

Egypt: Old Kingdom and synthesis

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- So far, we have seen how
 - one Upper Egyptian king completed the trends of cultural and military unification during Naqada II and III around 3050 BC by conquering Lower Egypt
 - Creating a single huge, wealthy, highly centralized state focussed on himself, the king (pharaoh)
 - this was the beginning of the Egyptian Early Dynastic (or "Archaic") period, comprising the First and Second dynasties
 - featuring tremendously rich burials of royalty and of a rich noble class
 - since we have only scattered bits of domestic or administrative sites from this period, we are limited in what we can say about Early Dynastic society
 - but the unified Egypt of the Early Dynastic period looks a lot like civilization
 - and even before that, the smaller kingdoms or chiefdoms of Naqada III or Naqada II are contenders to be considered "civilizations", too

- Old Kingdom: Third through Sixth Dynasty 2686 - 2250 BC
 - the age of the great pyramids
 - contemporary with Mesopotamia's Early Dynastic II through the Agade Period
 - the Old Kingdom started over 400 years after the unification of Upper and Lower Egypt
 - it really came *after* the emergence of civilization in Egypt
 - but we can't look at Egypt without considering the pyramids
 - Don't worry about all the names and details that are coming today; just get the general idea
 - If you look in other sources, you will find numerous variants of the dates used here, differing up to 100 years or so
 - Let's back up and look at how burial monuments were developing in the centuries leading up to the first pyramid
 - mastaba tombs of the 1st dynasty began to have an internal, stepped mound
 - enclosed within the solid mastaba
 - with palace-façade paneling on the outer walls
 - Djoser (also written Zoser): builder of the first pyramid
 - Djoser was the first king of a new dynasty (the Third Dynasty)
 - Djoser ascended to the throne around 2686 BC
 - almost 400 years after King Djer was buried with 580 retainers
 - that was the all-time peak of human sacrifices for a royal burial in Egypt
 - and Djer was only the 3rd king after the unification of Egypt
 - Djoser built his main burial monument at Saqqara
 - the stepped pyramid of Djoser (started around 2686 BC)
 - Djoser may have leveled one or two previous large burial monuments to build his
 - the evidence is numerous trenches cut into the bedrock
 - apparently the underground parts of large monuments
 - some filled with offerings datable to the Second Dynasty (2890 - 2686 BC)

- that is, they were built by kings who ruled shortly before Djoser - maybe immediately before him
- Djoser's compound is built right over these remains
- erasing his predecessors may have been intentional
- suggesting a political change, upheaval, coup?
 - which you might expect when one dynasty ends and another is founded
- Djoser's offerings including thousands of stone bowls, many dating back as far as the First dynasty
 - that must have been looted from old high-status tombs and reused
 - many were probably from the demolished monuments of his immediate predecessors
- Djoser's mortuary complex was the first attempt to built completely in stone, not to mention the first on anything like this scale
 - unless the first stone monuments were what Djoser demolished to build his own...
- Its final form was a stepped pyramid and other buildings inside an enclosure wall
 - the outer wall was decorated with palace-façade paneling, like the exterior of a gigantic mastaba
 - while the stepped pyramid seems to be a gigantic version of the stepped mound hidden inside earlier mastabas
 - the pyramid is about 125 m X 109 m X 62 m high
 - that is, each side of the base is roughly as long as a football field
 - the base would cover about 2/3 of the main quad
 - the walled compound is about 363 m X 278 m X 10 m high
 - the wall is over 3/4 of a mile long in total
- the pyramid was built in stages
 - first, a standard royal mastaba, but built of stone, rather than mud brick
 - added onto in several stages
 - then the pyramid was built over it in several stages, each stage cased in cut limestone
 - so each stage was presumably intended to be the last, was finished, and was then expanded upon
- elaborate buildings inside the enclosure were apparently a stage setting for royal ceremonies
 - some are solid, some have rooms inside
 - all built of small, finely cut stones similar in size to mud bricks
- Manetho tells us who to credit with this unprecedented monument: Djoser's chancellor, head priest, and head sculptor: Imhotep
- and in fact, in the entrance hall of Djoser's complex was found the base of a statue of Djoser that has both Djoser's and Imhotep's name on the front - a unique honor
- After Djoser, his successors tried to build similar monuments, but none of them actually pulled it off
 - each probably ruled for little more than a decade
 - first, two other burial enclosures, probably incomplete attempts by successors to build something like Djoser's, but not finished
 - then, another step pyramid, not completed, by King Sekhemkhet
 - finally, the "Layer Pyramid": a very ruined pyramid, not definitely dated

- Djoser's successors used bigger and bigger stones
 - which may have been a way to cut costs, since less stone-cutting and fitting is required
- Pyramid at Meidum (c. 2600 BC)
 - uncertain who built it
 - Like Djoser's Pyramid, the Pyramid of Meidum was also built in a stages
 - 146 m square (474 feet square) at final base
 - would almost cover 4 Salazar halls!
 - apparently suffered from structural problems, maybe collapsed or cracked?
 - never finished nor used, later partially destroyed
- Sneferu, the granddaddy of all pyramid builders
 - aka Seneferu, Snofru
 - First king of the 4th Dynasty
 - again, we find the first king of a dynasty being a hugely successful builder...
 - Sneferu began his unequalled building campaign less than 90 years after Djoser began the first pyramid!
 - Started with the bent pyramid at Dahshur, also c. 2600 BC
 - This was the first attempt to build a true, smooth pyramid
 - Bigger than Meidum
 - ~190 m square (620 feet square) at base
 - bigger chambers inside
 - apparently developed structural problems and cracks during construction
 - due to being built on clay soil that was unable to support the weight
 - tried to salvage it first by enlarging the base and reducing the angle
 - then by changing the way the stones were laid
 - then by further reducing the angle of the upper part
 - producing the bent profile
 - As the bent pyramid was nearing completion, or just after finishing it, Sneferu began work on another pyramid: the Northern pyramid at Dahshur (still c. 2600 BC)
 - Sneferu's builders finally got it right
 - using the construction techniques and lower angle that proved effective on the top of the bent pyramid
 - succeeded in achieving a straight, not bent profile
 - bigger than the Bent pyramid
 - almost as big as the great pyramid of Khufu at Giza (Sneferu's son)
 - but not as steep
 - ~222 m square (722 feet square); ~105 m tall (~340 feet tall)
 - each side is over twice as long as Stevenson Hall!
 - Sneferu may have then remodeled the pyramid Meidum
 - it may have been left by a previous builder as a mostly finished, stepped pyramid
 - Sneferu may have returned to Meidum and converted the unfinished stepped pyramid there to a smooth one
 - Putting the two pyramids at Dahshur together, even without counting Meidum, Sneferu moved more stone to build pyramids than any other pharaoh, before or after

- he was not only the *first* to build a true pyramid
- but also the *biggest* builder, in total mass, who ever lived
 - only his own son ever built a bigger pyramid
 - and not even his son could equal the total tonnage of stone that his father had used
- Sneferu's son, Khufu, second king of the 4th Dynasty
 - (aka Cheops, Khufwey, Suphis, Medjdu, Medjuro)
 - chose Giza as the place to build his pyramid - at the time, just an empty desert plateau
 - The Great Pyramid of Khufu at Giza c. 2580 BC
 - Just over 100 years after the first stepped pyramid!
 - 7 burial complexes had been started in that time
 - if they were being built one at a time, that is only around 14 years from one to the next
 - in one lifetime of 30 to 40 years, a 4th Dynasty Egyptian would have seen not just one, but two or even three massive royal pyramid and burial compound projects started and either abandoned or finished!
 - compare that to the cathedrals of Europe, which were ongoing projects for many generations
 - Khufu's Great Pyramid at Giza is a little bigger than his father's at Dahshur
 - The biggest ever built, to this day
 - yet only the 7th attempt in the history of the world
 - with only about 100 years of experience
 - 230 m square (756 feet): just slightly larger than his father's
 - if built on this campus, it would cover Stevenson, Darwin, Salazar hall, the Student Union, the Commons, and most of the main quad
 - 146 meters tall (475 feet): quite a bit steeper and taller than his father's
 - 2.3 million cut sandstone interior blocks, 2.5 tons each, quarried nearby
 - estimated 84,000 laborers working for 80 days/year for 20 years (about 370,000 person-years!)
 - mostly while the fields were flooded
 - if correct, that means one 2.5 ton block was set in place every 30 seconds
 - (assuming 12 hours of work per day)
 - over 1400 blocks per day!
 - or, if they worked 12-hour days year-round, that is 315 blocks per day, still under 2.5 minutes each...
 - presumably, several were being placed at any given moment, but that is still just minutes per block
 - an incredible logistical feat to get this done!
 - implies extreme organization and control
 - outside cased in limestone blocks
 - very accurate, fit together tightly
 - weigh 16 tons each
 - quarried a few miles upriver, on the opposite side
- Granite used extensively inside to line corridors, chambers, etc.
 - brought from Aswan, far up the Nile

- presumably floated the stones down on rafts, and right close to the building site on the Nile floodwaters
- Contents of the pyramids
 - All the pyramids have been looted
 - But the underground burial of Sneferu's wife, Hetepheres, was found partially intact
 - The jewelry, furniture, etc. in it hint at what the pyramids must have contained
- Building Khufu's pyramid required the control of an incredible amount of wealth
 - in modern terms, the labor alone at minimum wage (\$5.15/hr current Federal minimum wage; not California's \$6.75/hr) would total over 5.5 billion dollars
 - enough sandstone for the interior blocks would cost almost 0.6 billion dollars (5.75 million tons at \$100/ton)
 - plus all the skilled labor, limestone, granite, etc. which today would be very expensive
 - Khufu expended the equivalent of well over six billion dollars on his own tomb
 - not to mention all the gold and expensive craft goods placed in it
 - or the endowment to establish a "pious foundation" that would be staffed and carry out rituals to honor his memory *forever* after
 - yet, amazingly, there are over two dozen people in the world today rich enough to do that, if they wanted to!
 - Bill Gates, worth \$53 billion in March 2002, could build eight great pyramids
 - although if he wanted to furnish them he would have to cut back to maybe just five or six
 - Gates could buy out the greatest pharaoh of Old Kingdom Egypt and still have 80% of his fortune left over!
 - why mention that? Because it indicates that today's society is far *more* stratified than the extraordinarily stratified society of Pharaonic Egypt... amazing!
- Khufu's descendents had variable success building pyramids
 - Khufu's successor (presumably his son) Kheper (=Radjedef = Djedefre) built a smaller pyramid at a different site, Abu Roash
 - his son, Khafre, returned to Giza to build a much bigger pyramid than his father's
 - almost as big as his grandfather Khufu's
 - this is the one with a bit of limestone casing still present near the top
 - Khafre = Chephren = Khephren = Useryeb = Suphis
 - 216 m square (708 feet)
 - added a new touch: the great sphinx, the only pyramid that has one anything like this size
 - it is a natural bedrock outcrop that was carved to form the head, with the paws, body, and tail built up with stone blocks
 - located along the causeway from the valley temple to the pyramid
 - Khafre's son (or maybe grandson) Menkaure also built at Giza, around 2530 BC
 - Menkaure = Mycerinus = Kakhe = Mencheres
 - much smaller again
 - 109 m square (356 feet)
- after him, no more major pyramids were built at Giza
 - this was the end of the fourth dynasty, the era of great pyramids

- subsequent pyramids were mostly at Abu Sir
- a few were around the size of Menkaure's, but most were much smaller
- The typical pyramid complex
 - pyramid with burial and offering chambers
 - attached or adjacent temple that functioned like the funerary enclosure in earlier dynasties, with a statue of the dead king
 - causeway from the temple at the pyramid to the valley temple, at the edge of the farmland
- Use of the pyramids
 - the pyramids themselves simply contained the royal remains and objects that the dead king would need
 - they were attached to temples dedicated to the images of the pharaoh
 - the valley temple was the focus of a small "pyramid town", dedicated to maintaining the dead king's mortuary complex and performing rituals for him
 - these people comprised a "pious foundation" that the king had endowed with land, facilities, and special rights so that they could honor his memory forever after
- Kurt Mendelssohn's theory on the pyramids
 - According to this theory, pyramid building was a means to redistribute food stored by the state to workers during the flood season
 - farmers paid tribute to the state
 - the state called them up to work on the pyramids during the flood season
 - while they worked, they were fed from the state stores
 - this seemed to justify taxation
 - it showed that the state was tremendously wealthy and powerful
 - it probably instilled national pride and unity
 - and it kept a lot of otherwise idle hands out of mischief
 - people might store less for themselves, knowing that the state would support them during the flood period
 - This would eventually make farmers dependent upon the state
 - and accepting of taxation and other obligations such as labor on state projects
 - Does this work as a theory of the *origin* of Egyptian civilization?
 - No- civilization had clearly appeared long before the pyramids were built
 - can the ideas behind this theory still be useful?
- Generalizations about the Old Kingdom:
 - Settlement pattern in the Old Kingdom
 - Large capital at Memphis
 - Secondary centers were small by Mesopotamian standards, but still cities
 - examples: Buto, Hierakonpolis, Buhen, Dakhla, Elephantine, Mendes, Tell Basta
 - the bulk of the population lived in small agricultural hamlets
 - nothing like the hyper-urbanism of Sumer
 - Centralized political and economic organization
 - land was held by
 - the king
 - "pious foundations" for the maintenance of shrines to ancestors and other purposes

- individuals, often as large private agricultural estates
 - this is known from written sources, mostly later than the Old Kingdom pyramids
- very uniform artifact styles from the Delta all the way up the Nile
 - even though most objects were locally made
 - suggests intense interaction of people over whole Nile
- quantity and uniformity of grave goods suggest specialized, centralized production
- little evidence of ongoing warfare or standing armies by Old Kingdom times
- the court and royal projects were supported by taxation:
 - Palermo stone and other Old Kingdom sources mention a biennial census of cattle, apparently for tax purposes
 - other decrees show that taxes could be assessed by “canals, lakes, wells, waterbags, and trees” on an estate
 - Later documents suggest taxation in labor, too
 - a 13th dynasty document lists names of people who failed to perform their labor obligations and had been captured to work on government farms or labor camps
 - Read the extract about scribes and taxation (1297-1070 BC)
- laws: the same 13th dynasty document describes various crimes in precise variations, suggesting a detailed law code that is now lost
- incredible mobilization of labor
 - extreme organization must have been required
 - high technical skill and specialization
- written records indicate lots of specialized administrators and extremely centralized, hierarchical organization
 - corroborated by tombs not only of royalty, but also of many high-status nobles with specific administrative duties, indicated by their titles
- one individual man, the Pharaoh, directed all of this for his own ends
 - burials indicate a single leader with extremely high status
 - who was both religious and secular head from the beginning
 - this contrasts with the Mesopotamian pattern
 - in which power was divided between temple and palace
- Even in the Early Dynastic period, Egypt was far more centralized, with far more concentration of wealth and power at the top, than Sumer ever was
 - Compare the status and power of leaders as shown by burials
 - Mesopotamian royalty in Early Dynastic Ur
 - 50-odd retainers, jewelry, harps, etc.,
 - Egyptian royalty in the Early Dynastic (King Djer)
 - 580 retainer burials, unknown but copious goods
 - Compare the power of institutions as shown by monumental architecture
 - The biggest Sumerian temple, the ziggurat at Ur
 - base of 64 x 46 meters, maybe 25 meters tall
 - made of mud brick
 - Khufu's pyramid at Giza

- base of 230 x 230 meters (about 4 times the long side of the ziggurat at Ur), about 105 meters tall (about 4 times as high)
- about 23 times the volume
- built not of molded mud brick, but of solid cut stone
- Conclusion
 - The first few generations of the Old Kingdom saw an explosion of pyramid construction
 - 2686 - 2530 BC, about 150 years, with a pyramid complex starting every 12-13 years!
 - so fast that almost everyone would see two or even three completed in their lifetime
 - yet after the Fourth dynasty, nothing even close to them was ever built again.
 - but the pyramids were built after a 400+ year history of unified divine rule of Egypt
 - even longer after the origins of divine kingship in Naqada III, if not Naqada II, in Upper Egypt.
 - at what point in this development you would say “civilization” appeared?
 - try out some of the theories to see if they explain it: the Hydraulic Hypothesis? The War Finance Theory? Success in Competition?
 - Consider how Egypt contrasts with what we saw in Mesopotamia
 - flat Mesopotamian floodplain with multiple streams and natural levees, vs. the narrow, linear, regularly flooding Nile
 - need for, and potential of, irrigation projects
 - cities and city-states came first in Mesopotamia, regional unification much later
 - even then, regional unification in Mesopotamia only lasted a few generations, collapsed, was re-established, collapsed...
 - regional unification early in Egypt, cities smaller and never the bulk of the population
 - temple and palace institutions vs. single leader
 - origins of institutions and leadership (temples and redistribution vs. kings and militarism; role of specialized production and trade)
 - role and function of monumental architecture
 - role of redistribution (or at least evidence of it)
 - role of specialized production and trade
 - importance and role of burials
 - social stratification early, strong, clearly associated with warfare in Egypt, vs. relatively slower to develop in Mesopotamia, not so clearly associated with war (at least initially)
 - the role of warfare
 - different uses of writing
 - and many other interesting contrasts...
 - Comparing these cases can help you recognize what is important and distinctive about each

Tax time in ancient Egypt

From a practice text written by scribes in training in the 19th and 20th dynasties (1297-1070 BC, in the New Kingdom). In this extract, a scribe extols his profession and describes the misery of a

farmer at tax time. (From W.K. Simpson (ed.), *The Literature of Ancient Egypt*, 1972, pp. 343-344)

I have been told that you have abandoned writing and that you reel about in pleasures, that you have given your attention to work in the fields, and that you have turned your back on hieroglyphs. Do you not remember the condition of the field-hand in the face of the registration of the harvest-tax, the snake having taken away half of the grain and the hippopotamus having eaten the remainder? The mice are numerous in the field, the locust descends, and the cattle eat. The sparrows bring want to the field-hand. The remainder which is <on> the threshing floor is finished, and it is for the thieves. Its <value in copper> is lost, and the yoke of oxen is dead from threshing and ploughing. The scribe has moored <at> the river-bank. He reckons the tax, with the attendants bearing staffs and the Nubians rods of palm. They [say]: Give the grain! There is none. They beat [him] vigorously. He is bound and cast into the well. They beat [him], drowning [him] head first, while his wife is bound in his presence. His children are manacled; his neighbors have abandoned them and fled. Their grain is gathered. But a scribe, he is the task-master of everyone. There is <no> taxing of the work of the scribe. He does not have dues. So take note of this.