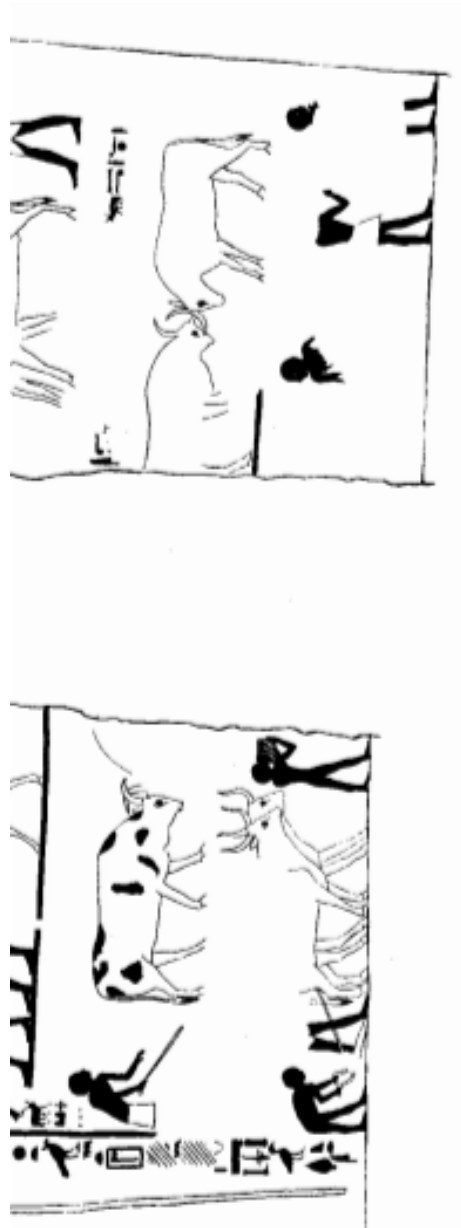
Plate 33: Tomb of Sobek-hotepi (723 LC). Middle Kingdom



Source: The British Museum: EA41573.

Wall Scenes

Plate 34: Tomb of Baqet I (29 Upper Cemetery (UC)). South Wall, Registers 4-5. Dynasty 11

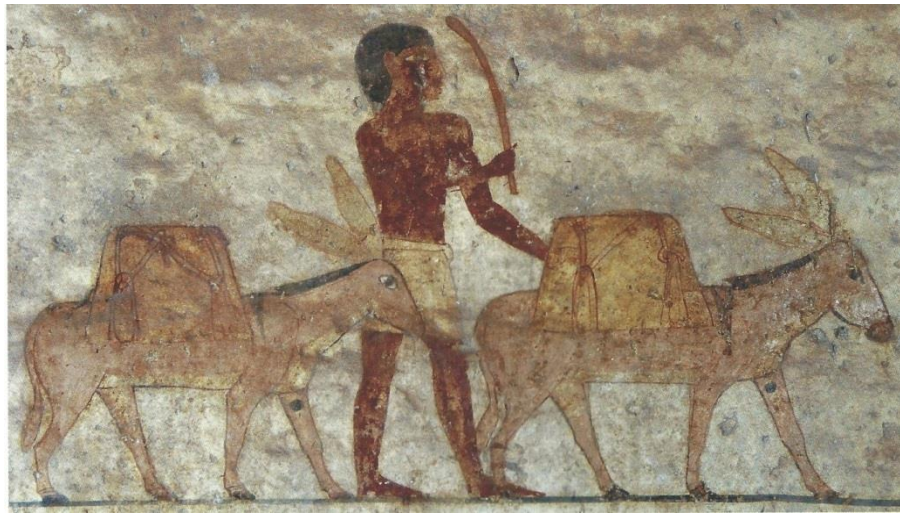


Source: P.E. Newberry, *Beni Hasan. Part II* (London, 1893b), pl. XXXII.

This illustration depicts the 12 hours of the day, organized into two columns of six registers each. The figures are shown in various poses and activities, representing different tasks throughout the day. The top register shows a figure standing, while the bottom register shows a figure lying down, possibly resting or sleeping. The middle registers show figures engaged in various activities, including farming, herding, and domestic work. The figures are stylized, with some wearing traditional Egyptian clothing like the kilt and shendyt. The background is plain, with the figures and their activities being the primary focus of the illustration.

112

Plate 35b: Tomb of Khety (17 UC). South Wall, Register 3. Dynasty 11



Source: N. Kanawati & A. Woods, *Beni Hassan: Art and Daily Life in an Egyptian Province* (Cairo, 2010), fig. 178.

Plate 35c: Tomb of Khety (17 UC). South Wall, Sub-Register 1. Dynasty 11



Source: Kanawati & Woods, *Beni Hassan*, fig. 152.

Plate 36: Tomb of Amenemhat (2 UC). West Wall, Registers 6-7. Dynasty 12



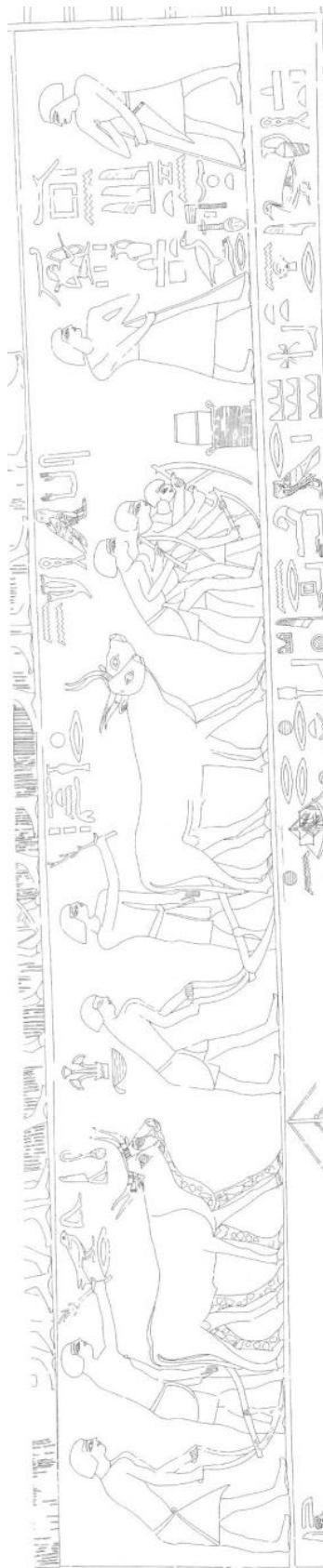
Source: N. Kanawati & L. Evans, *Beni Hassan. Volume II* (to appear late 2016). Courtesy of the Australian Centre for Egyptology.

Plate 37: Tomb of Amenemhat (2 UC). North Wall, Register 6. Dynasty 12



Source: Kanawati & Evans, *Beni Hassan. Volume II*. Courtesy of the Australian Centre for Egyptology.

Plate 38a: Tomb of Khnumhotep II (3 UC). West Wall, Register 3. Dynasty 12



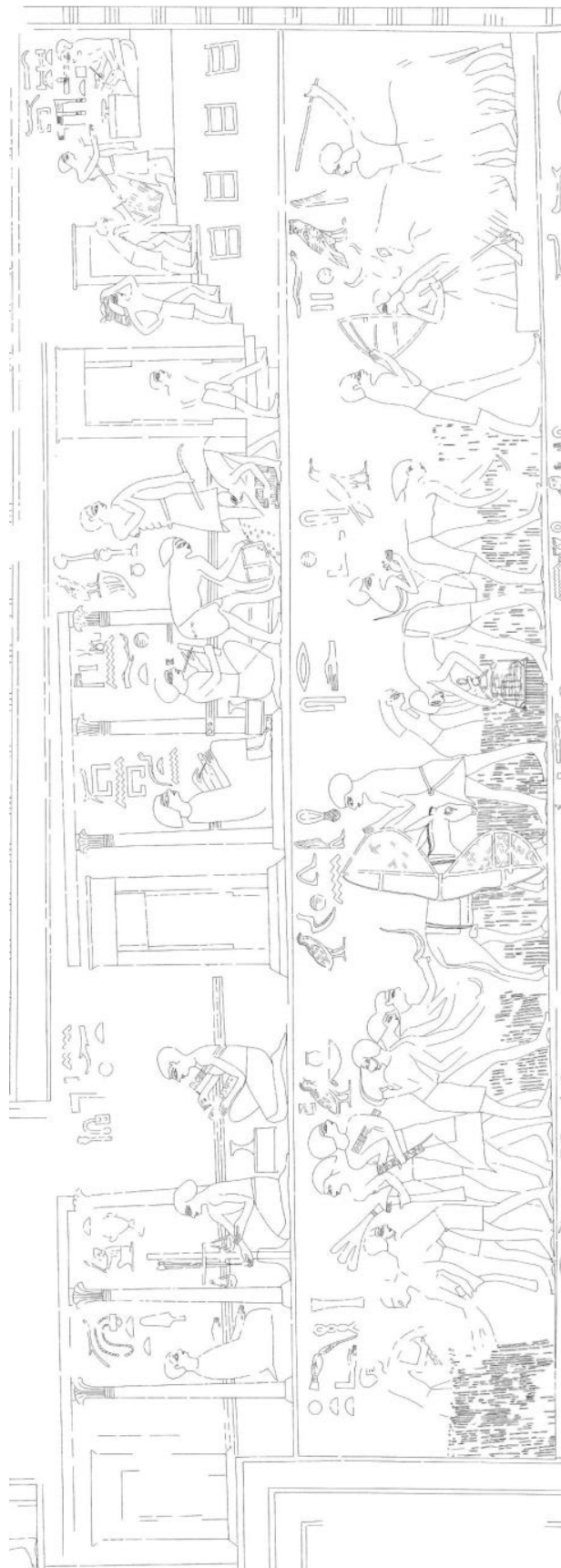
Source: N. Kanawati & L. Evans, *Beni Hassan. Volume I: The Tomb of Khnumhotep II* (Oxford, 2014b), pl. 118.

Plate 38b: Tomb of Khnumhotep II (3 UC). West Wall, Register 3. Dynasty 12



Source: Kanawati & Evans, *Beni Hassan. Volume I*, pl. 15a.

Plate 39: Tomb of Khnumhotep II (3 UC). West Wall, Registers 1-2. Dynasty 12



Source: Kanawati & Evans, *Beni Hassan. Volume I*, pl. 117.

Food Production

Meir

Models

Plate 40: Tomb of Niankh-Pepy-Kem (A1). Dynasty 6



Source: L. Borchardt, *Statuen und Statuetten von Königen und Privatleuten im Museum von Kairo, Nr. 1-1294* (Berlin, 1911), pl. 237.

Plate 41: Tomb of Niankh-Pepy-Kem (A1). Dynasty 6



Source: Borchardt, *Statuen und Statuetten*, pl. 240.

Plate 42: Tomb of Niankh-Pepy-Kem (A1). Dynasty 6



Source: Borchardt, *Statuen und Statuetten*, pl. 252.

Plate 43: Tomb of Niankh-Pepy-Kem (A1). Dynasty 6



Source: Borchardt, *Statuen und Statuetten*, pl. 243.

Plate 44: Tomb of Niankh-Pepy-Kem (A1). Dynasty 6



Source: Borchardt, *Statuen und Statuetten*, pl. 238.

Plate 45: Tomb of Niankh-Pepy-Kem (A1). Dynasty 6



Source: Borchardt, *Statuen und Statuetten*, pl. 247.

Plate 46: Tomb of Niankh-Pepy-Kem (A1). Dynasty 6



Source: Borchardt, *Statuen und Statuetten*, pl. 239.

Plate 47: Tomb of Niankh-Pepy-Kem (A1). Dynasty 6



Source: Borchardt, *Statuen und Statuetten*, pl. 246.

Plate 48: Tomb of Niankh-Pepy-Kem (A1). Dynasty 6



Source: Borchardt, *Statuen und Statuetten*, pl. 253.

Plate 49: Tomb of Niankh-Pepy-Kem (A1). Dynasty 6



Source: Tiradritti, *Ancient Egypt*, p. 41.

Plate 50: Tomb of Niankh-Pepy-Kem (A1). Dynasty 6



Source: Borchardt, *Statuen und Statuetten*, pl. 251.

Plate 51: Tomb Unknown. Dynasty 12



Source: Breasted, *Egyptian Servant Statues*, pl. 39b.

Plate 52a: Tomb Unknown. Dynasty 12



Source: The Metropolitan Museum of Art: 11.150.12.

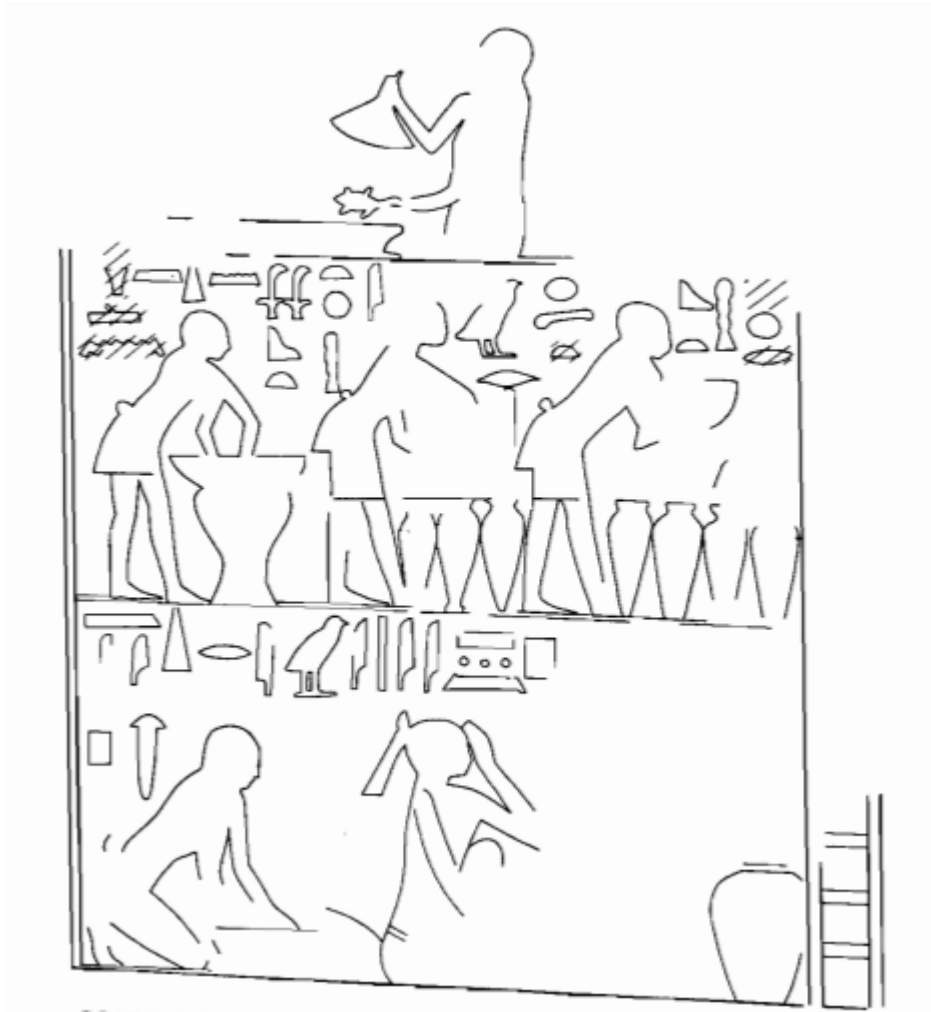
Plate 52b: Tomb Unknown. Dynasty 12



Source: The Metropolitan Museum of Art: 11.150.12.

Wall Scenes

Plate 53: Tomb of Pepi (D1). East Wall. Dynasty 6



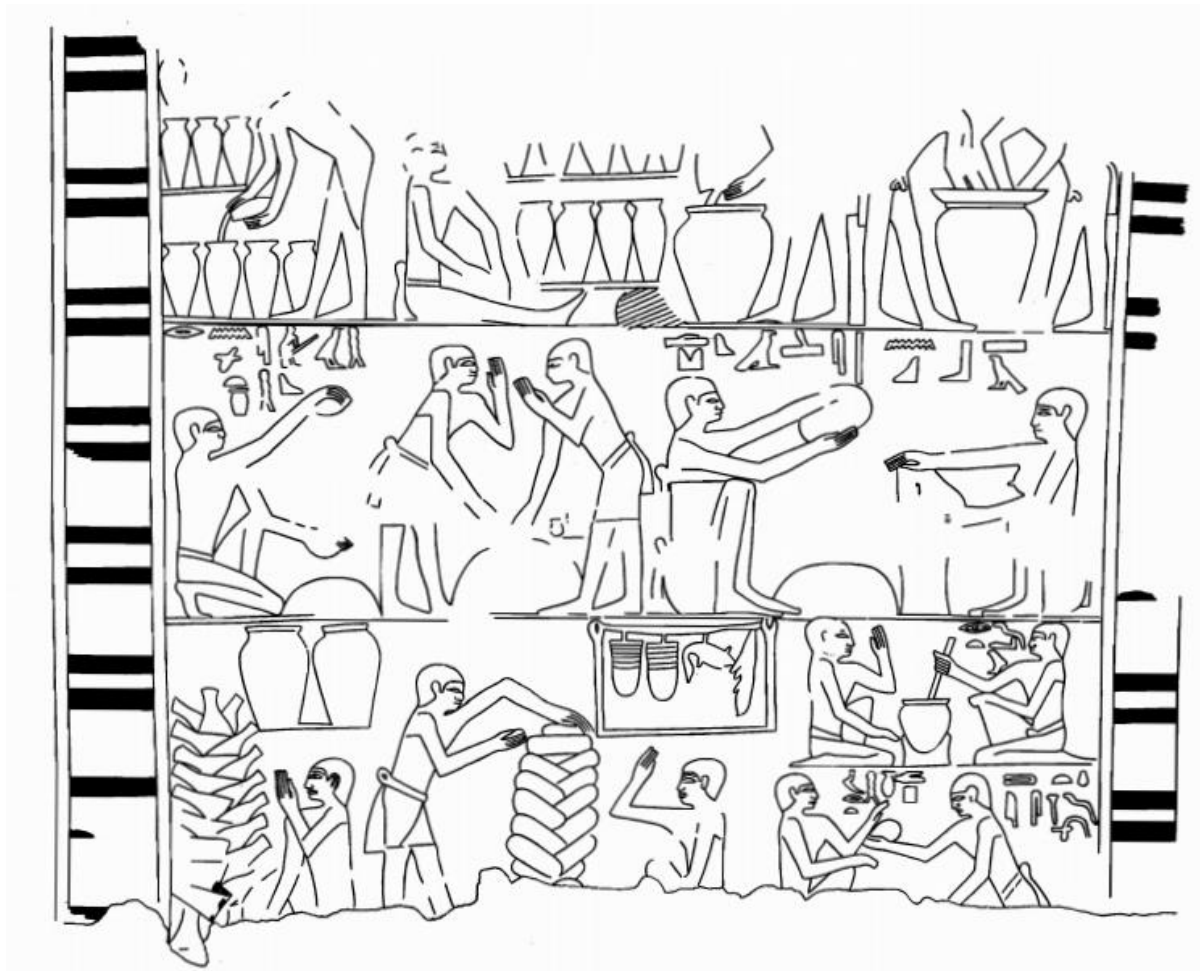
Source: A.M. Blackman & M.R. Apted, *The Rock Tombs of Meir. Part V: The Tomb-Chapels of A, No. 1 (That of Ni-'ankh-Pepi the Black), A, No. 2 (That of Pepi'onkh with the 'Good Name' of Heny the Black), A, No. 4 (That of Hepi the Black), D. No. 1 (That of Pepi), and E, Nos. 1-4 (Those of Meniu, Nenki, Pepi'onkh and Tjetu)* (London, 1953a), pl. XLIV 2.

Plate 54: Tomb of Meniu (E1). West Wall. Dynasty 6



Source: Blackman & Apted, *The Rock Tombs of Meir. Part V*, pl. XLVIII 1.

Plate 55: Tomb of Pepyankh the Middle (D2). West Wall. Dynasty 6



Source: A.M. Blackman, *The Rock Tombs of Meir. Part IV: The Tomb-Chapel of Pepi'onkh the Middle Son of Sebkhotpe and Pekhernefert (D, No. 2)* (London, 1924), pl. XIII.

El-Bersha

Models

Plate 56a: Tomb of Henu (Shaft 16H50/1C). First Intermediate Period



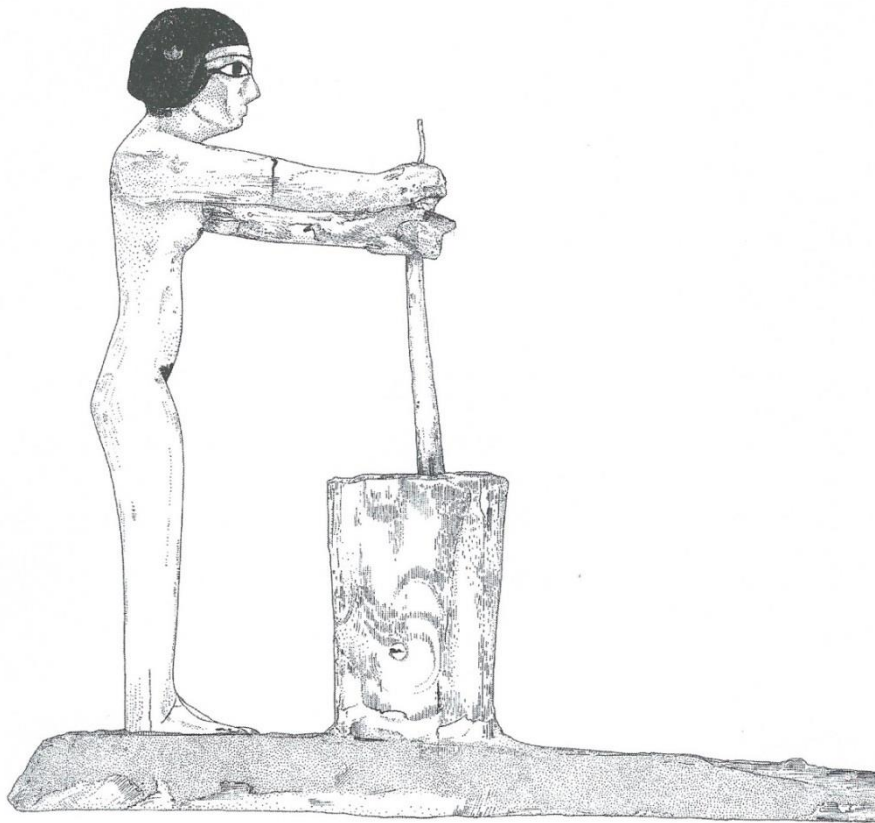
Source: M. De Meyer, “Old Kingdom Rock Tombs at Dayr al-Barshā. Volume II: Excavations in Zone 7 and Plates”, PhD thesis, Katholieke Universiteit (Leuven, 2008b), pl. 306.

Plate 56b: Tomb of Henu (Shaft 16H50/1C). First Intermediate Period



Source: M. De Meyer, “The Tomb of Henu at Deir el-Barsha”, *Egyptian Archaeology: The Bulletin of the Egypt Exploration Society* 31, (2007), 22.

Plate 57: Tomb of Henu (Shaft 16H50/1C). First Intermediate Period



Source: De Meyer, “Old Kingdom Rock Tombs at Dayr al-Barshā. Volume II”, pl. 307.

Plate 58a: Tomb of Henu (Shaft 16H50/1C). First Intermediate Period



Source: De Meyer, “Old Kingdom Rock Tombs at Dayr al-Barshā. Volume II”, pl. 308.

Plate 58b: Tomb of Henu (Shaft 16H50/1C). First Intermediate Period



Source: De Meyer, “The Tomb of Henu at Deir el-Barsha”, 23.

Plate 59: Tomb of Djehuty-nakht (No. 10A). Dynasty 11



Source: Museum of Fine Arts, Boston: 21.807.

Plate 60a: Tomb of Djehuty-nakht (No. 10A). Dynasty 11



Source: Museum of Fine Arts, Boston: 21.886.

Plate 60b: Tomb of Djehuty-nakht (No. 10A). Dynasty 11



Source: Museum of Fine Arts, Boston: 21.886.

Plate 61: Tomb Unknown. Dynasty 12



Source: Courtesy of the British Museum: EA30719.

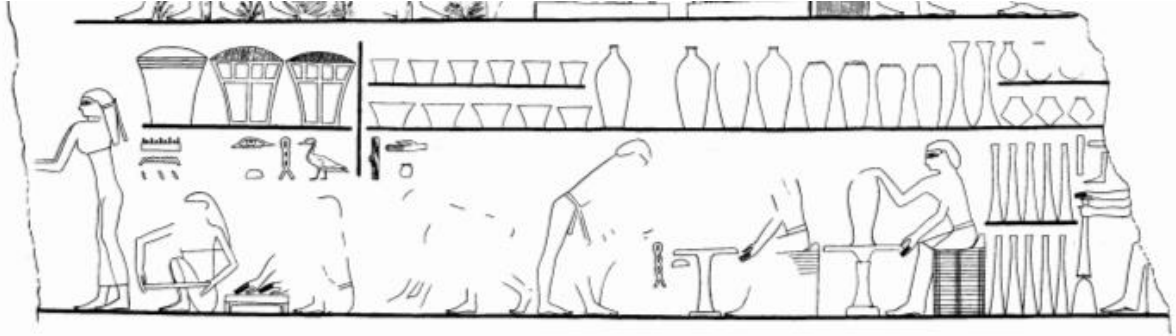
Plate 62: Tomb Unknown. Middle Kingdom



Source: Breasted, *Egyptian Servant Statues*, pl. 39c.

Wall Scenes

Plate 63a: Tomb of Djehuty-hotep (No. 2). Right-hand Wall, Register 3 [Right]. Dynasty 12



Source: Newberry, *El Bersheh. Part I*, pl. XXV.

Plate 63b: Tomb of Djehuty-hotep (No. 2). Right-hand Wall, Register 3 [Left]. Dynasty 12



Source: Newberry, *El Bersheh. Part I*, pl. XXXI.

Beni Hassan

Models

Plate 64: Tomb of Ipi (707 LC). First Intermediate Period



Source: Garstang, *The Burial Customs of Ancient Egypt*, fig. 125.

Plate 65: Tomb of Intef (1 LC). Dynasty 11



Source: Garstang, *The Burial Customs of Ancient Egypt*, fig. 51.

Plate 66: Tomb of Intef (1 LC). Dynasty 11



Source: Garstang, *The Burial Customs of Ancient Egypt*, fig. 50.

Plate 67: Tomb of Nefery (116 LC). Dynasty 12



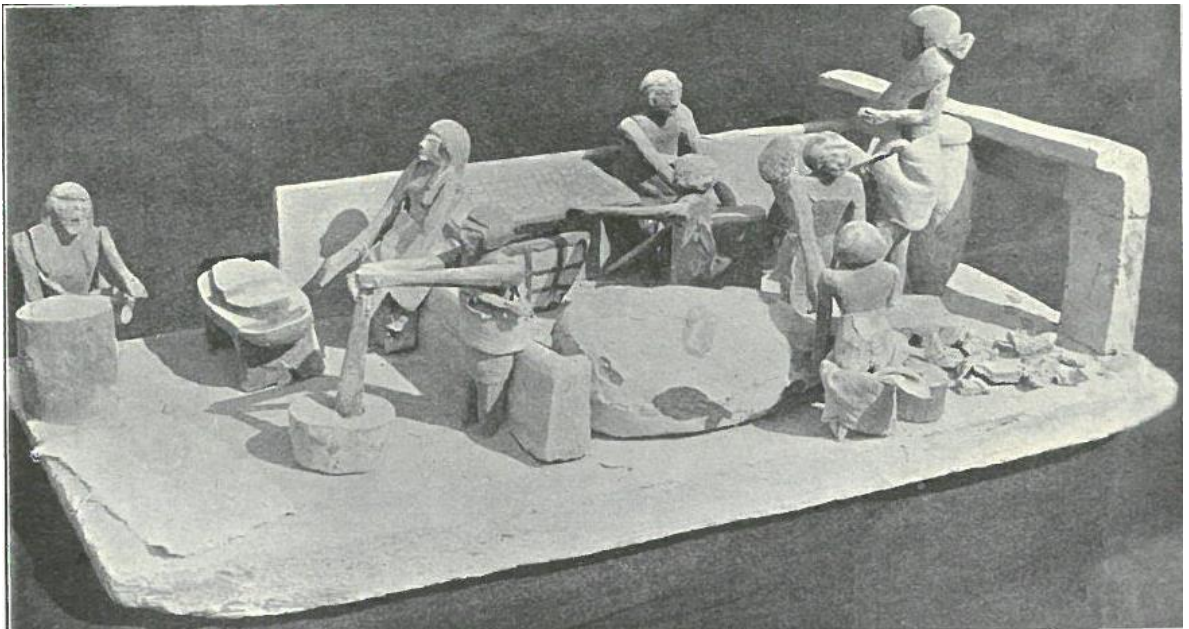
Source: Garstang, *The Burial Customs of Ancient Egypt*, fig. 62.

Plate 68: Tomb of Nefery (116 LC). Dynasty 12



Source: Garstang, *The Burial Customs of Ancient Egypt*, fig. 63.

Plate 69: Tomb of Nefwa (186 LC). Dynasty 12



Source: Garstang, *The Burial Customs of Ancient Egypt*, fig. 75.

Plate 70: Za'ay (275 LC). Dynasty 12



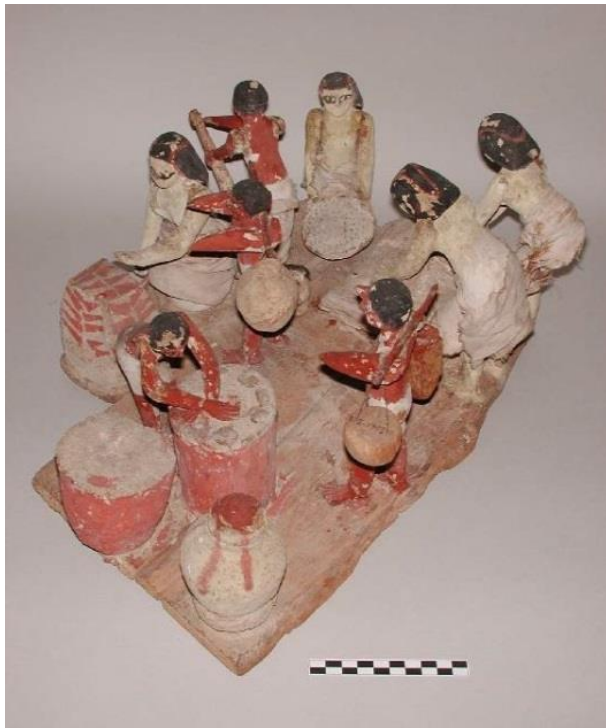
Source: Courtesy of the Bristol Museum and Art Gallery, World Cultures Collection:
H.4596.

Plate 71a: Khety (366 LC). Dynasty 12



Source: The Fitzwilliam Museum: E.71d.1903.

Plate 71b: Khety (366 LC). Dynasty 12



Source: The Fitzwilliam Museum: E.71d.1903.

Plate 72: Senbu (487 LC). Dynasty 12



Source: Garstang, *The Burial Customs of Ancient Egypt*, fig. 144.

Plate 73a: Khety-aa (575 LC). Dynasty 12



Source: Courtesy of the Ashmolean Museum: AN1896-1908 E.2312.

Plate 73b: Khety-aa (575 LC). Dynasty 12



Source: Courtesy of the Ashmolean Museum: AN1896-1908 E.2312.

Plate 74: Tomb Unknown. Dynasty 12



Source: Courtesy of the National Museums Scotland, World Cultures Collection: A.1914.71.

Plate 75a: Tomb Unknown. Dynasty 12



Source: Courtesy of the National Museums Scotland, World Cultures Collection: A.1914.72.

Plate 75b: Tomb Unknown. Dynasty 12



Source: Courtesy of the National Museums Scotland, World Cultures Collection: A.1914.72.

Plate 76: Tomb Unknown. Dynasty 12



Source: Courtesy of the National Museums Scotland, World Cultures Collection: A.1914.77.

Plate 77: Tomb of Khnum-Nakhti and Netjer-Nakhti (585 LC). Middle Kingdom



Source: Garstang, *The Burial Customs of Ancient Egypt*, fig. 84.

Plate 78: Tomb of Khnum-Nakhti and Netjer-Nakhti (585 LC). Middle Kingdom



Source: Courtesy of the National Museums Liverpool, World Museum: 55.82.7.

Plate 79: Tomb of Sobek-hotepi (723 LC). Middle Kingdom



Source: The British Museum: EA41576.

Wall Scenes

Plate 80: Tomb of Baqet III (15 UC). South Wall, Registers 5-6. Dynasty 11



Source: Newberry, *Beni Hasan. Part II*, pl. VI.

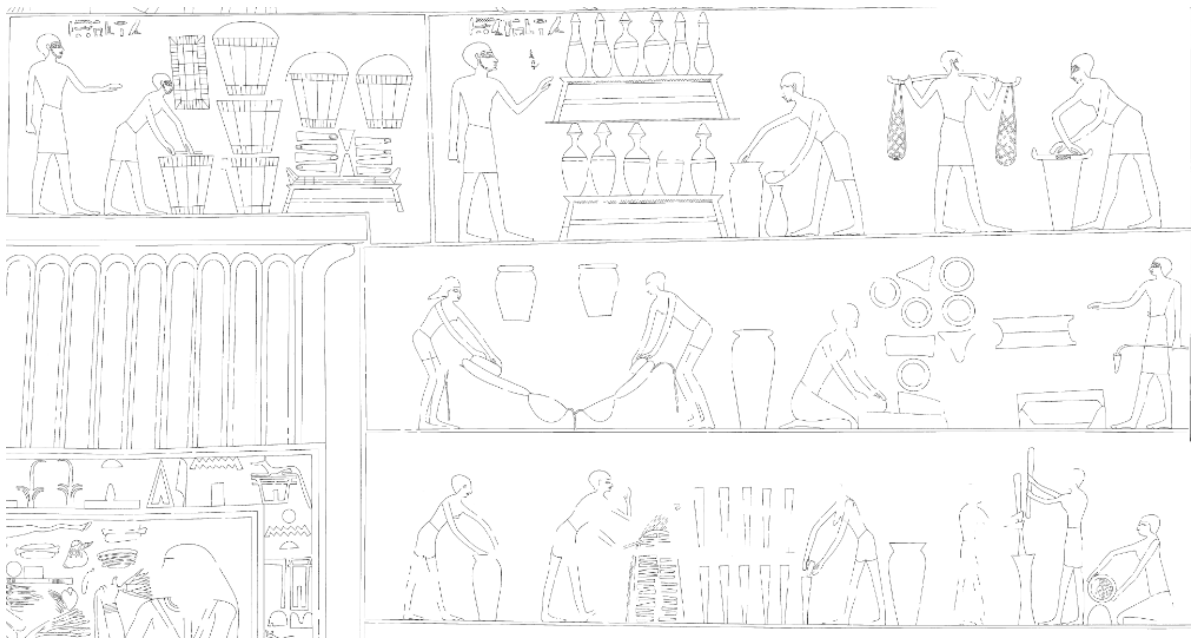
Plate 81: Tomb of Khety (17 UC). West Wall, Registers 1-2 [Left of the False Door]. Dynasty

11



Source: Newberry, *Beni Hasan. Part II*, pl. XII.

Plate 82a: Tomb of Amenemhat (2 UC). West Wall, Registers 5-7. Dynasty 12



Source: Kanawati & Evans, *Beni Hassan. Volume II*. Courtesy of the Australian Centre for Egyptology.

Plate 82b: Tomb of Amenemhat (2 UC). West Wall, Registers 5-7. Dynasty 12



Source: Kanawati & Evans, *Beni Hassan. Volume II*. Courtesy of the Australian Centre for Egyptology.

[illegible]

151

Additional Sources

Statues

Plate 84: Statue of Nikare from Saqqara. Dynasty 5



Source: The Metropolitan Museum of Art: 48.67.

Models

Plate 85a: Tomb of Meketre at Thebes. Dynasty 12



Source: The Metropolitan Museum of Art: 20.3.12.

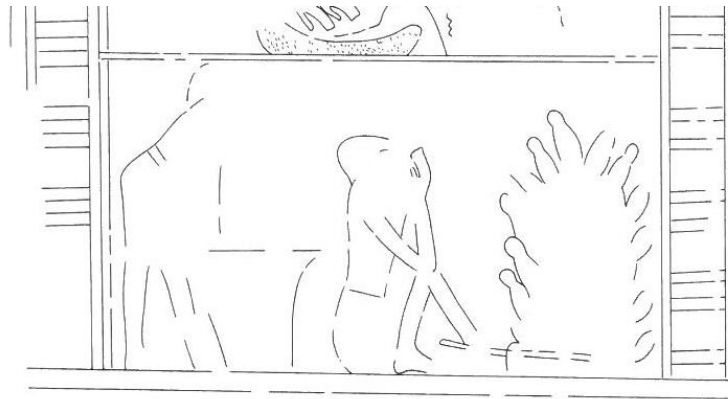
Plate 85b: Tomb of Meketre at Thebes. Dynasty 12



Source: The Metropolitan Museum of Art: 20.3.12.

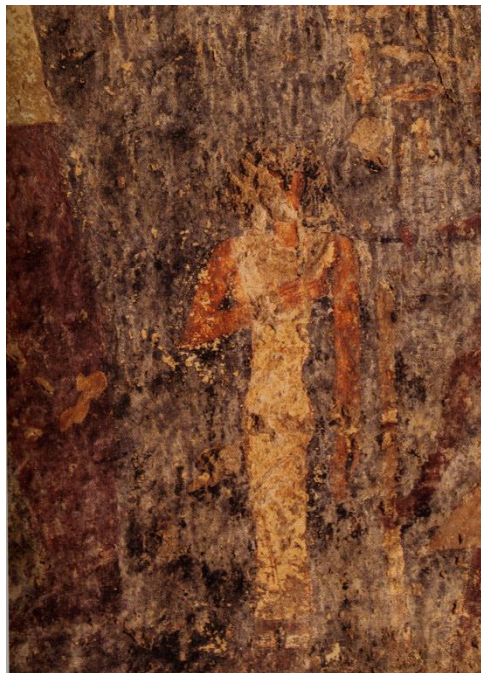
Wall Scenes

Plate 86: Tomb of Remni at Saqqara. North Wall, Register 6. Dynasty 6



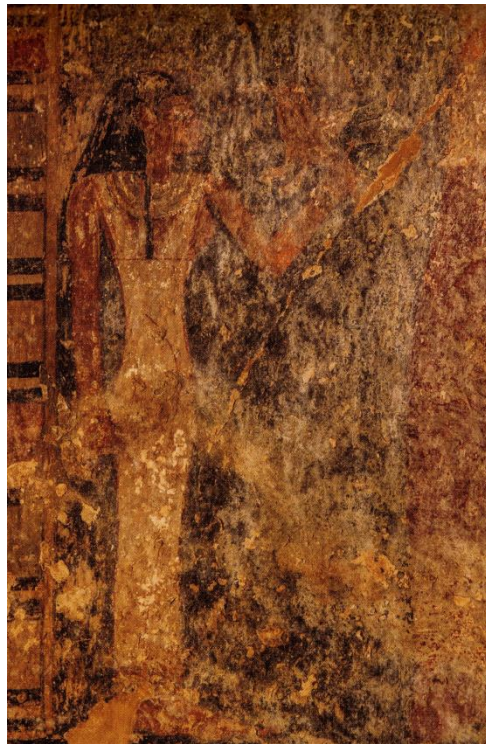
Source: N. Kanawati *The Teti Cemetery at Saqqara. Volume IX: The Tomb of Remni* (Oxford, 2009), pl. 44.

Plate 87: Tomb of Niankh-Pepy-Kem (A1) at Meir. North Wall. Dynasty 6



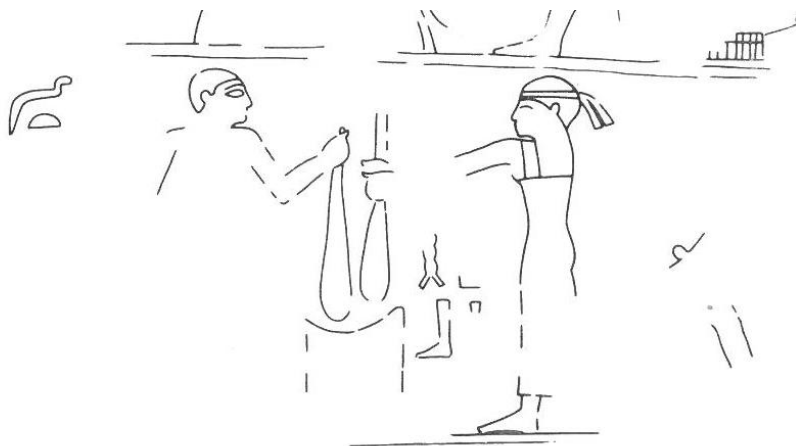
Source: Kanawati, Evans, Lashien, Mourad & Senussi, *The Cemetery of Meir. Volume III*, pl. 21.

Plate 88: Tomb of Niankh-Pepy-Kem (A1) at Meir. East Wall. Dynasty 6



Source: Kanawati, Evans, Lashien, Mourad & Senussi, *The Cemetery of Meir. Volume III*, pl. 25a.

Plate 89: Tomb of Ka-hep/Tjeti-iker at El-Hawawish. East Wall, Register 5. Dynasty 6



Source: N. Kanawati, *The Rock Tombs of El-Hawawish: The Cemetery of Akhmim. Volume I* (Sydney, 1980b), fig. 15.