

The Dark Ages in Ancient History

I. The First Dark Age in Egypt¹

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INTRODUCTION

In the history of the ancient Near East two striking Dark Ages have occurred. They occurred more or less simultaneously (within the limits of current dating accuracy) over a wide area extending at least from Greece to Mesopotamia and Elam, from Anatolia to Egypt, and probably beyond. In Egypt, where the chronology is best established, the first Dark Age began around 2200 B.C., when at the end of Dynasty VI Egypt, until then a very stable society, with seeming suddenness fell into anarchy. About the same time the Akkadian Empire disintegrated. Byblos and a number of other sites in Syria and Palestine were destroyed by fire and some were abandoned for a time. Troy II, the wealthy citadel of Schliemann's gold treasure, was destroyed by fire and rebuilt on only a very shabby scale. Lerna and other prosperous Argolid centers were burned and their destruction was followed by greatly lessened prosperity. In western and southern Anatolia "the end of the E.B. [Early Bronze] 2 period is marked . . . by a catastrophe of such magnitude as to remain unparalleled until the very end of the Bronze Age" (Mellaart, 1962); widespread destruction is followed by a general decline in material culture and a decrease by about 75 percent in the number of known settlements. We

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may probably include also the decline of the Indus Valley civilization. The radiocarbon dates of Phase F (mature Harappan) lie between 2100 and 1900 B.C. (Dales 1965; half-life 5730), with an average of 1975 B.C. from 12 measurements. But when these dates are corrected for the systematic error in C-14 dates of this period, as determined by Suess (1967) and by Ralph and Michael (1969), the dates fall between about 2500 and 2250 B.C.

The second Dark Age began around 1200 B.C. It was marked by the disappearance of the Hittite Empire of Anatolia and the collapse of the Mycenaean civilization of Greece. About the same time, or a little later, Egypt went into a prolonged decline, while Babylonia and Assyria were also weak for most of the 1100's and 1000's.

When we turn to the revised *Cambridge Ancient History* (CAH) or other modern studies for explanation, we find numerous references to evidence of destruction by fire. The destruction is often attributed to invasions by barbarians about whom little is known, however, and for whose activities the archaeological evidence is often meager or nonexistent. Moreover Adams (1968) has pointed out that the interpretation of seemingly violent destruction and discontinuous layering in a habitation site is more complex and ambiguous

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The chronology followed in this paper is that of the revised *Cambridge Ancient History*, particularly Smith (1962) and Hayes (1961). References (with a few exceptions in the text) will be found at the end of the paper, alphabetically by author, and by date.

than previously recognized, and cannot be considered clear evidence of either intermittent occupation or enemy attack. He thus urges more caution in inferring invasions when there is no clear positive evidence for the presence of invaders. But even where it is clear that barbarian invasions did occur, we are left with the question of whether they are a sufficient cause or explanation for the destruction of a number of apparently powerful and prosperous states, and why so many different barbarian tribes were stirred to attack centers of civilization at about the same time. Any one or two of the above disasters, standing alone, might be sufficiently explained by political factors. But the concentration in time of so many disasters and the universal absence of prosperity throughout the area strongly suggest a common underlying cause.

Of "historical truth," Frankfort (1951) wrote that a concept whereby "many seemingly unrelated facts are seen to acquire meaning and coherence is likely to represent a historical reality." It is the thesis of this study that the two Dark Ages, and the numerous disasters in the periods c. 2200-2000 and c. 1200-900 B.C., can be given coherence and can all be explained at once by a single primary cause. The cause I postulate as "historical reality" is drought—widespread, severe, and prolonged—lasting for several decades and occurring more or less simultaneously over the entire eastern Mediterranean and adjacent lands. This is not to deny the significance of contemporary political and social factors; it is, however, to assert that a climatic-economic deterioration of sufficient magnitude can set in motion forces beyond the strength of any society to withstand.

Such an hypothesis has indeed already been advanced by Rhys Carpenter (1966) for the Second Dark Age, c. 1200-900 B.C.; his argument is based primarily on study of the decline of Mycenaean Greece and the Hittite Empire. And in a subsequent paper I plan to discuss this period with primary reference to Egypt.

The present paper will examine the evidence for the hypothesis that the First Dark Age of Egypt, the so-called First Intermediate Period, was brought on by a similar prolonged and intense drought. Later papers will examine the evidence from other lands, but there are several advantages in beginning with Egypt:

First, Egypt was in ancient times a relatively isolated civilization, generally unified and free of

civil war and, because of its formidable and well-defined natural frontiers, of foreign invasions. Thus we have here the best chance of tracing the interaction of man and his natural environment, and making plausible inferences from the level of economic prosperity about fluctuations in the resources provided by the natural environment.

Second, the chronology of Egypt, in the historical period from c. 3100 B.C. onward, is known with greater precision than that of any other ancient land. Thus whatever climatic fluctuations we deduce from Egyptian history will be relatively well dated. Moreover we can test them by looking for contemporaneous patterns, that is for fluctuations in the direction of greater aridity or of greater moisture, in other lands; and if similar sequences can be found, there is a possibility of improving the chronology of other lands.

Third, Egypt was a literate society, so that we may hope to find texts bearing on the conditions of the times, and it is in fact the discussion of such texts which forms the main section of this paper. Mesopotamia also offers the advantage of literacy, but its chronology is less certain; more importantly, the picture there is obscured by frequent warfare between the cities, the lack of natural frontiers, recurrent invasions on a large scale, and a greater complexity in climatic factors. In Egypt we have to do essentially with the volume of the Nile, and particularly of its annual flood; that is, we have a single climatic factor to consider, rather than the combination of river-floods and rainfall characteristic of Mesopotamia.

It may appear a bizarre hypothesis, even to those sympathetic to the concept of climate fluctuations as a factor in history, to link drought in the lands of the eastern Mediterranean, which derive their moisture mainly from winter rainfall, with Egypt which depends for its water on the Nile River—that is on the rainfall over central Africa (White Nile) and on the summer monsoon rains over the East African highlands (Blue Nile). Nevertheless there is a growing body of evidence that such a correlation does at times occur, and indeed that it has occurred over the past century. Studies by Kraus (1954; 1955a,b; 1956) and by Butzer (1961) indicate that the average rainfall was less in many regions in the first four decades of this century than in the late decades of the nineteenth century. This decline occurred over a wide area of the Near East and North Africa, including both the northern

and southern fringes of the Sahara, northwest India (Jaipur) and Pakistan (Quetta), and the drainage basin of the Nile. The decrease in average rainfall occurred also in a number of other lands far beyond our present interest, such as parts of Australia (Kraus 1954) and the Dust Bowl of the United States (Butzer 1961). The change over from the moister to the drier climate regime occurred quite abruptly in many places between 1893 and 1908, with the exact date depending upon the region concerned. For the Nile, the annual average volume of water passing Aswan was about 25 percent less for the years 1899-1957 than for the years 1871-1898, with a clear and abrupt shift to the drier regime in 1899 (see Kraus 1956). "Without the tempering effect of dams and barrages, agriculture in the Nile Valley would have suffered badly" (Butzer 1961:50); and as a consequence of the widespread decline in rainfall, "Droughts of economic importance plagued the Levantine area in the 1920s and the entire Near East in the 1930s. Lake Aksehir in Central Anatolia dried out entirely in 1933. Similar conditions can be noted for the peripheries of the Sahara." And similarly in the Red Sea Hills of eastern Egypt, "vegetation was . . . more common prior to the desiccation that has taken place during the present century" (Trigger 1965:11).

This evidence from the past century makes it more plausible that most of the Near East and the Nile catchment basin were afflicted more or less simultaneously by some decades of severe drought at certain times in the past.

It is the prime thesis of my investigation, indeed, that a widespread drought, considerably more severe than the present one, occurred at intervals in the past and that it was precisely these droughts which precipitated the Dark Ages of Ancient History. Even a moderate drought can bring famine to the marginally productive lands on the edges of the deserts and can thereby motivate tribal migrations and invasions of the better-watered river valleys, a phenomenon discussed by numerous scholars (e.g. Brooks 1949). But a severe drought, such as postulated in this paper, and by Carpenter (1966), will bring crop failures and famine and varying degrees of civil disorder even to the richer lands. If sufficiently severe, a drought may not only incite invasions from marginal lands but may weaken the power of the major states to resist invasion, and in

some cases may even plunge them into a Dark Age without any serious foreign threat. In the case of Egypt the evidence which we shall consider presently favors the latter condition.

The first of the postulated Great Droughts in the Ancient Near East occurred from about 2200 to 2000 B.C. More precisely, as we shall see from a detailed consideration of the historical evidence, it occurred in two parts, at least in Egypt—and almost certainly in Iraq—the first around 2180 to 2150, and the second for a few years around 2000 B.C. In Egypt the crisis was not a failure of local rainfall, which was already at a very low level, but a severe failure of the annual floods of the Nile. It is as if Nature set two great exclamation points to emphasize the end of the Neolithic Wet Phase (NWP); or, to reverse Eliot, the NWP ended not with a whimper but with a bang.

Prehistoric Climate. A brief review of the earlier climate fluctuations may be useful before we take up the Dark Age itself, to put our central event in its paleoclimatic setting. It is now a fact beyond dispute that climate has been subject to change since the earliest times known to geologists. Because geology is a relatively young science, however, this fact has been recognized for only about a century; and at first only the larger fluctuations, the extremes of Ice Age and Interglacial, were recognized. But soon geologists found evidence that ice sheets, both in their expansion and their recession, were subject to interruption—that is, neither advances nor recessions proceeded smoothly and linearly, but each was from time to time interrupted by a reversal of the primary trend, a reversal lasting some hundreds to thousands of years. The Pleistocene Ice Age, now thought to cover some two to three million years, has been studied extensively in northern and central Europe and in North America, and much attention in Europe particularly has been given to the larger fluctuations that accompanied the retreat of the latest (Würm) ice sheet. We obtain an impression of damped oscillations, of gradually diminishing amplitude and duration, over the past ten to fifteen thousand years.

Although many details and dates remain to be fixed, it has been established beyond any reasonable doubt that significant fluctuations in climate have occurred in post-glacial times in northern and central Europe (see Brooks 1949, for a convenient²

² But unfortunately in some respects obsolete.

semi-popular summary; for more recent, and more technical, reviews, see Starkel 1966 and Frenzel 1966). It is, to me at least, *a priori* incredible that the climate should not also have fluctuated over all other areas of the earth. This, of course, is not to claim that there is anything *a priori* obvious about the direction and amplitude, or even the timing, of such fluctuations, which cannot be inferred by analogy, but must be determined from paleo-ecological, geological, and archaeological evidence.

The Mediterranean Basin, the Near East, and northern and central Africa, which are the regions of concern to us here, have received much less attention from natural scientists, primarily, it would seem, because the evidence is more subtle and difficult to detect. A number of isolated studies of particular areas were made, but only within the past decade have the relatively meager available facts been synthesized into a coherent picture for the area as a whole. This synthesis was made by Karl W. Butzer (1958, etc.), on whose work most of the following summary of climate variation is based. One of Butzer's most important and interesting contributions is his clarification of the relation in time between the larger subtropical and European climate changes.

For some time it has been recognized that central Africa and the margins of the deserts had a number of pluvial periods, but the relation in time of these tropical and subtropical wet periods to the northern ice sheets was much disputed. The probably most popular view held the two to be contemporaneous, and considered that the increased wetness in lower latitudes, particularly in Africa, was a simple and direct consequence of mid-latitude storm tracks being deflected southward by the presence of the ice sheets. Thus the maximum subtropical wetness would coincide with the maximal extent of the ice sheets. And indeed a number of scholars, beginning with Childe (1929:42, 46) and Toynebee (1934:304f), have linked the development of the great river-valley civilizations to the challenge of a gradually increasing desiccation following upon the recession of the ice sheets.

However this view is no longer tenable. After the work of Büdel and of Schaefer, it now appears that only the expansion phase had heavy rainfall, while the full and late glacial phases were relatively dry in middle-latitude Eurasia. Recent work also indicates that the last major pluvial in Africa is to be dated to the early Würm period, and that this

was a period of advance and growth for the central-east African mountain glaciers (Butzer 1963), although the most recent work (Butzer and Hansen 1968) indicates that the actual situation has many complexities. And finally, Butzer (1963) found that the period of glacial advance was the pluvial period in the Mediterranean Basin as well, whereas the terminal phases of the Pleistocene were quite dry. Thus he concluded (*ibid.* p. 212) that "subtropical pluvials cannot be genetically interpreted as secondary effects of the presence of continental ice sheets in higher latitudes . . . [but] . . . must be attributed to a primary change of the general circulation, presumably in immediate association with glacial advance in higher latitudes."

Contrary to the views of Childe (1929), Toynebee (1934), and most subsequent scholars who have mentioned prehistoric climate, including Carpenter (1966)—but excluding Hayes (1964), Trigger (1965), and the revised *CAH* (Butzer 1965)—the lands of the Near East and northern Africa were already as dry or drier 15,000 years ago than they are today. Recent evidence from Lake Zeribar in Iran, from the lowlands of Macedonia, and from the mountains of northwestern Greece, indicates that much of this region was then apparently a treeless landscape, perhaps resembling the semi-arid steppe of modern Anatolia (Wright 1968).

Since that time numerous fluctuations have occurred between relatively wetter and drier conditions, on a time scale of hundreds to thousands of years. In amplitude, and hence in terms of geological effects, these fluctuations are small and difficult to detect in the arid and semi-arid lands of interest to us here. However fluctuations that are too small to leave clear geological evidence can still be large enough to produce highly significant ecological effects, which may be reflected in archaeological evidence.

Early in his studies Butzer (1958) noted a curious parallelism between moisture trends in Europe and in the Near East. Every fluctuation to greater or lesser precipitation, the duration of which is measured in millennia, has been more or less parallel in Europe and in lower latitudes. In addition to the parallelism between Europe and the Near East, Butzer (1961) emphasizes that the major paleoclimatic shifts north and south of the Sahara have been, insofar as evidence is available, synchronous and not alternative. That is, the evidence (see also Kraus 1955a:202-204) supports an expanding and

contracting Sahara Desert. Thus the ultimate meteorological explanation, Butzer points out, must be sought in terms of a mechanism that will enlarge or shrink the extension of the dry trade-wind circulation zone, which is responsible for the subtropical deserts, in both latitudinal directions at once.

The existence of a Neolithic Wet Phase, and a preceding very dry period, has been suspected in Egypt for several decades by various scholars, including Caton-Thompson and Gardner, Huzayyin, and Murray (1951), but in the absence of any systematic study of the overall evidence, there was little agreement on the duration, extent, and character of the NWP (Butzer 1958). It is outside the scope of the present study to review in any detail the evidence for the NWP in the Near East (see Butzer 1958; 1959b,c; 1965), a period which corresponds approximately to the relatively warm and wet Climatic Optimum or Atlantic Period (see Brooks 1949; Starkel 1966) in northern Europe. For northern Africa much of the evidence is archaeological, such as neolithic artifacts found in desert areas where man cannot now live, rock drawings of animal species that require at least a savanna type of vegetation, and fossil roots and tree stumps in wadi bottoms and the low desert where no trees grow today.

Decline of the Neolithic Wet Phase. "Overall, the Nubian and Egyptian evidence indicates a complex moist interval beginning before c. 7000 B.C., interrupted by some drier spells and terminating in stages between 2900 and 2350 B.C." (Butzer 1966:75). These stages have been documented (Butzer 1959c) by indirect archaeological evidence, including a study of the relative frequencies of various species of animals appearing in rock drawings, tomb and temple wall reliefs, and other art forms. At this time in northern Europe we have a transition to the Sub-Boreal period, which "may be characterized as warm but rather dry, with considerable variations in humidity. . . ." The study of lake levels gives evidence for "the occurrence of great oscillations in precipitation," as does also the periodic desiccation of peat bogs (Starkel 1966:27).

An interesting point for the present study is the extent to which the time-synchronism of wet and dry periods holds, or held in earlier times, over shorter time periods—periods of decades to centuries. The data on these smaller fluctuations are obscure and will remain so at least until the sys-

tematic errors (Suess 1967; Ralph and Michael 1969) have been fully determined and corrected for, or other more accurate methods of dating can be developed. We should nonetheless regard it as encouraging if a severe dry spell were found to occur in Europe in the same century as that for which we are postulating one in the Near East. Such may well be the case, for Brooks (1949:296f) cites evidence, from lake levels and peat bogs, for unusually dry conditions in central Europe around 2300-2000 and 1200-1000 B.C., although modern pollen studies (Frenzel 1966) cast doubt upon this picture. However this may eventually be resolved, conditions in Europe have no *necessary* bearing on the validity of our conclusions about conditions in Egypt.

Butzer considers that the NWP rains over Egypt had pretty well declined to their modern low level by the beginning of Dynasty VI, c. 2350 B.C. This conclusion is based in part on a change at this time in the character of hunting and desert scenes depicted on tomb and temple reliefs, a change both in the game hunted and in the background landscape. There appears also to have been a general exodus from the Libyan Desert in Dynasty VI times, evidenced by the cessation of rock paintings and the abandonment of Neolithic sites, together with the appearance, according to O. H. Myers, of Tehenu Libyans in the Nile Valley (Butzer 1958).

The specter of famine first clearly appears towards the end of Dynasty V, when a well-known relief from the causeway of the Pyramid of Unis depicts a group of severely emaciated people, evidently dying of hunger (Drioton 1942; Smith 1965:pl. 48b). Unfortunately no inscriptions have survived to reveal the circumstances of this scene, and nothing is known of either the nationality of the starving people or the cause of their plight—whether a failure of the Nile floods (an unlikely event for the King to wish to commemorate) or the ending of the NWP rains, which drove starving desert-dwellers to seek refuge in the Nile Valley.

It is not unlikely that the decline of the Early Bronze 2 culture in Greece and in Anatolia set in with the ending of the NWP, particularly in regions where many settlements were permanently abandoned, as in western and southern Anatolia (Mellaart 1962). To support more than speculation, of course, much additional study is needed. We may note, however, that four pieces of charcoal from the House of Tiles at Lerna (late EH II)

give an average radiocarbon date of 2126 B.C. (from Weinberg 1965; half-life 5730); but this becomes c. 2500 B.C. when corrected for systematic error (see Suess 1967; and Ralph and Michael 1969). Also possibly relevant is the evidence (Wright 1968) for a reduction in percentage of pine pollen around Pylos shortly after 2000 B.C., and evidence for a reduction in the beech-fir forest of northwestern Turkey, dated to around 2000 B.C., changes which might "reflect either a change to a drier climate or deforestation." The dates here are a little late, but they are also quite uncertain (Wright, personal communication), so that the changes could well reflect the ending of the NWP.

But in Egypt the Old Kingdom civilization continued, under Dynasty VI, to flourish for some 150 years after the ending of the NWP. Most Egyptologists agree that the Pyramid complex of King Neferkare Pepi II, the last major monument of the Old Kingdom, exhibits the same high quality of craftsmanship as its predecessors and gives no hint of the Dark Age soon to engulf all aspects of Egyptian civilization. Moreover it appears that the climate of northeastern Africa remained severely arid, probably averaging slightly less rainfall than today, for at least some fifteen centuries, during which time Egypt had two periods of high civilization and three ages of decline.

This serves only to emphasize once again the well-known dependence of Egypt upon the Nile. Without a failure of the floods, it seems unlikely that the ending of the NWP would have caused Egypt more than some inconvenience and local disturbances, when desert nomads of necessity sought to settle in the Valley. Inscriptions indicate that many of them did settle in the Valley, finding employment with the army as mercenaries (Breasted 1906:311; Borchardt 1905), increasing the population and adding to the potential for trouble in any famine that might occur.

The Nile. A few words on the annual Nile floods may be useful here. Because rainfall over all but the northern Delta has long been rare and irregular, Egyptian farmers have depended for at least some 5000 years upon the annual flood of the Nile River to water their fields and prepare the soil for cultivation. The amount of any particular inundation—at least before the building of the modern system of dams and barrages—determined whether that year would bring plenty or famine or something intermediate. These annual floods are

the direct consequence of the summer monsoon rainfall over the catchment basin of the Blue Nile and the Atbara in the highlands of Ethiopia. The maximum level of the flood waters in Egypt thus provides a measure of the amount of this rainfall.

According to Hayes (1964), in Middle Egypt the average difference between high and low water is 22' (6.7 m.), with a yearly variation that depends on the volume of the equatorial rains; 4-5' (1.2-1.5 m.) below average is a "bad Nile" and in antiquity a succession of these usually resulted in crop failures and famine, while a flood of 30' (9 m.) or more would cause widespread destruction.

Deposits south of Wadi Halfa suggest that flood levels in early predynastic times were about 10 m. higher than today, that they declined in an oscillatory way to about 5 m. above today in early dynastic times, and to the present level by the time of the New Kingdom (Trigger 1965:31). It is hoped that the present study, in this and subsequent papers (now including Bell 1970), will provide additional details on the flood levels in historical times.

Fluctuations in climate during the past 4000 years have generally been either too small in amplitude or too short in duration to leave behind much geological evidence, as Butzer (1958, 1961) points out, so that it becomes increasingly necessary to resort to archaeological and literary sources, as we shall do in the main section of this paper. But on the fringelands of deserts the drifting of sand is a particularly sensitive indicator of changes in aridity and in aeolian activity. In Middle Egypt, Butzer (1959a,c) found evidence that a chain of dunes from the western desert invaded the valley and covered the alluvium with several meters of sand over a stretch about 175 km. in length and 0.5 to 3.5 km. in width. These fossil dunes are now covered by a few meters of mud, deposited mainly between about 500 B.C. and A.D. 300. The dune invasion was facilitated by weaker Nile floods and consequent shrinkage of the floodplain, as well as by increased aeolian activity and by an eastward retreat of the Bahr Yusef, a secondary branch of the Nile in Middle Egypt which drains into the Fayum lake. The dunes cannot be dated precisely, but a number of passages in the literary evidence to be examined presently, indicate that they were actively invading during the First Intermediate Period. A knowledge of their existence clarifies the

meaning of a number of otherwise rather enigmatic passages.

Although the adequacy of the Nile flood is the main determinant of Egypt's prosperity, there are also phrases in the ancient texts, as we shall see, which seem to indicate that the low-water level was at times abnormally low, which in turn implies a deficiency of rainfall over sources of the White Nile in east-central Africa. This is not unlikely, for Brooks (1949) points out that in the records of the Nile floods available from A.D. 641 to 1800 there is a fair correlation between low-water level and flood height, although the low-water levels show the more violent fluctuations. Brooks' conclusion derives from his analysis of the tables of low- and high-water levels published by Toussoun (1925). Toussoun's volume also contains a chronological list of quotations on the level of the Nile and related events, compiled from Arab authors. Several times in years of abnormally low floods there is mention also of a remarkably low level of the "old waters" or pre-flood Nile. And conversely there is a tendency for the old waters to be high before a very large flood. More important, one obtains from these quotations also an impression that the total volume of flood water fluctuates more than the height of the flood. One frequently reads that the flood attained a normal height, then declined at once and there was famine, or at least scarcity, in Egypt.

THE FIRST DARK AGE IN EGYPT

It is now widely believed (Hayes 1961, 1962b; Wilson 1956; Gardiner 1961) that the real Dark Age lasted only some 20-25 years, from the end of Dynasty VI to the start of Dynasty IX, or from about 2180 to 2160. Although the details remain obscure and the primary cause open to dispute, some aspects of the trouble which occurred at the end of Dynasty VI seem clear: texts from the period indicate that hardly any form of civil disorder was absent, ranging from strife between districts, to looting and killing by infiltrating Asiatics in the Delta, to individual crime run riot, to revolution and social anarchy. Reference to famine occurs in several texts. This fact has of course been noted by a number of Egyptologists, including those cited immediately above, and the texts themselves have been intensively studied by Vandier (1936). But none of these scholars gives to famine the importance which I hope to show it

deserves as an explanation of the collapse of the Old Kingdom. Butzer (1959c:68; 1965) points out that a number of these documents refer to "famine resulting from low Niles rather than from human negligence," but analysis of the historical implications lay outside the scope of his investigation.

Although the real Dark Age was short, it had a severely traumatic effect on the psyche of the Egyptian educated classes; it produced a radical change in values and outlook that can only reflect severe shock and disillusionment. In the words of W. S. Smith (1965:87), "The earlier complacent sense of stability had been rudely shaken, and Egypt never regained that simple confidence in an enduring continuity." The collapse of the Old Kingdom was reflected in a new pessimistic literature "foreign to the spirit and thought of earlier times" (Smith 1962:55). This pessimistic literature, Černý (1952:79) emphasizes, "was not the result of philosophical meditation but a reflection of historical events . . . and is in direct contradiction to the habitual optimistic attitude of the Egyptians to life."

In the absence of unambiguous evidence, various nonclimatic causes have been suggested for this time of trouble; none of them however seem sufficient to explain the magnitude of the effect.

The evidence for famine in ancient Egypt, given by written texts, has been studied by Vandier (1936), who points out that such evidence is scarce because the Egyptians had not the habit of recording their misfortunes for posterity. The principal data for his study are the autobiographical inscriptions of nomarchs (rulers of nomes or districts) who, their personal vanity having overcome national pride, boasted of having fed their towns and districts during the years of famine. Vandier found very few documents on famine during the Old Kingdom, and he attributed this to the strength of the central government—which made it relatively easy to store up large surpluses in years of good Niles and dispense them in years of poor Niles. I do not question the essential soundness of this point, but would add two qualifications. First, in these earlier times the provincial officials were neither as independent in the content of their inscriptions nor as firmly attached to a particular district. And second, as we have seen above, the Neolithic Wet Phase was ending gradually during the time of Dynasties V and VI. Thus while famine probably did threaten from time to time in the earlier years, the danger was unlikely to have

been as prolonged or severe, and was less likely to have exhausted the stores of surplus grain.

Vandier lays great stress on the correlation between weakening of the authority of the central government and the disastrous consequences of insufficient floods. His study shows clearly that such a correlation exists. The problem then is to distinguish the symptoms of the disease from its cause. Because of the meager evidence from these troubled times, the question cannot be answered with absolute certainty, but I hope to show that a more consistent picture of "historical truth" results from the hypothesis that prolonged insufficiency of the floods destroyed a somewhat weakened central government than vice versa. The claim can indeed be made that there is no other adequate explanation for the complete and seemingly sudden disintegration of both the government and Egyptian society that occurred at the end of the reign of Pepi II of Dynasty VI, about 2180 B.C. In considering the ancient texts, I follow the viewpoint of Gardiner (*JEA* 1:36) that one should avoid undue skepticism about ancient documents, and should rather "use their statements, in the absence of conflicting testimony, as the best available evidence with regard to the periods of history to which they relate."

Texts relating to the first great famine, c. 2180-2130 B.C. Turning now to the written evidence itself, we may first consider ANKHTIFI, who is known from the inscriptions in his tomb at Mo'alla, some 20 miles south of Luxor. This tomb has been thoroughly studied by Vandier (1950) who is the source for the quotations³ which follow. Ankhtifi's claim to his position is obscure—whether he held it by birth or simply by his effective leadership in troubled times—but he was nomarch of Hierakonpolis and of Edfu, two of the southernmost nomes of Upper Egypt. It is generally agreed that he lived early in the First Intermediate Period (First Dark Age), before Inyotef I of Thebes unified the South and proclaimed himself King of Upper Egypt about 2134 B.C. Inyotef would surely not have tolerated a hostile prince so near at hand, and Ankhtifi's inscriptions describe a war he initiated against the Theban nome, although the outcome is obscure. Beckerath (1962, *JNES* 21:140) points out that Ankhtifi must have lived at the virtual start of the

first Intermediate Period, because his inscriptions give evidence that when he was young Abydos was still the residence of an "Overseer of Upper Egypt" who was recognized by the nomarchs. Toward the end of Dynasty VIII that office had lost all importance. Thus we may consider that Ankhtifi's inscriptions provide a picture—probably the best available—of conditions in the darkest part of the Dark Age.

Most significant for our purpose is his vivid description of the famine that afflicted Upper Egypt: . . . *I fed/kept alive Hefat (Mo'alla), Hormer, and (?) . . . at a time when the sky was (in) clouds/storm (igp) (was a tumult?) and the land was in the wind* (probably the clouds of a memorably severe season or seasons of dust storms), (*and when everyone was dying*) of hunger (*hkr*, the common word for hunger) *on this sandbank of Hell (tzw of Apophis, a place in the underworld where the dragon-serpent, Apophis, nightly threatened to devour the sun god, Re).*

As supporting evidence for the dust-storm interpretation, we note Butzer's (1959b:66) finding that at Hierakonpolis, nearby, a predynastic cemetery was denuded by wind action, which removed up to 2 m. of fairly resistant silt and exposed the burials, probably some time after the end of Dynasty VI. At Abydos, some 100 km. to the north, the "funerary palace" of Queen Merneith of Dynasty I suffered such intense denudation (and perhaps also deliberate destruction) that its walls were reduced to only a few courses of bricks, partly buried beneath a layer of sand by the time of Dynasty XII, when a few small mastabas were constructed over the ruins (B. J. Kemp 1966, *JEA* 52).

Vandier considers the above-quoted sentence of Ankhtifi's to be a particularly inspired masterpiece of erudition, made up essentially of phrases from the Pyramid Texts, aptly selected to describe the current local troubles. The reference to the *tzw* of *Apophis* is useful in helping to give us a clearer idea of a key word, *tzw*,⁴ which occurs in several of the famine texts of this period and merits some discussion. The word *tzw* is generally translated *sandbanks* by Egyptologists. For the famine texts, Vandier (1936:75) considers two hypotheses: either the *tzw* are the sandbanks of the Nile that men cultivate at low waters and that are submerged through

³ All quotations attributed to Vandier are my translations from his French.

⁴ The correct printing of this term, I understand, is *tzw*

with the t underlined. The line under the t, however, would have to be set by hand and because the word occurs so frequently it proved impractical to include the hand-set underline.

most of the inundation; or they are the higher lands on each bank of the Nile susceptible to being flooded for some weeks at the time of the inundation. If the flood is weak, the *tzw* in the first hypothesis (lower sandbanks) do not remain long covered by water, and in the second (upper sandbanks) they are not covered at all. Although preferring the "upper" hypothesis, Vandier translates *tzw* as *year(s) of low Nile*, and thus of famine by metonymy. However, the texts in which *tzw* appears seem to describe quite dire conditions of famine, so that I find the first of Vandier's hypotheses, the lower sandbanks, the one more probably correct. Also for this reason, I do not accept Vandier's suggestion that *tzw* was already at this time a stale over-used image meaning simply famine from whatever cause, but consider it highly probable that *tzw* was an image meaning *poor Nile* by metonymy, and famine by consequence.

Moreover it is not clear, either from the examples we shall encounter below or from those cited by Vandier without a context of famine, that the *tzw* have to do with any sort of cultivated land. They may be simply sandbars in the river, which are exposed in the season of low water, and remain exposed, more or less, according to the degree of deficiency in the flood. This interpretation would still leave *tzw* as an appropriate figure of speech to mean famine due to insufficient flood, but not for famine from other causes. This view is supported also by the phrase from the Book of the Dead from whose prototype Vandier (1950) believes that Ankhtifi's scribe derived the terms of the tomb inscription: *O master of the stormclouds (igp) . . . O thou who sailest the bark (of Re) by this sandbar (tzw) of Apophis. . .* Thus the appearance of *tzw* in a context of famine may, and indeed should be taken as evidence of a very low flood, quite sufficient in itself to cause severe famine without any political complications.

Returning now to the inscription of Ankhtifi, we find a very severe famine indeed: . . . *All of Upper Egypt was dying of hunger (hkr), to such a degree that everyone had come to eating his children, but I managed that no one died of hunger in this nome. I made a loan of grain to Upper Egypt. . . I kept alive the house of Elephantine during these years, after the towns of Hefat and Hormer had been satisfied. . . The entire country had become like a starved (?) grasshopper, with people going to the north and to the south (in*

search of grain), but I never permitted it to happen that anyone had to embark from this to another nome. . .

Vandier (1936:8) points out that this is one of only two known references to cannibalism in Ancient Egypt, an act of desperation that also occurred during famines in mediaeval Arab Egypt (see Toussoun 1925:458-474, for details). Vandier, and Gardiner too (1961:111), are inclined to doubt that we should take this part literally, in spite of the numerous other contemporary references to a lack of grain. I suggest that while the "everyone" is surely an exaggeration, instances of cannibalism did occur, else why should it even occur to Ankhtifi's scribe to record such an atrocity? The rarity of the practice, and the probability that it occurred at all, only serve to make more vivid the desperation of the people in these years of low Niles (*tzw*).

It is noteworthy that virtually none of the famine inscriptions from the Dark Age mention the name of any king, a drastic change from the style of Old Kingdom inscriptions. Ankhtifi, indeed, does make passing mention of a king in the isolated inscription: *Horus brings/brought (or, May Horus bring) a (good) inundation for his son Ka-nefer-Re*. The identity of this king (Nefer-ka-Re?) is quite uncertain and useless for dating the tomb more precisely. But I suggest that Ankhtifi probably had no faith in any king for whom Horus sent no good inundation; but when a good flood did finally come he may have thought it prudent preparation for the afterlife to offer a phrase of recognition. Or, if we translate the verb in the past tense, the king could be Neferkare Pepi II of Dynasty VI, who ruled in Ankhtifi's youth, before the bad times, and the phrase intended as a criticism of present kings. Or it may be simply a magic wish.

For vividness of phrasing and interest in natural conditions (sandstorms), no one equals the author of the tomb inscriptions of Ankhtifi. Another famine text, however, that Vandier (1950) considers to be contemporary with it or only slightly later is the stele of Irti (Cairo 20.001) of Gebelein: . . . *I made Gebelein live during the years of misery (ksnt), at a time when 400 men found themselves in . . . (?) . . I gave wheat from Upper Egypt to Iuni and to Hefat (Ankhtifi's town) after Gebelein had been sustained; at a time when Thebes descended and ascended the stream to search for grain . . . I never let men of Gebelein go up and down*

the stream to another nome to look for grain . . . (Vandier 1936).

Also probably from this period is the stela of MERER (Černý 1961) in the Cracow Museum and of unknown provenance. Merer calls himself . . . *overseer of the slaughterers of the House of Khuu* (probably nomarchs of Edfu, according to Fischer 1962, *Kush* 10:333) and recounts how he took care of his family during the famine, and offered for thirteen rulers: . . . *I was a pure one to slaughter and to offer in two temples on behalf of the ruler; I offered for thirteen rulers . . . I acquired (property) . . . I fed my brothers and sisters, I buried him who was dead and fed him who was alive wherever I alighted in this famine (on this sandbar, *tzw*) which occurred. I shut off all their fields and their mounds in town and in the country, I did not allow their water to inundate for someone else . . . I caused Upper Egyptian barley to be given to the town and I transported for it a great number of times. . .* Here we have one of the clearer linkings of *tzw*, a shortage of irrigation water, and famine.

The stelae of Iti and of Merer contain clues that may explain much of the fighting which occurred early in this Dark Age, in the references to Thebes searching upstream and downstream for grain, and to Merer's efforts to increase his family's supply of the meager floods at the expense of others. Raids on the granaries of neighboring districts probably occurred, as well as violent disputes over water rights.

Another interesting text comes from Middle Egypt, where the nomarch of Assiut, KHETY, refers to building new irrigation works and to providing for his people in a time of famine (*tzw*) in his tomb inscriptions. His date has not been fixed with certainty, but he evidently grew up at the royal court in a time of relative calm, if we may judge from the inscription stating that he learned swimming with the royal children. There is no mention of war with Thebes, and Breasted (1906: 405) accordingly suggests that he lived before the nomarch Tefibi and the latter's son Khety, each of whom mention war with the south in which they played an active role on behalf of the Herakleopolitan king of Lower Egypt. Vandier (1936) and Hayes (1961) also agree in placing this Khety before Tefibi. Thus we may tentatively consider that he grew up in the late years of Pepi II, spent his adult life in the Dark Age, and was able to maintain a degree of order in his nome and pre-

serve his people from the worst suffering of the famine. The relevant passages, as kindly translated for me by N. B. Millet, read:

. . . I made a monument (probably, a canal) in -- a substitute for the river, of 10 cubits; I excavated for it upon the ploughlands; I provided a gate . . . in brick . . . in one (act of) building, without dispossessing anyone of any house/property. . .

*I nourished my town, I acted as (my own) accountant in regard to food (?) and as giver of water in the middle of the day, in order to be very wary of ??? . . . in the island(?) I made a dam for this town, when Upper Egypt was a desert (?), when no water could be seen. I closed my (?) frontiers . . . (to outsiders) . . . I made (agricultural) highlands out of swamp and caused the inundation to flood over old ruined sites. I made ploughlands out of --? -- all people who were in thirst drank. . . . I was rich in grain when the land was as a sandbank (*tzw*), and nourished my town by measuring grain. . . .*

We have in this inscription two of the clearer references to a low Nile: . . . *when no water could be seen . . .* suggesting that the White Nile too was very low at times; and . . . *when the land was as a sandbank (*tzw*) . . .* which suggests that Khety was a contemporary of those others above who lived in the time of the *tzw*. Khety's dam was most probably a barrier on the alluvial flats designed to retain on his fields as much water as possible in the event of a too-brief flood, a not uncommon cause of scarcity or semi-famine in the Islamic era (see Toussoun 1925:455ff; and above, under Ankhtifi).

The word *tzw* appears in four additional texts collected by Vandier (1936), three of which are graffiti from Hat-Nub, a quarry in the Hare Nome in Middle Egypt. (The fourth is Turin 1310, discussed in the following section.) Graffito 20, from the 6th year of the nomarch NEHERI, reads in its relevant part: (*I was a man*) *who . . . kept alive (nourished) his town during the years of low Niles (*tzw*), who supplied it when there was nothing, who gave aid to it without making any distinction between the great and the small. . .* Graffiti 23 and 24, by two different sons of Neheri, and within a year or two of 20 in date, state in almost identical words: . . . *I nourished my town, so that it was supplied wholly during the low Niles (*tzw*) of the country, when there was nothing. . . .*

References to warfare form another major topic of these same graffiti from Hat-Nub. Egyptologists

have not agreed on the identity of the primary combatants nor on the dates of Neheri and his sons, for one depends upon the other. Faulkner (1944) gives reasons to interpret the war as a rebellion by Neheri and his sons against an early Herakleopolitan King (of Dynasty IX ?), that is, before c. 2133 when the nomarch of Thebes established an independent kingdom in Upper Egypt. Hayes (1961), however, believes that the texts refer to a battle in the final war by which, c. 2050, the Theban King Nebhepetre Mentuhotep brought about the forcible reunification of Upper and Lower Egypt and established the Middle Kingdom. If we accept the interpretation of Faulkner, we have all known *tzw*-famines together within a period of 50 years or less, between c. 2180 and c. 2130. The interpretation of Hayes (1961) would give us a second, presumably brief, *tzw*-famine around 2050. While this is not impossible, it is not substantiated by any other evidence. Moreover, the word *tzw* has not been found in famine texts (Vandier 1936: 158) outside the First Intermediate Period. The appearance of the word in these Hat-Nub graffiti thus lends support to the early dating and to Faulkner's interpretation of the warfare as a revolt by Neheri against the king. It is natural then to wonder if the revolt may not have been motivated, at least in part, by Neheri's unwillingness to pay taxes, that is, to send any of his nome's scarce grain to the capital.

A tantalizing reference to another sort of violence appears in the tomb stele of NEFER-YU, from Dendera, probably early in the Dark Age (Hayes 1953:139), who calls himself *Chancellor of the King of Lower Egypt*, in this period often a purely honorary title. Nefer-yu recounts, in addition to his acts of conventional charity, that he aided his superiors during the troubled times. Unfortunately the translation of the critical line, and thus the exact nature of the trouble, are not agreed upon. As translated by Hayes (1953), Nefer-yu claims: . . . *I gave bread to the hungry (hkr) and clothes to the naked . . . I succored the great ones until the year when slaughter was ended. I wrought mightily with my oxlike arm in order to be established. . . .* But according to Fischer (1968:207): . . . *I nourished the great in the year of famine. I wrought greatly with my arm that I might endure with my children . . .*

However, the slaughter referred to in Hayes'

⁵ My choice of which translation to use for each line was determined by my general concept of environmental condi-

translation is depicted in several verses (e.g.: *Nay but the children of princes, men dash them against walls. . . . The highborn are full of lamentations, and the poor are full of joy. Every town saith: "Let us drive out the powerful from our midst. . . ."*) in the lament of IPUWER, more commonly known as the Admonitions of an Egyptian Sage. Since both the beginning and the ending of the manuscript are lost, the circumstances evoking the poet's lament are unknown. Although van Seter (1964, *JEA* 50) presents arguments for assigning the work to the Second Intermediate Period, most Egyptologists consider it more probably belongs to the First. The most compelling argument is given by Erman (1927), who points out that the work is undoubtedly older than the "Instruction of Amenemhet," since the latter quotes a passage, interpolated in corrupt form where it makes no sense, from the "Admonitions" where, on external grounds, the passage certainly belongs.

Gardiner, Posener, Hayes, and others consider that Ipuwer was most probably an eye witness of the anarchy he laments—civil strife and social revolution (of a people made desperate by famine), lawlessness of every sort, including tomb robbery, and infiltration of the Delta by Asiatics. To the modern Western mind, the text gives an impression of disorganization as great as that existing in Egypt itself at the time. It illustrates what W. S. Smith (1962:61), in speaking of the Pyramid Texts, called the Egyptian "tendency to assemble an accumulated mass of material without synthesis. Contradictions are not resolved but presented side by side." The Lament of Ipuwer contains a number of such contradictions; one of the more glaring appears when we read in one verse that everyone is starving, and in another that he who formerly had nothing now has many good things.

I quote below at some length from this important account probably by an eye-witness. I have aimed to include every verse that seems to pertain to natural, as opposed to purely social, conditions, but have included a few of the latter also to give a more representative impression. The translation is taken primarily from Faulkner (1964, 1965), with some phrases and notes from Erman (1927) and Wilson (1955).⁵ Explanatory notes in parentheses are identified by the initial of the translator (F, E,

tions, a concept which is supported by the less ambiguous texts that we have already discussed.

and W); in the absence of any initial, the comments are my own.

But first, to stimulate imaginations that have never witnessed severe famine, we quote from Carpenter (1966:69) part of a description of an actual famine that occurred not so long ago in northeast Brazil: "In 1953, following three preceding years of unremitting drought, the people of the burnt-out countryside descended en masse, armed with every available weapon, to sack and pillage the settlements where any food had been stored. Always . . . there comes a time, a homicidal moment, when the famished cannot longer endure the sight of the well-nourished. Kinsman and friend alike must succumb to their desperation."

We turn now to Ipuwer and his lament over the state of Egypt in this Dark Age: . . . *The inhabitants of the Delta carry shields . . . the tribes of the desert have become Egyptians everywhere. . . . Indeed, the plunderer is everywhere and the servant takes what he finds. . . .*

Indeed, the Nile overflows, yet none plough for it. Everyone says: "We do not know what will happen throughout the land." (E: No one has enough confidence in these times of uncertainty to till the fields.) Perhaps this was the year that Ankhtifi took over Edfu, and found certain areas flooded due to the incompetence of his predecessor. Even in a period of prolonged drought a more or less adequate flood will surely occur from time to time, as an occasional deficient flood will occur in a period of generally liberal ones. A general comment by Frankfort (1951:105) may be illuminating here: "Agriculturalists are inevitably the prey of occasional calamities because they are dependent on weather and water. But if disasters follow one another frequently without relief . . . there is no inducement for the peasant to continue his labours at all."

Indeed, women are barren and none conceive.⁶ Khnum fashions (men) no more because of the condition of the land . . . hearts are violent, plague is throughout the land, blood is everywhere . . . many dead are buried in the river; the stream is a sepulchre and the place of embalmment has become a stream (E: the corpses are too numerous to be buried; they are thrown into the water like dead cattle). . . . *Squalor is throughout the land, and*

⁶ "In times of famine . . . the birth rate is greatly reduced, largely, it seems, because of the actual physiological effect of

there is no one whose clothes are white in these times. . . .

Indeed, the land turns round as does a potter's wheel. The robber possesses riches. . . . (Considering the second sentence, the first would seem to refer to the social order; but I wonder whether it might not refer also to the land itself, keeping in mind Ankhtifi's sandstorms, and Butzer's invading dunes, and possible shiftings in the course of the Nile.)

Indeed, the river is blood, yet men drink of it. Men shrink from human beings and thirst after water . . . (Perhaps, the river is full of corpses, but men are so desperate for water that they drink anyway).

Indeed, the ship of (the Southerners) has broken up; towns are destroyed and Upper Egypt has become an empty/dry waste . . . ("dying of hunger on the sandbanks of Apophis"; Butzer [1959b] himself suggests this passage may refer to invading sand dunes).

Why really, crocodiles (sink) down because of what they have carried off, for men go to them of their own accord (W: suicide in the river). It is the destruction of the land. . . . Men are few. He that lays his brother in the ground is everywhere (E: gravediggers are everywhere).

Indeed, the desert is throughout the land, the nomes are laid waste (probably another reference to the invading dunes, although previously [E, W] interpreted as "desert dwellers"). *Barbarians from outside have come to Egypt, there are really no Egyptians anywhere. . . . Good things are throughout the land, yet house-wives say: "Oh that we had something to eat!"*

None sail north to Byblos today (due no doubt largely to the chaotic conditions in Egypt; however Byblos itself was destroyed by fire about this time [Wilson 1956:100; R. de Vaux 1966, *CAH* fasc. 46]).

Nay, but the entire Delta marshland is no (longer) hidden. The confidence (trusted defense?) of the Northland is now a trodden road (E: the natural protection of the Delta afforded by its swamps is no longer of avail). *The inaccessible place . . . belongs now as much to them that knew it not, as to them that knew it, and strangers are versed in the crafts of the Delta.* (Probably, because of low waters, including the White or non-flood Nile,

food shortage in its various aspects . . .," India *Famine Inquiry Commission, Final Report* (Delhi 1945) 86.

strangers can get about easily in the Delta which is no longer protected by being islands and marshlands; cf. Neferty, Texts from c. 2002 . . . below, *The river of Egypt is empty, men cross over the water on foot.*)

. . . *"Cakes are lacking for most children; there is no food. . . . What is the taste of it like today?"* Indeed, *magnates are hungry and perishing . . . cattle moan because of the state of the land . . . the children of princes are dashed against walls, and the children of prayer are laid out on the high ground* (E: want drives people to expose them). (More likely, many young children, who are always particularly susceptible to famine, are dying and people cannot afford proper burials for them.)

Indeed, the ways are watched; men sit in the bushes until the benighted traveller comes in order to plunder his burden. . . . He is belabored with blows of a stick and murdered. . . . Indeed, that has perished which yesterday was seen . . . commoners coming and going in dissolution (F: at the point of death).

Nay, but men feed on herbs and drink water; neither fruit nor herbage can be found any longer for the birds and . . . (?) . . . is taken away from the mouth of the swine, without it being said (as aforesaid): "This is better for thee than for me," for men are so hungry. (E: men are now themselves eating that which they used to feed to the poultry and the pigs.)

Indeed, everywhere barley has perished and men are stripped of clothes, spice, and oil; everyone says: "There is none." The storehouse is empty and its keeper lies stretched on the ground (dead). . . . The writings of the scribes of the cadaster (?) are destroyed, and the grain of Egypt is common property (F: looted). (The granaries have been attacked and looted by the starving people.)

Behold, things have been done which have not happened for a long time; the king has been deposed by the rabble. . . . He who was buried as a falcon (is devoid?) of biers, and what the pyramid concealed has become empty (F: the living king is deposed and the dead one is disinterred). (The ingenuity expended by the kings of Dynasty XII to build robber-proof burial chambers lends further support to the idea that the royal tombs of the Old Kingdom were vandalized during this Dark Age [Edwards 1961]). . . . *The land has been deprived of the kingship by a few lawless men. . . . The Residence is afraid because of want, and (men*

go about?) unopposed to stir up strife. . . . The possessor of wealth now spends the night thirsty . . . he who had no shade is now the possessor of shade, while the erstwhile possessors of shade are now in the full blast (?) of the storm. . . . The statues are burnt and their tombs destroyed (a further reference to vandalism in the cemeteries).

. . . *Authority, Knowledge, and Truth are with you (the King), yet confusion is what you set throughout the land, also the noise of tumult. . . . You have acted so as to bring those things to pass. . . . You have told lies* (E: *lies are told thee*), *and the land is brushwood* (E: *kaka*, elsewhere a plant that easily catches fire). (Thus the vegetation is so dry it easily catches fire.) *All these years are strife, and a man is murdered on his house-top even though he was vigilant in his gate-house. . . .* The King is here blamed for the condition of the country, presumably before he was deposed, but in such general terms that his sins of omission or commission remain altogether obscure. However, see below, Discussion.

. . . *The troops whom we marshalled for ourselves have turned into foreigners and have taken to ravaging.* (The native recruits, or the mercenaries [Decline of the Neolithic Wet Phase, above] are quite out of control.) . . . *What has come to pass through it is informing the Asiatics of the state of the land* (that they can invade it with impunity). (This suggests that the collapse or revolt of the Egyptian army preceded any invasion or infiltration by Asiatics that added to the woes of the Egyptians.)

The basic cause of all the troubles lamented by Ipuwer is singularly obscure if we consider this text alone. There are several references to famine, to the land becoming as desert, and one to plague, but we look in vain for a direct lament about the level of the floods or even a reference to *tzw*. In the light of other inscriptions, indeed, we wonder if the Egyptians had some religious taboo, or at least a superstitious disinclination, about speaking critically of the Nile. Or one might agree with Vandier (1936) that civil disorder was the primary cause of the famine, but then one is left with no adequate explanation for the civil disorder. Ipuwer's reproaches to the King are in the most general terms; he gives no clue to the grievances which may have transformed the normally peaceful and docile Egyptian peasants into a violently rebellious rabble. Nor does he reproach any nomarch in par-

ticular (or nomarchs in general) with carrying on civil war, for destroying the state with his selfish ambitions. The traditionally unwarlike, unmilitary character of the Egyptian peasant (Kees 1961:141) provides an additional plausibility-argument that famine was originally the cause of civil disorder rather than the result of it, although then civil disorder may well have delayed recovery from the famine. Spontaneous combustion into civil war of such extreme destructiveness as must be assumed if we are to account for so major a famine, seems to me decidedly un-Egyptian, and not to be accepted without more clear and compelling evidence. On the other hand, some of the other texts, especially those designating famine as the time of the *tzw*, seem to indicate clearly a link between very low floods (*tzw*) and severe famine.

Although I have emphasized the word *tzw* because of its clear implication of "low Nile" and its appearance in texts describing the most severe conditions of famine, *tzw* is not the only word that has been interpreted to mean famine in ancient Egypt. Vandier (1936:59-93) identifies and discusses a number of other words, some of which are even more indirect. One of the more interesting (kindly called to my attention by Dr. Millet) which is found in famine contexts of this period is *snb-ib*, literally *the heart is healthy*. The use of this euphemism or "antiphrase" translated by Vandier (1936:90) as *years of courage*—and which could well be imagined, although we have no evidence, as a condensed reference to some currently popular phrase such as "The heart is healthy, though the body is weak"—may be taken as further evidence of the reluctance of the ancient Egyptians to speak plainly of a failure of the Nile floods.

It is noteworthy that not only do our texts fail to speak directly of the Nile, but also they never indicate that any deity is in any way concerned with the disaster. In Egyptian disaster-literature, the gods are neither held responsible for the disaster nor prayed to for relief. Their absence may easily pass unnoticed by the modern western mind. Yet it is quite otherwise in Mesopotamian disaster-literature, where the disaster may be explicitly described as an affliction sent by a god, particularly by the chief god, Enlil—for no evident reason as in the Lament over the Destruction of Ur, or to reduce the human population which had become so numerous and noisy that they interfered with the

sleep of the gods as in Atrahasis (*ANET*, pp. 455-463 and 104, respectively).

There are a few additional texts which may throw an indirect light on the condition of the Nile and on related social conditions. One of these is a Hymn to the Nile (Wilson 1955:372) which was originally composed, most probably, in the Middle Kingdom. Although not strictly an historical document, it is worth quoting for an impression of the conditions which the Egyptians, not long after the Dark Age, associated with a low Nile:

. . . If he is sluggish, the nostrils are stopped up (because it is so dry and dusty?), and everybody is poor. If there be (thus) a cutting down in the food-offerings of the gods, then a million men perish among mortals, covetousness is practiced, the entire land is in a fury, and great and small are on the execution-block. . . . (But) when he rises, then the land is in jubilation. . . .

. . . If thou are (too) heavy (to rise), the people are few, and one begs for the water of the year. (Then) the rich man looks like him who is worried, and every man is seen (to be) carrying his weapons. There is no companion backing up a companion. There are no garments for clothing; there are no ornaments for the children of nobles. . . . He (the Nile) who establishes truth in the heart of men, for it is said: "Deceit comes after poverty" (W: poverty from a low Nile brings lawlessness). . . .

Some of the consequences of a low Nile cited here seem reminiscent of Ipuwer's laments and quite excessive for one year under a strong government, and it is natural to infer that the Hymn reflects memories of the many years of very low Niles of the First Intermediate Period.

Texts from the years c. 2150-2000 B.C. By 2130 or a little earlier there were signs of improvement in natural conditions and in political stability. In the north, Dynasty X came to power, with a King Neferkare and his two strong and long-lived successors, Wahkare Khety and Merikare ruling from Herakleopolis over Lower Egypt. In the south, the nomarch of Thebes, Inyotef, established a rival dynasty (XI), declaring himself King of Upper Egypt, c. 2133, as the Horus Sehtoway; he was followed by Inyotef II, Horus Wahankh, who reigned for some 50 years (c. 2117-2069), and by Inyotef III, Horus Nakhtnebtpefer for 8 years (c. 2068-2061) according to the chronology of Hayes (1961).

Although political stability had clearly improved,

Vandier (1936:12) points out nine funerary stelae which he dates to the period of the Inyotef (Antef) kings and which contain an assertion that the owner saved his district or town by distribution of grain in a time of famine (most commonly, *burdensome years, or years of misery, k̄snt*). Hayes (1961) also discusses a number of these Upper Egyptian stelae.

The word *tzw* appears in only one (Turin 1310) of these inscriptions, in an enigmatic passage which reads (Vandier 1936): *He (the king?) repelled (?) the years of famine (tzw) from the land. He, Vandier suggests, is most probably the founder of the dynasty, Inyotef I. In the light of my general thesis, this may be interpreted to mean that the years of very low Niles (tzw) and of severe famines came to an end under his rule, as it is reasonable to believe on other grounds, and King Inyotef, as a true Horus King, is claiming credit for the improvement (see Discussion, below).*

This group of inscriptions seem to describe conditions less severe than the time of the *tzw*, and apparently we should imagine that climate conditions improved in a fluctuating manner, with years of good inundation becoming more frequent and deficient years less frequent and less severely deficient. For completeness I include the most relevant passages, translated from Vandier (1936), although because of uncertainties in dating they contribute no great amount of additional information. The first seven (following Vandier's numbering) come from the time of Inyotef I, or slightly earlier, that is, to the later years of the first great drought.

1) Stele of Djari, of Qurneh: . . . *I was a great provider for their houses, in the year of famine (rnpt snb-ib), I gave to those whom I did not know as well as to those whom I did know. . . .*

2) The stele of Iti of Gebelein, already quoted above, is considered by Hayes to be somewhat later than the inscriptions of Ankhufi, but not necessarily as late as Inyotef I.

3) Stele of Heka-ib (BM 1671), also of Gebelein, and according to Vandier (1936, 1950), contemporary with Iti: . . . *I have provided this entire town with Upper Egyptian grain for several years, without counting (?). . . . I gave oil to Hierakonpolis after my town had been provided for. . . .*

4) Stele of Djehouti of Qurneh: . . . *I supplied the temple of Amun during the years of misery (k̄snt). . . .*

5) Turin 1310: *He (the king?) repelled the years of low Niles (tzw) from the land.*

6) Stele of Antefoker (BM 1628): . . . *I possessed barley and wheat; I gave barley and wheat to the hungry, and I supported everyone in my vicinity during the famine (hk̄rw), acting in such a way that no one died. . . .*

7) Stele of Senni (Cairo 20500): . . . *I measured out life-giving grain of Upper Egypt for this entire town in the palace of the count . . . during the miserable years of famine (k̄snt nt snb-ib).*

The last two of the nine stelae are several decades later; one of them is clearly dated by the name of King Inyotef III. This one (8), the stele of Ideni of Abydos (Cairo 20502), reads in part: . . . *I was a man who gathered his energy in the day of misery (hrw n k̄snt) . . . a man of whom the Horus Nakhtnebtpefer, King of Upper and Lower Egypt, son of Re, Inyotef (III), living forever, (said?) on the subject of the plan to keep alive (nourish) this town: "He has done all that I ordered throughout the entire country."*

And finally (9) the stele of . . . (?) . . . (Cairo 20503): . . . *I kept alive (nourished) my town, in the year of misery (k̄snt), so that my name would be good. . . .*

These two stelae indicate a year of scarcity, although not necessarily of severe famine, during the reign of Inyotef III.

Turning now to Lower Egypt, we find that this period remains a Dark Age in terms of available information, in spite of the improvement in political stability. But around 2080 the father of King Merikare, probably Wahkare Khety, is able to say in his Instructions to his son (Wilson 1955): . . . *There is no enemy within the compass of thy frontier. . . . I pacified the entire west, as far as the coast of the sea. . . . But the east is rich in bowmen . . . turned about are the islands in the midst (later, under Dynasties XVIII-XX, this would mean the islands of the Aegean but whether the phrase had this meaning already c. 2100 is uncertain). . . . Lo, the wretched Asiatic . . . he has been fighting since the time of Horus, he does not conquer nor yet can he be conquered. He does not announce a day in fighting, like a thief. . . . I made the Northland smite them, I captured their inhabitants, and I took their cattle, to the disgust of the Asiatics against Egypt. Do not trouble thyself about him: he is only an Asiatic. . . . He may rob a*

single person, but he does not lead against a town of many citizens. . . . Somewhat puzzling is his description of the land of the Asiatics as both *afflicted with water, difficult from many trees*, unless "water" here means "rain," which the Egyptians may have considered an inferior and unreliable source of water.

Merikare is advised to deal firmly with agitators: *A talker is an exciter of a city . . .*, and traitors, to liquidate them before they can stir up trouble (Wilson 1955; Erman 1927); to be skillful in speech; and to rule benevolently and justly, . . . *but keep thine eyes open, one that is trusting will become one that is afflicted. . . .*

More directly relevant to our main theme: *Thou sufferest not from the Nile, that it cometh not, and thou hast the products (taxes) of the Delta . . .* (Erman 1927). This I take as evidence that some of his predecessors, within vivid memory, had suffered from the Nile, that its flood had failed to come.

Another interesting verse seems to refer to the large number of young people among the population: *Behold thy commonalty is full of those newly grown up, of such as are 20 years old. The young generation is happy in following its heart. . . . Increase the younger generation of thy followers, that it may be provided with property, endowed with fields and rewarded with cattle . . .* (Erman 1927). While the meaning of this passage is uncertain, it suggests to me that there has been no serious famine for at least twenty years, and that since the end of the famine there has been a great increase in the population.

We should not expect, however, that a return to normal floods would be followed promptly by a full political and cultural revival and the building of fine large monuments. Both the king and his subjects would be too busy reorganizing the kingdom, and repairing and restoring the irrigation system of canals and dikes. Even if the king desired to build a large monument, after a severe and prolonged famine the population would be so much reduced that he would be prevented by a shortage of skilled labor. As for reunification of the Two Lands, of Upper and Lower Egypt, this would have to await the appearance on the throne of a local king who possessed the necessary dynamic qualities.

Merikare was further advised to deal tactfully with the South and not to provoke it. Apparently

he disregarded this advice, went to war and recovered the nome of Abydos, with substantial help from another Khety of Assiut. His triumph was shortlived, however, for by 2040 his kingdom had been overthrown, and Upper and Lower Egypt forcibly reunited by King Nebhepetre Mentuhotep of Thebes, who is traditionally regarded as the founder of the Middle Kingdom.

The floods were evidently adequate, or better, during the 50-year reign (2060-2010) of King Mentuhotep II. The large and original funerary monument built by this king at Deir el Bahri near Thebes gives evidence of a high level of prosperity. And Vandier (1936) finds only one possible reference to famine, in the stele of a certain Mentuhotep, son of Hepi: *When a little inundation (hcpy) happened, in the year 25 (probably of Mentuhotep II, although Griffith favors Senwosret I of Dynasty XII, and Goedicke [JEA 1962] favors Inyotef II), I did not allow my nome to suffer hunger; I gave it wheat and barley and I did not allow a famine to occur in it before the years of big inundations returned.* Whatever its date, this does not suggest anything as serious as those we have considered above, but only a poor year in the midst of a series of good floods. It is also more forthright in speaking openly of a *little inundation*.

Texts from the years c. 2002-c. 1950 B.C. With the death of King Seankhkare Mentuhotep III about 1998, Dynasty XI came to an end in a second period of disorder, brought on, I suggest, by another period of low Niles, drought and sandstorms, a second "exclamation point" emphasizing the end of the Neolithic Wet Phase. It is generally considered that the twelve-year reign of Mentuhotep III was peaceful and prosperous, but there is one document that, in retrospect, may be considered an omen of trouble to come. This is a letter written to his family by a certain Hekanakht when he was on a business journey during a famine caused by a low Nile. This document, recently translated by James (1962) and by Baer (1963), states that . . . *the whole land is perished, but you have not been hungry. . . . When I came hither southwards I fixed your rations properly. (Now) is the inundation very high? Now our food is fixed for us in proportion to the inundation. So be patient, all of you who are listed here. . . . I have managed to keep you alive until today. . . . Take heed lest you be angry . . . everything is mine. It must be said, "Being half alive is better than dying altogether."*

Now one should say hunger only in regard to real hunger. They have begun to eat people here. . . .

This last, Vandier (1936) and others consider to be an exaggeration intended to impress those to whom Hekanakht is writing; in absence of other evidence for very bad times, and considering the general tone of Hekanakht's letters, I must agree. But I would also suggest that the statement derives from a memory of the earlier time of more terrible famine, when Ankhtifi speaks of cannibalism.

These terrible times were soon to come again, although more briefly. Following the death of Mentuhotep III come five to seven years of darkness, about which very little is known. A King Nebtowyre Mentuhotep IV apparently occupied the throne for at least two years of this period, but he is known only from the inscriptions in Wadi Hammamat by his Vizier Amenemhet, and seems subsequently not to have been considered a legitimate ruler. Following Seankhkare, the Turin Papyrus mentions seven kingless years. During the period a fresh outbreak of raids by the Libyans of the western desert and by the Asiatics from the northeast apparently occurred.

The primary document on the confused and obscure period between the end of Dynasty XI and the start of Dynasty XII is the so-called Prophecy of NEFERTY, composed during the reign of Amenemhet I. In the words of Posener (*CAH* fasc. 29, p. 8) this document "combines in one sinister picture these recent memories with older memories of the depredations of the Asiatics during the First Intermediate Period." And not only of the Asiatics, but also of the chaotic social and natural conditions in both periods, for Neferty has a good deal to say about the natural conditions of the land, and gives a rather clearer picture than did Ipuwer. The quotes are mainly from Erman (1927), with occasional phrases from Wilson (1955). The invading sand dunes should be kept in mind while reading the words of Neferty.

. . . *That which was made is as if it were never made, and Re must begin to found anew* (E: begin creation over again). *The whole land has perished, there is none left, not the black of the nail survives of what should be there* (W: Not so much of the Black Land of Egypt survives as might be under

a fingernail). Probably it was buried under blowing sand and invading dunes.

This land is ruined; no one concerns himself about it any more, no one speaks, and no eye weeps (E: That is no longer worthwhile). . . . *The sun is veiled and will not shine that men may see. None can live when the storm veils it* (the sun), *all men are dulled (?) through want of it.* (E: By this obscuring of the sun, of which he also speaks below, not a single eclipse is intended, but dust- and sand-storms, suiting, as they do, the following descriptions of the drought.) (Cf. also the dust storms of Ankhtifi, above.)

The river of Egypt is empty, men cross over the water on foot. (This implies a failure of the White Nile, thus of the rains over east-central Africa.)⁷ *Men search for water upon which the ships may sail; its road is become a bank, and the bank is become water.* Probably this refers to shiftings in the location of the river bed, accompanying the erratic and abnormal fluctuations in the volume of water, and the drifting sands; it is well established (Butzer 1959a, 1960) that shiftings did occur from time to time.

The south wind drives away the north wind (E: which brings coolness and humidity), *and the sky has still only the one wind* (meaning, the north wind failed to come at its normal season?). *The birds no longer hatch their eggs in the swamps of the Delta, but the bird hath made her a nest nigh unto men* (E: The birds migrate from the dried-up swamps to inhabited regions, where water still exists). . . .

Foes are in the East, Asiatics are come down into Egypt. . . . By night one will suddenly be fallen upon (?). . . .

. . . *This land is taken away and added to* (W: *is brought-and-taken*) (by the varying course of the river and the drifting dunes?), *and no one knows what the issue will be*. . . .

. . . *Men take up weapons of war, the land lives in confusion* (E: In the prevailing distress all live on robbery). . . . *They beg for bread with blood. Men laugh with a laughter of disease . . . and one slayeth another. . . . Men take the goods of a man of high estate from him and give them to one from without. . . . The possessor is in deprivation and him from without is contented.*

. . . *The land is diminished and its governors are*

⁷ In the modern fluctuation to greater aridity that set in around 1900, the flow diminished from both the Blue and the

White Nile; see H. H. Lamb, *Geogrj* 132 (1966) 188.

many. The field is bare, and its taxes are great; little is the grain and great the grain measure (of taxes), and it is measured to overflowing.

The sun separates himself from men (E: by sandstorms); he arises when it is the hour. No one knows when it is midday, for his shadow cannot be distinguished (E: on the sundial). . . . He is in the sky like the moon, and yet he does not deviate from his accustomed time. . . .

But finally, a *king shall come from the south, called Ameni*, and he put the country to rights again, particularly by driving out the Asiatics, and building the "Wall of the Prince" to keep them out. Fortunately, Nature cooperated and the Nile floods returned more or less to normal, and King Amenemhet I was able to launch his country into one of the most glorious periods of its long history, known as the Middle Kingdom.

Since virtually nothing is known of this brief Dark Age at the end of Dynasty XI, we may speculate briefly in the light of the climatological hypothesis. It is generally agreed that the future King Amenemhet I was the same man as the Vizier Amenemhet who led an expedition to the Wadi Hammamat in year two of King Mentuhotep IV. Hayes (1961) has noted that the tone of the inscriptions of Amenemhet suggest a loyal servant of his king, not a man plotting imminent revolt. I suggest that Amenemhet may have been driven to reconsider whether this Mentuhotep was in truth a proper and legitimate king, approved by the gods, when the floods failed so severely. Or perhaps Mentuhotep himself developed such doubts of his own legitimacy that he abdicated or died (see Discussion, below), since his claim to the throne is anyway obscure.

Further support to the idea of a serious failure of the Nile preceding the reign of Amenemhet I is provided by the quotation from his Instructions to his son: . . . *I was the one who made barley, the beloved of the grain-god. The Nile honored me on every broad expanse (the inundations were good). No one hungered in my years; no one thirsted therein. . . . Everything which I had commanded was in the proper place* (Wilson 1955).

Regarding the relations between the king and the feudal nomarchs in the early years of Amenemhet I, Hayes (1961:35) states that the new king saw to it that "the boundaries of the nomes were rigorously established and regulations were enacted covering each district's share in the supply of Nile

water available for purposes of irrigation" (see also Gardiner 1961:128; and Breasted 1906:628). This again suggests not only that water was not abundant at the very start of his reign, but also that much of the fighting in the times of great trouble may have been over access to the severely limited water supply. We have already seen that Merer shut off certain fields and did not allow his family's water to irrigate for someone else, and that Khety of Assiut built new irrigation works the better to utilize the meager water available. And we may speculate whether Ankhtifi's ability to supply other towns in the time of worst famine, in spite of living in a relatively poor part of the country, may have been related not only to the organizing efficiency and resourcefulness of which he boasts, but to the fact that his nomes had first access to the water. In normal times of course this would not matter, but if the river fell so low that one could walk across it, there could be some advantage in first access.

In this context we may note two items from the "Protestations of Guiltlessness" (Wilson 1955:34) by the soul appearing before a posthumous court: *A31: I have not held up the water in its season (W: denied the inundation waters to others); and A32: I have not built a dam against running water.* No doubt there were many who did, including Merer, and Khety of Assiut, as noted above.

With the reign of Amenemhet I, we come to the end of the First Dark Age in Egypt—an age bracketed by two particularly troubled and dark intervals, each associated with a severe drought, about 2180 to 2130, and 2000 to 1990 B.C. Dynasty XII, c. 1991-1786 B.C. was a period of strong government, cultural advance and general prosperity. There was no significant revival of the rains over the desert (Butzer 1958), no return of the Neolithic Wet Phase, but the inundations were evidently adequate. I shall discuss elsewhere what can be known of their levels. Vandier (1936) was able to find only one text referring to famine in these years, an inscription in the tomb of Ameny, Nomarch of Beni Hasan, during the reign of Senwosret I. The Nomarch Ameny states (Breasted 1906:523): . . . *When years of famine came, I plowed all the fields of the Oryx Nome, as far as its southern and northern boundaries, preserving its people alive, and furnishing its food so that there was none hungry therein. . . . Then came great Niles, producers of grain and of all things, (but*

I did not collect the arrears of the field (taxes). . . . This inscription no doubt gives a picture of the normal situation in years of low Nile, which must have occurred from time to time throughout Egyptian history, though rarely with such severity as in the Dark Ages at the end of Dynasty VI and between Dynasties XI and XII. Vandier notes that Griffith considers that the inscription of Mentuhotep, son of Hepi, refers to the same famine as Ameney's inscription.

DISCUSSION

Most Egyptologists who attempt to explain the collapse of the Old Kingdom stress the declining power and wealth of the king and the growing power and independence of the provincial nobility. Evidence of this trend through Dynasty VI is too plentiful to be questioned and need be mentioned here only briefly: from as early as the end of Dynasty IV, the royal pyramids decrease in size while the mastabas of the great nobles grow in size and splendor; in Dynasty VI many a noble abandoned the earlier custom of a tomb near the royal pyramid in favor of a tomb in his own province; governorships became hereditary, with "only a perfunctory nod in the direction of Memphis" (Hayes 1953). This much is beyond dispute. What is questionable is whether such a trend is sufficient explanation for a disaster of the magnitude that overwhelmed Egypt at the end of Dynasty VI.

I have suggested rather that dire famine, due to prolonged (on the historic, though very brief on the geologic, time scale) failure of the rains over the central and eastern African sources of the Nile—a sort of "exclamation point" emphasizing the ending of the Neolithic Wet Phase—was the crisis that shattered a weakened central government utterly unable to cope with the problem, and decimated the Egyptian people. We have considered a number of ancient texts that support this point of view, and the meaning of which becomes clearer when read in this light. Moreover, the literature "voicing the bewilderment and despair with which Egyptians faced the overturn of their once stable world" (Wilson 1956) is more readily understood if we conceive of a cause that they were essentially helpless to remedy.

Let us explore some further political aspects of this hypothesis. Of the time of Dynasty VI, the decades before the disaster, Hayes (1953:131) writes: ". . . One cannot help but feel that it was

only through personal loyalty that the great rulers of Upper Egypt [served] the crown. Once the king, incapable of controlling his provincial governors by force, found himself unable to win their loyalty through favors and wisely chosen concessions, the whole fabric of the pharaonic government fell to pieces."

We consider this situation against the background of the Egyptian concept of Kingship, particularly as described by Frankfort, Wilson and Aldred. In the words of Frankfort (1951:120): "The Egyptian system . . . [in which] . . . a god had consented to guide the nation . . . gave a sense of security which the Asiatic contemporaries of the ancient Egyptians totally lacked . . . a pledge that the forces of nature would be well disposed and bring prosperity and peace." "That Pharaoh was of divine essence, a god incarnate" is fundamental to the Egyptian concept of Kingship, "and this view can be traced back as far as texts and symbols take us" (Frankfort 1948:5); the attitude can be seen most readily in art—in war scenes, hunting scenes, and scenes involving the other gods—from the time of Narmer.

Introducing a text from Dynasty XII, Wilson (1955:431) writes: "The king of Egypt ruled the land as a god, as the Son of Re, or as the Horus, or as the incorporation of the deities of Upper and Lower Egypt. He was also a synthesis of other gods who represented forces of proper rule, a blend of force and intelligence, of terror and nurture, or of sustenance and punishment. . . . Some of the divine elements which went into the composition of a pharaoh" are set forth in a poem of instruction addressed to his children by Sehetepibre, Chief Treasurer under King Ni-maat-Re Amenemhet III: *Worship King Ni-maat-Re, living forever, within your bodies, and associate with his majesty in your hearts. He is Perception (W: cognitive intelligence, an attribute of good rule), which is in the hearts, and his eyes search out everybody. He is Re, by whose beams one sees. He illumines the Two Lands more than the sun. He makes the Two Lands more verdant than does a high Nile. For he has filled the Two Lands with strength and life. . . . He giveth vital force to them that serve him . . .* (Wilson 1955; Erman 1927).

Under Dynasty XVIII this attitude was expressed in an inscription in the tomb of Rekhmire, vizier under King Thutmose III (Frankfort 1948:47): *What is the King of Upper and Lower*

Egypt? He is a god by whose dealings one lives, the father and the mother of all men, alone by himself, without an equal. Moreover the King's power and his concern for his realm do not cease with his death, for we read in another inscription (Frankfort 1948:195): *Thutmose III is in heaven like the moon. The Nile is at his service. He opens its cave to give life to Egypt.*

Aldred (1963, 1965) particularly stresses the relation between king and Nile, and writes that the Egyptian concept of the god-king derived from the "prehistoric rainmaker who kept his tribe, their crops, and beasts in good health by exercising a magic control over the weather . . . [who was] . . . transformed into the Pharaoh, able to sustain the entire nation by having command over the Nile flood. . . . The Kingship and the Nile are intimately associated. . . . The earliest kings were associated with the control of the flood waters . . ." (Aldred 1963:157). "The never-failing inundations of the river were more predictable in their occurrences, though not in their volume, and therefore more amenable to control than the weather" (Aldred 1965:50). Indeed, the climatic conditions of Egypt were almost uniquely suited to inspire the confidence of the people in any divine power claimed by their kings, far more so than in western Asia; and the predictability of the Nile probably played no insignificant role in the successful development of the dogma of divine kingship.

In the earliest Pyramid Texts, inscribed on the walls of the tomb chamber of the Pyramid of Unis, the king is poetically identified with the Nile flood (Černý 1952:85): *It is Unis who inundates the land and who has come forth from the lake, it is Unis who plucks the papyrus plant.* Pyr. 388; and in Pyr. 507-8: *Unis came today from the fullness of the flood, he is Subek, with a green feather, watchful face and uplifted fore-part of the body. . . . He came to his pools which are on the shore inundated by the Great Fullness, to the place of satisfaction, with green fields (the place) which is in the realm of light.* Pyr. 509 (transl. N. B. Millet) continues: *Unis causes the plants to become green on the two banks of the realm of light.* Černý points out that in later Pyramid Texts the god Osiris is connected with the flooding of the Nile on several occasions, and from the Middle Kingdom onward is often referred to as the god of floods and vegetation. Since the earliest texts, those of King Unis, refer thus to the king and not to Osiris, Černý suggests

that Osiris received his flood-vegetation attributes from his identification with the dead king.

King Amenemhet I of Dynasty XII includes the occurrence of good floods among the reasons why he deserves the loyalty and gratitude of all his subjects: . . . *I was the one who made barley, the beloved of the grain-god. The Nile honored me on every broad expanse. No one hungered in my years, no one thirsted therein. . . . Everything which I had commanded was in the proper place* (Wilson 1955:419). Frankfort (1948:57) emphasizes that the king here asserts that he "partakes of the essence of these natural phenomena. . . . The king 'produced barley,' not merely in an indirect way, for instance by caring for the farmers or furthering agriculture, but through his own actions—by maintaining Maat, the right order which allowed nature to function unimpaired for the benefit of man. Hence the Nile rose effectively at the inundation so that the arable land reached its maximum extent and the people prospered."

Frankfort instructively compares this Dynasty XII text with a song written for the accession of King Merneptah of Dynasty XIX, more than 700 years later, as translated by Erman: *Rejoice, thou entire land, the goodly time has come. A lord is appointed in all countries . . . great of kingship like Horus . . . Merneptah. . . . Truth has repressed falsehood* (W: The Egyptian concept of *ma'at* "truth, order, right" was of the essential order of the universe, given by the gods at the beginning and maintained and reconfirmed by the god-king). *The sinners are fallen on their faces. . . . The water standeth and faileth not, the Nile carrieth a high flood. The days are long, the nights have hours, the months come aright* (W: Order is found also in the regularity of times and seasons, restored by the new king). *The gods are content and happy of heart, and life is spent in laughter and wonder.*

Frankfort (1948:58) points out that "The comparison of the two texts enhances their significance. The song might be thought to contain merely the hyperboles of a festive mood, were it not that they recur in the grim context of Amenemhet's teaching. There the beneficial influence of the king is stressed only to bring out his utter loneliness, for notwithstanding it he was betrayed. And yet, though the two texts differ in both mood and age, we find them describing regal power with the same attributes, as strong a proof as we are likely to find that the Egyptians really believed these at-

tributes to pertain to their king. This power, then, includes the remarkable capacity to dominate and further natural processes, especially the inundation of the Nile on which the prosperity of Egypt depends. Because the king, who has established Maat, who has defeated falsehood, comes to the throne, there are abundant inundations; and the seasons—that is, the months and days and nights—follow each other in orderly procession. So the song. But the teaching of Amenemhet says practically the same thing: none was hungry, for the king made the corn grow; and the Nile, in obedience, rose to all accessible places so that they could be tilled. Even as late an author as Ammianus Marcellinus knew that the Egyptians ascribed plenty or famine to the quality of their king—not, in a modern sense, to his quality as an administrator, but to his effectiveness as an organ of integration, partaking of the divine and of the human and intrusted with making the mutual dependence of the two a source of ‘laughter and wonder.’”

The concept of the king’s influence over nature also appears behind the words of flattery addressed by Sinuhe to King Senwosret I: *Whether I am in the Residence or in this place, it is ever thou that obscurest this horizon, and the sun ariseth at thy pleasure; the water in the river is drunk when thou wilt, and the air in heaven is breathed when thou biddest* (Erman 1927:25). Probably this is merely an Egyptian way of saying “I recognize and accept you as the legitimate god-king of Egypt, as the true Horus.”

Let us now link together the factors described in the preceding pages of this section: the great nobles of Upper Egypt waxing in independent power and bound to the throne by increasingly fragile ties; the fundamental link between the divinity of the king and his control over the floods; and to this combination add the prolonged and severe failure of the floods, to the extent that people throughout Egypt were dying of starvation—the *tzw*-famines of several ancient texts. Imagine an average king on the throne, a man with no outstanding qualities of leadership but adequate to normal conditions. With these ingredients, I suggest, we have a quite sufficient and entirely plausible explanation for the troubles that afflicted Egypt in its First Intermediate Period, or First Dark Age. The central government, unable to deal effectively with so severe a famine and drought, and

undermined at its ideological core by the very existence of this revolt by nature, simply collapsed. The local nobility became as free in spirit as in fact to cope locally with the famine to whatever extent their various individual abilities permitted, and also free to ignore the supposed king in their tomb inscriptions, a practice general in this period and utterly contrary to earlier usage.

There remains one major characteristic of Egyptian Dark Ages in need of explanation, the short reigns and the very large number of kings to be fitted into relatively few years. Here I shall venture a step beyond what seems to me the realm of sound probability, into the realm of speculation, to propose a hypothesis that I believe makes sense of these numerous short reigns, in the context of a Dark Age caused primarily by deficient Nile floods in a land ruled by god-kings.

When we consult the revised *CAH* (Smith 1962; Hayes 1961, 1962) we find at least 31 Kings, and possibly as many as 40, in the interval from the death of Pepi II to the end of Dynasty IX, a period now believed to cover no more than about 60 years, c. 2190 to c. 2130; and this disregards the description by Manetho of Dynasty VII as composed of 70 Kings who reigned for 70 days. From the death of Pepi II to the end of Dynasty VIII, c. 2160, we have at least 18 Kings in some 30 years. Dynasty VI itself ended with several ephemeral reigns following that of Pepi II; the Turin Papyrus appears originally to have listed eight Kings (Gardiner 1961) but the names of only three have survived, and only these three are included in the total of 18. For Dynasty IX, c. 2160-2130, the Turin Papyrus indicates thirteen Kings. With Dynasty X conditions finally became more stable, with five Kings in some 90 years.

In addition to the evidence from the various King Lists, it is of interest to recall the statement of Merer that he *offered for thirteen rulers* (*hk3w*), in a single adult lifetime, during which *tzw*-famines occurred. Unfortunately the word *hk3w* does not enable us to distinguish between kings and nomarchs, nor is it certain that thirteen living rulers are meant (N. B. Millet, private communication); Černý (1961) interprets it, with some unease, as thirteen living nomarchs. But thirteen living kings seems the most plausible interpretation within the historical context.

Almost nothing is known of the genealogy of the Kings of the First Dark Age. The popularity of

the praenomen "Neferkare" in Dynasty VII-VIII, and to a lesser extent in Dynasty IX, is often taken as evidence that the Kings of Dynasties VII-IX regarded themselves as legitimate successors of Neferkare Pepi II (Hayes 1961). Since Pepi II had four known Queens, and an unknown number of sons, daughters and grandchildren, and moreover is believed to have lived to be 100, it is quite likely that he outlived most of his children, and it is easy to imagine that the order of the succession became uncertain and controversial at or shortly after his death, or at the end of Dynasty VI. Then Manetho's tradition of 70 Kings who ruled for 70 days might be imagined as a council of royal princes, descendants of Neferkare Pepi II, ruling collectively while they tried to resolve the question of which of them should become king.

The next Dynasty, be it properly called VII or VIII, evidently began with a King Neferkare "the Younger," a son or grandson of Pepi II by Ankhesen-Pepi, the Queen of his late years; Neferkare the Younger was credited by the Turin Papyrus (Hayes 1953) with a reign of just over four years, leaving only fourteen years for his fourteen successors of Dynasty VII-VIII. It is clear that there can be no question of a succession of generations among these Kings, and it has been suggested (Millet, 1968 lecture) that for some reason in this period the succession passed from brother to brother. While resulting in shorter reigns, even this hardly seems adequate to account for fourteen Kings in fourteen years, nor even some 31+ Kings in no more than 60 years. (A similar difficulty occurs also in the Second Intermediate Period with Dynasty XIII, and in the early part of the Dark Age around 1200 B.C.)

The need to explain these very numerous short reigns invites a radical hypothesis, which however fits well into our general picture of the situation. In brief, I suggest that the reigns of many of the kings in these periods were terminated rather promptly by death, either by suicide or by secret murder, when their performance of all the correct rites failed to produce any significant alleviation of the drought.

Although there is no evidence from ancient Egypt, there is evidence from recent times in various regions of Africa about what happens to a rain-maker king in a time of unusual drought. From C. G. Seligman's *Egypt and Negro Africa, a Study in Divine Kingship*, p. 38, Frankfort (1948:34)

quotes that the African "king of Juken is . . . able to control the rain and winds. A succession of droughts or bad harvests is ascribed to his negligence or to the waning of his strength, and he is accordingly secretly strangled." And there are other tribes, "like the Shilluk [who] will destroy their king when he threatens to become an imperfect link between man and the gods. . . . It has repeatedly been maintained that the Egyptians, too, killed their king and for the same reason; but of this there is no proof at all. The Egyptians, however, did regard their king in the same manner—a bond between nature and man" (Frankfort 1948:47).

Childe (1953) points out that the Pharaoh is a type of divine king, described by Frazer, who "holds his sovereignty by virtue of his magic power," and as its price must submit to ritual death before his body, and hence his magic power, grows feeble with age. In Egypt he was ritually revitalized by the sed-festival from the time of Menes onward. Egyptologists agree that the Egyptians did not as a regular practice kill their king, and that ritual revitalization played at least some role in the sed-festival. In spite of the magic-symbolic renewal of the king's power by the sed-festival, however, Aldred (1963:157) considers it significant that . . . "the tradition that the king should die for his people persisted in folk-lore and in the more primitive spells of *The Pyramid Texts*; and there are anthropologists who believe that the ceremonial killing of the Pharaoh was sometimes revived in moments of crisis."

If ever there was a crisis calling for such extreme measures, the First Dark Age, the period of the *tzw*-famines, was surely such a time. Frankfort (1948) emphasizes that there is no proof that any such thing ever occurred in Egypt. But then, there is little proof for anything—except famine, civil disorder, and too many kings—from the Dark Ages. Moreover, in addition to influencing the powers of Nature, "the king was the personification of *ma'at*, a word which we translate as 'rightness' or 'truth' or 'justice,' but which also seems to have the meaning of 'the natural cosmic order.' The forces of evil could upset *ma'at* until restoration had been effected by some appropriate act—a magic rite, or the advent of a new king" (Aldred 1963:161). A prolonged and severe failure of adequate floods, the *tzw*-famines, must have represented to the ancient Egyptians a uniquely profound upset of the

natural cosmic order which might well seem to demand a drastic remedy, and might well lead them to try one new king after another, as each conspicuously failed to restore *ma'at*—particularly if the drought should occur at a time when there was an unusual degree of uncertainty about the identity of the prince chosen for the next incarnation of Horus.

We noted above that Ipuwer seems to blame the king for the sorry state of the land, but completely fails to specify what the king was doing wrong. In the light of the above discussion it appears probable that Ipuwer actually had no specific idea what the king was doing wrong. But since maintaining *ma'at*, by some supernatural power, was the primary duty of the king, the occurrence of disorder, of famine, and of failure of the floods, would mean that the god-king had somehow failed in his prime duty.

Without any particular reference to the Dark Ages, Anthes (1959, *JNES* 18:180) considers that "the Pyramid Texts indicate conclusively that there existed a supreme court of sorts who nominated the king. It is hard to imagine that their activity would have been restricted to the mere acclamation of the new king." I am not able to offer an opinion on the validity of this concept. But if it has any validity, we may imagine the indecision and confusion in this council as year after year the floods failed to rise above famine levels—particularly if there was no one prince who by the usual standards had a claim much superior to those of his rivals. Such a condition could easily occur after so long a reign as that of Pepi II, with at least four queens. One can imagine the council approving one prince after another, as to each Horus brought no good inundation, in an increasingly frantic effort to discover the true Son of Horus, and persuading or coercing each prince in turn to kill himself after he had performed the proper rites and received no recognition from the god. Now and then there would be a year or two or three of hope, with at least meagerly adequate flooding, and then again failure. In all probability the prince himself would lose confidence in his right to be king, and only the most irreligious, or cowardly, would resist the pressure to kill himself.

If this picture corresponds in any way to reality—and the reality of the hypothetical council is not essential to the correspondence—we should surmise that the same situation recurred at the end of Dy-

nasty XI, with the seven-year darkness that followed the death of Seankhkare Mentuhotep III. Hayes (1953:167) mentions three names in addition to Nebtowyre Mentuhotep IV who may have reigned briefly in this interval. The practice in Dynasty XII, whereby each king appointed his chosen heir co-regent in his lifetime, may have been motivated in part by a desire to reduce the influence of the council in the naming of a new king. The power of the council would wax and wane, inversely with the prosperity and stability of the country.

A problem meriting fuller discussion than would be appropriate here is the possible influence of climatic crises on the evolution of religious concepts in Egypt. There can be little doubt that the climate of Egypt, with the normally dependable regularity in the seasonal flooding of the Nile, provided conditions uniquely suitable for the development of the concept of divine kingship. The predictability of natural conditions would readily inspire the people to believe any claims to magic powers and divinity that a king might make.

Furthermore, there can be little doubt that the concern expressed by local nomarchs for the material wellbeing of their subjects in the First Intermediate Period, and the later Middle Kingdom idea of the King as a good shepherd watching over his flock, developed naturally out of the crisis of famine that impoverished and killed the industrious as well as the lazy and shiftless, so that poverty could not be blamed on a deficiency of character.

It is tempting also to link the great increase in the popularity of Osiris, "a divinity who had himself suffered death and resurrection in the process of transfiguration" (Lloyd 1961:118) during the first Dark Age to the nature of the crisis through which the Egyptians themselves were passing. This god, "as one of the forces of nature, personified the growth of plants through the stimulus of the life-giving water of the Nile" (Smith 1962), both of which were in critically short supply. Smith further notes that Osirian beliefs began to appear in private tombs about the middle of Dynasty V, while Gardiner (1961) points out that the Pyramid Texts of Dynasty VI emphasize Osiris, in contrast to the Vth Dynasty emphasis on Re. And the Nile floods, first poetically identified with King Unis, came in Dynasty VI to be often identified with Osiris (Černý 1952). This change coincides with

Butzer's dating for the end of the Neolithic Wet Phase.

Another god whose popularity, or in this case unpopularity, may have been influenced by the end of the NWP is Seth. Wainwright (1963, *JEA* 49) states that Seth is to be considered as originally a storm god, and of great antiquity (Nagada I), and thus to have originated well within the NWP, as "a god of the blessed yet dangerous storm." As the rains became rare, his rites became only a nuisance, and he eventually slipped from his high estate and became the personification of evil. With the decline of the NWP, everything from the desert became sinister to the Egyptian peasant. "Out of the southwestern desert come sandstorms and bad weather, sent by Seth, Lord of the Libyan Desert. . . . The hot south and west winds in summer bring 'the pestilence of the year' which kills people" (Kees 1961:37).

And finally we may note a legend according to which "Sekhmet, the lioness goddess dwelling in the desert near Memphis, by order of Re, once destroyed nearly all the first race of men when they were beginning to make settlements, until the god saved the remainder by a stratagem" (Kees 1961:37). It may well be that this legend reflects a dim and distant memory of an earlier fluctuation to aridity, or drought, within the NWP.

We conclude with a brief return to the broader picture of the First Dark Age of Ancient History outlined in the Introduction. We have considered in some detail a number of texts from the First Intermediate Period which clearly establish that Egypt was afflicted by severe famine, and that this famine was caused primarily by failure of the Nile floods rather than by human negligence. Most of these texts, and particularly those relating to the severest drought (*tzw*-famines), can be dated within a period of no more than 50 years, c. 2180 to c. 2130 B.C. A second drought, less prolonged, and perhaps less severe, occurred between 2002 and 1991 B.C.

If the more general thesis of a *widespread* drought, as set forth in the Introduction, is correct, it would be the first of these great droughts which brought an end to EB 2 civilization throughout the eastern Mediterranean Basin. It would be the first drought also which in Mesopotamia contributed to the destruction of the Akkadian Empire, and the second drought which contributed to

the downfall of the Third Dynasty of Ur. I plan to investigate the evidence from Mesopotamia in detail in a later paper. The conclusions reached in the present paper should, however, be judged primarily on the internal Egyptian evidence. They do not depend in any necessary way on the correctness of the hypothesis of a widespread drought.

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