Those Administrative Documents are Sealed

A study of the evolution of the structure and function of the Egyptian administration in the Late Predynastic and Early Dynastic Period, with specific attention to seals and seal impressions

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Declaration:

I, Matthew Warren Bernard George, certify that this thesis has not been submitted for a higher degree to any other university or institution

Signature:_____.

Date: 10th October 2014

Summary:

The study of the administration in Egypt is ultimately a study of the control that the Egyptian government was able to exert over its population. However, despite the existence of scholarly works on later periods, there is comparatively little knowledge of the administration from the Late Predynastic and Early Dynastic periods. Whilst the wider aim of this research is to provide a comprehensive view of the administration from this time period, this particular study will be focusing on interpreting the information that is provided upon seals.

This will be undertaken through first examining the origins of the sealing practice in Egypt, then moving onto an analysis of the various types of seals that exist in Egypt. The study then moves into the analysis of the administrative departments and centres and the information that they can provide us in relation to the structures of the administration. Finally our attention turns to the titles present upon these seals and what they can tell us in relation to the administration and ultimately how it functioned.

Conventions utilized

This particular study utilizes the Author Date method of referencing resources. In circumstances where a multi-volume resource is used, such as Peter Kaplony's *Die Inschriften der Agyptischen Fruhzeit*, the volume number is also provided in the footnote:

e.g. Kaplony (1963, vol I, p.40)

When multiple works of a single author are used, in the bibliography these are provided in a chronological order. However if an instance such as this occurs in the footnote they will be placed in the order of their relevance to the point being made in the above section of text.

When hieroglyph codes are mentioned, unless specifically indicated otherwise, this research uses the codes established by Alan Gardiner, which is indicated by the capitalization of the letter in the code reference e.g. "A1." The other sign list that has been employed by this research is that established by Jochem Kahl in *Das System der ägyptishen Hieroglyphenschrift in der 0.-3. Dynastie*, and this is indicated by the usage of lower case letters in the code reference e.g. "a1."

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Introduction:

General Introduction:

The study of administration is ultimately a study of the control that a government is able to exert over its population. Although scholars such as Toby Wilkinson believe that the foundations of the Pharaonic administration are laid in the Late Predynastic and Early Dynastic Periods,[1] the administrative works by Egyptologist such as Naguib Kanawati,[2] Juan Carlos Moreno Garcia,[3] and Wolfram Grajetzki,[4] have largely focused Egypt governed itself in the Pharaonic period. As such, there is little information about the running of the administration before the Old Kingdom.

The comprehensive study of the administration in the Pre and Early Dynastic period allows us the ability to track how the administration ultimately changes and evolves from the production seals in the late Predynastic era, up until the end of the Second Dynasty, where there is a fully functioning system of government, able to regulate and control the country of Egypt. However, whilst the primary goal of this research is to gain further understanding of the administration of the afore mentioned time period, there are also other benefits such as a greater understanding of the significance of the role that the administration played in the formation of the Egyptian state.

[1] Wilkinson (1999, p. 92)
[2] Kanawati (1977)
[3] Moreno Garcia (2012)
[4] Grajetzki (2009)

Approach and structure:

Seals and seal impressions found during this time period are the primary form of evidence used in this particular project in order to provide a comprehensive understanding on the administration from the Pre- and Early Dynastic periods. Although there are other media of primary data such as royal records,[5] stele,[6] rock inscriptions,[7] and ink inscriptions,[8] seals are being afforded a prominent position in this study due to the ideas put forward by scholars that a large proportion of our evidence for the administration comes from the seals and seal impressions.[9] Of the two variations of seals found during this time period, that being the cylinder seal, and the mud seal, in the interests of manageability of this project only the cylinder seals will be considered in this work in terms of in depth analysis, as this medium of data is sufficient to reveal the necessary information regarding the administration. Due to the limitations of this project, the majority of seals that are examined in this project are found in Peter Kaplony's *Die Inschriften der Agyptischen Fruhzeit.*

The first step in this project is to provide a definition of 'administration.' This step is essential as we need to have a basic understanding of what an administration is in order to determine whether the information we are extrapolating from these seals is in fact indicative of the existence of an administration. The research then moves into general sections regarding the origins of seals in Egypt, in addition to detailing the types of seals present in Egypt. This section will include theories regarding their beginnings in Egypt. Once this is completed a general section on the types of seals will be provided, with

[5] Wilkinson (2001, p. 289, fig 1)
[6] Emery (1938, p. 64, fig. 24)
[7] Ibrahim and Tallet (2012, p. 180)
[8] Lacau and Lauer (1965, p. l1.3)
[9] Müller (2009, p. 17)

specific attention to various seal impression patterns. Through discovering the earliest attestations in Egypt, the goods that they can be definitively associated with, and the information contained upon them. These are provided in order to understand how this administrative practice began in Egypt, the variations in the types of seals, and to gain a brief insight into the way that seals were used.

This particular study then shifts focus to the analysis of the seals and the specific information that it can provide to us in relation to the administration. This will be done through studying the seals to extract two key areas of information, they being the existence of administrative departments and centres, and the titles that are found on seals.

In terms of the discovery of information regarding administrative departments and centres, this section will firstly focus on any and all of the information that can be extrapolated from the seals. We will need to examine when these administrative departments are first attested upon these seals, as this may reveal to us their potential origins. There will also be an emphasis placed on any noticeable changes that occur in terms of the administrative departments, both in terms of their frequency of appearances on the seals, and the way in which they appear on seals. This will be undertaken order to chart any changes or evolutions across the early administration such as the beginnings of an administrative department, the evolution of certain administrative entities, and the changing notions of the administration.

Our focus then turns to the titles upon the seals. Our ultimate goal in this section is to determine exactly what titles are being found upon these seals. Once this is done, these titles will be compiled into various lists, which will be done according to their time

period, the variations associated with the instances of the compounding of titles, the type of work that is denoted in the name, and any sort of regional and departmental information. Once this is done, the focus regarding these titles shifts into determining how often do titles occur on seals, and how this notion has changed over time. This is all done in order to show further development in the administration, as the occurrence of these titles reveals to us the prominence that the Egyptians placed on certain products, actions, and localities, and this study allows us to chart how this changes from the Predynastic, through to the Early Dynastic Period.

The analysis of seals from the late Predynastic Period through to the Early Dynastic period allows us to chart the dynamic changes that are occurring in the numerous facets of this practice. This insight ultimately informs us about activities occurring in the administration, as well as giving us an indicator of the role that the administration played in the process of state formation and how it was not ultimately the catalyst for this process, but it was an essential implement in the consolidation and maintenance of the nascent Egyptian state.[10]

Methodology:

In order to achieve the aims of this project, both quantitative and qualitative research methods will need to be employed. The quantitative data extrapolated from the seals will aid in providing information regarding quantities of titles, types of goods being

[10] Andelkovic (2008, p.1048; 1051) This research does agree with the notion proposed by Andelkovic that the administrative apparatus was essential to the formation of the Egyptian state. However, the viewpoint of the research is that the 'proto-state' is formed with the unification of Upper and Lower Egypt under Narmer, then the 'all-Egyptian early State' is realized during the reign of Den and his immediate successors, and finally the 'established state' is achieved in the Second Dynasty and the reign of Khasekhemwy. In addition to this theory, the argument suggested by Jiminez Serrano (2008, p.1121; p. 1133) is somewhat accurate, as the administration is a major factor in the state formation process, and the appearance of writing arguably coincides with the founding of the state in Upper Egypt. However, it will not have been the sole factor in the creation of this state. However, his theory only seems to deal with the formation of what would be classified by Andelkovic as a proto-state, and as such there is no dealing with state formation on a national level.

regulated and controlled, as well as certain types of information regarding the administrative departments. This methodology will primarily be employed in the analysis of pattern variations in seals, the amassing of various lists in regards to the information that they contain, and the quantities of attestations in regards to the seals across the time period in question. This particular methodology will allow us to view this work as a piece of political anthropology, in particular from the structural standpoint,[11] as the providing of certain amounts of quantitative data allows us to build a framework of the administration, in terms of its departments, the goods and services that it controlled, and the people that it employed.

The application of qualitative methods allows us a more detailed insight into what the seals are able to tell in regards to the administration, as this approach is able to provide insight into the functioning of the early Egyptian bureaucracy. This methodology will be primarily employed in the sections regarding the origins of seals in Egypt, the study of the function of various administrative departments, and the amount of regulation and control that the administration would have been able to exercise. These points further allow us to see this work as a piece of political and social history, as this work will be charting how the government interacts with the people, the ways in which it exercises its power and authority, and ultimately how the people in various positions of power acted, as well as providing information on the progression of various social trends and structures.[12]

[11] Swartz (1969, p. 54)
[12] Lee (1996, p. 1)

Problems/issues

The study of seals, whilst being essential to enhancing our understanding of the administration and the dynamic changes it undergoes in this time period does have certain problems and issues to deal with. The first of these is more of a general comment on the study of the administration in Egypt, as it relates to the conceptualizing of the term administration. Although there is a title present in the Early Dynastic period *'ꜥḏ-mr'* which has been translated as 'administrator,'[13] we find that there is no word for "administration" in the Egyptian language present upon seals, or for that matter on any form of documentation. This then presents to us the question as to whether the view of the Egyptian administration that we possess today is as a result of the application of modern administrative ideals being placed onto the evidence. Whilst this issue is prevalent, the best possible method of circumventing any sort of problem here is through providing a clear definition of administration, as seen in the modern era, and then providing a separate definition of administration, which would be based on how the early Egyptians would have conceptualized it. In addition to this, the early Egyptian administration shall be compared to the current view of an administration in order to determine whether it can be classed as an administration by modern standards, however this shall only be done after the discovery of the early Egyptian concept of administration through the evidence provided by the seals, in order to avoid any contamination of ideas.

Moving into more specific issues relating to seals and the seal impressions, we come to a particular issue that is quite prevalent in the discipline. Whilst it is true that seals reveal much to us regarding Early Egyptian administration, the majority of these seals were

[13] Kaplony (1963, vol. II, p.1205) Kaplony transliterates this title as *ꜥnḏ-mr*.

found in a mortuary context. Ilona Regulski asserts in her study on the early paleography of Egyptian writing that the majority of early dynastic inscriptions, of which seals are a significant percentage, are found in cemeteries like Umm el Qa'ab, and Saqqara.[14] These discoveries have been invaluable for increasing our knowledge of the Pre- and Early Dynastic administration, yet as these seals are only from a mortuary context, it is unclear as to what they actually denote. There is the potential for this information to be more indicative of the administrating of the mortuary cult. Furthermore, due to the lack of evidence that we have, the information that we are being presented with might be only a microcosm of the administrative structures that were present. The best way to combat this issue is to present the evidence that is available, and mention that although the findings can be determined from the evidence present, due to the general paucity of evidence we are not gaining a full insight into the administration.

Another such issue relating to our understanding of the administration through the examination of the seals from the Late Predynastic and Early Dynastic Period relates to the information not being considered in this study. Although the seals comprise the majority of the documentary evidence relating to the administration,[15] other pieces of primary evidence provide data to either supplement the information discovered upon seals, or they are able to provide data for consideration and analysis that is not present upon seals. Such an example of this relates to the issue of taxation within Egypt, as although seals do indicate that there was a taxation authority in existence,[16] they do not contain any information in relation to how Egypt was taxed, and the variations present in this practice. The only way that this particular issue can be resolved is through

[14] Dreyer (1998, p. 17 &40); Regulski (2010, p. 13)
[15] Müller (2012, p.17)
[16] Kaplony (1963, vol. III, fig 106)

reiterating that the scope of this work is only to provide information in relation to the seals, and reinforce that in any subsequent research these additional sources will be included.

Definitions:

As was mentioned in the above section, in order to move forward this this particular work, it became imperative to outline a definition of what constituted 'administration' in a general non-Egyptological sense, in order to later compare this to how the Early Egyptians would have seen their administration, and whether the information extrapolated from the seals constitutes an administration. Upon examining several definitions, it became clear that the usage of a single definition would not suffice, as the language was either too vague, or it was not applicable. The first definition that was discovered comes from the *Oxford Dictionary*, which outlined administration as "the management of a business, institution."[17] This is a rather useful definition as this deals more with the actions of an administration, whether it is in the private sector, or of a governmental entity. However, this definition, whilst being useful, presents to us a problem, as the language used does not provide us any information regarding the institution of the administration, and only provides a general understanding of what the functioning of an administration does.

The next definition that we come across comes from the United Nations Economic and Social Council (UNESC), and deals with administration as a governmental entity rather than a private organization. The council outlines public administration as being "the organization of government policies and programs as well as the behavior of officials

[17] Moore (2004, p.16)

(usually non-elected) formally responsible for their conduct"[18] This definition has many benefits for this research, as there is a clear indication of the role that the administration undertakes, as well as dealing with the administration as a tool of the government. However, there are certain deficiencies within this definition. One such example of this is the usage of the terms 'policies,' and 'programs.' These terms only give something of an indication as to what the administration is doing, and ultimately the definition would benefit from the providing of specific examples of these activities and services, rather than just alluding to them.

Finally, the North American Industry Classification System (NAISC) provides a definition as to what constitutes an administration. They state that administration should be seen as "establishments primarily engaged in activities of a governmental nature, that is, the enactment and judicial interpretation of laws and their pursuant regulations, and the administration of programs based on them; Legislative activities, taxation, national defense, public order and safety, immigration services, foreign affairs and international assistance, and the administration of government programs are activities that are purely governmental in nature."[19] This definition is arguably the most complete in its singular form, as it seemingly builds on the previous definitions by outlining the administration as a governmental entity, whilst also providing specific examples of the programs that the administration controlled.

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[18] UNESC (http://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVD&TVD=118464&CVD=118466&CPV=911&CST=01012012&CLV=2&MLV=5, date accessed 5/6/2014)

[19] NAISC 91: Public Administration (http://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVD&TVD=118464&CVD=118467&CPV=9119&CST=01012012&CLV=3&MLV=5&D=1, date accessed 5/6/2012)

Ultimately, as has been mentioned earlier, it became clear that a combination of definitions was warranted in order to provide an all-encompassing definition of 'administration' for this research. A combination of the UNESC and NAISC definitions were utilized, as between them they covered all the major aspects of the administration. In the context of this research, 'administration' will be viewed as an entity of the government, run by a network of various officials, responsible for the interpretation and enforcement of laws, as well as the implementation and enactment of various governmental policies and programs, such as:

- Taxation
- Public order
- Foreign relations

This definition does provide more of a rounded view of the administration, however, in the context of this particular research, we must be wary about its application to the Early Egyptian evidence. These definitions of the administration are all modern interpretations of the concept, and as such might not factor in several key elements that are essential to the Egyptian ideals of administration. Furthermore, there is additional risk in applying this modern definition to Early Egypt due to the nature of the evidence that we have of the Egyptian administration. There is a certain element of risk that we are not able to obtain a complete view of the administration, or that we are just examining an isolated element of administration. Given that the majority of the evidence, in particular the seals, comes from a mortuary context,[20] there is a possibility that the administration that we are gaining insight into is actually the mortuary administration. Furthermore, due to the general lack of evidence,[21] there is a distinct

[20] Regulski (2010, p. 13)
[21] Wilkinson (1999, p. 92)

possibility that there are large chunks of information that are missing from our understanding in regards to Early Egyptian administration.

Although the modern designation of the administration is beneficial, its main purpose is to serve as a comparison to the definition of administration formulated in relation to Late Predynastic and Early Dynastic Period of Egypt. Whilst it is the intention of this work to provide a more comprehensive definition of the administration of the time period in the concluding remarks of this research, a working concept regarding what constitutes an Egyptian administration needs to be established. Moreno Garcia, who admittedly deals with administration in Egypt from later time periods, believes that there are misconceptions regarding the way Egyptian administration is viewed. He suggests that the idea of an all-encompassing administration that has absolute control over both Upper and Lower Egypt is not realistic for a Bronze/Iron Age society.[22] Furthermore, Regulski argues that the language would not have been produced in a continuous, fully formed state before the rule of Djoser,[23] which means that the task of administering an entire country would be rather difficult. However, despite these limitations upon the administration of the time, we are still able to produce a working definition. it became necessary provide separate definitions for the administrations of the Late Predynastic and Early Dynastic periods, due to their substantial differences.

[22] Moreno Garcia (2012a, p. 3). Whilst this might not seem completely relevant for the study of administration in the Late Predynastic and Early Dynastic Periods, many of the problems associated with how the administration is perceived would be somewhat universal.
[23] Regulski (2010, p.5)

Based upon the information extrapolated from the seals, the administration of the Late Predynastic period, which arguably begins in the Naqada IIC/D period with the adaptation of seals from Mesopotamian origins,[24] is a disjointed bureaucracy. The myriad of sites where seals are attested indicates a lack of centralized government.[25] Furthermore, based on the context of the evidence discovered, the primary function of the administration from this time period appears to be the importation of luxury items,[26] and the providing of mortuary goods for wealthy burials.

Moving onto the administration from the Early Dynastic Period, we note that there are certain similarities with its Late Predynastic counterpart, as we see that it would have been concerned with the providing of goods to sustain the mortuary cult, as well as being associated with the importation of luxury goods from foreign countries.[27] However, this period also notes several noticeable differences, which add to this definition. We see an increasing centralization of the administration, exemplified by the high percentage of documents found in Saqqara and Abydos. Furthermore, with the growing prominence of the phonetic language,[28] we see more written records associated which gives us greater insight into workings of the administration such as the commodities they regulated and controlled, the existence of various administrative centres and departments and the ways in which they function. Furthermore, we gain information about the various positions within the administration and how they function.

[24]Hill (2004, p. 95)
[25] Kaplony (1963, vol III) See Appendix 1
[26] Müller (2012, p. 20)
[27] Müller (2012, p. 20)
[28] Regulski (2010, p. 14-15) Hill (2004, p.117)

Literature review:

The literature review allows us to focus attention on the way that current and previous scholars have interpreted the evidence of the administration, including the seals and seal impressions, and how it has shaped their viewpoints on the issues that have arisen in the study, from the viewpoints on the various roles that people undertook in the administration, through to the role that administration played in the formation of the Egyptian state. This particular work will begin with an initial analysis and critique of the scholarship on administration in general, then transition into the more specified scholarship which relates directly to the Pre- and Early Dynastic periods. The final piece of work being critiqued will be the book chapter of Wilkinson on Early Egyptian administration, as it serves as the only attempt to synthesize all of the administrative evidence together in order to gain a more complete image of the administration of the time period[29].

It should be established from the outset that this literature review does not deal directly with the seals, but rather with the scholarship on the administration. This is done as the assertions made in the scholarship on the subject of administration shape the opinions of others in relation to how they perceive the evidence. Therefore, it became imperative to analyze and critique these works. Furthermore, the research that these scholars are undertaking is based on primary evidence such as the seals.

[29] Wilkinson (1999)

In terms of the overarching topic of Egyptian administration, we find one work on the subject that we would class as being definitive; the book *Ancient Egyptian Administration* edited by Juan Carlos Moreno Garcia.[30] This particular work is crucial for the study of administration in Ancient Egypt as it encompasses all of the time periods of Egypt from the Pre Dynastic period through to Saite period.[31] In addition to this, the work provides a generalized overview of the historical narrative surrounding the administration such as the organization of the Pharaonic armies from the Old to the New kingdom, whilst also providing specialized areas of study such as an examination of how the funerary complexes were administered in the historical period.[32] Aside from the thematic advantages that this book possesses, the fact that it is a recently published work ensures that the scholars writing their papers would have access to the most recent findings in terms of the primary evidence. This resource also has value in the fact that it tries to move away from the previous interpretations and assumptions of the Egyptian administration, and present us with a more realistic view of the administration of a society from the Bronze/Iron Age.[33]

This particular resource is invaluable to all studying the administration of Egypt during the historical period, and even to some extent those studying the Pre- and Early Dynastic periods, as certain comments and assertions that Moreno Garcia makes are applicable to the study of the administration of Egypt, both in a general sense, and to the study of Pre- and Early Dynastic Egypt. In this work Moreno Garcia raises certain issues with the Egyptian administration that are present in all time periods, such as the nature of the titles. However, despite the positive qualities that this particular piece of scholarship has quite in regards to the general issues surrounding the Egyptian

[30] Moreno Garcia (2012)
[31] Engel (2013, p. 19-41); Agut-Labordère (2013, p. 965-1029)
[32] Spalinger(2013, p. 393-479); Vymazalovà(2012, p.177-197)
[33] Moreno Garcia (2012a, p. 1)

administration, we find that this work does have a limited benefit when specifically examining the Pre- and Early Dynastic administration. This particular work contains one article dedicated to the study of the early Egyptian administration.[34] This does not provide an adequate analysis of the administration of the time period, even though Wilkinson believes that the administration from the Pre- and Early Dynastic periods forms the foundations for the subsequent thousands of years of Pharaonic rule.[35] Whether this is true or not, and it should be considered that the general level of paucity of evidence regarding early Egyptian administration does make writing meaningful scholarship on the subject difficult, the lack of additional scholarship in this particular book suggests a rather myopic view of the administration.

Moving on, we come to the scholarly work that has been specifically done on the administration of the Pre- and Early Dynastic periods. The work that fits into this category covers several topics, ranging from specific issues through to broad stroke analysis of the administration. Whilst these works are helpful for our understanding of the topic of administration, we find that they have various issues contained in them, which can vary from being too general in their work and as a result glossing over certain details that enhance our understanding of the topic, up to producing a work too specific and loses sight of the broader context in which it belongs.

In spite of certain deficiencies, the writing of more generalized work is crucial for the understanding of the early Egyptian administration, as these works often work along chronological threads, allowing us to chart certain aspects of the evolution of the administration. However, despite the benefits of this style of work, the general nature of the work often means having to overlook details that would enhance the comprehension

[34] Engel (2012, p. 19-41) A proper analysis of this article will be undertaken later in the review.
[35] Wilkinson (1999, p. 92)

of the topic. One such specific example of the generality of these works is the 2012 article by Eva-Maria Engel, chronicling the organizing of the nascent Egyptian state. This work is invaluable to our understanding, as it provides broad strokes regarding the administration, and chronicles two major changes within the administration occurring in the reigns of Djer, and Den.[36] However, in spite of the information it does provide on these changes, we find that the work remains far too general on other issues. One such example of this is the mentioning of the people running the administration. Oftentimes Engel will simply refer to them by their titles, and at times she provides some information regarding what their occupation might entail.[37] In one instance, Engel does make mention of the evolution of a title, that being the title of vizier and how it eventually divided and created the position of *sm* priest.[38] However, this serves as the extent of the analysis into the positions of the administration. Engel does not delve into any sort of social aspects of the positions available, even though this would be an ideal opportunity to investigate aspects of the structure of the emerging Egyptian state,[39] as well as seemingly ignoring the potential for providing real insight into the structures of the administration, from a political anthropology perspective.[40] Furthermore, almost no prosopographical data has been included, which would aid the examination of the administration from the perspective of social history. Understanding the people who are within the various social structures grants us a greater insight into how these structures would have functioned, an essential component of this project.[41]

Moving to the other end of the spectrum, the more specific works on early Egyptian administration utilize a different process. Whilst these works will still at times operate

[36] Engel (2012, p. 27 &31)
[37] Engel (2012, p.24, 29 & 33)
[38] Engel (2012, p. 32)
[39] Conze and Wright (1967, p. 7)
[40] Swartz (1969, p. 54)
[41] Conze and Wright (1967, p. 7)

with chronological framework, the focus is more on the chronology of more specific things such as sealing impressions,[42] or the Egyptian language itself.[43] It is because of these levels of specificity that we find that certain works in this category branch out into other disciplines such as paleography.[44] However, despite the benefits of these types of work, they often become too encompassed within specifics and lose sight of the broader context of early Egyptian administration. One such example of this is the article written by Vera Müller on the changes in sealing practices in the Early Dynastic Period.[45] The work details several of the characteristics behind seal designs,[46] as well as charting certain changes that occur to both individual seals as well as the practice of sealing itself.[47] This work also functions as a piece of political history, as through Müller's description of the sealing practices, we gain insight into a facet of how the Egyptian government was able to exercise its authority and control, as well as the methods in which it was interacting with the Egyptian population.

However, this particular work examines this element of the administration in a rather narrow fashion, and fails to consider these developments in the broader context. There is no attempt to explain the reasoning behind changes in the sealing practices of the early Egyptian administration, all that is said is that it is occurring.[48] The idea of such a drastic change in administrative practices during this time period could have been indicative of changes in administration that could have been necessitated by any number of reasons, such as the formation of the Egyptian state, an event that iconographic evidence suggests can only be attested from the reign of Den.[49]

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[42] Müller (2012)
[43] Regulski (2010)
[44] Regulski (2010)
[45] Müller (2012, p. 17-32)
[46] Müller (2012, p. 20-22)
[47] Müller (2012, p. 19 &22)
[48] Müller (2012, p. 29)
[49] Petrie (1901, p. 11.14; pl. 14.7)

Furthermore, this change in administrative practices could have been as a result of the introduction of the nome culture, an event which is thought to have occurred in the reign of Den,[50] although the earliest inscriptional evidence of nomes is found in the reign of Ninetjer.[51] Despite the existence of explanations for various administrative changes, Müller does not present any theories regarding why this change would have occurred.

As it serves as arguably the only attempt to compile all of the data of early Egyptian administration in order to provide a synthesized image of the early Egyptian administration, it seems only logical that Wilkinson's work be analyzed with a certain level of depth. Although his 1999 book chapter remains the closest thing the discipline has to a comprehensive work on the early Egyptian administration, there are still certain deficiencies in the work. One example of such an issue that is prevalent in Wilkinson's work is the over usage of generalized terms and over simplification of concepts. A specific instance of this is the way that Wilkinson deals with the people who were running the early administration. Wilkinson does provide prosopographical information on 5 officials from the Early Dynastic administration, which does benefit our understanding of the people who were in charge of the bureaucracy.[52] However, these entries are somewhat limited in their benefits for the study of the early administration. Although much of the issues with them can be summarized as a lack of primary data, these particular prosopographies only deal with people who have attained relatively high positions within the administration.[53]

[50] Martin-Pardey (1976, p. 33-34)
[51] Helck (1979, p. 129)
[52] Wilkinson (1999, p. 123-126)
[53] Wilkinson (1999, p.1 23-126) in this section we note that each person was an *ꜥḏ mr* of a nome, or an estate at some point in their careers, which would indicate that they had achieved some level of success in their careers.

In order to gain a more rounded perspective on the administration, and the people who were running it, additional data regarding people in the administration is required. Whilst much of the information that is required for accurate prosopographical analysis is lost, we can still determine the level of wealth and status of administrators based on mortuary evidence such as their tomb size, its location in the cemetery, and the quantity and quality of the grave goods found.[54] In addition to this, examining the concept of wealth outlined by Baines and Yoffee, allows us to determine the socio economic status of the administrators, as it is said that the presence of wealth in ancient societies was how the elites were able to set themselves apart from other members of society.[55] The establishing of an elite class, a facet of social history,[56] will then allow us to move away from the misconceptions and generalizations that all the administrators were wealthy elites, as it is hoped that the evidence will reveal that people in lower socio-economic brackets were members of the administration.

Moving on from this, we see another deficiency in the work of Wilkinson in the usage of assumptions based on the administration of later periods in Egypt. This particular idea is something of a necessary evil in this situation, due to the lack of evidence to provide definitive answers on the issues of administration from this time period.[57] Furthermore, there are certain similarities and continuities between the administration of the pre and early Dynastic periods with the later administrations, which does give credence to the notion put forward by Wilkinson that the administration established in this time period serves as the basis for the following thousands of years of Pharaonic rule.[58] However,

[54] Parker Pearson (1999, p. 14 &78) the example given on p. 14 relates to the post Medieval English burial practices, yet the concept of hierarchical patterns in cemeteries is also seen in Egypt, as typically the highest ranked person's tomb is surrounded by subsidiary burials.
[55] Baines and Yoffee (1998, p. 213)
[56] Kaelble (2003, p. 29-30)
[57] Wilkinson (1999, p. 92)
[58] Wilkinson (1999, p. 92)

whilst a certain level of comparison with later periods is necessary, at times this is used so frequently that it ceases to be searching for continuities, and becomes imposing the structures of later periods onto the Pre and Early dynastic period. An example of this is seen with the description Wilkinson gives for the provisioning of grain in Early Egypt. Due to the earliest attestations of a central governmental granary coming from the Third Dynasty, Wilkinson asserts that these granaries would have been integral parts of the treasury, only to splinter away in the Third Dynasty to become their own offices.[59]

The idea of making inferences based on later periods is not a new concept, as scholars such as Junker and Goedicke have suggested that we can learn much about the administrative practices and structures of the Pre and Early Dynastic periods through analyzing the autobiographical texts from the Third Dynasty.[60] Whilst on a prima facie level this poses no problem, when one considers that the second Dynasty is estimated to have lasted from roughly 2850 BC through to roughly 2700 BC, this presents us with a substantial amount of time for there to have been any number of changes and events occurring in the society that could have had impacts on the administration.[61] Aside from the reign of king Khasekhemwy, little is known about this time period, as the evidence is conflicting or non existent.[62] Any number of events could have occurred during this time period that we are unaware of, one such being a theory suggested by Aidan Dodson that during the Second Dynasty, Egypt suffered through a period of civil war.[63]

[59] Wilkinson (1999, p. 109)
[60] Wilkinson (1999, p. 92)
[61] Kahl (2007, p. 7)
[62] Wilkinson (1999, p. 69)
[63] Dodson (1996, p. 19-20) Whilst there is no physical evidence to suggest a conflict, we find that there is inscriptional evidence from the second dynasty that could suggest to us that there was some form of conflict, found in Kahl (2007, p. 62-63). However, one must be wary of these inscriptions as they might simply be accentuating the strength and powerful nature of the king

In summation, we are able to see the value that a review and critique of the literature has. In spite of this particular review only covering a rather small sampling of the scholarship that deals with administration in the Pre and Early Dynastic periods, the review highlights the various deficiencies that are present within the scholarship. Through an examination of the most comprehensive work on the subject of Egyptian administration, we find that although certain issues are dealt with in a general sense, there is little direct attention given to the specific time period in question. When the specific scholarship is dealt with, we find that although these works provide valuable information, they have their own issues, as they are either too general in their approach, or they are too specific. Finally, when we analyze Wilkinson's work, we must acknowledge that this particular study is at this moment the only attempt to synthesize the evidence of the early administration together and as a result provides a valuable insight. However, as this work is contained in a book designed as an introductory text of the topic of early dynastic Egypt, we must be wary that at times the work will be over generalized and will rely on inferences.

Origins of sealing practice in Egypt

The practice of using seals in Egypt dates to the Naqada IIC/D period, where seals have been discovered in various locations such as the Naga-ed-Der cemetery, the cemetery of Ballas,[64] as well as cemetery U at Abydos.[65] The seals found at these sites during this time period are primarily cylinder seal impressions, meaning that their patterns were impressed with cylinders,[66] however there is an exception, a Naga-ed-Der seal, which was most likely created with a stamp.[67] In addition to this, whilst the seals, and the archaeological context in which they were found, indicate roughly the time that this practice came into usage in Egypt, the evidence extrapolated from them informs us as to the potential origins of this practice in Egypt. In addition to this, the origins of the seals can also suggest the existence of trade and interaction between various regions. Furthermore, through the examination of the origins of the practice of sealing in Egypt we are able to note that the Egyptians were able to adapt the practice of sealing to their own needs.[68] Furthermore, as the development of the language present upon these seals is studied, we are able to notice the development of the seals as an administrative practice, as well as chart its progression from being an administrative practice that was undertaken without any form of central administrative structures, through to being an integrated practice of the centralized administration of the nascent state.

Scholars argue that the sealing practice in Egypt can trace its origins back to Mesopotamia, as there are said to be certain similarities between the cylinder seals used

[64] Podzorski (1988, p.261)
[65] Hartung (1998, p.49)
[66] Regulski (2010, p.36-37)
[67] Podzorski (1988, p.2)
[68] Hill (2004, p.95)

in Egypt, and those in Mesopotamia.[69] Upon an investigation of this notion, one can see certain similarities between the styles and motifs present on the seals of the two cultures. One such motif that is present upon the seals is the presence of what is potentially the *ᶜḏ* fish. This particular decorative motif is seen with various seal impressions dating to this time period, as several of these examples only depict the fish on one occasion in the seal,[70] whereas one such example depicts rows of fish multiple times within the seal.[71] This bears similarities to Mesopotamian seals in the Jemdet Nasr style, as the seals also depict a similar style of fish upon them.[72] Scholars argue that the fish is one of the most common elements upon Jemdet Nasr period seals,[73] and although there are certain stylistic differences between Egypt and Mesopotamia in the depiction of these fish, it is clear that this particular design element has Mesopotamian origins. Another such example of a comparable motif from Mesopotamian seals found upon Predynastic Egyptian seals is something that is called the 'herringbone' design. This design, much like its name suggests, is reminiscent of the sketetal structure of the herring, and is an element that is somewhat frequently attested in the Jemdet Nasr style of sealing, as this pattern is found upon numerous seals from this time period.[74] This particular motif is also present upon the seals that have been discovered in Egypt, with examples coming from, among other places, Naga ed-Der and Matmar.[75]

Another such motif that seems to be common between the two cultures is that of the depiction of the prisoner upon sealing impressions. A seal, found at Hierakonpolis dated to the reign of Narmer, shows three rows of captives, with their hands bound behind

[69] Regulski (2010, p.35); Mark (1998, p.48)
[70] Hill (2004, p.52 fig.26A, 26B, 26E)
[71] Kantor (1952, pl.28D) This last depiction would most likely have been caused from the length of the seal causing the cylinder to be rolled further. This also accounts for the repetition found in the pattern.
[72] Kantor (1952, pl.27F, pl.27G, 27H, 27I)
[73] Podzorski (1988, p.246)
[74] Kantor (1952, p.246, fig 27H)
[75] Podzorski (1988, p.261, fig.2); Hartung (1998, p.49, fig.3B)

their back and kneeling whilst being subjugated by a stylized version of Narmer.[76] A similar design is also found from the site of Uruk dating to roughly 3200BC, showing captives positioned in the same manner, with hands tied behind their backs and kneeling whilst being subjugated by a mythical creature.[77] These examples all illustrate that the origins of the seal practice, as well as certain patterns that are present upon seals in Egypt, have their origins in Mesopotamia. However, despite the differences between the various depictions of certain motifs found in these seals and their Mesopotamian counterparts, the presence of these common motifs further reinforces the theory that the sealing practices of Egypt were adopted from Mesopotamia, which does give light to the idea of contact between the two areas, which is theorized to have been at an increased level during this time period.[78]

Although it has been established that the commonality between the patterns of the seals of these civilizations suggests that the Egyptians adopted this practice from Mesopotamia, there is still a question regarding the reasons for the adoption of this particular practice, and whether it was done for administrative purposes, or whether these seals were imported completely from their Mesopotamian origins, and were used as personal adornments. The notion that the seals were not utilized for any functional purposes,[79] and instead were rather implements of adornment has been perpetuated through the scholarship, due to the idea that the Egyptians, much like the Mesopotamians, did wear their seals.[80] Furthermore, this point is reinforced by the fact that large proportion of these cylinder seals and seal impressions dating to this period

[76] Kaplony (1963 vol III, fig.5)
[77] Porada (1993, p.570, fig 20)
[78] Kantor (1952, p.250)
[79] Hill (2004, p.1)
[80] Collon (1987, p.140)

have been found in elite cemeteries such as Cemetery U at Abydos.[81] However, this is something of a myopic stance to take, as when the seal impressions are examined in comparison to Mesopotamian seals of the same time period, we find that although there are certain common motifs with the Mesopotamian seals, the Egyptian seals have evolved into their own entity in terms of both style and the motifs represented upon them in order to be utilized for administrative purposes.[82] This particular point becomes clearer upon the examination of a Mesopotamian artistic motif that was simply integrated into Egyptian artistic representations rather than being developed into suiting Egyptian needs in the administration namely the Master of Animals motif. This particular motif, which is classed as being indicative of royalty,[83] has been found upon Mesopotamian seals from the Ubaid period, however he is labeled the "Priest-King." This motif is attested in Egypt from the Naqada II period, such as in Tomb 100 at Hierakonpolis,[84] during the time that Egypt would have been experiencing contact with Mesopotamia and the Levant.[85] However, when representations of the Master of Animals are examined, such as the one upon the Gebel el Arak knife,[86] we note that there is little stylistic change in the depiction of the master from the Mesopotamian seals, as he is consistently depicted in a style that would classify him as a foreigner with his distinctive dress, hairstyle and beard.[87] This indicates that this particular motif was most likely integrated into the artistic practices rather than being adapted to suit the needs of the Egyptians. Furthermore, the Master of Animals has not been found upon a seal from this time period in Egypt, which could further indicate that the motif was not

[81] Hill (2004, p.99)
[82] Hill (2004, p.95)
[83] Collon (1986, p.15) Wilkinson (1999, p.26)
[84] Case and Payne (1962, p.13)
[85] Kantor (1952, p.250)
[86] Cialowicz (2001, p.166, fig.20)
[87] Collon (1986, p.12 fig.12) Cialowicz (2001, p.165)

being adapted to the Egyptian seal practices in order to suit an administrative purpose.[88]

Moving on from this, we now must examine adaptations of Mesopotamian patterns and motifs by the Egyptians in order to suit their needs. One of the clearest examples of this is the presence of certain animals upon these seals, and the potential reading of them as hieroglyphs that potentially refer to administrative entities during this time period. The animal seal does have its origins in Mesopotamia. Aside from the numerous seals that possess the above mentioned fish motif, which bears something of a resemblance to the hieroglyph *ᶜḏ*,[89] other seals from the Predynastic period have various animals upon them that could be interpreted as attempts at hieroglyphs such as:

- A lion, which could be interpreted as hieroglyph E23.[90]
- Various depictions of a canine figure, which has a resemblance to hieroglyph E15.[91]
- A depiction of a bird, which has similar characteristics to the hieroglyph G29.[92]

When these particular symbols are examined, we can gain a tenuous insight into the administrative nature of these particular seals. For example the reading of the symbol that is classified as E23 provides us with the transliteration '*šnᶜ*,' which can be translated as 'storehouse.' It should be highlighted that this particular translation is somewhat tenuous, as Regulski has remonstrated that the symbols in this time period, although being somewhat analogous to the later hieroglyphs, are not fully formed and as such

[88] Hill (2004, p.19)
[89] Hill (2004, p.52 fig.26A, 26B, 26E)
[90] Kaplony (1963 vol III, fig. 8)
[91] Hill (2004, p.38, fig.12A); Hartung (1998, p.49 fig 3)
[92] Hill (2004, p.38, fig.22B)

should not be seen as being readable text.[93] However, if we do accept this as the reading of this particular symbol, then we can see this particular seal as being associated with the administration, as it denotes the existence of storehouses, and that they possessed their own sealing pattern. Furthermore, as this particular seal would be classified as an animal seal, which was during this time period associated with wine, as well as the importation of foreign goods,[94] and is a seal that has Mesopotamian origins, we can further infer that this particular seal would have had some sort of connection to the importation of commodities into Egypt, and that the Egyptians would have adapted this seal to suit their needs, rather than just the wholesale integration of this particular pattern.

The next example to be examined, the seal containing the symbol that is being interpreted as G29, can also potentially be seen as an indicator of the existence of administrative structures in Predynastic Egypt, and could potentially predate other attestations of administrative centres. The symbol upon this seal bears a resemblance to a hieroglyph attested in tomb U-j at Abydos upon an ivory tag, which is interpreted in this context to be part of the writing of the town *B3st*, or Bubastis.[95] Much like the previous interpretation of the hieroglyphs, we must be wary in the application of this particular translation, and as hieroglyph Q1 is missing; this interpretation could be seen as somewhat tenuous. However, if we were to accept this particular interpretation, we would have another attestation of Bubastis as being an administrative centre that was in usage for a substantial amount of time, as we have a seal from the Naqada IID period indicating that goods had originated there. This indicates that Bubastis still functioned, to some extent, as an administrative centre into the Naqada III period, with ivory tags

[93] Regulski (2005, p.994)
[94] Müller (2012, p.20)
[95] Dreyer (1998, p.125)

attesting that goods were originating, or being regulated and documented, from there. In addition to this, this particular seal also could indicate the role that the administration played in the control and regulation of foreign goods. This particular seal has on it symbols that are reminiscent of the N25 hieroglyph, which is often translated as *ḫ3st* or foreign land. This could indicate the potential role that Bubastis would have played in the regulation of commodities coming from foreign lands, as given its location in the Delta on a main branch of the Nile River,[96] it could have acted as something of a checkpoint town in the importation of goods into Egypt. These two examples indicate to us the point that was outlined by Hill, that these seals, whilst retaining certain motifs and conventions from their Mesopotamian origins, have evolved into serving an Egyptian function which was undertaken for administrative purposes,[97] namely the adaptation of the animal seal into the potential writing of hieroglyphs.

Although we can interpret these particular seals as being examples of the administrative structures in place, as these are isolated examples we cannot definitively say that the administration as its own entity would have existed during this time, as without the presence of a written language to translate we are left with scarce amounts of circumstantial evidence. Rather we must interpret that during the Naqada II period, there were administrative elements present within Egyptian society, but ultimately these were undertaken without the presence of a central administrative authority. However, with the developments that occur within the language of Egypt from the Late Predynastic period onwards that is evident upon the seals, we can see an emergence of the administration as its own entity. One such example of this comes with the reign of

[96] Baines and Malek (1984, p.33) This particular map refers to Bubastis by its modern name Tell Basta
[97] Hill (2004, p.95)

Iry-Hor, as he is the first king to possess a royal seal.[98] This particular development could be indicative of the beginnings of a centralized administration, as the interpretation of the royal seal is that it was used to denote the property of the king, or the lands that were under his direct control.[99]As the language develops further, the administration begins to become more evident upon the seals, and arguably can be further recognized as its own entity, rather than just having isolated administrative practices. Many of these developments occur in the Early Dynastic Period. The reign of Djet brings us the first attestation of the writing the domain name from the reign of Djer "*W3ḏ Ḥr*" "Horus, will flourish" upon several seals.[100] The linguistic developments from this period allow for the first recording of an administrative centre in Egypt, highlighting to us the importance of the development of the language upon the seals in relation to the administration.

Furthermore, the reign of Djet brings us attestations of several essential administrative elements that allow us to claim the existence of an administration during this time period such as the finding of the symbol '*ḫrp*,' which is translated as 'controller.' This particular title that held a prominent position in the administration of the domains and estates, and that gained a certain level of prominence during the reign of Den.[101] These linguistic developments allow for an increased level of recording of the administrative practices, as we are seeing the recording of locations that would have regulated and controlled various goods, as well as having the existence of bureaucrats who were working within the administration.

[98] Kaplony (1963 vol III, fig 13)
[99] Müller (2012, p.22)
[100] Kaplony (1963 vol III, figs 84, 99, 176)
[101] Wilkinson (1999, p.104-105)

In summation, the examination of the origins of the seals in Egypt ultimately allows us to examine in some scope the origins of the administration of Egypt. Archaeological evidence allows us to place the origins of the sealing practice in Egypt during the Naqada IIC/D period. Through an examination of the evidence that we have, in particular the similarities between motifs, we are able to determine that the practice of sealing was brought to Egypt from Mesopotamia, during a period of frequent trade between the two regions.[102] However, despite the similarities between the Egyptian and Mesopotamian seal practices, as well as the retention of certain patterns and motifs, we notice that the Egyptian seal impressions were developed in order to suit their own needs, which were most likely administrative in their nature.[103] In addition to this, the language that we find on the seals, it becomes clear that these seals were developed for administrative purposes, and we are able to see a progression of the role that they would have played as an administrative tool, from being indicative of an administrative activity without any form of central administrative structures, through to being a completely integrated practice of this newly founded state.

[102] Kantor (1952, p.250)
[103] Hill (2004, p.19)

Types of seals in Early Egypt:

Cylinder Seals:

In order to understand the significance that these seals have in the context of providing information in relation to the administration, it is imperative that we understand the types of seals that are being studied. The cylinder seal comprises a large percentage of our data for the Early Dynastic Period; with Regulski asserting its position as one of the primary types of data in relation to the Second Dynasty. Furthermore, due to its inherent links to the administration,[104] the cylinder seal has formed the basis of primary data for this particular research. This particular type of seal is made through the application of wet clay to a surface, such as a vessel, then a cylinder is rolled over it, leaving an intaglio relief upon it also known as the seal impression. The cylinder itself, usually crafted from either black steatite or ebony, had its design initially inscribed with ink before it was subsequently carved into the surface.[105] It is said that the majority of the cylinders have most likely not survived through to the modern day, as they would have remained in towns or administrative centres rather than being placed in burials.[106] As such we must extrapolate our knowledge of their inscription from the impressions that they have left behind.[107] However, excavations at Helwan have unearthed 3 cylinders, with a certain amount of wear upon them indicating their continual usage.[108] Furthermore, a model of a cylinder found at Abydos, illustrates the techniques required in the manufacture.[109]

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[104] Regulski (2010, p.36-38)
[105] Kaplony (1963 vol.III, fig.258)
[106] Regulski (2010, p. 39)
[107] Regulski (2010, p.36-39)
[108] Saad (1947, p.165-166; fig.14); Saad (1951, pl. 31c, 64c)
[109] Emery (pl.41, fig. 84) Petrie (1903, pl.11, figs. 186; 187; 187) The process involved in the manufacturing of cylinder seals is detailed above, as well as bing provided in Regulski (2010, p. 37)

Information relating to cylinder seals:

These seals, aside from revealing the origins of the sealing practice in Egypt and the origins of the hieroglyphic script, can also reveal much about the origins of this administrative practice. Regulski makes the argument that these seals are indicative of an intensive period of trade between the Levant and Egypt, dating back to the Naqada II period.[110] This is indicated by several of the wine vessels that were found in tomb U-j at Abydos. In all, 18 vessels were chosen to be tested in this process, as they covered the range of fabrics found amongst the ceramics of the tomb, an in addition to these vessels, a single clay seal found affixed to a vessel was also subjected to scientific analysis.[111] Through the usage of Neutron Activation Analysis (NAA) it can be determined to within ±1-5% that no Egyptian clay was used in the production of these wine vessels, and that the location of the sites where the jars would have been manufactured are located in either the Transjordanian Plateau, or the Southern Palestinian Hill Country.[112] This scientific data, coupled with the knowledge that the wild grapevine is never found in Egypt, we can assume that this wine would have been imported from various foreign neighbors.[113] However, despite the presence of this foreign commodity, the application of the NAA process to the seals reveals that that Nile silt clay was the material used in the manufacturing of the seal that was examined, although the locality of the seal could not be determined.[114] This highlights one of the functions of the administration, that being the regulation of foreign goods, as the presence of Egyptian clay on foreign vessels that still contained wine indicates to us that the sealing practice was undertaken by the

[110] Regulski (2008, p.993)
[111] McGovern (2001, p.407)
[112] McGovern (2001, p.408)
[113] McGovern (1997, p. 5)
[114] McGovern (2001, p.411)

Egyptian administration after various imported goods had arrived in Egypt and had been subsequently inspected.[115]

Various sealing patterns:

Despite the seals being considered here are all cylinder seals, there are clear distinctions between the types of seals that are based upon their patterns. The application of the cylinders upon the blank seals left a distinctive impression upon the wet clay,[116] which can be categorized into these various patterns. The advent of the Early Dynastic period sees the number of seal impression patterns grow exponentially. In the reign of Narmer, a total of 9 variations of seal pattern impressions are attested, with that number eventually growing to the point where 128 different seal patterns can be found during the reign of Den.[117] For the interests of manageability, only 2 variations of patterns will be analyzed in this study in depth. These patterns are as follows:

- Animal seals
- Royal seals

These particular patterns were chosen due to the frequency of their attestations in the archaeological record, both in terms of quantity, and over the spectrum of time. As such we are able to use these particular seals to chart developments within the administration.

Animal Seal:

[115] Hill (2004, p.9)
[116] Regulski (2010, p.37)
[117] Müller (2012, p.19)

The animal seal has a very straightforward decorative pattern, which involves depictions of various types of animals in varying numbers of rows. Hartung suggests that the presence of these animal seals is indicative of an administrative body that regulated both the desert areas, as well as the importation of goods, in addition to associating this particular seal impression with the wine trade.[118] If this were an accurate assertion, it would give further credence to the ideas relating to the origins of the administration being associated with the control and regulation of various prestige goods that were imported from foreign countries.[119]

In terms of the types of animals that are depicted upon these seals, Müller suggests that the predominant animals depicted upon these seals are caprids, dogs and other canids, a plethora of birds, and lions, however the attestation of lions on these particular seals is rare.[120] The way in which these animals are depicted upon the seal can also be varied. One such example of this is a seal from tomb U-127 at Abydos, which is dated to the Naqada IID period.[121] This particular seal depicts only the heads of caprids, rather than their whole bodies.[122] This particular example though appears to be the only one in existence that depicts animals this way, and could simply be an anomaly.

Another such pattern variation can be seen in an ivory cylinder seal from the Predynastic cemetery of El Mahasna in the tomb of *Im3-rwt* dating to the Naqada II period.[123] This particular seal depicts a single animal, most likely a lion, lying next to a

[118] Hartung (1998, p.211)
[119] Müller (2012, p.18)
[120] Muller (2012, p. 20)
[121] Hendrickx (2002, p.306, Appendix D) This particular date is provided through the dating of an ivory handle for a knife that was found in this tomb.
[122] Hill (2004, p.31, fig.5d)
[123] Ayrton and Loat (1911, pl.27, fig 1)

tree in the centre of the seal.[124] This motif of a single animal upon a seal is not a solitary occurrence, as it is also seen in two additional examples, one being seal from tomb U-153.[125] The other example, a seal found in tomb U-210 at Abydos, dated to the Naqada IID period,[126] could bear further significance for the determining of the usage of this particular pattern of seals. This depicts a single bird, possibly a crane surrounded by what could be an early incarnation of the *ḫ3st* symbol, with another geometric symbol in alternating rows.[127] If this is an accurate assumption, this could be an indication of the accuracy of Hartung's argument, that the animal seals were associated with the desert areas.[128] In addition to this, the bird contained in this symbol bears a resemblance to the birds depicted on tags found in tomb U-j, believed to be the hieroglyph G29 and an early example of the place-name Bubastis.[129] If these birds are the same, then we have the first attestation of Bubastis,[130] and can further advocate the idea that Bubastis served as a trade post for Egypt, with some connections to the importation of wine into Egypt.[131]

However, despite these pattern variations, the most frequently attested pattern of animal seals are those that depict full-bodied animals in rows. Of the 30 attestations of animal seals found in Kaplony's *Inschriften*, there are only two pattern variations to this, they being the above-mentioned seals. There also does not appear to be much variation amongst the distribution of the seals, as of the 30 found in Kaplony across the time of its usage, 7 of the animal seals have been discovered in Naqada, 13 have been found in

[124] Kaplony (1963 vol III, fig.8)
[125] Hill (2004, p.38, fig. 12c)
[126] This particular date is offered tentatively as Görsdorf, Dreyer, and Hartung (1998, p.643) states that based on new ^{14}C dating, this particular tomb dates to Cal 3100-2920BC. However, in the chronology established by Hendrickx (2006a, p.92) we find that the Naqada IID period is dated, through usage of ^{14}C dating to roughly 3600-3350BC. This disparity amongst the absolute dates provided between these two sources can potentially be seen as an anomaly in Görsdorf, Dreyer, and Hartungs ^{14}C dates, as the other dates provided in relation to the Naqada IID period are more in line with the Hendrickx chronology.
[127] Hill (2004, p.40, fig. 14.b)
[128] Hartung (1998, p.211)
[129] Dreyer (1998, p. 125)
[130] Currently, the first attestations of the town of Bubastis come from tomb U-j, which is dated by Dreyer (1998) to the Naqada IIIA period.
[131] Dreyer (2011, p.135)

Abydos, 4 have been found in Saqqara, 2 were found in Hierakonpolis, and El Mahasna and Tarkhan both have one each.[132] The distribution of these particular seals, and their concentration in Naqada, Abydos, and to a lesser extent Saqqara, potentially indicates to us the role of these sites as being associated with administrative centres.

The origins of the animal seal can be seen from the Predynastic period and the Naqada IID period,[133] with examples from both tombs U-127 and U-134 at Abydos, with a further example also attested from the site of Abusir el-Meleq.[134] We are able to see development in the animal seals by examining examples found at tomb U-j in Abydos, dating to Naqada III and the late Predynastic Period. The three types of animal seals in this tomb, indicated by Dreyer, are all contained in some form of a geometric pattern, with types I and II being in diamond patterns, and Type III being surrounded with square shapes containing 'x' shapes.[135] The finding of seals in tomb U-j also suggests a potential usage for this seal pattern. These seals are said to have jar rim impressions on them as well as string impressions upon the back of them, indicating that they were potentially affixed to the wine jars.[136] Furthermore, the implementing of NAA examinations shows that a seal impression found amongst the wine vessels was made of Egyptian Nile silt clay, although the provenance of this clay cannot be determined.[137] This analysis has given us insight into the functioning of the administration, as the origins of the material of the seal indicates that seals were applied to foreign vessels at some point upon their reaching Egypt, rather than being applied at the source of the

[132] Kaplony (1963 vol III) See Appendix 1
[133] Hill (2004, p.20)
[134] Hill (2004, p. 31 fig.5; p.33, fig. 7; p.38, fig. 12.A)
[135] Dreyer (1998, p.109)
[136] Hill (2004, p.15) also makes the point that only the jars associated with wine had seals attached to them in Tomb U-j
[137] McGovern (2001, p.408)

creation of the vessels.[138] This suggests the existence of some form of administrative entity during the Naqada Period, as well as indicating the role of the administration of the time period, that being the regulation, recording, and control of luxury items that were being imported into Egypt.

However, the First Dynasty sees the phasing out of the animal seal in terms of its original function from the Predynastic Period. Müller asserts that this seal pattern stopped being used in their own capacity during the reign of Hor-Aha, and were subsequently incorporated into the royal seal.[139] However, the finding of 3 animal seals in the tomb of Hor-Aha,[140] as well as 3 animal seals dating to the reign of Djer at Abydos indicates that rather than a complete cessation of usage, the process was likely to have been somewhat gradual. [141] This phasing out of the animal seal is most likely as a result of the developing nature of the Egyptian language, [142] as indicated by the finding of the phonetic writing of administrative centres and departments such as domains, first found during the reign of Djet.[143] This renders the animal seal as an administrative indicator obsolete as the animal seal utilized a logographic method of recording administrative information.[144] The utilization of a more advanced system of recording administrative information suggests significant developments in the administration, as this

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[138] McGovern (2001, p.408) It has been established through NAA examinations that the wine jars in tomb U-j were not made of Egyptian materials. Coupled with the scientific analysis of the seals, we would have to agree with the interpretation set out by Hill (2004, p. 18) that these seals were applied to these jars upon their arrival in Egypt.
[139] Müller (2012, p. 20)
[140] Kaplony (1963 vol III, fig 58, 59, 60)
[141] Kaplony (1963 vol III, figs. 17, 142, 162)
[142] Regulski (2008, p. 1002) argues that the development of the Egyptian language was not for solely administrative purposes, but rather occurred as a logical progression of the language. However, the administration does aid in the development of the langauge
[143] Wilkinson (1999, p.119-121; p.123-124) these administrative entities are dealt with in greater detail in the chapter "Seals as indicators of Administrative Centres and Departments," However moving forward a working definition is required: A domain is a general land holding, that produced various goods for the royal mortuary cult. Although they were traditionally associated with vineyards, they were most likely associated with various products. An estate is similar to a domain in that it is a land holding. However their names suggest that they potentially focused on a single commodity or product.
[144] Hartung (1998, p.211)

development provides the early administrators with the ability to provide more detailed records regarding their functioning in the society, as well as the way in which they were structured. The seals are now able to record the provenance of goods, the titles of the person who was responsible for this job, and even whether the goods were under the control of the king. Subsequent animals depicted upon seals can be attributed to either royal iconography,[145] or they became hieroglyphs.

Royal Seals:

The royal seal is a relatively self-explanatory pattern, as it contains upon it the name of the current ruler.[146] It is believed by certain scholars that the presence of a royal seal upon a surface was done in order to indicate that the king directly owned the goods this seal related to.[147] If this theory is correct, it could indicate that there was a distinct branch of the administration that dealt with the private property of the king, or there were directives from the central administration to identify the personal property of the king in some way. The royal seal is one of the most frequently found seals in terms of Early Egypt, as Kaplony in his *Inschriften* attests 221 of these seals.[148] The first definite attestation of a royal seal in the archaeological record belongs to Iry Hor who was in power during Dynasty 0 and the Naqada III.[149] This particular seal, found at Abydos is

[145] Kaplony (1963 vol III, fig. 364) This particular seal, dating from the reign of Den in the First Dynasty, utilizes a hippopotamus
[146] Müller (2012, p.22)
[147] Kaplony (1963 vol I, p.72)
[148] Kaplony (1963 vol III) see Appendix 2
[149] There is a certain level of conjecture surrounding Iry-Hor being classified as a king, which was mainly caused by a lack of representation of his name in a serekh. This had lead to scholars such as Kaplony (1963 vol. 1, p.468) translating this particular seal to mean "Great of Speech" and claiming this as a title. More recent scholarship seemingly reinforced this idea with scholars translating Iry-Hor's name as "Companion of Horus. However, with location of Iry-Hor's tomb within the royal cemetery of Umm el Qa'ab, as well as its comparable size to the tombs of Ka and Narmer, we can somewhat safely label Iry-Hor as a king.

the only attestation of a royal seal from this particular rule.[150] The next royal seal that we have comes from the reign of Narmer, ruling at the beginning of the First Dynasty, where 6 seals in total have been found, with 5 stylistic variations amongst these seals.[151] 3 of the stylistic variants have been found in Tarkhan,[152] in between various amounts of pottery such as wavy handled jars and wine vessels.[153] This proximity to storage vessels indicates that these seals were most likely attached to them, and as such were most likely applied to the vessels.[154] In addition to this, the association of seals with the wine vessels, which would have been used to store wine, gives further indication of the early role that the administration played in the society, that being the regulation and control of certain prestige and luxury items. In these seals we are able to see distinct variations in the patterns associated with the royal seal from the time of Iry Hor. The first such difference that we notice relates to the organizing of the royal name inside of a *serekh*, a symbolic representation of the royal palace.[155] The Iry-Hor example does not utilize a *serekh*, whereas the Narmer examples are all written within *serekhs*, although we find that there are two variations in the writing of these *serekhs*, those that are written with the falcon Horus, which are found at Tarkhan, and Abydos.[156] In contrast to these are the variants where the falcon is not present, examples of which are found in various tombs at Tarkhan.[157]

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[150] Kaplony (1963 vol III, fig. 13)
[151] Kaplony (1963 vol III, figs. 25, 26, 34, 35A, 35B) The assertion of Narmer being the first king of the First Dynasty is reinforced by the finding a seal from the tomb of Den. This decorated with the names of the First Dynasty kings of the time, with Narmer being the first ruler named upon both. Dreyer (1987, p. 36 fig. 2-3)
[152] Kaplony (1963 vol III, fig.25, 34, 35A, 35B)
[153] Kaplony (1963 vol I, p.64)
[154] Regulski (2010, p.37) Whilst this does not specifically relate to the examples from Tarkhan, the practice of applying seals would not have changed as a result of different localities.
[155] O'Brien (1996, p.133) This bears significance for the administration as the inclusion of the serekh onto administrative seals would have provided a certain level of prestige to the administration, much like how the British Royal Warrant of Appointment signifies businesses that has provided consistent service to the British monarchy. (http://www.royalwarrant.org/index.php, date accessed 26/9/2014)
[156] Kaplony (1963 vol III, fig. 25, 26A, 26B)
[157] Kaplony (1963 vol III, 34, 35A, 35B)

The implementation of the *serekh* during this time upon royal seals could be viewed as being a simple stylistic element.[158] However, given the *serekh,* a symbolic representation of the royal palace,[159] is attested upon royal seals from the reign of Narmer onwards, the implementation of this design element could have been an attempt by the administration to highlight the existence of the new authority of the palace as a result of the unification of the Upper and Lower Egypt.[160] Furthermore, the potential symbolic significance of the serekh as a unified country would have aided in reinforcing the position of the king as being the prime administrator who possessed control over the resources of Egypt.[161] Moving onto the reigns of Aha, and Djer, who possess 17 and 22 seals respectively, there is little development of the royal seal,[162] as there is no other information present other than the royal name, although one could argue a slight change in the reign of Aha, as upon one of the royal seal we find an attestation of the hieroglyph "M23," although given this particular symbol is commonly read as 'king' this inclusion might not be as significant as later alterations of the royal seal.[163]

The rule of Djet and his successors sees a marked change in the information present on the royal seals, possibly as a result of the evolution of the administration occurring at this time. Whilst royal seals that adhere to the convention of only depicting the royal name are attested in the time period of Djet,[164] and Den,[165] the reign of Djet begins the convention of providing additional information upon royal seals. This is evidenced by a seal from the tomb of Djet at Abydos, which contains the name of the domain "*Wꜣḏ*

[158] Several *serekhs* have been found, dating to before the reign of Narmer Fischer (1963, p.44 fig. 1, pl.7a); Petrie (1913, pl. 60); Saad (1947, p.111-112, fig 11, 12)
[159] O'Brien (1996, p.133)
[160] Gardiner (1961, p.403-404)
[161] Papazian (2013, p. 46)
[162] Kaplony (1963, vol III) See Appendix 2
[163] Kaplony (1963 vol III, fig. 36)
[164] Kaplony (1963 vol III, fig. 32A-H)
[165] Kaplony (1963 vol III, fig. 33A-C)

Ḥr."[166] This new information upon the royal seal not only attests a new administrative entity in Egypt, but it also suggests a heightened level of royal involvement in the administration, potentially as a result of the somewhat unified nature of country. If we are to accept that the royal seal denotes control from the king, the finding of an administrative entity upon a royal seal potentially suggests that these land holdings were being more centrally controlled by the wider administration, which would have been headed by the king.[167] This development marks a significant change from the administration of the Late Predynastic period, as even if the animal seals were indicative of administrative entities, there is no evidence to support a centralized bureaucracy during this time. This contrast suggests that the unification of Upper and Lower Egypt under Narmer was arguably the catalyst for the growth of the administration, which ultimately would have aided in the process of the eventual formation of the Egyptian state.[168]

The rule of Den, attests the most individual amount royal seals during the time period in question, as a total of 51 have been found, which makes up roughly 23.07% of all royal seals.[169] This increase in quantity of the seals, although potentially the result of a favorable rate of survival of the seals, could be symptomatic of the administrative changes occurring during the reign of Den.[170] The increase of royal seals is indicative of the increase in the centralized control over the land holdings, which is arguably begun in the reign of Djet. However, we see a further development in this process through

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[166] Petrie (1900, pl. 18)
[167] Papazian (2013, p. 46)
[168] Wilkinson (1999, p.119) These domains are directly linked to the mortuary cult of the king due to the large percentage of 'domain seals' being found in the tombs, and subsidiary burials of various kings. It should be clarified that this research adheres to the idea proposed by Kemp (2006, p.73-78), that argues a multi-causal theory of the formation explained through his game theory model. The multi-causal theory is then improved by Andelkovic (2012, p.1051-1052)
[169] Kaplony (1963 vol III) See Appendix 2
[170] Müller (2012, p.18)

examining the increases in various titles upon the royal seal during this time period.[171] Although titles have been attested on seals since the reign of Djer,[172] the rule of Den is when these titles are first seen on a royal seal.[173] This particular phenomenon is attested at Abydos, where we find two instances of the title "*ḫrp ḥry-ib*" in a subsidiary burial related to Den,[174] as well as 5 examples being found in Saqqara Tomb 3506.[175] In addition to this, there are numerous attestations of royal seals from the reign of Den onwards which include compounded versions of the "*ḫrp*" and "*ꜥḏ-mr*" titles, often associated with the name of a domain which are found in various sites across Egypt, and are attested throughout the remainder of the period being studied.[176]

Although the number of attestations of titles upon royal seals is not overly frequent, this stylistic change is representative of administrative reforms that occurs in the administration during the reign of Den. Müller suggests that the rapid reduction in seal patterns from the reign of Den onwards is indicative of a change occurring in the administration of the time period, and the increasing information upon the royal seal might indicate that the king began to exercise more central control over the administration.[177] Such a change would explain the presence of titles, names, and administrative centres upon the royal seals, which would highlight either the level of control that the king would have had over these people and centres, or it could indicate that these people were directly accountable to the king.[178] The finding of the name of the treasury upon 2 royal seals containing the name of Den indicates the existence of a

[171] Wilkinson (1999, p. 123) See Appendix 2 & 7
[172] Kaplony (1963 vol III, fig.45A) is for the *ꜥḏ-mr* seal, and Kaplony (1963 vol III, fig 47) is for the *ḫrp* seal
[173] Kaplony (1963 vol III, fig. 85) for the royal seal containing an *ḫrp* title, and Kaplony (1963 vol III, fig. 225A) for the royal seal containing an *ꜥḏ-mr* title.
[174] Kaplony (1963 vol III, fig. 202A-B)
[175] Kaplony (1963; vol III, fig 202 A-E) However, Kaplony also lists that the seal in figure 202C was also found in a fragmentary state in Abu Rawash, tomb 16.
[176] Kaplony (1963 vol III) See Appendix 2
[177] Müller (2012, p. 17 & 30)
[178] Kaplony (1963 vol I, p.72)

treasury, as well as suggesting that the newly founded central taxation authority in Egypt would have been under the direct control of the king.[179] So here we are able to see the role that the royal seal has within the administration, as well as using it to be able to track various changes within the administrative landscape of Egypt.

This is seemingly the last major development in the information contained in royal seals, as from the reign of Den onwards, through to the reign of Khasekhemwy there is no additional information provided on royal seals in relation to the administration. However, certain stylistic changes occurring throughout this time period, such as the inclusion of various royal trappings such as the '*nsw bity*' title and various combinations of crowns on the seals, which could be used to in the addition of various royal figures and deities,[180] and the inclusion of the god Seth during the reigns of Peribsen and Khasekhemwy.[181]

Conclusion:

In summation, we are able to see how gaining an understanding of the types of seals present during the Pre and early Dynastic is important for us in examining the role that the seal would have played in the administration. Through analysis of the seals in their archaeological context, as well as through the application of scientific analysis we can see that although this practice of the application of seals was associated with importation of goods from foreign countries, yet it was done in Egypt.[182] Furthermore, through examining the various patterns of seals available to us such as the animal seal and the royal seal, we are able to gain insights into the goods that they were associated with, the history of their usage and they way that they evolve to adapt to the changing

[179] Kaplony (1963 vol III, figs. 121, 177)
[180] Kaplony (1963 vol III, fig. (291, 292, 297)
[181] Kaplony (1963 vol III, figs.302, 310)
[182] McGovern (2001, p.408)

administration, the content of the various inscriptions upon the seals and how this reveals the presence of personnel and administrative centres, and the spread of seals across the country of Egypt and how this potentially indicates the presence of administrative centres.

Titles found upon seals:

Titles are a constant source of information in relation to Egyptian culture throughout the history of Egypt, due to the insight that they provide us into the Egyptian administration, across all periods.[183] There are several different classifications of titles such as religious, through to honorific, and finally administrative titles.[184] However, as the research we are dealing with is in relation to administration, the administrative titles will be the sole focus. In terms of the titles that will be dealt with, there are numerous administrative titles present in the Early Dynastic period,[185] however in the interests of manageability, the titles being considered here are:

- *ꜥḏ-mr*
- *ḫrp*
- *ḥrj-wḏ3*

These titles were chosen due to their frequency of attestations upon seal impressions, as well as the noticeable developments that occur through their usage. These titles grant us insight into the administrative structures of the Early Dynastic Period, as we are able to notice the division of roles present during this time period. These titles also grant us insight into the extent of control that the administration exercised over commodities. Finally, these titles provide us with information regarding the internal administration, as we are able to find evidence of internal hierarchies, as well as noting changes that

[183] Kanawati (1980, p. vi) Although this particular work is aimed towards the administration of the Old Kingdom, we find that this statement is applicable to all periods of Egyptian history.
[184] The subject of titles is one that has been studied extensively by Egyptologists, with scholars such as Dilwyn Jones (2000) producing a multi-volumed work on titles from the Old Kingdom. In this work, we are able to notice that the titles examined below have been continued on into the Old Kingdom.
[185] This section of the research only deals with the Early Dynastic Period, as before this time the language was not developed enough to produce phonetic writing, as indicated by Regulski (2010, p.6.) The main method of conveying information during the Late Predynastic Period would have involved logographic representations of data, which cannot be fully understood, as established by Hill (2004, p.11).

occur as a result of the increasing amount of control exercised by the central government.

ꜥḏ-mr:

The *ꜥḏ-mr* title; translated as "administrator" is one of the more frequently attested examples from the Early Dynastic Period, as Kaplony's *Inschriften* contains 39 attestations of this title found upon 37 seals.[186] The title of *ꜥḏ-mr* has 15 compound variations attested across the time period of the Early Dynastic Period upon all mediums of evidence.[187] This information reveals valuable information to us in relation to the role that the *ꜥḏ-mr* would have undertaken in the context of the Egyptian administration. However, as this particular study is only interested in the information in relation to the seals, only 7 variants of the title shall be dealt with, as they are what are attested upon the seals.

In terms of the breakdown of this title, the trend suggested by Wilkinson that the *ꜥḏ-mr* title is primarily concerned with the administering of land holdings proves to be accurate.[188] The un-compounded *ꜥḏ-mr*, of which there are 9 attestations equating to 23.07% of the total number,[189] is the only one to not specifically refer to a land holding. Moving into the compounded titles, the largest group of *ꜥḏ-mr* titles are in reference to the domains, with 26 instances of these titles being found upon seals across the Early Dynastic Period. 19 of these have the title *ꜥḏ mr Ḥr sẖnti ḏw,*"[190] an additional four seals

[186] Kaplony (1963, vol II, p.12, vol. III). For a complete list of these seals and their titles, see Appendix 3
[187] Kaplony (1963, vol II, p.12)
[188] Wilkinson (1999, p. 122) This interpretation might be based on the later usage of the *ꜥḏ-mr* in the Old Kingdom, as of the 33 entries found in Jones' Index of Old Kingdom titles (2000, p.355-364) all are in reference to some form of land.
[189] Kaplony (1963, vol III, figs. 45A, 45B. 127, 242, 274, 275, 277, 320, 321)
[190] Kaplony (1963, vol. III) See Appendix 3. This figure equates to 48.46% of the total *ꜥḏ-mr* seals found

have the *ꜥḏ-mr Ḥr tpy ḫt* title.[191] Finally the "*ꜥḏ-mr Ḥr nbw ḥt,*"[192] and the "*ꜥḏ-mr Ḥr sb3 ḥt*",[193] and the "*ꜥḏ-mr Ḥr sb3 b3w*" have one attestation each.[194] Finally we have four instances of *ꜥḏ-mr* titles that have an unidentified domain name.[195] Moving onto another type of land holding found in Early Dynastic Egypt, the estates, we find two examples of *ꜥḏ-mr* titles, the *ꜥḏ-mr ḥwt iḥt*, and an as of yet un-translated estate having one attestation each.[196] The prevalence of the *ꜥḏ-mr* title being associated with land holdings suggests this particular office would have been involved primarily in relation to the regulation and control of land holdings, whether it be the specific lands in question, or the products and services that they produced. Furthermore, the prevalence of this title suggests to us the significance that these particular land holdings would have had.

The presence of the *ꜥḏ-mr* upon the seals also allows us to chart the development of this title in a chronological sense, as this progression allows us to track the various changes in this title as a result of administrative changes. The title is first attested in the reign of Djet. The earliest depictions of the *ꜥḏ-mr* title upon seals appear primarily as the un-compounded version, attestations of which are found at the sites of Saqqara, and Abydos.[197] This particular seal pattern does not reveal much to us regarding the role of the *ꜥḏ-mr*, although the personal name of the administrator is provided, *Ḥtm-sẖmwj*.[198] Furthermore, the presence of this identical seal in both Upper and Lower Egyptian cemeteries suggests that the goods that this seal would have been attached to would

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[191] Kaplony (1963, vol. III, figs 233, 273, 305A, 305B)
[192] Kaplony (1963, vol III, fig. 228) This title is translated as "Administrator of the domain Horus the golden one of the corporation"
[193] Kaplony (1963, vol. III, fig. 300A) This title is translated as "Administrator of the domain Horus, star of the corporation
[194] Kaplony (1963, vol. III, fig. 291) This title is translated as "Administrator of the domain Horus star of souls"
[195] Kaplony (1963, vol. III, figs. 320, 321, 744 & 745)
[196] Kaplony (1963, vol III, fig. 118) This is translated as "The administrator of the estate of the cattle"
[197] Kaplony (1963, vol. III, figs. 45A & 45B)
[198] Kaplony (1963, vol. III) the particular phrase here could be indicative of the writing of someone's name, however due to the fragmentary nature of these seals it is somewhat problematic to interpret this as such.

have been coming from a centralized location,[199] thus indicating that the *ꜥḏ-mr* would have had ties to an administrative centre, even though it is not indicated upon the seals in question. However, the uncompounded form of the title is not the only type of *ꜥḏ-mr* seen during the reign of Djet. A seal found in Tomb 3506 from Saqqara provides us with an attestation of the title of *ꜥḏ-mr ḥr sẖnti ḏw*.[200] The attestation of this particular title upon a seal, as well as providing us information about the existence of domains in Early Egypt, gives an indication of the presence of an internal administration within these domains, which would have most likely undertaken the role of regulating the good that the domains would have produced. Furthermore, this providing of a definitive role for the administrators suggests new development in the administration through the potential attempts to make the administration more efficient through the assigning of more specified roles. The clarification of one's specific role is said to be a core component of the creation of structure in workforce, and also is said to benefit the overall satisfaction of the workers, which would potentially result in increases to productivity.[201] Therefore, the attesting of more specified *ꜥḏ-mr* titles suggests an attempt to make the administration more efficient through the deferral of specific roles more workers, rather than placing large workloads on a smaller number of employees. The seals found from this time period further indicate to us that the early Egyptian administration was concerned with the functioning of the domains that they controlled.

Moving on, the reign of Meretneith provide new developments in terms of the *ꜥḏ-mr* title, which indicates that the administration of this time period was not singularly concerned

[199] It is somewhat unrealistic to classify the administration during this time period as being centralized. Moreno Garcia (2013a, p. 2) argues that due to communication limitations, the influence of local leaders, and the composition of social networks, the view of the Egyptian administration as an all-encompassing bureaucracy is not sustainable. Therefore, we must argue that although the administration is not fully centralized, we certainly see an increase in the centralized nature of the administration.
[200] Kaplony (1963, vol III, fig. 189) The attribution of this title to this seal is somewhat tentative, due to the composition of the seal. However, it is the belief of the research that this is a writing of the *ꜥḏ-mr ḥr sẖnti ḏw*
[201] Hassan (2013, p.717 &722)

with domains. This reign provides the first attestation of a compound *ꜥḏ-mr* title referring to an estate, namely the *ꜥḏ-mr ḥwt-iḥt*.[202] If we are to accept that Wilkinson's interpretation of the functioning of estates is correct,[203] in that unlike domains they were focused on a single product or service, the presence of the *ꜥḏ-mr* title with an estate, in particular the seal with the name '*ḥwt iḥt*' indicates that the administration was not simply concerned with the overseeing and administering of land holdings, but also needed to turn its attention to the administering of specific products and services, such as cattle.

The reign of Den marks a substantial change in the presence of the *ꜥḏ-mr* title upon seals. The first such change that is noticed is the presence of the *ꜥḏ-mr* title upon royal seals. Of the 7 instances of an *ꜥḏ-mr* title and a royal name appearing upon the same seal, 6 of the seals contain the name of Den, with the other example being a seal bearing the name of Qa'a.[204] This particular statistic, although potentially skewed due to the paucity of evidence, highlights the prominence of the role that the administrator would have played in the administration, as the royal seal indicates either the personal property of the king, or that those officials who are directly responsible to the king are controlling the goods in question, which suggests the existence of increased control from the central government over these administrators.[205] Furthermore, the number of *ꜥḏ-mr* titles found that date to the reign of Den suggests to us that the position was rather prominent during this period, as during the reign of Den 24 *ꜥḏ-mr* titles are attested, with 4 title variants.[206]

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[202] Kaplony (1963, vol. III, fig 118) In terms of a translation of this specific estate name, Wilkinson suggests
[203] Wilkinson (1999, p. 123)
[204] Kaplony (1963, vol III,) See Appendix 3
[205] Papazian (2013, p. 46)
[206] Kaplony (1963, vol III) See Appendix 3

This potentially indicates a need for additional administrative control over several facets of the administration in the reign of Den, possibly as a result of administrative reforms. This examination of the evidence also potentially indicates the increasing amounts of central control that the administration was experiencing, as the time of Den is said to have been one of the changing of administrative practices, potentially indicated by the lack of records in relation to the following of Horus during the reign of Den.[207] The absence of the following of Horus, believed to be a ritual that also acted as a tax collection expedition,[208] potentially indicates the changes in administrative practices, as other evidence indicates that this period could be seen as the founding of the treasury. In the process of administration, when two entities exist that perform a similar task, in the interests of bureaucratic efficiency one of these is made redundant.[209] This administrative streamlining could explain the lack of attestations for the Following of Horus during this time period, as the increased control by these administrators, coupled with the founding of the treasury, rendered previous taxation practices obsolete during this time period. Therefore, we could see the increase of the *ꜥḏ-mr* during this time period, and the increased prominence of the royal seal in relation to these titles as a way of indicating the increased central control over Egypt's resources and the streamlining of administrative practices.

The final three kings that possess *ꜥḏ-mr* seals, they being Anedjib and Qa'a of the First Dynasty, and Khasekhemwy of the Second Dynasty, provide 5 seals containing the *ꜥḏ-mr*

[207] Wilkinson (2001, p.103-119) there is no mention of the Following of Horus in the Palermo Stone or its associated fragments during the reign of Den. Whilst this might simply be due to the damaged nature of the records, we find multiple references to the Following of Horus in the second register of the record, (2001, p.90; p.96-101)
[208] Wilkinson (2001, p.90-91)
[209] Miranda and Lerner (1995, p.196) Miranda and Lerner argue that in the administration of local government in the United States, duplication of roles requires a greater expenditure of resources, and that with larger governmental departments, it is somewhat difficult to isolate blame when a mistake occurs.

title, with Anedjib possessing 3, and Qa'a and Khasekhemwy possessing one each.[210] Aside from the three new titles being attested in this time period, one to Anedjib, one to Qa'a, and one to Khasekhemwy, we find that there are no new discernable developments of the *ꜥḏ-mr* title in relation to the role that it would have undertaken in the Egyptian administration.

ḫrp:

The *ḫrp* title, which translates to 'controller' is much like the title of 'administrator', a frequently attested titles from the Early Dynastic Period. We note 72 attestations of the *ḫrp* title upon seal impressions. The *ḫrp* title in the Early Dynastic Period has a total of 54 variants across all mediums of evidence,[211] however only 10 variations of this particular title will be examined, as they are the variants found upon the seals. This particular title reveals much regarding the structure of the administration, as well as allowing us insight into the changes that occur in the administration through this period, and potentially giving us information about the function that the *ḫrp* would have had in the administration. Moving into the 9 other variants of the title, we notice that much like the 'administrator' title, the examination of the variants of this title highlights that it was closely associated with the domains of Early Egypt, as of the 10 variants of *ḫrp* titles, 7 of them are associated with a domain name.[212]

The *ḫrp* title is also found in conjunction with estates, namely a seal found in the Pyramid complex of Unas, dating to the rule of Nebre, however the name of the estate is

[210] Kaplony (1963, vol. III) See Appendix 3
[211] Kaplony (1963, vol. II, p.1212-1213)
[212] Kaplony (1963, vol. III) See Appendix 4

unclear.[213] We also note one variation of the *ḫrp* title refers specifically to a town, that being the *ḫrp Nḫn*, which is attested upon 3 seals.[214] The presence of these domain related titles indicates that the *ḫrp* would have played a significant role in the administration of these administrative structures.

In terms of the role that the *ḫrp* title would have undertaken in the context of the Egyptian administration, we find that the titles can somewhat reveal this to us. Wilkinson suggests that the *ḫrp* would have been associated with the personnel that were employed by the domain.[215] The idea of this title being associated with personnel becomes clearer when we examine two specific *ḫrp* title variations, the *ḫrp ḥry-ib* and the *ḫrp nbi*. Of the 71 seals that contain a *ḫrp* title, the largest group of titles found is the *ḫrp ḥry-ib*, as it has 27 attestations across the period of its usage.[216] The *ḥry-ib*, which would translate to "those in the middle," has been theorized by scholars to be indicative of people who would have been in charge of making decisions within the domain.[217]

If we are to accept this interpretation, then we are able to see a potential hierarchy within the administration, as it would be logical to assume that the *ḫrp,* or 'controller' would be able to exercise some form of authority over these people in the *ḥry-ib* office, or that there was a specifically designated controller who oversaw these particular bureaucrats. Furthermore, as this particular title is most attested during the reign of Den, with a total of 18 attestations out of the 27, comprising roughly 66.66% of attestations across the time period of its usage,[218] we can also infer that this particular title bore some significance in the context of the reforms occurring in the

[213] Kaplony (1963, vol. III, fig. 264)
[214] Kaplony (1963, vol. III, figs. 86, 90A &90B)
[215] Wilkinson (1999, p.122)
[216] Kaplony (1963, vol. III) See Appendix 4
[217] Wilkinson (1999, p.122)
[218] Kaplony (1963, vol III) See Appendix 4

administration, as the increase of controllers during this time could be indicative of increased regulation from the central administrative authority over those people who were in charge of the day-to-day operating of domains, as well as indicating a change in the structure of the administration, as the new titles that denote control over other offices indicate that a hierarchy is now present. Furthermore, as 11 of the 18 *ḫrp ḥry-ib* titles attested to the reign of Den are found upon royal seals, we can assume that this prevalence of titles could have been associated with the increasing levels of control that the king and the central administration would have exerted over the resources of Egypt, and the increased levels of control over the decision makers of the administrative entities of Egypt.

The next title that we will be examining is the *ḫrp nbi*, There appears to be a certain amount of conjecture as to the specific role that the nbi office would have played in the context of the Egyptian administration, as although it can be assumed that there was a connection to agriculture there is no clear picture as to how the office is connected.[219] Although the actual role that this particular office would have served might not be clear, through the evidence found upon the seals, we note that this particular office required a certain amount of supervision and control, as across the time of its utilization we find 19 attestations of the *ḫrp nbi* title documented in Kaplony's *Inschriften*.[220] Furthermore, we note that 6 of these seals, which equates to 30% of the total number of *ḫrp nbi* titles, can be dated to the reign of Den, and an additional 3 can be dated to the reigns of Meretneith, which is theorized to be a time of co-regency between herself and Den

[219] Kaplony (1963, vol I, p. 163) suggests that due to a later interpretation of the phrase *nbi*, as well as the presence of small dots in the hieroglyph, we can associate the office with the filling of jars with goods such as grains and fruits. Müller (2012, p.23) takes her interpretation in a different direction, as she believes that the *nbi* office would have been associated with the recording and measuring of the inundated lands in order to properly distribute the land holdings, and to estimate the size of the harvests.
[220] Kaplony (1963, vol III) See Appendix 4

which would take the percentage to 45%.[221] The prevalence of this particular title during this time period could potentially indicate the need for additional control, potentially as a result of the administrative reforms that are occurring during the reign of Den as a result of the beginnings of the state formation process.[222] The remaining 11 of these titles are distributed relatively evenly among the remaining kings with Anedjib and Qa'a from the First Dynasty having 2 and 3 seals respectively with this title upon them, and Hetepsekhemwy and Ninetjer from the Second Dynasty having 3 seals with the *ḫrp nbi* title upon them respectively.[223]

Upon examination of the *ḫrp* title from a chronological standpoint, we are able to notice various trends in the usage of this particular title. The first attestation of this particular title, dating to the reign of Djer,[224] does not provide us with much information about this particular title other than the first attestation. The reign of Den is when we see a real evolution in relation to this particular title. Of the 71 seals that are found that contain *ḫrp* titles upon them, 44 of them come from the reign of Den,[225] and an additional 3 during the reign of Meretneith, which is potentially seen as a period of co-regency between the two rulers.[226] In addition to this large percentage of titles present, we also note that there is substantial variation in the *ḫrp* titles, as the reign of Den provides us 6

[221] Kaplony (1963, vol. III) See Appendix 4 The theory of co-regency between Den and Meretneith is suggested through archaeological evidence such as the finding of numerous seals from the tomb of Meretneith at Abydos with the seal of Den upon them (fig. 121, 177, 198, 199, 200). We also note a seal coming from the tomb of Den, which is found in Dreyer (1986, p. 36, abb. 2-3) with a king list upon it, which lists Meretneith as the 'mother of the king.'
[222] Müller (2012, p. 30) argues for the existence of evidence of administrative reforms in the reign of Den. As has been mentioned previously, this research adheres to the multi-causal theory of state formation, originally proposed by Kemp (2006, p.73-78), and further elaborated upon by Andelkovic (2012, p.1051-1052)
[223] Kaplony (1963, vol. III) See Appendix 4
[224] Kaplony (1963, vol. III, fig. 47)
[225] Kaplony (1963, vol. III) See Appendix 4
[226] The theory of co-regency is supported by archaeological evidence in both the tomb of Meretneith, found in Kaplony (1963, vol III, figs. 121, 177, 198, 199, 200) as well as in the tomb of Den, suggested by Dreyer (1986, p. 36, abb. 2-3)

variations.[227] Aside from the uncompounded version of the title and the three variants that deal with domains, [228] the first attestations of the *ḫrp nbi* and the *ḫrp ḥry-ib* titles during this period suggests that the administration of administrative centres required people to supervise various offices, suggesting the presence of a hierarchy in the administration. Furthermore, the presence of these particular titles, as well as the large number of *ḫrp* titles attested during the reign of Den could also suggest that the administration begins to exercise more centralized control over the resources of Egypt, possibly as a result of the reforms that are present in the reign of Den. As there is a significant decline in the number seal patterns during the reign of the successors of Den,[229] an argument can be made that the increase in these *ḫrp* positions in the administration during the reign of Den would have been able to make the administration more efficient and centralized, therefore no longer requiring these large numbers of seals.

Furthermore, we can also assume that the prevalence of multiple *ḫrp* title variations works in a similar fashion to that of the *ꜥḏ-mr*, in that it specifies the role of the worker, which in turn aids in productivity.[230]

The reign of Den also sees an additional development in the administration, that being the bureaucrats indicating the possession of multiple titles upon seals. Two seals found that date to this time period that are found in multiple locations attest 2 different *ḫrp* titles upon them,[231] and an additional seal attests 3 different titles.[232] Whilst it is unclear

[227] Kaplony (1963, vol. III) See Appendix 4
[228] Kaplony (1963, vol. III) See Appendix 4
[229] Müller (2012, p. 19)
[230] Hassan (2013, p.717 &722)
[231] Kaplony (1963, vol III, figs. 276A &276B
[232] Kaplony (1963, vol III, fig. 277)

as to the nature of multiple titles,[233] this could be indicative of a hierarchy within the administration, as one potentially had the opportunity to amass numerous titles across their careers.

The remaining 14 seals that contain *ḫrp* titles from the First Dynasty do not provide us with any new developments in the *ḫrp* title in terms of its place within the administration, although 3 new variations of the title are attested in this period, all of which are associated with domains. During the reign of Anedjib, in which 5 *ḫrp* seals are attested, we see an additional title variation become present, that being the "*ḫrp Ḥr sb3 ḫt*," which is found in the tomb of Anedjib at Abydos.[234] The reign of Semerkhet, which attests 2 *ḫrp* seals, sees the first attestation the title of "*ḫrp Ḥr ḏsr ḫt*" which is found the tomb of Semerkhet at Abydos.[235] Finally in the reign of Qa'a, in which 7 *ḫrp* seals are found, the title of "*ḫrp Ḥr nbw-ḫt*" is first found in the tomb of Qa'a at Abydos.[236] Although the finding of these titles does not suggest any sort of significant developments in the administration, they show us the expanding nature of the administration, and the need to grow the staff of these administrative entities. Furthermore, the finding of these particular seals in the locality of Abydos suggests the role that Abydos would have played as an administrative centre, and the finding of these seals in the royal tombs further reinforces the link that these domains would have possessed in relation to the administration of the royal mortuary cult.

The Second Dynasty provides us with 9 *ḫrp* seals, and during this period we see the attestation of three new *ḫrp* titles, the majority of which are associated with domains, much like those in the latter parts of the First Dynasty. The first of these particular titles

[233] Moreno Garcia (2012a, p.8)
[234] Kaplony (1963, vol. III, fig. 205)
[235] Kaplony (1963, vol. III, fig. 253)
[236] Kaplony (1963, vol. III, fig. 256)

is seen in the reign of Hetepsekhemwy, where there are four seals attested, as a seal found in the Pyramid complex of Unas has the first attestation of the title "*ḫrp Ḥr hᶜi-s3b*."[237] The single seal from the reign of Nebre, found in the Pyramid complex of Unas, attests a new *ḫrp* title that is associated with an estate, the "*ḫrp nbi ḥwt ḫt ḫrw*."[238] Aside from the attestation of a new estate during this time period, an indication of the expanding nature of the administration, this particular title bears significance to us as it is the first recorded instance found on the seals of there being a *ḫrp nbi* title being explicitly associated with a land holding. This not only reinforces the role that the *nbi* office would have played in the context of the administration, but it also alludes to the functioning of this particular estate as possibly being related to agricultural products, given the role of the *nbi* office. Finally the reign of Peribsen provides us with a single new *ḫrp* title, that being associated with his domain, and although it potentially has significance in highlighting the administration's role in state formation, no new developments are seen during this period.[239]

ḥri-wḏ3

The knowledge surrounding the role that the *ḥri-wḏ3* title would have played in the context of Egyptian society is relatively small, due in some part to the ambiguity of the title, which literally translates to "who is in the midst of the storehouse," however, the accepted translation of this title, as seen in the Old Kingdom is "supervisor."[240]

[237] Kaplony (1963, vol. III, fig. 281)
[238] Kaplony (1963, vol. III, fig. 264)
[239] Kaplony (1963, vol. III, fig. 285) The domain name, *wi3w iti* does not contain in it a reference to Horus.
[240] Jones (2000, p. 601) An additional translation is 'Storekeeper,' in addition to an alternate reading of the phrase, that being "*ḏ3i-ḥr*," and this is translated as 'Overseer.' This research will utilize the former convention of translating this title.

Furthermore, the lack of evidence that we have surrounding this particular title also diminishes our knowledge of the role it would have played in the Egyptian administration, as 11 seals are attested from Kaplony's *Inschriften* that have a *ḥri-wḏ3* title upon them, with a total of 7 title variations including the uncompounded version.[241] However, despite the gaps present in the knowledge of the *ḥri-wḏ3*, we are still able to gain some insight into the role that this particular title would have played in the Egyptian administration as a whole, as well as the role that it would have played in the context of various administrative entities such as domains.

In terms of the *ḥri wḏ3* from a chronological perspective, we note the first 5 seals that specifically refer to the *ḥri wḏ3* are dated to the reign of Den. In this period we note 2 different title variations,[242] which gives us information as to the hierarchy in place in the context of the Egyptian administration, as seen with the *ḥri wḏ3 ḫrpw*,[243] as well as the presence of this title in regards to the regulation of goods that were produced from domains, seen with the *ḥri wḏ3 ḥnḳt Ḥr sẖnti ḏw.*[244] Furthermore, as all of these seals can also be classified as royal, we can also infer something of a hierarchy of positions within the administration, as these particular officials would have potentially been answerable to the king.[245] The reigns of Qa'a and Anedjib provide us with an additional 6 seals,

[241] Kaplony (1963, vol III) See Appendix 5
[242] Kaplony (1963, vol. III) See Appendix 5
[243] Kaplony (1963, vol. III, figs. 276A, 276B & 277)
[244] Kaplony (1963, vol. III, fig. 306B) The reading of this particular group of symbols as 'beer' is somewhat problematic, as an argument can be made for the reading of this word to be *irp*, as these symbols bear some resemblance to the W21 hieroglyphs. In addition to this, the potential of reading of these signs as *irp* is enhanced by the presence of what appears to be a conical stopper on the tops of the vessels, which is synonymous with wine vessels, as see in McGovern (1997, p.7, fig. 3) However, this type of conical seal is also found on beer jars, as seen in EA 41576 found from Beni Hassan (http://www.britishmuseum.org/explore/highlights/highlight_objects/aes/m/model_showing_brewing,_baking.aspx , date accessed 5/10/2014.) Although this example dates from the Middle Kingdom, we also find that Kahl (2004, vol III, p.310) has a writing of *ḥnḳt* that bears some resemblance to the jars found upon the above-mentioned seal. Although it could be conceivable to use either translation, this research will continue to utilize the *ḥnḳ*t interpretation of these hieroglyphs.
[245] Papazian (2013, p. 46)

which contain 4 new title variants of the *ḥri wḏ3* title.[246] The reign of Qa'a, which possesses 3 seals, provides us with our first uncompounded variation of this title,[247] as well as new variant associated with a domain,and finally a variant that appears to relate to beer.[248] In contrast to this, the reign of Anedjib contains one title variation, which is attested across the three seals, that being the *ḥri wḏ3 Ḥr sb3 ḫt*.[249] The time period of two rulers, whilst not providing any substantial developments in the *ḥri wḏ3* in the context of the administration, do allow us to reinforce much of our information about this title, such as its position within domains, its position within a hierarchy of titles, and ultimately its association with various goods and products.

Moving into the Second Dynasty, we find that Kaplony attests 3 seals from this time period that contain a *ḥri wḏ3* title, one dating to the reign of Hetepsekhemwy,[250] one to Peribsen,[251] and one to Khasekhemwy, with 3 new title variants being present during this time period, one from each ruler, which relate to their respective domains.[252] These seals, much like the previous seals from the First Dynasty, reveal little to us in ways of the development of this title, but reinforce the notion of this title's association with the domains.

[246] Kaplony (1963, vol. III) See Appendix 5
[247] Kaplony (1963, vol. III, fig. 228)
[248] Kaplony (1963, vol. III, fig. 218)
[249] Kaplony (1963, vol. III, figs. 278, 300A & 300B)
[250] Kaplony (1963, vol. III, 307)
[251] Kaplony (1963, vol. III, fig. 286)
[252]Kaplony (1963, vol. III, fig. 303)

Conclusion:

In summation, we notice how a study of the titles that are present in the Early Dynastic period provides us information in relation to the administration of the time period, and how it was able to change and evolve. Aside from providing us with an indicator of the priorities that the administration had in relation to the administrating of land holdings, we also gain information on the roles that the employees of the administration would have undertaken. Furthermore, as well as indicating certain commodities that were regulated and controlled, we are able to see potential evolutions of the administration through the creation of more specified roles in order to improve bureaucratic efficiency. The earlier attestations of the two main titles considered in this study, the *ꜥḏ-mr* and the *ḫrp*, are all uncompounded, and whilst this does not necessarily indicate any difficulty in their tasks, the lack of any defined role also does not exclude this notion. However, we can assume an improvement within the efficiency within the administration with the implementation of the compounded titles. This development would have provided a more defined role for the workers of the administration, as well as distributing the workload among these employees, potentially making the administration more efficient.[253]

Seals as indicators of Administrative centres and departments:

[253] Hassan (2013, p.717; p.722)

Moving on from the information about the history and variations that are present in the seals, we shift our focus to the information that they can provide regarding the administrative structures and functions of Early Egypt. The first such area we will be examining is the administrative departments of Early Egypt. There would most likely have been many departments that functioned within the Egyptian administration, but for the purposes of this study, the only departments that will be considered are:

- Domains
- Estates
- The Treasury.

These particular centres and departments have been chosen as their depictions occur most frequently upon the seals, and as such we possess the most information in relation them.

Domains:

The domain is a significant piece of administration from this period, primarily due to its frequency of appearances upon sealing impressions. An examination reveals a total of 60 seals containing the name of 11 domains being attested during the Early Dynastic Period.[254] Domain names are often attributes of Horus, such as the domain "*Ḥr sẖnti ḏw*," and they are frequently depicted with what has been described as walled enclosures.[255]

[254] Kaplony (1963, vol. III) See Appendix 3

[255] Kaplony (1963, vol. III, fig. 215). The walled enclosure that denotes a domain differentiates it from the estates attested in this time period, as although they also use a walled enclosure, it's writing is noticeably different, and is widely interpreted as the hieroglyph O6, which translates to *ḥwt* 'estate.' Endesfelder (1991, p.28-29) puts forward that due to the shape of these walled enclosures, that they should be translated as being 'wn.t' or Fortresses. This is a logical step, as this walled enclosure bears some similarities to that of the walled enclosure found on the Narmer Palette seen in O'Connor (2011, p.145,

The finding of these domains upon royal seals suggests that these domains have a strong link to the king. Of the 60 seals that contain a domain name 32 of these, or 56.14%, are associated with the name of a king.[256] Furthermore, with these seals being found in a mortuary context, primarily associated with royal tombs and their subsidiary burials,[257] we can also assume that these domains would have been linked in some way to the mortuary culture of Early Egypt. This in turn reveals to us an element of the domain's position within the administration of Early Dynastic Egypt, as they would have been responsible for the regulation and controlling of goods to supply the royal family's mortuary cult, as well as providing goods to support the royal household. [258]

The information that we have from the seals is able to tell us much about domains in Egypt. The first example of this is that we are able to attest the existence of internal administrative structures of these domains. The seals indicate that there are 3 main titles associated with the domains, the *ꜥḏ-mr*, the *ḫrp* and the *ḥri-wḏ3*.[259] The *ꜥḏ-mr* has definite links to the domains, as we find 25 *ꜥḏ mr* titles refer to a domain during this time period, which equates to roughly 67.56% of the attestations.[260] A similar trend to this is also seen with the *ḫrp* title as 23 of titles refer to a domain, equating to a third of all *ḫrp* titles.[261] The title of *ḥri-wḏ3*, is also attested with domains during this time period, as 9 of

fig. 16.1) as well as those on the Libyan Palette, an image of which can be found in Dreyer (1998,,pl. 43a). However, both Kaplony (1963, vol I, p.104) and Kahl (1994, p.651) put forward that this sign, rather than being read as 'fortress, should be viewed as a determinative. Furthermore, there are 2 notable enclosures, the ovoid enclosure, which is frequently attested with the names of domains, and the square enclosure.

[256] Kaplony (1963, vol. III) see Appendix 3 Engel (2012, p.28-29)

[257]Kaplony (1963, vol. III) See Appendix 3

[258] Wilkinson (1999, p. 117)

[259] Wilkinson (1999, p.122;-123) A more in-depth analysis of the titles will be provided in the titles section of the thesis, however it is essential to provide this information now.

[260] Kaplony (1963, vol. III) see Appendix 3

[261] Kaplony (1963, vol. III, fig.) see Appendix 3

these titles, roughly 64.28%, are related to a domain.[262] The presence of these titles suggests that the running of such an administrative entity would have required multiple administrative positions

The presence of domains upon seals is also able to help us determine the various products that would have been associated with domains, and ultimately regulated by the administration. Wilkinson claims that the domains are to be seen as more general land holdings, whilst also mentioning that although not exclusively associated with them, the domains are often associated with vineyards, and they would have produced other goods.[263] An example of this is a *ḥri wḏ3* title found dating to the reign of Den, which suggests the production of beer at the domain *Ḥr sẖnti ḏw*, as an administrative position was created in order to oversee the production of this commodity.[264] Furthermore, the finding of the *ẖrp nbi* title upon several of these seals associated with domains could indicate their role in the process of the production and storage of produce such as grain or fruits.[265] The discovery of these seals in and their references to commodities, and the offices that were potentially in charge of them, reinforces the notion that the domains were places where food and grains were prepared and stored, for both the royal residence, and for the mortuary cult.[266] Furthermore, it also aids in the dispelling of the

[262] Kaplony (1963, vol. III, fig.) see Appendix 3Whilst these figures could be somewhat skewed due to the general paucity of evidence that exists from the Early Dynastic Period, the numbers, when taken on face value, suggest that the *ᶜḏ-mr* title is a relatively common position within the administration of the domains across the time period.
[263] Wilkinson (1999, p.119)
[264] Kaplony (1963, vol. III, fig.306A)
[265] Kaplony (1963, vol. III, figs 221A, 221B, 227, & 277,) This particular interpretation of the role of the *ẖrp nbi* is somewhat tenuous, as although the likelihood is that this position has agricultural connotations, as it established in the chapter "Titles found upon seals" the role of the nbi office is somewhat unknown, as scholars have varying interpretations of it.
[266] Kaplony (1963, vol I, p.12)

notion that domains were exclusively associated with the production of wine during this time period.[267]

Observing the domains from a chronological perspective also allows us to examine the changes that are occurring within the administration of the time. The reigns of Djer and Djet provide us with 6 seals that attest 2 domains, the *W3ḏ Ḥr*, and the *Ḥr sḫnti ḏw*, with 2 seal coming from the reign of Djer, and the remaining 4 coming from the reign of Djet. [268]As domains are first attested from the reign of Djer, the finding of two seals that relate to domains from this time could be indicative of the smaller level of significance that they held within the administration at this time, although this could be the result of lack of evidence surviving. Furthermore, as the seals associated with Djer are not found in relation to a royal name,[269] we can also assume that during this particular time period, there would have been significantly less central control over these domains, as it is implied that the king was not directly associated with their administrative practices.[270] Of the four seals found during the reign of Djet, the finding of the royal name upon 2 of these seals could suggest that this period brings about more centralized control over the domains by the administration.[271]

[267] Wilkinson (1999, p.119) This particular notion has come from the evidence coming from the domain of Djoser, which is primarily associated with wine. However, as this is from a later period we must be wary of its application.
[268] Kaplony (1963, vol III, figs.22, 84, 99A, 99B, 176 & 189) The two seals from the reign of Djer (figs 22 & 126) attest the *Ḥr sḫnti ḏw* domain, where the seals from the reign of Djet attest both the *Ḥr sḫnti ḏw* domain (fig. 185) and the *W3ḏ Ḥr* domain (figs. 84, 99A, & 99B)
[269] Kaplony (1963, vol III, figs. 22 & 126)
[270] Although the link between royalty and domains is established, the royal seal is suggested by Müller (2012, p.22) to indicate the king's control over the administration, and this would have reinforced the role of the king as the 'prime administrator' of the time as indicated by Papazian (2013, p.46)
[271] Kaplony (1963, vol. III, fig 84, fig.126); Papazian (2013, p.46) We can see an analogous example of agrarian domains being under royal control from the New Kingdom, as Haring (2011, p. 630) outlines that they would have been regulated by administrators from the royal court, as well as those from their temples.

The reign of Den offers us the largest quantity of domain seals, as during his undetermined length of reign,[272] there are 33 attestations of domains upon seals, with 4 different domains in existence.[273] The high quantity of these particular seals could be indicative of various changes and reforms that are occurring within the administration during this time period.[274] An increased number could be indicative of the growing administration, as we definitively have one new domain being attested in this time,[275] as well as a new title, the *ḫri-wḏ3*, which is seen on two seals that are associated with domains.[276] This could indicate that the domains were becoming larger entities and therefore more were required in order to meet the demands of the population, as well as their internal administration requiring more personnel in new administrative roles to fulfill different roles. The reign of Den also offers us development in terms of the domains and their presence upon seals, as during this reign we see the first attestations of the titles associated with domains, namely the *ḫrp* and the *ꜥḏ-mr*.[277] This allows us insight into the internal administration of this particular administrative entity.

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[272] The length of Den's reign, and as a more general comment the reigns of all the rulers from the Early Dynastic Period, is somewhat ambiguous due to the fragmentary nature of records from this time period. The Palermo stone found in Wilkinson (2001, p. 103-119) provides us with few recordings of years in the reign of Den, and without a defined starting date, we cannot determine the length of his reign. The Ancient Historian Manetho (1940, p.31) provides dates for the 1st Dynasty kings, however as he is writing substantially later than this period, his facts may be unreliable, especially as he labels the First Dynasty kings as divine. Furthermore, the dates he provides are at times hyperbolic.

[273] Kapony (1963 vol. III, figs. 87, 89, 203A, 199) the domain names attested during the reign of Den are the *W3ḏ Ḥr*, *Ḥr tpy ḫt*, *Ḥr sḫnti ḏw,* and *Ḥr tpy-t-w.* These are single examples of seals of these domains from the reign of Den. For a comprehensive list, see appendix

[274] Müller (2012, p.30)

[275] Kaplony (1963, vol. III,) See Appendix 3. The new domain attested in reign of den is the *Ḥr tpy ḫt*. There is also the potential for the existence of a new domain, as Wilkinson (1999, p. 119, fig. 4.1.3) argues that this particular domain name should be read as *tpi-t-w*. Kaplony (1963 vol II, p....) argues that this particular domain should be read as *Ḥr tpy ḫt*. This research, whilst not making definitive claims, adheres to the interpretation by Wilkinson. The existing domain names attested during the reign of Den are the *W3ḏ Ḥr* and the *Ḥr sḫnti ḏw*

[276] Kapony (1963, vol. III) See Appendix 3

[277] Kaplony (1963, vol. III, figs 203A & 215) It would be rather myopic to consider that these particular titles did not exist in the context of domains before the reign of of Den, as these titles are found on seals during the reign of Djerm as seen in Petire (1900, pl. 18.6) for the *ꜥḏ-mr* and Petrie (1901, pl.31.8) for the *ḫrp*. However, their presence on the seals from this time onwards could be indicative of the application of more control over the resources of the domain. However, when examining these particular reigns, and their smaller numbers of seals, we must remember that this could be the result of the poor preservation of evidence, a factor that has been established in relation to this time period.

Additionally, the increased percentage of domains upon royal seals could be indicative of the heightened levels of regulation and control being exerted by the administration. 17 of the 33 seals, which equates to 48.48% of the total number of the seals dating to the reign of Den that have domains on them, also have the serekh of Den upon them.[278] The trend could potentially indicate a heightened level of royal control over the goods being produced at this time, due to the nature of the royal seal.[279] Furthermore, the finding of domain seals with the name of Den upon jars that were associated with grains and fruits at the site of Abu Rawash also suggests an expanded role that the domains would have played in the administration,[280] that being the controlling of more commonplace commodities, rather than just luxury items and wine.

The final 2 rulers from the 1st Dynasty that have seals with domains upon them possess 9 seals, with Anedjib having 4, and Qa'a having 5 seals respectively.[281] Although there is no real evolution with domains in terms of determining the extent of the control of the administration, we find that in this period two new domains are attested, that being the *Ḥr sb3 ḥt*, which is found during the reign of Anedjib, and the *Ḥr nbw ḥt*, which is first seen in the reign of Qa'a.[282]

The Second Dynasty provides us with 7 attestations of domains upon seals, with Hetepsekhemwy possessing one seal, Peribsen having two seals attesting one domain,

[278] Kaplony (1963, vol III) See Appendix 3
[279] This application of the royal seal upon goods originating from a domain could be seen as a similar practice to that of the British monarchy's issuing of the Royal warrant of Appointment to businesses that have provided service to the royal family (http://www.royalwarrant.org/index.php, date accessed 26/9/2014).
[280] Montet (1938, p.18) However, one must be wary of this finding by Montet, as his conclusions and statements have at times been found to be less than credible (Yann Tristant, personal correspondance). However, if this particular statement rings true, then we must note a distinct shift in the practices and focus of the administration.
[281] Kaplony (1963, vol. III, figs. 205, 228, 256, 278, 279, 300A, 300B, 738 & 739)
[282] Kaplony (1963, vol. III, figs205 & 228)

and finally Khasekhemwy, the last king being examined in this time period, provides us with 4 seals, with 3 domains. Whilst there are no major developments that can be determined, the information provided on these seals in relation to the domains, in particular the seals from the reign of Peribsen, also gives us an insight into the process of the formation of the Egyptian state. It has been theorized that during the reign of Peribsen, there is a fracturing of the nascent state, which could have potentially resulted in civil war.[283] This fracture could be indicated through the naming of Peribsen's domain, *wi3w iti*, as this is name does not contain in it a reference to Horus.[284] Furthermore, Khasekhemwy attests domain with the name of Horus in it.[285] This highlights the significance of the seals and the information that they provide us on domains, as we potentially see here how the administration acts as an indicator of the ongoing process of state formation, and how it might not have been well received, which has resulted in a fracturing of the country.The reign of Khasekhemwy, which contributes 3 seals and provides us with the name of one new domain, the *Ḥr sb3 b3w*,[286] the presence of which indicates to us the expanding nature of the administration and as a result the need for more domains. However, this particular time period does not offer us any new developments in the functioning of the domains, or their role in the administration.

[283] Kaplony (1963, vol III, figs.281, 285, 286, 291, 297, 303 & 307)
[284] Kaplony (1963, vol III, figs 285, 286)
[285] Kaplony (1963, vol III, fig. 297) However, another seal found dating to the reign of Khasekhemwy (fig. 291) attests the domain of Peribsen, which would indicate that these entities continued to exist after their founder has died, regardless of their names.
[286] Kaplony (1963, vol III, fig. 303)

Estates:

Estates are a different type of administrative centre in relation to the domains, and certain scholars seem to believe that before the 6th Dynasty, the estates would have played something of secondary role in comparison to other agricultural centers.[287]The immediate difference seen between estates and domains is seen through the way they are written. The name of the estate is written within a rectangular enclosure, which is interpreted as the O6 hieroglyph, which is read as to *ḥwt* or 'estate.'[288] Furthermore, the estates differentiate themselves from their domain counterparts in their naming. Where the domains are typically named after a characteristic of Horus, many of the estates are named after a specific commodity that they were said to have produced there. This becomes evident when the names of these estates are examined, as several of them contain references to livestock.[289] Furthermore, another estate has the name *ḥwt snṯr nṯr.w*, which could indicate its potential involvement in the manufacture and distribution of incense.[290] We also find estates associated with the production of wine,[291] and, if we are to accept certain translations, metals and certain agricultural practices.[292] This particular trend in the naming of goods is advantageous to those studying the administration, as it gives us an insight into the types of goods that the administration would have had some form of control over during the Early Dynastic Period, as well as suggesting a level of specialization in the production of resources for the Egyptian economy. This specialization suggests to us the evolving nature of the administration, as

[287] Moreno Garcia (2011b, p.124) This interpretation should be viewed somewhat tentatively, as although the estates are found on fewer seals than the domains, this could be simply as a result of the lack of survival of evidence. There is no evidence to support the idea that estates were seen as lesser administrative departments

[288] Hannig (2009, p. 548)

[289] Kaplony (1963, vol III) See Appendix 4 2 of these estates have references to pigs in their name (figs. 110 &246), as well as another two containing the word '*iht*' or cattle (figs. 118 &210) .

[290] Kaplony (1963, vol III, fig. 749)

[291] Kaplony (1963, vol III figs. 179 & 236)

[292] Kaplony (1963, vol III figs.197, 249 & 251)

this particular division, whilst making more administrative centres arguably makes the administration more efficient, as it allows for more specified focus on commodities, rather than a smaller number of administrators focusing on multiple commodities and services.[293]

Aside from their names, the physical evidence associated with the seals can also potentially provide us with information about the goods that the particular estate would have potentially produced and controlled. A particular estate, the "*ḥwt pi Ḥr-msn.w*" was said to have been found associated with various small Palestinian origin jars, which were said to have been damaged inside, the result of decay caused by oils or other substances.[294] Aside from providing us with an additional commodity that the administration would have regulated and controlled, the finding of the Palestinian origins jars also suggests that one of the original functions of the administration was still in usage, that being the importation and subsequent regulation of luxury goods. Furthermore, this allows us to further evidence to claim the existence of an administration in Early Dynastic Egypt, as the existence of these Palestinian jars found with this particular estate's seal highlights its participation in foreign affairs.[295]

The estate seals, when dealt with chronologically, also provide us with examples of the evolution of the administration. Although the existence of depicting estate names upon

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[293] Moreno Garcia (2011b, p.124) This interpretation should be viewed somewhat tentatively, as although the estates are found on fewer seals than the domains, this could be simply as a result of the lack of survival of evidence. There is no evidence to support the idea that estates were seen as lesser administrative departments

[294] Kaplony (1963, vol. III, fig 229). This particular estate name is roughly translated to the "Estate of the seat of Horus, the harpooner." However Engel (2008, p.109) mentions that this particular interpretation of this name could vary, as there is no clear order in which to read the hieroglyphs

[295] NAICS 91: Public Administration

http://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVD&TVD=118464&CVD=118465&CPV=91&CST=01012012&CLV=1&MLV=5 (date accessed 5/6/2012)

seals can be potentially dated to beginning in the reign of Djet,[296] we find in the context of seals, the first definitive examples of estates are found during the reign of Meretneith and Den, where we find 8 seals with 10 estates names.[297] Of the seals that date to this period, we find that 4 of them contain explicit references to resources that the administration would have had control over such as livestock,[298] and wine.[299] Furthermore, if we accept an interpretation of a certain translation, we also have evidence of domains associated with either metal or stone.[300] Furthermore, another 2 of these estates have ambiguous names, which can be interpreted to be potentially associated with desert animals,[301] and agriculture.[302] The remaining 3 seals found during this period contain the names of estates that cannot be definitively translated.[303]

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[296] Emery (1954, p.118, fig.159) contains the name of an unidentifiable estate. However, as has been mentioned earlier, this particular tomb contains references to both Djet and Den, so it is somewhat difficult to argue this point based on this evidence.

[297] Kaplony (1963 vol III) See Appendix 4 The reign of Meretneith attests 5 seals with 6 estate names upon them, and with this period being suggested as a time of co-regency with Den, as suggested by the various archaeological evidence found in Dreyer (1986, p. 36, abb. 2-3) and Kaplony (1963, vol III, figs. 121, 177, 198, 199 & 200), we find an additional 3 seals containing 4 estate names.

[298] Kaplony (1963, vol. III, fig 110) However, Kaplony says in his translation that this particular estate would have been associated with a hippopotamus god. Given the similarity of this particular animal figure to that found in fig 364 of this work we could interpret this as a hippopotamus. However, scholars such as Helck (1975, p.763) and Wilkinson (1999, p. 120 fig.4.2.17 &18) interpret these animals as pigs. Furthermore, we notice that these animals bear resemblance to the representation of pigs found upon the southern end of the western wall of the tomb of Paheri at El Kab, both of these depictions share similar characteristics such as; elongated snouts pointed downwards and long thin legs,

[299] Although this particular writing of wine does not correspond to the W21 hieroglyph, we find this writing of *irp* in Kahl (2004, vol 1, p.49). The seal that attests the estates associate with wine has two separate estates upon it that refer to this commodity. The first of which, located on the upper left-hand side of the seal contains the T3 glyph, which translates to *ḥḏ*. The inclusion of this particular hieroglyph makes the translation of this particular estate somewhat problematic, as it could potentially be referring to a locality where wine is being produced, most likely in eviUpper Egypt. However, this translation could also be referring to the type of wine that is being produced, namely white wine. This translation would then be significant as a differentiation of wine production, and could potentially serve as the first ancient Egyptian reference to white wine, as the next definitive one comes from the second century AD, according to Murray (2000, p.580).

[300] Kaplony (1963, vol III, fig. 249) The reading of this particular estate name is somewhat problematic, as the phrase *gsw* has the meaning of 'stone' as well as 'metal.' Furthermore, as there is no determinative to aid in our translation, we must include both interpretations in our analysis.

[301] This translates to 'estate of the antelope'

[302] Kaplony (1963, vol III, fig. 197) The translation for this estate is 'Estate of the hoe," which could potentially be an allusion to agricultural practices. However, this translation is rather tentative.

[303] Two of these estates contain ambiguous hieroglyphs that cannot be translated properly. The third of these estates has been transliterated by Kaplony (1963, vol. II, p. 1116) as the *ḥwt smti gstyw*. However, no scholars are able to offer a translation of this term. However, a literal translation of this term 'the desert course' could indicate this estate being concerned with desert products, or potentially foreign commodities.

These particular seals provide us with evidence not only of the commodities that the administration would have had control over, but they also indicate to us the nature of the estates as administrative entities, as they would have focused primarily upon a single commodity, rather than the domains which are believed to be more general land holdings.[304] Furthermore the association of these estates, and ultimately the seals that are utilized, with specific commodities that were produced in Egypt indicates a shift in the administrative practice of sealing. As seals were originally a practice imported from Mesopotamia, the Predynastic seals found are often associated with imported goods such as wine or oil.[305] However, the finding of seals associated with entities charged with the overseeing of domestic products such as livestock, and agricultural practices indicates a shift in administrative priorities, from being the regulation of luxury goods to being responsible for the regulation and recording of the resources of Egypt. The reigns of Meretneith and Den also attest upon the seals for the first time the existence of internal administration within these estates, as a seal found in both Abydos and Saqqara dating to the reign of Meretneith possesses the title *ꜥḏ-mr ḥwt iḥt*.[306]

The reign of Anedjib brings us 5 seals that refer to 3 separate estates. One of these estates, the *ḥwt ꜥt gsw*,[307] highlights that these estates were continuously utilized during this period, and would not have been abandoned after the change in rulers.[308] Another estates, the *ḥwt š3 irp* is, much like a previous estate, associated with pigs, and potentially wine, indicating the size of these particular industries.[309] Furthermore, as

[304] Wilkinson (1999, p. 123)
[305] Müller (2012, p.18)
[306] Kaplony (1963, vol. III, fig. 118)
[307] Kaplony (1963, vol. III, fig. 251)
[308] We find that this particular estate was previously attested in the reign of Den, found in Kaplony (1963, vol III, fig. 249)
[309] Kaplony (1963, vol. III, fig 246) Whilst the reference to pigs is clear, the 3 jars found upon this estate name do not correspond to the previously found *irp* hieroglyph. However, Kahl (1994, p.807-809) indicates that this particular sign, with the code of w2, could be indicative of the writing of wine. Therefore, the finding of 3 of these signs together could be indicative of a plural writing of *irp*

pigs were domesticated in the Delta since Predynastic times,[310] we are able to potentially assign the location of these estates to the Delta. The next domain being dealt with, the *ḥwt pi Ḥr-msn.w* is found on 4 seals from Anedjib's tomb.[311] This particular estate is significant as it is attested beyond the reign of Anedjib, further suggesting that these estates did not cease to be used after a transition of rulers, as an example of it being found in the reign of Semerkhet, Ninetjer and Khasekhemwy.[312] Aside from this estate's association with oil,[313] the significance of this particular administrative entity is that it contains the titulary of the king. This particular inclusion is most likely not designed to be seen as an extension of the name, but could function in a similar fashion to the royal seal, in that it denotes the control that the king would have possessed over this administrative entity.[314] This highlights the position of the king as being the controlling force over the administration, as well as suggesting the centralized control that the king and the centralized government would have possessed over the administrative departments and entities, which would have aided in the efficiency of the administration as it would have provided greater clarity of roles.[315]

Semerkhet offers us three seals containing the names of 2 estates, which offer additional information into the estate as an administrative entity. The two estates, *ḥwt ipti* and *ḥwt iḥw nbw nsw bi.ty Mr-(p)-bi3,* both refer to royal entities, with the first estate potentially

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[310] We find in a French Private collection (http://www.lessingimages.com/viewimage.asp?i=080114+3+&cr=2&cl=1, date accessed 25/8/2014) an ivory figurine of a boar dating to the Naqada I period, which bears stylistic similarities to the pigs depicted upon these seals. Furthermore, Brewer, Redford & Redford (1994 p.93-95), and Manlius and Gautier (1999, p. 574-575) state that the domesticated pig was found in the north of Egypt during the Predynastic time. This is corroborated by Wetterstrom (1993, p.214; p.223) who lists Predynastic sites such as El-Omari, and the Naqada region possess pig bones, indicating their existence in Egypt during this time period.

[311] Kaplony (1963, vol. III, figs. 246, 250A, 250B &735)

[312] Kaplony (1963, vol. III) See Appendix 4

[313] Engel (2008, p. 113)

[314] Kaplony (1963, vol. III, fig 250A The inclusion of royal titulary into the name of the seal might be analogous to the Royal Warrant of Appointment, in which the seal of the Royal Family is displayed by businesses or people who have supplied goods to the Royal Family of the United Kingdom (http://www.royalwarrant.org/index.php, date accessed 26/9/2014)

[315] Hassan (2013, p.717 &722)

referring to the royal harem,[316] and the second possessing the titulary of the king in its name.[317] The reference to the harem suggests that although the administration's role has changed from the recording of luxury goods into administering the commodities of the Egypt there would still have been an emphasis on supporting the royal family. The Second Dynasty offers us 5 seals containing the names of 4 different estates.[318] Aside from providing us new information regarding the produce that the administration would have possessed control over,[319] as well as reinforcing the link between the king and these estates and the increasingly centralized nature of the administration,[320] the practices of the administration in relation to the estates seem to have remained the same as they were at the end of the First Dynasty.

Treasury:

The treasury is a significant element within the context of the Egyptian administration, as it symbolizes the existence of a more centralized administrative authority that would have been in charge of the regulation of the resources of Egypt, much like how a modern treasury is responsible for the managing of the government's resources.[321] Furthermore, the treasury potentially gives us insights into the state formation process, particularly with the changing of the name of the treasury. The existence of a treasury based on the evidence from the seals can only be attested to the reign of Den onwards,[322] however other mediums of evidence suggest methods of taxation existed before this time.

[316] Kaplony (1963, vol. III, fig.243)
[317] Kaplony (1963, vol. III, fig..236)
[318]Kaplony (1963, vol. III) See Appendix 4
[319] Kaplony (1963, vol. III, fig. 749) This particular seal suggests that incense was produced at this estate.
[320] Schmidt (1990, p.466) Although Schmidt does argue disadvantages to centralized government, he states that there are certain benefits, such as the higher officials still being in power
[321] However, it is rather difficult to suggest that this department would be a fully centralized entity, like its modern day counterparts, with what has been established in Moreno Garcia (2013a, p.3)
[322] Kaplony (1963, vol. III, fig 121)

Evidence found at various localities suggests that the practice of taxation in Egypt can be seen to be occurring well before the treasury was attested. The tags found in Tomb U-j, dating to the Naqada IIIC period provide information regarding various goods that would have been found in the tomb, such as linens, oils and various other prestige items.[323] The tags also provide us with various quantities that the goods were provided in, and in certain cases the names of certain towns and localities are provided, such as Bubastis.[324] Whilst this phenomenon can be attributed to the providing of tribute to a ruler, the presence of the names of other localities suggests that there was a system of regulating and providing goods across the nation of Egypt, potentially as a result of taxation. Furthermore, there appears to be the existence of a form of taxation in the Predynastic period, from the reign of Ka. Several inscriptions were discovered in both Tarkhan and Abydos with the serekh of King Ka upon them, and the subsequent writings on them reveal that there was a system of taxation in place with the phrase "products" being used in these inscriptions. Furthermore, the inscriptions suggest that both Upper and Lower Egypt were taxed in different methods, most likely as a result of there being distinct geographical differences between the two areas of Egypt.[325] Taxation formulae are also attested in the Early Dynastic period, specifically from the reign of Hor-Aha, with Tomb 3357 at Saqqara containing numerous examples of 4 varying formulae, which have been interpreted as meaning 'provisions.'[326]

[323] Dreyer (1998, p.113-141)
[324] Dreyer(1998, p.115; 125)
[325] Petrie (1902, p.3; pl.1-3); Petrie (1913, pl.31)
[326] Emery (1939, p.74-76; pl.14; 20-23)

However, despite this evidence for taxation, the first definitive attestations that we have for the treasury as its own entity comes definitively from the reign of Meretneith ad Den.[327] In terms of the treasury, it possesses a relatively small amount of seals for an administrative department, with 15 seals attested during the time period in question.[328] However, unlike the domains and estates, there are only two variations of names present that relate to the treasury, the *pr ḥḏ* and the *pr ḏsr*, meaning the white house and the red house respectively. Although previous evidence suggests that Predynastic Egypt was taxed in two separate methods,[329] there is no evidence to suggest that the *pr ḥḏ* and *pr ḏsr* existed as separate entities in the Early Dynastic period, which leads us to the notion that the treasury would have changed its name in order to correspond to its location.[330]

When the evidence is examined from a chronological sense, the seals from the First Dynasty relating to the treasury inform us as to the history of the treasury as an administrative entity, and how it potentially acts as an indicator of the state formation process. The First Dynasty attests 5 seals relating to the treasury, with both incarnations being present.[331] The reign of Meretneith and Den, which possess 3 of the 5 treasury seals from the First Dynasty, see the first attestations of the treasury as its first incarnation, the *pr ḥḏ*.[332] The presence of this particular entity during this time suggests attempts by the central government to control the taxation process through the creation

[327] Kaplony (1963, vol. III, figs. 106, 121 & 177) There are tags in tomb 3504 from Saqqara found in Emery (1954, p.106 figs. 115-120), which has attestations of the treasury, yet the only inscription with both a royal name and the writing of the treasury possesses the serekh of Qa'a (p.107, fig.123). However, as this particular tomb has numerous attestations of the names of Djet, and Den, whereas the Qa'a tag is the only attestation, which could indicate this particular tag was a post depositional inclusion. Furthermore, the finding of seals relating to the treasury in the tomb of Meretneith potentially indicates the founding of the treasury during her reign, however as there is the issue of co-regency, between Den and Meretneith, we shall persist with the notion that the Treasury was founded in the reign of Den.
[328] Kaplony (1963, vol III) See Appendix 5
[329] Petire (1902, p. 1.2; pl 3.30)
[330] Wilkinson (1999, p.127-128)
[331] Kaplony (1963, vol III) See Appendix 5
[332] Kaplony (1963, vol III) See Appendix 5

of a central taxation authority. This control from the central government, and ultimately the king, can potentially be seen through two of the *pr ḥḏ* seals also being classed as royal, suggesting that the king would have had control over this department, or would have installed people who were directly answerable to him.[333] Also, this time period also marks the first instance of a title associated with the treasury, the *ḫri-ꜥ pr ḥḏ*, being found at Abydos dating to the reign of Den.[334] The finding of such a title indicates, much like with the previous administrative departments, the existence of an internal administration in these administrative departments.

The final two examples of seals relating to the treasury from the First Dynasty come from the reign of Anedjib and Qa'a. In this period, aside from a new title being found in association with the treasury, the biggest change found is the change of the name of the Treasury from *pr ḥḏ* to *pr ḏsr*.[335] This particular change of name is not completely understood, as there is no suggestion of turmoil or social upheaval during this period, so the rationale behind this change of name could potentially be a shift in location of the government to Memphis, which is emphasized by the early 2nd Dynasty Kings tombs being located at Saqqara.[336]

The Second Dynasty possesses the majority of the evidence relating to the treasury, with 11 of the 15 seals relating to the treasury found in Kaplony.[337] The reign of Ninetjer, the first king of the Second Dynasty to possess a seal relating to the treasury, attests two seals, which continue the convention of the treasury being the *pr ḏsr*.[338] This could suggest that the treasury's location remained with the seat of government in Memphis,

[333] Papazian (2013, p.48)
[334] Kaplony (1963, vol III, fig. 106)
[335] Kaplony (1963, vol III, figs. 209 & 213)
[336] Wilkinson (1999, p. 128)
[337] Kaplony (1963, vol III) See Appendix 5
[338] Kaplony (1963, vol III, figs. 746 & 748)

which is suggested due to the location of the tombs of early Second Dynasty Kings such as Nebre, and Ninetjer who were buried at Saqqara,[339] rather than the kings of the First Dynasty who were buried at Abydos.[340] However, during the reigns of Peribsen and Sekhemib, we see a change in the name of the treasury, as it reverts back to the *pr ḥḏ*, as is seen on the 6 seals dating to these two reigns.[341] Whilst this change in the name of the treasury could be indicative of the reverting of the seat of government back to Abydos, upon examination of other evidence, it can be suggested that this particular change was indicative of a splintering of Egypt.[342] This allows us to see the evidence provided upon seals in relation to the administration as an indicator of the process of state formation, as we are able to note through the changes in certain administrative departments a potential schism in Egypt, with Lower Egypt possibly wishing to break away from its Upper Egyptian counterparts. As an administrative entity though, the reign of Sekhemib also gives us the first attestation of the *is ḏf3*,[343] a department of the treasury said to be in charge of the collection and redistribution of goods in Egypt, namely cereals. This suggests to us a level of specialization within the administration of the treasury, as there was a department in charge of the cereals of Egypt, well before the first attestation of granaries.

The reign of Khasekhemwy, the last king of the Second Dynasty, provides us with 3 examples of seals relating to the treasury. What becomes apparent is a reverting back to the *pr ḏsr* variant of the treasury name during the reign of Khasekhemwy. This factor,

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[339] Munro (1993, p. 95) Although, due to the Pyramid complex being built in this vicinity, we are unable to definitively determine where the tombs of these two kings are. However, as many seals possessing their names have been found in the pyramid complex, as documented by Masperso (19.., p…) we can be safe in assuming that this location would have possessed one Second Dynasty royal tomb

[340] Petrie (1900); Petrie (1901)

[341] Kaplony (1963, vol. III,) See Appendix 5

[342] Kahl (2007, p. 62)

[343] Kaplony (1963, vol. III, fig. 751) A seal with the full name of the *is ḏf3* is found in Petrie (1901, p.21 fig 165) however, the aforementioned seal found in Kaplony possesses both the name of the treasury and the *is ḏf3*

coupled with the inscriptional evidence found dating to this reign, suggests that the potential fracturing of Egypt was quelled, potentially due to a conflict.[344]

Conclusion:

In summation, we are able to see how a close study of the seals from the Early Dynastic Period aids in our study of the Early Egyptian administration, as it gives us a valuable insight into the administrative centres and departments that are in existence during this time. The seals that relate to the Domains, Estates and the Treasury have been able to provide us much information regarding the administration such as the commodities that are being controlled by the administration, the existence of internal administration in these departments, how they provide us with insights into the political climate of Egypt, and ultimately how they have evolved and grown over time.

[344] Kahl (2007, p. 62-63) We also note the existence of a statue of Khasekhemwy, found in Teeter (2011, p.224-225; fig. 81) that has reliefs carved into the base of the throne which depict fallen enemies, one with papyrus plants protruding from his head symbolizing the Northerners, as well as potentially providing a total of 47,209 enemies slain

Concluding Remarks

Deficiencies and Suggested Methods of Improvement

Although this work has attempted to be as comprehensive as possible in the context of the seals found during The Late Predynastic and Early Dynastic Period, we must note that this is ultimately a preliminary study in the wider area of the topic, and as a result, there a are certain deficiencies that are present within this research, due to the parameters of the research question as well as the nature of the research project. One such issue is that this work primarily focuses on the seals contained in Kaplony's *Inschriften*. Whilst this is not necessarily a flaw, as this particular source was written over 50 years ago it will not have taken into account the many subsequent archaeological discoveries. In terms of moving the research forward, it will be a goal to move past this research's dependence on Kaplony, and subsequently include seals that have been found in the past 50 years. The inclusion of this new data, found at sites such as Tell el-Farkha,[345] will benefit the research immensely as not only will it be now taking into account newer archaeological data and processes, it also will allow us to see the spread of the seals across Egypt. Although it was not an intention of Kaplony's work, the seals found in his study were primarily found in Saqqara and Abydos.

The research has intentionally excluded a close study of other mediums of primary evidence where administrative evidence is recorded such as ink inscriptions,[346] stele,[347]

[345] Kolodziejezyk (2012, p.267-276)
[346] Lacau and Lauer (1965, pl1.3)
[347] Emery (1938, p.64, fig24)

and monumental inscriptions.[348] In addition to this, there are certain non-textual markers that suggest administration that were not considered that will need to be incorporated such as archaeological evidence, and iconography. This evidence provides us with additional information upon the administration which would both supplement the data obtained from the seals, as well as providing for us new information that the seals do not provide such as prosopographical data, more in-depth understanding of the taxation process, and the extent of the record keeping aspects of the administration. It is the ultimate goal of this research to later incorporate this data in order to produce a more rounded view of the administration from this period.

The research can also be improved through the expansion of examination of the seals themselves. In terms of quantity, only 3 groups of title, as well as 3 administrative centres and departments were considered, in the interests of manageability. Whilst this does provide us with substantial information, it does not provide us with the complete picture. Titles such as the *imy-r* are not considered in this particular study, even though it does have a presence in the Early Dynastic Period,[349] and has a significant presence in later periods such as the Old Kingdom.[350] Furthermore, additional studies of administrative departments will not only benefit this research, but it will also aid in the changing of assumptions that scholars have in relation to administrative entities that were founded in the Early Dynastic Period. One such example of this relates to the Treasury, as well as its subsidiary departments. Although scholars concede that this administrative entity was a central component to later periods of Egyptian history, such as the Old Kingdom, there are still misconceptions about the treasury before this time,

[348] Ibrahim and Tallet (2012, p. 180)
[349] Kaplony (1963, vol II, p.1201-1203)
[350] Jones (2000, p.51-281) Whilst these are all *imy-r* titles, there will be certain title variations that are not necessarily associated with the administration. This particular reference has been included to highlight the presence that these titles have in later periods.

the most prominent being that the *pr ḥḏ* and *pr ḏsr* existed together, and potentially in a complimentary fashion.[351] A more in-depth analysis of the evidence pertaining to the treasury will hopefully reinforce the idea that the treasury in the Early Dynastic Period did not exist in two separate entities, but rather changed its name in order to correspond to the location of the seat of government.

Another method of improving this research is the implementation of more scientific analysis of the evidence. As has been seen with the seals found in tomb U-j, the application of Neutron Activation Analysis has allowed us to determine that the seals were made from Egyptian materials, although the analysis was unable to determine a definite location as to the provenance of the materials used to make the seal impression.[352] This technique could prove to be quite beneficial for the study of administration, as this would reinforce the notion that these seals were made from Egyptian materials, as well as potentially being able to pinpoint the location of the materials used to create these seals, which could suggest to us the existence of administrative outposts, as well as reinforce the existence of existing centres for the administration.

[351] Papazian (2012, p.71)
[352] McGovern (2007, p.407-408)

Conclusion

In summarizing this work, we find that the study of the administration is ultimately a study of the control that the government is able to exert onto its population, no matter the society or time period. Through an examination of the origins of the seal practice in Early Egypt, we are able to note when this practice had begun in Egypt,[353] as well as charting where the practice would have been adopted from and ultimately why it should be seen as an administrative undertaking and not simply a decorative pattern.[354] The study of the types of seals reveals to us some of the commodities that it was used for, as well as confirming that seals were created in Egypt.[355] Furthermore, the examining of various patterns of seals allows us to chart the development of the seals in relation to their role in the administration. Moving onto the administrative centres and departments, we are able to see through an examination of the evidence upon the seals when they are first attested upon the seals, as well as the various roles that these administrative entities would have undertaken, how their internal administration was structured, and finally how they would have reflected various changes occurring in the administration, and ultimately the political climate of Egypt.

Finally, an examination of the titles that are found upon the seals allows us to examine the frequency of their occurrences on the seals and how this changes over time, as well as examining the existence of a hierarchy of roles in the administration, and finally it allows us insight into the emphasis that the Egyptian administration would have placed on certain administrative entities, products, and regions. Ultimately, this research has allowed us insights into the administration, and how it undergoes a dynamic evolution

[353] Regulski (2010, p.35-36)
[354] Hill (2004, p.95)
[355] McGovern (2007, p.407-408)

during this time period. We also are able to note that although it would not likely have been the catalyst, the administration would have played something of a significant role in the state formation process, as we observe that it was an essential element in the consolidation and maintenance of the emerging Egyptian state.

Bibliography:

- Agut-Labordere, Damien "The Saite Period: The Emergence of a Mediterranean Power" in Moreno Garcia, Juan Carlos *eds. Ancient Egyptian Administration* (Leiden, 2013) pp.965-1029

- Andelkovic, Branislav "Parameters of Statehood in Predynastic Egypt" in Midant-Reynes, Beatrix and Tristant, Yann eds. *Egypt at its Origins 2: Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt", Toulouse (France) 5th-8th of September 2005*, (Leuven, 2008) pp. 1039-1057

- Ayrton E.R. and Loat, W.L.S. *Pre-Dynastic Cemetery at El Mahasna* (London, 1911)

- Baines, John and Malek, Jaromir *Atlas of Ancient Egypt* (Oxford, 1984)

- Baines, John and Yoffee, Norman "Order, Legitimacy and Wealth in Ancient Egypt and Mesopotamia" in Feinman, Gary, and Marcus, Joyce eds "*Archaic States"* (Santa Fe. 1998)

- Case, Humphrey and Payne Joan "Tomb 100: The Decorated Tomb at Hierakonpolis" *The Journal of Egyptian Archaeology VOl 48* (1962) pp. 5-18

- Collon, Dominique *First Impressions, Cylinder Seals in the Ancient Near East*. (London, 1987)

- Conze, Werner and Wright, Charles A. "Social History" *Journal of Social History,* Vol 1, No.1 (1967) pp.7-16

- Cialowicz, Kryzysztof *La naìssance d'un royaume: L'Egypte dès la periode predynastique à la fin de la 1ère dynastie* (Krakow, 2001)

- Dodson, Aiden "The Mysterious 2nd Dynasty in *KMT* (2000, p. 19-20).

- Dreyer, Gunter "Ein Siegel der frühzeitlichen Königsnerkopole von Abydos" *Mitteilungen des Deutschen Archäologischen Instits Abteilung Kairo* Band 43 (1987) pp. 33-43

- Dreyer, Günter, *Umm el-Qaab I, Das prädynastische Königsgrab U-j und seine frühen Schriftzeugnisse*, AV 86 (Mainz, 1998)

- Emery, Walter *Hor-Aha: Excavations at Saqqara 1937-1938* (Cairo, 1939)

- Emery, Walter *Excavations at Sakkara: Great Tombs of the First Dynasty vol I* (1949)

- Emery, Walter *Excavations at Sakkara: Great Tombs of the First Dynasty vol II* (London, 1954)

- Endesfelder, Erika, *Probleme Der Frühen Gesellschaftsentwicklung im Alen Ägypten* (Berlin, 1991)

- Engel, Eva-Maria "Das *ḥwt pi-ḥr.w msn.w* in der ägyptischen Frühzeit" in Engel, Eva-Maria, Müller, Vera and Hartung, Ulrich eds. *Zeichen aus dem Sand: Streiflichter aus Ägyptens Geschichte zu Ehren von Günter Dreyer* (Wiesbaden, 2008)

- Engel, Eva-Maria "The Organisation of a Nascent State: Egypt until the beginning of the 4th Dynasty" in Moreno Garcia, Juan Carlos *eds. Ancient Egyptian Administration* (Leiden, 2013) pp.19-41

- Görsdorf, Jochen Dreyer, Günter and Hartung, Ulrich "New ^{14}C dating of the

Archaic Royal Necropolis Umm El Qa'ab at Abydos (Egypt)" in Mook, W.G. and van der Plicht, J eds. *Proceedings of the 16th International* ^{14}C *Conference, Radiocarbon Vol. 40, No. 2* (1998) pp. 641-647

- Grajetzki, Wolfram *Court Officials of the Egyptian Middle Kingdom* (Bristol, 2009)

- Hannig, Rainer *Die Sprache der Pharaonen: Großes Handwörterbuch Ägyptisch–Deutsch (2800 bis 950 v. Chr.)*, (Mainz, 2009)

- Haring, Ben "The Rising Power of the House of Amun in the New Kingdom" in Moreno Garcia, Juan Carlos *eds. Ancient Egyptian Administration* (Leiden, 2013) pp.607-639

- Hartung, Ulrich "Zur Entwicklung des Handels und zum Beginn wirtschaftlicher Administration im prädynastichen Ägypten" *Studien zur Altägyptischen Kultur, bd 26* (1998) pp.33-50

- Hassan, Shahidul "The Importance of Role Clarification in Workgroups: Effects on Perceived Role Clarity, Work Satisfaction, and Turnover rates" *Public Administration Review, Vol. 73, No.5* (2013) pp. 716-725

- Helck, Wolfgang 'Die Datierung der Gefäßaufschriften der Djoserpyramide', *ZÄS* 106 (1979) pp. 120–32

- Hendrickx, Stan "Bovines in Egyptian Predynastic and Early Dynastic iconography" in Hassan, F.A. eds. *Dorughts, Food and Culture. Ecological Change and Food Security in Africa's Later Prehistory* (New York, 2002)

- Hendrickx, Stan "Predynastic-Early Dynastic Chronology" in Hornung, Erik, Kraus, Rolf and Warburton, David *Ancient Egyptian Chronology* (Leiden, 2006)

- Hill, Jane *Cylinder Seal Glyptic in Predynastic Egypt and Neighboring Regions* (Oxford, 2004)

- Ibrahim, Moustafa Resk and Tallet, Pierre "King Den In South-Sinai: The Earliest Monumental Rock Inscriptions of the Pharaonic Period" *Archéo-Nil 22* (2012) pp. 179-184

- Jiminez Serrano, Alejandro "The origin of the state and the unification: two different concepts in the same context" in Midant- Reynes, Beatrix and Tristant, Yann eds. *Egypt at its Origins 2: Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt", Toulouse (France) 5th-8th of September 2005*, (Leuven, 2008) pp. 1119-1139

- Jones, Dilwyn *An index of Ancient Egyptian titles, epithes, and phrases of the Old Kingdom vol I* (Oxford, 2000)

- Jones, Dilwyn *An index of Ancient Egyptian titles, epithes, and phrases of the Old Kingdom vol II* (Oxford, 2000)

- Kaelble, Hartmut "Social History in Europe" *Journal of Social History, Vol 37, No. 1* (2003) pp. 29-35

- Kahl, Jochem, *Das System der ägyptischen Hieroglyphenschrift in der 0.-3. Dynastie* (Wiesbaden, 1994)

- Kahl Jochem, *Frühagyptisches Worterbuch: Erste Lieferung 3-f* (Weisbaden, 2004)

- Kahl, Jochem, *Frühagyptisches Worterbuch: Driette Lieferung ḥ-ẖ* (Wiesbaden, 2004)

- Kahl, Jochem, *Ra is My Lord: Searching for the Rise of the Sun God at the Dawn of Egyptian History* (Wiesbaden, 2007)

- Kanawati, Naguib *Governmental Reforms in Old Kingdom Egypt* (Sydney, 1980)

- Kanawati, Naguib, *Egyptian Administration in the Old Kingdom: Evidence on its Economic Decline,* (Sydney, 1977)

- Kantor, Helene "Further Evidence for Early Mesopotamian Relations with Egypt" *Journal of Near Eastern Studies, Vol. 11, No. 4* (1952) pp.239-250

- Kaplony, Peter *Die Inschriften der Ägyptischen Frühzeit I.Band* (Wiesbaden, 1963)

- Kaplony, Peter *Die Inschriften der Ägyptischen Frühzeit II.Band* (Wiesbaden, 1963)

- Kaplony, Peter *Die Inschriften der Ägyptischen Frühzeit III.Band* (Wiesbaden, 1963)

- Kolodziejezyk, P "Tokens and Seals" in Chłodnicki, K, Ciałowicz, K and Mączynska eds. *Tell El-Farkha I: Excavations 1998-2011* (Krakow, 2012)

- Kemp, Barry, *Ancient Egypt: Anatomy of a Civilization* (New York, 2007)

- Lacau, P and Lauer, J.P. *La Pyramide a Degres IV. Inscriptionsgravees sur les Vases* (Cairo, 1965)

- Lessing Images , date not provided, http://www.lessingimages.com/viewimage.asp?i=080114+3+&cr=2&cl=1, date accessed: 25/8/2014

- Manetho, *Aegyptica,* translated by W.G. Waddell (London, 1940)

- Manlius, Nicolas and Gautier, Achilles "Le sanglier en Égypte" *Life Sciences Vol. 322* (1999) pp. 573-577

- Maspero, M. G "Note sur les Objets Recueillis sous la Pyramid D'Ounas" *ASAE Vol. 3* (1902) pp.185-190

- Martin-Pardey, Eva *Untersuchungen zur ägyptischen Provinzialverwaltung bis zum Ende des Alten Reiches*, (Hildesheim: Gerstenberg, 1976)

- McGovern, Patrick Hartung, Ulrich Badler, Virginia Glusker, Donald and Exner, Lawrence "The Beginnings of Winemacking and Viniculture in the Ancient Near East and Egypt" *Expedition, Vol 39, No 1* (1997) pp.3-21

- McGovern, Patrick "The Origins of the Tomb U-j Syro-Palestinian Type Jars as determined by Neutron Activation Analysis" in Hartung, Ulrich eds. *Umm el-Qaab II: Importkeramik aus dem Friedhof U in Abydos (Umm el Qaab) und die Beziehungen Ägyptens zu Vorderasien im 4. Jahrtausent v. Chr* (Mainz, 2001) pp.407-416

- Miranda, Rowan and Lerner, Allan "Bureacracy, Organizational redundancy, and the Privatization of Public Services" *Public Administration Review Vol. 55, No. 2* (1995) pp.193-200

- Montet, Pierre *Tombeaux De La Ire et de la IVe Dynasties a Abou-Roach* (Paris, 1938)

- Moreno Garcia, Juan Carlos, "The Study of Ancient Egyptian Administration" in Moreno Garcia, Juan Carlos *eds. Ancient Egyptian Administration* (Leiden, 2013) pp.1-19

- Moreno Garcia, Juan Carlos (2013) "The Territorial Administration of the Kingdom in the 3rd Millenium" in Moreno Garcia, Juan Carlos *eds. Ancient Egyptian Administration* (Leiden, 2013) pp.85-153

- Müller, Vera "Do Seal Impressions prove a change in the Administration during the reign of King Den?" in Regulski, I; Duistermaat, K; Verkinderen, P eds. *Seals and Sealing Practices in the Ancient Near East,* (Leuven, 2012)

- Murray, A. M., "Viticulture and wine production" [in] Nicholson, P., and Shaw, I., (eds.) *Ancient Egyptian Materials and Technology*, (Cambridge, 2000) p. 577-599.

- NAICS 91: Public Administration, date not provided,

http://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVD&TVD=118464&CVD=118465&CPV=91&CST=01012012&CLV=1&MLV=5 (date accessed 5/6/2012)

- O'Brien, Alexandra A. and O'Brien, Alexandra "The Serekh as an Aspect of the Iconography of Early Kingship" *Journal of the American Research Center in Egypt, Vol. 33* (1996) pp.123-138

- O'Connor, David "The Narmer Palette: A New Interpretation" in Teeter, Emily eds. *Before the Pyramids: The Origins of Egyptian Civilisation*, (Chicago 2011) pp.145-153

- Papazian, Hratch "The Central Administration of the Resources in the Old Kingdom: Departments, Treasuries, Granaries and Work Centers" in Moreno Garcia, Juan Carlos *eds. Ancient Egyptian Administration* (Leiden, 2013) pp.41-85

- Parker Pearson, Michael *The Archaeology of Death and Burial* (London, 1999)

- Petrie, William Flinders, *Royal Tombs of the First Dynasty vol I* (London 1900)

- Petrie, William Flinders, *Royal Tombs of the First Dynasty vol II* (London 1902)

- Petrie, William Flinders *Tarkhan I and Memphis IV* (London, 1913)

- Podzorski, Patricia "Predynastic Seals of Known Provinence in the R. H. Lowie Museum of Anthropology" *Journal of Near Eastern Studies Vol 47, No. 4* (1988) pp.259-268

- Porada, Edith "Why Cylinder Seals? Engraved Cylindrical Seal Stones of the Ancient Near East, Fourth toFirst Millennium B.C." *The Art Bulletin Vol 75, No. 4* (1993) pp.563-582

- Royal Warrant Holders Association, date not provided, http://www.royalwarrant.org/index.php, date accessed: 26/9/2014

- Brewer, Douglas, Redford, Donald and Redford, Susan *Domestic Plants and Animasl: The Egyptian Origins* (Warminster, 1994)

- Regulski, Ilona "The Origin of Writing in relation to the Emergence of the Egyptian State" in Midant- Reynes, Beatrix and Tristant, Yann eds. *Egypt at its Origins 2: Proceedings of the International Conference "Origin of the State. Predynastic and Early Dynastic Egypt", Toulouse (France) 5th-8th of September 2005*, (Leuven, 2008) pp. 985-1011

- Regulski, Ilona *A Paleographic Study of Early Writing in Egypt* (Leuven, 2010)

- Saad, Zaaki *Royal excavations at Saqqara and Helwan, 1941-1945* (Cairo, 1947)

- Saad, Zaaki *Royal excavations at Helwan* (Cairo, 1951

- Spalinger, Anthony "The Organization of the Pharaonic Army (Old to New Kingdom)" in Moreno Garcia, Juan Carlos *eds. Ancient Egyptian Administration* (Leiden, 2013) pp.393-479

- Swartz "Processual and Structural Approaches in Political Anthropology: A Commentary" *Canadian Journal of African Studies Vol. 3 No.1* (1969) pp.53-59

- Teeter, Emily eds. *Before the Pyramids: The Origins of Egyptian Civilisation*, (Chicago 2011)

- UNESC, date not provided, (http://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVD&TVD=118464&CVD=118466&CPV=911&CST=01012012&CLV=2&MLV=5, date accessed 5/6/2014)

- Vymazalova, Hana "The administration of the Royal Funerary Complexes" in Moreno Garcia, Juan Carlos *eds. Ancient Egyptian Administration* (Leiden, 2013) pp. 177-197

- Wetterstrom, W "Foraging and Farming in Egypt: The transition from hunting and gathering to horticulture in the Nile valley" in Shaw, Thurston; Sinclair, Paul; Andah, Basey and Okpoko, Alex eds *The archaeology of Africa: Food Metals and Towns* (New York, 1993)

- Wilkinson, Toby *Early Dynastic Egypt* (London, 1999)

- Wilkinson, Toby, *Royal Annals of Ancient Egypt: The Palermo Stone and its related Fragments* (London, 2001)

Appendix

Appendix 1: Animal Seals

Animals present upon seal	Possible hieroglyph transliteration and translation of animals (where applicable)	Date	Location	Bibliographical reference
Canids, Birds	Inapplicable	Possibly Naqada II	Abydos	IÄF III fig. 1
Canids	Inapplicable	Unclear (Naqada II onwards)	Hierakonpolis	IÄF III fig. 4
Birds	Inapplicable	Unclear (Naqada II onwards)	Hierakonpolis	IÄF III fig. 6
Lion	*šnᶜ* (although this translation is tenuous)	Naqada IID	El Mahasna	IÄF III fig. 8
Birds	Inapplicable	Unclear (Naqada II onwards)	Naqada (Large Naqada Tomb)	IÄF III fig. 14
Birds	Inapplicable	Unclear (Naqada II onwards)	Naqada (Large Naqada Tomb)	IÄF III fig. 15
Birds	Inapplicable	Reign of Djer (Dynasty 1)	Abydos (Cemetery B, subsidiary burial associated with tomb of Djer)	IÄF III fig. 17
Crocodiles	Theorized to mean Crocodopolis, although unlikely	Reign of Narmer (Dynasty 1)	Tarkhan (tomb 414)	IÄF III fig. 18
Birds, Canid, (Calf?), Antelope or Ibex	Inapplicable	Naqada III-Dynasty 1	Abydos (Cemetery B)	IÄF III fig. 53
Birds, various quadrupeds	Inapplicable	Naqada III-Dynasty 1	Abydos (Cemetery B)	IÄF III fig. 54
Rams	Inapplicable	Naqada III-Dynasty 1	Abydos (Cemetery B)	IÄF III fig. 55
Birds, Lions, Ibex	Inapplicable	Naqada III-Dynasty 1	Abydos (Cemetery B); Saqqara (tomb 3357)	IÄF III fig. 56
Lions, Canids, Lizard,	Inapplicable		Naqada (Large Naqada	IÄF III fig. 57

›ird			Tomb)	
3irds, Ibex	Inapplicable	Reign of Hor-Aha (Dynasty 1)	Abydos (Tomb of Hor-Aha)	IÄF III fig. 58
bex, (Cheetah?), birds	Inapplicable	Reign of Hor-Aha (Dynasty 1)	Abydos (Tomb of Hor-Aha)	IÄF III fig. 59
Jnknown quadruped	Inapplicable	Reign of Hor-Aha (Dynasty 1)	Abydos (Tomb of Hor-Aha)	IÄF III fig. 60
bex, birds, canid possibly a jackal)	Inapplicable	Naqada III-Dynasty 1	Abydos (Cemetery B)	IÄF III fig. 61
bex, Lions, Birds	Inapplicable	Naqada III-Dynasty 1	Abydos (Cemetery B)	IÄF III fig. 62
3irds	Inapplicable	Unclear (Naqada II onwards)	Naqada (Large Naqada Tomb)	IÄF III fig. 63
'arious birds possible Horus alcon)	*Ḥr* (dependent on whether particular bird is a Horus falcon)	Unclear (Naqada II onwards)	Naqada (Large Naqada Tomb)	IÄF III fig. 64
3ird	Inapplicable	Unclear (Naqada II onwards)	Naqada (Large Naqada Tomb)	IÄF III fig. 65
3irds, Ibex	Inapplicable	Unclear (Naqada II onwards)	Naqada (Large Naqada Tomb)	IÄF III fig. 66
Jnknown quadruped	Inapplicable	Naqada III-Dynasty 1	Abydos (Cemetery B)	IÄF III fig. 67
,izard, Jackal	Inapplicable	Naqada III-Dynasty 1	Abydos (Cemetery B)	IÄF III fig. 68
Jnknown animal possibly bird)	Inapplicable	Naqada III-Dynasty 1	Abydos (Cemetery B)	IÄF III fig. 69
3irds, Ibex	Inapplicable	Unclear (Naqada II onwards)	No Provenance	IÄF III fig. 70
bex, Jackals, unknown quadrupeds	Inapplicable	Potentially Naqada II	Abusir el-Meleq	IÄF III fig. 71
3irds, Ibex, Lion	Inapplicable	Reign of Djer (Dynasty 1)	Oxyrhynchus (tomb 2,2)	IÄF III fig. 142
,ions, Birds, Crocodiles	Inapplicable	Reign of Hor-Aha (Dynasty 1)	Abydos (Tomb of Hor-Aha)	IÄF III fig. 145

Lions, Birds	Inapplicable	Reign of Hor-Aha (Dynasty 1)	Abydos (Tomb of Hor-Aha)	IÄF III fig. 146
Lions	Inapplicable	Reign of Djer (Dynasty 1)	Saqqara (Tomb 3503, 6)	IÄF III fig. 162
Ibex, birds	Inapplicable	Naqada IIID	Abydos (Tomb U-j)	Hartung 1998, fig 72A
Ibex, Birds, Snakes	Inapplicable	Naqada IIID	Abydos (Tomb U-j)	Hartung 1998, fig 72B
Ibex, Birds, Lizards	Inapplicable	Naqada IIID	Abydos (Tomb U-j)	Hartung 1998, fig 72C

Appendix 2: Royal Seals

Name of King upon Seal Transliteration	Name of King upon seal Translation	Other administrative features upon seal (e.g. titles, departments etc)	Location	Figure number in IÄF III
Iry-Ḥr	Iry-Hor	None	Abydos (Cemetery B)	Fig. 13
Ḏt	Djet	None	Saqqara (3504, 7)	Fig. 16
Nᶜr-mr	Narmer	None	Tarkhan (Tomb 2,2)	Fig. 25
Nᶜr-mr	Narmer	None	Abydos (Cemetery B)	Fig. 26A
Nᶜr-mr	Narmer	None	Abydos (Cemetery B)	Fig. 26B (UC 1, UC2, AVFI 458)
Ḥr-ᶜḥ3	Hor-Aha	None	Saqqara (Tomb 3357)	Fig. 27A
Ḥr-ᶜḥ3	Hor-Aha	None	Abydos (Cemetery B)	Fig. 27B
Ḥr-ᶜḥ3	Hor-Aha	None	Saqqara (Tomb 3357)	Fig. 27C
Ḥr-ᶜḥ3	Hor-Aha	None	Abydos (Cemetery B) Saqqara (Tomb 3357)	Fig. 27D
Ḥr-ᶜḥ3	Hor-Aha	None	Naqada (Large Naqada Tomb)	Fig. 27E
Ḥr-ᶜḥ3	Hor-Aha	None	Abydos (Cemetery B)	Fig. 27F
Ḥr-ᶜḥ3	Hor-Aha	None	Abydos (Cemetery B)	Fig. 27G
Ḥr-ᶜḥ3	Hor-Aha	None	Saqqara (Tomb 3357); Naqada (Large Naqada Tomb)	Fig. 27H
Ḥr-ᶜḥ3	Hor-Aha	None	Abydos (Cemetery B)	Fig. 28
Ḏr	Djer	None	Abydos (Cemetery B, subsidiary burial associated with tomb of Djer)	Fig. 29A
Ḏr	Djer	None	Saqqara (Tomb 3503, 1)	Fig. 29B
Ḏr	Djer	None	Saqqara (Tomb 3506, 1)	Fig. 29C

[illegible]	Djer	None	Abydos (Cemetery B, subsidiary burial associated with tomb of Djer)	Fig. 29D
[illegible]	Djer	None	Abydos (Cemetery B, subsidiary burial associated with tomb of Djer)	Fig. 29E
[illegible]	Djer	None	Saqqara (Tomb 3503, 3)	Fig. 29F
[illegible]	Djer	None	Saqqara (Tomb 2185)	Fig. 29G
[illegible]	Djer	None	Saqqara (Tomb 2185)	Fig. 29H
[illegible]	Djer	None	Helwan	Fig. 29I
[illegible]	Djer	None	Abydos (Cemetery B, subsidiary burial associated with tomb of Djer)	Fig. 30A
[illegible]	Djer	None	Abydos (Cemetery B, subsidiary burial associated with tomb of Djer)	Fig. 30B
[illegible]	Djer	None	Abydos (Cemetery B, subsidiary burial associated with tomb of Djer)	Fig. 31
[illegible]	Djet	None	Saqqara (Tomb 3504, 4)	Fig. 32A
[illegible]	Djet	None	Saqqara (Tomb 3504, 3)	Fig. 32B
[illegible]	Djet	None	Abydos (Cemetery B, subsidiary burial associated with tomb of Djer); Saqqara (Tomb 3504)	Fig. 32C

Ḏt	Djet	None	Saqqara (Tomb 3504, 5)	Fig. 32D
Ḏt	Djet	None	Saqqara (Tomb 3504, 6)	Fig. 32E
Ḏt	Djet	None	Saqqara (Tomb 3504, 1)	Fig. 32F
Ḏt	Djet	None	Abydos (Cemetery B, subsidiary burial associated with tomb of Djer)	Fig. 32G
Ḏt	Djet	None	Abydos (Cemetery B, subsidiary burial associated with tomb of Djer)	Fig. 32H
Ḏn	Den	None	Saqqara (Tomb 3504, 19)	Fig. 33A
Dn	Den	None	Saqqara (Tomb 3504, 20)	Fig. 33B
Dn	Den	None	Saqqara (Tomb 3506, 3)	Fig. 33C
Nᶜr-mr	Narmer	None	Tarkhan (Tomb 2,3)	Fig. 34
Nᶜr-mr	Narmer	None	Tarkhan (Tomb 2, 1)	Fig. 35A
Nᶜr-mr	Narmer	None	Tarkhan (Tomb 2, 1)	Fig. 35B
Ḥr-ᶜḥ3	Hor-Aha	None	Saqqara (Tomb 3357)	Fig. 36
Ḥr-ᶜḥ3	Hor-Aha	None	Abydos (Cemetery B)	Fig. 78A
Ḥr-ᶜḥ3	Hor-Aha	None	Saqqara (Tomb 3357)	Fig. 78B
Ḥr-ᶜḥ3	Hor-Aha	None	Abydos (Cemetery B); Naqada (Large Naqada Tomb)	Fig. 78C
Ḥr-ᶜḥ3	Hor-Aha	None	Abydos (Cemetery B)	Fig. 78D
Ḥr-ᶜḥ3	Hor-Aha	None	Naqada (Large Naqada Tomb)	Fig. 79
Ḥr-ᶜḥ3	Hor-Aha	None	Saqqara (Tomb 3357)	Fig. 80
Ḏt	Djet	None	Abydos (Cemetery B, subsidiary burial associated with tomb of Djet)	Fig. 81

[illegible]	Den	None	Abydos (Tomb of Meretneith)	Fig. 82
[illegible]	Den	None	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Fig. 83
[illegible]	Djet	Domain name *W3ḏ-Ḥr*	Abydos (Cemetery B, subsidiary burial associated with tomb of Djet)	Fig. 84
[illegible]	Djet	Possible *pr-ꜥnḫ*	Abydos (Cemetery B, subsidiary burial associated with tomb of Djet)	Fig. 85
[illegible]	Den	Title *ḫrp Nḫn*	Saqqara (Tomb 304, 22)	Fig. 86
[illegible]	Den	Domain name *W3ḏ-Ḥr*	Saqqara (Tomb 3504, 21)	Fig. 87
[illegible]	Den	Title *ḫrp nbi*	Saqqara (Tomb 3504, 23)	Fig. 88
[illegible]	Den	Title *ḫrp Ḥr tpy ḫt*	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Fig. 89A
[illegible]	Den	Title *ḫrp Nḫn*	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Fig. 90A
[illegible]	Den	Title *ḫrp Nḫn*	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Fig. 90B
[illegible]	Den	Title *ḫrp Ḥr tpy ḫt*	Saqqara (Tomb 3506, 4)	Fig. 91A

Dn	Den	Title *ḫrp Ḥr tpy ḫt*	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Fig.91B
Dn	Den	Title *ḫrp nbi*	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Fig. 92
Dn	Den	Domain name *Ḥr tpy ḫt*	Abydos (Tomb of Meretneith)	Fig. 93
ꜥnḏ-ib	Anedjib	Title *ḫrp ḥry-ib*	Abydos (Tomb of Anedjib)	Fig. 94
ꜥnḏ-ib	Anedjib	Title *ḫrp nbi*	Abydos (Tomb of Anedjib)	Fig. 95
Dn	Den	Treasury *pr-ḥḏ*	Abydos (Tomb of Meretneith)	Fig. 121
Ḏr	Djer		Abydos (Cemetery B, subsidiary burial associated with tomb of Djer)	Fig. 175A
Ḏr	Djer		Abydos (Cemetery B, subsidiary burial associated with tomb of Djer)	Fig. 175B
Ḏt	Djet	Domain name *W3ḏ-Ḥr*	Abydos (Cemetery B, subsidiary burial associated with tomb of Djer)	Fig. 176
Dn	Den	Treasury *pr-ḥḏ* Estate name *ḥwt snṯr nṯr.w*	Abydos (Tomb of Meretneith)	Fig. 177
Dn	Den	None	Abydos (Tomb of Meretneith)	Fig. 186
Dn	Den	Possible reference to	Abu Rawash (Tomb 11)	Fig. 188

		Lower Egypt		
ı	Den	Possible estate *ḥwt smti gstyw*	Abu Rawash (Tomb 12)	Fig. 195
ı	Den	Possible estate *ḥwt smti gstyw*	Saqqara (Tomb 3506, 18)	Fig. 196
ı	Den	Title *ḫrp ḥry-ib*	Abydos (Tomb of Meretneith); Saqqara (Tomb 3507, 3a?)l; Abu Rawash (Tomb 6)	Fig. 198
ı	Den	Title *ḫrp Ḥr tpy ḫt*	Abydos (Tomb of Meretneith); Saqqara (Tomb 3507?)	Fig. 199
ı	Den	Title *ḫrp nbi*	Abydos (Tomb of Meretneith, Den Cemetery); Saqqara (Tomb 3507?)	Fig. 200
ı	Den	Title *ḫrp ḥry-ib*	Saqqara (Tomb 3506, 8)	Fig. 202A
ı	Den	None	Saqqara (Tomb 3038)	Fig. 202B
ı	Den	Title *ḫrp ḥry-ib*	Abydos (Cemetery B, subsidiary burial associated with tomb of Den) ; Saqqara (Tomb 3506); Abu Rawash (Tomb 16)	Fig. 202C
ı	Den	Title *ḫrp ḥry-ib*	Abydos (Cemetery B, subsidiary burial associated with tomb of Den) ; Saqqara (Tomb 3506); Abu Rawash (Tomb M 25)	Fig. 202D
ı	Den	Title *ḫrp ḥry-ib*	Saqqara (Tomb 3506, 5)	Fig. 202E

Dn	Den	Title *ḫrp Ḥr sḫnti ḏw*	Saqqara (Tomb 3506, 11)	Fig. 203A
Dn	Den	Title *ḫrp Ḥr sḫnti ḏw*	Abydos (Cemetery B, subsidiary burial associated with tomb of Den) ; Saqqara (Tomb 3506)	Fig. 203B
Dn	Den	Title *ḫrp nbi*	Abydos (Cemetery B, subsidiary burial associated with tomb of Den) ; Saqqara (Tomb 3506, 10)	Fig. 204
ꜥnḏ-ib	Anedjib	Title *ḫrp Ḥr tpy ḫt*	Abydos (Tomb of Anedjib)	Fig. 205
Dn	Den	Title *ḫrp*	Saqqara (Tomb 3507, 1)	Fig. 206
Dn	Den	None	Saqqara (Tomb of Hemaka)	Fig. 207
Ḏr	Djer	None	Abydos (Tomb of Djer)	Fig. 208
Q3-ꜥ	Qa'a	Treasury *pr ḏsr* Title *ḫrp ḥry-ib*	Abydos (Tomb of Qa'a)	Fig. 209
Smr-ḫt	Semerkhet	Estate *ḥwt iḥw nbw nsw bi.ty Mr-(p)-bi3*	Abydos (Tomb of Semerkhet)	Fig. 210
Dn	Den	Iconography of a king, possible reference to cattle	Saqqara (Tomb of Hemaka)	Fig. 211
ꜥnḏ-ib	Anedjib	Treasury *pr ḏsr*	Abydos (Tomb of Anedjib)	Fig. 213
Dn	Den	Title *ḫrp Ḥr tpy ḫt*	Abydos (Cemetery B, subsidiary burial associated with tomb of Den) ; Saqqara (Tomb 3035; Tomb 3506, 13; Tomb of Hemaka)	Fig. 222

ı	Den	Title *ḫrp nbi*	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Fig. 223
ı	Den	None	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Fig. 224
ı	Den	Titles *ꜥḏ-mr Ḥr sḫnti ḏw, ḫrp ḥry-ib*	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Fig. 225A
ı	Den	Titles *ꜥḏ-mr Ḥr sḫnti ḏw, ḫrp ḥry-ib*	Abydos (Cemetery B, subsidiary burial associated with tomb of Den) ; Saqqara (Tomb 3506, 15)	Fig. 225B
-ꜥḥ3	Hor-Aha	Possible reference to the Lower Egypt	Saqqara (Tomb 3357)	Fig. 226
ı	Den	Title *ꜥḏ-mr Ḥr sḫnti ḏw*	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Fig. 227
ꜣ-ꜥ	Qa'a	Titles *ꜥḏ mr Ḥr nbw ḫt, ḥri-wḏ3*	Abydos (Tomb of Qa'a)	Fig. 228
ır-ḫt	Semerkhet	Estate *ḥwt pi Ḥrw-msn.w* administrative entity *pr nswt*	Abydos (Tomb of Semerkhet)	Fig. 229

Dn	Den	Title *ꜥḏ-mr Ḥr sḫnti ḏw; ḫrp Ḥr sḫnti ḏw*	Abydos (Cemetery B, subsidiary burial associated with tomb of Den) ; Saqqara (Tomb 3506, 14)	Fig. 232
Smr-ḫt	Semerkhet	Estate *ḥwt iḥw nbw nsw bi.ty Mr-(p)-bi3*	Abydos (Tomb of Semerkhet)	Fig. 236
Ḏr	Djer	Religious Iconography	Abydos (Cemetery B, subsidiary burial associated with tomb of Djer)	Fig. 237
Dn	Den	Potential reference to Lower Egypt	Abydos (Tomb of Meretneith)	Fig. 238
Dn	Den	Potential reference to Lower Egypt	Abydos (Tomb of Meretneith)	Fig. 239
Dn	Den	Title *ḫtm*	Abydos (Tomb of Meretneith)	Fig. 240
Dn	Den	Title *ꜥḏ-mr*	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Fig. 242
Smr-ḫt	Semerkhet	Estate *ḥwt ipti*	Abydos (Tomb of Semerkhet)	Fig. 243
Q3-ꜥ	Qa'a	None	Saqqara (Tomb 3505, 3)	Fig. 244
ꜥnḏ-ib	Anedjib	Royal Titulary	Abydos (Tomb of Anedjib)	Fig. 245
Dn	Den	Title *ḫrp ḥry-ib*	Saqqara (Tomb 3506, 9)	Fig. 247
Dn	Den	Title *ḫrp ḥry-ib*	Saqqara (Tomb of Hemaka)	Fig. 248
Dn	Den	Estate *ḥwt ꜥ3t gsw*	Abydos (Cemetery B, subsidiary burial associated with tomb of	Fig. 249

			Den)	
ḏ-ib	Anedjib	Estate *ḥwt ᶜ3t gsw*	Saqqara (Tomb 3038)	Fig. 251
ɯr-ḫt	Semerkhet	Title *ḫrp ḥry-ib*	Abydos (Tomb of Semerkhet)	Fig. 252
ɯr-ḫt	Semerkhet	Title *ḫrp Ḥr ḏst ḫt*	Abydos (Tomb of Semerkhet)	Fig. 253
ꜣ-ᶜ	Qa'a	Title *ḫrp ḥry-ib*	Abydos (Tomb of Qa'a)	Fig. 254A
ꜣ-ᶜ	Qa'a	Title *ḫrp ḥry-ib*	Saqqara (Tomb 3500, 1)	Fig. 254B
ꜣ-ᶜ	Qa'a	Title *ḫrp ḥry-ib*	Saqqara (Tomb 3121)	Fig. 255
ꜣ-ᶜ	Qa'a	Title *ḫrp Ḥr nbw ḫt*	Abydos (Tomb of Qa'a)	Fig. 256A
ꜣ-ᶜ	Qa'a	Title *ḫrp nbi*	Abydos (Tomb of Qa'a)	Fig. 257A
ꜣ-ᶜ	Qa'a	Title *ḫrp nbi*	Saqqara (Tomb 3500, 2)	Fig. 257B
ꜣ-ᶜ	Qa'a	Iconography	Abydos (Tomb of Qa'a)	Fig. 258
ꜣ-ᶜ	Qa'a	Iconography	Abydos (Tomb of Qa'a)	Fig. 259A
ꜣ-ᶜ	Qa'a	Iconography	Abydos (Tomb of Qa'a)	Fig. 259B
ꜣ-ᶜ	Qa'a	Estate *ḥwt ḥpti(?)*	Saqqara (Tomb 3505, 1)	Fig. 260
ꜣ-ᶜ	Qa'a	Iconography	Saqqara (Tomb 3505, 5)	Fig. 261
ꜥp-sḫm.wy	Hetepsekhemwy	Title *ḫrp ḥry-ib*	Saqqara (Pyramid Complex of Unas)	Fig. 262
ꜥp-sḫm.wy	Hetepsekhemwy	Title *ḫrp nbi*	Saqqara (Pyramid Complex of Unas)	Fig. 263
ꜥ-Rᶜ.w	Nebre	Estate *ḥwt ḫt ḫrw*; Title *ḫrp nbi*	Saqqara (Pyramid Complex of Unas)	Fig.264
(y)-nṯr	Ninetjer	Title *ḫrp nbi*	Saqqara (Tomb 2302?)	Fig. 265
m-ib	Sekhemib	Title *ḫtm nsw.t*	Abydos (Tomb of Peribsen)	Fig. 266
m-ib	Sekhemib	Title *ḫry-tp nswt*	Abydos (Tomb of Peribsen)	Fig. 267
m-ib	Sekhemib	Title *sš*	Abydos (Tomb of Peribsen)	Fig. 268

Ḫᶜi-sḫm.wy	Khasekhemwy	None	Abydos (Tomb 9,9)	Fig. 269
Ḫᶜi-sḫm.wy	Khasekhemwy	*iḫt pr/ ḥ3t.y iḫt*	Abydos	Fig. 270
Ḫᶜi-sḫm.wy	Khasekhemwy	None	Abydos	Fig. 271
Dn	Den	Titles *ᶜḏ-mr Ḥr sḫnti ḏw; ḫrp Ḥr sḫnti ḏw; ḥri-wḏ3 ḫrp.w; ḫrp ḥry-ib*	Abydos (Cemetery B, subsidiary burial associated with tomb of Den) ; Saqqara (Tomb 3506; Tomb X); Abu Rawash (Tomb 3, Tomb M25)	Fig. 276A
Dn	Den	Titles *ᶜḏ-mr Ḥr sḫnti ḏw; ḫrp Ḥr sḫnti ḏw; ḥri-wḏ3 ḫrp.w; ḫrp ḥry-ib*	Abydos (Cemetery B, subsidiary burial associated with tomb of Den) ; Saqqara (Tomb 3506; Tomb X); Abu Rawash (Tomb 3, Tomb M25)	Fig. 276B
Dn	Den	Titles: *ḫrp nbi; ḥri-wḏ3 ḫrp.w; ᶜḏ-mr; ḫrp ḥry-ib; ḫrp Ḥr sḫnti ḏw*	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Fig. 277
ᶜnḏ-ib	Anedjib	Title *ḥri-wḏ3*; Domain *Ḥr tp.y ḫt*	Abydos (Tomb of Anedjib)	Fig. 278
Q3-ᶜ	Qa'a	Title *ḥri-wḏ3*; Domain *Ḥr nbw ḫt*	Abydos (Tomb of Qa'a)	Fig. 279
Q3-ᶜ	Qa'a	None	Saqqara (Tomb 3505,4)	Fig. 280
Ḥtp-sḫm.wy	Hetepsekhemwy	Title *ḫrp Ḥr hᶜi sb3*	Saqqara (Pyramid Complex of Unas)	Fig. 281
Ḥtp-sḫm.wy	Hetepsekhemwy	Title *ḫrp nbi*	Saqqara (Pyramid Complex of Unas)	Fig. 282

ʿ-ib-sn	Peribsen	Title *ꜥḏ-mr wi3w iti*	Abydos (Tomb of Peribsen)	Fig. 283
ʿ-ib-sn	Peribsen	Title *ḫrp ḥry-ib*	Abydos (Tomb of Peribsen)	Fig. 284
ʿ-ib-sn	Peribsen	Title *ḫrp wi3w iti*	Abydos (Tomb of Peribsen)	Fig. 285
ʿ-ib-sn	Peribsen	*ḥri-wḏ3 wi3w iti*	Abydos (Tomb of Peribsen)	Fig. 286
ʿ-ib-sn	Peribsen	None	Abydos (Tomb of Peribsen)	Fig. 287
ʿ-ib-sn	Peribsen	Undetermined due to fragmentary nature	Abydos (Tomb of Peribsen)	Fig. 288
ʿ-ib-sn	Peribsen	Treasury department *is ḏf3*	Abydos (Tomb of Peribsen)	Fig.289
ʿ-ib-sn	Peribsen	Title *ḫtm*	Abydos (Tomb of Peribsen)	Fig. 290
ʿi-sḫm.wy	Khasekhemwy	Title *ꜥḏ-mr Ḥr sb3 b3w*	Abydos (Tomb of Khasekhemwy)	Fig. 291
ꜣ-Rꜥ.w	Nebre		Saqqara (Pyramid Complex of Unas)	Fig. 294
ꜣ-Rꜥ.w	Nebre	Estate	Saqqara (Pyramid Complex of Unas)	Fig. 295
ꜣ-Rꜥ.w	Nebre	Title *ḫrp ḥry-ib*	Saqqara (Pyramid Complex of Unas)	Fig. 296

Ḫᶜi-sḫm.wy	Khasekhemwy	Domain name *wi3w iti*	Abydos	Fig. 297
Q3-ᶜ	Qa'a	None relating to Administration	Saqqara (Tomb 3505, 2)	Fig. 301
Pr-ib-sn	Peribsen	Department *pr iḫt 3st*	Abydos (Tomb of Peribsen)	Fig. 302
Ḫᶜi-sḫm.wy	Khasekhemwy	Title *ḥri-wḏ3 Ḥr sb3 b3w*	Abydos (Tomb of Khasekhemwy)	Fig. 303
Dn	Den	Domain *Ḥr sḫnti ḏw* Title *ḥri-wḏ3 ḫrp.w*	Abydos (Cemetery B, subsidiary burial associated with tomb of Den) ; Saqqara (Tomb 3506, 17)	Fig. 306A
Dn	Den	Domain *Ḥr sḫnti ḏw* Title *ḥri-wḏ3 ḫrp.w*	Abydos (Cemetery B, subsidiary burial associated with tomb of Den) ; Saqqara (Tomb 3506, 17)	Fig. 306B
Ḥtp-sḫm.wy	Hetepsekhemwy	Domain *Ḥr ḫᶜi sb3* Title *ḥri-wḏ3*	Saqqara (Pyramid Complex of Unas)	Fig. 307
Ḫᶜi-sḫm.wy	Khasekhemwy	Treasury *pr ḏsr*	Abydos (Tomb of Khasekhemwy)	Fig. 309
Ḫᶜi-sḫm.wy	Khasekhemwy	Department is Df3	Abydos (Tomb of Khasekhemwy)	Fig. 310
Ḫᶜi-sḫm.wy	Khasekhemwy	Department is Df3	Abydos (Tomb of Khasekhemwy)	Fig. 311
Ḫᶜi-sḫm.wy	Khasekhemwy	Department *is ḏf3*	Abydos (Tomb of Khasekhemwy)	Fig. 312
Ḫᶜi-sḫm.wy	Khasekhemwy	Administrative entity *pr ḥry-wḏb*	Abydos (Tomb of Khasekhemwy)	Fig. 313

ꜣi-sḫm.wy	Khasekhemwy	*ḫtm*	Abydos (Tomb of Khasekhemwy)	Fig. 314
ꜣ	Den	None	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Fig. 364
ꜣ	Den	None	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Fig. 365
[illegible]	Djet	None	Abydos (Cemetery B, subsidiary burial associated with tomb of Djer)	Fig. 723
[illegible]	Djer	Potential reference to harem	Abydos (Cemetery B, subsidiary burial associated with tomb of Djer)	Fig. 724
[illegible]	Djer	None	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Fig. 725
[illegible]	Djer	None	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Fig. 726
[illegible]	Djer	None	Abydos (Cemetery B, subsidiary burial	Fig. 727

			associated with tomb of Den)	
Ḏr	Djer	None	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Fig. 728
Ḏr	Djer	None	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Fig. 729
Ḏr	Djer	None	Saqqara (Tomb 3503, 3)	Fig. 730
Dn	Den	None	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Fig. 731
Dn	Den	None	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Fig. 733
ᶜnḏ-ib	Anedjib	Estate (unknown)	Abydos (Tomb of Anedjib)	Fig. 736
Q3-ᶜ	Qa'a	Title *ḫrp ḥwt msnw*	Abydos (Tomb of Qa'a)	Fig. 737
Q3-ᶜ	Qa'a	Domain *Ḥr nbw ḫt*	Abydos (Tomb of Qa'a)	Fig. 738
Q3-ᶜ	Qa'a	Domain *Ḥr nbw ḫt*	Abydos (Tomb of Qa'a)	Fig. 739
N(y)-nṯr	Ninetjer	Title *ḥri-wḏ3*	Giza	Fig. 745
N(y)-nṯr	Ninetjer	Title *ḫrp nbi*, Estate *ḥwt snṯr nṯr.w*	Giza	Fig. 746
N(y)-nṯr	Ninetjer	None	Giza	Fig. 747
N(y)-nṯr	Ninetjer	Treasury *pr ḏsr*	Giza	Fig. 748
N(y)-nṯr	Ninetjer	Estate *ḥwt snṯr nṯr.w*	Saqqara (Tomb 2302)	Fig. 749
Pr-ib-sn	Peribsen	Domain nbw.t ...	Abydos (Tomb of Peribsen)	Fig. 750

m-ib	Sekhemib	Treasury *pr ḥḏ*; department *is ḏf3*	Abydos (Tomb of Peribsen)	Fig. 751
m-ib	Sekhemib	Possible Treasury *pr [ḥḏ]*	Abydos (Tomb of Peribsen)	Fig. 752
m-ib	Sekhemib	Treasury *pr ḥḏ*; Department *is ḏf3*	Abydos (Tomb of Peribsen)	Fig. 753
m-ib	Sekhemib	None	Abydos (Tomb of Peribsen)	Fig. 754
m-ib	Sekhemib	None	Abydos (Tomb of Peribsen)	Fig. 755
m-ib	Sekhemib	None	Abydos (Tomb of Peribsen)	Fig. 756
m-ib	Sekhemib	Treasury *pr ḥḏ*, possible Estate	Abydos (Tomb of Peribsen)	Fig. 757
ꜥ-ib-sn	Peribsen	Possible Estate	Abydos (Tomb of Peribsen)	Fig. 758
ꜥ-ib-sn	Peribsen	Treasury *pr ḥḏ*	Abydos (Tomb of Peribsen)	Fig. 759
ꜥ-ib-sn	Peribsen	Treasury *pr ḥḏ*	Abydos (Tomb of Peribsen)	Fig. 760
ꜥ-ib-sn	Peribsen	*ḫtm*	Abydos (Tomb of Peribsen)	Fig. 761
ꜥ-ib-sn	Peribsen	Treasury *pr ḥḏ*	Abydos (Tomb of Peribsen)	Fig. 762
ꜣi-sḫm.wy	Khasekhemwy	Treasury *pr ḏsr*	Abydos (Tomb of Khasekhemwy)	Fig. 764
ꜣi-sḫm.wy	Khasekhemwy	Treasury *pr ḏsr*	Abydos (Tomb of Khasekhemwy)	Fig. 765
ꜣi-sḫm.wy	Khasekhemwy	None	Abydos (Tomb of Khasekhemwy)	Fig. 766

Ḫᶜi-sḫm.wy	Khasekhemwy	Estate *ḥwt pi Ḥrw-msn.w*	Abydos (Tomb of Khasekhemwy)	Fig. 767
Ḫᶜi-sḫm.wy	Khasekhemwy	None	Abydos (Tomb of Khasekhemwy)	Fig. 769
Ḫᶜi-sḫm.wy	Khasekhemwy	None	Abydos (Tomb of Khasekhemwy)	Fig. 770
Ḫᶜi-sḫm.wy	Khasekhemwy	Treasury *pr ḏsr*	Abydos (Tomb of Khasekhemwy)	Fig. 771
Ḫᶜi-sḫm.wy	Khasekhemwy	None	Abydos (Tomb of Khasekhemwy)	Fig. 772
Ḫᶜi-sḫm.wy	Khasekhemwy	Possible Title *(ḥri-wḏ3)*	Abydos (Tomb of Khasekhemwy)	Fig. 773
Ḫᶜi-sḫm.wy	Khasekhemwy	Possible granary	Abydos (Tomb of Khasekhemwy)	Fig. 775
Ḫᶜi-sḫm.wy	Khasekhemwy	None	Abydos (Tomb of Khasekhemwy)	Fig. 777
Ḫᶜi-sḫm.wy	Khasekhemwy	None (possible Domain)	Abydos (Tomb of Khasekhemwy)	Fig. 778
Ḫᶜi-sḫm.wy	Khasekhemwy	None	Abydos (Tomb of Khasekhemwy)	Fig. 779
Ḫᶜi-sḫm.wy	Khasekhemwy	None	Abydos (Tomb of Khasekhemwy)	Fig. 781
Ḫᶜi-sḫm.wy	Khasekhemwy	None	Abydos (Tomb of Khasekhemwy)	Fig. 782
Ḫᶜi-sḫm.wy	Khasekhemwy	None	Abydos (Tomb of Khasekhemwy)	Fig. 783

ɔendix 3: Domain Seals

nain nsliteration	Domain Translation	King	Location	Royal Seal	Figure Number in IÄF III
sḫnti ḏw	"Horus, foremost of the mountain	Djer	Abydos (Cemetery B, subsidiary burial associated with tomb of Djer)	No	Fig. 22
ḏ-Ḥr	"Horus flourishes"	Djet	Abydos (Cemetery B, subsidiary burial associated with tomb of Djet)	Yes (Djet)	Fig. 84
ḏ-Ḥr	"Horus flourishes"	Den	Saqqara (Tomb 3504)	Yes (Den)	Fig. 87
ꜥpy ḫt	"Horus, first of the corporation"	Den	Saqqara (Tomb 3506)	Yes (Den)	Fig. 89
ꜥpy ḫt	"Horus, first of the corporation"	Den	Saqqara (Tomb 3506)	Yes (Den)	Fig. 91A
ꜥpy ḫt	"Horus, first of the corporation"	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Yes (Den)	Fig. 91B
ꜥpy ḫt	"Horus, first of the corporation"	Den	Abydos (Tomb of Meretneith)	Yes (Den)	Fig. 93
ḏ-Ḥr	"Horus flourishes"	Djet	Saqqara (Tomb 3504,8)	No	Fig. 99A
ḏ-Ḥr	"Horus flourishes"	Djet	Abydos (Cemetery B, subsidiary burial associated with tomb of Djet)	No	Fig. 99B

Ḥr sḫnti ḏw	"Horus, foremost of the mountain"	Djer	Abydos (Cemetery B, subsidiary burial associated with tomb of Djer)	No	Fig. 126
Ḥ3ḏ-Ḥr	"Horus flourishes"	Djet	Abydos (Cemetery B, subsidiary burial associated with tomb of Djer)	Yes (Djet)	Fig. 176
Ḥr sḫnti ḏw	"Horus, foremost of the mountain"	Djet	Abydos (Cemetery B, subsidiary burial associated with tomb of Djet); Saqqara (Tomb 3504)	No	Fig. 189
*ḫi-t-w(*given in Kaplony as *Ḥr tpy-ḫt*)	(Horus, first of the corporation)	Den	Abydos (Tomb of Meretneith) Saqqara (Tomb 3507, 3a)	Yes (Den)	Fig. 199
Ḥr sḫnti ḏw	"Horus, foremost of the mountain"	Den	Saqqara (Tomb 3506, 11)	Yes (Den)	Fig. 203A
Ḥr sḫnti ḏw	"Horus, foremost of the mountain"	Den	Saqqara (Tomb 3506, 12)	Yes (Den)	Fig. 203B
Ḥr sb3-ḫt	"Horus, star of the corporation"	Anedjib	Abydos (Tomb of Anedjib)	Yes (Anedjib)	Fig. 205
Ḥr sḫnti ḏw	"Horus, foremost of the mountain"	Den	Saqqara (Tomb of Hemaka, Tomb 3506,22)	No	Fig. 215
Ḥr sḫnti ḏw	"Horus, foremost of the mountain"	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	No	Fig. 216

sḫnti ḏw	"Horus, foremost of the mountain"	Den	Saqqara (Tomb 3506,21)	No	Fig. 218
sḫnti ḏw	"Horus, foremost of the mountain"	Den	Saqqara (Tomb 3506,33)	No	Fig. 219
sḫnti ḏw	"Horus, foremost of the mountain"	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	No	Fig. 220A
sḫnti ḏw	"Horus, foremost of the mountain"	Den	Saqqara (Tomb 3506); Abu Rawash (Tomb 16)	No	Fig. 220B
sḫnti ḏw	"Horus, foremost of the mountain"	Den	Saqqara (Tomb 3506, 27)	No	Fig. 221A
sḫnti ḏw)	("Horus, foremost of the mountain")	Den	Saqqara (Tomb 3506, 26)	No	Fig. 221B
ꜥpy-ḫt	"Horus, first of the corporation"	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den); Saqqara (Tomb 3035; Tomb 3506,13; Tomb of Hemaka)	Yes (Den)	Fig. 222
sḫnti ḏw	"Horus, foremost of the mountain"	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Yes (Den)	Fig. 225A
sḫnti ḏw	"Horus, foremost of the mountain"	Den	Abydos (Cemetery B, subsidiary burial	Yes (Den)	Fig. 225B

			associated with tomb of Den); Saqqara (Tomb 3506, 15)		
Ꜣr sẖnti ḏw	"Horus, foremost of the mountain"	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Yes (Den)	Fig. 227
Ꜣr nbw ḫt	"Horus, Golden one of the corporation"	Qa'a	Abydos (Tomb of Qa'a)	Yes (Qa'a)	Fig. 228
Ꜣr sẖnti ḏw	"Horus, foremost of the mountain"	Den	Saqqara (Tomb 3506, 34)	No	Fig. 230
Ꜣr sẖnti ḏw	"Horus, foremost of the mountain"	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	No	Fig. 231
Ꜣr sẖnti ḏw	"Horus, foremost of the mountain"	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den); Saqqara (Tomb 3506, 14)	Yes (Den)	Fig. 232
Ꜣr tpy-ḫt	"Horus, first of the corporation"	Den	Abydos (Tomb of Den); Saqqara (Tomb 3506, 23; Tomb of Hemaka; Tomb 3035)	No	Fig. 233

ꜣpy ḫt	"Horus, first of the corporation"	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den); Saqqara (Tomb 3035(?); 3506); Abu Rawash (Tomb M25)	No	Fig. 234
ꜣpy ḫt	"Horus, first of the corporation"	Den	Saqqara (Tomb 3506, 31)	No	Fig. 235
ḏsr ḫt	"Horus, holy one of the corporation"	Semerkhet	Abydos (Tomb of Semerkhet)	Yes (Semerkhet)	Fig. 253
nbw ḫt	"Horus, golden one of the corporation"	Qa'a	Abydos (Tomb of Qa'a)	Yes (Qa'a)	Fig. 256
ꜣpy-ḫt	"Horus, first of the corporation"	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	No	Fig. 273
šḫnti ḏw	"Horus, foremost of the mountain"	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den); Saqqara (Tomb 3506; Tomb X); Abu Rawash (Tomb 3; Tomb M 25)	Yes (Den)	Fig. 276A

Ꜣr sẖnti ḏw	"Horus, foremost of the mountain"	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den); Saqqara (Tomb 3506; Tomb X); Abu Rawash (Tomb 3; Tomb M 25)	Yes (Den)	Fig. 276B
Ꜣr sẖnti ḏw	"Horus, foremost of the mountain"	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Yes (Den)	Fig. 277
Ꜣr sb3-ḫt	"Horus, star of the corporation"	Anedjib	Abydos (Tomb of Anedjib)	Yes (Anedjib)	Fig. 278
Ꜣr nbw ḫt	"Horus, golden one of the corporation"	Qa'a	Abydos (Tomb of Qa'a)	Yes (Qa'a)	Fig. 279
Ꜣr hᶜi sb3	"Horus, risen as a star"	Hetepsekhemwy	Saqqara (Pyramid Complex of Unas)	Yes (Hetepsekhemwy)	Fig. 281
Ꜣi3w iti	"Boat of the Sovereign"	Peribsen	Abydos (Tomb of Peribsen)	Yes (Peribsen)	Fig. 285
Ꜣi3w iti	"Boat of the Sovereign"	Peribsen	Abydos (Tomb of Peribsen)	Yes (Peribsen)	Fig. 286
Ꜣr sb3 b3w	"Horus, star of souls"	Khasekhemwy	Abydos (Tomb of Khasekhemwy)	Yes (Khasekhemwy)	Fig. 291
Ꜣi3w iti	"Boat of the Sovereign"	Khasekhemwy		Yes (Khasekhemwy)	Fig. 297
Ꜣr sẖnti ḏw	"Horus, foremost of the mountain"	Den	Saqqara (Tomb 3506, 28)	No	Fig. 298
Ꜣr sb3 ḫt	"Horus, star of the corporation"	Anedjib	Abydos (Tomb of Anedjib)	No	Fig. 300A

sb3 ḫt)	("Horus, star of the corporation")	Anedjib	Abydos (Tomb of Anedjib)	No	Fig.300B
sb3 b3w	"Horus, star of souls"	Khasekhemwy	Abydos (Tomb of Khasekhemwy)	Yes (Khasekhemwy)	Fig. 303
ꜥpy ḫt	"Horus, first of the corporation"	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den); Saqqara (Tomb 3506)	No	Fig. 305A
ꜥpy ḫt	"Horus, first of the corporation"	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	No	Fig. 305B
sẖnti ḏw	"Horus, foremost of the mountain"	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den); Saqqara (Tomb 3506)	Yes (Den)	Fig. 306A
sẖnti ḏw	"Horus, foremost of the mountain"	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den); Saqqara (Tomb 3506)	Yes (Den)	Fig. 306B
ḫꜥ sb3	"Horus, the rising star"	Hetepsekhemwy	Saqqara (Pyramid complex of Unas)	Yes (Hetepsekhemwy)	Fig. 307

..	Unknown domain	Meretneith	Abydos (Tomb of Meretneith)	No	Fig. 320
..	Unknown domain	Meretneith	Abydos (Tomb of Meretneith)	No	Fig. 321
Ꜣr tpy ḫt	"Horus, first of the corporation"	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	No	Fig. 732
Ꜣr nbw ḫt	"Horus, golden one of the corporation"	Qa'a	Abydos (Tomb of Qa'a)	Yes (Qa'a)	Fig. 738
Ꜣr nbw ḫt	"Horus, golden one of the corporation"	Qa'a	Abydos (Tomb of Qa'a); Saqqara (Tomb 3507, 11)	Yes (Qa'a)	Fig.739
..	Unknown Domain	Ninetjer	Giza	Yes (Ninetjer)	Fig. 744
..	Unknown Domain	Ninetjer	Giza	Yes (Ninetjer)	Fig. 745

Appendix 4: List of Estate seals

Estate name transliteration (titles associated with these seals)	Estate name translation	King	Location of seal	Royal Seal	Figure number in IÄF III
ḥwt š3	Estate of the pigs	Meretneith	Abydos (Tomb of Meretneith)	No	Fig. 110
ḥwt k3-r	Unknown estate	Meretneith	Abydos (Tomb of Meretneith)	No	Fig. 115
ꜥḏ-mr) ḥwt iḥt	Estate of the cattle	Meretneith	Abydos (Tomb of Meretneith)/ Abu Rawash (Tomb 6)	No	Fig. 118
ḥwt irp ḥḏ/ ḥwt irp	Estate of white wine (estate of wine of…) /estate of wine	Meretneith	Abydos (Tomb of Meretneith)	No	Fig. 179
ꜥḏ-mr) ḥwt smti gstyw	Unknown estate	Den	Saqqara (Tomb 3506)	No	Fig. 182
ḥwt ḥḏ	Estate (of the antelope)	Meretneith	Abydos (Tomb of Meretneith)	No	Fig. 194
ḥwt ḥnn/ ḥwt šnꜥ…	Estate of the (hoe)/ estate of the lion with the crook and tent	Den	Saqqara (Tomb 3504)	No	Fig. 197
ḥwt iḥw nbw nsw bi.ty Mr-(p)-bi3	Estate of the golden cattle of the King of Upper and Lower Egypt	Semerkhet	Abydos (Tomb of Semerkhet)	Yes (Semerkhet)	Fig. 210
ḥwt pi Ḥrw-msn.w	Estate of the seat of Horus, the Harpooner	Semerkhet	Abydos (Tomb of Semerkhet)	Yes (Semerkhet)	Fig. 229
ḥwt iḥw nbw nsw bi.ty Mr-(p)-bi3	Estate of the golden cattle of the King of Upper and Lower Egypt	Semerkhet	Abydos (Tomb of Semerkhet)	Yes (Semerkhet)	Fig. 236
ḥwt ipti	Estate of Harems	Semerkhet	Abydos (Tomb of	Yes (Semerkhet)	Fig. 243

			Semerkhet)		
ḥwt š3 irp/ ḥwt pi Ḥrw-msn.w	Estate of pigs/ Estate of the seat of Horus, the harpooner (this particular estate name is tentative)	Anedjib	Abydos (Tomb of Anedjib)	No	Fig. 246
ḥwt ꜥ3t gsw (?)	Estate of the abundance of metal/stone	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Yes (Den)	Fig. 249
ḥwt pi Ḥrw-msn.w	Estate of the seat of Horus, the Harpooner	Anedjib	Abydos (Tomb of Anedjib)	No	Fig. 250 A
ḥwt pi Ḥrw-msn.w	Estate of the seat of Horus, the Harpooner	Anedjib	Abydos (Tomb of Anedjib)	No	Fig. 250 B
ḥwt ꜥ3t gsw(?)	Estate of the abundance of metal/stone (this translation is tentative)	Anedjib	Saqqara (Tomb 3038)	Yes (Anedjib)	Fig. 251
ḫrp nbi) ḥwt ḫt ḫrw	Unknown	Nebre	Saqqara (Pyramid complex of Unas)	Yes (Nebre)	Fig. 264
ḫrp nbi) ḥwt ḥtp nsw bi.ty nb.ty	Estate of the offering of the king of Upper and Lower Egypt	Hetepsekhemwy	Saqqara (Pyramid complex of Unas)	Yes (Hetepsekhemwy)	Fig. 282
ḥwt ꜥnḫ	Estate of Life	Qa'a	Saqqara (Tomb 3505)	No	Fig. 366
ḥwt (bird)	Unknown		Giza	No	Fig. 569
ḥwt pi Ḥrw-msn.w	Estate of the seat of Horus, the	Anedjib	Abydos (Tomb of	No	Fig. 735

	Harpooner		Anedjib)		
ꜥwt [msn.w]	Unknown (potentially Estate of the Harpoon)	Qa'a	Abydos (Tomb of Anedjib)	Yes (Anedjib)	Fig. 736
(ḫrp) ḥwt msn.w	Estate of the Harpoon	Qa'a	Abydos (Tomb of Qa'a)	Yes (Qa'a)	Fig. 737
ꜥwt pi (Ḥr.w) msn.w	Estate of the seat of Horus, the Harpooner	Ninetjer	Saqqara (Tomb 2171)	Yes (Ninetjer)	Fig. 748
ꜥwt snṯr nṯr.w	Estate of incense of the gods	Ninetjer	Saqqara (Tomb 2302)	Yes (Ninetjer)	Fig. 749
ꜥwt pi Ḥrw-msn.w	Estate of the seat of Horus, the Harpooner	Khasekhemwy	Abydos (Tomb of Khasekhemwy)	Yes (Khasekhemwy)	Fig. 767

Appendix 5: List of Treasury Seals

Treasury name transliteration (titles found associated with treasury)	Treasury name translation	King	Location	Royal Seal (Name of King)	Figure in IÄF III
pr ḥḏ (ḫri-ꜥ)	The White House	Meretneith	Abydos (Tomb of Meretneith)	No	Fig. 106
pr ḥḏ	The White House	Meretneith	Abydos (Tomb of Meretneith)	Yes (Den)	Fig. 121
pr ḥḏ	The White House	Den	Abydos (Tomb of Meretneith)	Yes (Den)	Fig. 177
pr ḏsr (ḫrp ḥry-ib)	The Red House	Qa'a	Abydos (Tomb of Qa'a)	Yes (Qa'a)	Fig. 209
pr ḏsr	The Red House	Anedjib	Abydos (Tomb of Anedjib)	Yes (Anedjib)	Fig. 213
pr ḏsr	The Red House	Ninetjer	Giza	Yes (Ninetjer)	Fig. 746
pr ḏsr	The Red House	Ninetjer	Saqqara (Tomb 2171)	Yes (Ninetjer)	Fig. 748
pr ḥḏ	The White House	Sekhemib	Abydos (Tomb of Peribsen)	Yes (Sekhemib)	Fig. 751
pr ḥḏ	The White House	Sekhemib	Abydos (Tomb of Peribsen)	Yes (Sekhemib)	Fig. 753
pr ḥḏ	The White House	Peribsen	Abydos (Tomb of Peribsen)	Yes (Peribsen)	Fig. 757
pr ḥḏ	The White House	Peribsen	Abydos (Tomb of Peribsen)	Yes (Peribsen)	Fig. 759
pr ḥḏ	The White House	Peribsen	Abydos (Tomb of Peribsen)	Yes (Peribsen)	Fig. 760
pr ḥḏ	The White House	Peribsen	Abydos (Tomb of Peribsen)	Yes (Peribsen)	Fig. 762
pr ḏsr	The Red House	Khasekhemwy	Abydos (Tomb of Khasekhemwy)	Yes (Khasekhemwy)	Fig. 764
pr ḏsr	The Red House	Khasekhemwy	Abydos (Tomb of Khasekhemwy)	Yes (Khasekhemwy)	Fig. 765
pr ḏsr	The Red House	Khasekhemwy	Abydos (Tomb of Khasekhemwy)	Yes (Khasekhemwy)	Fig. 771

Appendix 6: *ꜥḏ-mr* (Administrator) Seals Table

Title Transliteration	Title Translation	King	Location	Royal Seal (Name of King)	Figure in IÄF III
ꜥḏ-mr	Administrator	Djet	Abydos (Cemetery B, subsidiary burial associated with tomb of Djet)	No	Fig. 45A
ꜥḏ-mr	Administrator	Djet	Saqqara (Tomb 3504)	No	Fig. 45B
ꜥḏ-mr ḥwt iḥt	Administrator of the estate of the cattle	Meretneith	Abydos (Tomb of Meretneith); Abu Rawash (Tomb 6)	No	Fig. 118
ꜥḏ-mr	administrator	Meretneith	Abydos (Tomb of Meretneith)	No	Fig.127
ꜥḏ-mr ḥwt smti gstyw	Administrator of the estate (unknown)	Den	Saqqara (Tomb 3506)	No	Fig. 182
ꜥḏ-mr Ḥr sẖnti ḏw	Administrator	Djer	Abydos (Tomb of Djer); Saqqara (Tomb 3504)	No	Fig. 189
ꜥḏ-mr Ḥr sẖnti ḏw	Administrator of the domain "Horus, foremost of his mountain"	Den	Abydos (Tomb of Hemaka); Saqqara (Tomb 3506)	No	Fig. 215
ꜥḏ-mr Ḥr sẖnti ḏw	Administrator of the domain "Horus, foremost of his mountain"	Den	Abydos (Cemetery B, subsidiary Burial associated with tomb of Den)	No	Fig. 216

ḏ-mr Ḥr sẖnti ḏw	Administrator of the domain "Horus, foremost of his mountain"	Den	Abydos (Cemetery B, subsidiary Burial associated with tomb of Den); Saqqara (Tomb 3506)	No	Fig. 218
ḏ-mr Ḥr sẖnti ḏw	Administrator of the domain "Horus, foremost of his mountain"	Den	Abydos (Cemetery B, subsidiary Burial associated with tomb of Den) Saqqara (Tomb 3506)	No	Fig. 219
ḏ-mr Ḥr sẖnti ḏw	Administrator of the domain "Horus, foremost of his mountain"	Den	Abydos (Cemetery B, subsidiary Burial associated with tomb of Den)	No	Fig 220A
ḏ-mr Ḥr sẖnti ḏw	Administrator of the domain "Horus, foremost of his mountain"	Den	Saqqara (Tomb 3506); Abu Rawash (Tomb 16)	No	Fig. 220B
ḏ-mr Ḥr sẖnti ḏw	Administrator of the domain "Horus, foremost of his mountain"	Den	Saqqara (Tomb 3506)	No	Fig. 221A
ḏ-mr Ḥr sẖnti ḏw	Administrator of the domain "Horus, foremost of his mountain"	Den	Saqqara (Tomb 3506)	No	Fig. 221B
ḏ-mr Ḥr sẖnti ḏw	Administrator of the domain "Horus, foremost of his mountain"	Den	Abydos (Cemetery B, subsidiary Burial associated with tomb of Den)	Yes (Den)	Fig. 225A

ꜥḏ-mr Ḥr sẖnti ḏw	Administrator of the domain "Horus, foremost of his mountain"	Den	Abydos (Cemetery B, subsidiary Burial associated with tomb of Den); Saqqara (Tomb 3506)	Yes (Den)	Fig. 225B
ꜥḏ-mr Ḥr sẖnti ḏw	Administrator of the domain "Horus, foremost of his mountain"	Den	Abydos (Cemetery B, subsidiary Burial associated with tomb of Den)	Yes (Den)	Fig. 227
ꜥḏ-mr Ḥr nbw ḫt	Administrator of the domain "Horus the gold one of the Corporation"	Qa'a	Abydos (Tomb of Qa'a)	Yes (Den)	Fig. 228
ꜥḏ-mr Ḥr sẖnti ḏw	Administrator of the domain "Horus foremost of the mountain"	Den	Saqqara (Tomb 3506)	No	Fig. 230
ꜥḏ-mr Ḥr sẖnti ḏw	Administrator of the domain "Horus foremost of the mountain"	Den	Abydos (Cemetery B, subsidiary Burial associated with tomb of Den)	No	Fig. 231
ꜥḏ-mr Ḥr sẖnti ḏw	Administrator of the domain "Horus foremost of the mountain"	Den	Abydos (Cemetery B, subsidiary Burial associated with tomb of Den); Saqqara (Tomb 3506)	Yes (Den)	Fig. 232
ꜥḏ-mr Ḥr tpy-ḫt	Administrator of the domain "Horus, first of the corporation (of gods)"	Den	Abydos (Burial associated with tomb of Den); Saqqara (Tomb 3506)	No	Fig. 233
ꜥḏ-mr Ḥr sẖnti ḏw	Administrator of the domain "Horus foremost of the	Den	Abydos (Cemetery B, subsidiary Burial	No	Fig. 234

	mountain”		associated with tomb of Den); Saqqara (Tomb 3035, 3506); Abu Rawash (Tomb 4)		
ḏ-mr	Administrator	Den	Abydos (Cemetery B, subsidiary Burial associated with tomb of Den)	Yes (Den)	Fig. 242
ḏ-mr Ḥr tpy-ḫt	Administrator of the domain “Horus, first of the corporation (of gods)”	Den	Abydos (Cemetery B, subsidiary Burial associated with tomb of Den)	No	Fig. 273
ḏ-mr	Administrator	Anedjib	Abydos (Tomb of Anedjib)	No	Fig. 274
ḏ-mr	Administrator	Anedjib	Abydos (Tomb of Anedjib)	No	Fig. 275
ḏ-mr Ḥr sḫnti ḏw	Administrator of the domain “Horus, foremost of the mountain”	Den	Abydos (Burial associated with tomb of Den); Saqqara (Tomb 3506); Abu Rawash (Tomb 3)	Yes (Den)	Fig. 276A
ḏ-mr Ḥr sḫnti ḏw	Administrator of the domain “Horus, foremost of the mountain”	Den	Abydos (Burial associated with tomb of Den); Saqqara (Tomb 3506); Abu Rawash (Tomb 3)	Yes (Den)	Fig. 276B
ḏ-mr	Administrator	Den	Abydos (Cemetery B, subsidiary Burial	Yes (Den)	Fig. 277

			associated with tomb of Den)		
ꜥḏ-mr Ḥr sb3 b3w	Administrator of the domain "Horus, star of souls"	Khasekhemwy	Abydos (Tomb of Khasekhemwy)	Yes (Hetepsekhemwy)	Fig. 291
ꜥḏ-mr Ḥr sẖnti ḏw	Administrator of the domain "Horus, foremost of the mountain	Den	Saqqara (Tomb 3506)	No	Fig. 298
ꜥḏ-mr Ḥr sb3 ḫt	Administrator of the domain "Horus, Star of the corporation"	Anedjib	Abydos (Tomb of Anedjib)	No	Fig. 300A
ꜥḏ-mr Ḥr tpy ḫt	Administrator of the domain "Horus, first of the corporation (of gods)	Den	Abydos (Cemetery B, subsidiary Burial associated with tomb of Den); Saqqara (Tomb 3506)	No	Fig. 305A
ꜥḏ-mr Ḥr tpy ḫt	Administrator of the domain "Horus, first of the corporation (of gods)	Den	Abydos (Cemetery B, subsidiary Burial associated with tomb of Den)	No	Fig. 305B
ꜥḏ-mr/ ꜥḏ-mr…	Administrator/ Administrator of unknown domain	Meretneith	Abydos (Tomb of Meretneith)	No	Fig. 320
ꜥḏ-mr/ ꜥḏ-mr…	Administrator/ Administrator of unknown domain	Meretneith	Abydos (Tomb of Meretneith)	No	Fig. 321

Appendix 7: *ḫrp* (Controller) Table

Controller title transliteration	Controller title translation	King	Location	Royal Seal (Name of King)	Figure number in IÄF III
ḫrp	Controller	Djer	Abydos (Cemetery B, subsidiary tomb of Djer)	No	Fig. 47
ḫrp Nḫn	Controller of Nekhen	Den	Saqqara (Tomb 3504)	Yes (Den)	Fig. 86
ḫrp W3ḏ Ḥr	Controller of the domain "Horus flourishes"	Den	Saqqara (Tomb 3504)	Yes (Den)	Fig. 87
ḫrp nbi	Controller of the *nbi* office	Den	Saqqara (Tomb 3504)	Yes (Den)	Fig. 88
ḫrp Ḥr tpy-ḫt	Controller of the domain "Horus, first of the corporation	Den	Abydos (Cemetery B, subsidiary Burial associated with tomb of Den)	Yes (Den)	Fig. 89A
ḫrp Ḥr tpy-ḫt	Controller of the domain "Horus, first of the corporation	Den	Abydos (Cemetery B, subsidiary Burial associated with tomb of Den)	Unclear	Fig. 89B
ḫrp Nḫn	Controller of Nekhen	Den	Abydos (Cemetery B, subsidiary Burial associated with tomb of Den)	Yes (Den)	Fig. 90A
ḫrp Nḫn	Controller of Nekhen	Den	Abydos (Cemetery B, subsidiary Burial associated with tomb of Den)	Yes (Den)	Fig. 90B
ḫrp Ḥr tpy-ḫt	Controller of the domain "Horus, first of the corporation	Den	Saqqara (Tomb 3506)	Yes (Den)	Fig. 91A
ḫrp Ḥr tpy-ḫt	Controller of the domain	Den	Abydos (Cemetery B,	Yes (Den)	Fig. 91B

	"Horus, first of the corporation		subsidiary Burial associated with tomb of Den)		
ḫrp nbi	Controller of the *nbi* office	Den	Abydos (Cemetery B, subsidiary Burial associated with tomb of Den)	Yes (Den)	Fig. 92
ḫrp ḥry-ib	Controller of the *ḥry-ib* office	Anedjib	Abydos (Tomb of Anedjib)	Yes (Anedjib)	Fig. 94
ḫrp nbi	Controller of the *nbi* office	Anedjib	Abydos (Tomb of Anedjib	Yes (Anedjib)	Fig. 95
ḫrp nbi	Controller of the *nbi* office	Meretnieth	Abydos (Tomb of Meretneith)	No	Fig. 116
ḫrp ḥry-ib	Controller of the *ḥry-ib* office	Den	Abydos (Tomb of Meretneith); Saqqara (Tomb 3507); Abu Rawash (Tomb 6)	Yes (Den)	Fig. 198
ḫrp Ḥr tpy-ḫt	Controller of the domain "Horus, first of the corporation	Den	Abydos (Tomb of Meretneith)	Yes (Den)	Fig. 199
ḫrp nbi	Controller of the *nbi* office	Den	Abydos (Tomb of Meretneith)	Yes (Den)	Fig. 200
ḫrp ḥry-ib	Controller of the *ḥry-ib* office	Den	Saqqara (Tomb 3506)	Yes (Den)	Fig. 202A
ḫrp ḥry-ib	Controller of the *ḥry-ib* office	Den	Abydos (Cemetery B, subsidiary Burial associated with tomb of Den); Saqqara (Tomb 3506); Abu Rawash (Tomb 16)	Yes (Den)	Fig. 202C

ꜣrp ḥry-ib	Controller of the *ḥry-ib* office	Den	Abydos (Cemetery B, subsidiary Burial associated with tomb of Den); Saqqara (Tomb 3506); Abu Rawash (Tomb M 25)	Yes (Den)	Fig. 202D
ꜣrp ḥry-ib	Controller of the *ḥry-ib* office	Den	Saqqara (Tomb 3506)	Yes (Den)	Fig. 202E
ꜣrp Ḥr sẖnti ḏw	Controller of the domain "Horus, foremost of the mountain"	Den	Saqqara (Tomb 3506)	Yes (Den)	Fig. 203A
ꜣrp Ḥr sẖnti ḏw	Controller of the domain "Horus, foremost of the mountain"	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den); Saqqara (Tomb 3506)	Yes (Den)	Fig. 203B
ꜣrp nbi	Controller of the *nbi* office	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den); Saqqara (Tomb 3506)	Yes (Den)	Fig. 204
ꜣrp Ḥr sb3 ḫt	Controller of the domain "Horus, star of the corporation"	Anedjib	Abydos (Tomb of Anedjib)	Yes (Anedjib)	Fig. 205
ꜣrp ḥry-ib	Controller of the *ḥry-ib* office	Qa'a	Abydos (Tomb of Qa'a)	Yes (Qa'a)	Fig. 209
ꜣrp ḥry-ib	Controller of the *ḥry-ib* office	Den	Saqqara (Tomb of Hemaka; Tomb 3506)	No	Fig. 215

ḫrp Ḥr sḫnti ḏw	Controller of the domain "Horus, foremost of the mountain"	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	No	Fig. 216
ḫrp ḥry-ib	Controller of the *ḥry-ib* office	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den); Saqqara (Tomb 3506)	No	Fig. 219
ḫrp ḥry-ib	Controller of the *ḥry-ib* office	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den);	No	Fig. 220A
ḫrp ḥry-ib	Controller of the *ḥry-ib* office	Den	Saqqara (Tomb 3506); Abu Rawash (Tomb 16)	No	Fig. 220B
ḫrp nbi	Controller of the *nbi* office	Den	Saqqara (Tomb 3506)	No	Fig. 221A
ḫrp nbi	Controller of the *nbi* office	Den	Saqqara (Tomb 3506)	No	Fig. 221B
ḫrp Ḥr tpy-ḫt	Controller of the domain "Horus, first of the corporation	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den); Saqqara (Tomb 3506; Tomb of Hemaka)	Yes (Den)	Fig. 222
ḫrp nbi	Controller of the *nbi* office	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Yes (Den)	Fig. 223
ḫrp ḥry-ib	Controller of the *ḥry-ib* office	Den	Abydos (Cemetery B, subsidiary burial associated with tomb	Yes (Den)	Fig. 225A

			of Den)		
ꜣrp ḥry-ib	Controller of the *ḥry-ib* office	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Yes (Den)	Fig. 225B
ꜣrp nbi	Controller of the *nbi* office	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Yes (Den)	Fig. 227
ꜣrp ḥry-ib	Controller of the *ḥry-ib* office	Den	Saqqara (Tomb 3506)	No	Fig. 230
ꜣrp Ḥr sẖnti ḏw	Controller of the domain "Horus, foremost of the mountain"	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	No	Fig. 231
ꜣrp Ḥr sẖnti ḏw	Controller of the domain "Horus, foremost of the mountain"	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den); Saqqara (Tomb 3506)	Yes (Den)	Fig. 232
ꜣrp tpy-ḫt	Controller of the domain "Horus, first of the corporation"	Den	Abydos (subsidiary burial associated with tomb of Den); Saqqara (Tomb 3506; Tomb of Hemaka)	No	Fig. 233
ꜣrp Ḥr sẖnti ḏw	Controller of the domain "Horus, foremost of the	Den	Saqqara (Tomb 3506)	No	Fig. 235

	mountain”				
ḫrp ḥry-ib	Controller of the *ḥry-ib* office	Den	Saqqara (Tomb 3506)	Yes (Den)	Fig. 247
ḫrp ḥry-ib	Controller of the *ḥry-ib* office	Den	Saqqara (Tomb of Hemaka)	Yes (Den)	Fig. 248
ḫrp ḥry-ib	Controller of the *ḥry-ib* office	Semerkhet	Abydos (Tomb of Semerkhet)	Yes (Semerkhet)	Fig. 252
ḫrp Ḥr (ḏsr) ḥt	Controller of the domain “Horus, (glorious) of the corporation”	Semerkhet	Abydos (Tomb of Semerkhet)	Yes (Semerkhet)	Fig. 253
ḫrp ḥry-ib	Controller of the *ḥry-ib* office	Qa’a	Abydos (Tomb of Qa’a)	Yes (Qa’a)	Fig. 254A
ḫrp ḥry-ib	Controller of the *ḥry-ib* office	Qa’a	Saqqara (Tomb 3500)	Yes (Qa’a)	Fig. 254B
ḫrp ḥry-ib	Controller of the *ḥry-ib* office	Qa’a	Saqqara (Tomb 3121)	Yes (Qa’a)	Fig. 255
ḫrp Ḥr nbw-ḫt	Controller of the domain “Horus, the golden one of the corporation”	Qa’a	Abydos (Tomb of Qa’a)	Yes (Qa’a)	Fig. 256
ḫrp nbi	Controller of the *nbi* office	Qa’a	Abydos (Tomb of Qa’a)	Yes (Qa’a)	Fig. 257A
ḫrp nbi	Controller of the *nbi* office	Qa’a	Saqqara (Tomb 3500)	Yes (Qa’a)	Fig. 257B
ḫrp ḥry-ib	Controller of the *ḥry-ib* office	Hetepsekhemwy	Saqqara (pyramid complex of Unas)	Yes (Hetepsekhemwy)	Fig. 262
ḫrp nbi	Controller of the *nbi* office	Hetepsekhemwy	Saqqara (Pyramid complex of Unas)	Yes (Hetepsekhemwy)	Fig. 263
ḫrp nbi ḥwt ḫt ḫrw	Controller of the *nbi* office of an uknown estate	Nebre	Saqqara (Pyramid complex of Unas)	Yes (Nebre)	Fig. 264
ḫrp nbi	Controller of the *nbi* office	Ninetjer	Saqqara (Tomb 2302)	Yes (Ninetjer)	Fig. 265

ꜣrp nbi	Controller of the *nbi* office	Anedjib	Abydos (Tomb of Anedjib)	No	Fig. 274
ꜣrp ḥry-ib	Controller of the *ḥry-ib* office	Anedjib	Abydos (Tomb of Anedjib)	No	Fig. 275
ꜣrp ḥry-ib/ ḫrp Ḥr ḫnti ḏw	Controller of the *ḥry-ib* office/ Controller of the domain "Horus, foremost of the Mountain"	Den	Abydos (Cemetery B, subsidiary Burial associated with tomb of Den); Saqqara (Tomb 3506, Tomb X); Abu Rawash (Tomb 3; Tomb M35)	Yes (Den)	Fig. 276A
ꜣrp ḥry-ib/ ḫrp Ḥr ḫnti ḏw	Controller of the *ḥry-ib* office/ Controller of the domain "Horus, foremost of the Mountain"	Den	Abydos (Cemetery B, subsidiary Burial associated with tomb of Den); Saqqara (Tomb 3506, Tomb X); Abu Rawash (Tomb 3; Tomb M35)	Yes (Den)	Fig. 276B
ꜣrp nbi/ ḫrp ḥry-ib/ ꜣrp Ḥr sḫnti ḏw	Controller of the *nbi* office/ Controller of the *ḥry-ib* office/ Controller of the domain "Horus, foremost of the Mountain"	Den	Abydos (Cemetery B, subsidiary Burial associated with tomb of Den)	Yes (Den)	Fig. 277
ꜣrp Ḥr hᶜi-s3b	Controller of the domain "Horus, risen like a star"	Hetepsekhemwy	Saqqara (Pyramid complex of Unas)	Yes (Hetepsekhemwy)	Fig. 281
ꜣrp nbi	Controller of the *nbi* office	Hetepsekhemwy	Saqqara (Pyramid complex of Unas)	Yes (Hetepsekhemwy)	Fig. 282

ḫrp wi3w iti	Controller of the domain "the boats of the sovereign"	Peribsen	Abydos (Tomb of Peribsen)	Yes (Peribsen)	Fig. 285
ḫrp ḥry-ib	Controller of the *ḥry-ib* office	Nebre	Saqqara (Pyramid complex of Unas)	Yes (Nebre)	Fig. 296
ḫrp ḥry-ib	Controller of the *ḥry-ib* office	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	No	Fig. 305A
ḫrp ḥry-ib	Controller of the *ḥry-ib* office	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	No	Fig. 305B
ḫrp nbi	Controller of the *nbi* office	Meretneith	Abydos (Tomb of Meretneith)	No	Fig. 320
ḫrp domain	Controller of an unknown domain	Meretneith	Abydos (Tomb of Meretneith)	No	Fig. 321
ḫrp nbi	Controller of the *nbi* office	Ninetjer	Giza	Yes (Unknown)	Fig. 743
ḫrp nbi	Controller of the *nbi* office	Ninetjer	Giza	Yes (Ninetjer)	Fig. 746

Appendix 8: *ḥri-wḏ3* (Inspector of the Storehouse) seals

ḥri-wḏ3 transliteration	*ḥri-wḏ3* Translation	King	Location	Royal Seal	Figure Number in IÄF III
ḥri-wḏ3 ḫrpw/ ḥri-wḏ3 (ḥnḳt)	Inspector of the storehouse of the controllers/ Inspector of the storehouse of the controllers of (beer)	Qa'a	Saqqara (Tomb 3506)	No	Fig. 218
ḥri-wḏ3	Inspector of the storehouse	Qa'a	Abydos (Tomb of Qa'a)	Yes (Qa'a)	Fig.228
ḥri-wḏ3 ḫrpw	Inspector of the storehouse of the controllers	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den); Saqqara (Tomb 3506, Tomb X) Abu Rawash (Tomb 3, Tomb M25)	Yes (Den)	Fig. 276A
ḥri-wḏ3 ḫrpw	Inspector of the storehouse of the controllers	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den); Saqqara (Tomb 3506, Tomb X) Abu Rawash (Tomb 3, Tomb M25)	Yes (Den)	Fig. 276B
ḥri-wḏ3 ḫrpw	Inspector of the storehouse of the controllers	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den)	Yes (Den)	Fig. 277
ḥri-wḏ3 Ḥr-sb3 ḫt	Inspector of the	Anedjib	Abydos (Tomb of	Yes (Anedjib)	Fig. 278

	storehouse of the domain “Horus, star of the corporation		Anedjib)		
ꜣri-wḏ3 Ḥr nbw ḫt	Inspector of the storehouse of the domain “Horus, golden one of the corporation	Qa’a	Abydos (Tomb of Qa’a)	Yes (Qa’a)	Fig. 279
ꜣri-wḏ3 wi3w iti	Inspector of the storehouse of the domain “Boats of the Sovereign”	Peribsen	Abydos (Tomb of Peribsen)	Yes (Peribsen)	Fig. 286
ꜣri-wḏ3 Ḥr-sb3 ḫt	Inspector of the storehouse of the domain “Horus, star of the corporation	Anedjib	Abydos (Tomb of Anedjib)	No	Fig. 300A
ꜣri-wḏ3 (Ḥr-sb3 ḫt)	Inspector of the storehouse (of the domain “Horus, star of the corporation”)	Anedjib	Abydos (Tomb of Anedjib)	No	Fig. 300B
ꜣri-wḏ3 Ḥr sb3 b3w	Inspector of the storehouse of the domain “Horus, star of power/souls	Khasekhemwy	Abydos (Tomb of Khasekhemwy)	Yes (Khasekhemwy)	Fig. 303
ꜣri-wḏ3 ḫrpw/ ḥri	Inspector of the	Den	Abydos (Cemetery B,	Yes (Den)	306A

wḏ3 ḥnḳt Ḥr sẖnti ḏw	storehouse of the controllers/ Inspector of the storehouse of the beer of the domain "Horus Foremost of the mountain"		subsidiary Burial associated with tomb of Den); Saqqara (Tomb 3506)		
ḥri-wḏ3 ḫrpw/ ḥri wḏ3 ḥnḳt Ḥr sẖnti ḏw	Inspector of the storehouse of the controllers/ Inspector of the storehouse of the beer of the domain "Horus Foremost of the mountain"	Den	Abydos (Cemetery B, subsidiary burial associated with tomb of Den); Saqqara (Tomb 3506)	Yes (Den)	Fig. 306B
ḥri-wḏ3 Ḥr hᶜi (m-) sb3	Inspector of the storehouse of the domain "Horus, Risen like a star"	Hetepsekhemwy	Saqqara (Pyramid complex of Unas)	Yes (Hetepsekhemwy)	Fig. 307