An Investigation into the Swine of Ancient Egypt

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Fig. 1. A Modern pig in El-Bayadiya.
Abstract

Eriksson P. 2019. En Undersökning av Grisen i Antika Egypten

Grisen var en viktig del av kosten för delar av befolkningen i Egypten från den för-Dynastiska perioden och framåt. Trots omfattande benfynd är grisen sällan avbildad eller noterad i egyptisk ikonografi eller litteratur. Den här studien har som mål att beskriva varför grisen sällan var avbildad eller nedtecknad under den Dynastiska perioden från det Gamla Riket fram till det Nya Riket. Det finns flera teorier som beskriver varför grisen är sällan förekommande i bild och skrift från tidsperioden, främst ekonomiska, sociala och kulturella. Dessa teorier beskrivs och analyseras i uppsatsen.

Källorna består av tidigare forskning och utgrävningsrapporter: Fynden är i huvudsak gjorda i bosättningar för arbetarklassen. Ett fåtal egyptiska texter och avbildningar med relevans för grisar kommer också att analyseras.

Fynd från bosättningar indikerar att grisen var en viktig källa till protein i de byar som dominerades av hantverkare och bönder. Teorier som bygger på att det fanns religiösa eller kulturella tabun mot grisen har knappast stöd av fynd eller andra ursprungliga källor. Istället indikerar frånvaron av grisen i tidens litteratur och andra avbildningar att den hade ett begränsat ekonomiskt värde för den styrande klassen. Det torde vara det huvudsakliga skälet till varför man inte ansåg grisen vara värdig eller relevant att avbilda.

Nyckelord: Grisar, Svin, Socio-Ekonomiska Faktorer, Antika Egypten, Mat, Bosättningar, Arbetarnas By, Tabu

Eriksson P. 2019. An Investigation into the Swine of Ancient Egypt

The pig has been a part of the diet of ancient Egyptians since before the Pre-Dynastic period. Despite ample material evidence, in the form of bone findings, the pig is rarely depicted in Egyptian iconography or noted in records or literature. This study’s goal is to discover why the pig was rarely depicted or recorded focusing mainly on the Dynastic period covering the Old Kingdom through to the New Kingdom. The theories that will be discussed target potential economic, social and cultural reasons for the absence of historic record.

Sources used consist of earlier research and excavation reports focusing on settlement areas with an emphasis on workmen’s villages. The scarce findings of Egyptian texts and depictions, relevant to the pig, will also be analyzed.

Evidence from the settlements studies suggest that the pig was important on a local level providing a protein supplement to the lower working classes of artisans and peasants. There are no reliable findings to support theories of a religious or cultural taboo. The absence of the literary and pictorial reference suggests that swine was not an animal of value among the elite literary class thus was not worthy of record.
Keywords: Pigs, Swine, Socio-Economic factors, Ancient Egypt, Food, Settlements, Workmen's Village, Taboo

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1. Introduction

The pig is among one of mankind’s earliest domesticated animals. Throughout the history of Eurasia, the pig has served as a source of meat thanks to its omnivorous diet and capacity to convert waste to protein, in essence serving as an organic recycling machine.¹

The domestic pig has been used worldwide in a large variety of environments to provide food. This paper will mainly focus on the pigs of ancient Egypt, specifically those of the Nile Delta and the Nile Valley.

Despite concrete archeological evidence proving that the pig was raised in Egypt before the Old Kingdom, there is scarce literary, pictorial or economic accounting that records the pig’s existence throughout the dynastic period.

The question that this discrepancy opens is why there is such a gap between the concrete archeological evidence and the historical records.

A common assertion among older works on the subject by Hecker and Darby is that this discrepancy is due to cultural taboo similar to modern day Egypt. Darby, in particular, puts forth the absence of artistic and textual depictions on the histories of Hellenic and Roman era authors such as Herodotus as a reason for pig intolerance.²

Another explanation that has been proposed was the narrative of pre-dynastic Egypt being split respectively between kingdoms aligned with the gods Horus and Seth respectively. Herman Kees states that the kings aligned with Horus abhorred swine on religious grounds and therefore banned pig from sacrifice and consumption.³

The economic value of the pig may be another clue to the absence of this animal in historic record. Determining this requires knowing what value the ancient Egyptians themselves would have placed on the pig. Value can be defined in many ways, one of which being the five instances of a pig’s monetary value being discovered⁴ through Janssen’s work in collecting values of goods during the New Kingdom. His study helps to illuminate the comparative importance of some animals over others. This and other economic barometers will be analyzed.

There is also the consideration of environmental factors that can favor different types of livestock thus making them more or less attractive on an economic scale. The varying conditions of the Nile Valley, Nile Delta, regional deserts and oasis all contribute to the question of suitability of pig husbandry during the dynastic period. Lobban contends that Egypt’s environment was favorable for free ranging pigs in the Pre-Dynastic to early Old Kingdom. A changing environment during the mid to late Old Kingdom is suggested to have made the environment less suitable for pigs and would cause them to lose prominence.⁵ Bertini’s research shows that a humid environment where pigs roam free is not a prerequisite for the raising of healthy animals. Her examination of pig’s teeth from prominent sites show that the pigs bred using invasive methods, in the least hospitable environment, were on average healthier than animals that roamed freely.⁶

¹ Miller 1990, 128-29.
² Darby 1977, 176-77.
³ Kees 1977, 37.
⁴ Janssen 1975, 177.
⁵ Lobban 1994, 61-62.
⁶ Bertini 2016, 87.
The focus of this study will be on the evidence surrounding economic and environmental factors. A discussion of the cultural and religious aspects is also merited.

1.1. Goals and purpose

The goal of this essay is to investigate the reasons for the pig’s low representation in Ancient Egyptian pictorial and literary records. The scope of this research will focus primarily on the Dynastic period, beginning in the Old Kingdom and ending with the New Kingdom.

Most research in Egyptology is centered on the monuments and structures that were commissioned by the wealthy elite. By using research conducted on settlements inhabited by lower class workers where pigs were consumed, new information might be uncovered. The goal is to find the cause of the discrepancy between the amount of pig remains that have been uncovered and the small amount of records from the Dynastic Period. These records refer to administrative accounts, literary and pictorial representations.

1.2. Theory

The theories that will be discussed target potential economic, social and cultural reasons for the absence of historic record.

1. If the pig was difficult to rear, manage and utilize then it follows that the relative value would be low thus not warranting any records being kept on an administrative basis.

2. The pig had little interest in the eyes of the upper classes, namely those who were literate and had control of the commissioning of art and literary works. These classes also controlled the statewide record keeping of all aspects of agriculture including herd animals.

3. The pig was seen as taboo stemming from a religious belief based on Seth’s and Horus’ antagonistic relationship.

1.3. Method

The research will be carried out on three main fronts starting with the actual site findings of pig-related material. Ecological aspects of the areas will be discussed as well as the social stratification of the sites in an attempt to define whether the pig was a viable creature in the given environment and whether it was of use to the population.

Going from there, an analysis will be made assessing how the pig was managed, its’ utilization and trade possibilities, once again trying to assess its importance in the eyes of the population, especially the administrators of the records and cultural decision makers.

On the cultural front, an investigation of the existing textual and pictorial findings along with any artifacts discovered to date will aid in the analysis of whether the pig was seen as taboo in a religious or cultural context.
Due to the scope of this thesis it has not been possible to gather information firsthand. The entirety of this paper’s research has depended on secondary sources, many of which discuss primary information gathered by different excavations. The works of authors who have interpreted the material and documentary evidence have also been crucial to formulating the theoretical framework of this text.

The works of H. M. Hecker, Richard A. Lobban and Richard W. Redding have been crucial to providing theories and further sources to investigate. William J. Darby’s, *Food: The Gift of Osiris*, has also provided information and sources to investigate. Louise Bertini’s research into the Nile’s impact on swine husbandry is a recent text related to the subject. Bertini’s study provides an interesting correlation between the environmental conditions and pig husbandry.

One of the most helpful sources is the *Amarna Reports*, edited by B. J. Kemp with individual chapters authored by many different contributors. Among the reports are described four structures that are thought to have been used to house swine. The first volume’s eleventh chapter also provides a detailed breakdown on the faunal remains that were uncovered around the Amarna workmen’s village. Its detailed report revealed that the single largest percentage of bones belonged to the pig.
2. The presence of the pig in Egypt

Based on archaeological evidence, the pig has been present in Egypt since before the advent of recorded history. In Redding’s work, in particular, he notes a large number of sites in Egypt where pig remains have been confirmed. Neolithic sites such as Toukh and Maadi show that Egyptians consumed pork long before dynastic Egypt.\(^7\)

In his inquiry on the consumption of pork, H.M. Hecker notes that excavators of the early 1900’s did not consider animal bones to be worth reporting and saving.\(^8\) This missing and unrecorded material leaves a gap in the material evidence in several Neolithic and Pre-dynastic sites.

There is, however, recorded evidence of remains and more detailed contexts in several locations. These well-documented locations have helped to place the pig’s role in ancient Egypt, particularly in terms of husbandry, trade and consumption.

It is to be noted that the findings are mainly found at the sites of different settlements as opposed to the surroundings of tombs or temples. The following discusses El-Amarna, Deir el-Medina, Kom el-Hisn, Giza and Kom Firin. All of these have shown traces of one or more of the following; consumption, husbandry and/or trade.

The following discussion will target the findings at each site as well as investigate who was living in each settlement.

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\(^7\) Redding 2015, 331.
\(^8\) Hecker 1982, 61.
2.1. El-Amarna

The first location is the workmen’s village located in el-Amarna, outside the city of Akhetaten. It provides material findings of the pig and the locations where they were kept. The workmen’s village in Amarna, similar to Deir el-Medina, was constructed to house workers that constructed the tombs in the area. It is believed that the workmen’s village in Amarna is in many ways similar to its counterpart near Thebes, both being specialist settlements sustained by the state.\(^9\)

The village is thought to have housed workers due to its proximity to the South Tombs. The theory is challenged by the fact that there have been no artifacts pertaining to the presence of skilled craftsmen found. There is also little evidence that proves that it housed the same community as Deir el-Medina. The most noticeable evidence against a movement of the community is that the land surrounding the village being used for agriculture, which is not seen at Deir el-Medina.\(^10\)

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\(^9\) Kemp 1987, 43.
\(^10\) Kemp 1987, 44.
Kemp speculates that most of the population were laborers who quarried the tombs, while the artisans, such as artists, may have lived in the main city, only coming to the tomb for the time they would need to paint the walls. The village was not exclusively a residence for laborers, as it may have also housed a police or guard unit. The top of a military standard found in the main chapel and the western part of the village being sectioned off from the rest, show that the village quartered a unit who’s job was to oversee traffic arriving to the village.11

The Amarna Reports are a series of archaeological reports detailing the objects found during the excavations of Amarna in the 1980s. Within the reports there are four separate structures described. These are believed by their respective site supervisors to have been used as pigpens. These include Buildings 25012, 30013 and 20014, all of whom are believed to have housed pigs.

The most detailed report on such a site is given in Amarna Reports I in the fourth chapter. The building that is designated as Building 400 in the report is a series of brick walls arranged in a pattern that resemble pens.15 Its use for holding pigs is supported by the presence of stone troughs and coprolites that are most likely pig droppings.16 The pigs bred there were almost certainly consumed by the village’s inhabitants and may also have contributed on a small scale to Akhetaten’s food supply.17

Brewer states that the slaughtered animals in Amarna were salted and packed in pottery jars in gypsum-coated rooms. The organization devoted to the construction and running of the pens is interpreted that it was not a food source exclusive to the villages use, but may have been a substantial trade endeavor.18

The eleventh chapter of Amarna Reports I also contains a preliminary report on the faunal remains that were found and examined. Based on a sample of 3000 bone findings, 993 were identified as belonging to Sus Domesticus, the domestic pig. That constitutes 32.3% of the sample size with the second biggest share belonging 671 goat bones, for a total 21.8% of the sample.19

2.2. Deir el-Medina

12 Bomann 1986, 34-49.
13 Hulin 1986, 50-59.
14 Bomann 1987, 47-55.
15 Shaw 1984, 40-42.
16 Shaw 1984, 47-49.
17 Shaw 1984, 53.
18 Brewer 2001, 442.
19 Hecker 1984, 155.
Another location is the workmen’s village of Deir el-Medina. It contains pieces of ostraca whose discovery in the village show that swine was traded in the village. Based on Janssen’s research into commodity prices in the New Kingdom there have been documented findings here of five written instances of pigs. These have been found on pieces of ostraca that have the Egyptian word for pig identified on them (see Ostraca Appendix). It is only a small sample size in comparison with the ostraca and prices listed for cattle. The significance of this evidence is not due to the amount or detail of the evidence but it’s presence in the location as a place where pigs were consumed. The latest research carried out by Sweeney shows that pigs were raised in the village alongside goats and sheep. Twelve pig skulls were found during the Bruyere excavations. There has been no physical evidence of pigpens, but Sweeney cites an ostraca (O. BM 5631) that mentions a cache of two boxes being hidden near a pigsty. She suggests that the cache’s location was meant to utilize the aggression of male pigs to deter thieves.

Deir el-Medina was home to the builders of the royal tombs in the Valley of the Kings and the Valley of the Queens. As most of Ancient Egypt’s population consisted of peasants, the skilled population of Deir el-Medina’s workmen’s village would stand slightly higher in status. The majority of the skilled workers were painters, masons, carpenters, and carvers. These sought-after skills provided them with a stable employment as well as the opportunity to conduct additional work outside of their official duties in order to supplement their income.

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20 Janssen 1975, 177-78.
22 Sweeney 2018, 166.
23 Sweeney 2018, 166.
2.3. Kom el-Hisn

One location that provides critical context to animal use is Kom el-Hisn. This was a settlement predominantly inhabited by peasants working in subsistence agriculture. Lehner proposes that the settlement’s main purpose in the Old Kingdom was to rear fattened cattle for political centers, temples and the complexes in Giza.\textsuperscript{25}

This location is important because it represents both the Old Kingdom and the animal use in the Delta. Its deposits served to give insight on agricultural activity and how it interacted with the central administration. Radiocarbon dating places the occupational period from 2500 to 2100 BC. The buildings found on site have no indication of housing administrators or craftsmen, to which Redding concludes that they were housing for people directly involved in food production. Kom el-Hisn was a food production site that appeared to operate largely without oversight from the administration.\textsuperscript{26}

The finds that make this site relevant to the discussion is that among the faunal remains, most belonged to pigs. The bones identified as belonging to pigs numbered up to 728, with the second highest amount being sheep and goats at 543.\textsuperscript{27} Redding interprets this to mean that the location was heavily reliant on the pig for protein over other animals. The pigs were likely depended on as a source of meat year-round in Kom el-Hisn.\textsuperscript{28}

2.4. Giza/Hait el-Ghurab

Pig bones have also been found at the town of Giza, a location built during the Old Kingdom to house the laborers and other personnel involved in constructing Menkaure’s pyramid. Giza, or Hait el-Ghurab was part of a larger series of settlements that ran along a main Nile channel east of Giza. Lehner cites the Giza settlement as a major inland port in Egypt’s center.\textsuperscript{29}

The site consists of a gallery complex where barracks, bakeries and work areas were located. To its south is a building designated as the Royal Administration Building, separated from the rest of the site by a wall. East of the Gallery Complex and Administration Building is a settlement referred to as East Town, a less planned and more organic settlement composed of small houses. West of the Administration Building is a West Town consisting of larger residential buildings. A nearby deposit containing pottery, bones and administrative artifacts indicates that the West Town may have been the dump for the scribes that worked in the West Town and Administrative Building.\textsuperscript{30}

The Galley complex in question was divided into blocks separated by streets, with gatehouses controlling their access. The men who inhabited the Gallery would have come from different villages, provinces or communities and organized into teams from the same area. The workers were also segregated from the rest of the site by a thick wall.\textsuperscript{31} Workers and administrators together with their families likely inhabited

\textsuperscript{25} Lehner 2010, 89.
\textsuperscript{26} Redding 2016, 101.
\textsuperscript{27} Redding 2016, 102.
\textsuperscript{28} Redding 2016, 104.
\textsuperscript{29} Lehner 2010, 92.
\textsuperscript{30} Redding 2010, 66-67.
\textsuperscript{31} Lehner 2010, 92-93.
the East and West Towns. Cloth making and sewing equipment found in the Administration Building shows that there were cloth workers living on the site.\(^{32}\)

In his article examining status and diet, Redding reports from a sample of 310,000 bones found in the village. All samples are estimated to have been used as food by the village’s inhabitants, the most common being fish.\(^{33}\)

Around 1000 bones have been identified as belonging to pigs. This places the pig as the third most numerous animals on the site, after sheep and goats at 25,000 bone samples.\(^{34}\) Redding concludes that most of the food supplied to the village was provisioned from the Delta and Nile Valley, as the inhabitants was construction workers and specialists. These workers would not have worked to supply their own food.\(^{35}\)

2.5. Kom Firin

Kom Firin is another location of note. Located west of Kom el-Hisn, Kom Firin is a settlement located in the western Nile Delta. Dating to the Ramessid period of the New Kingdom, the site is marked by a walled complex fortified with corner towers, thick walls and a narrow gateway. Within the walls there is a temple constructed during the site’s earliest occupation, with inscriptions hinting that it was founded in response to encroachment from Libyans. Larger temple enclosures were constructed around the 1500s BC. There is also housing and signs of smaller industrial activity identified.\(^{36}\)

Study of the landscape surrounding Kom Firin shows that it was located on a branch of the Nile, and that the site was likely surrounded by water for most of the year. The Walled enclosure was placed on ground out of reach of the annual inundation. A later enclosure built in the 700s BC in the Late Period shows that the waterways later migrated away from the settlement.\(^{37}\)

During excavations throughout the area a total of 4735 bones were found, of which 2746 could be identified. Out of the total number of identified bones 950 fragments are identified as being pig remains. This makes up a total of 41.43% of the total identified bones discovered and pigs the most numerous animal found in Kom Firin, coming ahead of sheep and goats. Bertini notes that the numbers may be due to excavations taking place in commoner dwellings, such as the northeast section of the wall, containing signs of domestic buildings. If Kom Firin was founded as a frontier strongpoint then pig might have been relied on to sustain the garrison. Forts were generally provisioned by the administration, while pigs were a local resource raised for extra protein. The amount of pig bones found is unusual compared to other provisioned sites.\(^{38}\)

Bertini suggests that Kom Firin would have been a suitable location to raise pigs due to its environment. Finds of boar teeth show that the region’s inhabitants hunted boar. It would indicate that the marshy environment was suitable for domestic pigs.\(^{39}\)

The settlement’s purpose was in part to serve as a visible defense in the region. In practice it may have also served more domestic objectives such as monitoring river

\(^{32}\) Lehner 2010, 93.

\(^{33}\) Redding 2010, 67.

\(^{34}\) Redding 2010, 68-9.

\(^{35}\) Redding 2010, 69.

\(^{36}\) Bunbury, Hughes, Spencer 2013, 11.

\(^{37}\) Bunbury, Hughes, Spencer 2013, 12.

\(^{38}\) Bertini 2013, 306.

\(^{39}\) Bertini 2013, 308.
traffic. Excavation uncovered signs of storage facilities and signs that chariots and horses were stationed in the enclosure, making it the site of a garrison. 40 The site also possesses two temples, which would be manned by a complement of temple servants and priests. 41

2.6. Other Locations

There is wide variety of other locations in Egypt where pig remains have been excavated. First is the site of a Pre-Dynastic settlement near the modern day Maadi. The relevant finds discovered on the site were bones of which some are identified as belonging to pigs. However, the report does not provide any details on the bones found, rather giving only an offhand mention of the types of animal bones. 42

A similar issue occurs in the excavation report in the Fayum by G. Caton-Thompson and E. W. Gardener. Their report makes a brief mention of pig being among the animals that inhabited the Neolithic Fayum. The report however does not give any detail over what kinds of animals were found on the site; it only lists artifacts that the excavation discovered. 43

There are also pig bones that have been found in Aswan and Elephantine. 44

2.7. Conclusions

The common element across all sites is that the majority of their populations consist of workers. Giza, Deir el-Medina and the Amarna workmen’s villages were not self-sufficient settlements. Their dietary needs were provided by the administration as they were founded away from fertile ground in order for their inhabitants to fulfill very specific purposes. Kom Firin was a settlement likely founded as a strongpoint towards the western desert. It would likely be provisioned as well.

Pigs in these circumstances were likely not part of the official provisioning provided by the administration. In most cases the pigs appear to be raised by their inhabitants for their own consumption. It was a source of meat outside of the official provisioning system.

Kom el-Hisn and Kom Firin were both located in the Delta region, the areas with suitable natural conditions for pigs. Deir el-Medina is an exception in that there is textual evidence and a very small amount of pig bones. Amarna is exceptional because it is the only site with a purpose built pigsty and which may have bred pigs for more than local consumption.

All sites were also situated close to the Nile or in the Delta. The two exceptions are Deir el-Medina and the workmen’s village in Amarna. Of the two, Amarna stands out for possessing facilities to house pigs away from immediate access to water from the Nile.

The evidence suggests that pigs were primarily the food of workers and peasants, bred for consumption in the immediate locality. Little evidence exists for long distance trade of pigs. Administrators inhabited Hait el-Ghurab whilst Kom Firin was likely inhabited by priests and attending scribes, placing members of both social

40 Spencer 2013, 33.
41 Spencer 2013, 29.
42 Amer 1936, 69.
43 Caton-Thompson & Gardener 1934, 89.
44 Bertini 2016, 87-88.
groups in relatively close proximity to pigs. It is possible that members of the elite who lived on site consumed pork, however the absence of evidence leaves the possibility only a speculation at this stage.
3. Economic and environmental factors

The environmental and socio-economic conditions of a region can determine which species of livestock are favorable to keep in a given area. Logically, the more suitable an animal is to its environment, the more attractive it becomes due to the ease of husbandry. If said animal is also useful and affordable to the inhabitants of the region, it follows that the animal carries a certain value or importance.

This section evaluates the keeping of the pig from an ecological and management perspective in order to establish whether the benefits overcame the drawbacks. A further examination of the uses and indications of trading values will assist in establishing the importance from a socio-economic perspective. The ecological, economic and sociological environments will be studied in order to assess the suitability and attractiveness of owning, managing and consuming the pig.

3.1. Ecological considerations

Pigs require significantly more resources in hot climates than other domesticated mammals. A water to food ratio as high as three to one is suggested to enable them to thrive.45 Lobban suggests that the climate in the Nile Valley and adjoining Saharan lands would have been much wetter before the Dynastic period, which would have provided an ideal environment for pigs.46

He further theorizes that as desertification encroached on the Nile Valley, the grazing lands that were used to sustain cattle and other domesticated herbivores started to decrease in the Old Kingdom. This, in turn, led to a greater emphasis on cereal fodder production in agriculture.47 Redding suggests that late Neolithic and Pre-dynastic villages were focused on more self-sufficient economies, making pigs and sheep more important. Grain would have been grown for local consumption. In the Old Kingdom he posits that a desire for a more statewide interconnected economy would increase demand for grain crops combined with an increased demand for cattle. This would have lowered the pig’s importance due to the local nature of the husbandry.48

Brewer supports this conclusion by identifying pig bones being prominent in the Pre-Dynastic site at Merimde, but shifts to becoming less prominent in other sites in the Nile Delta.49

The ecological conditions of the region, especially in relation to water, were shown to have an impact on the health of pigs. In her study, Louise Bertini investigates the relationship between the environment and husbandry through her study of pig molars. These teeth have been uncovered from excavation sites across

45 Redding 2015, 341.
47 Lobban 1994, 62.
49 Brewer 2001, 441.
Egypt, ranging from Sais to Aswan and Elephantine.\textsuperscript{50} Amarna showed particularly interesting results.

An individual’s health can be deduced by investigating the thickness of the enamel on a tooth, as deficiencies caused by nourishment and environmental factors can result in lines, depressions and pits. This condition is referred to as \textit{enamel hypoplasia}.\textsuperscript{51} The lower the percentage of \textit{hypoplasia}, the better the overall conditions for the animal.

Of the samples analyzed, the results show that the teeth from Amarna have the lowest percentage of \textit{enamel hypoplasia} at 57%. This is from the site that would have the least hospitable environment for pigs, located on the edge of the desert in an area with no natural protection from the sun or the hot summer southern winds.\textsuperscript{52}

It is proven in modern studies that confinement in small spaces are more likely to cause pigs to develop health issues over free ranging animals. The issues in question are the result of stress from respiratory diseases or overcrowding.\textsuperscript{53} Amarna is the only location, discovered to date, to have purpose-built pens and despite the potential issues from raising pigs in enclosed spaces, Bertini believes that the relatively lower rate of \textit{enamel hypoplasia} is the result of good swine husbandry. It’s suggested the pigs in Amarna may not have been affected by as many stresses early in life as they would in other areas. The pens in turn may also have provided a buffer from environmental factors that might have caused \textit{enamel hypoplasia}.\textsuperscript{54}

Bertini believes that Aswan may have also possessed pens based of pathologies in non-cranial bones, with an \textit{enamel hypoplasia} rate of 67%. Bertini suggests that there was more intense involvement in pig husbandry and that extensive husbandry was the most likely strategy used in this region.\textsuperscript{55}

The highest frequency of \textit{enamel hypoplasia} was found in Elephantine dating to the Old Kingdom with a rate of 88%. The explanation for this occurrence is thought to be because the pigs were allowed to range freely.

The Nile’s annual flooding may also have affected the pigs in a negative manner by restricting their foraging range. This is also qualified with the fact that the Elephantine sampling pool was small, which may skew the results to look worse than it may have been in reality. There is also the suggestion that due to their low perceived value, pigs were less often consumed compared to other animals, thereby reducing the husbandry and care relative to other domestic animals, which caused greater psychological stresses and enamel damage.\textsuperscript{56}

Over and above each site’s individual conditions there is also the possibility that conditions on the national scale could affect the stress that causes \textit{enamel hypoplasia}. The distinguishing feature of the Nile River is the annual flooding cycle, which would not only affect the agricultural harvest cycle, but likely also had consequences for swineherds.

Bertini suggests that as the annual flooding continued to subside with each year, the rearing of pigs became easier. The swineherds no longer needed to worry about the herds being displaced or parasitic infections that may follow a flood. This also enabled a continuing breeding of pigs without being concerned with the need to relocate the animals away from the floodplain. What is not known is what impacted pigs the most, the flooding itself or its effects such as waterlogged soil.\textsuperscript{57}

\begin{itemize}
  \item \textsuperscript{50} Bertini 2016, 80.
  \item \textsuperscript{51} Bertini 2016, 79.
  \item \textsuperscript{52} Bertini 2016, 87.
  \item \textsuperscript{53} Bertini 2016, 87.
  \item \textsuperscript{54} Bertini 2016, 87.
  \item \textsuperscript{55} Bertini 2016, 87-88.
  \item \textsuperscript{56} Bertini 2016, 88.
  \item \textsuperscript{57} Bertini 2016, 90.
\end{itemize}
The rearing of pigs was feasible in Egypt in ancient times. Even when done outside of the Nile Valley and the Delta. Amarna shows that if suitable precautions are taken then pigs can be cared for outside of the floodplains. Removing the pigs from areas affected by the annual flooding appears to have even been beneficial to the animal’s health. Even if the pig’s most suitable environments were altered for other uses, the pig was still a viable animal.

3.2. The Management of Swine

One key detail that is missing from the historical record is a description of the methods the ancient Egyptian swineherds used to manage their pigs. Redding believes that the most likely method would have been “extensive” husbandry, allowing the pigs to roam and feed freely with little supplementary feeding. The animals simply eat whatever they can find, cleaning up any locally produced waste as they wander, and occasionally being taken out to graze in specific areas. This method exerts little control over the breeding process.

Redding expands on the potential management system in his later work on pigs and chickens in the Middle East. He proposes that the pigsties in Amarna may be indicative of a semi-intensive pig production. The semi-intensive method is characterized as providing the animals with a semi-permanent residence providing fodder from household waste. The breeding would have been uncontrolled, alternatively, controlled breeding with locally kept studs.

The pig is an adaptive animal, which enabled different management methods to be used according to the circumstances. They are also able to adjust to varying schedules, which aid herders keeping them in urban environments, an advantage that does not exist for any other herd animal.

In assessing the management of livestock on a larger scale in ancient Egypt, it would be pertinent to discuss who was responsible for the record keeping of the herd animals on the regional or even statewide administrative level.

A vital component holding the kingdom together was the state's literate population. Scribes, estimated to be around 1% of the population, were held in high esteem. Serving in the royal court and temples, the scribes were primarily mid-tier managers, who wrote records, gave commands and investigated important matters. The scribes are also known to have kept extensive records on a wide range of administrative concerns, including the size of herds.

Herds would have been important to record, as their size was a sign of wealth. The Ancient Egyptians generally classified herd animals into two broad groups; large herd animals, and small herd animals. While the small herd animals (that included pigs) still served as a sign of wealth, the larger animals held more prestige and conferred a higher status on their owners.

Redding suggests that pigs were not recorded because they did not produce a surplus that the administration could control.

He later expands on this with the fact that the pig is not as mobile as other herd animals, being better suited for smaller areas, which may be a reason why

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59 Redding 2015, 348.
60 Brewer 2001, 441-42.
61 Brewer & Teeter 2012, 91-92.
64 Redding 2015, 342-343.
administrators largely ignored them. Redding concludes that this lower mobility was a reason why pigs were not recorded, as they would be difficult to move long distances to administrative centers, thereby not becoming part of a region wide economy.65

Bertini confirms the short distance viability in her own research, as pigs that were confined appeared to be healthier than animals that were allowed to forage freely.66

3.3. Use of Swine

Three main uses of swine include food, waste management and the cultivation of crops.

According to Darby, the ecosystems of the Nile Valley and the Nile Delta provided access to a wide variety of flora and fauna for human consumption. The level of variety depended on the inhabitant’s position in society. Even the poorest is said to have had a varied diet consisting of fish, fruit, birds, vegetables and products derived from cereal crops.67

Miller’s research suggested that for the farmer, the pig provided an economic way of disposing of biological waste. Lack of refrigeration prohibited the storage of many fresh foodstuffs, so these provided fodder for the pigs.68 One of the great advantages that pigs have over other domesticated animals is their omnivorous diet. Swine have the ability to consume the same range of food items as their human keepers. They have the further capacity to consume household waste that is inedible to humans, in particular fecal matter and waste that would otherwise pose a health risk to a settled community.69

Miller also estimates that a family of four would be able to produce around 220g of garbage per capita per day, which he estimates as sufficient to provide food for four young pigs. Feeding them hearth ash, human and household waste as part of their diet is also estimated to provide phosphorus and the ideal nutrients allowing a young pig to quickly gain weight.70

Sows were also capable of birthing two litters a year, all of which are capable of reaching maturity in a year.71 This would provide a constant source of protein.

Pigs also had a further function outside of nourishment and waste-disposal. They had a role in the agricultural cycle by being driven over newly planted fields in order to trample seeds into the ground during the planting time.72 This is a role suggested by an example of Egyptian art, in the now destroyed painting in the tomb of Inena (see Fig. 4).73 This role, combined with the pig’s ability to recycle household waste into animal protein makes it a useful animal for farming communities to keep.

The pig’s omnivorous diet also enabled it to eat plants inedible for other herd animals. Outside of a settlement’s waste, the pig could also eat roots and tubers. By rooting around for such plants they turned the soil in their pasture, which was conducive for grass growth.74 Grazing land would not have been an absolute

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65 Redding 2015, 357.
66 Bertini 2016, 87-88.
67 Darby 1977, 55.
68 Miller 1990, 125.
69 Miller 1990, 129.
70 Miller 1990, 130.
71 Brewer 2001, 441.
72 Lobban 1994, 64.
73 Darby 1975, 187.
74 Brewer 2001, 441.
requirement, as pigs could be sustained by the waste of households who did not possess such land, thereby giving their owners a net profit in protein.\textsuperscript{75}

The pig had both a household and farming benefit for its owners. In a society that was heavily dependent on the farming of crops, as Egypt was, it made the pig a useful animal for the peasant class. Its proximity to the peasants also made it a source of meat that was more readily available than other livestock.

![Fig. 4. Recreation of image from the tomb of Inena.](image-url)

3.4. Trade value

Despite the issues of being potentially marginalized in the Old Kingdom due to ecological changes, evidence shows that the rearing of pigs still continued. Thanks to research conducted by Janssen, there are findings showing various prices for pigs dating from the New Kingdom’s nineteenth and twentieth dynasties. Five ostraca have been found that record these prices. Two of the ostraca place the value at 1/2 sniw, one at 1 sniw, one at 5 deben and one at 7 deben.\textsuperscript{76}

In comparison, the price for cattle appears to be higher with an abundance of archaeological findings vouching for the authenticity of the information. Findings have confirmed that a male bovine could be valued from 20 deben up to 141 deben.\textsuperscript{77}

\textsuperscript{75} Sweeney 2018, 167.
\textsuperscript{76} Janssen 1975, 177.
\textsuperscript{77} Janssen 1975, 173.
However, it appears that the pig was more than twice as valuable as goats and sheep (often referred to as “small cattle” in Egyptian sources). During the late 19th to mid twentieth Dynasty the prices for goats and sheep varied between 2-3 deben on average, and in outlying cases being valued at 4-5 deben in the late twentieth dynasty.78

This price variance concludes that the pig was worth monetarily less than the cheapest bovine in the New Kingdom. It should be noted that there is a lack of context as well as a scarcity of findings surrounding the pricing information, but indications are given that the pig was of less economic value than cattle. At the same time, the prices uncovered for small cattle (goats and sheep) also show that the pig was not the least valued animal during the New Kingdom.

3.5. Socio-economic factors

Now that an indication of trade value has been established, the next step will be to establish who could afford to pay these prices. A brief overview of the social structure will help to define the socio-economic factors surrounding the pig.

The highest authority in the kingdom was the king, supported by a large body of bureaucrats and functionaries, the most important being the vizier. The administration was further subdivided into different departments led by overseers while a parallel administration governed the temples.79

Literacy was a highly valued skill in the ancient era. This value placed those with the skills to read and write higher that any non-literate vocation. The scribes had a wide array of duties to perform, particularly transcribing records on a wide variety of subjects. This crucially involved counting the amount of goods for taxation or redistribution. Like other social strata scribes were often the children of scribes.80

The army consisted primarily of conscripts that were mustered for a campaign. They were organized under a strict hierarchy that split them into differently sized units led by officers. Armies were led by generals and the king during important campaigns and were supported by scribes who managed unit administration.81

Skilled laborers were a distinct class due to their specialized skills and professions. Such workers often worked for and were paid by a temple or the royal government. These professions were often passed down within a family through apprenticeships. This was the social stratum that built the tombs inhabited by the royal family and nobility.82 Deir el-Medina, Amarna and Hait el-Ghurab were constructed to house these kinds of workers.

Directly below the skilled workers were the peasants. Consisting of the majority of Egypt’s population, the peasantry was first and foremost involved with all work pertaining to the kingdom’s food production. This primarily revolved around the planting and harvesting of cereal crops. Like the skilled workers, most peasants were born into their profession where they labored throughout their lives, though it was possible, in theory, to advance higher through literacy.83

In regards to food, an individual’s standing in society likely affected what kinds of meat they would regularly have access to. Beef was likely limited to the upper classes, such as priests, large landholders and the royalty, whilst peasants might only

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78 Janssen 1975, 166.
79 Brewer & Teeter 2007, 80-81.
80 Brewer & Teeter 2007, 91.
81 Brewer & Teeter 2007, 86.
82 Brewer & Teeter 2007, 93.
83 Brewer & Teeter 2007, 93-94.
eat it during special feasts and occasions. Otherwise it was smaller and less expensive animals that were affordable to the peasant classes, such as sheep, goat, pig, bird and fish. The cause of this was likely due economic limitations rather than religious causes.84

In one recorded example from Deir el-Medina, a carpenter was able to earn 91 dehen for one order of furniture. This additional income, coupled with contact with important officials, would enable the inhabitants of Deir el-Medina to access more luxury items. 85 Also, if the average price for a pig is close to five deben then they would be affordable on a more regular basis to an artisan than cattle would be. Regular availability of cattle meat was likely a privilege reserved for the elite stationed at the top of Egyptian society. There no evidence that explicitly states what the upper classes perspective on meat was nor is it proven whether or not pig was acceptable for the elite to consume along with other types of meat.

The prices given by Janssen’s research would indicate that the pig was well within affordability for skilled workers. Sweeney estimates that the pig would be worth between one to two weeks’ workmen’s wages.86

Unfortunately there are no ostraca detailing pig costs in other areas to compare them to, making a detailed investigation difficult.

The pig’s use in consumption, waste disposal and food production would appear to be a resource worth controlling for the administration. Yet the only known instances in official texts that refer to them are listing the numbers of pigs owned by two temples, this will be discussed in the next section.

3.6. Conclusions

While the ecological conditions were not an obstacle to raising pigs, it did affect what husbandry methods were employed. Pigs are capable of surviving the Egyptian climate as long as they have access to enough water. There is a notable difference in the health of pigs that were penned compared to those allowed to roam freely. While Bertini’s research indicates that penned animals would be healthier than free-range specimens, more samples are needed to conclude if this was true in all circumstances.

Pigs were adaptive enough to be used across Egypt; if they could be managed in Amarna then it was likely that they could thrive in the Nile Valley. The pig was a useful animal to breed in any circumstance as sows could give birth to large litters on a semi-annual basis that could mature rapidly thus providing an ample food source. This, along with settlement waste recycling and the benefits during planting of the fields suggests that swine was of importance to the local community, particularly that of the lower working classes.

Despite this fundamental importance, the pig could not be moved easily across long distances, an essential quality for items of value in a kingdom-sized economy. By not being useful beyond a small area there would be little interest in pigs from the kingdom’s authorities. The ostraca from Deir el-Medina show that pigs did possess a value measured in dehen, but this was likely part of an informal economy between villages, outside of the government’s control and interest. Other herd animals, such as cattle were recorded, as they were an indicator of wealth. The pig was not viewed as such.

84 Brewer 2001, 438.
85 Lesko 1994, 22.
86 Sweeney 2018, 171.
This makes it difficult to determine how the ownership of pigs was organized, if individuals, households or communities as a whole. The ostraca from Deir el-Medina might indicate that individuals might have owned and traded pigs in that context.
4. Cultural and Religious Factors

As stated, the historical record is very limited concerning the pig in a cultural or religious representation. This could have been a result of a culture of taboo towards swine or a very low intrinsic value assigned to the animal by those who commissioned the various literary, pictorial or material works of the era.

A selection of findings are described in the sections to follow which may be helpful in establishing whether the pig had any cultural or religious significance.

4.1. Textual

As mentioned earlier, there are two records that account for pigs kept by significant temple institutions. The first is when Amenhotep III (1386-1349 BC) gifted one thousand pigs and another thousand piglets to the temple of Ptah in Memphis. Sety I also allowed pigs to be raised by the temple of Osiris in Abydos.87

A version of Book of the Dead contains one specific passage where the pig features prominently. Hecker cites chapter 112 as the source of this association where the passage in question describes Seth as taking the form of a black pig during his confrontation with Horus over the dominion of Egypt. Within the text, Ra also proclaims the pig an abomination to Horus.88

The most consistent source that many authors refer to when discussing the existence of a taboo is the work of the historian Herodotus. Herodotus makes multiple claims about the pig’s impurity to the Egyptians, such that a man accidentally touching a pig would rush to the river to jump in with his clothes on. He also claims that the swineherds were shunned, being forbidden from entering temples and forced to intermarry due to disinterest from other Egyptians. Darby uses Herodotus’ writings as a major source of the pig taboo in the Late Period.89

Brewer also cites Herodotus for stating that pigs were unclean, taking the rarity of pigs in texts and iconography proof that Herodotus’ assertions are correct.90

The issue with using Herodotus and other Greco-Roman authors as sources for this subject is that they are foreigners to the Egyptians’ cultural practices. There are also no native Egyptian records known that corroborate Herodotus’ claims. The information that is given by Herodotus and other Hellenic and Roman authors should be taken with a degree of skepticism, as they may not have a complete understanding of the cultural context.

4.2. Pictorial

87 Darby 1977, 189.
89 Darby 1977, 176.
Many animals appear in tomb scenes in order to replicate the ideal Egyptian environment in which to dwell in the afterlife. There have been few examples of pigs depicted in these contexts. Scenes where food is gathered and prepared are a common motif that exists to supply the tombs’ inhabitants with an endless supply of high quality nourishment for the afterlife. The environments depicted are often from farming or animal husbandry that took place on the estates of the rich landowners or royal properties.91

Cruz-Uribe interprets one depiction of a pig in a royal tomb to be a representation of Seth from KV9 near Thebes, the tomb of Rameses VI (mid 1100s BC, exact dates uncertain). On the left wall of Corridor B there is a bark painted with a pig standing at the prow. Both behind and in front of it stand two baboons that appear to hold sticks. The pig itself is labeled as “swallower”. (See Fig. 5.)92

![Fig. 5. Image of pig and baboon on a bark.](image)

Pigs have also been depicted in tombs of significant individuals. One Old Kingdom image has been found in the tomb of Kagemni at Saqqara, dating from the sixth Dynasty. The relief image shows a man, most likely a servant, performing what is guessed to be mouth feeding a small animal. (See Fig. 6.) Controversy arises over what animal it may be. The animals shape and tail suggest that it is a pig, but the feet on close inspection appear paw-like with claws that suggest a dog. Much of the relief around the image has been damaged thereby removing the scene’s complete context.93

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91 Houlihan 2001, 104-5.
92 Cruz-Uribe 2009, 204-5.
93 Darby 1977, 181-82, 184.
Fig. 6. Image of a servant mouth-feeding a pig or a dog from the tomb of Kagemni.

Fig. 7. Image of “marsh-animals” from the tomb of Khety.

The Middle Kingdom tomb of Khety in Beni Hassan (See Fig. 7.) possesses painted images of “Marsh-animals” that bear a closer resemblance to pigs, one appearing to have bristles on its back. This image is however also disputed as their feet are vaguely
Darby also states the existence of four instances of pigs appearing in New Kingdom tombs. However, two of the images are attributed to the work of earlier Egyptologists as they have been damaged or vandalized, specifically the images from the tombs of Inena (See Fig. 4.) and Neb-Amun at Thebes. One instance where the image remains, although still damaged, is in the tomb of Amenemhat at Thebes from the reign of king Thutmose III (1479-1425 BC). Its survival is attributed to the relief being made of limestone rather than plaster and shows a group of pigs and their swineherd. (See Fig. 9.) Another is an image from the tomb of Paheri at El-Kab. (See Fig. 8.)

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94 Darby 1977, 185.
96 Darby 1977, 186.
Pigs depicted in these contexts were likely not depicted to service as a food source, but to serve their role in planting seeds grown on the property represented in the tombs, and as part of the subsistence ecosystem the tombs’ display.

4.3. Artifacts

Warren R. Dawson describes amulets carved in the shapes of sows, which he states are sacred to Isis and would have been worn as talismans. In his estimation the amulets in question would be no older than the twenty-sixth Dynasty (664-525 BC).  

During the Third Intermediate Period statuettes and amulets in the shape of sows nursing their litters started to appear, likely used as charms the enhance women’s fertility.  

4.4. Interpretation

The scarcity of the recorded existence of the pig could be the result of existing cultural or religious taboos on the species.  

One of the first items that Hecker addresses in his research on pig consumption in Ancient Egypt is the reasoning that the pig’s absence is based on its mythological association with the god Seth. This is indicative of other scholars interpreting the then available evidence in the early to late 19-hundreds to reflect a religious and cultural aversion to pork meat.  

Herman Kees’ Ancient Egypt: A Cultural Topography posits the theory that the rulers of the Pre-Dynastic Nile Valley were aligned with the god Horus and possessed a religious taboo on the consumption of pig meat. He also believes that this prohibition was extended to the Nile Delta after it was conquered by the kings of Upper Egypt.  

In his book collecting information of food in Ancient Egypt, Darby also draws on the religious and cultural taboo as an explanation for the absence of pigs in the historical record. He espouses, in agreement with Kees, that it was caused by the cultural assimilation of northern Egypt into the southern Egyptian’s culture and religious customs. The only evidence cited for this is New Kingdom royal tomb images that are interpreted as deprecation of swine and by extension, Seth.  

The issue with this assumption is that the Ancient Egyptians did not consistently perceive Seth as an antagonistic figure until the Late Period. Cruz-UrIBE provides multiple examples of Seth being depicted in various cult temples alongside other gods in ritually significant acts such as offering scenes and purifying the king alongside Horus. All of these show that Seth, in the minds of the New Kingdom Egyptians, could partake in normative activities alongside other deities, even his direct rival Horus.  

In the aforementioned KV9, the tomb of Rameses VI, Cruz-UrIBE interprets the swallow to be a reference to the harpoon that Seth uses to kill Apophis, the
Egyptian manifestation of chaos. It is derived from the result of the harpoon striking a sacrificial animal or Apophis itself, the result being that they are “swallowed” by the harpoon. It is believed that the pig is a representation of Seth because Seth is normally the god that stands on the front of Ra’s solar bark. Cruz-Uribe’s interpretation of the scene is that the baboons are using the sticks to make the pig squeal, similar to Seth’s cry on the battlefield, in order to immobilize the enemy. If the pig in this instance was representing Seth pertaining to his role as Ra’s defender than it would counter the theory that the pig was a religiously unclean animal during the New Kingdom.

There are few records of artifacts found, with only the amulet mentioned here but what is thought provoking is the complete absence of the evidence of a mummified pig. Mummification was conducted on a wide array of animals, performed for a variety of reasons such as a food source for the dead, preserving a sacred animal or to be used as votive offerings to the gods. Even though the pig could serve the purpose of a victual offering, Ikram does not list or make reference to any instance of a mummified pig.

In interpreting the lack of pig mummification, the immediate assumption may be that the pig was not mummified due to a religious taboo. The absence of pig mummies would indicate that the Egyptians did not believe that pigs were appropriate food for the dead, did not hold the essence or importance to any god or to be gifted to any god in question.

The absence of victual pig mummies in these tombs raises further questions. Due to the fact that they were at times displayed in tomb reliefs of the wealthy elite, the segment of society able to afford tombs, suggests that a different cause for pig mummies being absent is the case. Poultry and beef offered as food for the dead may be an indicator of status for the buried individual in question.

The evidence for this is inconclusive. Different animals were often associated with different gods in ancient Egypt; in the pig’s case most evidence would place Seth as the pig’s god. However the sources for this association are small in number and there is not enough evidence outside the single passage from the Book of the Dead or the image from the tomb of Rameses VI. There are no other examples of the pig being depicted in the religious context by native Egyptian art and text to clarify its place in Egyptian theology. There is also no equivalent of the Apis bull noted to exist in any capacity. Only one case has been found linking a pig in a positive manner to a god. The god Min largely existed as a minor deity across Egypt as a whole and associated with the city Coptos in particular. Darby cites that in some traditions Min is born of a white sow.

4.5. Conclusions

There is little evidence of a religiously motivated taboo, and most that could be interpreted in that manner is often circumstantial. The text from the Book of the Dead appears to scorn pigs. However this interpretation likely stems more from observances of modern Egyptian custom, as there is no other textual source to support this conclusion. The texts where pigs appear in a religious context places them as the

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104 Cruz-Uribe 2009, 205.
108 Cruz-Uribe 2009, 220.
property of two temples, which shows that the priesthood was not opposed to raising pigs for their own use.

The pictorial evidence is also thin. In most tombs where pigs appear they are depicted as doing agricultural labor, they are never depicted being used as food. There also no evidence that shows Seth being associated with pigs outside of the single passage of the Book of the Dead. There is also the fact that Seth was not thought of negatively until the Late Period.

The amulets shaped like sows also indicate that the Egyptians could attribute positive symbolic qualities to pigs. These beliefs likely manifested among the population outside of the control of the major religious institutions, meaning that positive depictions of pigs may have been a creation of the average population.
5. Summary and Conclusions

In an attempt to answer the question of why there is such a discrepancy between the material, pictorial and textual evidence surrounding the pig from the Old Kingdom to the New Kingdom, I will briefly summarize the conclusions thus far. These will be grouped within the three main areas of this research: the presence of the pig; economic and environmental factors; and cultural and religious factors.

The majority of the identified material remains of pig have been found primarily on sites situated close to the Nile or in the Delta region, with the exception of the workmen’s villages of Amarna and Deir el Medina. The locations studied were believed to house peasants and skilled workmen and were probably provisioned by the state, as most of the locations were not self-sustaining. The pigs were raised locally and consumed by the local population as an additional food source.

There is evidence of both extensive and sheltered husbandry, most likely based on the particular settlement’s ecological conditions. The pig’s physiology forced it to be reared locally as opposed to cattle that could be relocated. This could contribute to the absence of official records as kingdom wide economies required that goods could be transported over long distances. Locally, the pigs were used for consumption, waste disposal and food production therefore an animal of value to the village economy. Findings of ostraca with prices for swine confirm that the pig possessed a trading value for someone, probably the lower working classes of the immediate surroundings.

The examination of the eventual cultural and religious reasons for the pig to be ignored in the historical record shows there is little if no evidence of taboo or abhorrence of the pig, rather a disinterest. Swine was not a desirable animal to the elite shown by the preferences for more prestigious food for the afterlife. On the other hand, there is very little material that displays a negative attitude towards pigs, confirming once again a disinterest by the elite of society.

The most likely cause of the pig’s absence in Egyptian records was economic disinterest by the kingdom’s administration. More evidence will need to be uncovered to verify to what extent this held true. The pig’s worth in deben come only from one location. As Deir el-Medina was built for a very specific purpose it is not known if the prices were universal across Egypt. The trading of pigs may have taken place on the unofficial level, outside of the scribe’s oversight.

The conclusion is likely that the pig was a locally raised and utilized animal. Its benefits were of value only in their immediate surroundings, therefore, they were not recorded on the state-level. Pigs as a food source were attractive foremost among peasants and laborers. The elite’s disinterest in the animal caused there to be few literary references, depictions in tombs or on monuments, reflecting their attitudes towards swine.
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Ancient Egypt Timeline

Early Dynastic Period: c. 3000-2575 BC
Old Kingdom: 2575-2134 BC
First Intermediate Period: 2134-2040 BC
Middle Kingdom: 2040-1640 BC
Second Intermediate Period: 1640-1550 BC
New Kingdom: 1550-1070 BC
Third Intermediate Period: 1070-712
Late Period: 712-343
Illustrations

Fig. 1: A Modern pig in El-Bayadiya. Source: http://www.amarnaproject.com/pages/amarna_the_place/workmans_village/index.html

Fig. 2. Map of Amarna. Source: http://www.narmer.pl/map/amarna_en.html

Fig. 3. Deir el-Medina in modern times. Source: http://www.ancient-egypt.info/2013/07/deir-el-medina-pictures-and-maps.html

Fig. 4. Recreation of image from the tomb of Inena. Source: Darby, Ghalioungui & Grivetti, 1977, 187, Fig. 4.9.

Fig. 5. Image of pig and baboon on a bark. Source: https://www.osirisnet.net/docu/porcs/e_porcs.html

Fig. 6. Image of a servant mouth-feeding a pig or a dog from the tomb of Kagemni. Source: Darby, Ghalioungui & Grivetti, 1977, 182. Fig. 4.4.

Fig. 7. Image of “marsh-animals” from the tomb of Khety. Source: Darby, Ghalioungui & Grivetti, 1977, 185. Fig. 4.7.

Fig. 8. Redrawn image from the tomb of Paheri, Source: Darby, Ghalioungui & Grivetti, 1977, 186, Fig. 4.8.

Fig. 9. Redrawn image from the tomb of Amenemhat at Thebes. Source: Darby, Ghalioungui & Grivetti, 1977, 188. Fig. 4.10
Ostraca Appendix

Taken from The Deir el-Medina Database, https://dmd.wepwawet.nl, compiled by Demaree, R, Donker van Heel, K, Haring, B. and Toivari-Viitala, J. The Deir el-Medina Database is an online catalogue for ostraca and Papyri uncovered from Deir el-Medina. The following page will display the ULR’s for the ostraca cited by Janssen’s ‘Commodity Prices from the Ramessid Period’, displaying detailed information of each piece, including their source publication.

O. Berlin P 12405,

O. Cairo CG 25572,

O. DeM 00073 reverse,

O. Michaelides 014,

A fifth ostraca cited as O. Černý 5, vs. 2 by Janssen could not be found in the database.