

ASSIGNMENT 7

ANCIENT EGYPTIAN CIVILIZATION

Assignments 7 and 8 focus on two early civilizations, those of Ancient Egypt and the Maya, each of which we examine in some detail.

Assignment 7 discusses the origins of state-organized societies and the theoretical controversies surrounding their origins. This theoretical background is essential for understanding some of the factors which contributed to the rise and fall of pre-industrial civilizations. Then we analyze the rise, and workings of, one of the world's earliest civilizations, along the banks of the Nile River.



WHAT LIES AHEAD

Assignment Objectives

After completing Assignment 7, you will be able to:

1. Define a state-organized society and describe its fundamental features.
2. Describe, and evaluate the limitations of, different multi-causal theories of the origins of the state-organized society.
3. Describe the salient features of ancient Egyptian civilization and provide an analysis of its development and fundamental political, religious, and social institutions.



WORK REQUIRED

Assignment 7 requires you to:

1. Readings: World History. Read Chapters 8-11, plus Anthology.
2. Web Exercises: 7-1: Amarna & Egyptian Temples, 7-2: The city of Ur, 7-3: Puabi.
3. Written Assignments: Urbanism group exercise begins.

As usual, we start with a lecture . . .



LECTURE 1: THE EMERGENCE OF STATES

This week's lectures describe and analyze some of the methods used to study the social and economic dynamics of state societies in the old world, using Mesopotamia as a starting point and ancient Egypt as a case study. We discuss:

- The study of emerging political and social complexity and the main theories for the emergence of cities and states.
- The archaeology of early states and its unique challenges methodologically.



LECTURE 2: ANCIENT EGYPT

This lecture explores the sources of power employed by early rulers, with particular attention to ancient Egypt, including what Tutankhamun's tomb tells us about the religious, economic, social, and political underpinnings of ancient Egyptian civilization.



PRESIDENT'S DAY HOLIDAY

Monday, February 20th.



CHRONOLOGY

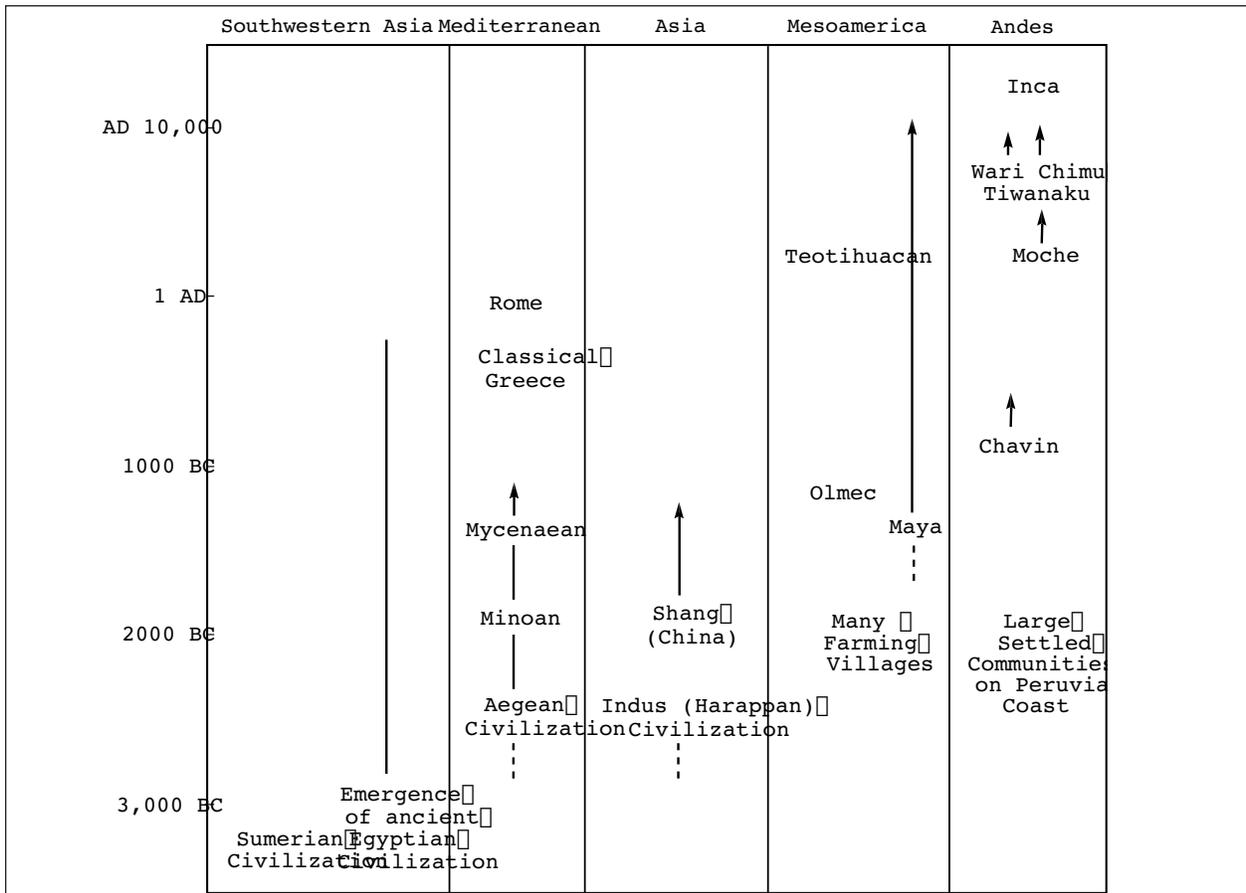
First, the last chronological table in the course. Study it carefully and have it by you for reference as you go through the last assignments.

Note:

- The broadly contemporary appearance of Sumerian and Ancient Egyptian civilization in about 3100 B.C.,
- The more-or-less simultaneous development of more complex, state-organized societies in the Aegean area and Greece, and in the Indus Valley by 2500 to 2000 B.C.,
- The later emergence of civilizations in China and Southeast Asia by 2000 B.C.,
- Emerging cultural complexity and then of state-organized societies in Mexico by at least 1500 B.C., and in coastal Peru by about the same time.

Refer to this table when need be as you go through the assignment. From here on, we assume you have the chronology in mind.

When you have finished, please read on . . .



The Emergence of Civilization



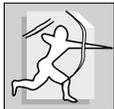
STATE-ORGANIZED SOCIETIES

First, we must define a state-organized society. Read ...



Anthology section: "States and Pre-states."

When you've completed this reading, please read on ...



THEORIES OF THE ORIGINS OF STATES

Theories about the origins of states and civilizations (for our purposes the terms are interchangeable) date back to before the 1920s. We summarize the major theories in two readings:



World Prehistory. Read Chapter 8 in its entirety

This chapter summarizes the major theories, both those involving a single factor and those invoking many. Also please read:



Anthology section: "States and Pre-States."

This reading parallels the textbook, discussing the criteria for identifying state societies.



THE ANCIENT EGYPTIANS

Our journey through the ancient Egyptian world focuses on two questions:

- Why did civilization develop by the Nile and what were the complex processes which led to the unification of Egypt and the appearance of the Egypt of the pharaohs?
- How did ancient Egyptian civilization function and what was the role of kingship in ancient Egyptian life?

But first we must set the stage, so please read:



Anthology section: "The Organized Oasis."

A marvelous evocative description of the Nile Valley.



Next read: World Prehistory. Read Chapter 10.

These pages give you a general survey of ancient Egyptian and Nubian civilization. Please read this carefully, as we will use terms and names from this reading throughout the remainder of this assignment.



Fagan in World Prehistory (pages 252-256) describes the origins of the Egyptian state as a kind of ancient game of Monopoly, with pyramids for hotels and Park Place replaced by Abydos. Write a 1-2 page opinion essay assessing this idea.

When you have finished, read on . . .

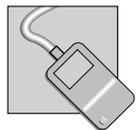


ANCIENT EGYPTIAN KINGSHIP

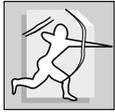
In Egyptian civilization, the intellectual view of the order of the universe coincided with the structure of political power, which we survey in the next readings:



Anthology Sections: "Ancient Egyptian Origins," and "Ancient Egyptian Kingship." Remember the symbolism described in this reading for the Urbanism Exercise when we study the Maya in Assignment 8.



Web Exercise 7-1: City of Amarna & Egyptian Temples. Egyptian kings reinforced their divine status through the construction of massive temples that emphasized their connection to the gods. This web exercise also involves visiting a web site devoted to the most complete example of urban layout we have from ancient Egypt, the city of Akhetaton, known today as Amarna. The infamous Pharaoh Akhenaton built this new capital, which was largely abandoned only 20 years later after his attempt at monotheism failed and the capital returned to Thebes. Because the city remains are just under the sands of the desert, and not under meters of later settlement debris, almost the entire plan is available - temples, palaces, storerooms, government bureaus, houses, and tombs.



EXCAVATIONS AT UR, MESOPOTAMIA

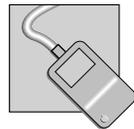
Mesopotamia, “the Land Between the Rivers,” has attracted archaeologists since the 1840s and it was here that the earliest civilization of all, that of the Sumerians, first appeared. Leonard Woolley’s classic excavations at Ur between 1922 and 1934 give us much of our knowledge of Sumerian civilization. His large scale dig, employing some of the broadest of broad exposure excavations, gives us a detailed picture of Ur at the height of its power. The background reading on the Sumerians, which you will need for the comparison assignment outlined below, comes in two parts:



First, some general background reading on the Sumerians and other Old World civilizations: World Prehistory, Read Chapters 9 and 11.



Then to the Anthology Section: “Excavations at Ur.” Woolley was famous for his vivid archaeological writing, of which this is a classic example.



Finally move on to a web tour of Ur:
Web Exercise 7-2 & 3: The City of Ur.



GROUP EXERCISE: URBANISM

Early cities were both economic and ideological centers, serving to reinforce the power of the ruling elite in both arenas. In this group exercise, you will compare the organization of urban spaces in Egypt, Mesopotamia, and Mesoamerica. Based upon the readings and web materials in this chapter and in Chapter 8, each member of the group should select a city and sacred complex: 1. Egypt: Amarna and Medinet Habu Temple; 2. Ur ; 3. Tikal; and 4. Teotihuacan. Answer the following questions:

1. How was the city divided between royal, domestic, economic, and religious spaces? 2. What was the nature of the city's sacred landscape, and how did it legitimize the rule of kings? 3. What ideological messages did monuments convey about royal authority and who was the audience?

Once you have established this for each urban space, compare and contrast the different cities. To what extent was urban space organized similarly or differently? Did monuments transmit legitimating ideologies in similar ways, or did rulers employ different strategies? Be prepared to present your findings in Section next week, along with a short summary of your conclusions (around 2 pages). As in the Olduvai Gorge assignment, since you are working in groups, you can develop a group statement. This is an exception to the general policy that exercises should be written independently.

E N D O F A S S I G N M E N T 7

ASSIGNMENT 7: ANTHOLOGY

1. STATES AND PRE-STATES.

What is a state-organized society, a “civilization?” Definitions abound in the academic literature and surround three institutions — the notion of civilization itself, cities, and what is called a state-organized society. This latter contrasts dramatically with pre-state societies. You’ll recall that we defined these briefly in Assignment 3. It’s now time to look more closely at pre- state and state-organized societies.

To refresh your memory. . .

Pre-State societies are small scale societies based on the community, the band, or the village. They vary greatly in their degree of political integration. In many, the community is the largest political unit, with no centralized authority whatsoever. In others, several communities may join together for some cooperative political or social activity, but there is no permanent political authority over all of them. Still other pre-state societies are much more elaborately organized, with many communities under the overall authority of a centralized or supreme political authority, which can sometimes be a hereditary leader. However, these societies lack the highly stratified class structure and other characteristics of the state.

State-organized societies (commonly called pre-industrial states) are on a large scale. They first emerged in Southwestern Asia about 5,000 years ago. Similar societies developed in India, China, the Americas, and other parts of the world somewhat later. All state-organized societies are autonomous political units, with many communities within their boundaries. They share a number of common features:

- A centralized political structure and a central bureaucracy that runs the state.
- Rigid social stratification that concentrates power in the hands of a privileged elite at the head of the social pyramid. Other classes include artisans, priests, and other specialists. Most people were commoners, farmers, fisherfolk, and other food producers. Slaves were the lowest of the low and below commoners.
- Intensified food production capable of supporting large numbers of non-food producers. Such intensification took many forms, but often involved state-organized water control and distribution systems. For example, irrigation canals were vital in Egypt and Mesopotamia, while the Aztecs of Mexico developed a huge system of swamp gardens to support more than 600,000 people.
- Elaborate public buildings, which served as temples, administrative centers, and dwellings for the elite.
- Writing, or some equivalent form of record keeping.

States were not necessarily advantageous to everyone. All pre-industrial states

were societies where inequality was a reality, where government was coercive. Government was usually controlled by a very small number of people. The elite maintained a monopoly on the use of force, and on the justice system. It was no coincidence that the rulers of many of these civilizations were perceived as having a special relationship to the gods. For example, ancient Egyptian pharaohs were considered to be gods on earth. It was they who presided over the lavish public ceremonies that paid homage to the gods, recited the familiar chants that validated both the authority of the deities and their state.

Very often, social inequality was justified through elaborate fictions. For instance, the Shang rulers, who governed much of northern China 3,500 years ago, were considered intermediaries between the gods, the revered ancestors, and the living. They lived in isolated compounds, surrounded by a landscape of humble farming villages that has been called the "Green Circle." Shang lords and their successors maintained an elaborate fiction of their direct kin ties not only with the gods, but with the common people, who lived apart from them. In reality their authority was based on their monopoly of force to back their draconian decisions.

One of the most complex of all state-organized societies was ancient Rome, which for centuries presided over a vast empire centered on the Mediterranean Basin and extending at times far into Asia and as far as the Rhine and Danube Rivers. This was a highly centralized state, in the hands of a patrician elite that controlled not only political and social life, but most of the empire's wealth as well. The elite presided over a highly ranked society of merchants, artisans, and commoners. The lowest of the low were slaves, criminals and prisoners of war, who worked war galleys, labored in state mines, and on other public works. The empire was based on a highly efficient and very productive agricultural system, supported by a complex infrastructure of merchant ships and roads that allowed the authorities to move both food and armies from one end of the empire to the other with great dispatch. This infrastructure was essential, for Rome's grain was grown not in Italy, but in outlying provinces like North Africa, Spain, and Egypt.

2. THE ORGANIZED OASIS BY ROBIN FEDDON

Through an inclement desert, treeless and unwatered, the Nile has carved its passage. In doing so it has created the landscape of Egypt. Between barren hills a belt of green, narrowing or widening with the valley, faithfully pursues the course of the river. Though it expands below Cairo into the fan-shaped Delta, this luxuriant strip, sandwiched between the arid and the uninhabitable, is the essential land of Egypt. It sometimes seems such chance: this green wedged fortuitously between an eternity of sand might easily not have been. Yet it is so reasonable: one sees clearly how it came to exist. Looking down from the desert, you may seize the country in a glance: a single view explains the landscape of Egypt.

In the midst moves the slow river, with two or three white sails catching the sun-

light. Alluvial and patient, the fields on either side receive its waters. From the main stream the canals diverge like arteries and go about their duties. From these again spread the lesser veins, and at last, glinting under the sun, trickle the separate rivulets that the water-wheels raise to souse a single field or a few square yards of land.

All this water moves by devious ways through a versatile patchwork of greens, doubly lush by contrast to the adjacent desert, and variegated with yellow maize stalks, or purple-brown earth where a crop has not yet sprung. Scattered forests of date palms and clumps of sycamore seem like the precise and miniature trees on a geographical model. Little mud roads, raised above the level of the fields, run purposefully up and down: dropped in the belt of green at decent intervals are dun mud villages, differentiated sometimes by a minaret or the whitewashed front of a headman's house. In this 450 miles of landscape the towns, though sometimes little more vastly swollen villages, seem oddly anomalous, and the railway runs with an embarrassed air. The water, the unhedged field, the palm, and the village are the essence.

Across this scene for six winter months the sun moves in absolute and continuous clemency. This is the season when the ancients thought that the sun-god Ra in his heavenly boat performed his duties with the greatest consideration, neither scorching the crops, nor allowing too much license to the north wind. Rising from the Eastern Desert the sun sips up the heavy winter dews and passes daily across the valley through a cloudless sky. At evening it sinks behind the Libyan hills, creating, as a magnificent finale, its breath-catching sunsets. Day after day the progress is repeated; day after day the evolution is the same. Looking out over the valley, you realize that this changelessness is central to the scene, that the constancy of the sun is reflected in the permanence of the landscape, and that the latter alters little from generation to generation, or from century to century. The very soil of Egypt has a quality of persistence, seeming to resist innovation. The pattern of the cultivation, the group of palms, the squat village, the mud road, are perennial. In spite of the new electric pylons, the valley that stretches below you is that of the pharaohs, and Ancient Egypt lies there, preserved in the balsam of the sun and the conservative instincts of the inhabitants. Here has been throughout later history no change in rainfall, no forests grown or felled, and no enclosure movement hedging the land; few new roads have sliced across the fields, and even today industry leaves them largely unscarred. The Ancient Egyptian returning in 2000 B.C. from gold mines in the Red Sea desert saw this cultivated strip, and Arab caravans plodding to the valley brink were gladdened by the same water and the same white sails.

Nile, soil, and sun provide the permanent basis of the scene, its raw material; and the fellah organizes it, contributing a flavour that makes it yet more Egyptian. His is the patchwork quilt of crops, and his the character of the village. His, too, that essential feature of the Egyptian landscape, its human animation. Those little figures that appear to move soundlessly in the valley below are a more integral part of the scene than are the inhabitants of any Western countryside. In the fields no composition is complete without man and beast: the child on the Indian buffalo; the family asleep

under the banyan tree, with camel and donkey ruminating beside them; half-naked figures bent over the soil; and the man raising water. With a dense population, 60 per cent of whom are dependent on agriculture life. The cultivation has little of that romantic appeal which is associated in Europe with the countryside. These ploughed and reploughed acres have nothing to do with copses, blackthorn thickets, dells and heaths; wild flowers cannot find a square foot alongside the crops. Here is no wildness, no communion with solitude, but a limited amount of fertile land carefully organized to support a dense population.

Yet this alluvial plotted landscape is one of the most satisfying in the world. This satisfaction relates to its subtlety. The Egyptian scene, neither obvious nor sentimental, has often a rare aesthetic appeal; something of the quality of abstract art derives from its infinite variations of shape, colour and tone. The composition of the patchwork quilt, the perspective of road and canal, the third dimension of the palms, and not least the quality of the light, combine to produce effects of extraordinary delicacy. Only in the direct midday sun does the composition lose significance for an hour or two.

For those who react favourably to heather in flower against a blue sky, this Egypt is meaningless, except perhaps at sunset. Then for an hour or so the scene changes to turquoise, viridian, mauve and gold. Sometimes the colours create stupendous effects, but more often achieve the Egypt of the postcard: the gleam of water, the silhouetted pyramid, and palms dramatic against a flamboyant sky. This is romantic tour de force which the subtlety of the Egyptian landscape for ten hours a day can afford to disdain.

From Aswan to Alexandria the same interplay of colours and shapes is endlessly repeated under the lucent sunlight of Egypt. Yet repetition is achieved without monotony. Tone and line are in constant though barely perceptible change, and from time to time occur those more obvious variations of theme, where for instance the purple sugar-canes of Upper Egypt are replaced by the cotton-fields of the Delta.

From a Nile boat the intimate changes of this landscape, together with the human animation which is so integral a part of it, are best savoured. Swallow-winged feluccas drop past with bales of cotton, sugar-cane, or earthenware pots, and bronze men in loin-cloths swing their nets from small rocking boats. Along the banks pass, as in a frieze, the dwellers in the fields: the women with their magnificent carriage, bearing pots or bundles on their heads; the peasant with his hoe; the swaying camel loaded with a mountain of clover; the patient long-eared ass; and the trailing children in charge of beasts ten times their size. And always there are the crop and beyond the distant clumps of palms.

As you slip downstream, hour by hour and day by day, the picture seems to have neither beginning nor end. The frieze along the banks is infinitely repeated. The child on the buffalo, the man laboriously raising water, you have seen a hundred times.

You have seen that white egret probing the river mud, and long since put up those redshanks from the spit beside the rushes. In the evening you have seen the same palms silhouetted against a crimson sky. And always observing the river there has been that line of desert hills, now white and colourless, now sandy-grey, now mauve or pink at sunset. Sometimes they seem to oppress the valley in their featureless aridity; sometimes they seem kindly, protective, giving point and compactness to the scene. But they always present, always repeated, always, like everything in the Egyptian landscape, suitable and inevitable. At last you may come to think that your boat has never moved, that your progress was illusion, and that you have but watched the infinitely varied play of light and colour on a single landscape.

3. ANCIENT EGYPTIAN ORIGINS

Ancient Egyptian civilization had a well defined, deeply conservative ideology, firmly based on doctrines of conformity, continuity, and precedent. Each pharaoh ruled not according to written law, but on the basis of precedents set by the gods and by earlier rulers. As Egyptologist Barry Kemp says: "The past was a model of order, a continuous and almost exclusively peaceful succession of reigns of previous kings, each one handing the throne over to his successor in a single, direct, linear sequence." This mirrored how things really were during the "great" periods of peace and stability.

In other words, this was "history by succession of kings," how so much history is taught to this day. And the pharaohs' scribes maintained long king-lists, which reflected their passion for continuity, and reverence for royal ancestors, even if their power had been usurped. The lists went back to the first Egyptian ruler, Menes (Hor-Aha). To this point, modern archaeologists and ancient Egyptians are in substantial agreement. But what happened before the first pharaoh? Here the scholar and the scribe part company. The Scribes thought this was the point at which humans took over from spirits and deities, who had ruled before them, right back to the time of the original creator god. Thus, Egyptian ideology fitted the kings of the past and their great monuments into a majestic, linear scene.

This ideology of continuity had another component, one of unity and symmetry, the forging of a single state out of two geographical entities, Upper and Lower Egypt, the valley and the Nile Delta. Look at the figure which follows, of the gods Horus (left) and Seth (right) tying together the heraldic plants of Upper and Lower Egypt together in a symbolic gesture of reconciliation and unity. Conflicting powers are reconciled: political order and stability triumph.

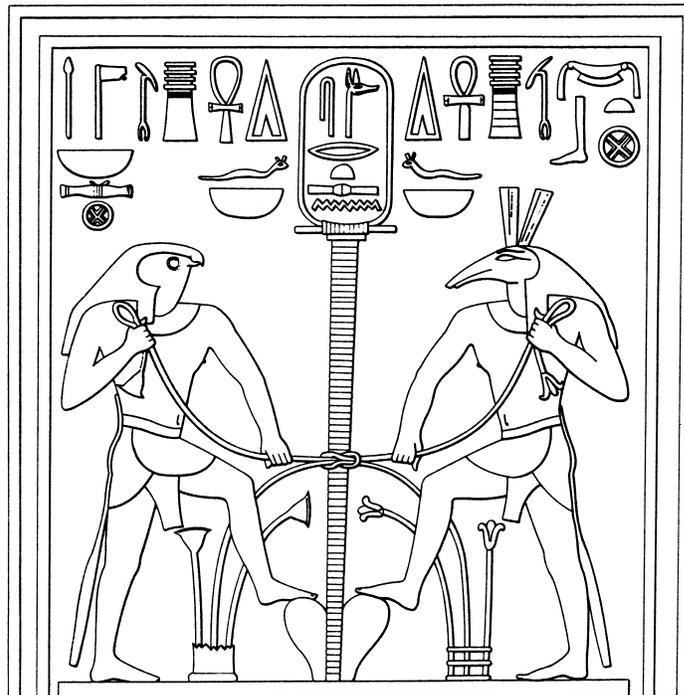
Here's the myth:

"Geb, lord of gods, judged between Horus and Seth; he ended their quarrel. He made Seth king of Upper Egypt in the land of Upper Egypt, up to the place where he was born. And Geb made Horus king of Lower Egypt in the land of Lower Egypt, up to the place where his father Osiris was drowned, the place of division of the two

lands. Reed and papyrus were placed on the double doors of the House of Ptah at Memphis. Horus and Seth pacified and united. They fraternized so as to cease quarrelling in whatever place they might be, being united in the House of Ptah, the "Balance of the Two Lands" in which Upper and Lower Egypt had been weighed."

4. ANCIENT EGYPTIAN KINGSHIP

A striking feature of ancient Egyptian civilization was that the intellectual view of the order of the universe coincided with the structure of political power. The Egyptian world was real or perceived conflict between chaos and order. It was the rule of



kings that made the containment of chaos possible, as did the benign presence of a supreme divine force manifested in the power of the sun.

Thus, power in the Egyptian state, power being defined as harmony, flowed down from a single source, the pharaoh, through loyal officials to the people. The king maintained order above all, by ensuring justice and piety, and the conquest of the forces of unruliness.

In Ancient Egypt, this kind of leadership, of divine kingship, required a formal setting for the display of the leader in person, either to the general public, or to the royal court. This required a large open space, a raised place where the ruler could appear in a suitable formal, and symbolic setting, and a token palace for enrobing and resting in private.

The great Step Pyramid of Djoser at Saqqara, the first great Egyptian pyramid,

provides such a setting. Look at the text figure which follows, and read the commentary which lies below:

The Step Pyramid was the first royal temple to assume the semblance of the pyramid shape associated with later Old Kingdom pharaohs. Built in about 2600 B.C. by the famous architect Imhotep, the Step Pyramid with its internal passages and burial chamber was far more than a royal tomb. It stood within a walled compound, much of it taken up with a large open space, the "court of royal appearance." An elevated throne platform stands at the foot of the pyramid. In the center of the great court lie territorial cairns, which marked the symbolic boundaries of the pharaoh's domains. The ruler laid claim to his kingdom by striding round the boundaries in public ceremonies. When he sat in state, he would use two thrones to denote upper and lower Egypt. On the east side of the court lie a row of solid, dummy buildings, models in stone of timber and matting shrines with another throne platform. These the king visited during the great sed festivals, which commemorated the ruler's earthly rule every 30 years, and sometimes more frequently.

Thus was the early architecture of divine rule: an arena for the eternal pageantry of kingship as it was experienced on earth. He appeared within his own domain, his royal enclosure and symbolic territory, a territorial ruler.

Remember this symbolism when we study the Maya civilization in Assignment 8.

5. LEONARD WOOLLEY, EXCAVATIONS AT UR

When once he had established position as independent king Ur-Nammu showed himself an indefatigable builder, but especially was he determined to make his own city worthy of its rank as capital. Probably during the long period of subjection to foreign kings and the comparative poverty which had resulted from that subjection the temples of the gods had fallen into disrepair; in any case, they were old and out of date: the programme of the new ruler provided for a virtual rebuilding of the whole central part of the city.

What strikes one most about the extant work of Ur-Nammu is its amazing solidity; he seemed to build for all time and shrank from no amount of labour to that end, and it is no wonder that his reign of eighteen years did not suffice for the completion of all he planned. Last winter we carried out some experimental work on the city walls and discovered the substructure of the defences with which Ur-Nammu encircled his capital. Rising 26 feet or more above the plain and acting as retaining wall to the platform on which the town buildings were raised, there was a rampart constructed of unbaked brick throughout which at its base no less than 77 feet thick! The wall proper, built of baked brick, which ran along top of the rampart, has disappeared at the point where our trial excavations were made, but, judging from the unusually large size of the bricks employed for it, it must have been a very solid structure; but even apart from that, few kings would lightly

embark on the task of putting up a wall 77 feet thick around a space which must measure some three quarters of a mile in length and nearly half a mile in width, yet this was not the only work of Ur-Nammu and scarcely even the greatest. . .

In every important city there was at least one such tower crowned by a sanctuary, the tower itself forming part of a larger temple complex; of them all the biggest and the most famous was the Ziggurat of Babylon, which in Hebrew tradition became the Tower of Babel, now entirely destroyed, but its ground-plan shows that it was but a repetition on a larger scale of the Ziggurat at Ur, the best-preserved of all these monuments. The Ziggurat stands at the back of the temple of Nanna the Moon-god, of which it is the main feature. The outer court of the temple was a terrace raised 10 feet or more above the level in front of it, and behind the court rose a second and higher terrace on which stood the sanctuary and the tower. The tower measures a little more than 200 feet in length by 150 feet in width, and its original height was about 70 feet; the whole thing is one solid mass of brickwork, the core of being of unbaked brick and the face a skin of baked brick set in bitumen, about 8 feet thick. The walls, relieved by shallow buttresses, are battered, or built with a pronounced inward slope, and stand some 50 feet high; this forms the lowest stage. Above this point the tower is taken up in steps or stages each smaller than the one below, leaving narrow passages along the main sides and wider terraces at either end; but the stages are curiously unsymmetrical, so that there are three storeys at the north-west end of the building and four at the south-east end, all communicating by flights of brick stairs; on the topmost storey, which was virtually a square, stood the little shrine of the god.

On three sides the walls rose sheer to the level of the first terrace, but on the north-east face fronting the Nanna temple was the approach to the shrine. Three brick stairways, each of a hundred steps, led upwards, one projecting out at right angles from the building, two leaning against its wall, and all converging in a great gateway on the level of the second terrace; from this gate a single flight of stairs ran straight up to the door of the shrine, while lateral passages with smaller flights of stairs gave access to the terraces at either end of the tower; the angles formed by the three main stairways were filled with solid flat-topped buttress-towers. . . .

Indeed, the whole design of the building is a masterpiece. It would have been so easy to pile rectangle of brickwork above rectangle, and the effect would have been soulless and ugly; as it is, the heights of the different stages are skillfully calculated, the slope of the walls leads the eye upwards and inwards to the centre, the sharper slope of the triple staircase accentuates that of the walls and fixes the attention on the shrine above, which was the religious focus of the whole structure, while across these converging lines cut the horizontal planes of the terraces, the division of the building which they effect being emphasised by zones of colour. At least in the later period the lower stages were painted black, the uppermost was red, and the shrine, as we have seen, was covered with blue-glazed tiles, and it is probable that the shrine roof took the form of a dome of gilded metal: these colours had their mystical

significance and stood for the various divisions of the universe, the dark underworld, the habitable earth, the heavens, and the sun. No one looking at the Ziggurat can fail to notice the tall and narrow slits which at regular intervals and in rows one above another pierce the brickwork of the walls; they run clean through the burnt-brick casing and deep into the mud brick of the core, where they are loosely filled with broken pottery. These are 'weeper-holes' intended to drain the interior, a necessary precaution, for with damp the mud brick would swell and make the outer walls bulge if it did not burst altogether. . . .

The houses excavated were private houses of middle-class rather than of wealthy citizens; they were of different sizes, and their ground-plan varied according to the exigencies of the available space and the means of the owner; but on the whole they conformed to one general plan. They had been plundered and burnt in 1855 B.C., and they had been built at any time between that date and 2100 B.C., most of them having been more than once restored or reconstructed, so that they gave quite definitely the type of dwelling belonging to a representative class during a fixed period.

People lived in houses built with walls of burnt brick below, rising in mud brick above plaster and whitewash hiding the change in material, two storeys high, and containing as many as thirteen or fourteen rooms round a central paved court which supplied light and air to the house. The streets were narrow, winding, and unpaved, with on either side blank walls unbroken by any windows, streets such as one sees in any modern native town, impossible for wheeled traffic. Against one house a mounting block showed that donkeys would be used for riding or for freight, and the corners of the narrow lanes were carefully rounded off to prevent injury to goods or riders.

Through the front door of a house one passed into a tiny lobby with a drain in its floor, and from that into the central court. On one side rose the brick stairs leading to the upper floor, and behind the stairs was a lavatory with its terra-cotta drain; then came the kitchen, distinguished by its fireplace and the stone grinders left on the ground; a reception-room with two doors or one door unusually wide was for guests, another room might be for servants, and yet another the domestic chapel. Through the walls stood in some places as much as 10 feet high, there was no sign of ceiling beams, so the ground-floor rooms must have been lofty, a great advantage in this hot climate. Of the upper floor nothing remained, and its existence had to be deduced from such evidence as was available.

In the first place, there was the staircase. It is true that the stairs might lead only to a flat roof, but it seemed unlikely that so much of the restricted ground-space would be sacrificed to stairs serving no better purpose than that; the late houses at Babylon had flat roofs, but the only approach to them was by outside ladders, not by solid stairs; moreover, the use of the rooms on the ground-floor was tolerably certain, and there was no accommodation left for the family-there must therefore have been rooms above reserved for their living-quarters. The walls, internal and external alike, were so solid that it was natural to suppose that all rose to the full height of the

house, so that the rooms above would duplicate those of the ground-floor, and in that case the access to them had to be considered. Below, all the chambers opened on to the court; above a passage running round would have made the rooms impossibly small even if the floors would have stood the weight of a cross wall, which was unlikely, so that either they all opened out to each other or there was some other method of approach.

In the middle of each courtyard there was a drain to carry off water, and in one case part of the pavement had got into disrepair and a square patch of bricks had been laid round the drain-head on the top of the old pavement; this meant that the centre of the court was higher than the pavement nearer the walls, and water spilt on that surrounding part could never get to drain, which therefore could not be intended to drain the court. Now, the roof of the house would be nearly flat, but sloping slightly inwards so as to carry off the rain-water, which would fall into the court, and its area was great enough for any ordinary storm to flood the court at once unless there were ready means of escape; the water could escape only if it fell not close to the house walls, but directly on to the raised pavement in which the drain was, and for this to be possible the roof had to project over the court considerably beyond the wall line. If this were so, the part of the yard which could not be drained would never get seriously wet. If the roof projected so much, it was presumably to shelter something, and the only possible thing was a gallery running round the court and giving access from the stairhead to the upper rooms, whose doors in that case would correspond exactly to the doors on the ground floor.

Examining the pavement carefully, we found that a single brick which was lying on it towards one corner was there not by accident but was embedded firmly in clay, and round it were remains of carbonised wood. The argument from this was clear. If the roof projected, there must have been corner posts for its support: given the character of the normal Eastern carpenter, one at least of the posts would be too short and would have to be jacked up on a brick or stone, and the brick actually found would be such a pole-rest and the burnt wood represented the pole. Restoring three other poles in corresponding places at the other corners, we found that we had a wooden gallery just 3 feet wide whose supports were conveniently arranged not to block any of the ground-floor doors. The staircase opened on this, and by its means one could go round to any of the upper rooms without passing through the others. An omen quoted on a contemporary tablet states that "rooms opening out to each other are unlucky, but those opening on to the court bring good luck," and our restoration exactly fulfilled the requirements of superstition as well as of convenience.

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