

Kings of Egypt

The list on these pages contains the names and approximate dates of most of the important kings of Egypt, with the names of queens regnant designated Q.

A king's full titulary consisted of five main elements, of which the first three were given in their order of origin. These are (1)Horus, (2)Two Ladies, (3)Golden Horus, all of which are epithets that seem to refer to aspects of the king's being as a manifestation of a deity. The fourth, the first cartouche name, is prefaced by two words for king, which came to be identified with the two halves of the country, and usually contains a statement about the sun god Re' in relation to the king. The fifth, the second cartouche, is normally the king's own birth name, and is preceded by the designation "Son of Re'."

Since the pronunciation of names is often unknown, Greek forms, from the history of Manetho (3rd century BC), are used for many kings. In the list the birth name is normally given first, followed by the first cartouche, which is always in italics. The kings of the 20th Dynasty used Ramesses as a dynastic name in their second cartouches, and Ptolemaic kings were similarly called Ptolemy.



Overlapping dates within dynasties indicate coregencies. Where two or more dynasties overlap they were mostly accepted in different parts of the country.

Dates that are known with precision are marked *. The dates are computed from ancient lists, especially the Turin royal papyrus, and various other sources, including a few pieces of astronomical evidence. The margin of error rises from about a decade in the New Kingdom and 3rd Intermediate Period to as much as 150 years for the beginning of the 1st Dynasty. Most 12th-Dynasty dates are fixed precisely, and 18th- and 19th-Dynasty ones must fit one of three astronomically determined alternatives; here a combination of the middle and lowest ones is used. All dates from 664 BC are precise. All native rulers mentioned in Part Two are included in the list.

Above A typical full titulary. "Horus: Mighty bull, perfect of glorious appearances; Two Ladies: Enduring of kingship like Atum [the aging sun god]; Golden Horus: Strong of arm, oppressor of the Nine Bows [traditional enemies]; Nisut and bity [terms for king]; Menkheprure' [Re' is enduring of manifestations]; Son of Re': Tuthmosis [IV], greatly appearing one; beloved of Amon-Re', giver of [or: given] life like Re'."

Right Typical hieroglyphic writings of selected kings' names; those in the first line are Horus names. Most of the rest are pairs of throne names, by which the kings' contemporaries knew them, and birth names, by which we now know them.

LATE PREDYNASTIC c. 3000

Zekhen; Na'rmer

EARLY DYNASTIC PERIOD 2920-2575

1st Dynasty 2920-2770

Menes (= 'Aha?); Djer; Wadj; Den; 'Adjib; Semerkhet; Qa'a

2nd Dynasty 2770-2649

Hetepsekhemwy; Re' neb; Ninetjer; Peribsen; Kha' sekhem(wy)

3rd Dynasty 2649-2575

Zanakht (= Nebka?); Djoser (Netjerikhet); Sekhemkhet; Kha'ba; Huni(?)

OLD KINGDOM 2575-2134

4th Dynasty 2575-2465

Snofru; Khufu (Cheops); Ra' djedef; Khephren (Ra'kha'ef); Menkaure (Mycerinus); Shepseskaf

5th Dynasty 2465-2323

Userkaf; Sahure; Neferirkare' Kakai; Shepseskare' Ini; Ra' nefere; Neuserre' Izi; Menkauhor; Djedkare' Izezi; Wenis

6th Dynasty 2323-2150

Teti; Pepy I (Meryre'); Merenre' Nemtyemzaf; Pepy II (Neferkare')

7th/8th Dynasty 2150-2134

Numerous ephemeral kings, including Neferkare'

1st INTERMEDIATE PERIOD 2134-2040

9th/10th Dynasty 2134-2040

(Herakleopolitan) Several kings called Khety; Merykare'; Ity

11th Dynasty (Theban) 2134-2040

Inyotef I (Sehertawy) 2134-2118; Inyotef II (Wah'ankh) 2118-2069; Inyotef III (Nakhtnebtpeufer) 2069-2061; Nebhepetre' Mentuhotpe 2061-2010

MIDDLE KINGDOM 2040-1640

11th Dynasty (all Egypt) 2040-1991

Nebhepetre' Mentuhotpe; S'ankhkare' Mentuhotpe; Nebtawyre' Mentuhotpe; 1998-1991

12th Dynasty 1991-1783

Amenemhet I (Sehetepibre') 1991-1962; Senwosret I (Kheperkare') 1971-1926; Amenemhet II (Nubkaure') 1929-1892; Senwosret II (Kha'kheperre') 1897-1878; Amenemhet III (Nima'atre') 1878-1841?; Senwosret III (Kha'kaure') 1844-1797; Amenemhet IV (Ma'akherure') 1799-1787; Nefrusobk (Sebekkare') Q 1787-1783

13th Dynasty 1783-after 1640

About 70 kings. Better-known ones are listed; the numbers are their positions in the complete list

Wegaf (Khutawyre') 1 1783-1779; Amenemhet V (Sekhemkare') 4; Harnejdjerhotef (Hetepibre') 9; Amenyemau 11b; Sebekhotpe I c.1750; (Kha'ankhre') 12; Hor (Auwibre') 14; Amenemhet VII (Sedjefakare') 15; Sebekhotpe II (Sekhemre'-khutawyre') 16; Khendjer (Userkare') 17; Sebekhotpe III c.1745; (Sekhemre'-swadjaawy) 21

14th Dynasty

Neferhotep I c.1741-1730; (Kha'sekhemre') 22; Sebekhotpe IV c.1730-1720; (Kha'neferre') 24; Sebekhotpe V c.1720-1715; (Kha'hotepre') 25; Aya c.1704-1690; (Merneferre') 27; Mentuemzaf (Djed'ankhre') 32c; Dedumose II (Djedneferre') 37; Neferhotep III (Sekhemre'-ankhtawyre') 41a

14th Dynasty

A group of minor kings who were probably all contemporary with the 13th or 15th Dynasty

2nd INTERMEDIATE PERIOD 1640-1532

15th Dynasty (Hyksos)

Salitis; Sheshi; Khian (Swoserene') Apophis c.1585-1542 ('Awoserre' and others); Khamudi c.1542-1532

16th Dynasty

Minor Hyksos rulers, contemporary with the 15th Dynasty

17th Dynasty 1640-1550

Numerous Theban kings; numbers give positions in the complete list

Inyotef V c.1640-1635; (Nubkheperre') 1; Sebekemzaf I (Sekhemre'-wadjkha'u) 3; Nebireyraw (Swadjenre') 6; Sebekemzaf II (Sekhemre'-shedtauy) 10; Ta'o (or Djehuti'o) I (Senakhtenre') 13; Ta'o (or Djehuti'o) II (Seqenenre') 14; Kamose c.1555-1550; (Wadjkheperre') 15

NEW KINGDOM 1550-1070

18th Dynasty 1550-1307

Ahmosé (Nebpehtire') 1550-1525; Amenophis I 1525-1504; (Djeserkare') Tuthmosis I 1504-1492; ('Akheperkare') Tuthmosis II 1492-1479; ('Akheperenre') Tuthmosis III 1479-1425; Hatshepsut 1473-1458; (Ma'atkaré') Q Amenophis II 1427-1401; ('Akheprure')

19th Dynasty 1307-1196

Tuthmosis IV 1401-1391; Amenophis III 1391-1353; (Nebma'atre') Amenophis IV/Akhenaten (Neferkheprure' wa'enre') 1353-1335; Smenkheperre' (= Nefertiti Q?) 1335-1333; Tut'ankhamun (Nebkheprure') 1333-1323; Aya 1323-1319; (Kheperkheprure') Haremhab 1319-1307; (Djeserkheprure')

19th Dynasty 1307-1196

Ramesses I 1307-1306 (Menpehtire'); Sethos I 1306-1290 (Menma'atre'); Ramesses II 1290-1224 (Userma'atre' setepenre'); Merneptah 1224-1214 (Baenre' hoteprirma'at); Sethos II 1214-1204 (Userkheprure' setepenre'); Amenmesse (Menmire'), usurper during reign of Sethos II; Siptah 1204-1198 (Akhenre' setepenre'); Twosre 1198-1196 (Sitre' meritamun) Q

20th Dynasty 1196-1070

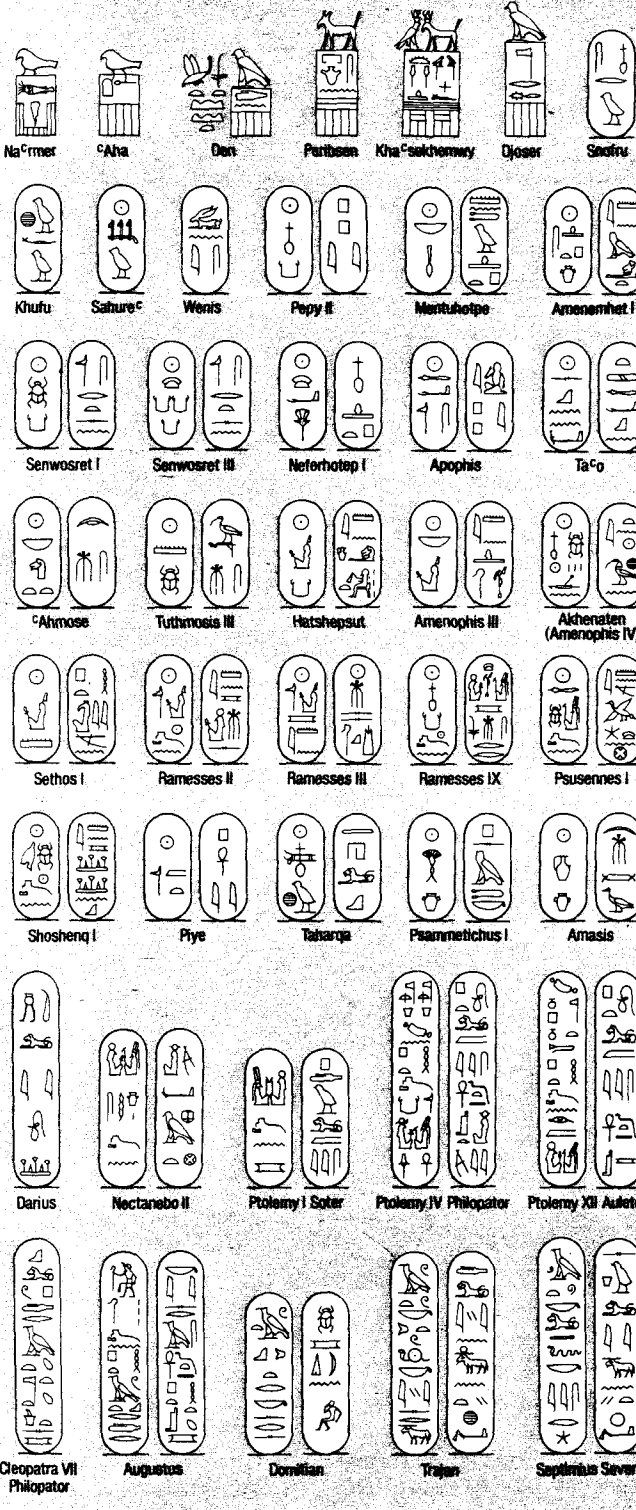
Sethnakhte 1196-1194 (Userkha'ure' meryamun); Ramesses III 1194-1163 (Userma'atre' meryamun); Ramesses IV 1163-1156 (Heqama'atre' setepenamun); Ramesses V 1156-1151 (Userma'atre' sekheperenre'); Ramesses VI 1151-1143 (Nebma'atre' meryamun); Ramesses VII 1143-1136 (Userma'atre' setepenre' meryamun); Ramesses VIII 1136-1131 (Userma'atre' akhenamun); Ramesses IX 1131-1112 (Neferkare' setepenre'); Ramesses X 1112-1100 (Kheperma'atre' setepenre'); Ramesses XI 1100-1070 (Menma'atre' setepenptah)

3rd INTERMEDIATE PERIOD 1070-712

21st Dynasty 1070-945

Smendes 1070-1044 (Hedjkheperre' setepenre')

HIEROGLYPHIC WRITINGS OF SELECTED KINGS' NAMES



Amenemnisu (Neferkare')	1044-1040	30th Dynasty	*380-3
Psusennes I ('Akheperre' setepenamun)	1040-992	Nectanebo I (Kheperkare')	*380-3
Amenemope (Userma'atre' setepenamun)	993-984	Teos (Irrna'atren')	*365-3
Osorkon I ('Akheperre' setepenre')	984-978	Nectanebo II (Senedjemibre' setepenahur)	*360-3
Siamun (Netjerkheperre' setepenamun)	978-959	2nd Persian Period	*343-3
Psusennes II	959-945	Artaxerxes III Ochus	*343-3
		Artes	*338-3
		Darius III Codoman	*335-3
		Period interrupted by a native ruler Khababash (Senentanen setepenptah)	
22nd Dynasty (Hedjkheperre' setepenre')	945-712		
Osorkon II (Sekhemkheperre' setepenre')	945-924		
Takelot I (Userma'atre' setepenamun)	924-909	GRECO-ROMAN PERIOD	*332 BC-395 AD
Shoshenq II (Heqakheperre' setepenre')	909-883	Macedonian Dynasty	*332-3
Osorkon III (Userma'atre' setepenamun)	883-855	Alexander III the Great	*332-3
Takelot II (Hedjkheperre' setepenre')	860-835	Philip Arrhidaeus	*323-3
Shoshenq III (Userma'atre' setepenre' jamun)	835-783	Alexander IV	*316-3
Pami (Userma'atre' setepenre' jamun)	783-773	Ptolemaic Dynasty	*304-3
Shoshenq V ('Akheperre')	773-735	Ptolemy I Soter I	*304-2
Osorkon V ('Akheperre' setepenamun)	735-712	Ptolemy II	*285-2
		Philadelphus	
		Ptolemy III Evergetes I	*246-2
		Ptolemy IV Philopator	*221-2
		Ptolemy V Epiphanes	*205-18
		Ptolemy VI	*180-164, *163-14
		Philometor	
		Ptolemy VIII	*170-163, *145-11
		Evergetes II (Physkon)	
		Ptolemy VII Neos	*14
		Philopator	
		Cleopatra III Q and Ptolemy IX Soter II (Lathyros)	*116-10
		Cleopatra III Q and Ptolemy X Alexander I	*107-8
		Ptolemy IX Soter II	*88-8
		Cleopatra Berenice Q	*81-8
		Ptolemy XI Alexander II	*81
		Ptolemy XII Neos	*80-58, *55-5
		Dionysos (Auletes)	*58-5
		Berenice IV Q	*51-3
		Cleopatra VII Q	*51-4
		Ptolemy XIII	*47-4
		Ptolemy XIV	*44-3
		Ptolemy XV Caesarion	
		There were further coregencies with queens called Arsinoe, Berenice and Cleopatra, who had no independent reigns. Native usurpers: Harwennofre (205-199), Ankhwennofre (199-186), Harsiese (131)	
		Roman emperors	*30 BC-395 AD
		(names found in hieroglyphic and demotic texts, down to the tetrarchy)	
		Augustus	*30 BC-14 AD
		Tiberius	*14-37
		Gaius (Caligula)	*37-41
		Claudius	*41-54
		Nero	*54-68
		Galba	*68-69
		Otho	*69
		Vespasian	*69-79
		Titus	*79-81
		Domitian	*81-96
		Nerva	*96-98
		Trajan	*98-117
		Hadrian	*117-138
		Antoninus Pius	*138-161
		Marcus Aurelius	*161-180
		Lucius Verus	*161-169
		Commodus	*180-192
		Septimius Severus	*193-211
		Caracalla	*198-217
		Geta	*209-212
		Macrinus	*217-218
		Diadumenianus	*218
		Severus Alexander	*222-235
		Gordian III	*238-244
		Philip	*244-249
		Decius	*249-251
		Gallus and Volusianus	*251-253
		Valerian	*253-260
		Gallienus	*253-268
		Macrianus and Quietus	*260-261
		Aurelian	*270-275
		Probus	*276-282
		Diocletian	*284-305
		Maximian	*286-305
		Galerius	*293-311

RELIGIONS OF THE ANCIENT EAST

By

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I. PRINCIPAL MASCULINE DEITIES

<i>Name</i>	<i>Lord of</i>	<i>Characteristics</i>	<i>Iconography</i>	<i>Family Relations</i>	<i>Sacred Animals</i>
Amon	Thebes	God of the sky identified with the Sun under the name of Amon-Re	Human shape. Headdress with two large feathers	Husband of Mut, father of Khonsu	Ram with back curved horns. Nile Goose
Anubis	Cynopolis	God of Mummification, and the dead	Man with jackal's head	Varying according to place	Jackal
Atum	Heliopolis	Evening Sun	Double-crowned King	Father of Heliopolitan Enneads	Bull. Mnevis. Lion. Snake Ichneumon
Geb		Cosmic god, identified with the earth	Man lying down, his body strewn with plants	Son of Shu, husband of Nut	
Harakhtes	Heliopolis	Horus the Great, identified with the Sun	God with the solar disk on his falcon head	Father of the Heliopolitan Enneads	Falcon
Harsaphes	Heracleopolis		Rain God, or Ram headed	Husband of a local Hathor	Ram
Horus the Great	Sam-Behdet	God of the sky, founder of Pharaonic monarchy	Falcon, or man wearing solar disk on his head		Falcon
Horus the Child			Young naked prince, finger in his mouth	Son of Osiris and Isis	Falcon
Khenti-mentu	Abydos	God of the dead, identified with Osiris from Middle Empire onwards	Jackal God		
Khnum	Elephantine	Modeller of beings on a potter's wheel	God with ram's head and horizontal horns	Husband of Satis, father of Anukis	Ram

<i>Name</i>	<i>Lord of</i>	<i>Characteristics</i>	<i>Iconography</i>	<i>Family Relations</i>	<i>Sacred Animals</i>
Khonsu	Karnak	Moon God	Royal child wearing lunar disk on his head	Son of Amon and Mut	
Khopri	Heliopolis	Sun god, assimilated to Atum and Re	Man with a scarab instead of a head		Scarab
Min	Coptos Panopolis	God of desert caravans	Ithyphallic figure wielding a flail	Husband of a goddess who presided over the east, later identified with Isis	
Montu	Hermonthis	Warrior god	Falcon or bull headed god armed with an axe and a bow	Husband of Raet-Tau, father of a form of Horus	Bull Bukis
Nefertum	Memphis		God with lotus flower on his head	Son of Ptah and Sekhmet	
Onuris	This	Assimilated to Shu	Figure with long streaky beard, two large straight feathers on his head, and holding a rope that hangs from the sky	Husband of Mehet, lion-goddess assimilated to Tefnut	
Ophois	Assiut	Warrior god	Wolf standing on a standard		
Osiris	Busiris	King of the dead	Man enclosed in mummy wrapping wearing a tall, conical cap with feathers	Husband of Isis, father of Horus the Child	He-goat
Ptah	Memphis	Patron of sculptors and blacksmiths	Mummified figure with shaven head, holding a long sceptre	Husband of Sekhmet, father of Nefertum	Apis Bull

2—R.A.E.

Re	Heliopolis	Cosmic god, whose name means "Sun". Assimilated to Khopri when in the rôle of the morning sun, and to Atum as the evening sun	Falcon god, with solar disk on his head		
Sebek	Fayyum Kom Ombo		Crocodile, or man with crocodile head	Son of Neith, husband of a Hathor	Crocodile
Seth	Ombos	Warrior god, in service of the sun. Antagonist of Osiris	Armed warrior with the head of a fantastic animal, with curved snout and long ears	Brother of Osiris, husband of Nephtys	
Shu	Leontopolis	Cosmic god, identified with air	Man wearing ostrich feather on his head	Son of Re, husband of Tefnut	Lion
Sokaris Sopdu	Sakkarah Saft-el- Henneh	God of the dead Warrior god	Falcon-headed mummy Asiatic warrior, or mummified falcon having two straight feathers on his head		
Thot	Hermopolis	God of writing and the computing of time. God of the moon	Ibis-headed figure, with lunar disk on his head	Husband of Sekhat	Ibis, baboon

II. PRINCIPAL FEMININE DEITIES

<i>Name</i>	<i>Mistress of</i>	<i>Characteristics</i>	<i>Iconography</i>	<i>Family Relations</i>	<i>Sacred Animals</i>
Anukis	Island of Sehel	Goddess of the first cataract	Woman wearing a tall cylindrical ribbed tiara, splayed at the top	Daughter of Khnum	
Bastet Hathor	Bubastis Aphrodito- polis Denderah	Warrior goddess Goddess of merry- making and love	Woman with cat's head Cow, or woman with cow's head, wearing a solar disk on her head set in lyriiform horns	Wife of Horus	She-cat Cow
Heket	Region of the first cataract	Khnum's assistant in the creation of beings at the potter's wheel	Frog-headed goddess	Wife of Khnum	
Isis	Iseion	Companion and protectress of Osiris	Woman, wearing a seat, the hieroglyph of her name, on her head	Wife of Osiris, mother of Horus the Child	
Maat		Theological goddess, acting as feminine Logos in solar theology	Woman wearing the ostrich feather, used to write her name, on her head	Daughter of Re	
Mut	Karnak	Companion of Amon	Vulture, or woman wearing double crown	Wife of Amon, mother of Khonsu	
Neith	Sais	Assimilated to Athene by the Greeks	Woman wearing the crown of Lower Egypt and holding a bow and two arrows	Mother of Re, according to Sais mythology	
Nekhbet	Hieraconpolis	Dynastic goddess of Upper Egypt	Vulture, or woman wearing the crown of Upper Egypt		
Nephtys	Diospolis Parva	Assistant of Osiris and Isis	Woman wearing hiero- glyph of her name on her head	Wife of Seth, mother of Anubis	
Pakhet	Speos-Artem- idos		Cat goddess		
Satis	Elephantine	Goddess of the first cataract	Woman wearing the crown of Upper Egypt combined with two lyriiform horns	Daughter of Khnum and Anukis	
Sekhat		Annalist of the Gods	Woman dressed in a leopard skin, carrying a pot of ink and a calamus	Wife of Thot	
Sekhmet	Rehesu	Warrior goddess	Goddess with head of lioness	Wife of Ptah, mother of Nefertum	
Selkis		Punisher of crimes	Scorpion with woman's head. A woman with a scorpion on her head	Mother of Harakhtes	
Tefnut	Oxyrhinkos	Cosmic goddess identified with the principle of dampness	Lioness, a woman with the head of a lioness	Wife of Shu	
Utu	Buto	Dynastic goddess of Lower Egypt	Snake goddess		

CHRONOLOGICAL TABLES

(A) EGYPT

PREHISTORY

B.C.	
Before 12000	Lower and Middle Palaeolithic Periods Upper Palaeolithic I (Nomadic food-gatherers)
c. 12000	Upper Palaeolithic II (Camps of fisherfolk in the Kom Ombo Basin)
c. 8000	Final Palaeolithic or Mesolithic Period (Introduction of bow and arrow)
c. 4500	Neolithic-Cuprolithic Period (Tasa-Badari and Naqada I Cultures)
c. 3500	Naqada II, Faiyum B and Ma'adi Cultures

KINGS FROM THE FIRST TO THE TWELFTH DYNASTIES EARLY DYNASTIC PERIOD

First Dynasty: c. 3100-2890 B.C.

Horus Name	Personal Name	Years of Reign
Narmer	Men (Menes)	
Aha	Iti (Athothis)	
Djer	Iti (Athothis)	47
Djet	Iterty	
Den	Khasty	55-60
Anedjib	Merpebia (Miebis)	7
Semerket	Irynetjer	8
Qaa	Qaa	25

Second Dynasty: c. 2890-2686 B.C.

Horus Name	Personal Name	Years of Reign
Hetepsekhemwy	Hetep	
Reneb	Nubnefer	
Nynetjer	Nynetjer	45-47
	Weneg (Wadjnes)	19
	Sened (Sethenes)	
Peribsen*	Peribsen	
	Aka (?)	
	Neferkasokar (?)	8
Khasekhem	('lacuna' in lists)	21 (?)
Khasekhemwy†	Khasekhemwy	17

* Seth name.

† Horus and Seth name.

OLD KINGDOM

Third Dynasty: c. 2686-2613 B.C.

<i>Horus Name</i>	<i>Personal Name</i>	<i>Years of Reign</i>
Sanakhte	Nebka	19
Netjerykhet	Djoser	19
Sekhemkhet	Djoser Teti	6
Khaba	('lacuna' in lists)	6
.....	Huni (Nysuteh?)	24

Fourth Dynasty: c. 2613-2498 B.C.

Sneferu	24 years	Baufre(?)	
Cheops	23	Mycerinus	28(?)
Redjedef	8	Shepseskaf	4
Chephren	25(?)	Dedefptah? ('Thamphthis')	2

Fifth Dynasty: c. 2494-2345 B.C.

Userkaf	7 years	Nyuserre	[3]1
Sahure	14	Menkauhor Akauhor	8
Neferirkare Kakai	10	Djedkare Iseai	39
Shepseskare Isi	7	Unas	30
Neferefre	7(?)		

Sixth Dynasty: c. 2345-2181 B.C.

Teti	12 years	Neferkare Phiops II	94(?)
Userkare	1(?)	Merenre Antyemsaf II	1
Meryre Phio(p)s I	49	Netjerykare	
Merenre Antyemsaf I (g)	14	Menkare (?) Nitocris	2(?)

FIRST INTERMEDIATE PERIOD

Seventh Dynasty: c. 2181-2173 B.C.

Neferkare, 'the Younger'	Neferkamin
Neferkare Neby	Nykare
Djedkare Shemay	Neferkare Tereru
Neferkare Khendu	Neferkahor
Meryenhor	

Eighth Dynasty: 2173-2160 B.C.

Wadjkare Pepysonbe (Horus Kha-[bau?])	4 + * years
Neferkamin Anu	2 years 1 month
Kakare Ibi	4 years 2 months
Neferkare	2 years 1 month
Neferkauhor Kapuibi (Horus Netjerybau)	1 year ½ month
Neferirkare (Horus Demedjibtowy)	

CHRONOLOGICAL TABLES

Ninth Dynasty: c. 2160-2130 B.C.

Meryibre Achthoes I
.....	Mery-...
Neferkare	Shed-...
Nebkaure Achthoes II	H-....	User(?)...
Setut		

Tenth Dynasty: c. 2130-2040 B.C.

Meryhathor(?)	Merykare
Neferkare x months
Wahkare Achthoes III	

MIDDLE KINGDOM

Eleventh Dynasty: c. 2133-1991 B.C.

Horus Name	Throne and Personal Names	Date B.C.
Tep(y)a	Mentuhotpe(-a) I }	2133-2118
Sehertowy	Inyotef I }	
Wahankh	Inyotef II	2117-2069
Nakhtmebtpefer	Inyotef III	2068-2061
Sankhibtowy	Nebhepetre Mentuhotpe II	2060-2010
Netjeryhedjet }		
Smatowy		
Sankhtowyef	Sankhkare Mentuhotpe III	2009-1998
Nebtowy	Nebtowyre Mentuhotpe IV }	1997-1991
	The God's Father Sesostri s }	

Twelfth Dynasty: 1991-1786 B.C.

	B.C.
Sehetepibre Ammenemes I	1991-1962
Kheperkare Sesostri s I (10)	1971-1928
Nubkaure Ammenemes II (2)	1929-1895
Khakheperre Sesostri s II (3)	1897-1878
Khakaure Sesostri s III	1878-1843
Nymare Ammenemes III	1842-1797
Makherure Ammenemes IV	1798-1790
Sobkkare Sobkneferu	1789-1786

(Figures in brackets indicate the lengths of co-regencies.)

(B) WESTERN ASIA

PREHISTORY

B.C.	
c. 10000-4300	See Table 6 in <i>C.A.H.</i> 1 ² , Part 1, p. 253.
4300-3500	'Ubaid Period (Eridu, Qal'at Ḥajji Muḥammad and 'Ubaid pottery)
3500-3100	Uruk Period (Uruk 12-5 levels)

PROTOHISTORIC PERIOD

3100-2700	Uruk 4, Jamdat Naṣr (= Uruk 3) and Early Dynastic I (First written documents in Uruk 4 <i>b</i>)
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SYNCHRONISTIC LISTS OF KINGS

(See following pages)

CHRONOLOGICAL TABLES

(A) EGYPT

Kings from the Thirteenth to the Eighteenth Dynasties

THIRTEENTH DYNASTY: 1786-1633 B.C.

(Selected Kings)

Sekhemre Khutowy Ammenemes Sobkhotpe I	5+x years	Khaneferre Sobkhotpe IV Khaankhre Sobkhotpe V	8+x years
Sekhemkare Ammenemes Senbuef	3+x years	Mersekhemre Neferhotep II Khahetepre Sobkhotpe VI	4 years 9 months
Scheteptibre (II) Ammenemes	1 year c. 1770- 1769 B.C.	Sekhemre Sankhtowy Neferhotep III	
Sankhibre Ameny Inyotef Ammenemes		Wahibre Yayebi	10 years 9 months
Hetepibre Amu Sihornedjeheryotef Sobkhotpe II, son of Mentuhotpe		Merneferre Iy	23 years 9 months
Renseneb	4 months	Merhetepre Ini	2 years 2 months
Awibre Hor		Djedneferre Dudimose I (Tutimaio)	c. 1674 B.C.
Sedjefakare Kay Ammenemes Khutowyre Ugaf	2 years 4 months		
Seneferibre Sesostri IV		Djedhetepre Dudimose II	Upper Egyptian rulers and vassals of the Hyksos
Userkare Khendjer	4+x years	Sewahenre Senebmiu	
Semenkhkare, 'the General'	3+x years	Meryankhre Mentuhotpe	
Sekhemre Wadjkhau Sobkemsaf I	7 years	Djedankhre Mentuemsaf	
Sekhemre Sewadjtowy Sobkhotpe III	3 years 2 months	Menkhaure Senaayeb	
KhaSekhemre Neferhotep I	11 years c. 1740- 1730 B.C.	Nehsy	

FOURTEENTH DYNASTY: 1786-c. 1603 B.C.

'Seventy-six kings of Xoie', who reigned together 184 years, according to the Africanus version of Manetho. Many of their names are preserved in columns viii-x of the Turin Canon. Few monuments.

FIFTEENTH DYNASTY: 1674-1567 B.C.

Mayebre Sheshi	[1 ?] 3 years	Auserre Apophis I	40+x years
Meruserre Yakubher	8 years	Aqenenre Apophis II	
Stuserenre Khyan		Asehre Khamudy (?)	

SIXTEENTH DYNASTY: c. 1684-1567 B.C.

A succession of eight Hyksos chieftains probably contemporary with the 'Great Hyksos' of the Fifteenth Dynasty and including some or all of the following rulers:

Anather	Ahetepre
Senqen	Sekhaenre
Khauserre	Amu
Seket	Nebkhephre Apophis (III ?)

SEVENTEENTH DYNASTY: c. 1650-1567 B.C.

First Group

Sekhemre Wahkhau Rehotpe	—	Sankhenre Mentuhotpe VI	1 year
Sekhemre Wepmaat Inyotef V, 'the Elder'	3 years	Sewadjenre Nebirerawet I	6 years
Sekhemre Heruhirmaat Inyotef VI	x months	Neferkare(?) Nebirerawet II	x months
Sekhemre Shedtowy Sobkemaaf II	16 years	Semenmedjat(?)re	—
Sekhemre Sementowy Thuty	1 year	Seuserenre (Userenre ?)	12 years
		Sekhemre Shedwaat	—

Second Group

Nubkheperre Inyotef VII	3+x years	Seqenenre Tao II, 'the Brave'	—
Senakhtenre	—	Wadjkheperre Kamose	3+x years
Seqenenre Tao I, 'the Elder'	—		

EIGHTEENTH DYNASTY: 1567-1320 B.C.

Nebpehtyre Amosis	1570-1546 B.C.	Nebmare Amenophis III	1417-1379 B.C.
Djeserkare Amenophis I	1546-1526 B.C.	Neferkheprure Amenophis IV (Akhenaten)	1379-1362 B.C.
Akheperkare Tuthmosis I	1525-c. 1512 B.C.	(Ankhkheprure)	
Akheperenre Tuthmosis II	c. 1512-1504 B.C.	Smenkhkare (3)*	1364-1361 B.C.
Makare Hatshepsut	1503-1482 B.C.	Nebkheprure Tutankhamun	1361-1352 B.C.
Menkheperre Tuthmosis III (21)*	1504-1450 B.C.	Kheperkheprure Ay	1352-1348 B.C.
Akheprure Amenophis II	1450-1425 B.C.	Djeserkheprure Horemheb	1348-1320 B.C.
Menkheprure Tuthmosis IV	1425-1417 B.C.		

* Years of co-regency with his predecessor.

(A) EGYPT

Kings from the Eighteenth to the Twenty-first Dynasties

EIGHTEENTH DYNASTY: 1570-1320 B.C.

Nebpehtyre Amosis	1570-1546 B.C.
Djeserkare Amenophis I	1546-1526 B.C.
Akheperkare Tuthmosis I	1525-c. 1512 B.C.
Akheperenre Tuthmosis II	c. 1512-1504 B.C.
Makare Hatshepsut	1503-1482 B.C.
Menkheperre Tuthmosis III (21)*	1504-1450 B.C.
Akheprure Amenophis II	1450-1425 B.C.
Menkheprure Tuthmosis IV	1425-1417 B.C.
Nebmare Amenophis III	1417-1379 B.C.
Neferkheprure Amenophis IV (Akhenaten)	1379-1362 B.C.
(Ankheprure) Smenkhkare (3)*	1364-1361 B.C.
Nebkheprure Tutankhamun	1361-1352 B.C.
Kheperkheprure Ay	1352-1348 B.C.
Djeserkheprure Horemheb	1348-1320 B.C.

NINETEENTH DYNASTY: 1320-1200 B.C.

Menpehtyre Ramesses I	1320-1318 B.C.
Menmare Sethos I	1318-1304 B.C.
Usermare Ramesses II	1304-1237 B.C.
Baenre Merneptah	1236-1223 B.C.
Menmare Amenmesse†	1222-1217 B.C. (?)
Userkheprure Sethos II	1216-1210 B.C. (?)
Akhenre-setepenre Merneptah Siptah‡	1209-1200 B.C. (?)
Sitre-meryetamun Tewosret	

TWENTIETH DYNASTY: 1200-1085 B.C.

Userkhaure Sethnakhte	1200-1198 B.C.
Usermare-meryamun Ramesses III	1198-1166 B.C.
Usermare-setepenamun§ Ramesses IV	1166-1160 B.C.
Usermare-sekheperenre Ramesses V	1160-1156 B.C.
Nebmare-meryamun Ramesses VI	1156-1148 B.C.
Usermare-meryamun-setepenre Ramesses VII	1148-1147 B.C.
Usermare-akhenamun Ramesses VIII	1147-1140 B.C.
Neferkare-setepenre Ramesses IX	1140-1121 B.C.
Khepermare-setepenre Ramesses X	1121-1113 B.C.
Menmare-setepenptah Ramesses XI	1113-1085 B.C.

* Years of co-regency with his predecessor. † Position in Dynasty uncertain.

‡ Also named Sekhaenre Ramesses Siptah.

§ Later named Hikmare-setepenamun.

TWENTY-FIRST DYNASTY: 1085-945 B.C.

	Highest recorded year
Hedjkheperre-setepenre Smendes	—
Neferkare-hikwast Amenemnisu	—
Akheperre-setepenamun Psusennes I	19
Usermare-setepenamun Amenemope	49
Nutekheperre-setepenamun Siamun	17
Titkheprure-setepenamun Psusennes II	—

HIGH PRIESTS OF AMUN AT THEBES FROM RAMESSES XI TO PSUSENNES II

Hrihor
 Piankh
 Pinudjem I
 Masahert
 Menkheperre
 Nesbenedded
 Pinudjem II

in.

IV

LIST OF EGYPTIAN KINGS

DYNASTIES XVIII-XXI: c. 1580-947 B.C.

In the first column variant transliterations are given in brackets. The second column contains the Greek transliterations (Manetho); the forms in italics are from contemporary cuneiform sources. The dates in the third column are those of Dr Hall (who adopts the higher Sothic limit, see *C.A.H.* 1, 168), those of Prof. Breasted (who prefers the lower Sothic limit) being in brackets.

EIGHTEENTH DYNASTY: c. 1580-1322 B.C.

Nebpehtire Ahmose (I'ahmases, Aahmes) I	Amosis	1580-1558	
Zoserkere Amenhotep (Amonhotpe) I	Amenophis	1558-1545	} (1557-1501, B)
'Okheperkere Thutmose (Thutmases) I	Tethmosis	1545-1514	
'Okhepernere Thutmose II	Khebron	1514-1501	} (1501-1447, B)
Makere Hatshesut	Amensis	1501-1479	
Menkheperre Thutmose III	<i>Manakhbiriya</i> , Mephres	1479 (1501) ¹ -1447	
'Okheperure Amenhotep II, Hikuas	Amenophis	1447-1420	
Menkheperure Thutmose IV	Touthmosis	1420-1412	
Nebmare Amenhotep III	<i>Nimmuriya</i> , Horos	1412-1376 (1411-1375, B)	
Neferkheperure Ikhnaton (Akhenaton, etc.) Amenhotep IV ¹	<i>Naphkururiya</i>	1380-1362	
Smenkhkhere (S'akere)	Akenkheres	1362-1360	} (1375-1350, B)
Nebkheperure Tutenkhamon	<i>Bibkururiya</i> , Khebres	1360-1350	
Kheperkheperuirimare Ai II	Akherre	1350-1346	

NINETEENTH DYNASTY: c. 1346-1210 B.C.²

Zoserkheperure Harmhab (Horemehbe)	Harmais	1346-1322 (1350-1315, B)
Menpehtire Ramses I	Menophres	1321 (1315-1314, B)
Menmare Seti I	Sethos	1321-1300 (1314-1292, B)
Uesermare' Setepnere' Ramses II	<i>Ushmuuriya Satepuriya Riyamasesa</i> , Rameses	1300-1233 (1292-1225, B)

¹ See p. 60, n. 2.² Other historians (apart from Breasted) begin the Nineteenth Dynasty with Ramses I.

Merneptah Hotephi(r)ma	Amenophath	1233-1223 (1225-1215, B)
Amenmose (Amonmeses)		1223-1220 (1215, B)
Ramses-Siptah (and Queen Tausret)	Thouδris	1220-1214
Seti II Merneptah	Sethδs	1214-1210 (1209-1205, B)

ANARCHY; REIGN OF A SYRIAN USURPER 1210-1205 (1205-1200, B) B.C.

TWENTIETH DYNASTY: c. 1205-1100 B.C.

Setnakht	1205-1204 (1200-1198, B)
Ramses III, Hipton	1204-1172 (1198-1167, B)
Ramses IV	1172-1166 (1167-1161, B)
Ramses V	1166-1162 (1161-1157, B)
Ramses VI	1162-1159
Ramses VII	1159-1157
Ramses VIII	1157-1156
Ramses IX	1156-1136 (1142-1123, B)
Ramses X	1136-1130 (1123-1121, B)
Ramses XI (B, XII) ¹	c. 1130-1100 (1118-1090, B)

TWENTY-FIRST DYNASTY: c. 1100-942 (1090-945, B) B.C.

<i>Tanites</i>		<i>Thebans</i>	
Nesubanebde (Smendes)	c. 1100-1090	Hrihor	c. 1100-1095
Psiikheno I	1090-1070	(Paiankh, high-priest c. 1095)	
		Painozem I	1070-1030
Amenemopet	1020-970	Menkheperre	1030-1020
		(high-priest c. 1050-1000)	
		(Nesubanebde, high-priest c. 1000-999)	
Siamon	970-950	(Painozem II, high-priest c. 999-954)	
Hor-Psiikheno	950-947	Psiikheno II	954-942

¹ From an inscription published by Maspero in 1910 (*Annales du Service*, x, p. 131) it is now known that Ramses "XII" should really be numbered XI (Hall, *Ancient History of the Near East*, p. 389, n. 2).

Egyptian and Near Eastern chronology: a dilemma?

JAMES MELLAART

There exists a widespread belief among historians that radiocarbon dating is incompatible with the historical chronologies of Egypt and Mesopotamia. In this article the author, lecturer in Anatolian archaeology at the Institute of Archaeology, University of London, attempts to show that a high historical chronology is required by re-interpretation of the Uruk and Jemdet-Near sequences and their links with Egypt. A comparison with dendrochronology-corrected radiocarbon dating suggests that it is compatible with a high historical chronology. By combining these two independent forms of dating it becomes possible to reconstruct a uniform time scale. The Editor of Antiquity is grateful to the British Academy for a generous donation towards the production of this article.

The major problem for Near Eastern and Egyptian archaeologists and historians alike is the establishment of a reliable chronology, and anyone familiar with the subject will know that after the high dates fashionable in the earlier part of this century a reaction set in towards the so-called middle and low chronologies. The latest text book, *The Cambridge ancient history*, third edition, vols. I, I (1970) and I, 2 (1971) reflects the state of knowledge of the late 1950s—the original deadline for contributions was 1961, and is a monument to the middle chronology. It came too early to take advantage of the chronological revolution caused by Libby's discovery of radiocarbon dating and its correction through the dendrochronological calibration. As a result, we now have two systems of dating: calibrated carbon dating and historical chronologies. Unfortunately, these two do not match; hence our dilemma, or so we are told. Historians prefer to use historical chronologies, painstakingly built up by generations of scholars and they remain sceptical about the use of radiocarbon dating. Archaeologists on the other hand have found C14 dating invaluable in areas for which historical chronologies are absent, and that means virtually every country except Egypt and Mesopotamia. In the past, archaeologists working in the two historical countries have—perhaps not surprisingly—paid scant attention to the possible help of carbon dating in establishing chronology, but there are signs that this is now changing, and so it should, for each can benefit from the other, and one should at last be able to settle a further problem that has bedevilled the historical chronologies over the past 40 years, namely, the existence

of three main versions, high, middle and low chronologies, in both Egypt and Mesopotamia. Between the two extremes, the middle chronology is now the favourite, but as it represents a compromise, it is not necessarily therefore correct. The chaos caused by six historical chronologies and three radiocarbon ones (uncorrected with 556 half life, uncorrected with 5730 half life and the corrected one, which should henceforth be sold used), has made a synthesis of Near East, as (gross mode, including Egypt, Middle East, and Indus valley) cultural development almost impossible, or, at best, so fraught with chronological hurdles as to be virtually useless. With realization that international trade is one of the most potent stimuli in cultural development scholars gradually becoming aware of the fact that the rest of the various countries of the Near East should be conducted in isolation, but requires a knowledge of all its neighbours. In other words events in the Indus plains may have affected Mesopotamia and what went on in Egypt may have been essential to Syria or the Aegean. No area developed in a vacuum, not even Egypt to link and interpret the events one needs a chronology, applicable everywhere.

How can this be achieved? One venture simply by ignoring one method of dating today—but by a conscious attempt to use both methods and try to refine them. The method is infallible in its own right, but methods can produce the same results, one reasonably feel some confidence in making a guess. I believe—somewhat optimistically

critics will say—that such progress can be made, even with the rather unsatisfactory material at our disposal.

I stress this point, for we have far too few C14 dates, mostly charcoal, from Mesopotamia, though generally from recently excavated stratified sites, and far too many from possibly, if not probably, contaminated Museum objects of wood from Egypt, dug up long ago, mainly from plundered tombs. Both sequences of C14 dates are full of gaps, which can only be partly filled by radiocarbon dates from neighbouring countries, such as Palestine, Syria, Anatolia and Iran. This is the best one can do, and though the situation is not ideal, it helps considerably, especially for the Mesopotamian chronology. All this means, of course, that we have many 'duds' among the radiocarbon dates, contaminated samples, re-used wood, etc., but that cannot be helped. This is where the insistence on C14 sequences comes in; it helps to sort out the 'duds' and single dates remain suspicious until confirmed. The process of selection is, unhappily, selective, which has given C14 dating a bad name among its severest critics. Another factor of some importance to the historian is the tolerance of a radiocarbon date, usually 50 years or more, which, it is alleged, makes the method too imprecise for historical purposes. With three versions of historical dating, this argument is not very convincing; neither method can at this moment confidently claim to be able to date anything within 50 years of its probable date, i.e. before the sixteenth century BC. The tolerance of the C14 date should eventually be reduced, so will the uncertainty of the historian about dates as new dating systems are invented, more precise material comes to light, and errors in copying, omissions and faulty arithmetic, or even fraudulent regnal years are exposed.

EGYPTIAN HISTORICAL CHRONOLOGY

Both methods have their imperfections, and in the case of the king lists—in both Egypt and Mesopotamia—scholars have tried to fix a number of reigns through astronomical data, used then as anchors for their chronologies, e.g. 1595 BC for the fall of Babylon, or year 7 of Sesostris III, 1872 BC, which puts the beginning of the Twelfth Dynasty of Egypt at 1991 BC. The trouble with this sort of dating is, of course, the existence of alternative dates (in Mesopotamia) and the possibility that the

observation of the ancients was not as dead accurate as modern astronomers would expect today for making calculations. The assumption that they were introduces an element of doubt, and in the case of the Sesostris III date one should point out that the rising of Sothis on 16.viii of the 365 day calendar year reported in a papyrus is not accompanied by the king's name, which is supplied by another text in the archive. The assumption that the date refers to this king is logical and though Hayes (*CAH I*, 1, 173-4) says that this key date is certain, Smith (*Antiquity*, XXXVIII, 1964, 3), more cautiously refers to the king as *probably* Sesostris III. As the whole of the middle and low chronology for Egypt hangs on this one date (Hayes, *op. cit.*, 173 ff.), some nagging doubts remain as to its validity. The acceptance of this date has led to a reconstruction of the chronology of the Hyksos period which poses problems, which somehow seem to have escaped comment. With the beginning of the Eighteenth dynasty under Amosis c. 1567 BC (in his fourth year, with the expulsion of the Hyksos) a date based on a further astronomical date of the 9th year of his successor Amenophis I (1537 BC), Hayes (*op. cit.*) has at his disposal a time span of 1786 (correct 1782) to 1567 for the Thirteenth to Seventeenth dynasties. Allowing the Thirteenth dynasty 153 years (1786-1625) as stated in the Turin papyrus, and the Fifteenth dynasty of six 'Great Hyksos' kings (1674-1567), there is an overlap of 1674-1625 between the later part of the Thirteenth dynasty, after Dudimose I (Manetho's Tutimaos ousted by the first Hyksos king) and the beginning of the Fifteenth. For the Sixteenth dynasty, of 118 years (1684-1567 BC), there is no room, so it is made to double up with the Fifteenth, a curious procedure explained as possibly a collateral line of vassals to the Great Hyksos of the Fifteenth dynasty. If so, why should the collateral line start ten years before their overlords and how does this square with the statement that the First Hyksos had founded the temple of Seth at Avaris (the Hyksos capital) c. 1720 BC, a date derived from the Stela of the year 400, set up by Seti I as vizier, c. 1320 BC after a visit to the temple? The explanation given is simple: the Hyksos foreign rulers already held Avaris 40 years before they defeated Dudimose and put an end to the Thirteenth dynasty, thus becoming overlords of all Egypt, but allowing vassals (later Thirteenth dynasty) to rule in Thebes, just as the Fourteenth dynasty held out in the West

Palermo stone spanned 444 years (CAH, I, 1, 173), which I have rounded off as 450 years. In this way one reached a date c. 3400 BC for the beginning of the First dynasty, independently suggested long ago by Breasted, Weigall and Emery (*Ancient Egypt*, Harmondsworth, 1961, 28-30).

On purely historical evidence then, it is perfectly possible—and always was—to reconstruct an Egyptian chronology considerably earlier than the Middle Chronology currently in fashion; the only sacrifice demanded is the 1872 date for the seventh year of Sesostris III, if that astronomically fixed date really belongs to that king.

MESOPOTAMIAN HISTORICAL CHRONOLOGY

The only other Near Eastern country from which we have king lists is Babylonia. Here again the middle chronology is anchored by astronomically fixed dates, like that of 1995 BC for the fall of the Old Babylonian dynasty, yet there are alternatives, frequently disregarded. On the middle chronology, Hammurabi would have reigned from 1792-1750 BC and his older contemporary Shamash-Adad of Assyria from 1813-1761 BC. Counting back from 1995 BC the important Third dynasty of Ur falls c. 2317-2191 BC, with Baragon of Akkad ruling from 2371-2316 and his grandson Naram-Sin from 2291-2355 BC. The earliest datable king is Lagash, c. 2384-2378 BC; beyond this point the king lists, as in Egypt, show lacunae and estimates take over. Eannabergisi of Kish, the earliest king of whom an inscribed object has survived is estimated to have ruled c. 2700 BC. Earlier periods are purely archaeologically dated.

There is, however, a higher chronology for Mesopotamia, that of Landsberger and Nagel (early consulted in Eva Strommeneger's *Art of Ancient Mesopotamia*, London, 1964) which supports the traditional claim of the Kassites to have ruled Babylonia for 576 years after the destruction of Babylon by the Hittite king Muraili, an event they date thus to c. 1738 BC. The end of Kassite rule is dated c. 1162 BC. On this high chronology Hammurabi ruled from 1950-1888, Shamash-Adad from 1853-1921 and the Ur III dynasty is placed between c. 2350-2143. The Agade period runs from 2469-2327, with Naram Sin ruling from 2389-2325 and Baragon from 2469-2414 BC, just about a century earlier than their dates on the middle chronology. Eannabergisi again moves back a century to c. 2800 BC. The middle chrono-

logy for Mesopotamia's Early Dynastic and so-called Protoliterate periods (from Uruk V) is based on estimates only, except for a synchronism between Late Gerzean in Egypt and Late Uruk in Mesopotamia and North Syria, previously regarded as Jemdet Nasr.

Mallowan (CAH, I, 2, 242) assigns 550 years to the Early Dynastic period (250 for ED III (A and B), 100 to ED II, and 200 for ED I), plus another 50 years or so. Added to a date of c. 2400 BC (as 2300 BC as misprinted on p. 242) he comes to a date of c. 3000 BC for the beginning of Early Dynastic, a century or so after the accession of Menes in Egypt c. 3100 BC. Most archaeologists would agree with his estimated lengths for the Early Dynastic phases. The synchronism, however, first modified by H. Kantor (*Chronologies in Old World archaeology*, 1965, 10 ff.) suggests that the beginning of Jemdet Nasr equates the beginning of the First Dynasty, an Egyptian dating put c. 3100 BC, which would not allow enough time for the three possibly even five, building-levels of the period of Warka, if it lasted only one century! This century seems a better estimate, in my opinion, in the chronological table, CAH, I, 2, 997, the authorship of which is not recorded, we find the Protoliterate period (Uruk IV, Jemdet Nasr (= Uruk 3) and Early Dynastic I) put at c. 3100-2700 BC, and on the next page Early Dynastic IIIA follows immediately, also at 2700 BC. What has happened to Early Dynastic II for which one should allow at least a century? Rowton in the main chronology disappears in the book (CAH, I, 2, 246-8), which is unaccompanied by a chronological table, dates the Protoliterate period (Uruk V (not IV)—ED I) to 3500-2800 BC.

If we start from Mallowan's date of 3000 BC for the beginning of Early Dynastic, then the date of 3100 BC for Uruk IV (CAH, I, 2, 997) leaves only one century for Uruk IV and Uruk III (Jemdet Nasr), in which we have to accommodate as many as 13 building-levels (eight in Uruk IV, 3-5 in Uruk III). If Uruk V starts at 3500 BC according to Rowton, then Uruk V lasted 400 years, with a single building level! Yet Uruk IV should correspond to the end of the Gerzean period as shown by the imports. If Uruk IV starts at 3100 BC and the beginning of the First Dynasty also starts at 3100 BC there is evidently something wrong. Uruk IV should have ended then, not begun. This entire section of the middle chronology is utterly unconvincing archaeologically; the Uruk

IV-III sequence is obviously of much greater length than has been envisaged hitherto and it should perhaps be pointed out that the sequence does not consist of house remains, but of monumental temples both in the Eanna precinct and on the Anu ziggurat, which leaves no scope for arbitrary compression. Any revision of the Mesopotamian dating immediately affects Egypt as well through the synchronism, late Uruk = Late Gerzean. There is no historical justification for this section of the middle chronology from Mesopotamia, where these periods have writing but no history; they are based on the middle chronological date of c. 3100 BC for the beginning of the First (Historical) Dynasty of Egypt. The archaeologically impossible reconstruction here criticized hangs on this one date, which in my view must be regarded as too low by about three centuries. Emery, the excavator of the First Dynasty cemetery at Saqqara, put the date of the beginning of the First Dynasty at c. 3400 BC, which would agree with a similar date for the beginning of Jemdet Nasr, thus resolving satisfactorily the chronological puzzle.

It is important to note that the arguments produced were purely archaeological; old and new finds showed undue compression of building-levels with massive temple structures at Uruk. The issue is complicated by the fact that cylinder seals, and ceramic forms, once regarded as exclusively Jemdet Nasr types in the Diyala area (which did not have the earlier Uruk layers), have since been found to extend backwards in time into Late Uruk (Susa, Chogha Mish, Habuba Kebira South, Jebel Aruda, etc.) altering the date of importation into Late Gerzean Egypt, and thus the date of the all important synchronism. In the absence of historical texts, the only historical date was that of the beginning of the First Dynasty of Egypt, c. 3100 BC adopted by most Egyptologists, but at variance with the view of the most eminent Egyptian archaeologist, W. B. Emery, who preferred a date of c. 3400 BC for the same event. Archaeological research has thus outstripped the old ideas on which the middle chronology was built, and though old ideas die hard, there can be no compromise between new archaeological facts and out-moded theories. The dates of Jemdet Nasr and the First Dynasties must be readjusted on purely archaeological grounds. This means that we need to have another look at the so-called historical chronologies and it is perfectly possible to provide an alternative

in full accordance with the new archaeological data, these high chronology dates should be preferred, as they are in better accordance with the facts as we now have them. All this is perfectly clear and reasonable to current archaeological practice; new facts necessitate adjustments to earlier chronologies; impossible archaeological situations like the one described above need solving even if popular chronologies are discredited in the process.

The fact that dendrochronologically calibrated radiocarbon dating lends support to a higher historical chronology is of course very satisfactory, but is totally irrelevant to the line of archaeological argument produced above, which showed incompatibility between a middle chronological straight-jacket and the observed archaeological sequence. These discrepancies stand, whether one uses calibrated radiocarbon dating or not, and they argue strongly for a higher chronology. Historical chronologies are a unique record from the past, they cannot and should not be ignored, but they have not come down to us in such a perfect state that only one chronological interpretation—the middle chronology—is possible. In the 1950s this may indeed have seemed the best choice; in 1979 it is not.

The juxtaposition of the high chronologies of Egypt and Mesopotamia does not alter the well-known synchronisms: end of Gerzean/beginning of First Dynasty equal end of Uruk/beginning of Jemdet Nasr period, or the first 'historical' contemporaneity of Neferhetep (Thirteenth dynasty) with Yantin-Amu of Byblos and Zimri-Lim of Mari, and hence with hosts of other Asiatic rulers of the Mari period. From this a number of other archaeological correspondences follow; the important Cappadocian trade of the Old Assyrian kings with Kanesh II equates with the later Twelfth dynasty from Sesostria III onwards; the Byblos foundation deposits known as the Montet jar link the Tenth (and Early Eleventh) dynasties with the Ur III period making Amarsuena of Ur and Ibdati of Byblos contemporaries of Nebhetepre Mentu-hetep II, who reunified Egypt, thus putting an end to the First Intermediate Period. In Egyptian terms, Gilgamesh the adversary of Enmebaragisi and his son Agga, kings of Kish, become contemporaries of Cheops and Chefren, Enmerkar's tussle with the Lord of Aratta, the lapis lazuli emporium falls in the later Third dynasty and Mallowan's Flood at the end of Early Dynastic I

Delta, and still others, the 15 kings of Turin papyrus col. XI, second half, and the 16 kings of the Theban Seventeenth dynasty, dated by Hayes between c. 1650-1567 BC, the ancestors of Amosis. Hayes's comment that the Sixteenth dynasty of 8 kings of 118 years is chronologically insignificant (op. cit., 183) may be the result of trying to squeeze the sequence of two successive Hyksos dynasties, the Great (XV) and the Little (XVI) into an obscure contemporaneity. What and from where did the Little Hyksos rule? Why should the Great Hyksos have allowed a parallel dynasty when they controlled all Egypt and even parts of Nubia and were in contact with foreign powers such as Babylonians, the Hittite Old Kingdom and Crete? This does not strike one as at all characteristic of powerful rulers of the Fifteenth dynasty, as every Egyptologist acknowledges they were. They might have been of ultimate Asiatic descent, like some of their predecessors in the Thirteenth dynasty, but they behaved like Egyptian rulers as much as the great kings of the Twelfth dynasty, and perhaps in imitation of them. Much of the hostility towards the Hyksos was undoubtedly fomented by the kings of the Theban Seventeenth dynasty, who considered themselves the rightful heirs of their predecessors of the Thirteenth, as indeed they may have been, representing the legitimate Egyptian line versus 'immigrants' in the north. That there were two Hyksos dynasties is beyond doubt, from the monuments, the Turin papyrus (col. X, 14-20; 6 (Hyksos kings) and another dynasty of eight kings of which only 'Seket' X, 25 is preserved. These two have been dubbed the Fifteenth and Sixteenth dynasties because of the order in which they are presented, but the numbering is modern, and Hayes points out that Anthes and Semren are 'very early Hyksos', and the beginning of this dynasty in the *CAH* is dated c. 1684 BC whereas the Great Hyksos is put ten years later. Seti I's Stele of the year 400 was already mentioned as indicative of even earlier Hyksos rule in Avaris, since 1720 BC. The war of liberation fought by the last Theban kings against the Hyksos has only one reference to a Hyksos king. On Kamose's Karnak stela of his third year, the enemy is Awaserre Apophis III (*CCH*, II, 1 289 f., esp. 281), one of the Great Hyksos of the Fifteenth dynasty. This shows that the Seventeenth Theban dynasty overlapped with the Fifteenth, their overlords. The problem remains how to interpret the so-called Sixteenth dynasty of

'Little Hyksos' with their early scarabs and other minor monuments and a reign of 118 years extrapolated from Manetho. The Seti I stela points to earlier Hyksos than the Fifteenth dynasty, as does the archaeological evidence. It is only the acceptance of the 1872 date for the seventh year of Sesostria III which necessitates a doubling of two Hyksos dynasties, an earlier Sixteenth and a later much better attested Fifteenth. The identification of Maysre Sheshi, the first king of the Fifteenth dynasty, with Sharek or Shalek (*CAH*, I, 1, 185) one generation before Apophis I is perfectly possible, but the Hyksos king Salitis, who according to Manetho defeated Tutimais/Dudimose of the Thirteenth dynasty is not necessarily the same person. The Thirteenth dynasty could easily have been defeated by an earlier Hyksos dynasty, the 'Sixteenth' c. 1791 BC, after which they ruled for 118 years. The foundation of the Set temple visited by Seti I in Avaris would then have taken place late in the Sixteenth dynasty, well before the Great Hyksos. Hyksos power may have increased gradually during the Sixteenth dynasty to rise to its apogee and fall in the Fifteenth. The political incompetence of the Thirteenth dynasty may well have encouraged separatists in the Delta, with the establishment of the so-called Fourteenth dynasty (76 kings, 184 years) in the Western Delta based on Xoia, and the Hyksos Sixteenth in the east at Avaris after the reign of Dudimose. His successor would have ruled in Upper Egypt as Hyksos vassals, possibly followed by another fifteen kings (Turin col. XI, second half), followed presumably by the 16 kings of the Theban Seventeenth dynasty which finally threw off the Hyksos yoke. The length of the Fourteenth dynasty (184 years under 76 kings) could be invoked as an argument against telescoping the period of Hyksos rule, for it is hard to believe that the breakaway of the Western Delta should have preceded the establishment of Hyksos power as Hayes would have it (*CAH*, I, 1, 185: 'provincial ruling house evidently contemporary with the Thirteenth dynasty'). I prefer to believe that the Fourteenth dynasty—obscure as it is—was only remembered in later history because it escaped Hyksos rule and preserved Egyptian independence, after the rest of Egypt had acknowledged Hyksos supremacy. They were for a long time the only legitimate Egyptian dynasty left (c. 1791-1605 BC). As rebels against the Thirteenth dynasty, they would hardly have been remembered. If this reconstruction is correct, then there is some

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thing very wrong with the middle and low chronology of Egypt, and the length of Hyksos rule is not 108/118 years but nearer 225 years.

Thus if the Eighteenth dynasty started in 1567, the Sixteenth (118 years) in 1664 and the Fifteenth (108 years) in 1791, the Thirteenth (153 years) in 1946, the Twelfth (210 years) would have begun c. 2155 BC and not in 1991, as is almost a point of dogma today. The implications of this reconstruction are evident; the astronomical date of 1872 for the 7th year of Sesostrius III cannot be upheld any longer, it must somehow be wrong astronomically, or refer to some Thirteenth dynasty king.

The beginning of the Middle Kingdom, the Eleventh dynasty, is given 134 years on the Turin papyrus—and on the middle and low chronologies this would take us back to 2125 BC, and when added to our alternative date c. 2155 for the beginning of the Twelfth dynasty, to c. 2287 BC. There is good agreement that the Heracleopolitan Tenth dynasty was largely contemporary with the Theban Eleventh until the re-unification of Egypt in the reign of Nebhetepre Mentuhetep II, c. 2040 BC on the middle and low and c. 2205 on our high chronology.

Although it is possible to establish Egyptian chronology up to the beginning of the Eleventh dynasty we now reach a hiatus, as the length of the Ninth dynasty is an unknown factor. The thirteen kings recorded in the Turin papyrus have lost their regnal years. They are preceded by the Eighth and Seventh with six and seven kings respectively. Hayes (op. cit., 180-1) allows 30 years to the Ninth, 13.5 to the Eighth and 8 years

to the Seventh—a total of 48.5 years for this, the First Intermediate period; whereas Helck's low chronology combines it with the Tenth dynasty and considers the entire span from Seventh to Tenth as contemporary with the Eleventh dynasty prior to the unification. W. S. Smith suggested (*Art and architecture of Ancient Egypt*, Harmondsworth, 1965, p. xxiv) as interregnum for the Seventh dynasty, 26 years for the Eighth and 92 for the Ninth, a total of 118 years, and expressed unease about the tendency to reduce the length of the First Intermediate period more and more. I would allow 100 years for this period, a figure as arbitrary as the 48.5 of Hayes or the zero years of Helck. What this means is that the chronology of the First to Sixth dynasties floats. The Turin papyrus gives '955 years' for dynasties I-VIII, which would allow 932 years for I-VI and Hayes dates the beginning of the First Dynasty c. 3114 or in round terms c. 3100 BC. The various estimates for the length of the First to the Eighth dynasties is best illustrated in the following table. The middle chronologies follow CAH, I, 2, 994-5 (Hayes), Lauer (*Saggaru*, London, 1976, 10), and the Low one (Helck) is easily available in *Propyläen Kunstgeschichte* 15, 1975, C. Van der Steyen, *Das Alte Ägypten*, 446-7.

The somewhat higher estimates I have arrived at are due to taking the highest regnal years recorded or emended in the Turin papyrus and my refusal to shorten any reigns by choosing low estimates, where there is a choice. I follow W. S. Smith in regarding the length of 76 years for the Third dynasty as too short and I agree with Parker in his estimate that the first two dynasties on the

Chr.: c. 2287	High, J. Mellaart		Middle, Hayes		Lauer		Low, Helck	
	XI	2133	XI	2134	XI	2134	XI	2134
2388	VII-IX	100 2181	VII-IX	48 2190	VII-IX	44 2155	VII-VIII	28
2570	VI	183 2343	VI	165 2350	VI	160 2290	VI	135
2725	V	155 2494	V	150 2500	V	150 2450	V	140
2850	IV	125 2613	IV	120 2650	IV	150 2570	IV	120
2950	III	100 2686	III	74 2730	III	80 2635	III	65
3200	II	250 2890	II	205 2900	II	170 2780	II	145
3400	I	200 3100	I	210 3100	I	200 2955	I	175

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(CAH I.2, 243-4) would have taken place at the end of the reign of Zoser in the middle of the Third dynasty, making king Ziusudra of Shuruppak his contemporary. The long list of historical kings of Egypt who precede this 'event' in Mesopotamia lends substance to the claim that the Pre-Diluvian kings of Mesopotamia, though only preserved in later legend, may have existed after all, and await the proverbial 'spade' of a future excavator, or the by now less romantic bulldozer. The high chronology also removes the dubious claim that writing was invented in Mesopotamia earlier than in Egypt. With hieroglyphic writing, as well as hieratic (cursive) script in use during the reigns of Narmer, Zekhen and (Rosette-) Scorpion, kings who preceded the First dynasty and are thus contemporary with Uruk IVA, and with the preservation on the Palermo Stone of at least eleven kings of Lower Egypt, possibly a whole dynasty, the priority of Mesopotamian writing is very doubtful. The excavation of Gerzean sites in Egypt is long overdue; surely it is time that we knew more of the Egyptian contemporaries of Uruk VI-IV, Habuba Kebira, Jebel Aruda, Tell Brak and Godin V, when Egypt imported lapis lazuli, silver and obsidian and had developed sea-going ships?

RADIOCARBON DATES AND THE HISTORICAL MESOPOTAMIAN SEQUENCE

From the Uruk period till the fall of Babylon, the number of radiocarbon dates from Mesopotamia itself is still pathetically small, and one could hardly talk about a Mesopotamian C14 sequence, were it not that Mesopotamia's neighbours have provided most of the dates used here from recently excavated sites, the material of which can easily be correlated with that of Mesopotamia. These radiocarbon dates are of course selected, and they are usually only sufficient to date the period in question rather than any particular reign, yet the

cumulative evidence of these dates, especially if found in clusters from various sites, judged on archaeological or historical grounds to be contemporary, yields evidence that can no longer be ignored.

The C14 dates are presented in the following order: Laboratory number, site with building level or period (one would be happier if these in future could be more precise, indicating construction or destruction of a building), BP date calculated with Libby half-life or 5568 half-life; MASCA corrected date, with identical tolerance of 1 sigma; and finally the reference, usually to *Radiocarbon*, abbreviated as *R*, or any other journal or publication. The dates are discussed, from later to earlier periods; the dates after each period are quoted as the high historical chronology, and then compared with the middle historical chronology, followed by an assessment. As virtually all C14 dates are derived from timber, unless otherwise stated, it should be borne in mind that the dates give the period at which the timber was cut down and used in construction (or re-construction or destruction), and this may produce a considerable measure of uncertainty.

Tell Rimah contains a temple of Shamshi Adad and Dinkha IV C is contemporary with the stratum at T. Shemshara in which an archive of the period of Shamshi-Adad was found. These dates fit the high chronology better than the middle one (c. 1813-1781 BC-P-1595). Acemkoby (crab apple) 3391 ± 58 BP; 1870-1720 ± 58 BC (*R*, xiii, 1971, 369-71). This dates the burning of the palace of Acemkoby (probably Purushattum) which contained among others bullae of Shamshi-Adad, Aplahanda of Carchemish and those of a daughter of Ishdunlim of Mari and Urshu (*Bulletin*, xii, no. 162, 1977, 357-61). The date is unfortunately one of those on a 'wiggle' in the calibration curve; if read as 1870 it might date the end of the Kültepe Ib period. However, the next two dates

Shamshi-Adad (Kültepe Ib) and Kültepe II period (Old Assyrian, Erishum-Puzurassur)

For the period of Shamshi-Adad (c. 1953-1921 BC) there are the following dates:

P-1117 Tell Rimah II	3480 ± 60 BP	2020-1960 ± 60 BC	<i>R</i> , xix, 1977, 208
P-1452 Dinkha IV C	3522 ± 63 BP	1925 ± 63 BC	<i>Iran</i> , 12, 1874, 130
P-1690 " IV C	3645 ± 61 BP	1895 ± 61 BC	<i>Iran</i> , 12, 1974, 130

from the Acemkoby palace(s) should date its construction during the Kültepe II period, c. 2040-1940 BC.

P-2041 Acemkoby Palace	3500 ± 49 BP	2030-2010 ± 49 BC	} <i>R</i> , xiii, 1971, 369-71
P-1555 " "	3611 ± 49 BP	2110 ± 49 BC	

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These dates would seem to rule out a late date for Shamshi-Adad, as Kültepe II and Ib together could not have lasted longer than 175 years on sound historical calculations, and not three or nearly four hundred years as the span of C14 dating might seem to suggest (c. 2020-1720 or 2110-1720). They favour the high rather than the middle chronology. Further support for the high chronology comes from two further Kültepe Ib period buildings in Western Anatolia, a palace at Beycesultan and fragments of a large building at Aphrodisias not far away. Four C14 dates are available:

BM-?	Beycesultan V	3450 ± 150 BP	1950-1920 ± 150 BC	<i>Beycesultan</i> , II, 1962
P-1647	Aphrodisias lower C.	3673 ± 73 BP	2155 ± 73 BC	<i>R</i> , xiii, 1971, 369-71
P-1654	" B (reused)	3587 ± 82 BP	2110 ± 82 BC	ibid
P-1646	" upper C	3414 ± 69 BP	1875-1775 ± 69 BC	ibid

The first of these dates is evidently contemporary with Shamshi-Adad's reign on the high chronology (c. 1953-1921 BC), the second and third compare with P-1555 from Acemköy, construction period, and the fourth compares with P-1995, the destruction period at Acemköy and the end of Kültepe Ib period, estimated at c. 1875 BC.

Ur III period c. 2250-2143 BC

There are five dates for this period.

H 141-120/166	Warka, reeds. Urnammu	3820 ± 85 BP	2330-2210 ± 85 BC	<i>R</i> , vii, 1965, 188-9
C-752	Nippur IV, Shusin-Ibbisai	3943 ± 109 BP	2303 ± 109 BC	<i>Iran</i> , 12, 1974, 130
P-1464	Gedikli, Arnuq J cremation	3767 ± 50 BP	2158 ± 50 BC	<i>R</i> , xii, 1970, 580
P-1798	Selenkahiye IV, Ur III	3730 ± 57 BP	2125 ± 57 BC	<i>AAAS</i> , 23, 1973, 156
CaK. 1071	Godin III, beginning	3860 ± 120 BP	2217 ± 120 BC	<i>AJA</i> , 1969, 287-91

These dates speak for themselves; they all fit the high chronology better than the middle one of 2113-2006 BC for this dynasty.

Akkadian period c. 2470-2300 BC

P-1461	Gedikli Arnuq I-J	3877 ± 57 BP	2480-2440 ± 57 BC	<i>R</i> , xii, 1970, 580
GrN-5581	Gedikli Arnuq J grave	3820 ± 40 BP	2330 ± 40 BC	<i>R</i> , xiv, 1972, 51
P-1789	Selenkahiye I, Agade	3975 ± 73 BP	2316 ± 73 BC	<i>AAAS</i> , 23, 1973, 156
P-1788	Selenkahiye I, Agade	4015 ± 63 BP	2384 ± 50 BC	ibid
R-1008a	Aralantepe VI, Agade/ED IIIB	3800 ± 50 BP	2328 ± 50 BC	<i>R</i> , xviii, 1976, 2
R-1012a	Aralantepe VI, ED IIIB	3840 ± 110 BP	2368 ± 110 BC	ibid

All these dates fall in the twenty-fifth and twenty-fourth centuries, none falls in the twenty-third century as might have been expected for Akkadian dates on the middle chronology (c. 2370-2191 BC). By themselves the evidence is not conclusive, and perhaps new dates from the burnt sites of Ebla, Brak and Mari will offer new evidence.

Early Dynastic III B period, c. 2650-2470 BC

BM-1366	Abu Salabikh I, ED IIIB	3869 ± 60 BP	2415 ± 60	<i>Iraq</i> , XXXIX, 1977, 275, n. 2
BM-1365	" I, ED IIIB	3938 ± 60 BP	2505 ± 60	ibid

Insufficient evidence for dating this period in Mesopotamia, but acceptable with a 60-year tolerance for the first date. P-2050-2053 (*R*, xix, 1977, 208) are all too early and probably represent re-used wood from earlier periods ranging from Uruk to ED II.

Early Dynastic III A period, c. 2780-2650 BC

BM-64	Royal cemetery at Ur			
	Skeleton of Mea-kalamdug	3920 ± 150 BP	2540-2520 ± 150 BC	<i>R</i> , iii, 1961, 43
BM-70	R. cem. Ur burnt bone	4030 ± 150 BP	2670-2630 ± 150 BC	ibid
BM-76	Skeleton of Pu-abi	3390 ± 150 BP	2600 ± 150 BC	ibid

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P-724 R. cem. Ur wood	3959 ± 50 BP	2580 ± 59 BC	R. vii, 1965, 190
P-810 Nippur V, transition ED II/III A	4074 ± 64 BP	2709 ± 64 BC	ibid, 188-9

On the high chronology, Meskalamdug would have died c. 2650 BC. The material of the first three dates, on skeletons in museum cupboards and in addition the very high tolerance, make these dates something of a curiosity. They could fit the high chronology as well as the middle one, and the same applied to P-724. Only the Nippur date fits the high chronology better than the middle one with the ED II/III A boundary at c. 2700 rather than at c. 2600 BC.

Early Dynastic II period, c. 2900-2780 BC

P-807 Nippur VIII	4090 ± 64 BP	2726 ± 64 BC	R. vii, 1965, 188-9
P-804 Nippur VIII B	4095 ± 52 BP	2732 ± 52 BC	ibid
Gif? Mari, PPa (ED II) palace	4200 ± 150 BP	2840 ± 150 BC	Syria, 44, 1967, 9-11

Insufficient evidence, yet fitting the high chronology better than the middle one (c. 2700-2600 BC). More dates from Mari would be welcome.

Early Dynastic I period, c. 3100-2900 BC

P-803 Nippur IX B	4221 ± 53 BP	2861 ± 53 BC	R. vii, 1965, 188-9
P-819 Nippur IX A	4272 ± 65 BP	2914 ± 65 BC	ibid
GrN-5580 Gedikli, sacrificial pit,			
Late Amuq G	3990 ± 40 BP	2833 ± 40 BC	R. xiv, 1972, 51
P-1463 Gedikli IIIj } late	4267 ± 65 BP	2990 - 2980 ± 65 BC	R. xii, 1970, 580
P-1462 - IIIk } G	4212 ± 74 BP	2960 - 2930 ± 74 BC	ibid
K-? Tell Sukas, level 27	4210 ± 120 BP	2960 - 2930 ± 120 BC	AAS, 1961/2, 133 BC

All these dates fall in the thirtieth to twenty-ninth centuries, rather than in the twenty-ninth to twenty-eighth, as might have been expected in the middle chronology for this period (c. 2900-2700 BC). Individually, and even more so when combined with both the following and the preceding period, they support the high chronology.

Warka III-Jemdet Nasr - Amuq G (Syria and S.E. Anatolia) and C. Anatolian c. 3400-3100 BC.

P-1434 Alaca Höyük XI/XII	4285 ± 62 BP	3100-2990 ± 62 BC	R. xiii, 1971, 371
C-183 Alisar Höyük 14	4514 ± 250 BP	3350 ± 250 BC	Science, 113, 1951, 112
P-2040 Pulur (Sakyal) XI	4614 ± 71 BP	3440-3390 ± 71 BC	R. xvii, 1975, 205
R-1019 Aralantepe VI	4570 ± 60 BP	3382 ± 60 BC	R. xviii, 1976
R-1014 Aralantepe VI	4570 ± 50 BP	3110-2980 ± 50 BC	R. xviii, 1976
R-1051 Aralantepe VI	4310 ± 50 BP	3110-3010 ± 50 BC	R. xviii, 1976
R-1013 Aralantepe VI	4360 ± 50 BP	3155 ± 50 BC	R. xviii, 1976
R-1017a Aralantepe VI	4360 ± 50 BP	3155 ± 50 BC	R. xviii, 1976
R-1010 Aralantepe VI	4420 ± 50 BP	3180 ± 50 BC	R. xviii, 1976
R-1018a Aralantepe VI	4410 ± 50 BP	3180 ± 50 BC	R. xviii, 1976
R-1009 Aralantepe VI (late)	4360 ± 50 BP	3155 ± 50 BC	R. xviii, 1976

This important group of consistent dates, all from sites in Turkey, links three important culture provinces, the East Anatolian or Transcaucasian EBa of Pulur, with the Central Anatolian EBIIa (formerly EBI or Late Chalcolithic) of Central Anatolia and both to the Amuq G culture of South-east Anatolia and Syria (at Aralantepe near Malatya on the Euphrates). The last named provides the all important link with Mesopotamian Warka III-Jemdet Nasr. The dates fit the high chronology, not those of the middle chronology of c. 3100-2900 BC.

There is a further check on the dating of the Warka III-Jemdet Nasr period from Southern Iran; where this period is marked by an eastward expansion of Elamite power accompanied with the use of Proto-Elamite tablets at the following three sites:

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TUNC-31 Tall-i-Malyan (Anahan), Banesh period=Warka III. Beginning of period or end of Uruk (Warka IV period)	4815 ± 91 BP	3465 ± 91 BC	Iran, 1972, 176
TUNC-37 Tepe Yahya IVC, beginning of Warka III	4817 ± 120 BP	3467 ± 120 BC	<i>Artibus Asiae</i> , 34, 1971, 337
TUNC-61 Shahr-i-Sokhta 10,	4480 ± 100 BP	3330-3220 ± 100 BC	<i>R. xix</i> , 1977, 204
Gak-107a Godin Tepe V, end of Uruk period, terminal date	4474 ± 103 BP	3330-3220 ± 103 BC	Young, <i>Excavations at Godin Tepe, First Progress Report, ROM</i> , 1969.

Uruk period, c. 4000-3400 BC

P-468 Grai Resh, Uruk	5169 ± 64 BP	3984 ± 64 BC	<i>R. v</i> , 1963, 83-103
GrN-? Habuba Kebira South	5085 ± 63 BP	3904 ± 65 BC	<i>AfO</i> , 24, 1973, 170
P-469 Grai Resh, Uruk	4939 ± 73 BP	3737 ± 75 BC	<i>R. v</i> , 1963, 83-103
R-933a Arslantepe VII, Uruk	4860 ± 50 BP	3692 ± 50 BC	<i>R. xviii</i> , 1976
R-932a " " "	4790 ± 60 BP	3640 ± 60 BC	<i>R. xviii</i> , 1976
R-933 " " "	4730 ± 50 BP	3600 - 3580 ± 50 BC	<i>R. xviii</i> , 1976
? Warka IVA, Temple C	4883 ± 85 BP	3573 ± 85 BC	<i>UVB</i> 21-22, 1962-63; 1965, 20
P-530 Nippur XVII=Warka VI/V	4672 ± 74 BP	3470 - 3400 ± 74 BC	<i>R. xv</i> , 1973, 459
TUNC-59 Susa 17/16, Uruk	4636 ± 93 BP	3470 - 3400 ± 93 BC	<i>ibid</i> , 396
GrN-7989 J. Aruda I	4495 ± 75 BP	3340 - 3240 ± 75 BC	<i>AAAS</i> , forthcoming
Gak-107a Godin V, end	4474 ± 108 BP	3330 - 3220 ± 103 BC	see paragraph above

This set of dates, from Mesopotamia, Syria, Turkey and Iran should leave one in no doubt about the correctness of dating the Uruk period c. 4000-3400 BC on the high chronology. The middle chronology (*CAH*, 1, 997) starts the Uruk period at 3500 BC which is archaeologically quite unacceptable. As Warka III equates with Egypt and Palestinian EB Ic, so the Uruk period is contemporary with Gerzean Egypt and Palestinian EB I a-b, also known as Proto-Urban or Late Chalcolithic.

The C14 sequence of Mesopotamia and, chiefly, its neighbours, in spite of its obvious infirmities, is fully comparable with the high chronology (but not with the middle, and even less with the low chronology). This is a factor of considerable satisfaction to those who support a high chronology.

RADIOCARBON DATES AND THE HISTORICAL CHRONOLOGIES OF EGYPT

Suggestions for a calibrated radiocarbon chronology of Egypt were made recently by R. M. Derricourt in 'Radiocarbon chronology for Egypt and North Africa', *JNES*, 31, 1971, 271-92, and by J. Callaway and J. Weinstein in *BASOR*, 225, 1977, 1-16, but no attempt is made in these papers to a reconciliation with a high historical chronology. The Egyptian radiocarbon dates as a whole are not impressive, hardly surprising when one remembers that sequences from sites are absent, unrobbed tombs are the exception, and virtually all samples were tested long after collection, and are thus particularly prone to contamination. However, there remains a core of usable dates which compare favourably with samples from recent excavations in Palestine, which considerably reduces one's earlier views of 'all hope abandon, ye who enter here.' As in Mesopotamia, the C14 dates are only useful in fixing beginnings and ends of periods; they can hardly be used to fix individual reigns. One must not expect miracles!

XIIth Dynasty, c. 2155-c. 1947 BC

A-435 Mirgissa fort. Middle Kingdom	3460 ± 70 BP	1975-1930 ± 72 BC	<i>R. v</i> , 1964, 105
U-5 Abu Ghalib III D3, Middle Kingdom	3500 ± 250 BP	2040-2020 ± 255 BC	Deevey, 1962, 243*
A-437 Buhen fort. Sesostria II?	3520 ± 70 BP	2050 ± 72 BC	<i>R. vi</i> , 1964, 106
A-434 Aakut fort. Middle Kingdom	3560 ± 50 BP	2080 ± 52 BC	<i>R. vi</i> , 1964, 105
BM-238 Illahun pyramid. Sesostria II	3580 ± 65 BP	2110 ± 67 BC	<i>R. xi</i> , 1969, 282
A-433 Semna West fort. Sesostria III?	3670 ± 60 BP	2152 ± 62 BC	<i>R. vi</i> , 1964, 105
UCLA-900 Dahshur, funerary ship of Sesostria III	3640 ± 80 BP	2141 ± 82 BC	<i>R. vii</i> , 1965, 354

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C-82	same	3621 ± 180 BP	2130-2110 ± 182 BC	Libby, 1955, 77†
GrN-1157	same	3550 ± 55 BP	2078 ± 57 BC	Deevey, 1967, 36
GrN-1158	same	3610 ± 50 BP	2110 ± 52 BC	ibid
BM-22	same	3530 ± 150 BP	2057 ± 152 BC	R, i, 1959, 83
P-11 El Bersheh, Ahanakht coffin		3710 ± 98 BP	2173 ± 100 BC	R, i, 1959, 47

Transition Dynasty XI-XII, c. 2155 BC

BM-347 Gebelein, XI-XII		3710 ± 110 BP	2173 ± 112 BC	R. xiii, 1971, 159-66
BM-342 Thebes, tomb 386, XI-XII		3690 ± 120 BP	2163 ± 122 BC	ibid

* E. S. Deevey et al., 1965. *Radiocarbon measurements comprehensive index 1950-1965* (New Haven).

† W. F. Libby, 1955. *Radiocarbon dating* (2nd edition).

These dates agree better with the high historical chronology for dynasty XII, c. 2155-1947 BC, than with the middle chronology of 1991-1786 BC.

Late Eleventh dynasty

UB-65 Deir el Bahri, Mentuhetep II		3720 ± 60 BP	2174 ± 62 BC	R. xii, 1970, 287
BM-335 Thebes, chapel Mentuhetep III?		3760 ± 110 BP	2185 ± 112 BC	R. xiii, 1971, 159-66
GrN-1155 Deir el Bahri, Mentuhetep II or III		3660 ± 55 BP	2152 ± 57 BC	Deevey, 1967, 36

These late Eleventh dynasty dates are in good agreement with those of the immediately following period. As with the contemporary Ur III dates, they are not conclusive by themselves, but would seem to fit a date after the unification by Nebhepetre Mentuhetep II on the high chronology c. 2205 BC only marginally better than the middle chronology c. 2160 BC. Carbon dating, is because of its tolerance, not suited to clinch chronological points of this finesse.

Old Kingdom

BM-8a Abusir, pyramid of Neferirkare		3950 ± 150 BP	2571 ± 152 BC	R. iii, 1961, 40
Tolerance too wide for precision.				
BM-33a Giza, rope from funerary ship of Khufu.		3990 ± 105 BP	2613 ± 107 BC	R. xiii, 1971, 159-66
Same comment				
P-216 Dahshur, south pyramid of Senefru		4082 ± 102 BP	2850 ± 102 BC	R. i, 1959, 448
This date fits reign of Senefru on high chronology, c. 2850-2825 BC, much better than c. 2589-2567 BC of the middle chronology.				

Zoser period, early Third dynasty, c. 2940-2900 BC

A-219 Zoser, Step pyramid		4240 ± 150 BP	2971 ± 152 BC	R. iv, 1962, 248
TF-367 Zoser, Step pyramid, acacia wood		4180 ± 80 BP	2940-2920 ± 82 BC	R. xvii, 1975, 221
TF-368 Zoser, Step pyramid, sycamore		4130 ± 50 BP	2910-2860 ± 52 BC	ibid
BM-308 Zoser period. Saqqara T. 3518 flax rope		4106 ± 50 BP	2852 ± 62 BC	ibid

Two Late Second dynasty dates may be added to this group:

BM-232 Saqqara T. 3046		4230 ± 65 BP	2971 ± 67 BC	R. xi, 1969, 282
UCLA-1204 same tomb		4190 ± 60 BP	2940-2930 ± 62 BC	R. ix, 1967, 492

These six dates are internally consistent and more compatible with the high chronology here proposed than with a middle chronology of 2667-2648 for Zoser.

Late Second dynasty dates for pillaging and destruction from the First dynasty tombs at Saqqara?

BM-228 Saqqara, Aha	(T. 3357)	4300 ± 65 BP	3010-3110 ± 67 BC	R. xi, 1969, 281
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EGYPTIAN AND NEAR EASTERN CHRONOLOGY

UCLA-1201 Saqqara, Merneit	(T. 3503)	4290 ± 60 BP	2990-3110 ± 62 BC	R. ix, 1967, 493
BM-319 Saqqara Wadji	(T. 3504)	4225 ± 60 BP	2970-2950 ± 62 BC	R. ix, 1967, 493
BM-320 Saqqara Wadji	(T. 3504)	4206 ± 80 BP	2960-2930 ± 82 BC	R. ix, 1967, 493
UCLA-1202 Saqqara Hemaka	(T. 3035)	4235 ± 60 BP	2970 ± 62 BC	ibid., 492
BM-231 Saqqara Kaa	(T. 3505)	4270 ± 65 BP	2980-3110 ± 67 BC	R. xi, 1969, 281
UCLA-1203 Saqqara Kaa	(T. 3505)	4140 ± 60 BP	2900-2880 ± 62 BC	R. ix, 1969, 492

At first sight this set of dates from the First dynasty cemetery at Saqqara provides ample justification for the middle chronology of c. 3100-2890 BC for that dynasty. There is, however, an equally valid second set discussed immediately below, which cannot be dismissed out of hand. Archaeologically, of course, late and early dates from the same buildings suggest construction and destruction and are by no means surprising. The excavator of the cemetery, Emery, has pointed out that plundering and deliberate destruction by fire happened to this cemetery (and others like Abydos and Negade, for which we have no radiocarbon dates) during the religious reforms of the reign of Peribsen and perhaps the subsequent rising of Lower Egypt in the reign of Khasekhem. Comparison with other Second dynasty dates confirms the attribution of these events to the later part of the dynasty on the high chronology, some time between c. 3000 and 2970 BC.

First Dynasty, c. 3400-3200 BC.

GrN-902 Saqqara, Kaa	(T. 3505)	4385 ± 70 BP	3161 ± 72 BC	Deevey, 1967, 34
GrN-684 Saqqara Den	(T. 3507)	4450 ± 100 BP	3320-3210 ± 102 BC	Science, 127, 1958
P-214 Saqqara Den	(T. 3507)	4447 ± 150 BP	3310-3210 ± 150 BP	R. i, 1959, 48, 137
BM-229 Saqqara Merneit	(T. 3503)	4520 ± 65 BP	3374 ± 67 BC	R. xi, 1969, 281
TF-563 Saqqara Hemaka	(T. 3035)	4580 ± 60 BP	3382 ± 62 BC	R. xvii, 1975, 221
BM-321 Saqqara Wadji	(T. 3504)	4496 ± 80 BP	3340-3240 ± 82* BC	R. xiii, 1971, 160
P-215 Saqqara Wadji	(T. 3504)	4594 ± 91 BP	3520-3410 ± 93 BC	R. i, 1959, 48
UCLA-1200 Saqqara Aha	(T. 3357)	4500 ± 60 BP	3340-3250 ± 62* BC	R. ix, 1967, 493
TF-563a Saqqara Hemaka	(T. 3035)	4585 ± 60 BP	3380 ± 62 BC	R. xvii, 1975, 221
TF-563b Saqqara Hemaka	(T. 3035)	4550 ± 60 BP	3370 ± 62 BC	ibid
TF-563c Saqqara Hemaka	(T. 3035)	4485 ± 60 BP	3330-3220 ± 62 BC	ibid

Allowing for the inconsistencies in radiocarbon results obtained from wood, reeds, etc., to be expected in robbed and disturbed tombs, the series of dates falls between c. 3400 and 3200 BC, which is in full accordance with the proposed high chronology. Moreover, two of these dates, marked with an asterisk, are the same as one for the end of the Uruk period at J. Aruda (p. 15) and it is satisfactory that both point to the beginning of the First dynasty, in the reigns of Aha and Wadji. These dates suggest that the First dynasty began c. 3400 BC, and not c. 3100 BC as suggested by the middle chronology, and this is independently suggested by the Mesopotamian synchronism discussed above, as well as by new Palestinian evidence, critically presented by Callaway and Weinstein.

PALESTINIAN EVIDENCE AND EGYPTIAN CORRELATIONS

Archaeological research in recent years has established that EB Ic of Palestine (earlier referred to as EB I or EB Ib) is equivalent to the period from King Scorpion to the reign of Wadji (Djet), whereas EB IIA and B cover the later First dynasty from Den onwards and the Second dynasty respectively. EB IIIA equals the Third dynasty, and EB IIIB covers the period of the Fourth, Fifth and Sixth dynasties ending perhaps in the reign of Pepi II. These subdivisions are given greater precision by some 20 radiocarbon dates, many of which allow firm correlations with similar dates from Egypt.

EB III	BM-553	Jericho	xviii	3922 ± 78 BP	2540-2520 ± 80 BC	all refs. BASOR, 225, 1977, 1-16
	BM-552	Jericho	xvii	4115 ± 39 BP	2850 ± 40 BC	Pepi I, c. 2538-2515 BC
	BM-550	Jericho	xvi	4126 ± 50 BP	2870-2850 ± 50 BC	Snefru, c. 2850-2825 BC
	BM-548	Jericho	xiv	4175 ± 48 BP	2920 ± 50 BC	Huni, c. 2885-2850 BC
	BM-549	Jericho	xv	4204 ± 49 BP	2940-2920 ± 50 BC	

ANTIQUITY

end of	BM-390	Areini I	end	4200 ± 130 BP	2940-2920 ± 130 BC	
EB II	P-2299	Ai V,	end	4200 ± 70 BP	2940-2920 ± 70 BC	Zoser, c. 2940-2900
	P-2301	Ai V,	end	4270 ± 70 BP	2990-2970 ± 70 BC	
	P-2300	Ai V,	end	4250 ± 60 BP	2970 ± 60 BC	Khasekhemwy, c. 2975-2950
	P-2054a	Arad II,	end	4225 ± 57 BP	2960-2930 ± 60 BC	
early	Tx-2371	Ai		4310 ± 130 BP	3110-3010 ± 130 BC	
EB II	Tx-2372	Ai		4330 ± 80 BP	3140-3030 ± 80 BC	
	P-2304	Ai		4360 ± 60 BP	3150 ± 60 BC	
	BM-388	Areini IV,	end	4340 ± 130 BP	3140-3110 ± 130 BC	Second dynasty
	BM-380	Areini IV,	end	4400 ± 130 BP	3160 ± 130 BC	c. 3200-2950
	W-916	Areini IV,	end	4410 ± 250 BP	3170 ± 260 BC	
	BM-391	Areini IV,	end	4430 ± 140 BP	3180 ± 140 BC	
EB Ic	BM-393	Areini V		4450 ± 140 BP	3310-3190 ± 140 BC	Djet, c. 3325-3300
	BM-392	Areini V		4470 ± 140 BP	3320-3210 ± 140 BC	
	P-2303	Ai, early EB IC		4550 ± 60 BP	3370-3350 ± 60 BC	Aha and Djer
	I-?	Arad III		4585 ± 220 BP	3380 ± 230 BC	
EB Ib	I-?	Arad IV		4600 ± 220 BP	3380 ± 230 BC	

To this list of Palestinian C14 dates I have added, very tentatively, the reigns of certain Egyptian kings with dates they would occupy on my high chronology. Since the discovery of Egyptian pottery at several sites in Southern Palestine, including, at Ein Beor near Gaza, sealings of the reign of Den (c. 3300-3250/40 BC), the old idea of mere trade is no longer tenable and Egyptian invasions and occupation must also be envisaged. It is perhaps no coincidence that many of the Palestinian radiocarbon dates, from burnt buildings, point to the reigns of powerful Egyptian kings, who may well have interfered, directly or indirectly, in Palestinian affairs, even if direct evidence from Egypt itself is still lacking. In view of the rarity of historical evidence from Egypt for relations with its neighbours the value of this negative evidence is doubtful. However that may be, the South Palestinian C14 dates are directly comparable with those of Egypt, serving to correlate relations between the two countries and support the high chronology here proposed.

CONCLUSION

The study of the development of ancient civilizations in Egypt, the Near and the Middle East—and indeed anywhere else in the world—requires a uniform time scale, not a set of varying and conflicting chronologies such as we have to contend with at present. Among historians the so-called middle and low chronologies enjoy most support, and archaeologists deprived of an historical chronology make extensive use of carbon dating,

usually still in uncalibrated form, as this is thought to produce results closer to the middle chronology. Not surprisingly, conflicts in interpretation are rampant, and it is high time that attempts should be made to solve this apparent dilemma.

In the preceding pages I have tried to show that there are unsatisfactory aspects of the middle chronology, both in Egypt and Mesopotamia, that can be resolved by adopting a high chronology. Such changes are necessary, whether one believes in radiocarbon dating or not. A confrontation of the calibrated radiocarbon record with the historical middle and high chronologies shows an incompatibility of the calibrated carbon dates with the middle, but not with the high chronology. There is therefore no reason to ignore calibrated C14 dating, or to demand that the physicists adjust their dating to the middle chronology and one attempt to do so by McKerrell has rightly been rejected by the physicists as not justified (see R. M. Clark, *Archaeometry*, 20, 1978, 16).

The so-called dilemma then is a myth, a creation of the supporters of the middle and low chronologies. These have served us long enough and not too well as an interim tool. Most tools need sharpening over the years and finally replacement. I believe the time has come to discard them, and concentrate instead on a high chronology supported by calibrated radiocarbon dating which should, with the necessary improvements and adjustments, provide us at last with a valid and uniform time scale.

B.C.	EGYPT	BYBLOS	PALESTINE JORDAN	SYRIA	MALATYA-ELAZIG	CANATOLIA	MARI	ASSYRIA	BABYLONIA	ELAM SUSA	B.C.
1850	XVIII AMHORE (1850-1800) APOPHIS I (1800-1780) (8 KINGS)		LB I	MB III ALALAKH VI (M)	LB I	OLD NITTITE KINGDOM			KASSITE PERIOD		1850
1750	XVII (SELECTED KINGS) C. 1750-1700		MB II (M)	MB II (L) ALALAKH VII	MB II	MATTUSIL I LABARNA	KASSITE OF KHANA		AMORITE PERIOD		1750
1650	XVI (SELECTED KINGS) C. 1650-1600		MB I (K)	MB I (K) KINGS OF EBLA	MB I	ANITTA I LABARNA					1650
1550	XV (SELECTED KINGS) C. 1550-1500		MB I (IA)	MB I (IA) KINGS OF EBLA	MB I	ANITTA II LABARNA					1550
1450	XIV (SELECTED KINGS) C. 1450-1400		EB IV (EB/MB) 'A & B'	EB IV (EB/MB) 'A & B'	EB IV (EB/MB) 'A & B'	EB IV (EB/MB) 'A & B'					1450
1350	XIII (SELECTED KINGS) C. 1350-1300		EB III (H)	EB III (H)	EB III (H)	EB III (H)					1350
1250	XII (SELECTED KINGS) C. 1250-1200		EB II (G)	EB II (G)	EB II (G)	EB II (G)					1250
1150	XI (SELECTED KINGS) C. 1150-1100		EB I (F)	EB I (F)	EB I (F)	EB I (F)					1150
1050	X (SELECTED KINGS) C. 1050-1000		EB I (E)	EB I (E)	EB I (E)	EB I (E)					1050
950	IX (SELECTED KINGS) C. 950-900		EB I (D)	EB I (D)	EB I (D)	EB I (D)					950
850	VIII (SELECTED KINGS) C. 850-800		EB I (C)	EB I (C)	EB I (C)	EB I (C)					850
750	VII (SELECTED KINGS) C. 750-700		EB I (B)	EB I (B)	EB I (B)	EB I (B)					750
650	VI (SELECTED KINGS) C. 650-600		EB I (A)	EB I (A)	EB I (A)	EB I (A)					650
550	V (SELECTED KINGS) C. 550-500		EB I (A)	EB I (A)	EB I (A)	EB I (A)					550
450	IV (SELECTED KINGS) C. 450-400		EB I (A)	EB I (A)	EB I (A)	EB I (A)					450
350	III (SELECTED KINGS) C. 350-300		EB I (A)	EB I (A)	EB I (A)	EB I (A)					350
250	II (SELECTED KINGS) C. 250-200		EB I (A)	EB I (A)	EB I (A)	EB I (A)					250
150	I (SELECTED KINGS) C. 150-100		EB I (A)	EB I (A)	EB I (A)	EB I (A)					150
50	AMRATIAN (NAQADA I)		EB I (A)	EB I (A)	EB I (A)	EB I (A)					50
0	GERZEAN (NAQADA II)		EB I (A)	EB I (A)	EB I (A)	EB I (A)					0
-50			EB I (A)	EB I (A)	EB I (A)	EB I (A)					-50
-100			EB I (A)	EB I (A)	EB I (A)	EB I (A)					-100
-150			EB I (A)	EB I (A)	EB I (A)	EB I (A)					-150
-200			EB I (A)	EB I (A)	EB I (A)	EB I (A)					-200
-250			EB I (A)	EB I (A)	EB I (A)	EB I (A)					-250
-300			EB I (A)	EB I (A)	EB I (A)	EB I (A)					-300
-350			EB I (A)	EB I (A)	EB I (A)	EB I (A)					-350
-400			EB I (A)	EB I (A)	EB I (A)	EB I (A)					-400
-450			EB I (A)	EB I (A)	EB I (A)	EB I (A)					-450
-500			EB I (A)	EB I (A)	EB I (A)	EB I (A)					-500
-550			EB I (A)	EB I (A)	EB I (A)	EB I (A)					-550
-600			EB I (A)	EB I (A)	EB I (A)	EB I (A)					-600
-650			EB I (A)	EB I (A)	EB I (A)	EB I (A)					-650
-700			EB I (A)	EB I (A)	EB I (A)	EB I (A)					-700
-750			EB I (A)	EB I (A)	EB I (A)	EB I (A)					-750
-800			EB I (A)	EB I (A)	EB I (A)	EB I (A)					-800
-850			EB I (A)	EB I (A)	EB I (A)	EB I (A)					-850
-900			EB I (A)	EB I (A)	EB I (A)	EB I (A)					-900
-950			EB I (A)	EB I (A)	EB I (A)	EB I (A)					-950
-1000			EB I (A)	EB I (A)	EB I (A)	EB I (A)					-1000

Chronological table for Egypt, Mesopotamia and adjacent countries, based on a High Chronology which is in substantial agreement with calibrated C14 dating

CHRONOLOGICAL CHART OF THE CIVILIZATION OF ANCIENT EGYPT

LATE PERIOD

FIRST INTER-MEDIATE PERIOD	MIDDLE KINGDOM	SECOND INTER-MEDIATE PERIOD	NEW KINGDOM	LATE PERIOD							30 B.C.	
00	2065	1785	1580	1085	950	751	663	525	398	341	333	
VII - XI	XI - XII	XIII - XVII	XVIII - XX	XXI	XXII - XXIV	XXV	XXVI	XXVII XXVIII	XXIX XXX			
Herakleopolis Thebes	Thebes	Thebes Avaris	Thebes	Thebes Tanis	Thebes Bubastis	Napata Thebes	Sais	Memphis				Alexandria
KHETI I KHETI II (Herakleopolitan) INTEF (Theban)	MENTUHETEP II MENTUHETEP III AMENEMHAT I SESOSTRIS I SESOSTRIS III	SALATIS KHIAN SEKENENRA KAMES	AHMOSIS AMENOPHIS I TUTHMOSIS I TUTHMOSIS II HATSHEPSUT TUTHMOSIS III AMENOPHIS II AMENOPHIS III AMENOPHIS IV HOREMHAB SETI I RAMSES II RAMSES III	Priest-kings at Thebes HERIHOR PINODJEM I Rulers at Tanis SMENDES	LIBYANS SRASHANK OSORKONS & TAKELOTS XXIInd at Bubastis XXIIIrd at Thebes	ETHIOPIANS PIANKHI SHABAKA TAHARKA Three Assyrian invasions	SAÏTES PSAMMETICHUS I NEKO AMASIS	PER-SIANS CAMBYSES DARIUS I XERXES ARTAXERXES DARIUS II	From Sais, Mendes and Sebennytos NEC-TA-NEBO I	IInd PER-SI-AN DO-MI-NA-TION AR-TA-XER-XES III		PTOLEMIES ALEXANDER THE GREAT PTOLEMY LAGOS PTOLEMY II Philadelphos PTOLEMY III Euergetes PTOLEMY V Epiphanes
Complete disintegration of state machine in Delta and Lower Egypt. Anarchy, civil war, Bedouin invasion. Ultimate victory of Theban warlords.	Wise and temperate rule by gifted monarchs. Prosperity tempered with restraint. Emphasis on law and civic morality. Expansion into Asia and Nubia. State structure inexplicably disintegrates.	Hyksôs invaders rule in Delta and Lower Egypt until ejected by Theban nomarchs. Hyksôs on the whole amiable and adaptable.	THE EMPIRE Egypt rules from Nubia to the Euphrates. Apogee under Tuthmosis III. Decline under Tuthmosis IV. Temporary resurgence under Horemhab, Ramses II and Ramses III.	Country sundered. Cult of Amon exploited at Thebes for political ends. Tomb-robbery.	Libyans descended from mercenaries. Military dictators. Dynasty divides, to be followed by rise of petty dynasts.	Two incursions, under Piankhi and Shabaka. Esarhadon and Ashurbanipal lead Assyrian invasions	Egypt recovers with assistance of Greek mercenaries. Greek colonies at Naucratis and Daphnae. Flourishing overseas trade	Firm but constructive rule. Amyrtis frees restless Egypt.	Weak dynasts with only local power	Cruel and predatory occupation.	Era of great affluence for Greek rulers and their fellows. Native Egyptians of all classes disregarded and reduced to penury.	



Destruction of buildings by mob-violence.	Temple of Mentuhetep I. Amenemhat I builds 'Wall of the Prince' across the Delta. Sesostris III and Amenemhat III colonize the Fayum.	Negligible. Hyksôs construct fortified camps.	Valley of the Kings. Temples of Hatshepsut and Seti I. Luxor and Karnak. City of Akhetaton. Ramasseum, Abu Simbel and other edifices of Ramses II. Medinet Habu.			Nubians evolve provincial style of Napata and Meroë.	Tombs and temples modelled on ancient originals. Precursor of Suez Canal begun.	Great temple of Zeus-Ammon.		Energetic religious and secular building along rigidly orthodox lines. Temples of Dendera, Kom Ombo, Philae, Edfu, etc. City of Alexandria.
Development of different artistic traditions in rival divisions of country.	Impressive portrait statues. Austere Theban, lush Memphite art. Exquisite examples of jeweller's art, especially from Dahshur and Illahun.	Introduction into Egypt of the horse and the chariot.	Luxurious domestic art, showing in many cases strong Asiatic influence. Amarna artistic interlude. Treasures from tomb of Tutankhamon. Replacement of copper by bronze tools.	First industrial use of iron.			Artistic Renaissance. Passion for reproducing art of earlier epochs. Extraordinary technical virtuosity.		Art and literature remain skilful and traditional in form and execution, but the life and character have left them.	Increasing importation of Greek styles and methods.
Origins of pessimistic literature.	Coffin Texts. Classic period of prose and poetry. Didactic literature. Early scientific	Literary activity unimpaired by invasion.	Book of the Dead. Voluminous mass of literary and official papyri.	Sumptuous hieratic papyri.			Antiquarian revival of ancient literary fashions.			

INTEP (Theban)			HOREMHA SETI I RAMSES II RAMSES III	Rulers at Tanis SMENDES	Thebes			XERXES DARIUS II	NEC- TA- NEBO I	ON AR- TA- XER- XES III	Suergetes PTOLEMY V Ephiphanes
Complete disintegration of state machine in Delta and Lower Egypt. Anarchy, civil war, Bedouin invasion. Ultimate victory of Theban warlords.	Wise and temperate rule by gifted monarchs. Prosperity tempered with restraint. Emphasis on law and civic morality. Expansion into Asia and Nubia. State structure inexplicably disintegrates.	Hyksôs invaders rule in Delta and Lower Egypt until ejected by Theban monarchs. Hyksôs on the whole amiable and adaptable.	THE EMPIRE Egypt rules from Nubia to the Euphrates. Apogee under Tutmosis III. Decline under Tutmosis IV. Temporary resurgence under Horemhab, Ramses II and Ramses III.	Country sundered. Cult of Amon exploited at Thebes for political ends. Tomb-robbery.	Libyans descended from mercenaries. Military dictators. Dynasty divides, to be followed by rise of petty dynasts.	Two incursions, under Piankhi and Shabaka. Esarhadon and Ashurbanipal lead Assyrian invasions	Egypt recovers with assistance of Greek mercenaries. Greek colonies at Naucratis and Daphnae. Flourishing overseas trade	Firm but constructive rule. Amyrtis frees restless Egypt.	Weak dynasts with only local power	Cruel and predatory occupation.	Era of great affluence for Greek rulers and their fellows. Native Egyptians of all classes disregarded and reduced to penury.



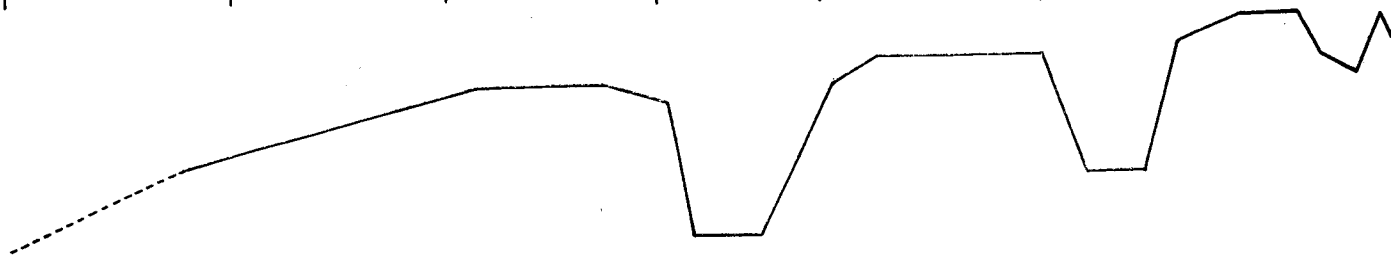
Destruction of buildings by mob-violence.	Temple of Mentu-hetep I. Amenemhat I builds 'Wall of the Prince' across the Delta. Sesostris III and Amenemhat III colonize the Fayum.	Negligible. Hyksôs construct fortified camps.	Valley of the Kings. Temples of Hatshepsut and Seti I. Luxor and Karnak. City of Akhetaton. Ramasseum, Abu Simbel and other edifices of Ramses II. Medinet Habu.			Nubians evolve provincial style of Napata and Meroë.	Tombs and temples modelled on ancient originals. Precursor of Suez Canal begun.	Great temple of Zeus-Ammon.			Energetic religious and secular building along rigidly orthodox lines. Temples of Dendera, Kom Ombo, Philae, Edfu, etc. City of Alexandria.
Development of different artistic traditions in rival divisions of country.	Impressive portrait statues. Austere Theban, lush Memphite art. Exquisite examples of Jeweller's art, especially from Dahshur and Illahun.	Introduction into Egypt of the horse and the chariot.	Luxurious domestic art, showing in many cases strong Asiatic influence. Amarna artistic interlude. Treasures from tomb of Tutankhamon. Replacement of copper by bronze tools.	First industrial use of iron.			Artistic Renaissance. Passion for reproducing art of earlier epochs. Extraordinary technical virtuosity.				Increasing importation of Greek styles and methods.
Origins of pessimistic literature.	Coffin Texts. Classic period of prose and poetry. Didactic literature. Early scientific documents, embodying Pyramid Age researches.	Literary activity unimpaired by invasion.	Book of the Dead. Voluminous mass of literary and official papyri.	Sumptuous hieratic papyri.			Antiquarian revival of ancient literary fashions.				Art and literature remain skilful and traditional in form and execution, but the life and character have left them.
Sudden popular upsurge of Osirianism. Theban warlords advance the cause of Amon-Ra.	Rise of Amon-Ra. Royalty acknowledges the popular appeal of Osirianism and to some extent offsets it by intensification of the sun-cult.	Inspiration of Amon-Ra an important factor in the war of liberation.	Amon-Ra supreme as national god. Short heretical interlude of worship of the Aton, ultimately inspired by royal relations with Asia.	Political supremacy of Amon-Ra.		Cult of Amon-Ra intensified by pious Nubians.	Exotic gods banished. Special honours accorded to earliest deities.				Religion becomes a matter of convention and formalization.
Disruption of contacts with foreign countries.	Expansion into Palestine and Nubia. Trading contacts with Byblus, Crete and Punt. Rise of Hittite Empire. First Dynasty of Babylon. Hammurabi.	Kassites, Hurrians and Mitanni active in widespread folk-movements.	THE EMPIRE Rise and fall of Minoan culture. Rise of Ashur. Apogee and decline of Hatti. Sack of Troy. Onslaught of the Sea People. Mycenae.	Egypt loses all influence or control in Asian affairs.	Shashank raids Jerusalem and carries off the wealth of Solomon. Cordial relations enjoyed with Asia.	Continued dominance of Assyrians.	Neko wins and quickly loses an Empire. Medes and Babylonians destroy the Assyrians. Cyrus conquers the Medes. Rise of Persia.	Greeks beat Darius at Marathon and Xerxes at Salamis.	Teos attempts abortive campaign in Asia.		Persian power shattered by Alexander at Issus. Egypt becomes a Roman province after death of Antony and Cleopatra.

Bronze Age begins c. 1750.

Iron Age begins c. 500.

	<p>Amratian Gerzean Nagaadian THE DIVINE DYNASTY " KING SCORPION "</p>		<p>UNAS PEPI I PEPI II</p>	<p>INTEP (Theban)</p>		<p>HOHEMHAH SETI I RAMSES II RAMSES III</p>	
<p>MAIN POLITICAL EVENTS</p>	<p>Following climate-crash and desiccation of North Africa, African and Asian strains coalesce in Nile valley c.6000 B.C. Invasion of Upper by Lower Egypt (Horus conquers Seth) c.4245 B.C. Invasion of Lower by Upper Egypt, just before c. 3000 B.C.</p>	<p>Early Dynastic kings rule first from their own city of This, near Abydos, then move to Memphis. Civil and religious institutions and ceremonies rapidly assume the form they will maintain throughout Dynastic history.</p>	<p>Rigid hierarchical and centralized government. Rule of a regimented peasantry by a rich and gifted oligarchy. Sacerdotal authority becomes paramount in Dynasties V and VI.</p>	<p>Complete disintegration of state machine in Delta and Lower Egypt. Anarchy, civil war, Bedouin invasion. Ultimate victory of Theban warlords.</p>	<p>Wise and temperate rule by gifted monarchs. Prosperity tempered with restraint. Emphasis on law and civic morality. Expansion into Asia and Nubia. State structure inexplicably disintegrates.</p>	<p>Hyksôs invaders rule in Delta and Lower Egypt until ejected by Theban monarchs. Hyksôs on the whole amiable and adaptable.</p>	<p>THE EMPIRE Egypt rules from Nubia to the Euphrates. Apogee under Tuthmosis III. Decline under Tuthmosis IV. Temporary resurgence under Horemhab, Ramses II and Ramses III.</p>

GREATNESS
AND
DECLINE



<p>ARCHI- TECTURE</p>	<p>Mud-brick and light wooden structures, reaching high degree of sophistication. Silos for grain. Cattle compounds.</p>	<p>Brick Mastabas. Large wooden and brick temples and palaces. Royal Tombs at Abydos.</p>	<p>Step Pyramid. Stone Mastabas. THE PYRAMID AGE Sun temples.</p>	<p>Destruction of buildings by mob-violence.</p>	<p>Temple of Mentu-hetep I. Amenemhat I builds ' Wall of the Prince ' across the Delta. Sesostris III and Amenemhat III colonize the Fayum.</p>	<p>Negligible. Hyksôs construct fortified camps.</p>	<p>Valley of the Kings. Temples of Hatshepsut and Seti I. Luxor and Karnak. City of Akhetaton. Ramasseum, Abu Simbel and other edifices of Ramses II. Medinet Habu.</p>
<p>CULTURAL AND ARTISTIC PURSUITS</p>	<p>Stone and clay vessels of fine decoration, design and execution. Superb stone weapons, tools and palettes. Woven mats and garments. Very restricted use of copper.</p>	<p>Evolution of complex network of canals and dykes. Development of architectural techniques. Carpentry reaches a high level of attainment. Increased use of copper.</p>	<p>Intensification of building activities. Use of stone and realization of its innate qualities. Magnificent statuary.</p>	<p>Development of different artistic traditions in rival divisions of country.</p>	<p>Impressive portrait statues. Austere Theban art, lush Memphite art. Exquisite examples of jeweller's art, especially from Dahshur and Illahun.</p>	<p>Introduction into Egypt of the horse and the chariot.</p>	<p>Luxurious domestic art, showing in many cases strong Asiatic influence. Amarna artistic interlude. Treasures from tomb of Tutankhamon. Replacement of copper by bronze tools.</p>
<p>LITERATURE</p>	<p>Oral literature. Rudimentary drawings and pictographs on pots, etc.</p>	<p>Formative period of hieroglyphic writing. Fragmentary inscriptions.</p>	<p>Pyramid Texts. Some official documents.</p>	<p>Origins of pessimistic literature.</p>	<p>Coffin Texts. Classic period of prose and poetry. Didactic literature. Early scientific documents, embodying Pyramid Age researches.</p>	<p>Literary activity unimpaired by invasion.</p>	<p>Book of the Dead. Voluminous mass of literary and official papyri.</p>
<p>RELIGION</p>	<p>Formative era of Osirian and other myths. None gods in form of tribal fetishes. Animism, Totemism.</p>	<p>Formulation and rivalry of dogmas of Heliopolis, Hermopolis and Memphis : Ra-Atum, Thoth and Ptah. Anthropomorphic and intellectual gods emerge.</p>	<p>Triumphal ascendancy of doctrine of Heliopolis. The Royal Doctrine. Survival after death a royal prerogative.</p>	<p>Sudden popular upsurge of Osirianism. Theban warlords advance the cause of Amon-Ra.</p>	<p>Rise of Amon-Ra. Royalty acknowledges the popular appeal of Osirianism and to some extent offsets it by intensification of the sun-cult.</p>	<p>Inspiration of Amon-Ra an important factor in the war of liberation.</p>	<p>Amon-Ra supreme as national god. Short heretical interlude of worship of the Aton, ultimately inspired by royal relations with Asia.</p>
<p>EVENTS IN ASIA AND THE MEDITERRANEAN WORLD</p>	<p>Early cultures of Mesopotamia exert some degree of influence upon the Nile valley.</p>	<p>Foundation of Mesopotamian dynasties, in particular the First Dynasty of Ur. Beginnings of Trojan and Minoan cultures.</p>	<p>Egyptian colony established at Byblus. Sargon of Akkad. Third Dynasty of Ur.</p>	<p>Disruption of contacts with foreign countries.</p>	<p>Expansion into Palestine and Nubia. Trading contacts with Byblus, Crete and Punt. Rise of Hittite Empire. First Dynasty of Babylon. Hammurabi.</p>	<p>Kassites, Hurrians and Mitanni active in widespread folk-movements.</p>	<p>THE EMPIRE Rise and fall of Minoan culture. Rise of Ashur. Apogee and decline of Hatti. Sack of Troy. Onslaught of the Sea People. Mycenae.</p>

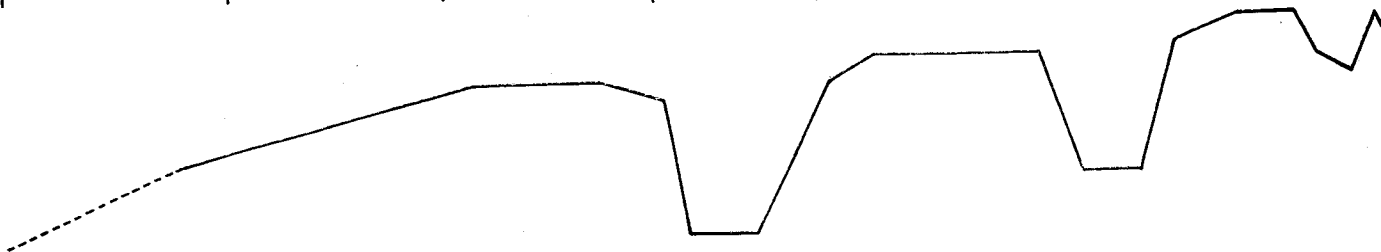
GREAT BRITAIN

Neolithic period
begins c. 2500.

Bronze Age
begins c. 1750.

	PRE-DYNASTIC PERIOD	THINITE EARLY DYNASTIC or ARCHAIC PERIOD	OLD KINGDOM	FIRST INTER-MEDIATE PERIOD	MIDDLE KINGDOM	SECOND INTER-MEDIATE PERIOD	NEW KINGDOM
DATE B.C.	3300	2778	2300	2065	1785	1580	1080
DYNASTY		I - II	III - VI	VII - XI	XI - XII	XIII - XVII	XVIII - XX
CAPITAL	Pe Hierakonpolis	Memphis	Memphis	Herakleopolis Thebes	Thebes	Thebes Avaris	Thebes
LEADING PHARAOKHS	NEOLITHIC and ENEOLITHIC culture MERIMDEAN Fayumic Meadian TASIAN BADARIAN Amratian Gerzean Nagaadian THE DIVINE DYNASTY * KING SCORPION *	NARMER (MENES) AHA WEDIMU PERIBSEN KHASEKHEMUI	ZOSER SNOFRU CHEOPS CHEPHREN MYCERINUS SAHURA NIUSERRA UNAS TETI PEPI I PEPI II	KHETI I KHETI II (Herakleopolitan) INTEP (Theban)	MENTUHETEP II MENTUHETEP III AMENEMHAT I SESOSTRIS I SESOSTRIS III	SALATIS KHIAN SEKEMENRA KAMES	AHMOSIS AMENOPHIS I TUTHMOSIS I TUTHMOSIS II HATSHEPSUT TUTHMOSIS III AMENOPHIS II AMENOPHIS III AMENOPHIS IV HOREMHAB SETI I RAMSES II RAMSES III
MAIN POLITICAL EVENTS	Following climate-crash and desiccation of North Africa, African and Asian strains coalesce in Nile valley c.6000 B.C. Invasion of Upper by Lower Egypt (Horus conquers Seth) c.4245 B.C. Invasion of Lower by Upper Egypt, just before c. 3000 B.C.	Early Dynastic kings rule first from their own city of This, near Abydos, then move to Memphis. Civil and religious institutions and ceremonies rapidly assume the form they will maintain throughout Dynastic history.	Rigid hierarchical and centralized government. Rule of a regimented peasantry by a rich and gifted oligarchy. Sacerdotal authority becomes paramount in Dynasties V and VI.	Complete disintegration of state machine in Delta and Lower Egypt. Anarchy, civil war, Bedouin invasion. Ultimate victory of Theban warlords.	Wise and temperate rule by gifted monarchs. Prosperity tempered with restraint. Emphasis on law and civic morality. Expansion into Asia and Nubia. State structure inexplicably disintegrates.	Hyksôs invaders rule in Delta and Lower Egypt until ejected by Theban nomarchs. Hyksôs on the whole amiable and adaptable.	THE EMPIRE Egypt rules from Nubia to the Euphrates. Apogee under Tuthmosis III. Decline under Tuthmosis IV. Temporary resurgence under Horemhab, Ramses II and Ramses III.

GREATNESS AND DECLINE



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ARCHITECTURE	Mud-brick and light wooden structures, reaching high degree of sophistication. Silos for grain. Cattle compounds.	Brick Mastabas. Large wooden and brick temples and palaces. Royal Tombs at Abydos.	Step Pyramid. Stone Mastabas. THE PYRAMID AGE Sun temples.	Destruction of buildings by mob-violence.	Temple of Mentu-hetep I. Amenemhat I builds ' Wall of the Prince ' across the Delta. Sesostris III and Amenemhat III colonize the Fayum.	Negligible. Hyksôs construct fortified camps.	Valley of the Kings. Temples of Hatshepsut and Seti I Luxor and Karnak. City of Akhetaton. Ramsesum, Abu Simbel and other edifices of Ramses II. Medinet Habu.
CULTURAL AND ARTISTIC PURSUITS	Stone and clay vessels of fine decoration, design and execution. Superb stone weapons, tools and palettes. Woven mats and garments. Very restricted use of copper.	Evolution of complex network of canals and dykes. Development of architectural techniques. Carpentry reaches a high level of attainment. Increased use of copper.	Intensification of building activities. Use of stone and realization of its innate qualities. Magnificent statuary.	Development of different artistic traditions in rival divisions of country.	Impressive portrait statues. Austere Theban, lush Memphite art. Exquisite examples of jeweller's art, especially from Dahshur and Illahun.	Introduction into Egypt of the horse and the chariot.	Luxurious domestic art, showing in many cases strong Asiatic influence. Amarna artistic interlude. Treasures from tomb of Tutankhamon. Replacement of copper by bronze tools.
LITERATURE	Oral literature. Rudimentary drawings and pictographs on pots, etc.	Formative period of hieroglyphic writing. Fragmentary inscriptions.	Pyramid Texts. Some official documents.	Origins of pessimistic literature.	Coffin Texts. Classic period of prose and poetry. Didactic literature. Early scientific	Literary activity unimpaired by invasion.	Book of the Dead. Voluminous mass of literary and official papyri.