

# **Ancient Egypt: The Development of Record Keeping in the “Old Kingdom”**

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## **Abstract**

The Ancient Egyptian Civilization is one of the longest and richest civilizations in the world. The development of record keeping and the rise of the importance of the scribe corresponded with the realization of a large agriculture surplus and the introduction of centralized and efficient administration of the country. The old kingdom, 2686 – 2160 BC was the era of pyramid building. These magnificent and large projects testify to the ingenuity of the architects, the administrators, and the scribes of the time. The record keeping function was responsive to the needs of the society and its rulers.

**Key words:** Ancient Egyptian Civilization, Scribe, Old Kingdom.

**JEL classification:** M41

## **Introduction**

The famous Greek historian Herodotus described Egypt as ‘the gift of the Nile’. Indeed, for millennia the great river has nourished and sustained this land as one of the most fertile agricultural areas of the world (map attached). From its source in Ethiopia’s catchment plateaus, it courses across Sudan’s swamps to enrich the narrow valley along its banks with a dense blanket of natural fertilizer. The Nile gave life to the valley and the Delta, its cycles of inundation and recession governing the eternal seasonal cycles of plantation and harvest. The guarantee was the foundation of an economic stability that allowed the inhabitants of the region to trade. Moreover, Egypt’s location at the intersection of many routes of exchange made it also one of the world’s

most important geo-strategic spots (Osman, 14).

Egypt has been under foreign occupation of various kinds from the end of the era of its Ancient Civilization to 1954. almost every major civilization in the Mediterranean basin and the Middle East (and later Europe) envied Egypt's pivotal placing and coveted its riches. "Thus, as much as geography and nature have been generous to the Egyptians, history has treated them harshly. For Egypt fell to almost all of its invaders, and throughout the country's long history its inhabitants have been reduced to the status of second-class citizens in their own country – and, at times, outright slaves to foreign rulers" (Osman, 15).

Despite the eras of alien rule, the native Egyptian has recognized the existence of a fixed and unchanging territory that is Egypt, which has fixed natural boundaries, and which is a separate territory even when at the center of an empire or amalgamated into an empire as a province. Even before the age of the national affinities Egyptians have had a clear sense of their country as a place with defined borders and a homogenous population. The development of accounting, therefore, has been shaped largely by political and economic forces with little or no effect of factors such as changing of boundaries and a heterogeneous mix of population and cultures. The understanding of the origins of record keeping and accounting provides more than just a story of money and numbers. It is a story of the world's evolution from bantering and local trade to its current global economy. So much history's written records are in the form of accounting documents of various types.

The exceptionally long duration of the pharaonic period with its rigid social system provide sample evidence of how society and its corresponding administration change over time. The achievement of 'civilization' as indicated archaeologically by the introduction of writing is supposed to have taken place, in Egypt's case, in the fourth millennium BC. The fourth millennium also conveniently appeared to be a phase during which human evolution had reached a decisive stage, with the emergence of social structures suggesting man's final separation from the natural world, over which he gained control by becoming a sedentary cultivator in the Nile valley. (Grimal 11).

“The immediate impression of Egyptian civilization is of a coherent entity, the extraordinary duration of which has guaranteed it a special place in the history of mankind, the culture seems to have emerged, already fully formed, towards the middle of the fourth millennium BC, eventually vanishing at the end of the fourth century AD. For almost forty centuries Egypt possessed an air of unchanging stability and a political system that did not appear to be shaken by anything – even the occasional invasion.” (Grimal, 17).

The history of Ancient Egypt, like all history, is based on some form of chronological framework. The pharaonic period from 3100 – 332 BC has been divided into a number of periods known as ‘dynasties’, each consisting of a sequence of rulers, usually united by such factors as kinship or the location of their principal royal residence. However, this politically based chronology is becoming difficult to reconcile with the social and cultural changes revealed by excavations since the 1960’s (Shaw, 1). Modern chronologies of Ancient Egyptian history combine three basic approaches. First, there are ‘relative’ dating methods or the ‘sequence dating’ of artefacts. “Secondly, there are so called absolute chronologies based on calendrical and astronomical records obtained from ancient texts. Thirdly, there are ‘radiometric’ methods which assign dates on the measurement of radio active decay or accumulation in particular types of artefacts or organic remains (Shaw, 2). As a result, the chronological history of Ancient Egypt is a subject of controversy among archaeologists. There is a consensus regarding the periods but no agreement on the precise start and end date for each period.

Egyptologists distinguish between the major periods of pharaonic history on the basis of the political state of the country. Kingdoms “defined as times of political unity and strong, centralized government – alternate with ‘intermediate periods’ which are in contrast characterized by the rivalries of local rulers in their claim for power” (Seidlmayer, 108). The following broad classifications provide an overview of the long Egyptian history<sup>1</sup>.

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<sup>1</sup> A detailed presentation of Egypt’s history prepared by the Egyptian Ministry of Culture is contained in the annex.

- 4500 - 3150 BC ***PREDYNASTIC PERIOD***
- 3150 - 2700 BC ***THINITE PERIOD***
- 2700 - 2190 BC ***OLD KINGDOM***
- 2200 - 2040 BC ***FIRST INTERMEDIATE PERIOD***
- 2040 - 1674 BC ***MIDDLE KINGDOM***
- 1674 - 1553 BC ***SECOND INTERMEDIATE PERIOD***
- 1552 - 1069 BC ***NEW KINGDOM***
- 1069 - 702 BC ***THIRD INTERMEDIATE PERIOD***
- 747 - 525 BC ***LATE PERIOD***
- 524 - 404 BC ***FIRST PERSIAN PERIOD***
- 404 - 343 BC ***DYNASTY XXVIII-XXX***
- 343 - 332 BC ***SECOND PERSIAN PERIOD***
- 332 BC - 395 AD ***GRECO – ROMAN PERIOD***

The purpose of this paper is to link the development of the record keeping function in Ancient Egypt to the social and economic changes. The “old Kingdom” with its elaborate administrative system and great projects seems to be the flourishing initial period of record keeping and the emergence of the critical role of the scribe in the management of the country.

### **Political and Economic Developments**

Up to about 4,400 B.C. the evidence is that Egyptian population lived in egalitarian, tribal arrangements. The main economic activities of these people were hunting, fishing, and gathering. This tribal society is a non-exchange, non-proprietary society that follows the rule of hospitality -- all had a right to subsistence that was collective. It produced by its members on collectively held means of production. Such a society is non-political in that no authority could exist independent of the population as a whole.

By the period 3,200 B.C. - 3,000 B.C. this tribal society has been transformed into an agricultural society. As agriculture continued to develop and as the unification of Egypt was completed around 3,000 B.C., knowledge of and technical advance required to control the Nile increased. It was

recognized that the whole Nile Valley would have to be brought under some supra-tribal control. Local villages spread along the river could not be in a position to regulate the flow of water on which they were dependent.







The introduction of writing in the Fourth Millennium included the use of symbols for the numbers 1 to 9. The invention of hieroglyphics must have taken years or centuries to develop. Hieratic writing, the first cursive form of hieroglyphics, “developed much later, as a quicker and more convenient way of recording an agreement, conveying a message, or making a calculation with numbers than by the detailed drawing of pictographic hieroglyphs” (Gillings, 4). Moreover, historians of Egyptian mathematics confirm, based on the mathematical papyri, that the four fundamental arithmetic operations – addition, subtraction, multiplication, and division – were performed and checked by the scribes. The Egyptians wrote their words and numbers from right to left and all hieroglyphic and hieratic fractions were unit fractions i.e. have unit numerators. The fraction  $\frac{3}{4}$  was written by the scribe as  $\frac{1}{2} + \frac{1}{4}$ .

While such a method may seem complicated, the scribes devised means and rules to meet the difficulties of the method as they arose (Gillings, 5-23).

### The earliest Egyptian symbols for the numbers 1 to 9

1		6	
2		7	
3		8	
4		9	
5			

## Egyptian symbols for large numbers

10		
100		
1,000		Lotus
10,000		
100,000		Tadpole or bird
1,000,000		Not in later use

The early Dynastic Period was a time of consolidation of the enormous gains of the unification of Upper and Lower Egypt when a state bureaucracy was organized and expanded successfully to bring the entire country under royal control. The use of early writing and the work of the scribes facilitated such state organization. That this state was successful for about 800 years is a testimony to the Egyptian organizational skills and the strongly developed institution of kingship. Egypt's old kingdom was a centrally planned and administrated state and the king was considered the owner of all its resources and whose powers were practically absolute. The highest office was that of a vizier who was responsible for overseeing the running of all state departments, excluding the religious affairs which were handled by the priests. The intensity of state control increased dramatically and so did the number of state officials at all levels of administration. As money was not used for payments, those officials were remunerated with leases on state land, usually estates with their cultivators. The land reverted to the king at the end of their service.

Pharaonic Egypt was organized around a system of phyles. These social units were based on the clan structure of previous tribal society which continued to form the foundation of class society in the post - 3,000 B.C. period.

Initially, the administrators of the economy were all related (kin) to the king. As the bureaucracy grew more extensive, non-clan individuals were drawn upon to serve in the administration of the economic and political arrangements of the kingdom. The phyles developed into bureaucratic mechanisms that organized large number of people for tasks as varied as building pyramids and washing and dressing the statue of a dead king.

Under the new social organization, tribal obligations were converted into levies or taxes. The economic unit taxed was not the individual but the village. The king and priests did not arbitrarily assign a tax level on the village, but tax assessors and collectors (scribes) met with the village chief who would assemble the village council to negotiate the tax. Supervising all the local or regional scribes, and assuring both competence and honesty in this process, was a vizier who exercised central authority in the name of the king.

The economic surplus collected in the form of taxes was directed toward the king and the priests who then redistributed some portion through the various levels of the bureaucracy, the temple artisans, and the workers who laboured on the various religious and hydraulic projects. The priests, of course, would claim the lion's share. In addition the portion of the surplus collected as taxes, the king also collected royal gifts as a form of tribute from foreign populations. As the goods that formed this income could be in the same form as the income that flowed from the internal population, but was the property of the king proper, it had to be kept apart from the internally generated income. This required the development of an elaborate accounting system through which both assessments and payments could be recorded, and royal gifts could be kept separate from taxes.

During the old kingdom Egyptian Civilization really came of age. The advances begun in previous centuries – in building, technology, hieroglyphic writing and artistic representation – reached new heights. Nowhere more clearly than in the spectacular program of pyramid construction – Djoser's Step Pyramid at Saqqara, the Great Pyramid of Khufu at Giza and the famous Sphinx, thought to represent king Khafre. Record keeping for the construction of such mega projects – the accounting for the payments in kind for the

thousands of labour and the stock piling of material were unprecedented achievements at that time.

The prosperity created under the Old Kingdom could not be sustained. The king's economic power had been greatly weakened and could no longer perform the role assigned to him by the doctrine of Egyptian Kingship. The system of remuneration for the elites no longer functioned satisfactorily and the fiscal system was probably on the verge of collapse. Some offices became, in effect, hereditary and were kept in the same family for several generations. "Centralized government all but ceased to exist, and the advantages of a unified state were lost. The situation was further aggravated by climatic factors, especially a series of Low Niles and a decline in precipitation that affected areas adjacent to the Nile Valley and produced pressure on Egypt's border areas by nomadic inhabitants (Malek, 107). The old kingdom ended around 2181 BC in political fragmentation and anarchy. However, the role of the scribe continued.

The Pharonic period, as a whole, ended when Alexander the Great conquered Egypt in 332 BC. Egypt became part of the Greek Empire and later the Ptolemais until 30 BC when it became a part of the Roman Empire. Egypt would come to serve as a major producer of grain for both the Greek and Roman Empires and its wealth was harnessed for the imperial wars. In the fourth century A.D. the Roman Empire was divided in two with Egypt finding itself in the Eastern Empire (known as the Byzantine Empire) with its capital at Constantinople. The fall of the Western Empire in the fifth century A.D. further isolated the Egyptian Romans from Rome's culture and hastened the growth of Christianity. One consequence of the triumph of Christianity was the final oppression and demise of the Egyptian indigenous culture: with the disappearance of the Egyptian priests and priestesses who officiated at the temples, no-one could read the hieroglyphics of Pharaonic Egypt, and its temples were converted to churches or abandoned to the desert. It was the end of the Ancient Egyptian Civilization which had the scribe as one of its pillars.

### **The Scribe**

In the Ancient Egyptian Civilization, a scribe was a person who



could read and write Egyptian hieroglyphics. Scribes either carved or painted the ancient language by using various tools to impress hieroglyphics onto the walls of tombs and temples. Papyrus was another form on archive for the Egyptians by being able to send letters as well as using them for rituals. Statues of Ancient Egyptian scribe usually depict their owners seated cross-legged on the ground, often holding some form of scribal apparatus such as a papyrus or palette (Annex). The scribe statue was one of the few Ancient Egyptian statue types not based upon a royal model, but it was often used for the representation of Ancient Egypt's most influential civil, military, and ecclesiastical officials. Although the statue type was almost exclusively a tomb statue during the old kingdom, by the late period it was to be found only in temples. A PhD dissertation on the style, including pose, costume and wig type of the scribe throughout Ancient Egypt was carried by Gerry Dee Scott, III at Yale University in 1989. The conclusions of the study were to place the statue type and its development within the broader context of Ancient Egyptian Civilization.

At some early point in the Old Kingdom, the growing complexities of the new economic arrangements required the introduction of a unit of account in which taxes and their payment could be reckoned and the various accounts in the treasury could be kept separate and maintained. This unit was the *deben* (and its fractional denomination, the *shat*— $1/12$  of a *deben*). The *deben* was a unit of weight, initially equalled to 92 grams of wheat. Later, but still in the period of the Old Kingdom, copper replaced wheat as the “thing” with which the *deben* was associated. No *debens* ever changed hands. The scribes maintained their accounts in the decreed unit of account, but payments were made in goods. “Such divergences between the money in which prices are reckoned and the commodities in which debts are discharged represent...a fairly common phenomenon in history (Grierson, 1977, 17). In other words, money does not originate as a medium of exchange but as a unit of account (and something of a store of value with regard to the king's treasury), where the measure of value is arbitrarily specified by decree, and goods and services of various qualities can then be assigned a monetary value to allow a reasonable

form of bookkeeping to keep track of tax obligations and payments and to maintain the separate accounts of the king. Therefore, while Egypt was not a monetary economy and production was not undertaken in order to make money, it had money in the form of a unit of account. This money was not a medium of exchange but a social relationship bound up with the transition from egalitarian to a class society (Henry, 11-13).

The scribes function of record keeping required education and training which was available for the selected candidates (Annex). In performing his duties, the scribe accumulated the relevant data, processed it, and presented it in a useful form to the users- mainly the palace and the priests. This valuable function enabled the mobilization and the use of resources to achieve the ambitious projects of the kings. “During the old Kingdom Egypt experienced a long and uninterrupted period of economic prosperity and political stability, in continuation of the Early Dynastic Period. It rapidly grew into a centrally organized state ruled by a king believed to be endowed with qualified supernatural powers. It was administrated by a literate elite selected at least partly on merit. Egypt enjoyed almost complete self-sufficiency and safety within its natural borders; no external rivals threatened its dominance of the North-Eastern corner of Africa and the immediately adjacent areas of Western Asia. Advances in religious ideas were reflected in breathtaking achievements in arts and architecture” (Malek, 84-85).

The consensus of accounting historians is that ancient civilizations, such as the Egyptian, developed book keeping as a sort of “stores accounting” which would merely provide an inventory of what property was available. The ancient civilization lived in an agricultural stage of economic development with large slave or serf classes which had no purchasing power; barter was the usual method of exchange and traders were hardly more than “peddlers”. The wealth of the ancient civilizations was static in the form of palaces rather than in the form of productive capital. (Littleton, 1961)

The limited uses of record keeping continued throughout the Ancient Egyptian History as agriculture was the main sector of the economy and the need for information was limited. The antecedents of double entry

bookkeeping – those factors, identified by Littleton in 1927 which in time became so interwoven as to render double entry inevitable – were not all there. These factors included the art of writing, since bookkeeping is before all else a record; arithmetic, since bookkeeping is a sequence of simple computations, even though they are cast into certain forms; private property, since bookkeeping is concerned only with recording the facts about property and property rights; money (i.e., a money economy), since bookkeeping is useless except as it reduces all transactions in properties or property rights to a common denominator; credit, since there would be little impulse to make any record if all transactions were completed and closed on the spot; commerce, since a merely local trade would never have created enough pressure (volume of business) to stimulate men to co-ordinate various ideas into a system; capital, since without capital, commerce would be trivial and credit would be inconceivable. As noted, the absence of private property; money economy; credit and capital limited; the further development of record keeping into a form of accounting as we come to know.

### **Conclusion**

When dispersed and hitherto self-sufficing agricultural communities began to yield an economic surplus, it became possible for them to support a centralized authority. There emerged a population of priests, soldiers, merchants, craftsmen, and scribes supported by the garnered surplus. It became necessary to ensure the continued collection of the resources representing the surplus and to maintain control over their custody and utilization. Accounting records became necessary for the realization of these objectives, to enable the scribe to be accountable to his superior and to permit one scribe to succeed another in the execution of the work. The old kingdom's greatest achievement was the creation of a monument that was to be recognized as the first of the Seven Wonders of the Ancient World, and the only one now standing: the Great Pyramid on the Giza plateau. Originally 481 ft or 146.6 m high, having it was until the 19<sup>th</sup> century AD the tallest man-made building in the world. The ground surface area: 13 acres, which, it has been calculated, could

accommodate St Peter's in Rome, Westminster Abbey and St Paul's Cathedral in London, and the cathedrals of Milan and Florence. Number of blocks used to build it: somewhere in the region of 2,300,000 separate blocks is the usual figure suggested, each averaging about 2.5 tons in weight with a maximum of 15 tons.

This proud record held by the ancient Egyptian architects for four and a half thousand years. Could not been realized if record keeping and centralized administration were absent.

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## **Annexes**

### **Ancient Egyptian History**

1. Egypt's Political Map
2. Chronology of Egyptian History
3. Timeline of the early Dynastic and the Old Kingdom period
4. An Egyptian Scribe
5. The training of a scribe
6. Tomb hieroglyphic
7. Temple hieroglyphic
8. Papyrus hieroglyphic

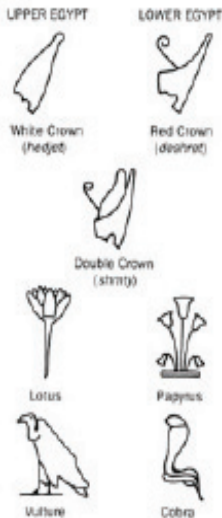
## Annex: 1

### Egypt and the Nile

Egypt is a land of extreme geographical contrasts, recognized by the ancient Egyptians in the names that they gave to the two diametrically opposed areas. The rich narrow agricultural strip alongside the Nile was called *Kmt*, 'The Black Land', while the inhospitable desert was *Dstt*, 'The Red Land'. Often, in Upper Egypt, the desert reaches the water's edge.

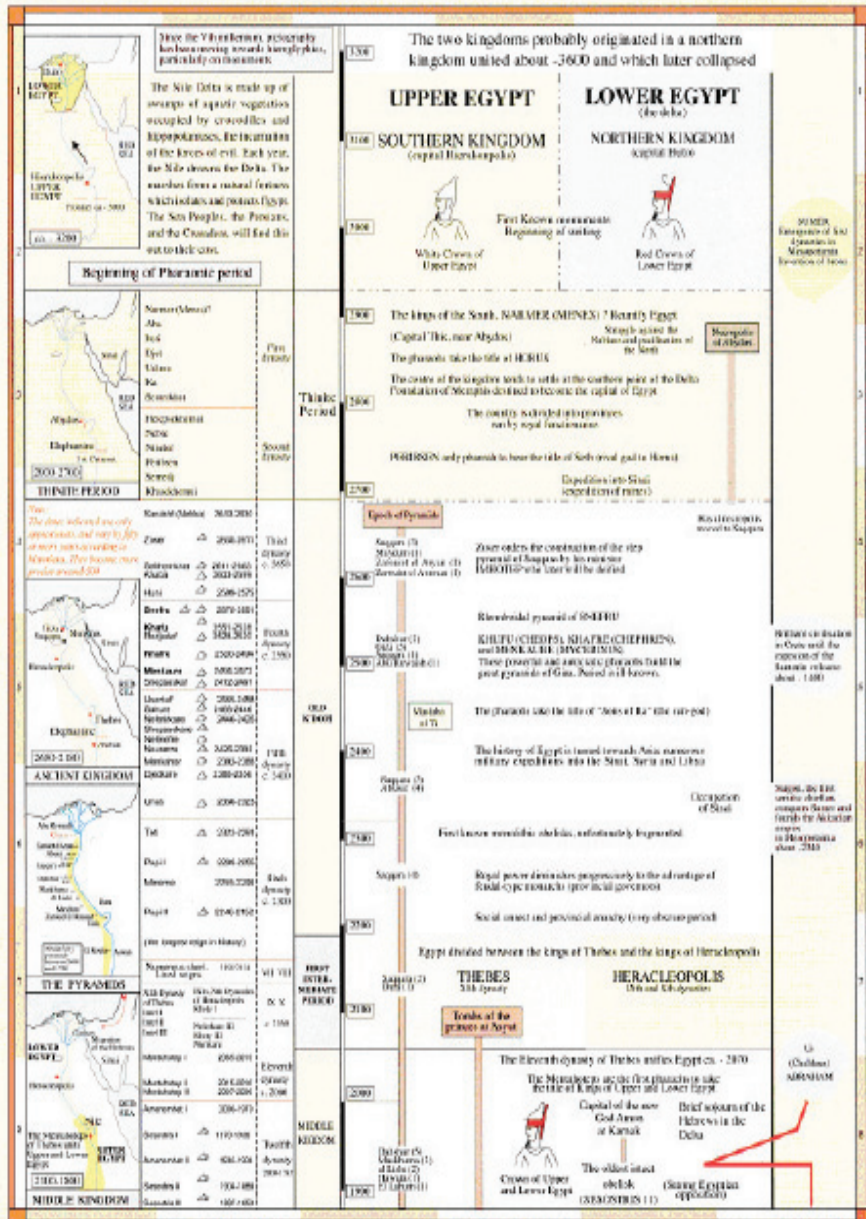
There was also a division between the north and the south, the line being drawn roughly in the area of modern Cairo. To the north was Lower Egypt where the Nile fanned out, with its several mouths, to form the Delta (the name coming from its inverted shape of the fourth letter, *delta*, of the Greek alphabet). To the south was Upper Egypt, stretching to Elephantine (modern Aswan). The two kingdoms, Upper and Lower Egypt, were united in c. 3100 ac, but each had their own regalia. The low Red Crown (the *deshtet*) represented Lower Egypt and its symbol was the papyrus plant. Upper Egypt was represented by the tall White Crown (the *hedjet*), its symbol being the flowering lotus. The two lands could also be embodied in The Two Ladies, respectively the cobra goddess Wadjet of Buto, and the vulture goddess Nekhbet of Nekheb.

(Below) Symbols of Upper and Lower Egypt



Source: Peter A. Clayton, *Chronicle of The Pharaohs*, 1994

# CHRONOLOGY OF EGYPT





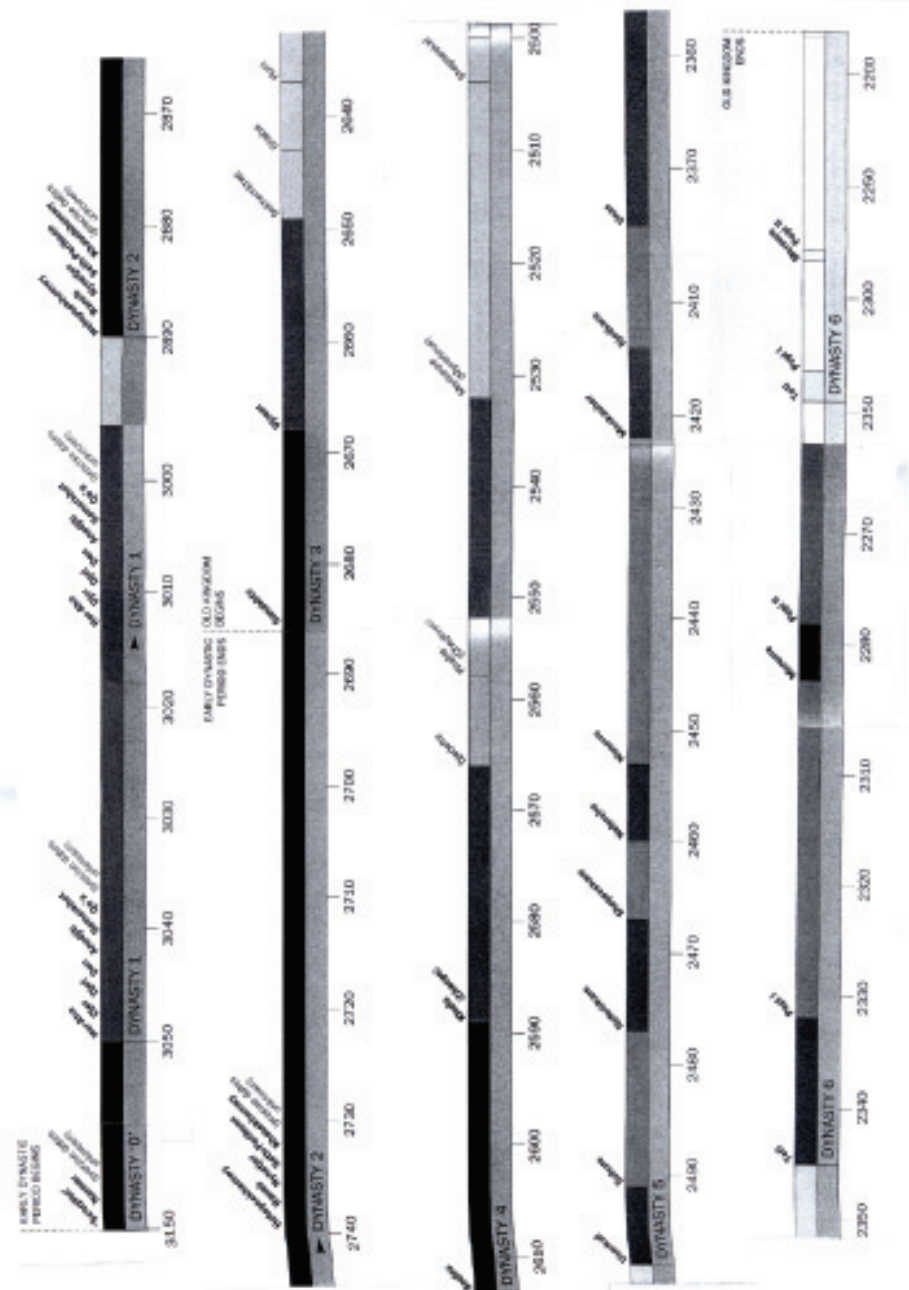




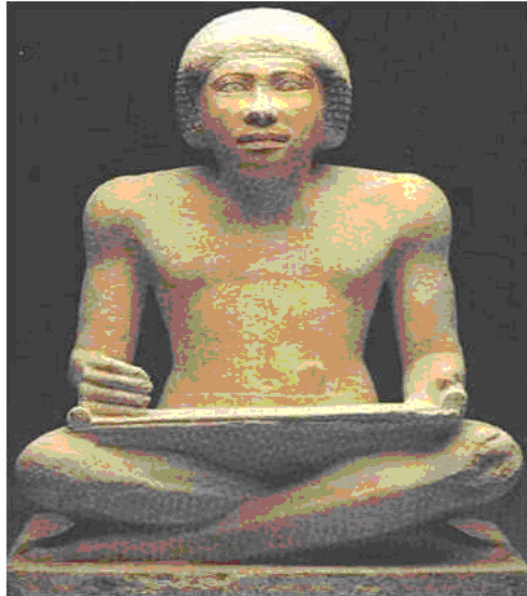




### Annex: 3



Timeline of the early Dynastic and the Old Kingdom period



An Egyptian Scribe



The training of a Scribe



Tomb Hieroglyphic



Temple hieroglyphic



Papyrus hieroglyphic