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# EGYPT AND SYRIA UNDER THE CIRCASSIAN SULTANS

1382-1468 A.D.

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*Systematic Notes to Ibn Taghrî Birdî's  
Chronicles of Egypt  
(Continued)*

BY

WILLIAM POPPER

UNIVERSITY OF CALIFORNIA PUBLICATIONS IN SEMITIC PHILOLOGY

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EDITORS  
WALTER J. FISCHEL  
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## PREFATORY NOTE

This volume concludes the writer's series of systematic notes to his translation of Ibn Taghrî Birdî's *History of Egypt*. The first volume was *The Cairo Nilometer* (Univ. Calif. Publ. Sem. Philol., Vol. 12, 1951). The second, *Egypt and Syria under the Circassian Sultans* (Vol. 15, 1955), dealt with the geography and political government of the Mamelukes in the fifteenth century A.D. The present volume, dealing with some other aspects of Mameluke history, is actually a part of the second, but for technical reasons appears with a separate volume number.

While these notes were being assembled and printed, other studies on related subjects appeared. Kamel Osman Ghaleb Pasha published *Le Mikyâs ou Nilomètre de l'Île de Rodeh* (Cairo, 1951), with some additional and some variant data on the subject.

L. 'A. Mayer's *Mamluk Costume* (Geneva, 1952) is a systematic treatment concerning the garments particularly constituting the "robes of honor" frequently mentioned by Ibn Taghrî Birdî.

David Ayalon's *Gunpowder and Firearms in the Mamluk Kingdom* (London, 1956) indicates that the term "naptha" in various combinations refers in the fifteenth century A.D. to firearms, and "naptha" itself to gunpowder. In my translation the term "naptha" when used by Ibn Taghrî Birdî has been retained.

W.P.





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## THE PEOPLE

The population of the Mameluke Empire in the XVth century A.D. was divided primarily on a political basis into a ruling military class on the one hand and a great subject class on the other.

On the basis of religion there was a division into Mohammedans on the one hand, including both the ruling classes and the great mass of their subjects, and on the other hand Christian and Jewish minorities.

On the basis of economic life the subject people were divided into a sedentary population and nomadic, tribal, groups; the former included the urban population of the cities and larger towns and the peasant farmers (fallâḥîn).

Racial distinctions, aside from those referring to the tribal groups, occur mainly in reference to rival groups within the Mameluke military class; but, as will be seen, there is often uncertainty whether the distinguishing terms when used are ethnic or geographic. Ibn Taghrî Birdî (VII, 685.7) complains that earlier historians were not exact in their application of racial designations even to Sultans. The Arabic term for "race" is jins; but the distinction between this and aṣl "origin," specifically "place of birth or residence," is not consistently maintained. And an entirely misleading use of terms is seen, for example, in the by-name "Turcoman" applied to Sultan Aibak because he had been owned by one himself known as "son of the Turcoman" (Maqrîzî, *Sulûk*, I, 368, note 3).

### I. Egyptians and Syrians

It will be observed from the foregoing classification that the early division of the mass of the population of Egypt under Mohammedan rule on the basis of race and religion into Arabs and Copts (i.e., Egyptians) had by the XVth century A.D. disappeared. In fact the native Coptic Christian Egyptians even by the XIIIth century A.D. had in large measure been converted to Mohammedanism, while the invading Arabs who had settled down in the towns and surrounding cultivated regions had become amalgamated in race with the Egyptians. Furthermore, through the gradual adoption of the Arabic language by the original Coptic-speaking Egyptians, the distinction between the two groups of the population was further obliterated. The terms "Arab," "Arabic," "Copt," and "Coptic" were no longer applicable to the mass of the population; "Arab" came to denote only the Bedouin Arab tribes, "Coptic" only the small number of the original Christian population who refused to become converted to Mohammedanism.

When, after the extinction of the dynasty founded by Saladin, the absolute domination of the country by imported Turkish elements took place, the division of

the population into ruling class and subject class became definitive; and though the racial term "Turks" was applied to the ruling class, it lost its clear racial connotation and became a political term to denote the military aristocracy; the population was divided into "Turks" on the one hand and "subjects" (ra'îya, pl. ra'âya) or, more usually, "populace" ('amma) on the other;<sup>1</sup> typical is the statement (Ibn T.B., V, 528.16): "many of the populace and the Turks were killed." So Ibn Khaldûn (*Prolegomena*, I, 297) notes, though with oversimplification, that in Egypt there were only a Turkish government and subjects (ra'îya).

In Syria, the division of the population was comparable to that in Egypt, except that the inhabitants at the time of the Arabic conquest, instead of being Egyptian (Coptic) in origin, were largely Aramean, a branch of the Semitic peoples who spoke Aramaic, a Semitic language, and were Christians of many sects. The amalgamation of these Arameans with the Arab invaders, to the extent that the Arabs settled in the cities and towns and the Arameans became converted to Mohammedanism, was even easier than the racial amalgamation of the Copts and Arabs in Egypt; and the adoption of the Arabic language by the Arameans also was easier. But there were groups of Arabs in Syria as in Egypt who maintained their separate tribal organization.

## II. Bedouin Arabs and Berbers

Arabs ('Arab, A'râb, 'Urbân): descendants of various Arab tribes of Arabia who, after entering Egypt and Syria at the time of the Mohammedan conquest or later, preserved a tribal organization and reacted, in a greater or less degree, to tribal loyalty ('aşabiya), and were primarily shepherds and warriors. More particularly the Arabs were the unsettled Bedouins (badâwâ, sing. badawî) of the desert districts. However, parts of Bedouin tribes sometimes settled in villages (consisting of huts or sometimes more permanent dwellings) along the Nile and in parts of Northern Egypt. These village Arabs engaged in some form of agriculture; but they readily responded to tribal calls and became warriors again, the occasion being sometimes economic need, sometimes intertribal or internal tribal quarrels. In times of want or of defeat they took physical possession of the crops or even of the villages of the peasantry (the fallâhîn). Such disturbances often led to conflicts with the Mameluke government.

The government, on the other hand, enrolled certain Arab tribes of Egypt and Syria; it also recognized one of the more powerful tribes as dominant in one or another of the provinces, using them in an attempt to control other more turbulent tribes. Tribes were thus either "loyal Arabs" ('Arab aṭ-ṭâ'a), or "rebel Arabs" ('Arab 'usât; or abâ'id, literally "remote," i.e., "from good"). The head of the most prominent of such a dominant tribe was invested with office in the same manner as other government officials, and bore the title of emir; he was removed from office by the Sultan at pleasure, generally in favor of another member of the same or a related family.

<sup>1</sup>As noted elsewhere, the synonym na's, "people," "men," refers particularly to the ruling class, though the distinction is not always maintained.

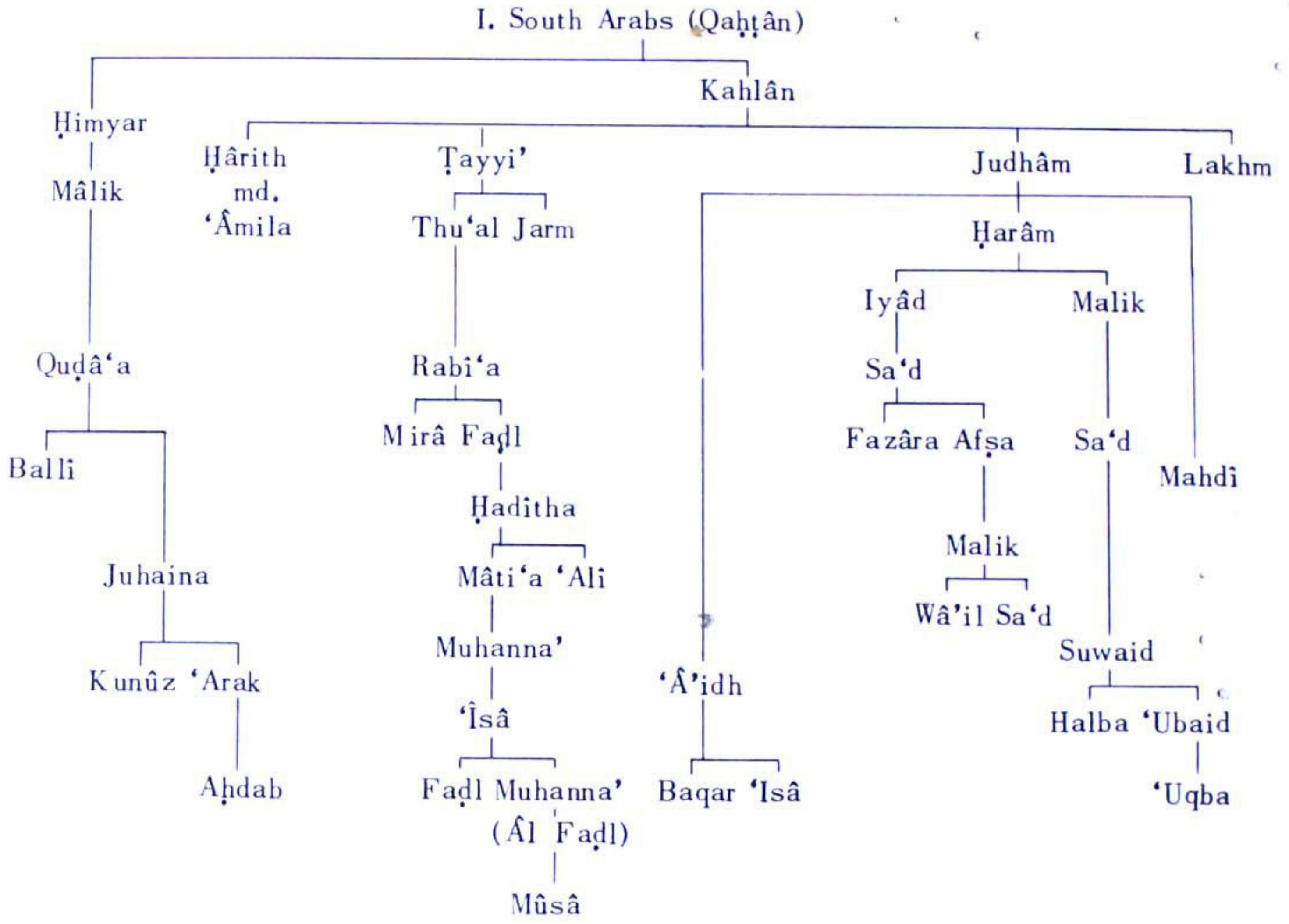
The family (*âl*, used in this Mameluke period for the more common *ahl*, and interchangeable with *banû*, "sons of") was the primary unit in Arab tribal organization. The head of the family was "the elder" (*shaikh*), although acknowledged personal character, prowess, and wealth, rather than actual age, were the qualifications for the position, which was inherited only when the necessary qualifications existed in the heir. The "elder" of a more powerful and numerous family was acknowledged as the head of kindred families also, and sometimes, too, of unrelated, weaker families or tribes which joined them. On the other hand, rivalry for headship sometimes led to the division of one family into several, and similar subdivisions occurred normally with the numerical growth of a tribal unit. "Family" and "tribe" are therefore difficult to differentiate.

All Arab tribes were said to be descendants of Abraham, some through Ishmael (*Ismâ'il*) and some through Joktan (*Qaḥṭân*); but the latter, the *Qaḥṭanites*, were held to be the true Arabs (*a'râb*), while the former, the *Ishmaelites*, were Arabicized Arabs (*muta'arriba* or *musta'riba*). This supposed division corresponded to an actual historical division into Northern (supposedly from *Ismâ'il*) and Southern (*Qaḥṭân*) tribes. But even in ancient Arabia many Southern tribes had moved to the north and some Northern tribes to the south; both had representatives in the forces that conquered Egypt and settled there, while other migrations occurred later into the Mameluke period. Families or tribes claiming descent respectively from the original Northern and Southern tribes of Arabia are thus found in Egypt side by side.

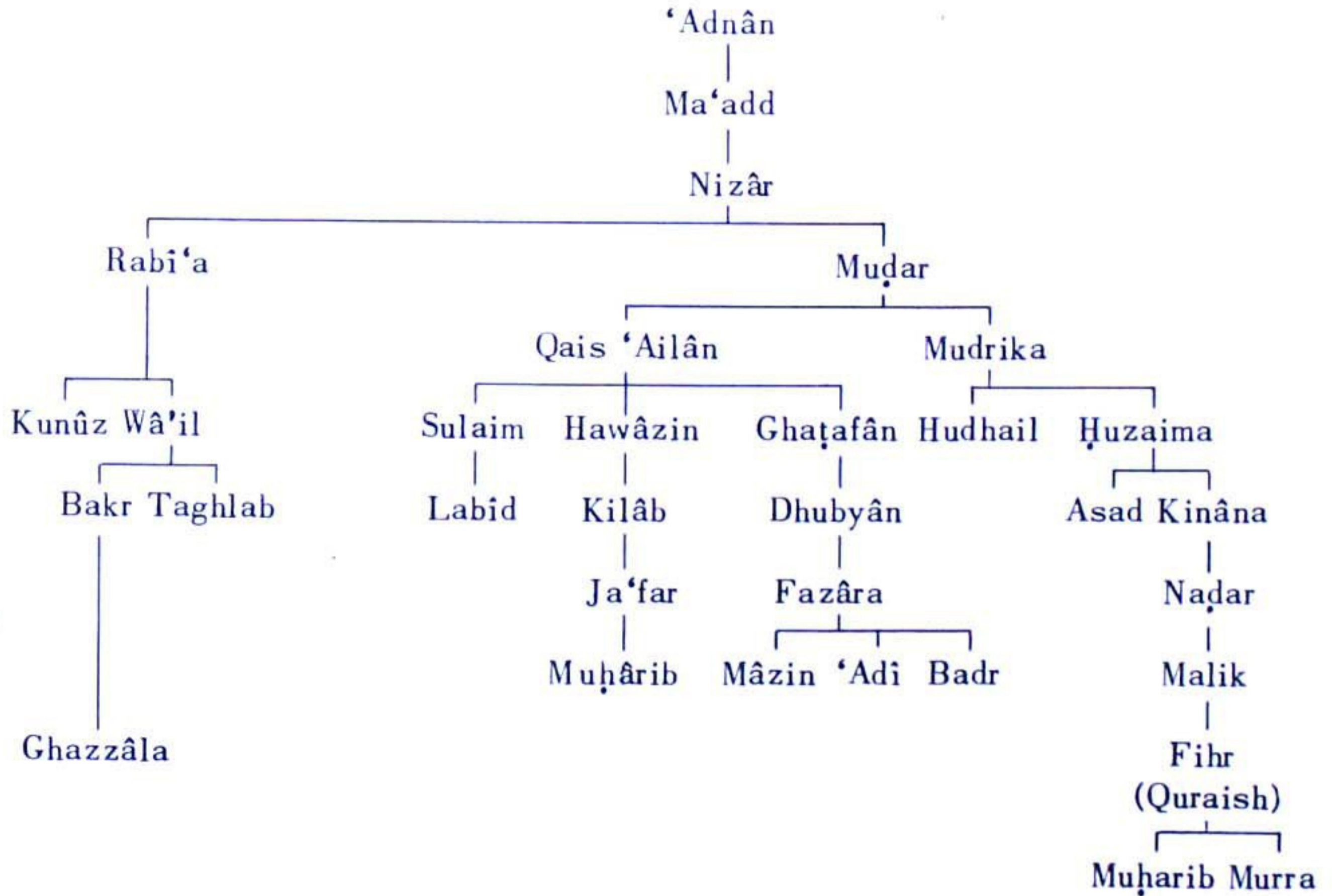
A third, and in some respects more distinct, group of tribes was also found in Egypt, namely, of Berber, or mixed Berber and Arab, descent. The Arab element originated in the tribes of Arabia which took part in the Mohammedan conquest of North Africa; some Arab historians maintained that the Berber element, or part of it, was itself of ancient Arab (particularly South Arabian) origin, having settled in North Africa in more ancient times. At any rate, some of the groups after residing in the regions west of the Nile, particularly in *Barqa*, returned to Egypt at the time of the Fatimid conquest; other tribes entered in the later Mameluke period, particularly into the northwest delta (district of *Buḥaira*), and then moved in part to Southern Egypt. They were nearly all so thoroughly Arabicized that Mameluke historians speak of them merely as Arabs.

The real or supposed origin of a tribe, its position on the genealogical tree, was a matter of tradition within the group itself. The traditional lineage of those Arabic and Berber tribes which are mentioned by *Ibn Taghrî Birdî* is shown in abbreviated form in the accompanying table; only a very few links of the chain are included in the lineage of any tribe, and no element of time is implied in the juxtaposition of names in different lines of descent.

## TRADITIONAL LINEAGE OF ARABIC AND BERBER TRIBES

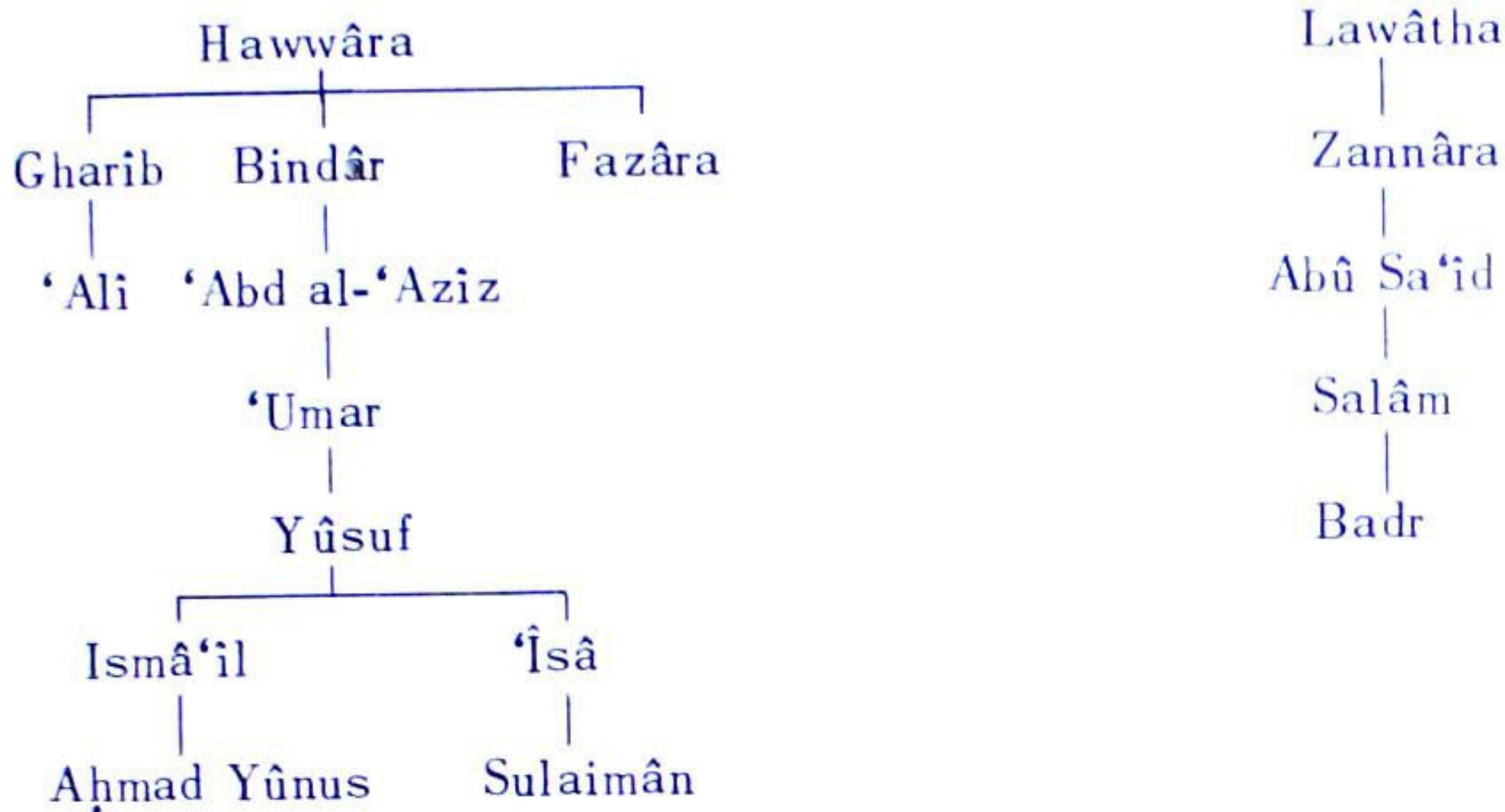


## II. North Arabs





## Berbers



Some of the tribes mentioned by Ibn Taghrî Birdî and other historians of the period are not included in the genealogy given in our table, for the connections of some tribes and families are not specified in his text: an alphabetical list of those mentioned by the author is appended, indicating the region in which they lived in the XVth century A.D.; some of them have not yet been identified.

Aḥḍab (Ibn): in S Egypt; branch of the ‘Arak of the Juhaina, S Arabs.

‘Â‘idh: branch of Judhâm, S Arabs; guardians of the Pilgrim road from Birkat al-Ḥâjj to ‘Aqaba Aila; see also ‘Îsâwiya.

Badr (ibn Salâm): of the Banû Sa‘id, Lawâtha (Berbers).

Baghdâd (Ibn): not identified; a Khâlid ibn Baghdâd is mentioned in 793 A.H. (Ibn Furât); the Banû Baghdâd were in al-Manûfiya district in the XIXth century A.D. (*Description de l’Egypte*, XVI, p. 111).

Ballî (Billî): of the Quḍâ‘a, S Arabs; in Sharqîya District and Ḥijâz, wardens of Pilgrim road from Dâmâ’ (N of Azlam) to Akra.

Baqar (Ibn): in Sharqîya; a branch of Judhâm, S Arabs; whether from Sa‘d or ‘Â‘idh is uncertain.

Bukairân: in S Egypt; not identified; perhaps identical with the Bukair of the Lakhm, S Arabs, who were settled around Bahasna; mentioned with Lahyân: Ibn T.B., VIII, 27.4; but Sakhâwî, *Tibr al-Masbûk* (187.26), reads Dukairân.

Faḍl: in Syria; branch of Rabî‘ of the Ṭayyi’, S Arabs; specifically the family of Muhanna’.

Fazâra: in N Egypt, branch of the Judhâm, S Arabs (Fazâra appears also as a branch of Qais ‘Ailân, of Muḍar, N Arabs; and also among the Hawwâra Berbers).

Ghazâla: in Damanhûr, N Egypt, origin uncertain; the name appears as a branch of the Wâ'il of Rabi'a ibn Nizâr, N Arabs; and there were Ghazâla at Gaza in the XVIIIth century A.D.

Hadâdija: in N Egypt; not identified.

Halbâ Suwaid: in Sharqîya district, Egypt; a branch of Judhâm, S Arabs.

Hawwâra: in Buḥaira district, and after 782 in S Egypt; branch of the (Arabicized) Berbers.

Ḥazanbal: N Egypt, and later in Jîziya; unidentified.

'Îsâwiya (Âl'Îsâ): in Sharqîya district; a branch of the 'Â'idh of Judhâm, S Arabs (to be distinguished from the 'Isâ branch of the Faḍl in Syria).

Jarm: at Gaza; branch of the Ṭayyi', S Arabs (according to others they were the Jarm of the Quḍâ'a branch of Ḥimyar, S Arabs).

Juhaina: in Egypt and Ḥijâz, branch of the Quḍâ'a of Ḥimyar, S Arabs, wardens of the Pilgrim road from Akra to Akhîr al-Wa'arât.

Kunûz: in S Egypt; mixed group of Arabs (either Rabi'a of the N Arabs, or Juhaina of the S Arabs), Nubians and Sudanese who intermarried; followers originally of al-Kanz, or Kanz ad-Daula (a governor of Aswân for the Fatimids), who revolted against Saladin in 570 A.H. and was killed while his followers continued hostile to the Egyptian governors and also to the Nubians; one of them was said to have ruled Nubia in the VIIth century A.H. (Abû Shâma, *Kitâb ar-Rauḍatain*, I, 235; Ibn al-Athîr, XI, 273, Maqrîzî, *Khîṭaṭ*, I, 196.4 from bel., 198.29; Qalqashandî, *Ṣubḥ*, V, 278).

Labîd: in N Egypt, particularly Buḥaira district, originally in Barqa; branch of Qais of Muḍar ibn Nizâr.

Lah(a)yân: S Egypt; not identified (*Tibr al-Masbûk*, 187.26, reads apparently Nahbân; possibly Nahbân of Lakhm of Kaḥlân, S Arabs; see Bukairân).

Lawâtha: in Manûfiya, N Egypt; branch of the Berber Arabs.

Mahdî: in Transjordan; branch of Judhâm, but no exact connection recorded.

Mirâ (Âl): in Damascus province and Ḥaurân; branch of Ṭayyi', S Arabs; Âl Imrâ are mentioned in Khalîl az-Zâhirî's *Zubda* (105.6) among Egyptian armies.

Muḥârib: in Buḥaira, N Egypt, originally in Barqa, E of the Labîd Arabs; a branch of Qais ibn Muḍar, of N Arabs; the Muḥarib are mentioned in the *Zubda*.

among Egyptian armies (cp. also Ibn Khaldûn, *Berbers*, I, 9); Muḥârib are mentioned also as descended from 'Adnân through Kinâna (cp. *Ṣubḥ*, I, 352).

Muhanna' (Âl): in Syria, the most prominent branch of the Faḍl of Ṭayyi', S. Arabs, and hence frequently called "family of Faḍl."

Mûsâ (Âl): in N Syria; branch of the Âl Faḍl of Ṭayyi', S. Arabs.

Qaṭṭâb: in N Egypt; origin not determined; mentioned in *Zubda* among Egyptian armies; in XVIIIth century A.D. living SE of Cairo.

Qatîl: in S Egypt; origin not determined; in *Zubda* among Egyptian armies.

Sa'd: in Sharqîya, Egypt; probably a branch of Ḥarâm of Judhâm, i.e., Sa'd ibn Mâlik ibn Zaid Manât ibn Afṣa ibn Sa'd.

Wâ'il: in Sharqîya, probably Wâ'il ibn Mâlik, a branch of Ḥarâm of Judhâm (Ibn Duqmâq, IV, 4.2 from bel.).

### III. Turks, Tatars, and Mongols

The name "Turks" is used by Ibn Taghrî Birdî in general to connote all the peoples of Mohammedan Asia who were not of Arabic-Egyptian origin, and this includes those who were Tatar (or Mongol) by race. Thus, Mâmâi, whom he first calls "King of the Tatars and ruler of the land of Dasht," he characterizes also as "one of the greatest of Turkish kings."

So the historian Ibn Khaldûn also states popularly that most of the peoples of his time, except the Persians, are either Turks or Arabs, and he includes in the former by implication Tamerlane (Tîmûr), whom he had called specifically "Sultan of the Mongols and Tatars."

However, Ibn T.B. does not usually include Turcomans among the Turks (see below), nor in particular the Turcoman group known in the XVth century merely as the "sons of 'Uthmân" but who soon were to conquer all the Near East and become exclusively "the Turks" of modern history.

All the Sultans of Egypt of the Mameluke period, then, whatever their racial origin may have been, were "Turks," though, after enumerating them as such, Ibn T.B. designates secondarily those of them who were specifically Circassians or Greeks (see below).

The greater part of the slaves who became rulers of Egypt between the middle of the VIIth century A.H. (XIIIth A.D.) and the end of the VIIIth (XIVth), i.e., the Baḥrî ("River" or "Nile") Mamelukes, were apparently imported from the regions north and east of the Caspian Sea, the lower course of the Volga (Athil) River. This region had earlier formed part of the great Saljûq Empire, of Turcoman origin, with many other Turks from Transoxania in its armies; a large Turkish population in the region resulted. This was augmented later when an-

other branch of the Turkish or Turcoman people, the Qipjâq, entered the land and the region became known as "Dasht-i-Qipjâq," Desert of Qipjâq.

In the earlier part of the XIIIth century the Tatar or Mongol armies of Chingiz Khân had included this region in his vast conquests, and on the death of Chingiz (624 A.H., 1227 A.D.) it became part of the inheritance of his son Dûshî, and the whole of the Qipjâq region was thereafter ruled by his descendants, the dynasty of the so-called Golden Horde. Thus politically the region became Tatar; Mâmâi, mentioned above as King of the Tatars, was a ruler of the Golden Horde dynasty; but since his territory had a large Turkish population (by the end of the XIVth century A.D. even its official documents were written in Turkish), Mâmâi was also a "Turk."

The capital of this Qipjâq region and of the Golden Horde was Sarai (Sera), on the Volga, and was a harbor for the merchants of Turkish slaves, to whom the inhabitants, because of their poverty, willingly sold their children (Qalqashandî, *Subh*, IV, 457). It was these slaves whom the Ayyubid Sultan aş-Şâliḥ Najm ad-Dîn Ayyûb (637-647 A.H., 1240-1249 A.D.) bought in large numbers and quartered on Rauḍa Island in the Nile at Cairo and made his bodyguard (the Baḥrî mamlûks); and when the power was usurped by them in the middle of the XIIIth century A.D., the importation of their fellows from the north continued. Sultan Baibars al-Bunduqdâri, who was the real founder of the Mameluke Empire (658-676 A.H., 1260-1277 A.D.), is called a native of Qipjâq, as is also Sultan al-Manşûr Qalâ'ûn (678-689 A.H., 1279-1290 A.D.; his tribe is given as Marj Ughlû by al-Maqrîzî: *Khiṭat*, II, 238.23).

All the following Sultans down to 1392 A.D. were either descendants of Qalâ'ûn or his mamlûks, and it is probably to be inferred that the Mameluke emirs of these years also are Turks from the Qipjâq region, unless they are otherwise characterized; Sultan Baibars al-Jashinqîr (1305 A.D.), e.g., is said possibly to have been a Circassian; Ibn T.B., V, 362.6, holds that he was a Turk, contrary to his earlier expressed opinion (see below, under "Circassians").

#### IV. Turcomans

Turcomans (Turkmân), a branch of the Turks of central Asia; they migrated into western Asia in the XIth century A.D., and after conversion to Mohammedanism were known first as Ghuzz and then by this name. They were primarily nomads and lived under the jurisdiction of various governments, but Turcoman chieftains were sometimes made governors of cities or larger areas, ruling for a period semi-independently and establishing dynasties. In the XIIIth century A.D., when the great empire of the Saljûk Turks collapsed, ten of these Turcoman states (mentioned before among the westerly neighbors of the Mameluke Empire) succeeded to their territory in Asia Minor; of these the dynasty of 'Uthmân had already by the beginning of the XVth century A.D. absorbed many of the others, and later became known in history as the Othmanli, or Ottoman, Turks. Similarly, on the northeast of Syria, in the last quarter of the XIVth century A.D., the Qarâ Qyunlî Turcomans established a dynasty in Armenia and Adharbaijân.

Within the boundaries of the Mameluke Empire in Syria various other Turcoman groups continued, like the Arabs, their nomadic life; one or another was acknowledged as predominant at certain times, and its members served as auxiliaries in the Mameluke army, their chief being made an emir or commander (*muqaddam*); commanders were occasionally appointed governors (viceroys) of frontier fortresses. Often, however, the Turcoman groups were at war with the government, and the ruin of the country was ascribed by historians to their depredations.

At the same time many individual Turcomans entered into the settled life of the Mamelukes in Syria and Egypt; some became emirs there, a few became scholars or even Cadis. But however much they thus became "Turks" in daily life and profession, each was still designated a "Turkmâni."

In the traditional genealogy of the Turcomans they are descended from Ghuzz, a grandson of Noah. More significant is the ascription of six sons to Ghuzz—grouped into two divisions, Bûzuq and Ūjuq (Utchuq), of three sons each—and twenty-four grandsons; for some of the names of the grandsons, as well as Bûzuq and Ūjuq, appear in the chronicles as the names of contemporary Turcoman tribes. But from these (probably older) groups new subdivisions, families, or tribes, frequently arose because of the activity of some dominant individual, whose followers were then known by his name. The family tree of these leaders is generally not recorded in the chronicles; nor is there evidence of racial solidarity among the groups, so that generally interrelationship cannot be stated or surmised.

The Turcomans mentioned by Ibn Taghrî Birdî are as follows (some are mentioned also in Qalqashandî's *Subḥ* and Khalîl az-Zâhirî's *Zubda*).

Aq Quyunlî: ("White Sheep"): see Qarâ Yuluk.

Aushariya (Afshar): one of the twelve major divisions of the Bûzuq, descendants of Aushar (or Ushar), son of Yalduz, son of Ghuzz (Oghuz). They migrated into Chorasán (where many Afshar are found today), and then a group of them moved to Syria. At the beginning of the XVth century A.D. they were around Aleppo, their chieftain being Muḥammad ibn Quṭbakî (or Quṭbaklu or Quṭlabak). They then moved further west toward the Mediterranean at the invasion of Qarâ Yûsuf (see below) in 821 A.H. In modern times they have been noted in the Anti-Taurus Mountains.

Auzariya (or Ūzariya): According to tradition, Ibn Auzar of the Ūjuq Turcomans, together with other Turcoman chiefs, including Warsaq, settled in the neighborhood of Adana and Tarsus in the XIIth century A.D.; they were between Aleppo and the Mediterranean in the XVth century, and are included in the *Zubda* list of Turcomans in the Mameluke armies.

Bâz: Fâris, the son of the Şâḥib al-Bâz, was an emir of the Turcomans in the Plain of Antioch ('Amq) in the first decade of the XVth century A.D. and took possession of Antioch and neighboring strongholds. The meaning of Bâz is uncertain here; the suggestion (VI, 58, note *f*) that Bâz is the name of the fortress

of Mâridîn is hardly correct. (Bazâtiya are mentioned in the *Zubda* among the Turcomans of the Mameluke army.)

Bazdaghân, Ibn: near Sîwâs, not identified.

Bayâdiya: mentioned in 1404 and 1422 A.D., 807, 825 A.H. (Ibn T.B., VI, 127.6, 557.16); not identified, but possibly the "White Sheep" Turcomans; see Qarâ Yuluk.

Bayindir: see Qarâ Yuluk.

Black Sheep: see Qarâ Yûsuf.

Bûzuq: see above (introductory statement), Dhu l-Qâdir, and Înâliya.

Dhu l-Qâdir (Ghâdir, Qadr): dynasty of the Bûzuqiya, founded about the middle of the XIVth century in northern Syria, where Qarâja ibn Dhu l-Qâdir conquered Albistân, and his successors added other cities as far west as Sîs; after Tamerlane's invasion these Turcomans were found around Hamâ and Palmyra.

Dûkâr (Dukar): one of the main divisions of the Bûzuq; east of Aleppo.

Dushârî: see Jushârî.

Înâliya: a branch of the Bûquq; in northern Syria.

Jushârîya (Dushârîya): mentioned as in the army of the viceroy of Damascus in 1404 A.D. with the Turcomans of Qarâ Yûsuf and others; a Khalîl ad-Dûshârî, a Mameluke emir between 1412 and 1419 A.D., is called also at-Tabrîzî, which may indicate a Persian (Adharbaijân) origin for the Dushârîya.

Kubakiya: active in the Euphrates region between 1400 and 1435 A.D.; mentioned among the Mameluke auxiliaries in *Zubda* (105.11); cp. Husain ibn Kubak at-Turkumânî (Ibn T.B., VI, 460.17); this Kubak has not been identified.

Kundar (or Kandar), Sons of: west of Aleppo, in the Antioch Plain, where Kurdî ibn Kundar succeeded Fâris ibn Şâhib al-Bâz as emir of the Turcomans.

Qarâ Yuluk (Sons of): a branch of the Bayinder (one of the Ūjug twelve branches of the Ghuzz or Turcomans): They were on the north and east frontiers of Syria at the end of the XVth century A.D.; known in Turkish history as the Âq Quyunlî, or "White Sheep" Turcomans. Qarâ Yuluk was the by-name of 'Uthmân ibn Quṭlubak (or Qaṭlubak or Quṭbak) ibn Ṭurghalî, founder of a dynasty which succeeded to the territories of the sons of Qarâ Yûsuf and which was extinguished by Shâh Ismâ'îl of Persia in 1502 A.D. They are evidently referred to in the *Zubda* list of Mameluke auxiliaries under the name of Ibn Quṭlubak or Quṭbaklu Turcomans.

Qarâ Yûsuf (Sons of): related to the Qarâ Yuluk Turcomans; a dynasty in Persia and Mesopotamia founded by Qarâ Muḥammad, father of Qarâ Yûsuf, at the end of the XVth century, with its capital at Tabrîz, and known in Turkish history as the Qarâ Quyunlî, or "Black Sheep" Turcomans; succeeded by the Qarâ Yuluk dynasty in 1468.

Qaramân (Sons of): probably a branch of the Salûr of the Ūjuq; on the west and northwest of Mameluke Syria; a dynasty which lasted from 1223 A.D. to the close of the XVth century.

Ramaḍân (Sons of): branch of the Ūjuq; one of seven families said to have come from Asia in the XIIIth century A.D. to the region north of the Gulf of Alexandria. Historically, Ramaḍân was given by a Mameluke sultan a portion of a fief formerly belonging to the Dhu l-Qâdir Turcomans, and his dynasty continued in Adana with various degrees of power until the end of the XVth century.

Saqal Sîz (Şaqâl Sîz): origin undetermined; included in the list of Turcoman auxiliaries; mentioned as west of Aleppo around 1438 A.D.

Şaujiya (Sons of Şauji): origin undetermined; west of Aleppo around 1438 A.D.

Ūjuq (Ūtchuq): one of the two original main divisions of Turcomans (see above); a special group under this name were in the Taurus Mountain regions at the beginning of the XVth century.

Warsaq: one of seven tribes of the Ūjuq said to have migrated from Asia in the XIIIth century; found around Tarsus and the Taurus region in the XIVth and XVth centuries A.D.

White Sheep: see Âq Quyunlî.

## V. Circassians and Crimeans

Circassia is the region lying along the eastern shore of the Black Sea and northward, to the west of the country of the Qipjâq. Politically the Circassians were subjects of the Golden Horde (see above, under "Turks"), whose rulers often sold Circassians with other subjects as slaves to distant lands (Maqrîzî, *Khiṭaṭ*, II, 241).

Sultan al-Manşûr Qalâ'ûn (1279-1290 A.D., 678-689 A.H.) bought many Circassians among other slaves and quartered them in the towers of the Cairo Citadel, where they were known as Burjî ("Tower") mamlûks and formed part of his army beside the Baḥrî mamlûks (*Khiṭaṭ*, II, 241.9). One of Qalâ'ûn's mamlûks. Emir Âqûsh al-Afram al-Manşûri, who was viceroy of Damascus in 1299 A.D., 698 A.H., was a Circassian (Ibn T.B., Cairo ed., VIII, 280.6), a barrack comrade of Sultan Baibars al-Jashinqîr (1308-1309 A.D., 708-709 A.H.) and administrator of

Baibars' government; Ibn T.B. (VIII, 276.15) accepts the tradition that Sultan Baibars, because of the close association of Aqûsh and the Sultan, also was a Circassian (but see above, under "Turks").

Sultan al-Muzaffar Ḥâjjî (1346-1347 A.D., 747-748 A.H.) imported Circassian slaves from many places, and wished to give them preference over the Turks; though some of the emirs in the time of Sultan Ḥasan, 1347 A.D., 748 A.H., sold many of them again (Ibn T.B., V, 56.16), other emirs continued to purchase them, and Sultan Barqûq (1382-1398 A.D., 784-801 A.H.) finally established the Circassians as the dominant element in the Mameluke government. Barqûq himself belonged to the Circassian tribe of Kasâ, according to Ibn T.B.; this tribe is apparently not mentioned elsewhere.

The Circassians differ from other peoples of the Caucasus in racial characteristics, customs, and language. The feeling of tribal unity was strongly developed among them and they practiced a type of foster kinship by swearing brotherhood. Children at birth were handed over to strangers to be brought up and were protected like natural children; foster parents were treated with great respect and foster brothers were very loyal to one another. This relationship persisted among Circassian slaves brought to Egypt; see, for example, the refusal of Emir Qirmish al-A'war to desert Jânibak aş-Şûfî in favor of Grand Emir Barsbâi ad-Duqmâqî because he (Qirmish) had brought up Jânibak in Circassia (Ibn T.B., VI, 537.5). On the other hand, the failure of Grand Emir Aitamish to maintain the obligations of Circassian loyalty led to his downfall and death (Ibn T.B., VI, 18.19, 19.7).

The region to the west of Circassia, the Crimean peninsula on the north shore of the Black Sea, was closely connected with Circassia in the slave trade. The town of Qrim, or Qirim, in the interior of the region, which later gave its name to the whole peninsula, was the center of local government of the Golden Horde; for the Crimea was included in the inheritance of Dûshî Khan. The city of Kaffa, or Kâfâ (known earlier and later as Theodosia), was the famous seaport of the region. Though nominally belonging to the Golden Horde rulers, it was in fact controlled by the Genoese as early as the XIIIth century, and was one of the principal markets of the Mohammedan slave merchants, who transported mamlûks by sea in Mohammedan-owned ships to Alexandria in Egypt (cp. Heyd, *Geschichte des Levantehandels*, II, 1879, p. 545).

Sultan Barqûq (see above) had been taken from Circassia to the Crimea and sold there to the slave dealer 'Uthmân, who brought him to Egypt and in turn sold him to Emir Yalbughâ al-'Umarî in 1363 A.D., 764 A.H. (Ibn T.B., V, 363.21); and the wife of Sultan Barsbâi (1422-1437 A.D., 825-841 A.H.) was the daughter of a prominent Crimean merchant (*ibid.*, VI, 784.80.) The slave dealer Maḥmûd Shâh, who imported Sultan al-Mu'ayyad Shaikh (*ibid.*, VI, 322.5), is called al-Yazdî (he was evidently a Persian) and ad-Dashtî al-Qirimî (Wiet, *Les Biographies du Manhal Safi*, no. 2491); and several mamlûks, as well as some scholars, of the VIIth and VIIIth centuries A.H., also are called Crimeans.



## VI. Greeks

A "Greek" in Arabic history is a Rûmî, which adjective, however, is also applied to any native or inhabitant of Byzantine Asia Minor or Anatolia. The race of one designated as a Rûmî is sometimes, therefore, in doubt.

When a reference to the particular place of birth or residence of an individual is given, it is probable that Rûmî means "Anatolian." So Aḥmad ibn Ibrâhîm ibn Muḥammad ar-Rûmî grew up in Burṣa (i.e., Brusa; cp. Sakhâwî *Ḍau'*, I, 200.19, showing that al-Barmâwî in Ibn T.B., VI, 793.12, is an error for al-Burṣâwî); that he was not a Greek by race is made certain by the fact that his father was a Yamanite who moved to Asia Minor. Similarly, with respect to Muḥammad ibn Muḥammad al-Babirtî ar-Rûmî (Ibn T.B., V, 119.5, 149.6, etc.), the reference is to Asia Minor, since Bâbirt is a town in Asia Minor.

It is also probable that in general where any scholar bearing an Arabic personal name and genealogy is called a Rûmî the reference is to place of birth or origin, not race. Probably, then, the Iutist Ibrâhîm ibn Bâbâi ar-Rûmî (Ibn T.B., VI, 463.1) was from Anatolia; Sakhâwî (*Ḍau'*, I, 32.13) says he was a Rûmî "by origin" (al-aṣlî).

The assumption with respect to a mamlûk, however, is that Rûmî refers to race; so Bahâdur al-Manjakî (died 790 A.H.) was probably a Greek, although Ibn T.B. (V, 444.9) says that he was a Rûmî "by origin" [kâna aṣluhu Rumîy], but "others say he was European [franji]" and Ibn Furât calls him a Turk (IX, 43.12).

Taghrî Birdî, father of the historian, was apparently a Greek (Rûmî al-jins; VI, 432.9); also Arghûn aḏ-Zâhirî ar-Rûmî, who was bought from the same slave dealer as Taghrî Birdî (VI, 455.7).

Sultan aḏ-Zâhir Khushqadam (865-871 A.H., 1460-1466 A.D.) seems definitely stated to have been of Greek origin (aṣluhu Rûmî al-jins: Ibn T.B., VII, 687.14), though Sobernheim (in *EI*) seems to think that Rûmî merely means that "he came from Asia Minor." He had been brought to Cairo in 815 A.H. when he had not yet reached puberty; he spoke Arabic fluently but with a trace of a foreign accent "as was common to mamlûks of his race." Ibn T.B. describes him as handsome, light in complexion of a golden brown tinge, with a large beard that inclined to redness; he was of medium height, slender, and agile (VII, 760-761).

Sultan aḏ-Zâhir Tamurbughâ (872 A.H., 1467-1468 A.D.) was, according to Ibn T.B. (VII, 847.2), Greek by race, of the "tribe of Arnawûṭ," by which apparently is meant Arnâut, the Turkish name for Albania (the name apparently does not appear in Arabic literature except in this passage.) Tamurbughâ had been brought by one of the slave merchants to Syria as a boy, in 824 A.H. (1421 A.D.). Albanians had been employed as auxiliaries by the Byzantine Greek government, and many had remained as settlers in the Morea; but in 1423 A.D. an army of the rising Ottoman Turks entered the Morea and carried off many of the inhabitants (*EB*, s.v. "Greece"). Apparently such Albanians were "Greeks" to Arabic historians.

The wars between the Byzantine Empire of Europe and the Mohammedan rulers of Asia Minor had resulted in the capture and sale of many "Greeks." That

the number of available Greek slaves was indeed large is seen in the advice given to Sultan Barqûq by his wife, when he made Circassians the mainstay of his mamlûk armies, that it was safer to rely on a mixture of races, specifically Tatars, Circassians, Greeks, and Turcomans (Ibn T.B., V, 585.6). Ibn Baṭṭūṭa has many references to Greeks sold as slaves during his voyage in Anatolia (Vol. II).

It is probable, then, that the many mamlûks mentioned by Ibn T.B. in the VIIIth century A.H. and more numerous in the IXth century (including a number of eunuchs) as being Rûmîs were actually Greeks.

Of two Sultans in earlier times, al-Mu'izz Aibak (648-655 A.H., 1250-1257 A.D.) and al-Manṣûr Lâjîn (696-698 A.H., 1296-1298 A.D.), both are said to have been Rûmîs. Ibn T.B. (e.g., VII, 685, 842) expresses his doubts concerning the race of Lâjîn; in the account of Lâjîn's reign as Sultan (Cairo ed., VIII, 85) he does not call him a Rûmî, and there may be some confusion with another, contemporary, Lâjîn, who is called ar-Rûmî. Ibn T.B. says (VII, 842.5) of Sultan Aibak that he may have been a Rûmî, but that he doubts it; Aibak is specifically said by Maqrîzî (*Sulûk*, I, 368.4) to have been a Turk by origin; on his designation as "Turk-mâni" see above under "The People"; it might be noted that there was also another Aibak ar-Rûmî in the Mameluke service at the same time.

## VII. Kurds

Kurds: an Iranian, or mixed Iranian, people, related in origin to the Persians, and speaking a language related to the Persian, a fact which is, practically, the important element in this classification: perhaps more than any other fact, it sets them apart from the other groups in and about the Mameluke Empire. They were partly sedentary and pastoral, partly nomads; the latter had their individual grazing districts which they defended against intrusion; they were constantly at war, and often raided the other peoples of the Empire. However, there were also some petty Kurdish principalities in and on the borders of the Syrian province; in earlier times one group attained to especial prominence because of Saladin, a Kurd, son of Ayyûb, who established a dynasty in Egypt in 1169 A.D., while other branches of the Ayyubid family ruled Aleppo, Damascus, Mesopotamia, Ḥamâ, Ḥimṣ, and the Yaman. Many individual Kurds are said to have entered Syria and Egypt after Bagdad had been taken by Hûlâgû in 1253 A.D.

Kurdish tribes lived near Iraq and the Mesopotamian border of the Mameluke Empire on the east and in Syria as far west as the Taurus Mountains north of the Gulf of Alexandretta; they were thus frequently in contact with the Turcomans; and Kurds had laid waste this western region after the defeat of the Mongols in 1287 A.D.

Individual Kurds appear occasionally as minor officials in the military branch of the Mameluke government, and a few scholars of Kurdish descent are likewise mentioned.

While the Kurds were distinguished by their pride of ancestry, the actual or claimed descent of the Kurds mentioned is generally unrecorded in the chronicles. In the known instances, Kurds themselves frequently claim Arab descent, maintaining that through force of circumstances Kurdish was substituted for their original tongue.

Ibn Taghrî Birdî seldom mentions specific Kurdish tribal names, and some of those mentioned by him are not to be found among the scores of such tribal names recorded from earlier times. The list of those mentioned, or suggested, whether as tribal names or as the appellative of individual Kurds, is as follows:

**Babân:** said to be a branch of the Sohrân (i.e., the Shahriya: see below); from this family or tribe came chiefs and then a local dynasty in Sulaimâniya in S Kurdistan, between 1500 and 1850 A.D.

**Bâzaki:** in Karkar around 1463 A.D.; not mentioned elsewhere.

**Bukhtiya:** in tradition one of the main divisions of the Kurds, descended from a hypothetical Bukht (the other division being the Bajnawî); they were early the ruling race in the district south of Lake Van known today as Bohtân or Buhtân, i.e., Bukhtân; in the middle of the XIIIth century A.D. they possessed many strongholds in central Kurdistan (including Bâz al-Ḥamrâ); Ibn T.B. mentions 'Umar al-Bukhtî as ruler of al-Jazîra in 1437 A.D.

**Bulduqâni:** a branch of the so-called Mirdâsi Kurdish family claiming to be of Arab origin, related to the Mirdâsi dynasty of Aleppo; their ancestors supposedly came from the region of the Hakkârî Kurds (hence possibly of mixed Hakkârî origin) to Akill (Agil or Egil), where the Bulduqâni were in contact with the Âq Qyunlî Turcomans; Ibn T.B. mentions a Muḥammad ibn Daulât Shâh in 1417 A.D. and Daulat Shâh al-Kurdî in 1432 as rulers of Akill, and they were therefore probably of this group.

**Hadhbânî (Hadâbânî):** mentioned as early as 900 A.D. and frequently thereafter; in Adharbaijân; one of its clans were the Rawâdî (later known as Rawandî), to which belonged Shadhî ibn Marwân, grandfather of Saladin.

**Hakkârîya:** an important tribe known since before 1000 A.D. as holding strong mountain fortresses in the region around Lake Wân (Van), Armenia, where a large district was known as Hakkârîya (modern Hakkârî); they were said to levy protection money in places as far east as Bukhârâ.

**Shahriya:** possibly the Sahriya (Sohriya) Kurds who were in Mesopotamia, near Mosul, in the XIVth century A.D. and still powerful around 1600 in the region then known for them as Sohrân or Sorân. The Banû Sharî (or Shuhri) were viceroys of Sis, Dawrakî, 'Ain Tâb, and Malaṭya late in the XIVth and in the XVth centuries A.D. (cp. Ibn T.B., V, 337.21).

## VIII. Clansmen, Druzes

Clansmen ('ashîr, 'ushrân, a collective and plural apparently of 'ashîra, "tribe," "family," or "clan," but used by Mameluke historians as a quasi-proper noun, in association with "Arabs" and "Turcomans," and distinct from them; it is not used by Ibn T.B. in reference to Arabs): a special group of peoples of Syria, particularly in the villages of the mountainous districts of Şafad province, in Wâdî at-Taim (from Bâniyâs north), and the southern Lebanon mountains and valleys (e.g., Karak Nûḥ). In some sources they are divided into Qais and Yaman (or Qais and Wâdî at-Taim) "Clansmen," at bitter enmity with each other (see below).

Some groups served on occasions in various parts of the Empire (like Arabs and Turcomans) as auxiliaries in the Mameluke armies, thirty-five divisions of them with about 1,000 horsemen each, according to the *Zubda* list. Their leaders are called variously commanders (muqaddam) and shaikhs; an emir of all the clansmen of Syria is sometimes mentioned by the historians, although the systematic account of Mameluke government by Qalqashandî (the *Subḥ*) does not notice them.

The Clansmen, or some of them, are sometimes referred to in the histories as heretics (râfiḍa: so Ibn T.B., VII, 94.2; and the "Tübingen Fragment," 154.16). The leading family of the Clansmen in the XVth century A.D. was that of Ibn Bishâra, several members of which were "commanders" of the Clansmen (one, according to Ibn T.B. VIII, 56, was executed in 853 A.H., charged with having committed many murders and also with having married eight wives). They were at times loyal to the government, at times in revolt. In the XIXth century A.D. an area in Şafad province, east of Sidon, was still known as the Bishâra country (Bilâd Bishâra). In addition, Ibn T.B. mentions by name as one of the Clansmen leaders 'Îsâ al-Kâbûlî, i.e., of Kâbûl, in Şafad province, southeast of 'Akka.

It is probable that these "Clansmen" were Druzes, as Quatremère (*Histoire des Sultans Mamlouks*, I, ii, 274) believed, or that they included many Druzes. The Druzes (Durûz, plural of Darzî) are today a people, originally a mere sect, in the Lebanon, Anti-Lebanon, Şafad, and Ḥauran regions of Syria. They are of uncertain ethnological origin, but probably were the remnants of pre-Islamic Syrians and of Arab tribes which entered Syria after the Mohammedan conquest. As a sect the Druzes were the followers of an emissary named Darazî who about 1020 A.D. came from Cairo to Wâdî at-Taim (N of Bâniyâs and E of the upper sources of the Jordan), to preach a new faith. This was an extreme form of Shi'ism and Mahdism, and taught that the Fatimid Caliph of Egypt, al-Ḥâkim, was the last incarnation of the one God (therefore to be worshiped), who did not die but will reappear one day as the hidden Imam or Mahdî, Messianic restorer of Islam. It taught also metempsychosis, was said to permit polygamy, marriage within degrees of relationship forbidden by Islam, as well as other proscribed practices; the Druzes were therefore to orthodox Mohammedans heretics (râfiḍa). The details of the Druze beliefs in their learned form were secret, until recent times known in their entirety only to the select initiated; all Druzes were per-

mitted to conceal their religion and to profess to be either Mohammedans or Christians when with those of either faith; but, as was said above, Mohammedans in general had learned enough about the system to charge them with heresy.

From Wâdî at-Taim the Druzes spread to other parts of Syria (in which, particularly at Baniyâs, some of the North Arabic tribe of Qais had settled in the early years of Islam). Around 1300 A.D., Druzes (with other heretical sects) are said to have constituted most of the inhabitants of the villages in the Jabal 'Âmila region between Tyre and Şafad (Dimashqî, 211.7, 200.5), i.e., the region known later as the Bishâra land and earlier as a region in which the South Arabian or Yamanite tribe of 'Âmila was established (see above).

The Druzes are not mentioned by that name by historians of the Mameluke period. Ibn T.B. in his account of Ad-Darazî does not connect his name with Durûz, though earlier (Cairo edition, IV, 76.3) he had quoted Ibn al-Bâqilânî as saying that the emissaries of 'Ubaid Allâh, founder of the Fatimid dynasty in North Africa, had corrupted the beliefs of the inhabitants of the mountains of Syria, such as the Nuşairiya and Durûziya ('ashîra is used also of the divisions of the former). But in the 'Uthmânli (Ottoman) Turkish era, in the XVIth century A.D., the name Durûz appears especially often in Turkish sources, and some details of the Druze organization had become known.

It is a quasi-feudal system in which landowners as overlords granted the use of the soil to others on special terms. They were also at times practically the rulers of the areas in which they lived, and there were three grades of recognized tribal authorities: emirs, commanders (Muqaddamîn), and local shaikhs. Rivalry for control and consequent enmity was keen among different families. The Turkish government gave formal recognition at different periods to one or another of the leading Druze emirs, who became a powerful, almost independent factor in Syrian history. Even a local Druze shaikh exercised control over the whole population of his district, including Mohammedans and Christians as well as Druzes.

At the time of the Turkish conquest of Syria, in 1516 A.D., a member of the Banû Ma'n, a family said to have been for a long time rulers of southern Lebanon, was made Emir of the Lebanon with governmental powers. The Ma'n, either of Arab or Kurd origin, had long before become Druzes. A rival family had been that of 'Alam ad-Dîn, who also are called Druzes in Turkish sources. Other rivals were members of the Yamanites and of Qais (mentioned above as Clansmen).

Evidently these conditions did not arise suddenly at the beginning of XVIth century, but must be supposed to have developed among the Druzes under the Mamelukes, and the conditions are actually found among the so-called "Clansmen": the latter lived particularly in the known Druze areas; Clansmen are charged with the same heresies as the Druzes; and they fill the place in Mameluke histories which the Druzes, could be expected to occupy. Druzes, it will be remembered, are not mentioned by name in these histories; perhaps because, if the Clansmen were Druzes, "Druze" was as yet not a political or racial but only a religious term, and because those who were Druzes concealed that fact. As a corollary, the fact that there were Yamanite and Qaisite Clansmen may indicate that there were Yamanite and Qaisites among the Druzes. The Druze

or Arab families which are mentioned in the Turkish period and which claim that their ancestors were prominent in the earlier epoch are not mentioned in the available Mameluke literature; whether the Ibn Bishâra mentioned above was related to any of them is not known.

## NAMES, TITLES

Two or more of the following classes of names were borne by each individual in Mameluke history; sometimes all or several of an individual's names are used in conjunction; sometimes reference is made to the same individual now by one, now by another name.

### I. Personal (Given) Names

a) Native-born Mohammedan Egyptians: principally Koranic names (i.e., Biblical names in their Arabic form), or names of characters prominent in early Mohammedan history, or laudatory adjectives and abstract nouns: 'Abd Allâh (lit., "Servant," or "Worshiper," of God), and all compounds of 'Abd with following adjectives used as names of God, such as 'Abd ar-Raḥmân, "Servant of the Merciful" (but for 'Abd Allah see also below); Abû Bakr (the first caliph; but on other names with the element Abû see below); Aḥmad ("Most Praised"; cp. Muḥammad), 'Alî ("High"; the fourth Caliph, cousin and son-in-law of Muḥammad); Dâ'ud (David); Faḍl ("Bounty," "Mercy"); Faraj ("Joy," "Comfort"); Fâris ("Knight," "Horseman"); Ḥasan ("Handsome," "Good"; one of 'Alî's two sons); Ḥusain (diminutive of Ḥasan; second of 'Alî's sons); Ibrâhîm (Abraham); 'Îsâ (Jesus), Ismâ'il (Ishmael); Ishâq (Isaac); Ja'far (a cousin of Muḥammad, and also a famous vizier); Khâlid (an early Arab general); Khalîl ("Friend," i.e., of God, a by-name of Abraham); Khidr, or Khaḍîr (a legendary character of Mohammedan tradition); Maḥmûd ("Praised"); Muḥammad ("Highly Praised"); Mûsâ (Moses); Naṣr ("Succor," "Victory"); Qâsim ("Divider"; one of Muḥammad's sons); Rajab (a Mohammedan month); Şâliḥ ("Good," "Pious"; a prophet in the Koran); Sha'bân (an Arabic month); Sulaimân (Solomon); 'Umar (the second Caliph); Yaḥyâ (John the Baptist in the Koran); Ya'qûb (Jacob); Yûnus (Jonah, but this name after the middle of the XVth century A.D. was borne also by many Mamelukes; see below).

b) Negro slaves: Arabic names which are also common nouns, generally denoting precious objects: 'Anbar (amber), Dînâr (a gold coin), Kâfûr (camphor), Lu'lu' (pearl), Mithqâl (a gold coin), Şandal (sandalwood), Sunbul (a perfume), Yâqût (ruby, hyacinth), also, from the XIIIth century, Muqbil (auspicious).

c) Mamelukes: Turkish, Tatar, Persian, Circassian, etc., names, many compounded with Âq (white), Alṭun (gold), Bâi (emir), Bars (lion), Bughâ (ox), Damur, Dimur, or Timur (iron), Kumush (silver), Qarâ (black), Tai (colt), Tankiz (sea), etc.

Exceptional is the Turkish name of a descendant of the Prophet, Baktamur al-Ḥusainî (Ibn T.B., V, 195.8; cp. Baktamur ibn 'Alî, in Ibn al-Furât, *at-Ta'rîkh*,

IX, 67.21). In general, names not included in (a) and (b) above are names of Mamelukes.

d) Sons of Mamelukes: generally Arabic personal names, as under (a), and see also under II, next following.

## II. Quasi-Family Names

These are formed by prefixing "ibn" ("son of") to the father's name, the genealogical chain being extended often, by the repetition of "ibn," to several generations of ancestors: "Ibrâhîm, the son of Muḥammad, who was the son of Mûsâ," etc.; in the translation, "ibn" has been kept untranslated except where circumstances require otherwise. Sometimes the genealogical chain is abbreviated, and the name of a distant ancestor is used after the first "ibn"; the combination may form then a family name. Individuals are often called (and better known) by their "Ibn" names without the personal name (e.g., Ibn Taghrî Birdî), and in such cases "Ibn" has normally been capitalized here.

As the name of the father of one of Mameluke origin was almost always unknown (that of Ânaş, father of Sultan Barqûq, is an exception), there can be no real "ibn" name of such an individual; however, in the necrologies (or biographies) of the Mamelukes "ibn 'Abd Allâh" is almost invariably appended to the personal Turkish name, providing in form an appearance of genealogy; "ibn 'Abd Allâh" (lit., "the son of the servant of God") is then really equivalent to "the mamlûk."

The combination of an Arabic personal name followed by "ibn" and a Turkish name identifies the individual as one born in Egypt of Mameluke parentage, as for example the author Yûsuf ibn Taghrî Birdî.

III. By-names compounded of abû ("father of") and either the actual personal name of the individual's (generally oldest) son, as Abû Muḥammad, "Father of Muḥammad," or a common noun Abu l-Maḥâsin ("Father", i.e., "Possessor, of Beauties" or "Virtues," the by-name of the author). Such names, like the "ibn" names, are often used without, and in place of, personal names.

IV. Names of honor, compounded of some common noun with ad-Dîn ("the Faith") as its second element, such as Jamâl ad-Dîn ("Glory of the Faith," surname of Ibn Taghrî Birdî), Zain ad-Dîn ("Ornament of the Faith"), Saif ad-Dîn ("Sword of the Faith"). The last-mentioned of these names was given naturally to members of the military class, and though Mamelukes in the earlier period might have any name of this type, toward the end of the XIVth century A.D. this was less often true, and in the XVth century A.D. almost every emir of slave origin was called (at least in his biography) Saif ad-Dîn. In narratives such names are often abbreviated in the form as-Saifi (for Saif ad-Dîn), az-Zaini (for Zain ad-Dîn); the name of honor precedes the personal name when the two are used together (for the significance of the abbreviated form when following a personal name, see below under V, a).



In the earlier centuries names of honor were given only to men of great prominence; later they came to be used very freely (the author deprecates this custom and avows his extreme distaste for it in his own case). Moreover, it became usual to use one particular name of honor (sometimes also one particular by-name) with a particular personal name; Shams ad-Dîn with Muḥammad, 'Alâ' ad-Dîn or Nûr ad-Dîn with 'Alî, Jamâl ad-Dîn (and also Abu l-Maḥâsin) with Yûsuf. In usage the name of honor sometimes replaces the personal name (as it did in the case of Salâḥ ad-Dîn, i.e., Saladin, whose personal name was Yûsuf).

V. A proper adjective with the suffix *î*.<sup>2</sup> Such an adjective may be derived from the name of:

a) A place, tribe, or race, such as al-Asyûṭî "from the city of Asyûṭ" (Usyûṭ or Assiut), or ar-Rûmî "from Rûm" (lit., Rome, but denoting Greek, Byzantine, or Anatolian); or al-Jarkasî (Circassian).

b) An emir who had owned and then (generally) manumitted the individual named, as al-Yalbughâwî, applied to Barqûq, "bought by Emir Yalbûgha" (but for manumission by another; cp. Ibn T.B., VI, 555.3).

Sometimes instead of the appellative thus formed, the proper adjective "as-Saifî" is used followed by the name of the master, as as-Saifî Damurdâsh, instead of ad-Damurdâshî. When as-Saifî is used after the name of an individual but without such a following proper name, it indicates that the individual to whom as-Saifî is applied was formerly in the service of some emir not specifically named and has passed into the service of the Sultan; such mamlûks formed a group known as as-Saifiya, "the Saifis."

c) A slave dealer who had imported the mamlûk named; as al-'Uthmânî (applied, e.g., to Barqûq) or al-Bashbughawî (applied to Taghrî Birdî), brought to Cairo respectively by the slave dealers 'Uthmân and Bashbughâ. Sometimes, instead of the relative adjective, the preposition *min* ("from") is used with the slave dealer's name: *min* Bashbughâ, i.e., "(bought) from Bashbughâ"; in the biographies (or necrologies) of Mamelukes of unknown parentage the preposition "min" followed by a proper name supplies the place of "ibn" similarly followed, and simulates the first member of a genealogical chain (indeed, in Arabic manuscripts "min" resembles "ibn" so closely that sometimes copyists, and historians, erroneously substitute *ibn*, "son of," for *min*, "bought from"). Occasionally, also, "min" is omitted and the name of the slave dealer is put in following apposition with that of his former slave, or rather the second is treated syntactically as a genitive; thus Sûdûn *min* 'Abd ar-Raḥmân becomes simply Sûdûn 'Abd ar-Raḥmân.

d) A Sultan (that is, from a part of his throne name; see below) who bought the mamlûk in question or into whose service he passed; e.g., az-Zâhirî, "mamlûk of Sultan al-Malik az-Zâhir."

<sup>2</sup>This suffix is often used in official documents also for a purpose other than that described here, namely, it intensifies the honorific implications of any title or laudatory adjective; thus, "al-amîrî" and "al-kabîrî" are more honorific than simple "al-amîr" ("the emir") or "al-kabîr" ("the great"), though used merely as substitutes for them.

VI. Nicknames, descriptive adjectives, nouns, phrases, or sentences, such as aṭ-Ṭawîl, "the tall" (lit., "the long"); aṣ-Ṣarîf, "the elegant"; al-Kabîr, "the elder" (lit., "the large"); aṣ-Ṣaghîr, "the younger" (lit., "the small"); al-Aṭrash or al-Uṭrûsh and al-Aṣamm, "the deaf"; al-A'mâ and aḍ-Ḍarîr, "the blind"; al-A'war, "the one-eyed"; al-Majnûn, "the mad"; Ḥimmiṣ Akhḍar, "green (chick) peas"; Balṭâ, "axe" (Turkish); Sinn Ibra, "needle point"; Isfarr 'Ainuhu, "his eye became yellow."

VII. Titles: sometimes the title of office held by an individual in his earlier career is retained as a distinguishing appellative even after he has been appointed to a higher office; e.g., as-Sâqî, "the cupbearer," applied to Emir Shaikh, who later became Sultan al-Malik al-Mu'ayyad. In such cases the Arabic title has been retained in its Arabic form in this translation.

Sometimes the origin of such titles is difficult to explain; e.g., Imâm aṣ-Ṣakhrâ, "prayer leader of [the Dome of] the Rock," the name of a mere trooper (ibn T.B., VI, 224.6, 8).

VIII. The throne (or royal) name of a Sultan, bestowed or assumed at the ceremony of enthronement; its first element is always al-Malik, "the King," which is modified by a laudatory adjective following it (the invariable position of the adjective in Arabic); e.g., al-Malik aṣ-Ṣâḥir, "the Conquering (or Victorious) King," given to Barqûq. Frequently the adjective, since it may always in Arabic become a substantive, is used in histories without the noun, as aṣ-Ṣâḥir, "The Conqueror." In the translation the simple title "the Sultan" has often been used in place of any one or more names or epithets.

"King" (malik), though generally the equivalent of "sultan" in this period, is not always so; sometimes it is the equivalent of "lord" (i.e., ruler); and the viceroy of any of the leading capitals is sometimes called "king" (i.e., lord) of the emirs (malik al-umarâ'). The Emir of the Bedouin Arabs also is occasionally called malik (e.g., Ibn T.B., VI, 283.18).

IX. Honorific titles, used in official documents (see below) and occasionally in histories, preceding the individual's name and specific title of office (see Vol. XV, "Officials"), correspond to the English "His Majesty," "His Honor," "Sir," etc., but etymologically most of them denote some aspect of position ("side" or "region," "place," "abode," "seat," "presence"), with or without an adjective "high." By convention (not by meaning), the terms are of different grades of honor corresponding to the importance of the official position of the individual; some are restricted to one or two branches of the service. Al-Maqâm ("the place") is exclusively a royal title, more exactly the title of the Sultan's son; in this history it is sometimes used merely with a following proper adjective derived from the "name of honor" (see IV, above), as: al-Maqâm ash-Shihâbî (lit., "The Shihâbî Place"), i.e., "His Royal Highness Shihâb ad-Dîn," sc., Aḥmad son of Sultan Înâl. Lesser titles were: al-Janâb al-'Âlî, lit., "the exalted side," al-Majlis al-'Âlî, "the exalted seat," of which the first was a higher form of address than the second.

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The title amîr (emir), but without the usually prefixed article “al,” is used as the first element in some compound proper names, such as Amîr ‘Alî, Amîr Ḥasn, Amîr Ḥâjj, Amîr Kâtib; and it has been so treated in this translation.

Some personal names, particularly Turkish names, were frequently used in certain epochs; thus Taghrî Birdî, unused apparently before it was given to the historian’s father, occurs more than fifteen times afterward.

## OFFICIAL DOCUMENTS

Official documents, whether of appointments, grants, orders, or correspondence, were drafted by highly trained literary specialists in the Bureau of Documents, according to certain established rules, and in rhymed, balanced prose. The type of document, its size, style of penmanship, use of special forms of address and of honoric terms, varied according to the rank and importance of the sender and the recipient (see below).

The terms applied to types of document, however, were differently used at different epochs, and as they appear in histories the usage is not always consistent for any one period. It is impossible to find English terms which correspond etymologically or technically to the Arabic terms to be translated, but in order to preserve some distinction between the various terms for documents the following equivalents are used in the translation of Ibn Taghrî Birdî's history.

Billet (biṭâqa), a small written message such as was sent by pigeon post; also, a label or tag attached to a document.

Certificate of appointment (marsûm; lit., "written [order]") for offices of the second grade.

Circular letter (muṭlaq), containing general information or orders, addressed to a viceroy for promulgation among his subordinate officials, or sent in duplicate copies to minor officials such as commanders of the Turcomans, etc.

Communication (muṭâla'a), official correspondence of which the form is not specified.

Diploma (manshûr), see Letters patent.

Dispatch (mulaṭṭifa), a letter of less elaborate form than a patent (see below), sent with a robe of honor or containing special orders for the recipient.

Draft (qâ'ima), containing the substance of a diploma, etc., which is to be formally composed in a bureau; or (murabba'a) such a document prepared in outline by a subordinate bureau for elaboration in the central bureau.

Letters patent, or patent (manshûr), a diploma or act granting a fief.

Note (mithâl), a small note or ticket of assignment to a minor position or grant, containing merely the facts for a formal document to be composed in a bureau; also a brief communication.

Petition (qişsa), a request or complaint presented by an individual to the Sultan or other official; it became an official document when a brief decision of the case was indorsed on it by the official, although a more formal document might be prepared from it. "Qişsa" is also sometimes a "note," like mithâl.

Safe-conduct (amâna), a letter of amnesty; a formal pardon for rebellion or other crime; the recall of an official from banishment; also a passport for a foreign merchant to do business in Egypt, or for a foreign ruler to enter.

(For the form of address used in official documents see above, "Names, Titles, IX.")

## THE CALENDAR

### I. Mohammedan

The year used in Arabic chronicles is a lunar year of twelve months which normally contain alternately 30 days (called then a "complete," kâmil, month) and 29 days (making a "defective," nâqis, month). Since, however, this yields a total of only 354 days, and a lunar year actually has about 354 1/3 days, provision for the gradual accumulation of extra days is made by the addition of one day to the twelfth month ten times in a cycle of thirty years, i.e., those ten final months consist unusually of 30 days instead of 29. The Mohammedan era begins on Friday, July 16, 622 A.D., the year of the Prophet's migration (hijra) from Mecca to Medina; hence the notation A.H. (Anno Hegirae).

The Mohammedan months, with the usual number of days each, are named as follows:

- |                       |                          |
|-----------------------|--------------------------|
| 1. Al-Muḥarram (30)   | 7. Rajab (30)            |
| 2. Ṣafar (29)         | 8. Sha'bân (29)          |
| 3. First Rabi' (30)   | 9. Ramaḍân (30)          |
| 4. Second Rabi' (29)  | 10. Shawwâl (29)         |
| 5. First Jumâdâ (30)  | 11. Dhu l-Qa'da (30)     |
| 6. Second Jumâdâ (29) | 12. Dhu l-Ḥijja (29, 30) |

It must be remembered, moreover, that the Mohammedan day begins at sundown, not at midnight; when the Arabic text places an event in the "night" of a certain day, this means for us the night at the end of the preceding day and date. In the translation, the term "eve" of the day in question has been used instead of "night," and wherever equations between the Mohammedan and Christian calendar are discussed it should be remembered, for instance, that the date of the new moon (and the beginning of the month) given in the Mohammedan calendar as of a certain day is the new moon of the previous evening (e.g., Muḥarram 1, 860 A.H., began on Thursday, December 11, 1455 A.D., but for us this was the new moon on Wednesday, December 10).

Aside from the variation in the number of days in the last month, the regular alternation of the other "complete" and "defective" months as they appear in the standard table as shown above is sometimes altered in the chronicles

<sup>3</sup>To the names of some of the months traditional descriptive epithets are added; they appear thus: al-Muḥarram al-ḥarâm ("the sacred"); Ṣafar al-khair ("the good"); Rajab al-aṣamm ("the deaf," or "the soundless"), or al-fard ("the single," or "the separated"); Sha'bân al-mu'aẓẓam ("the honored") or ash-sharîf ("the noble"); Ramaḍân al-mubâarak ("the blessed"); Shawwâl al-mukarram ("the honored").

because in practice the first of the month was determined by the actual observation of the new moon, which might differ from the calculated day and also be different in different places (see below).

#### Equation of Mohammedan Dates with the Solar (Julian) Calendar

Because the Mohammedan lunar year is approximately 11 days shorter than the solar year, the Mohammedan months can have no fixed relation to the solar months and to the seasons, but are constantly retrogressing until a cycle of about thirty-three Mohammedan years has been completed, when the Mohammedan calendar, having lost an entire year, returns approximately to its former seasonal relation, and then begins to retrograde again.

To a modern reader of history, Mohammedan dates are meaningless; but tables have been computed giving the day of the year, month, and week of the Julian calendar corresponding to the first day of each month of the standard Mohammedan calendar. From these tables, then, equivalent dates of any other days between the first day of any two succeeding Mohammedan months may be determined.<sup>4</sup>

However, because in Egypt the observance of the new moon and the consequent beginning of a Mohammedan month may differ from that of the standard table, there is sometimes a discrepancy between the day of the month assigned by the Arabic chronicles to a given day of the week and that appearing in the tables.

As examples, there may be cited here two instances to which Ibn T.B. specifically refers:

He notes (VII, 246.15) that the new moon of the twelfth month (Dhu l-Ḥijja), 859 A.H., was observed in Mecca on the eve of Wednesday (November 12, 1455 A.D., i.e., our Tuesday night, November 11), but at Cairo on the previous eve of Tuesday (November 11, i.e., our Monday night, November 10), which at Cairo was the last day of the eleventh month (Dhu l-Qa'da); this means that at Cairo the eleventh month had only 29 days instead of the standard 30 days, and all days in Dhu l-Ḥijja this year in Egyptian chronicles are post-dated one day, while Dhu l-Ḥijja has 30 days instead of the 29 which it has this year in the standard calendar. The result is as follows:

Julian	Standard (Mecca)	Cairo
Tues., Nov. 11, 1455 A.D.	Dhu l-Qa'da 30	Dhu l-Ḥijja 1, 859 A.H.
Wed. 12	Dhu l-Ḥijja 1	Dhu l-Ḥijja 2
Fri. 14	3	4
Sun. 30	19	20
Mon., Dec. 1	20	21
Wed. 10	29	30
Thurs. 11	Muḥarram 1	Muḥarram 1, 860 A.H.

<sup>4</sup>The table used by the writer is the Wüstenfeld-Mahler'sche *Vergleichungs-Tabellen der mohammedanischen und christlichen Zeitrechnung*, 2d ed., Leipzig, 1926.

Ibn T.B. notes (VIII, 541.9) that in 871 A.H. Dhu l-Qa'da 1 was a Wednesday, and this was unusual in that three months in succession, Sha'bân, Ramaḍân, and Shawwâl, were "deficient," i.e., each had only 29 days. What he means is this: Ramaḍân normally has 30 days, and this year Ramaḍân 30 would have been a Tuesday, but that Tuesday morning the new moon was seen at Cairo, and it consequently became Shawwâl 1, reducing Ramaḍân to 29 days.

In such a case the following month (Shawwâl), normally containing 29 days, usually becomes a month of 30 days and compensates for the deficiency. Had this occurred this year, Shawwâl 30 would have been a Wednesday, and Dhu l-Qa'da 1 would have been a Thursday. Actually, however, the new moon was seen on Wednesday, which became Dhu l-Qa'da 1, and the preceding month, Shawwâl, retained its usual 29 days. Dhu l-Qa'da normally has 30 days, so the correction could not occur this month. It occurred in the last month of the year, Dhu l-Ḥijja, which in this year should have had only 29 days, but at Cairo had 30 days.

The new year, 872 A.H., thus began both at Mecca and at Cairo on a Sunday (August 2, 1467). A skeleton calendar for the pertinent months follows:

Julian		Standard	Cairo
Sun.,	Apr. 5, 1467 A.D.	Sha'bân 29	Sha'bân 29, 871 A.H.
Mon.	6	Ramaḍân 1	Ramaḍân 1
Thur.	30	25	25
Fri.,	May 1	26	26
Mon.	4	29	29
Tues.	5	30	Shawwâl 1
Mon.	11	Shawwâl 6	7
Sun.	31	26	27
Mon.,	June 1	27	28
Tues.	2	28	29
Wed.	3	29	Dhu l-Qa'da 1
Thur.	4	Dhu l-Qa'da 1	2
Sat.	6	3	4
Sun.	7	4	5
Thur.	11	8	9
Wed.	17	14	15
Sat.	20	17	18
Tues.	30	27	28
Wed.,	July 1	28	29
Thur.	2	29	30
Fri.	3	30	Dhu l-Ḥijja 1
Sat.	4	Dhu l-Ḥijja 1	2
Thur.	30	27	28
Fri.	31	28	29
Sat.,	Aug. 1	29	30
Sun.	2	Muḥarram 1	Muḥarram 1, 872 A.H.

In the translation, differences between Ibn T.B.'s monthly dates and those based on the Wüstenfeld tables, where such differences can be detected, are indicated by placing after Ibn T.B.'s date the corrected date in square brackets;



thus "Wednesday, Dhu l-Qa'da 1 [Ramadân 29]" indicates that Ibn T.B.'s Dhu l-Qa'da 1 is Ramadân 29 according to the standard calendar; "Dhu l-Qa'da 2 [1]" means that Dhu l-Qa'da 2 in the Arabic text is the standard Dhu l-Qa'da 1.

Such differences can be detected only when the Arabic text couples the day of the week with some date within the month in question; the absence of any notation when monthly dates are given without the day of the week does not necessarily indicate that the Cairo date would agree with the standard date.

## II. Julian Calendar: Coptic and Syrian (or Greek)

A solar calendar, corresponding to the Julian, was used in the Mameluke Empire in connection with such seasonal events as the rise of the Nile, the state of the crops, and the collection of taxes; therefore such dates are sometimes given in the Arabic chronicles. The usual calendar used is the Coptic, but sometimes the Syrian equivalents are also given. In either case, the corresponding Moham-medan date is also recorded.

The Coptic months, and the date in the Syrian and Julian calendar corresponding to the first day of each, are as follows:

Coptic	Julian	Syrian
1 Tût 1	Aug. 29 or 30	Âb 28
2 Bâba 1	Sept. 28 or 29	Ailûl 27
3 Hâtûr (Hatûr) 1	Oct. 28 or 29	First Tashrin 27
4 Kiyahk 1	Nov. 27 or 28	Second Tashrin 26
5 Tûbâ 1	Dec. 27 or 28	First Kânûn 26
6 Amshîr 1	Jan. 26 or 27	Second Kânûn 25
7 Barmahât 1	Feb. 25	Subât (Shubât) 24
8 Barmûda 1	Mar. 27	Adhâr 26
9 Bashans 1	Apr. 26	Naisân 25
10 Ba'ûna 1	May 26	Ayyâr 25
11 Abîb 1	June 25	Ḥazîrân 24
12 Misrâ 1	July 25	Tamûz 24
13 Nasî 1	Aug. 24	Âb 23
Nasî 5	Aug. 28	Âb 27
[Nasî 6]	[Aug. 29]	[Âb 28]

To the table of equivalent dates given above these notes may be added:

a) Tût 1 (Coptic New Year) occurs on August 30 (instead of August 29) in the years following the year in which the intercalary Coptic Nasî has 6 days instead of 5 days; in such Coptic years the following five months also begin one day later than other Coptic years; there is no variation in the remaining Coptic months, because the Julian leap year adds the extra day, February 29 (see below).

b) The Gregorian equivalents today (1954 A.D.) are 13 days later than the Julian (see *The Cairo Nilometer*, table 32).

c) The Syrian equivalent dates are those given by Qalqashandî, *Ṣubḥ*, II, 373 et seq.; his Syrian dates are evidently for the normal year of 365 (not 366) days; and the difference of one day between the Julian and Syrian dates arises evidently from the difference between beginning the day at sundown and at sunrise.

d) Since the Coptic months begin late in the Julian and Syrian months, and the greater part falls in the following months, a given Coptic month is roughly equated sometimes in the text with the latter; e.g., Tût is said to be Ailûl, Kiyahk is First Kânûn.

e) First Kânûn is called also Kânûn al-ajrad, "bare," "without herbage" (cp. Ibn T.B., VII, 472, note p); and Second Kânûn was al-aşamm, "the deaf" or "soundless" (Ibn T.B., VIII, 293.11; *Muḥîṭ* s.v. "şamm": "because people are quiet on account of the rain and cold").

f) Coptic Nasî has six days (instead of five) every fourth year, which is the year preceding our leap year; hence in our leap year Tût begins on August 30 instead of August 29 (see above).

g) The Coptic era is the Diocletian, beginning August 29, 284 A.D. (cp. *EB*, article "Chronology"); but this era is seldom used in Arabic chronicles, Coptic monthly dates being assigned to the corresponding Mohammedan year.

### III. Skip Year

Skip, or shift, year (*sanat taḥwîl*): a Mohammedan year omitted from enumeration once in each cycle of 33 years when the Coptic months are used in combination with the Mohammedan year number; e.g., 835 A.H., which was skipped over (in the mixed calendar used in Nile statistics) because Tût 1 (August 30), beginning of the Coptic year, in 834 A.H. (1431 A.D.), fell toward the end of that Mohammedan year (on Dhu l-Ḥijja 21) and the next Tût 1 (in 1432 A.D.) fell at the beginning of 836 A.H. (Muḥarram 2). The Nile events of 1431 A.D. were therefore assigned to 834 A.H. and those of 1432 A.D. to 836 A.H.; none are assigned to 835 A.H.

### IV. Holidays

The Major Festival (*al-ʿid al-kabîr*) or the Festival of the Sacrifice (*ʿid an-naḥr*) or of the Offerings (*ʿid al-aḍḥâ*) on Dhu l-Ḥijja 10; celebrated by the pilgrims in the Valley of Minâ east of Mecca and by others at home, where the festivities last three or four days.

The Minor Festival (*al-ʿid aṣ-ṣaghîr*) or Festival of Fast-breaking (*ʿid al-fiṭr*), Shawwâl 1-3, celebrating the expiration of the fast of Ramaḍân, the immediately preceding month.

Day of the Plenitude (or Fulfillment) of the Nile (*yaum wafâʾ an-Nîl* or *al-baḥr*), day on which the Nile reaches 16 cubits, generally in Coptic Misrâ, e.g., August (see *The Cairo Nilometer*, pp. 69 et seq.)

Day of Cutting the Nile Dam (yaum fath, qaṭ', or kasr, al-khalîj; in modern times, yaum jabr al-baḥr), either later in the day of Plenitude or an immediately following day (see *The Cairo Nilometer*, p. 82 et seq.).

Birthday of the Prophet (maulid an-Nabî'), I Rabi' 12, also the anniversary of his death.

The Tenth of Muḥarram (yaum 'âshûrâ'), celebrated as the anniversary of the martyrdom of Ḥusain, son of 'Alî and grandson of Muḥammad, particularly at the Mosque of the Ḥusainain (i.e., of Ḥusain and Ḥasan, the latter the other son of 'Alî). The preceding days of Muḥarram are also less important festival days.

Birthday of Ḥusain, or of the Two Ḥasans (maulid al-Ḥusain or al-Ḥasanain), a Tuesday, generally in the third week of II Rabi'.

Birthday of the Lady Zainab, daughter of 'Alî (maulid as-Sayyida Zainab), middle of Rajab.

Birthday of the Imâm ash-Shâfi'î, founder of the Shafiite school of law, first or second Wednesday in Sha'bân.

Birthday of Aḥmad al-Badawî, dervish saint, celebrated at his tomb in Tanṭa, also at Cairo and elsewhere; the celebration takes place three times a year, in the Coptic months Misrâ, Barmûda, and Amshîr.

Naurûz, the Coptic New Year's Day, Tût 1, August 29 or 30 (Julian), adopted from the older Persian New Year's Day (nau rôz), which, however, in the course of Persian history had been fixed or celebrated at various dates.

Festival of the Cross ('îd aş-şalîb), Tût 17.

Festival of St. Michael ('îd Mîka'il), Ba'ûna 12, June 6 Julian; this was also the "Night of Weighing the Mud" (lailat wazn aṭ-ṭin) and the "Night of the Drop" (lailat an-nuqṭa)—see *The Cairo Nilometer*, p. 68.

## MEASURES AND WEIGHTS

### I. Measures of Length

Measures of length in Arabic histories are generally expressed in terms of cubits (sing., dhirâ') of various size and name. The size of the cubit differs in accordance with the number of fingers it contains (e.g., 24, 27, 28, 30, 32); although the names given to these various cubits differ in place and time, the finger evidently remains constant in size.

Fractional parts of the cubit may be expressed then as a number of fingers, irrespective of the size of the cubit; occasionally half, third, and quarter fingers, are noted (cp. *JA*, 1886, pp. 497, 498); in recording the height of the Nile, fractions are restricted to half fingers.

For expressing more minute and exact parts of a unit in Arabic works which do not use the so-called "Arabic" numbers (figures or symbols) but spell out the names of numbers, two methods are used: (a) naming the number of parts out of the total number of parts into which the unit is divided (e.g., "twenty-three parts of seventy-two parts"); (b) spelling out fractions with divisors from 2 to 10 (preferably the even numbers). A special term for one twenty-fourth is "carat" (qîrât; see below), and occasionally other fractions are expressed as a number of carats (e.g., "two carats or one-half of a sixth" of a cubit, i.e., one-twelfth; "four carats or one-sixth"; cp. *JA*, 1886, p. 505).

Still smaller fractions are expressed as fractional parts of a tenth, the complete fraction being a combination of various types of fraction noted above, e.g., "a half and an eighth, and a quarter of a tenth," i.e., thirteen-twentieths (cp. Ibn T.B., VIII, 475.15; *JA*, 1886, pp. 492, 498). This limitation of the spelled-out divisors results from the morphology of the Arabic language, which expresses fractions in a specialized form of the roots of its number names; e.g., rub', "quarter," from arba'a, "four"; thumn, "eighth," from thamâniya, "eight"; such fraction names cannot be formed from numbers compounded of the units and the tens, i.e., those above ten.

The metric equivalents of the measures of length given first in the list below are based on the length of the base of the great pyramid of Jîza (Gizeh), given as 230.902 meters by Jomard (*Description de l'Égypte*, 1822 A.D., pp. 34, 61), or 757.5 feet (Baedeker, *Égypte*, 1914, p. 128, "about 756 feet"), and as 500 cubits of 24 fingers each by Maqrîzî (*Khiṭaṭ*, I, 114.12; he calls these "black" cubits, but see below). Abu l-Faraj (quoted by Jomard) likewise gives 500 cubits (undefined). Maqrîzî also notes the length as 400 of the cubits "with which buildings are measured today"; 'Abd al-Laṭîf (ed. White, 53.8) similarly gives 400 cubits (but calls these "black" cubits).

The cubit of 24 fingers therefore has been accepted as measuring .4618 or .462 meter ( $230.902 \div 500$ ) or 18.189 inches, and the finger as .01925 meter or .75787 inch (cp. also 'Alî Pâshâ, XVI, 31.19, 32.28, etc.; *JA*, 1886, p. 513). Divergent estimates of the cubits' length follow in each case the value used by me in calculations.

### Cubits

The variously named cubits and their probable equivalents in meters and inches are:

Baladî Cubit: see "Native Egyptian Cubit."

Black Cubit (adh-dhirâ' al-aswad or as-saudâ'): 27 fing., .5196 m., 20.46 in. Cp. *Description*, VII, p. 229; *JA*, 1886, p. 489, from Ibn Khurdadhbah, who states it was adopted in the time of al-Ma'mûn; p. 499, from *ar-Risâla ash-Shamsîya*; p. 501, from Ibn ad-Diryâb, who also ascribes it to al-Ma'mûn. Others, including Mâwardî, ascribing it to ar-Rashîd, make it  $25 \frac{2}{3}$  fing. (*JA*, 1886, pp. 491, 492, 497); Mâwardî says it was used in measuring the height of the Nile. Maqrîzî (I, 59.18) quotes this statement of Mâwardî, but (I, 114.12) calls the cubit of 24 fing. the "black" cubit, as noted above; Mas'ûdî (I, p. 183) and Birûnî (cp. *JA*, 1873, p. 107) do likewise, but ascribe it to al-Ma'mûn.

Building Cubit (dhirâ' al-bunyân): 30 fing., .5775 m., 22.73 in. *Khiṭaṭ*, I, 114.11: 400 building cubits equal 500 cubits of 24 fingers each, i.e., one building cubit equals  $\frac{5}{4}$  of 24 fingers. Quṭb ad-Dîn (in Wüstenfeld, *Mekka*, III, 341.7): 540,000 cubits of the builders (al-bannâ'in), which cubit is one-fourth larger than the legal cubit; i.e.,  $24 + 6$ , or 30 fingers. But *Ṣubḥ*, III, 446.19: the cubit used for measuring land for building houses, etc., is the "work cubit," three spans long (see "Work Cubit" and "Span").

Common Cubit (dhirâ' al-'amma): 24 fing., .462 m., 18.189 in. Lane, p. 962: six fists, and p. 2483, the fist is four fingers. *Description*, VII, pp. 332, 336: .4618 m. *JA*, 1886, p. 510. 'Alî Pâshâ, XVI, 31.20, 32.32, etc.

Hand Cubit (dhirâ' al-yad): 24 fing., .462 m., 18.189 in. *JA*, 1886, pp. 499, 500, 501. *Ṣubḥ*, III, 446.10: six fists, each fist four fingers; it is used in measuring the mil (Arabic mile).

Hâshimî Cubit (adh-dhirâ' al-Hâshimî): (a) large Hâshimî, 32 fing., .616 m., 24.252 in.; (b) small Hâshimî, 30 fing., .5775 m., 22.73 in. The terms large and small Hâshimî, and the distinction between them, are found in *JA*, 1886, p. 498 (from *Kitâb al-Hâwî*).

a) In general the cubit meant by Hâshimî is a cubit of 32 fing.; *Ṣubḥ*, III, 446.7: six Hâshimî equal eight hand cubits of 24 fingers each, i.e., the Hâshimî

is  $8/6$  of 24 fing. *JA*, 1886, p. 494: eight fists of four fing. each; p. 500:  $1\ 1/3$  hand cubits of 24 fing. each; p. 501: 32 fing.

b) The small Hâshimî is said by Mâwardî (quoted in *JA*, 1886, p. 492) to be  $2\ 2/3$  fingers larger than the Black Cubit, while the large Hâshimî is  $5\ 2/3$  larger than the Black—a difference of three fingers; this would make the small Hâshimî 29 fingers. In Egypt the small Hâshimî is not mentioned by name, but a Hâshimî cubit of 30 fingers is implied by Ibn Iyâs (III, 270.27; ed. Kahle, 5e, 410.11): an “iron cubit” (see below) brought to Cairo in 1520 A.D. from Constantinople was five qarârîṭ (evidently meaning “fingers”) larger than the Hâshimî cubit used by the people of Cairo. The Turkish cubit of Constantinople measures .677 m. (*Description*, VII, p. 167; Baedeker, *Palestine*, 1912, p. xxiii, gives  $67\ 3/4$  centimeters as the linear measure used in Palestine); this is almost exactly 35 fing., making the Egyptian Hâshimî of Ibn Iyâs 30 fingers (correct my statement in *The Cairo Nilometer*, p. 105, accordingly). The small Hâshimî is apparently the cubit known later as the baladî cubit; see “Native Egyptian Cubit.”

Iron Cubit (dhirâ‘ al-ḥadîd): 28 fing., .539 or .54 m., 21.22 in. Ibn T.B. (VIII, p. 475) gives the distance traveled by a certain cannon shot in “iron” cubits and also in cubits measuring distance between post stations and in Arabic miles; the proportion of the first two figures is six “iron” cubits to seven post cubits; since the latter is a cubit of 24 fing., the “iron” cubit is 28 fing. (for other occurrences of the “iron” cubit see *The Cairo Nilometer*, p. 102). The distance of the cannon shot in question is given as follows:

No. of units	Name of unit	Total fingers	Meters	Feet	English miles
5,648+	Iron cubit	158,144+	3,044.27+	9,987.7+	1.891+
6,589 $2/3$ +	Post cubit	158,152	3,044.46	9,988.3	1.892
$1+1/2+1/8+1/40$	Mil	158,400	3,049.20	10,003.9	1.895

(For another measurement see “Barid,” below).

The position of the cannon is given (Ibn T.B., VIII, 474.16; cp. 475.7) as an elevation at the foot of Red Hill near the Dome of Succor, in front of (tujâh) the rear of the ‘Alî Kuhnubush chapel (zâwiya); the shot fell in front of the Straw Mosque (masjid at-tibn). Between the chapel and the mosque (to the north) themselves there lay about  $2\ 1/2$  miles of open plain, with no other structures between them to which the two positions could be referred. The preposition tujâh, “in front of,” or “opposite,” is a term of relative significance; the distance traveled by the cannon shot is shorter than the distance between the two structures, as might be expected. The iron cubit and hand cubit are mentioned also by Mujîr ad-Dîn (ed. Sauvaire), p. 122.

Legal Cubit (adh-dhirâ‘ ash-shar‘î): 24 fing., .462 m., 18.189 in., i.e., the common cubit. *Muḥîṭ al-Muḥîṭ*, I, 90.4 (“the cubit of the jurists, al-fuqahâ”).

'Alî Pâshâ, XVI, 32.35. Wüstenfeld, *Mekka*, III, 15.7. *JA*, 1886, p. 513. But Mahmoud Bey (in *JA*, 1873, p. 102) makes the legal cubit of 24 fingers in modern times equal .4886 m. (each finger .02036 m. instead of .01925 m.; this is based on his actual measurement of a number of barleycorns, of which six are by tradition said to equal one finger).

Native Egyptian Cubit (adh-dhirâ' al-baladî): 30 fing., .5775 m., 22.73 in. This cubit, apparently not known by name in the XVth Century A.D. in Egypt, is the cubit in general use there in later times. *Description*, VII, p. 167. Baedeker, *Egypt*, s.v. "Weights and Measures," makes it .58 m. The name apparently replaced the names of other 30-finger cubits.

Nile Cubit (dhirâ' al-miqyâs): 28 fing., .539 or .540 m., 21.22 in., for the first or lower twelve cubits of the height of the Nile, then 24 fing., .462 m., 18.189 in. for cubits above the twelfth. See *The Cairo Nilometer*, index.

Post Cubit (dhirâ' al-barîd): 24 fing., .462 m., 18.189 in., 1.516 ft. Cp. above, under "Iron Cubit." *JA*, 1886, p. 484.

Royal Cubit (dhirâ' al-malik): 28 fing., 539 m., 21.22 in. Lane (s.v. dhirâ'): seven fists. *JA*, 1886, p. 510. But *JA*, 1886, pp. 492, 498, it is the grand Hâshimî, i.e., 32 fingers. *JA*, 1886, p. 499: 1 1/2 hand cubits, i.e., 36 fingers.

Textile Cubit (dhirâ' al-qumâsh): 28 fing., .539 m., 21.22 in. *Subh*, III, 447.8. Wüstenfeld, *Mekka*, II, 59.16. (In Damascus the textile cubit measured 1 1/12 of the Cairo textile, i.e., 30 1/3 fing., .585 m., 22.29 in. *Subh*, IV, 181.)

Work Cubit (dhirâ' al-'amal): 30 fing., .5775 m., 22.73 in. Mujîr ad-Dîn, ed. Sauvaire, p. 15 (cp. *Mamlouks*, I, ii, p. 245), makes the work cubit in his day (1496 A.D.) the same as the building cubit, i.e., 30 fingers. Maqrîzî (*Khiṭaṭ*, II, 253.18), citing Ibn al-Mutawwaj, gives the area of the Mosque of 'Amr in the XIVth Century A.D. as 28,000 (square) "work" cubits and 42,000 (square) "old Egyptian bazz" cubits; the square root of 28,000 is about 164 and of 42,000 about 204, a proportion of about 4 to 5, i.e., 30 fingers for the work cubit and 24 for the "old Egyptian bazz" cubit. So Corbett (in *JRAS*, 1890, p. 776) identifies Ibn al-Mutawwaj's "work" cubit with the native Egyptian cubit of .578 m., and he likewise (p. 766) interprets Maqrîzî's measurement (*Khiṭaṭ*, II, 247.20) of the original Mosque of 'Amr, 50 (unspecified) cubits by 30 cubits, as "work" cubits, which he believed meant "native Egyptian" cubits, making the Mosque originally 29 m. by 17.34 m., which Corbett believes to be correct. That the "work" cubit was commonly used in Egypt is evident from Maqrîzî's *Sulûk*, I, 907.11, II, 222.10, 226.10; Mujîr ad-Dîn's *Uns al-Jalil*, ed. Sauvaire, pp. 14, 15, 19, 98, 104, 105, 120, 121; and especially from *1001 Nights*, ed. Macnaghten, I, 361.23, Night 47 (Burton II, p. 89, translates "normal cubits"); see also below, "Mudy," under "Measures of Area." It must be noted, however, that in *Khiṭaṭ*, I, 380.5, the work cubit is identified with the Hâshimî

cubit, which agrees with the foregoing definition of the "work" cubit only if the small Hâshimî cubit (30 fingers) is meant; otherwise it makes the "work" cubit measure 32 fingers in agreement with *Ṣubḥ*, III, 446.19, quoting az-Zajjâjî (1 1/3 hand cubits). For another suggestion see de Goeje, in *Bibliotheca Geographorum Arabicorum*, IV, p. 360. If the "work" cubit contained 30 fingers, as the preponderance of evidence indicates, it was probably also the origin of the later commonly used "native Egyptian" cubit of 30 fingers (see above).

#### Other Measures of Length

Cane (qaṣaba): eight common, or six Hâshimî cubits, 192 fing., 3.696 m., 145.1 in. *Ṣubḥ*, III, 446. *Description*, VII, p. 174. *JA*, 1886, pp. 526, 528. But *Description*, VII, p. 171: the only authentic qaṣab in use (i.e., in modern times) measures 3.85 m. So also Mahmoud Bey, *JA*, 1873, p. 86; this is 6 2/3 native Egyptian cubits.

Carat (qîrât, pl. qarârîṭ): 1/24 of any unit; hence in reference only to the common cubit of 24 fing., it is a finger; but later writers use qîrât indiscriminately for "finger." *Muḥîṭ al-Muḥîṭ*, p. 1693: "Postclassical writers use qîrât to denote a finger's breadth in land measurement and in reckoning." Ishâqî, *Laṭâ'if al-Akḥbâr*, 121.22: "fingers, meaning qarârîṭ." See above, under "Hâshimî Cubit," for qîrât in Ibn Iyâs, III, 270.27.

Finger (isbâ'): .01925 m., .75787 in., i.e., 1/24 of the common cubit or 1/28 of the iron cubit. *Description*, p. 229 and table viii. *The Cairo Nilometer*, index, s.v. "Cubit." The finger is defined traditionally as the measure of six barley-corns (ḥabbat sha'ir) laid side by side: *JA*, 1886, p. 482, from Muqaddasî, 66.1. See above, under "Legal Cubit," for a modern estimate of .2036 m. for the finger's breadth.

Fist (qabḍa, pl., qabaḍât): four fing., .077 m., 3.03 in. Lane, *Arab.-Eng. Lexicon*, pp. 962, 2483. *Description*, VII, table x. *JA*, 1886, pp. 499, 510, 525.

Mile, Arabic (mîl): 3,000 grand Hâshimî cubits or 4,000 common cubits, 96,000 fing., 1,848 m., 6,062.98 feet, 1.15 English miles. *Description*, VII, p. 228. *JA*, 1886, p. 533. See above, under "Iron Cubit." Lane, p. 3026, makes 96,000 fingers equal 5,166 English feet, each finger .0538 ft. or .6456 in. (instead of .75787 m.). Mahmoud Bey, in *JA*, 1873, p. 106, makes the mîl 1,972.8 m., each finger then .02055 m. or .809 in.

Mile, English: 87 per cent of the Arabic mîl.

Post (barîd): 12 Arabic miles, 48,000 cubits of 24 fing. each, 22.176 m., about 12,756 ft. or 13.8 English mi. *JA*, 1886, p. 483. Ibn T.B. (VIII, 475.16) makes 1.89 English miles "almost 1/6 of a post" (see "Iron Cubit," above); actually



it is about  $1/7$  of an English mile, as calculated, but he seems to avoid the fractions  $1/7$  and  $1/9$ . However, the actual distance between two post stations fluctuated, and Siryâqaus, the first station from the Cairo Citadel, is about 12 (not 13.8) English miles, and the given distance of the cannon shot (see above, "Iron Cubit"), about 1.9 English miles, is almost  $1/6$  of these 12 English miles.

Span (shibr): .2053 m., 8.084 in. *Subh*, III, 446.19:  $1/3$  of a work cubit of 32 fing. or of .616 m. Ibn T.B. (VIII, 475.22) makes 15 spans equal  $5\frac{3}{4}$  cubits; the cubit is not specified here, but the first cubit mentioned in his other measurements (475.12) is the "iron" cubit of 28 fing., .539 m., or 21.22 in., making the span .2066 m. or 8.134 in., about the same as the .2053 m. calculated above. But *Description*, VII, p. 166 (and table viii), makes the span .2309 or .231 m., namely,  $2/5$  of the "native Egyptian" cubit; so *JA*, 1886, p. 514: 12 fing., .231 m. Ibn Baṭṭûṭa (I, 29.7) gives 140 spans for each side of the Pharos (al-manâr) at Alexandria; Van Berchem (*Matériaux*, p. 481, note 2) gives the measurement as about 31 meters, making the span .221 m. According to Maqrîzî (*Khiṭaṭ*, I, 158.1), the Pharos measured more than 50 cubits; this would make something less than .62 m. per cubit (i.e., a large Hâshimî cubit of .616 m.); and the span would again be .221 m.

## II. Measures of Area

Cubit, Cane, etc.: measures of length are used also for area, indicated as such by the use of technical terms such as misâḥa (lit., "measurement") or dhar' (lit., "cubit measurement," but used for area measurement; cp. *Khiṭaṭ*, II, 253.18), or fi t-taksîr (lit., "in fractionation"; cp. *Subh*, III, 446.15).

Faddân: 400 sq. canes of land, i.e., 20 by 20 linear canes of 3.696 m. each, or 160 by 160 common linear cubits, 5,464.17 sq. m., 58,815.6 sq. feet, 1.35 acres. *Subh*, III, 446.14. Ibn Mammâtî, ed. Atiya (Cairo, 1943), p. 279. *Description*, VII, p. 175; p. 363, quoting Ibn Iyâs; XVIII, pt. 2, p. 474. But *Description*, VII, p. 171 and table, p. 373, and XVII, p. 29, using the cane of 3.85 m., makes the faddân 5,929 sq. m., 1.47 acres. *El*, s.v. "faddân," gives 5,883.5 sq. m., and in modern times 4,200.83 sq. m. ( $333\frac{1}{3}$  canes); so Baedeker, *Egypt*, 4,200 sq. m., 1.038 acres. The Syrian faddân of recent times measures only 734 sq. m. (1,600 sq. cubits) according to Baedeker, *Palestine and Syria*, p. xxiii, i.e., a little more than 17 per cent of the modern Egyptian faddân of 4,200 sq. m., or  $13\frac{1}{2}$  per cent of the first figure given above for the old Egyptian faddân of 5,464.17 sq. m.

Mudy (a Syrian measure): 1,600 square "work" cubits, 40 by 40 linear "work" cubits, 533.7 sq. m., 5,739.11 sq. ft., about  $72\frac{7}{10}$  per cent of the modern Syrian faddân. Maqrîzî, *Sulûk*, I, 907.10, where the reference is to Damascus, and the specification "work" cubit is added (by the editor of the *Sulûk*) from

Nuwairî; cp. *Mamlouks*, II, 175.11. The word mudy (Syriac mudyâ) is the Greek módeos. Latin modius; Qalqashandî, IV, 216.6, notes that at Aleppo, as at Damascus, agricultural land was measured by the Greek faddân as well by an Islamic faddân. The mudy, like its Greek and Latin prototypes, is only secondarily a measure of area, primarily one of capacity. The value of the mudy, however, is not based directly on the value of the Greek and Latin modius, but originates in the Greek 'aroura, which is 10,000 square Egyptian common cubits (100 by 100 linear common cubits), of which the mudy is one-quarter, i.e., 2,500 square common cubits (50 linear common cubits by 50; cp. *Description*, VII, p. 373); this is equal to 40 by 40 "work" cubits, or 533.6 sq. m., as given above. It is a little less than 10 per cent of the old Egyptian faddân of 5,464.17 sq. m.

### III. Measures of Capacity

Baṭṭa (lit., "duck"): 1/4 irdabb, 45 litres, 1.28 bushels; about 50 pounds of flour. Ibn al-Furât, IX, 435.4: 1 1/2 waibas, i.e., 1 1/2 x 1/6 (or 1/4) irdabb. Cp. *JA*, 1884, p. 419, and 1886, p. 285; Ibn Mammâtî, 365.10: 50 riṭls.

Ghirâra (a sack), in Egypt: 1 1/2 irdabbs of flour, about 180 litres, 9.5 cu. ft., 7.5 bushels. Ibn Mammâtî, 365.10.

Ghirâra, in Damascus: 529.2 litres, 18.69 cu. ft., 15 bushels. *Subḥ*, IV, 181: one ghirâra and 1 1/2 mudd equal three Egyptian irdabbs, i.e., one ghirâra equals 2.94 Egyptian irdabbs. *Mamlouks*, I, i, 132, note 6, citing *Sulûk*: one ghirâra equals three Egyptian irdabbs; so also II, i, 85, citing al-'Ainî.

Irdabb (ardabb): 96 qadaḥ, 180 litres, 6.3567 cu. ft., 5.1 to 5.2 bushels. *Description*, XVII, 31: 180 or 184 litres. *El*: 197.7 litres (5.6 bushels). Lane, *Manners*, App. B, and McCoan, *Egypt*: about five bushels. For the weight of an irdabb of grain, see below under "Wheat," p. 100.

Kail (Damascus): 1/12 ghirâra or six mudd, 44.1 litres, 1.56 cu. ft., 1 1/4 bushels. *Subḥ*, IV, 181.12. *Muḥîṭ al-Muḥîṭ*, p. 1862.

Mudd: 1/72 ghirâra, 7.35 litres, .0208 bushel. *Subḥ*, IV, 181: six mudd equal one kail, 12 kails equal one ghirâra.

Qadaḥ: 1/16 waiba or 1/96 irdabb; about .052 bu.

Tukra: a container of uncertain size, for transporting pepper. The word is Hindustani, tokrā, lit., "a large basket"; though the spikes of pepper berries in India were sometimes gathered in baskets (*EB*, s.v. "Pepper"), it is doubtful if it was transported in them. Possibly "tukra" in usage was a sack or bale. Ibn al-Furât (IX, 459.15) notes in 799 A.H. a gift from the ruler of the Yaman

to Sultan Barqûq which included 85 zakîbas, or sacks, of pepper totaling 28,404 riṭls, i.e., 334 riṭls (336.4 pounds) per sack; but the weight of the sack would vary with the nature of the content; thus, five zakîbas of ginger weighed 687 riṭls (137.4 riṭls each; *ibid.*, line 15); cp. also bahâr (or buhâr), a sack, of cloves weighing 272 riṭls (*ibid.*, line 11); and a farq, or sack, of coffee weighing about 400 pounds (Silvestre de Sacy, *Chrestomathie*, III, 379). Ibn T.B. records 500 tukras of spices sent to Judda in 855 A.H., which, if a tukra was a zakîba, amounted to about 168,000 pounds (VIII, 116.3); the Sultan's viceroy in Judda had secured for him during the year 863 A.H. 7,400 tukras of pepper, perhaps about 2,471,600 pounds (VIII, 327.11); Sultan Tamurbughâ had taken from Aḥmad ibn al-'Aini 513 tukras of pepper, perhaps about 172,868 pounds (VIII, 623.15; Sultan Qâ'it Bâi had also taken from him more than 5,320,000 pounds of wheat). These estimated amounts of pepper are not excessive; at the end of the XVIIIth century A.D. single ships brought to the port of Salem, Massachusetts, half a million, on one occasion more than a million, pounds (J. D. Phillips, *Pepper and Pirates*, 1949, p. 2); but there are no statistics for Egypt (Lane-Poole, *History of Egypt*, p. 340).

Waiba: 1/6 irdabb or 16 qadaḥ, 30 litres, 1.057 cu. ft., .851 bushel.

Zakîba: see Tukra.

#### IV. Measures of Weight

For measures of weight the basic unit has been taken as the dirham of 3.186 grams, given by Zambaur in *El*, s.v. "Ḳirâṭ," second table. Other estimates are Zambaur in *El*, s.v. "Dirham as a weight," 3.148 grams; French Commission of 1799 A.D., 3.0884 grams; Commission of 1845 A.D., 3.0898 grams; Baedeker, *Egypt*, 3.12 grams, and so Atiya in *El*, s.v. "Raṭl" (1/144 of 449 grams); Baedeker, *Palestine and Syria*, 3.2 gr.; in Constantinople, 3.207 gr. These estimates vary from 3.186 gr. by between -3 per cent and +7/10 per cent, and would affect other measures of weight accordingly. For the dirham coin and the silver dirham weight (2.973 gr.) see under "Currency" below.

Dirham: 3.186 grams, .1123 ounce (see above).

Mann (for perfumes, etc.): 260 dirhams, 828.36 gr., 29.4 ounces; or 818.49 gr., 28.87 ounces. *Ṣubḥ*, III, 445.17.

Mithqâl: 4.25 (4.2472) grams, .15 ounce. *El*, s.v. "Ḳirâṭ."

Qinṭâr: 100 riṭl, 99 1/4 pounds avoirdupois.

Riṭl or Raṭl, Cairo: 144 dirhams, 458.78 grams, 15.98 ounces. Maqrîzî, *Ighâtha* (Cairo, 1940 A.D.), 49.5. *Ṣubḥ*, III, 445. *El*, s.v. "Raṭl": in modern Egypt, .99 pound.

Riṭl or Raṭl, Damascus: 600 dirhams, 1,911.6 grams, 67.38 ounces, 4.21 pounds. *Ṣubḥ*, IV, 181.9. *Ighâtha*, 49.5. Ibn T.B., VI, 281.9, equates one Damascus with four Egyptian and 1/10 Samarcand riṭl.

Ūqîya, Cairo: 12 dirhams, 38.23 grams, 1.348 ounces. For perfumes, etc., 10 dirhams, 31.86 grams, 1.123 ounces. *Ṣubḥ*, III, 445.6, 8. Baedeker, *Egypt*: 37.44 gr., 1.32 ounces.

Uqîya, Damascus: 50 dirhams, 159.3 grams, 5.615 ounces. *Ṣubḥ*, IV, 181.10. Baedeker, *Palestine*, 1898, p. xxx: 66 2/3 dirhams of 3.2 grams each, 213 grams or 7 1/2 ounces.

## CURRENCY

The currency of Mameluke Egypt consisted of gold, silver (or silver alloy), and copper, as to be described and evaluated in detail below and then summarized in a table.

Gold was the basis, and the subsidiary coinages were evaluated in terms of a standard gold unit, the exchange values changing frequently either by usage or by official proclamation.

The fineness of the gold in the gold coin, the *dînâr* or *mithqâl*, issued by the Mameluke sultans of the XVth century remained constant at .979; the weight of the standard *dînâr* was about 4.25 grams (but see below under "Nâşiri") until 1425 A.D., 829 A.H., when it was permanently changed to about 3.45 grams, i.e., to that of the Italian ducat and florin, which had come into general use at Cairo (see below, under "Gold").

The silver coinage varied more frequently in the amount of alloy and in the size and weight of the coins; and copper also varied in size of the coins and in purity of the metal.

The practice varied also from time to time in manner of circulation, copper coins sometimes passing by weight and sometimes by tale (piece); and the weights used for the three metals were not always the same.

Moreover, one and the same term (*dirham*) was used at times to denote a weight, at other times to denote a silver or a copper coin—not necessarily a *dirham* in weight; and, again, it was used to denote a variable unit of exchange value which was, apparently, merely a nominal, not an actual, coin (see below, "Trade *Dirham*").

The data available regarding these changes and usages are not continuous and regular; the chronicles and the few specific treatises on the coinage refer only to important changes; and when prices are quoted, the current rates of exchange are not always indicated. Any attempt, therefore, to fix values for quotations is of necessity only an approximation.

In the following attempt to find a common denominator for quotations, gold has been taken as the basis, with a constant value per unit weight: \$20.67 per fine troy ounce (\$0.6645 per gram), the price of gold prevailing in the United States before 1934 A.D., based on a gold dollar of 25.8 grains (1.67 grams, .0537 troy ounces), 9/10 fine. On this basis, but disregarding the cost of minting in Egypt, the gold *dînâr* or *mithqâl* of 4.25 grams had a value of about \$2.80; the gold coinage of 3.45 grams, in use after 1425 A.D., had a value of \$2.35.

The exchange values of silver and copper coins are expressed, in this section, in decimal fractions of the dollar as calculated above. Fluctuations in exchange values appear, then, regularly as fluctuations in the values of the minor coinages, not in the value of the gold coinage; Arabic writers, however, generally

state that gold is "high" or "low" according as the number of silver or copper coins which might be exchanged for a gold unit was respectively greater or less.

Exchange values down to the end of the XIVth century A.D., VIIIth century A.H., refer mainly to gold and silver; and as long as the amount of good silver in the silver coinage remained constant the rate did not fluctuate greatly; it remained generally close to 20 dirhams per dînâr, with the upper limit of fluctuation 30 dirhams, i.e., its value was between 14 and 9 1/3 cents per silver dirham.

But in the last decade of the XIVth century A.D. and the early years of the XVth century A.D., the copper coinage was much expanded, while the silver coinage was adulterated and then for a while almost disappeared as money. Gold-copper exchange replaced gold-silver exchange; even large transactions were carried on in terms of the very variable copper coinage. This, as Maqrîzî states, resulted in the ruin of the country, and he pleaded (in his *Ighâtha*) for the return to gold and silver in all but petty market business. But even when about 1415 A.D., 818 A.H., a good silver coinage was reintroduced, exchange generally continued to be quoted also in terms of copper and gold.

Unfortunately, when the change from the gold-silver to the gold-copper basis of exchange took place, no clear differentiation in the terms for silver coinage was made. The word "dirham," denoting earlier a good silver coin, came to be used apparently for a much debased silver coin and then (or simultaneously) was retained by the historians to apply to the copper coinage; "dirham" (properly "dirham fulûs") meant now a number of copper coins (or a number of dirham weights of copper; see later, "Trade Dirhams"), not the dirham coin of 2/3 good silver content.

Doubtless the people in the course of their daily transactions became accustomed to the change in the connotation of "dirham": but since the Arabic historians, who mention only from time to time exchange and prices, do not always specify the coinage in question, readers of their works are often confused. The prices quoted for commodities at different periods, when expressed—as they generally are—in dirhams without any qualifying addition, are not commensurable; for instance, the cost of a bushel of wheat at 70 dirhams in 1394 A.D. was exactly the same as a bushel at 900 dirhams in 1451 A.D., namely, \$1.49, because in exchange for gold the "dirham" (i.e., silver) was worth about 10 1/2 cents in the first instance, and in the second the dirham (copper) was only 7/10 of a cent.

Sometimes when larger sums were reckoned in terms of gold they were actually paid in other coinages of the equivalent value as quoted at the time; and sometimes Sultans made disbursements (particularly to their armies when going on an expedition) on the basis of one rate of exchange when actually the prevailing market rate was another; for example, they converted gold into a theoretical equivalent in silver reckoned on the basis of 300 copper ("trade") dirhams for a dînâr when the market rate was actually at 400, and so the value of the copper received per unit for use in purchasing supplies in the markets had only 3/4 of its supposed value. (See also below, under "Income," for the "army dînâr.")

The change (to which reference is made above) in the meaning of the term "dirham" was accompanied by other changes also in nomenclature. The term "metal" (*nuqra*), originally used of the standard silver-alloy (2/3 silver, 1/3

copper) dirham and then applied also to a dirham with 1/10 silver content (see below), was apparently used likewise of a nominal, or trade, dirham of copper. In the *1001 Nights* (Breslau edition, II, 56.10, 59.13), nuqra means a small coin, that is, apparently, fulûs (or copper coins); cp. *JA*, XIX (1882), p. 151, for the still later application of nuqra to any metal coin, whether of gold, silver, or copper.

And such changes continued into the later centuries. In the early part of the XIXth century A.D. in Egypt, both fidḍa (silver) and Mu'ayyadi (originally the name of a good silver coin; see below) denoted a thin alloy coin valued at only \$0.00125 (1/8 cent); and this coin was called also "nuṣf" (half), which in the XVth century A.D. meant specifically a half Mu'ayyadi silver coin, although apparently "Mu'ayyadi" was sometimes even then used for half Mu'ayyadi (see s.v. "Silver"); cp. Lane, *Manners*, App. B: "a faddah . . . is called nuṣṣ . . . it is also called 'meyyedee' or 'meiyedee' (an abbreviation of 'mu-eiyadee')." 'Alî Pâshâ (XX, 141.15), on the other hand, used Mu'ayyadi anachronistically for the standard silver dirham when he stated that the Mu'ayyadi (struck in 818 A.H.) ceased to be used for reckoning values in 800 A.H.

"Fulûs" ("copper pieces" originally) at the beginning of the XIXth century A.D. meant silver coins or money in general (*Description*, XVI, p. 283); indeed this connotation of "fals" may have a much earlier origin, since Ibn Iyâs (I, p. 266) in the IXth century A.H. refers to Barqûq's silver coinage of 787 A.H. (1385 A.D.) as "fulûs," although this may be merely an error. At any rate it is implied in Maqrîzî's denunciation of the use of "fulûs" as the general, natural, and legal standard of money, since it is not the use of copper fulûs as small change that he denounces (*Bibliothèque des Arabisants Français*, première série, 1905, I, pp. 42, 47; *Ighâtha*, 81.0; cp. 66.10, 70.10, on the proper use of copper as petty change for small purchases).

The ratio of the intrinsic value of silver to gold is difficult to estimate because, with one exception to be discussed below, the only available data are the exchange quotations of the silver coinage for gold, which did not always depend upon the price of silver bullion, but, as has been noted above, was fixed by official proclamation. The same silver coin varied from time to time in terms of the standard gold coinage, particularly in the early years of the XVth century A.D.

It might be assumed, however, that because before 1400 A.D. the predominant quotation was 20 standard silver coins (dirhams) for one standard gold coin (dînâr or mithqâl) this reflected the actual value of silver in relation to gold at that time, perhaps 9.6 to 1, according to the following calculation:

The silver content of the standard silver dirham before 1400 A.D. was 2/3 of 2.975 grams, i.e., 1.983 grams; its copper content was .92 gram. The entire dirham coin (at 20 silver dirhams per dînâr) was worth 5 per cent of a dînâr. The copper in the silver dirham (at 640 dirham weights of copper for a dînâr, the prevailing price) was worth .001435 dînâr, leaving .048565 dînâr as the value of 1.983 grams of silver, or .0245 dînâr per gram of silver. The dînâr contained 4.25 grams of gold; 1 gram of gold was therefore worth  $1 \div 4.25$  of a dînâr, or

.2353 dînâr, 9.6 times the value of silver. At \$20.67 per fine ounce (or \$0.6645 per gram) for gold, silver was  $\$20.67 \div 9.6$ , or \$2.153 per troy ounce (or \$0.0692 per gram). At Venice in 1350 A.D. the ratio of gold to silver was 9.454 to 1, according to Papadopolis, *La Monete di Venezia*, table ii.

The exception mentioned above refers to the year 1404-1405 A.D., 807 A.H. In that year the price of silver, unadulterated and uncoined, was, according to Maqrîzî (*Ighâtha*, 80.12), 5 mithqâls for 100 dirham weights of silver, i.e., 1 mithqâl for 20 dirham weights. Since 5 gold mithqâls weighed 21.25 grams, and 100 dirham weights of silver weighed (on the scale for weighing silver, 2.975 grams per dirham weight) 297.5 grams, the ratio of silver to gold was 1 to 14.

In the passage in question Maqrîzî suggests a return from the existing gold-copper basis of currency to a gold-silver basis. He states that if the 100 dirhams of silver bullion be minted into silver dirham coins (i.e., those containing  $\frac{2}{3}$  pure silver and  $\frac{1}{3}$  copper), the charge for the copper content, wood, wages, and Sultan's tax for mintage would bring the cost to  $5 \frac{1}{4}$  gold mithqâls for 150 silver dirham coins. Each coined dirham would represent then .035 mithqâl, and the exchange rate if based on this reckoning should be about  $28 \frac{1}{2}$  silver dirham coins for a dînâr (with a value of about  $9 \frac{3}{10}$  cents). But Maqrîzî says (*Ighâtha*, 80.17) that the actual exchange rate would be only 24 dirhams per mithqâl, or  $11 \frac{7}{10}$  cents each.

Since the official exchange rate of silver dirhams for gold dînârs does not reflect the actual cost of silver bullion it is not an accurate indication of the ratio of silver to gold in this suggestion by Maqrîzî.

For later ratios of silver to gold see under "Silver" and "Mu'ayyadî."

The ratio of gold to coined copper in the XIVth century was 1 to 480. In 759 A.H. (1358 A.D.) the copper coin weighing 1 mithqâl (4.25 grams) was exchanged for  $\frac{1}{24}$  of the silver dirham, and the latter for  $\frac{1}{20}$  of a gold mithqâl. A dirham weight (3.186 grams or  $\frac{3}{4}$  mithqâl) of copper was worth  $\frac{1}{640}$  of a gold mithqâl or (at \$2.80 per mithqâl) \$0.0045 per dirham weight, or \$0.648 per riṭl (pound) of 144 dirham weights.

In 807 A.H. (1405 A.D.) it was 1 to about 788, according to Maqrîzî (*Ighâtha*, 81.1): "red" copper, coined into small pieces called fulûs, was exchanged at the rate of  $23 \frac{1}{3}$  riṭls (Egyptian pounds) for 1 mithqâl of gold. As the riṭl contained 144 dirham weights, the actual number of dirham weights of copper for a mithqâl was 3,360. Maqrîzî then adds: "in their opinion (bi-za'mihim) this counts as 140 dirhams of copper"; i.e., 24 dirham weights of copper were counted as one dirham of copper. (See "Trade Dirham.")

## I. Gold

### 1. Dînâr

Dînâr, or mithqâl: the basic unit of currency in Mohammedan countries from earliest Mohammedan times. The dînâr originally and until 829 A.H. (1426 A.D.)



consisted of 1 mithqâl, or 4.25 grams (66 grains) of gold, generally .979 fine; at \$20.67 per ounce (see above) it had the value of about \$2.80.

The actual native Egyptian gold coins in use before 1426 A.D., however, were of varying size and weight (the Egyptian gold coins in the British Museum and Bibliothèque Nationale collections range between 5.55 and 18.16 grams; the weights of the individual coins are no regular fractions or multiples of 4.25); but as in exchange and trade native gold passed by weight, not by the piece, and the unit continued until 829 A.H. (see "Ashrafi") to be the mithqâl of 4.25 grams, the weight of the individual coins used was immaterial until that date.

The Italian ducat (see below) also was in common use at this time, but in expressing the exchange value of gold in terms of other currencies the standard dînâr (\$2.80 or later \$2.35) is almost invariably the basis.

As noted above, the permanent value assigned to the dînâr (\$2.80) is for purposes of comparison with other currencies, and has no implications with respect to purchasing power.

When other gold coins—foreign, or deficient native coins—were in use simultaneously with the standard dînâr (the mithqâl), the latter was sometimes distinguished by qualifying terms such as Mişri ("Egyptian"), makhtûm (lit., "sealed"), maskûk ("coined"), or harjah or muharjah (vocalization, form, and etymology uncertain).

"Makhtûm" apparently refers not to the coin but to its gold content, i.e., gold which has been refined in the mint to the required standard of purity and the ingot then stamped with the seal of the supervising official; cp. Qalqashandî (*Şubḥ*, III, 466.6): "Aḥmad ibn Ṭûlûn himself used to seal the gold which had been refined" (mâ yu'allaq min adh-dhahab; on ta'liq, cp. *ibid.*, 465.14). The same term, makhtûm, is used of refined silver by Ibn Mammâtî, 333.4; and ta'liq, of gold, p. 323.3. Mithqâl of "sealed" gold is mentioned by Maqrîzî (*Ighâtha*, 80.17) in reference to his proposed reform of the coinage in 807 A.H.; and "sealed" dînâr is in 'Alî Pâshâ (XX, 142.18) in reference to the price of wheat in 826 A.H.

"Dînârs of harjah gold" occurs in *Nujûm* (V, 130.15) in a reference to the confiscated wealth of Ibn Zunbur in 753 A.H.; in the corresponding passage Maqrîzî (*Khiṭaṭ*, II, 61.31) has "coined (maskûk) gold," and Ibn Iyâs (I, 197.25) has "gold coins" (dhahab 'ain). Mithqâl harjah occurs in *Nujûm* (VI, 416.10) in reference to a dowry in 823 A.H. The form muharjah alone is, in 'Alî Pâshâ, contrasted (XX, 40.10, 11, quoting Ibn Ḥajar) with Nâşirî gold (see below) in 818 A.H.; and (XX, 141.35, 142.1) with the florin in 819 A.H.

The term used in Mecca for the standard dînâr was mithqâl dhahab hibrijî (Wüstenfeld, *Mekka*, II, 319.8), the value of which in 816 A.H. is contrasted with that of the ducat (ifrantî); cp. Persian hibrizî, for Arabic ibrizî, "pure gold."

## 2. Ducat, Florin (Ifrantî)

Ducat, florin (ifrantî, ifranjî, dûkât, bunduqîya, mushakhkhaş, iflûrî), gold coin weighing about 3.5 grams (54 grains), intrinsic value \$2.30.

Ifrantî is the usual Arabic term for the foreign gold coin current in Egypt, including both the ducat and florin. So Qalqashandî (*Şubḥ*, III, 441.13) derived

ifrintî, as he vocalizes the word, from ifrinsî, "with 't' in place of 's,'" which he says is another form of ifrinzî, the correct form of ifranjî according to the dictionaries (see Lane, *Lexicon*, s.v. "firanj"). Maqrîzî uses ifranjî in the *Khiṭaṭ* (II, 292.17) but ifrantî in the *Sulûk* (fol. 25a.18) of the same event. Ibn Taghrî Birdî uses ifrantî generally, but firanjî occasionally (e.g., *Ḥawâdith*, VIII, 297.11).

Wüstenfeld (*Mekka*, IV, 273, note) derives ifrintî from florin, "as Firenzi has its origin in Florenz"; so also Gaudefroy-Demombynes (*La Syrie*, p. 135, note 3). See also below, s.v. "Florin."

Ducat (dûkât), according to Qalqashandî (*loc. cit.*), is another name for ifrantî, though it properly is used only for the coinage of Venice (the bunduqîya); the dûkât, he says (*Ṣubḥ*, V, 404.18, 405.1), is the best dînâr of the Europeans (al-firanja). The form dûkâtî appears in the *1001 Nights*, Breslau text (VII, 129.14; see Dozy), replaced in the Macnaghten text (II, 116.8) by dînâr. See also below, s.v. "Mushakhkhaṣ."

Bunduqî (Venetian; see above) is used by 'Alî Pâshâ (XX, 142.23) where Ibn Taghrî Birdî (*Nujûm*, VI, 596.3, 10) uses ifrantî (see below).

Iflûrî (florin) is used by al-'Ainî (MS Paris, 1544, fol. 44b.3, see below) where Maqrîzî (fol. 29a.20) uses dînâr ifrantî; also by 'Alî Pâshâ in a passage to be discussed below. The form iflûrî apparently reflects the fact that the 'florin' (Italian fiorino) as issued in 1252 A.D. had on its obverse a flower (lily, in Italian fiore, Latin flos, accusative florem), and on the reverse the Latin name of the city, Florentia (*EB*, s.v. "Florin"; see also "Mushakhkhaṣ," following).

Mushakhkhaṣ (lit., "figured"), according to Qalqashandî (*Ṣubḥ*, III, 441.11), refers to the fact that the ifrantî bore on one face the figure of the apostles Peter and Paul. Qalqashandî here seems to have in mind specifically the ducat, which in fact bore on one face two figures, the doge sitting and receiving the gonfalon at the hands of St. Mark, and on the other face the single figure of Christ (*EB*, s.v. "Numismatics, medieval"; cp. Papadopolis, *La Monete di Venezia*, *passim*, and plates; on the silver grosso both the doge and St. Mark are standing). The form mushakhkhaṣ occurs also in *Sulûk* (29a.22, with ifrantî); *Nujûm* (VI, 106.5, 272.16, with dînâr; 626.4, here of the Cyprian coinage); and probably al-'Ainî (fol. 44b.3, where the text reads ash-shakhṣ al-iflûrî). The form mushkhaṣ (*Muḥîṭ*) comes probably from unvocalized MSS or texts. Mashkhaṣ in Lane is deduced from plur. mashâkhiṣ in *Tâj* (no sing.); but possibly this is an irregular pl. of mushakhkhaṣ, like maghânî from mughanniya; cp. mafâtî from muftî, mashârif from mushrif (Dozy).

The weight of the ducat according to Qalqashandî was about 53.2 grains, or 3.45 grams; *Ṣubḥ*, III, 441.8: 19 1/2 twenty-fourths, i.e., 81 1/4 per cent, of the Egyptian dînâr, or on the scale for weighing silver (sinâj al-fiḍḍa) a little more than a dirham and 2 kharrûbas; as the Egyptian dînâr weighed 4.25 grams, while the dirham weight was 3.186 grams, and the kharrûba was 1/16 of a dirham (*Ṣubḥ*, III, 443.10), the ducat weighed between 3.45 and 3.384 grams. This is close to the weight 54 grains (3.498 grams) assigned in *EB* (article "Florin") to the florin coined first in 1252 A.D., and to the ducat in 1284 A.D., and is the weight assumed above for the ducat in Egypt around 800 A.H.; but Papadopolis (*La Monete di Venezia*) gives the weight of the ducat in Venice at all times at 3.559 grams. See further under "Ashrafi."

The intrinsic value of the ducat and florin was about \$2.30, and its exchange value around 790 A.H., 1388 A.D., was actually \$2.38, or 85 per cent of a *dînâr* (*Ṣubḥ*, III, 442.8: the *dînâr* at 20 dirhams, the *ifrantî* at 17). It increased thereafter; in II *Jumâdâ*, 803 A.H., February, 1401 A.D., it was exceptionally at 97 per cent of the *dînâr* or \$2.72 (al-‘*Ainî*, fol. 44b.1: the *dînâr* reached 39 dirhams, the *iflûrî* 38 in II *Jumâdâ*, 803 A.H.; cp. *Sulûk*, fol. 59a.22). This was after the *Sâlîmî dînâr* had been struck (see below) to effect the abolition of the *ifrantî*; and probably this rate of exchange was offered to induce the surrender of the *ifrantî* to the mint. According to Maqrîzî, after the *ifrantî* had reached 38 dirhams it was rumored that brokers would be forced to accept it (*yuṭraḥ ‘ala ṣ-ṣayârif*) at 39 (*Sulûk*, *loc. cit.*). By *Ramaḍân*, April-May, it was quoted at about 92 per cent, or \$2.58 (it dropped to 35 dirhams, the Egyptian *makhtûm dînâr* to 38: *Sulûk*, fol. 59a.23); it remained so in 805, 818, and 819 A.H., 1402, 1415, 1416 A.D., according to the following quotations: 805 A.H.: the *mithqâl harjah* at 65 dirhams, the *dînâr mushakhkhaṣ* at 60 (*Nujûm*, VI, 106.5); 818 A.H.: the Sultan ordered that the *mithqâl* should be at 250 and the *ifrantî* at 230 (*Nujûm*, VI, 356.15); 819 A.H.: the *muharjah* dropped (from 280) to 230, and the *iflûrî* to 210 (‘*Alî Pâshâ*, XX, 142.9, source not given; note that the quotation for the *dînâr* had apparently risen to 280 from the last noted 250; evidently that of the *ifrantî* had risen in proportion, but ‘*Alî Pâshâ* does not quote it).

The *ifrantî*, according to Ibn Taghrî Birdî (VI, 596.5), speaking of 829 A.H., had, since about 800 A.H., 1400 A.D., become the current and most desired coin in trade “in all the cities of the world such as Cairo, Old Cairo, Syria, Asia Minor, the East, *Ḥijâz*, and Yemen.” The quotation in terms of the *ifrantî* at Mecca appears around 815 A.H. (Wüstenfeld, *Mekka*, II, 318-322), when it was close to its intrinsic value. Early in 816 A.H. it was between 85 and 86 per cent of the *dînâr*; i.e., it was quoted at 50 silver *mas‘ûdis* (on this dirham cp. *Ṣubḥ*, IV, 276.2) and the *mithqâl* of pure gold at 60; grain was sold at 21 *ifrantîs* or 18 *mithqâls* per *ghirâra* (*Mekka*, II, 319.7, 11).

Abolition of the use of the *ifrantî* at Cairo was attempted anew when a new *dînâr* was coined in 829 A.H. (see below, s.v. “*Ashrafî*”), weighing the same as the *ifrantî*; the details are contained in the *Nujûm* (VI, 596.3); “on *Ṣafar* 15, 829 A.H. [December 27, 1425 A.D.], it was decided to abolish the use of the *mushakhkhaṣ* gold called the *ifrantî*, coinage of the *Firanj* bearing the insignia of their infidelity [*kufrihim*], hence not permitted by Mohammedan religious law”; (596.10): “on *Ṣafar* 26 [January 7, 1426] proclamation for the abolition was made, and the *ifrantî* was ordered to be brought to the mint”; but for this ‘*Alî Pâshâ* (XX, 142.23, source not specified) reads: in 829 it was decided to abolish the *bunduqîya dînârs*, and (line 25): in 831 proclamation was made to discontinue the use of the *bunduqîya* and *malikiya* (*sic*), the *Ashrafî dînârs* were issued, and the use of the *iflûrî* abolished.

The Italian coinage, however, was still in use at Cairo beside the *Ashrafî* until at least 861 A.H., 1457 A.D., the *Ashrafî* at 235 dirhams, the *ifrantî* at 230 (*Nujûm*, VI, 667.13). The *dînâr*—“namely, the well-known *ifranjî* and the *Ashrafî*, not the *mithqâl*”—was at 420 dirhams (*Ḥawâdith*, VIII, 297.10).

## 3. Sâlimî Dînâr

Sâlimî dînâr, coined by Yalbughâ as-Sâlimî, major-domo of the Sultan Faraj, about I Jumâdâ 20, 803 A.H., January 6, 1401 A.D., during the Sultan's absence in Damascus. It weighed a full mithqâl (4.25 grams), according to Maqrîzî (*Sulûk*, fol. 25a.18; *Khiṭaṭ*, II, 292.16) and Qalqashandî (*Ṣubḥ*, III, 441.1). As-Sâlimî hoped that the new dînâr would supplant the ifrantî (or ifranjî), and the new coin bore the legend "Islamic coinage" (nuqîsha 'alaihi s-sikkatu l-islâmîyatu): so *Sulûk*, *loc. cit.*; Qalqashandî says it bore the name Faraj in a circle.

The issue included coins weighing 1 1/2 and 2 mithqâls, also 1/2 and 1/4 mithqâl (*Ṣubḥ*, III, 441.3). Lane-Poole, *Catalogue of Oriental Coins*, IV, p. xxii, notes that among Mameluke coins there were double and even quadruple dînârs "if a coin of 260 grains represents the latter value"; this may refer specifically to his coin numbered 643, a gold coin of Faraj of this weight, though dated 805 A.H.

Another coinage is ascribed to as-Sâlimî by Maqrîzî and Ibn Taghrî Birdî. Maqrîzî notes that after 3,000 of Sâlimî's first-mentioned coins had been issued by Rajab I, 803 A.H. (February 15, 1401 A.D.), he ordered that other dînârs should be struck, some weighing "100 mithqâls and a mithqâl, some 90 mithqâls and a mithqâl and then diminishing by ten mithqâls [*Sulûk*, fol. 28a.28: wahâkadha yanquṣ 'ashara mathâqîl; *Nujûm*, VI, 71.3: thumma mâ dûna dhâlika] till there was a dînâr weighing 10 mithqâls; a number of them were struck." If the text is in order and the coins of this size were actually struck, they were evidently commemorative pieces; Maqrîzî (*Ighâtha*, 60.1) notes dînârs weighing 100 mithqâls struck for Caliph ar-Rashîd and distributed on New Year's Day.

It is curious, however, that gold (and silver) coins of 100, 50, and 10 mithqâls were, according to Sharaf ad-Dîn, struck about this same date (1401 A.D.) at Damascus by Tamerlane; they were of pure metal, and some were sent, with letters announcing the subjection of Syria, to Samarcand and other capitals (trans. Petis de la Croix, *Histoire de Timur-Bec*, III, p. 341; text, *Zafar-nâmah*, II, 336). Gold coins of Tamerlane have apparently not been found (cp. Lane-Poole, *Catalogue*, VIII, p. xxvii); but see below for his silver coins in use at Cairo.

## 4. Nâṣirî Dînâr

Nâṣirî dînâr, issued by Sultan al-Malik an-Nâṣir Faraj first in 808 A.H. (1405-1406 A.D.), of about the weight of the ducat according to Qalqashandî (*Ṣubḥ*, III, 441.18 et seq.), namely, about 53.7 grains or 3.55 grams, hence with the intrinsic value of about \$2.36. Two extant coins of Faraj of 810 A.H. weigh 54.7 grains or 3.54 grams and 54.3 grains or 3.52 grams respectively (Lane-Poole, *Catalogue*, IV, no. 645; Lavoix, *Catalogue des monnaies musulmanes*, III, no. 973).

This dînâr was the first Egyptian dînâr weighing less than the traditional standard gold coin. That the degree of purity of its gold content was also changed is stated by Maqrîzî according to one reading in his *Khiṭaṭ* (Bulaq text, I, 110.21):

great care used to be exercised in regard to the purity (khalâṣ) of the gold and the preservation of the standard ('iyâr) until an-Nâṣir Faraj corrupted this by coining the Nâṣirî dînârs, which became (fâ-ṣârat) impure (ghair khâlîṣa; so Sauvaire, *JA*, XIX (1882), p. 59: "pas purs"). The Wiet edition, however, presents the variant reading ghair ḥâ'ifa, "not light" (cp. ḥâ'if, in von Kremer, *Beiträge*, s.v. "ḥif"); and so 'Alî Pâshâ (XX, 3.26): "dînârs of a standard ('iyâr) less than the standard of the old dînârs, and they became not light" (ghair ḥâ'ifa). The inconsistency in this reading is evident, since the Nâṣirî was 20 per cent lighter than the old dînâr; probably ḥâ'ifa (without ghair) was intended to replace ghair khâlîṣa. Still another reading seems to underlie Silvestre de Sacy's version in his *Traité des monnoies* (*BAF*, I, 1905, p. 59), "sans être arrondis."

According to Qalqashandî (*loc. cit.*) many Nâṣirî dînârs were coined and most transactions were made with them, though they passed at a discount of 10 dirhams from the current exchange value of the ducat (ifrantî). The continued use of the Nâṣirî is confirmed by the *Nujûm* (VI, 253.20): Faraj in 814 A.H. made his distribution to the armies for campaign expenses in this coinage.

The Caliph al-Musta'in issued in his short sultanate (815 A.H.) a dînâr exactly like the Nâṣirî except that it bore his own name with the title "Amîr al-Mu'minîn" (*Ṣubḥ*, III, 442.3). An extant coin (Lavoix, III, no. 981), weighing 3.38 grams confirms Qalqashandî's description.

Al-Malik al-Mu'ayyad Shaikh, who became Sultan in Sha'bân of this same year, 815 A.H. (November, 1412), issued a similar coin (cp. Lane-Poole, IV, no. 650; weight, 53 grains, 3.434 grams; Lavoix, III, no. 983, 3.41 grams). The Nâṣirî, however, evidently continued in circulation, passing at about 80 per cent of the mithqâl, or \$2.26 (*Nujûm*, VI, 356.14: the mithqâl at 260 dirhams, the Nâṣirî at 210). Mu'ayyad ordered that its use should be abolished, and decreed that it be exchanged at 72 per cent of the mithqâl (i.e., at about \$2.00) and at 78 per cent of the ifrantî (*Nujûm*, VI, 356.16: the mithqâl at 250 dirhams, the ifrantî at 230, the Nâṣirî at 180). 'Alî Pâshâ (XX, 142.7, apparently quoting Ibn Ḥajar) assigns such a proclamation to 819 A.H., reading: "he continued to order a decrease in the price of gold till the muharja was reduced from 280 to 230, the iflûrî to 210, and he ordered that the Nâṣirî should be sold at the price of the muharja and should not pass by tale." If the text is in order here, the implication would seem to be that the Nâṣirî should pass by weight, its gold content to be at the same rate as that of the gold content of the mithqâl; e.g., a Nâṣirî that weighed 3.40 grams would pass at 80 per cent of the dînâr (nominally at \$2.24).

### 5. Ashrafî Dînâr

Ashrafî dînâr: struck by order of al-Malik al-Ashraf Barsbâi on Ṣafar 16, 829 A.H., December 28, 1425 A.D.; its weight was about 3.45 grams (53.2 grains), with the intrinsic value of \$2.35. It was of the finest gold, and remained throughout the century the preferred gold coin in trade. By 859 A.H. the word "dînâr" without qualifying adjective meant the Ashrafî dînâr, and "Ashrafî" alternates with "dînâr" in quotations as the term for gold.

The weight of the Ashrafi dînâr is given by Ibn Taghrî Birdî (VI, 596.14) as of the same weight as the ifranti, or (VIII, 222.21) a dirham and two carats (for which see above under "Ducat"). According to *EI*, s.v. "Dînâr," it weighed 3.47 grams; *JA*, XV (1880), gives 3.476 grams. Extant coins have a maximum weight of 3.43 grams, and this is true of the gold coins of nearly all the remaining Mameluke sultans, including one issued in the short reign of al-Malik al-'Azîz Yûsuf in 841 A.H., 1438 A.D., but excluding that of al-Manşûr 'Uthmân (q.v.).

The immediate effect of the decreased weight of the dînâr on exchange is not recorded; but apparently instead of decreasing, the number of dirhams per dînâr increased, for in November, 1430, the exchange is said to have been at 285 dirhams per Ashrafi dînâr (Ibn T.B., VI, 667.16).

On Şafar 29 of that year, November 16, 1430 A.D., Sultan Ashraf ordered the Ashrafi to be exchanged at 235 dirhams (VI, 667.13), i.e., be decreased in exchange in proportion (17 1/2 per cent) to the decrease in its weight (18 4/5 per cent), and be approximately the same as the ducat (of like weight), which was to be at 230 dirhams. This of course would have been to the advantage of the government, to the extent that the government received its income actually in dirhams though estimated in terms of gold; but it involved a loss of about 20 per cent to merchants (VI, 667.15) when they exchanged their dirham receipts into gold.

Despite the threats of confiscation the decrease in exchange value of the Ashrafi could not be enforced, and soon after I Rabî' 4 of this year (i.e., after November 21, 1430) the Ashrafi was officially restored to its market value of 280 dirhams, the ducat being at 270. The order was obeyed (*Nujûm*, VI, 668.6); i.e., the nominal intrinsic gold value of the dînâr was reduced from \$2.80 to \$2.35.

The Ashrafi largely displaced the ducat in this respect (cp. Ibn Iyâs, II, 22.16); al-Ashraf was more successful than his predecessors had been in abolishing the use of the ducat. Ibn Iyâs (I, 340.3), speaking of the price of wheat in 803 A.H., anachronistically says it reached 4 Ashrafis! After the Ashrafi had been introduced into Persia, the name Ashrafi became the usual term for the native Persian gold coin (H. L. Rabino di Borgomale, *Coins, Medals and Seals of the Shahs of Iran*, p. 14).

## 6. Zâhiri Dînâr

Zâhiri dînâr: struck by al-Malik az-Zâhir Jaqmaq (842-856 A.H., 1438-1452 A.D.), of the same weight as the Ashrafi. It is mentioned, e.g., by Ibn T.B. in the *Nujûm* (VII, 224.4), where it is quoted with the Ashrafi at 285 trade dirhams in 856 A.H. A considerable number of these coins, weighing from 3.40 to 3.43 grams, are described in Lavoix, *Catalogue des monnaies musulmanes*, nos. 1006-1027; Lane-Poole, *Catalogue of Oriental Coins*, IV, nos. 663-666.

## 7. Manṣûrî Dînâr

Manṣûrî dînâr (pl. Manâṣira): coined during the short reign of al-Manṣûr 'Uthmân (856 A.H.) and weighing one dirham, or 3.186 grams, i.e., about 90 per cent of the Ashrafî, with a proportionate value (\$2.10; Ibn T.B., VIII, 186.6: it was at 290 dirhams when the Ashrafî was at 330; in I Rabî', 857 A.H., at 280: *ibid.*, 174.8; Ibn Iyâs, II, 40 *ult.*: it weighed 2 qîrâts less than the Ashrafî).

Sultan Īnâl ordered the discontinuance of the Manṣûrî in I Jumâdâ, 857 A.H., and though it was still quoted near the end of that year, it soon disappeared; in Dhu l-Qa'da it was at 295 dirhams when the Ashrafî was at 335 (Ibn T.B., VIII, 196.2). Ibn Iyâs (II, 40, *ult.*), writing of I Rabî', 857 A.H., states that the Manṣûrî had been struck before that (i.e., in Manṣûr's reign), but after the inauguration of Īnâl in that month "they were struck in his name" ('Alî Pâshâ, XX, 142, *ult.*, by error ascribes to Ibn Iyâs the statement that in 857 A.H. az-Zâhir Jaqmaq struck the coin and called it the "Nâṣirî"); but the two extant coins struck by Īnâl in 857 A.H. weigh 3.41 grams each, approximately the same weight (3.37 to 3.42 grams) as all later gold coins of the XVth century A.H.

## II. Silver

### 1. Standard Dirham

Dirham: a silver or silver alloy coin (or an amount of such coined metal), containing originally two-thirds silver (fiḍḍa) and one-third copper (nuḥḥâs), and weighing approximately 2.975 grams, i.e., 70 per cent of a mithqâl of 4.25 grams; it weighed, then, only about 93 per cent of the weight known as the dirham weight (wazn dirham, of 3.186 grams), and the coin was called specifically the "dirham of metal" (nuqra), probably to distinguish it from the dirham weight. The silver dirham was therefore weighed in balances with special "silver" weights (sinâj al-fiḍḍa: *Ṣubḥ*, III, 441.9). This silver dirham weight was subdivided into 16 kharrûbas (lit., carob grains), each of which therefore would be .18156 gram; *El* makes it .196 gram. The dirham weights for silver were known as "dirhams of seven," i.e., weights seven of which equaled 10 mithqâls: (*JA*, XIV, 1879, p. 497; XV, 1880, p. 241). It was 93 1/3 per cent of the dirham weight of 3.186.

The dirham containing two-thirds silver was introduced (or reintroduced) by al-Malik al-Kâmil the Ayyubid in 622 A.H. (1225 A.D.), according to Maqrîzî (*Ighâtha*, 65.10; cp. *BAF*, I, p. 39). But he also states that a dirham containing 70 per cent silver to 30 per cent copper was struck by al-Malik az-Zâhir Baibars al-Bunduqdarî (*Ighâtha*, 66.1).

Besides many coins of the standard weight, many half dirhams were struck; also, to judge from the extant specimens, others of varying weights. However, even when coins of standard weight of 2.975 grams, or regular fractions (rarely multiples) thereof, were issued and might pass by tale (piece), they all evidently passed most often by weight.

The normal exchange rate of the coined silver dirhams up to 760 A.D. was 20 units to the standard gold dînâr unit (\$2.80; see many quotations collected in *JA*, XIX, 1882, pp. 144-151). At the value of silver metal noted above (see p. 44), namely, \$0.0692 per gram, the silver content of the standard silver dirham, 1.963 grams, was worth \$0.1372236; the copper content was worth \$0.004018 (*ibid.*); the value of the entire dirham would then be \$0.1412416, roughly 14 cents. As noted above (p. 44), the ratio of silver (i.e., the silver content of a dirham) to gold was 1 to 9.454.

The standard silver dirham coins continued in use into the last decades of the XIVth century A.D. (VIIIth century A.H.), although the sources begin then to show uncertainty about the exchange rate.

In 776 A.H. (end of 1374 and beginning 1375 A.D.) Ibn T.B. (V, 224.14) quotes certain prices and states, in part: "Each pomegranate sold at 10 dirhams, and 10 dirhams at that time were more than a half dînâr, and each sweet pomegranate sold at 16." Suyûṭî, *Husn*, II, 182, reads: "In 776 there was dearth in Egypt, and each pomegranate sold at 16 dirhams, which is near to a dînâr." The exchange rate, then, was less than 20 dirhams to a dînâr and more than 16—possibly close to 18—and reflects the growing scarcity of silver coins; though still another reference to 776 A.H., in 'Alî Pâshâ (XX, 140.29; ascribed apparently to Suyûṭî) makes the exchange still 20 dirhams to the mithqâl. And according to Maqrîzî (*Ighâtha*, 66.3), the Kâmil and Zâhir Baibars silver (see above) continued in common use until 781 A.H., 1379 A.D., when Barqûq's major-domo coined large quantities of copper, ceased coining silver, and copper dominated the currency.

Though on I Jumâdâ, 789 A.H., June, 1387 A.D., Sultan Barqûq tried to reintroduce the use of the standard silver (see below, Zâhirî dirham), in Ramaḍân, 790 A.H., September, 1388 A.D., the dirham was quoted at 30 to the dînâr (*Khiṭat*, II, 422.7; Ibn al-Furât, IX, 35.14, referring to the same event, does not mention the rate of exchange).

In 792 A.H., 1390 A.D., the quotation was 24 dirhams to the dînâr (\$0.1175; *JA*, 1887, p. 253); in 796 A.H., it was 26 1/2 ('Alî Pâshâ, XX, 141.15; as in the following entries he is quoting Maqrîzî).

In 800 A.H., when the coinage of copper was increased, it began to replace silver in purchases and sales; and the use of silver practically ceased ('Alî Pâshâ, XX, 141.15; as noted elsewhere, he used Mu'ayyadî here for the silver coinage).

By the beginning of an-Nâṣir Faraj's reign (801 A.H., 1399 A.D.), if not before, exchange rates and prices were often quoted in terms of gold and "dirhams of fulûs" (i.e., of coppers) instead of silver.

In 801 A.H., however, an attempt was made to force exchange in terms of the silver dirham. The rate was proclaimed to be again 30 to the dînâr; physical punishment was threatened for anyone who resisted the order, and great hardship resulted ('Alî Pâshâ, XX, 141.15). In Shawwâl, distribution was made to the armies at this rate by Yalbughâ as-Sâlimî (Ibn T.B., VI, 7.2).

In 803 A.H., after Sultan Faraj returned from Damascus to Cairo on II Jumâdâ 5, January 5, 1401 A.D., the dirham was quoted at 40 to the dînâr (\$0.08), according to al-'Ainî (fol. 44b.1), though according to Ibn Taghrî Birdî a few days later it



was at about 25 again (VI, 69.11: 100 dirhams equaled 4 dinârs); and when Yalbughâ as-Sâlimî (about Rajab 8, February 22, 1401 A.D., according to Ibn T.B., VI, 72.3), distributed expense money to the armies for a proposed second campaign against Tamerlane in Damascus, it was at the rate of 24 silver dirhams per dinâr ('Alî Pâshâ, XX, 141.18); but by proclamation he soon fixed the rate in the city at 30 dirhams (*ibid.*).

By Rajab 21, 805 A.H., February 14, 1403 A.D., however, the "dirham" had jumped in quotation to 65 per dinâr (Ibn T.B., VI, 106.5); in Şafar, 807 A.H., August, 1404 A.D., it was ordered by the Sultan to be further increased to 100 (VI, 115.15), and 100 dirhams for a dinâr was still the exchange rate on Dhu l-Qa'da 4, or May 4, 1405 (VI, 121.20).

Unfortunately, the kind of dirham to which this last quotation refers is not specified. If it was a silver dirham, it would have implied a considerable decrease in its value from the last previously quoted rate (30 silver dirhams to the dinâr), namely, a decrease from \$0.0933 to \$0.028 per dirham, and a corresponding decrease in the silver content of the coin (see later, "Bad Silver").

However, the reference is probably to a gold-copper (not gold-silver) exchange. For before the end of 807 A.H., i.e., before June 28, 1405 A.D., quotations of the exchange of gold into "dirhams" at 150 to the dinâr definitely refer to the exchange of gold for "dirhams of copper coins" (*fulûs*).

Actually, the word dirham in this phrase is ambiguous, especially since "dirham" alone, without "*fulûs*," came to be used in this sense; and to distinguish it from "dirham" as a silver coin the term "trade dirham" will be used in this treatise (see below, "Trade Dirham").

This "trade dirham" continued to be used in quoting exchange rates even when later new silver coinages were issued, while the term "dirham" for silver coins was replaced or modified by specific terms referring to the Sultans who issued them, Mu'ayyadî, Ashrafî, etc.

## 2. Bad Silver

Silver of Egyptian coinage became increasingly rare during the early years of the IXth century A.H., and the standard dirhams are said to have disappeared from circulation. There are in fact few if any silver coins in existence that were issued during an-Nâşir Faraj's reign (801-815 A.H., 1399-1412 A.D., with a short interruption in 1405 A.D.). 'Alî Pâshâ's quotation (XX, 38.33), apparently from Abd ar-Ra'ûf al-Munâwî, quoting Maqrîzî in reference to a dirham coined by Faraj, is incorrect; the *Khiṭaṭ* (I, 110.20) reads dinâr, not dirham (see above, "Nâşirî Dinâr").

The existing silver coins were hoarded, or worn as ornaments and sold in the bazaars like other precious wares, or the silver content was used in the manufacture of silver luxury articles, including saddles, vases, etc. (*Şubḥ*, III, 467.8; Maqrîzî, *Ighâtha*, 71.8, cp. Silvestre de Sacy, *BAF*, I, p. 40).

Maqrîzî (in Sacy, p. 47) says that the Franks carried away the (silver) dirhams because of the increase in Egypt of the use of copper (see below) which they themselves (the Franks) had imported there.

Possibly the disappearance of the silver money was in part because the "good" money was driven out by the "bad" money included in the many coinages brought into Egypt from the outside, or perhaps in part coined in Egypt itself. Qalqashandî (III, 467.10) speaks of "bad" (radî'a) dirhams coined in Damascus; al-'Ainî is quoted (in *JA*, XV, 1880, p. 443) as using the term "bad" (radî'), opposed to "good" (jayyid), dirhams in 829 A.H.; and so Ibn T.B. (VIII, 310.21) speaks of "good" (ṭayyiba) and "bad" (radî'a) silver in 862 A.H. The more usual terms, however, were "pure" (khâliṣ) and "adulterated" (maghshûsh).

As early as 781 A.H. (1379 A.D.) Ḥamawî dirhams (i.e., from Ḥamâ in Syria) entered Egypt ('Alî Pâshâ, XX, 40.2; Sacy's translation of Maqrîzî, in *BAF*, I, 39 reads "Mahmouis"), probably defective, because Maqrîzî states that "they were the cause of much harm" (or confusion). After 800 A.H. the dirhams containing only one-third silver coined in Damascus were probably current in Egypt also, for Qalqashandî (III, 467.10) mentions them in his description of the Egyptian coinage, after noting the disappearance of the standard dirham there. Others containing only one-tenth silver were current as late as 815 A.H. and were apparently the dominant silver dirham at that time, for it is said that there was great rejoicing because they ceased to be used when in that year a new silver dirham was coined ('Alî Pâshâ, XX, 40.15, 141.30; see below, "Naurûzî Dirham").

Still later, in 834 A.H., 1430-1431 A.D., despite Mu'ayyad's new silver coinage of 817 A.H. (see below), dirhams of Qaramân, of Cyprus, and, apparently, of Tamerlane, are said to have been current at Cairo, containing only 60 per cent silver. Their use was forbidden, and they were ordered to be sold in the goldsmiths' bazaar at the rate of 16 copper dirhams for each dirham weight of silver so that they might be brought to the mint and coined into Ashrafî dirhams. See Ibn Taghrî Birdî's account (VI, 667.18, 668.5); also below, "Ashrafî Dirham," for the price paid for the bad coinage.

The Qaramân and Cyprus coins probably were brought to Cairo by the Egyptian armies on their return from their campaigns in the two regions, just as the Naurûzî and Venetian silver coins had been brought (see below, under "Dirham of Al-Musta'in or Naurûzî Dirham").

The campaigns against the Qaramân rulers of Asia Minor took place in 820-822 A.H., 1417-1419 A.D.; defeated, in 822, they issued coins in the name of al-Mu'ayyad Shaikh (Ibn T.B., VI, 396.17; *El*, s.v. "Ḳaramân-Oghlu"). The only available reference to actual coins of Qaramân is that in Lane-Poole, *Catalogue* (X, p. 190), a silver coin weighing 23 grains, 1.49 grams, struck by Alâ ad-Din in Sîwâs; its silver content is not recorded.

The Cyprus campaigns of the Egyptian fleet and armies took place in 828 and 829 A.H., 1425 and 1426 A.D., and large amounts of booty were brought back from most of the cities of the island (Ibn T.B., VI, 592, 593, 604-617); King James himself was brought to Cairo as a captive, then freed for a ransom of 200,000 dînârs and the promise to pay an annual tribute of 20,000 dînârs (Ibn T.B., VI, 617.19, 22). While the ransom was paid in mushakhkhaṣ gold (VI, 620.19, 626.5, 679.6, 681.14-17), it is probable that the returning armies brought back with them silver coins.

The silver coinage ascribed above (p. 54) to Tamerlane is called by Ibn T.B. (VI, 667.19) "Lankiya," a form used by Arabic historians elsewhere as an abbreviation of Timurlankiya. A coinage of pure gold and silver attributed to Tamerlane was mentioned also in another connection (see p. 48); the known silver coins of Tamerlane and his house, varying in size, weigh on the average 24 grams (Lane-Poole, *Catalogue*, VII, p. xxvii); they were called "Kabak" coins, from the name of the Mongolian Khân Kabak, who first issued dirhams (and dînârs) for his government in his own name (Barthold, in *Abhandlungen für die Kunde des Morgenlandes*, XXI, 1936, p. 13); and Sharaf ad-Dîn (334.5, 336.9; translation, III, 339, 341, "dinars Copeghis") uses this term in connection with his account of Tamerlane's siege of Damascus.

'Alî Pâshâ (XX, 142.29) notes that in Ramadân, 834 A.H., May, 1431, a proclamation forbade the use of "Turkish" silver; possibly this refers to the Qaramân, Cyprus, and Tamerlane silver mentioned above, though the date is a few months later.

Venetian silver (see below, under "Bunduqî") also was current, particularly around 817 A.H., but these coins were of good silver (Ibn Taghrî Birdî, VI, 668.3; 'Alî Pâshâ, XX, 141.33).

The use of the various debased silver coinages had contributed to the confusion and alterations in exchange values noted above, namely, in the steady diminution in the quoted exchange value of the dirham and the disuse of the term "dirham" itself to denote the silver coinage.

### 3. Zâhirî (Barqûq's) Dirham

Zâhirî dirham: issued by Sultan al-Malik az-Zâhir in 789 A.H., 1387 A.D., apparently of the earlier standard type.

Extant silver coins of Barqûq's reign, of undetermined date, vary between 1.47 grams (i.e., half dirhams) and 3.42 grams. The coinage of 789 A.H. is said by Ibn Furât (IX, 6.14, 25; 8.3) to be "white," i.e., good, silver alloy, in which the proportion of silver was greater than that of copper, in contrast to "black" silver, which had a greater proportion of copper. Ibn Furât does not mention the weight of the new coin. Ibn Iyâs (I, 266.14) refers to this coinage as fulûs (see below, under "Copper").

According to Maqrîzî (*Ighâtha*, 71.1-7; cp. *BAF*, I, p. 39), after Barqûq became Sultan, his ustâdâr Maḥmûd ibn 'Alî ceased coining silver, coining large quantities of copper instead (see above).

### 4. Al-Musta'in Dirham (Naurûzî Dirham)

Naurûzî dirham: struck by Emir Naurûz in Damascus in 815 A.H. (sometime after I Rabi' 8, June 19, 1412 A.D.) while he was virtual ruler of all Syria but Caliph al-Musta'in was titular Sultan. The coin was known as the Naurûzî, just as a coinage of Sultan Faraj was named Sâlimî (see above). The Musta'in dirham

consisted of one-half silver and one-half copper, according to Ibn Taghrî Birdî (VI, 315.1). Suyûṭî, however, notes (II, 184.7) that in 815 A.H. "pure dirhams" (ad-darâhim al-khâliṣa) were struck which weighed 1/2 dirham each, "the dînâr [being at] 30 thereof." 'Alî Pâshâ (XX, 40.14, 141.30, quoting apparently Ibn Ḥajar) repeats this statement but reads, "the dînâr being 30 ḥabbas." Possibly, if Ibn Taghrî Birdî and Suyûṭî are referring to the same coin, the latter's "pure dirham" coin of one-half silver was used only in contrast to the dirham of one-tenth silver.

The intrinsic value of the Naurûzî, if it was one-half silver (1.487 1/2 grams), would have been \$0.092, and this again would approximate Suyûṭî's stated exchange value, 30 dirhams per dînâr (i.e., 1/30 x \$2.80).

A dirham of al-Musta'in, weighing 1.48 grams (about 23 grains)—i.e., one-half the weight of the old standard dirham,—is recorded by Lavoix (III, no. 982).

The Naurûzî coins were well received when issued; at Cairo many came into circulation when, together with Venetian dirhams, they were brought by Sultan Mu'ayyad Shaikh's army on their return from Damascus in Ramaḍân, 817 A.H., November, 1414 A.D. ('Alî Pâshâ, XX, 40.6; Maqrîzî, in *BAF*, I, p. 40), i.e., before the coinage of Mu'ayyad's own dirhams.

#### 5. Venetian Dirham

Venetian (Bunduqî) dirham: brought to Cairo from Syria in Ramaḍân, 817 A.H. (November, 1414 A.D.) by Emir Shaikh with the Naurûzî (see above). It was of high silver content (Ibn T.B., VI, 668.3: "without any copper"; in fact the Italian silver grosso was 95 per cent pure) and soon circulated at the exchange rate of 12 "dirhams" of fulûs ('Alî Pâshâ, XX, 141.33), i.e., at between \$0.13 and \$0.14 (the "dirham" of fulûs was probably then between \$0.011 and \$0.012), and should have weighed between 1.85 and 2 grams (if silver was \$0.0692 per gram); there are some existing specimens of the Italian grosso of the end of the XIVth century A.D. weighing 1.987 grams (Papadopolis, *La Monete di Venezia*, pp. 229, 238; for the preference of the "Orient" for the grosso, cp. *ibid.*, p. 257); and, after 1400 A.D., 1.82 grams and less.

In 818 A.H., after the Mu'ayyadî had been introduced, the exchange of Venetian silver was fixed by proclamation "at 15 for the weight of a dirham" ('Alî Pâshâ, XX, 40.13, 142.3), i.e., at 15 trade dirhams of about \$0.011 each (about the value current then), or \$0.165 for 2.975 grams of silver 95 per cent pure, about \$0.058 per gram, or between \$0.10 and \$0.11 per coin; this would indicate a large discount in favor of the Mu'ayyadî; but probably the text means "each weighed coin at 15 trade dirhams," i.e., the weight of about 2 grams for \$0.165, or \$0.082 per gram.

#### 6. Mu'ayyadî Dirham

Mu'ayyadî dirham: ordered by al-Mu'ayyad Shaikh to be coined in Shawwâl, 817 A.H. (began December 14, 1414 A.D.), and introduced into circulation Şafar 24,

818 A.H., May 5, 1415 A.D. (*BAF*, I, p. 40; 'Alî Pâshâ, from Ibn Hajar, XX, 408). It contained  $\frac{7}{8}$  of a dirham (i.e.,  $\frac{7}{8}$  of 2.975 grams) or 2.6 grams, of "good silver," according to Maqrîzî; or 14 qîrâts, according to Ibn Hajar, i.e., 2.478 grams. These two statements come from 'Alî Pâshâ (XX, 40.16 and 12), who says they are in agreement, implying that the qîrât was about .185 gram; but it is usually said to equal .177 gram, which would indicate 2.478 grams for the Mu'ayyadi, and in that case 2.6 grams may have included the weight of the copper content (5 per cent). Of five existing "Mu'ayyadis" four weigh about 1.22 grams each and are evidently half Mu'ayyadis; and one weighs .622 gram, a quarter Mu'ayyadi; the difference between 2.48 and 2.6 grams would represent normal abrasion, and in fact by 825 A.H. the Mu'ayyadi is said to have been abraded one-half (see below).

The intrinsic value of the Mu'ayyadi, at the previous and later prices of silver, \$0.0692 and \$0.067 per gram (see below, s.v. "Ashrafi"), would be between \$0.17 and \$0.18; it was issued, however, at 18 trade dirhams ('Alî Pâshâ, XX, 40.18), worth about \$0.011 each at that date, i.e., at close to \$0.20, representing a considerable premium; and 14 Mu'ayyadis would make a dînâr.

Many, probably a large proportion, of half Mu'ayyadis, also quarter Mu'ayyadis, were struck (see above), and in later years values were often quoted by the half Mu'ayyadi; e.g., Ibn T.B., VI, 351.17: "The Sultan gave each mamlûk 30 ducats and 90 half Mu'ayyadis" (in 818 A.H.); in quoting the Mu'ayyadi at 18 dirhams, Maqrîzî ('Alî Pâshâ, XX, 40.18) adds specifically "and the half at 9." Mu'ayyadi's endowment deed of 1420 A.D. fixes all its stipends in "half silvers." Indeed, in some passages half Mu'ayyadis are probably meant even when "half" is not specified. Thus in Muḥarram, 819 A.H. (March, 1416 A.D.), 1 Mu'ayyadi is equated with 9 trade dirhams, i.e., \$0.1008 (Ibn T.B., VI, 357.1: "five silver Mu'ayyadis, equal to 45 dirhams"; the trade dirham had been \$0.0112 in 818). Later in 819, 30 silvers are equated with 1 florin and 1 florin with 210 trade dirhams while the full-weight dînâr was at 230 ('Alî Pâshâ, XX, 142.7; the trade dirham was accordingly \$0.01217 and the florin \$2.5557), fixing the "silver" (Mu'ayyadi) at \$0.0852, which would be one half its intrinsic value and considerably less than half of its earlier market value. On Sha'bân 16, 821 A.H. (September 18, 1418), one ducat is again equated with 30 silver Mu'ayyadis, making the "Mu'ayyadi," i.e., the half Mu'ayyadi, worth \$0.086. This is from Maqrîzî, *Khîṭat*, II, 94.2; the text reads "1,000 African (Ifriqiya) dînârs equal to 3,000 Mu'ayyadi silvers"; "Ifriqiya" is evidently a misreading of "Ifrintiya." The text also equates 7,000 (trade) dirhams with 1,000 Mu'ayyadis; and in 823 again 70 (trade) dirhams equal 10 Mu'ayyadis.

By Şafar, 825 A.H. (began January 25, 1422), the half Mu'ayyadi had become so much abraded that it was by weight only a quarter Mu'ayyadi, and it was ordered to pass by weight instead of by tale at 20 trade dirhams for one dirham weight of silver (Ibn T.B., VI, 537.18; he states that as a result of this decree everyone who sold anything had to have with him a scale), and 11 dirhams weight of the silver for one ducat; and the ducat (\$2.58) at the same time was valued at 220 trade dirhams; the trade dirham accordingly was \$0.0117; 1 dirham weight (1.975 grams) of silver was \$0.234 (silver would now be \$0.078 per gram), and

at this rate the ratio of the value of silver to gold would now be 1 to 8; see p. 44, under "Currency."

### 7. Ashrafi Dirham

Ashrafi dirham: struck by al-Ashraf Barsbâi in 834 A.H. (I Rabi'; November-December, 1430 A.D.) of good (i.e., 94 1/2 per cent) silver to replace current foreign coins containing only 60 per cent silver (Ibn T.B., VI, 668.5; VIII, 292.20; cp. Ibn Iyâs, II, 22.15). The Ashrafi dirham was valued at 20 trade dirhams ('Alî Pâshâ, XX, 51.14), or \$0.168 (Ibn T.B., VI, 668.6: the Ashrafi [dînâr] at 280). Its weight was probably like that of the Mu'ayyadi, with 2.478 grams of silver.

This is 5/6 of the presumed weight of the Zâhiri, 2.975 grams (see below); and the Ashrafi in 854 A.H. was actually quoted at 5/6 of the Zâhiri (at 20 trade dirhams while the Zâhiri was at 24); 2.478 grams of silver for \$0.168 would indicate \$0.0678 per gram for silver, about the current price at this date. And at \$0.0678 the retired coinage containing 60 per cent silver and 40 per cent copper would have been worth about \$0.126, close to \$0.1344, the price fixed for it (16 dirhams per dirham weight); moreover, 60 per cent may be an inexact figure. The extant coins of Barsbâi's reign all weigh less than 2.478 grams (1.95, 1.97, 2.08, 2.13, and two of 1.08 each [half of 2.16]); they may be of different coinage or have become much abraded, as is recorded of the pure silver Mu'ayyadi.

In 836 A.H. (II Jumâdâ 29: March 21, 1433 A.D.) the Ashrafi dirham had a market value of \$0.176, close to the issue price of the Mu'ayyadi and slightly more than the issue price of the Ashrafi. According to Ibn T.B. (VI, 687), instead of 100 Ashrafi dînârs (value \$2.35) each mamlûk received 1,050 Ashrafi dirhams, equal to 22,000 trade dirhams, calculated at the rate of 220 trade dirhams per dînâr; the market rate for trade dirhams, however, was 280 per dînâr, at which rate each mamlûk should have received 60 dirhams on each 220, or 3/11, more, and therefore also 3/11 Ashrafi dirhams more, or 1,336, to equal \$235.00, making the Ashrafi dirham \$0.176, and silver \$0.071 per gram.

In Sha'bân, 836 A.H. (March 23-April 21, 1433 A.D.), the Ashrafi may have had a temporary forced market value of more than \$0.20, according to 'Alî Pâshâ, XX, 142.30, where 1 dînâr is quoted at "something less than 10 silver dirhams"; and another statement makes it at 9; this would indicate that the Sultan had been successful in enforcing his desired exchange value of 220 trade dirhams per dînâr (see above).

In 843 A.H. (1439 A.D.), when the use of this dirham was forbidden, it was ordered surrendered at \$0.165, i.e., at 20 trade dirhams each, the latter at 285 per Ashrafi dînâr or \$0.00825 each (Ibn T.B., VII, 113.3). It continued in use, however; on I Jumâdâ 9, 854 A.H., June 20, 1450 A.D., it was still at 20 trade dirhams (Ibn T.B., VIII, 76.1; Sakhâwî, *Tibr*, 307.15), presumably of \$0.00846 each, or between \$0.16 and \$0.17; and the Ashrafi is mentioned again in 865 A.H. (I Rabi'), December, 1460 A.D. (Ibn T.B., VIII, 294).

## 8. Zâhiri Dirham

Zâhiri dirham: coined by az-Zâhir Jaqmaq in Dhu l-Hijja, 843 A.H., May, 1440 A.D., to pass by tale at 24 dirhams, which latter were at 285 per Ashrafî dinâr; halves and quarters also were coined (Ibn T.B., VIII, 111.3-10). They were 94 1/2 per cent good silver (Ibn T.B., VIII, 294.23, year 861 A.H.). The value of the Zâhiri was then \$0.198 (i.e., 285 trade dirhams of \$0.00825 each).

In 854 A.H. (1450 A.D.) the Zâhiri was still at 24 trade dirhams (Ibn T.B., VIII, 76.1; Sakhâwî, *Tibr*, 307.14; the trade dirham was then at \$0.00846), or \$0.20, but whether by tale or weight is not certain.

If the Zâhiri silver dirham coin was to pass by tale, it may be expected to have been a (silver) dirham in weight, i.e., 2.975 grams, with silver content of 2.81137 grams (94 1/2 per cent), which, at \$0.071 per gram for silver (the value of the Ashrafî silver in 836 A.H.), would be valued at about \$0.1996, close to the value stated above.

Extant Zâhiri dirhams are, except one, of uncertain date; two weigh respectively 1.46 and 1.47 grams, but are too worn to be good half dirhams; and most of the others weigh between 1.89 and 1.75 grams (one of these is dated 845 A.H.). A loss of 40 per cent in weight through abrasion may not be too great to assume for pure silver, since the Mu'ayyadi is actually stated to have lost 50 per cent. The extant coins may, however, belong to another coinage of Jaqmaq (not noticed in the *Chronicles*), closer to the original weight of the Mu'ayyadi or Ashrafî or even the Venetian grosso.

## 9. Înâlî Dirham

Înâlî dirham: two coinages were issued in the reign of al-Ashraf Înâl, between 857 and 865 A.H., 1453-1461 A.D. The first, struck in Aleppo and Damascus, and current also in Egypt, was found in 861 A.H. to contain only one-half or less of silver (Ibn T.B., VIII, 294.21, 295.11).

The second, apparently mainly half dirhams and some quarter dirhams containing 96 per cent good silver, was struck in 861 A.H., or early in 862 A.H. (cp. Ibn T.B., VII, 496.5, VIII, 311.5, against VIII, 294.23 for the date). On I Rabi' 1, 862 (January 17, 1458 A.D.) the value was proclaimed at 24 trade dirhams per Înâlî, with the Ashrafî dinâr at 300, or \$0.00783 per trade dirham (cp. Ibn T.B., VIII, 496.3: called here dirham nuqra). The proclamation was repeated several times; e.g., II Rabi' 13, 862 (February 28, 1458), before it could be enforced. This made the Înâlî \$0.18792, a value confirmed by another quotation that the Ashrafî dinâr was at 25 "new halves by tale" of pure silver (Ibn Iyâs, II, 61.22; 'Alî Pâshâ, XX, 143.8, by error quotes Ibn Iyâs as giving the dinâr at 300 half silvers); the adulterated silver was priced at 16 trade dirhams per silver dirham, or \$0.12528.

The new whole dirham weighed 2.975 grams, to pass by tale (cp. Ibn T.B., VIII, 295.17; "and the half a half dirham"). Of 15 extant silver coins of Înâl, nine weigh between 1.45 and 1.48 grams (three are 1.47 and four are 1.48 each),

all evidently halves of 2.975; three other halves are slightly overweight (1.53-1.54 grams); one is slightly over one-quarter (.75 instead of .744); and one is .99 or a third of 2.97; but whether pure or adulterated silver is not specified. Good silver was therefore now \$0.0658 per gram.

The new coinage was received with great favor after prices had been adjusted to the new rates and counterfeiters had been severely punished; and the same rate (24 trade dirhams [here called nuqra dirhams] to the dirham, i.e., to the silver dirham) is recorded for 871 A.H. (I Rabi' 7, October 7, 1466 A.D.), when use by tale was again ordered (cp. Ibn T.B., VIII, 530.10).

How many years after 1458 A.D., 862 A.H., the half silver continued at about \$0.0948 is doubtful, because of the absence of data.

However, by 1476 A.D., 881 A.H., the silver coinage had become very light in weight (Ibn Iyâs, II, ed. Kahle, 5c, 117.20); prices were being quoted in the markets in coppers and silver both, causing some confusion.

In October, 1476 A.D., Rajab, 881 A.H., the half silver was proclaimed at 18 old coppers, which apparently made the half silver worth about \$0.076 (the whole, \$0.152; cp. Ibn Iyâs, 5c, 117.8). And at the end of 1476 (Ramadân) gold, silver, and copper were all ordered to pass by weight (5c, 117.18; and see below under "Copper," p. 72).

In 1486-1487 A.D., Muḥarram, 892 A.H., the half silver was quoted at 24 new copper coins by tale (5c, 231.20); but the value of the new copper is not stated in terms of gold or trade dirhams (see below).

In 1498 A.D., 903 A.H., the half silver was exchanged for the gold dīnâr at 30 halves per dīnâr (Ibn Iyâs, II, 344.6; 5c, 385.19; the inserted disturbing phrase, *min al-fulûs al-judad*, in the sentence is dittography from the preceding line, and 'Alî Pâshâ, XX, 143.28, properly omits it). The half silver is again seen to be worth \$0.0783 (cp. \$0.076 under 1476 A.D., above). The practice of quoting two different prices simultaneously in the markets—one in silver and one in copper—is again said to have caused confusion (for the new coppers at this date, see below, p. 72).

### III. Trade Dirham

Trade dirham: a nominal unit of currency, the varying fraction of a dīnâr or mithqâl, expressed as one out of a varying number of "dirhams of copper coins" (*darâhim al-fulûs*) but actually paid or received in a different number of copper coins or dirham weights of copper; e.g., one dīnâr equals 140 (trade) dirhams of fulûs equals 3,360 dirham weights of copper coins. The number of (trade) dirhams given in exchange for gold and the actual number of dirhams of copper exchanged for the (trade) dirham were changed from time to time either by decree or, sometimes, by usage, but the two rates of exchange were not necessarily changed simultaneously.

The Arabic term for "trade" dirham, i.e., "dirham of copper coins" (*dirham fulûs*), must be distinguished from "dirham" denoting a certain weight of copper



or of copper coins; "dirham" in the first sense is sometimes specified to be "coins" or "money" (naqd), in the latter sense it is generally specified to be weight (dirham waznan; wazn, or zinat, dirham); e.g., "each dirham of the fulûs is two ûqîya the weight of which is 24 dirhams" (*Ighâtha*, 76.10).

The term "trade dirham" used for dirham fulûs in the present treatise is the translation of another Arabic phrase, dirham mu'âmala, which, however, meant specifically the formerly used standard silver coin (cp. *Ighâtha*, 72.2, dirham min al-madrûb min al-fiḍḍa with *Ighâtha*, 77.1, darâhim al-mu'âmala), in contrast to "dirham fiḍḍa," a dirham weight of pure, uncoined silver (*Ighâtha*, 80.12).

Mu'âmala is used by Qalqashandî (*Ṣubḥ*, III, p. 440) to include coinage, weights, measures, and prices; it meant also exchange and commerce, and dirham mu'âmala meant current money, and mu'âmala alone came to mean money (see Dozy).

Since after the early years of the XVth century A.D. "dirham" referred to copper money in exchange, not to silver money, there is no ambiguity in the use of the term "trade dirham" to denote the quoted copper unit of exchange in commerce.

Maqrîzî explains the meaning of this "trade dirham" (dirham fulûs) thus (*Ighâtha*, 76.8-10, 80.18-81.2):

"Each qinṭar of copper coins, that is, 100 Egyptian riṭl [pounds] by weight, contains 600 dirham coins; each pound, containing 144 dirham weights, therefore contains 6 dirhams [coins], and each dirham is 2 ûqîya in weight, that is, 24 dirham weights [2.7 ounces].

"For a gold mithqâl there are now received in exchange 23 1/3 riṭls [pounds] of red copper coined into pieces called fulûs, which they [the authorities] reckon [ḥisâbuhu bi-za'mihim] as 140 dirhams of fulûs - this is the exchange of a dînâr for fulûs at that time [li-ahdi 'idhin]."

This seems to mean, since 23 1/3 riṭls equal 3,360 dirham weights, that each of the quoted 140 dirhams of fulûs (trade dirhams) equals 24 dirham weights of copper, divided into 6 copper dirham coins (of 4 dirham weights each).

At the quoted price of 23 1/3 pounds of copper coins to the dînâr (\$2.80) and the exchange rate of 140 trade dirhams to the dînâr, the trade dirham had the value of \$0.02, a dirham weight of copper coins was \$0.008 1/3, and a dirham coin \$0.0033 1/3. Copper was at the rate of \$0.12 per pound.

These quotations from Maqrîzî's *Ighâtha* are an introduction to his proposed return to the gold-silver basis of exchange in all major transactions, leaving copper for petty purchases only (*Ighâtha*, 81.6-9). His new exchange rates would be:

24 silver dirhams for 1 dînâr;

23 1/3 pounds of copper coins (fulûs) for 24 silver dirhams (or 1 dînâr);

"about" 140 copper coins for 1 silver dirham.

Since 23 1/3 pounds equal 3,360 dirham weights, each silver coin would be exchanged for 140 dirham weights of copper (3360 ÷ 24), and since each silver coin would also be exchanged for 140 copper coins, evidently each copper coin would weigh 1 dirham.

The wording of these passages is not always clear - whether, for example, copper was actually being sold at 23 1/3 pounds for a dînâr, and 140 was actually the current rate of exchange; or whether, as Maqrîzî himself states (*Ighâtha*, 72.1, 76.17, 77.9), the exchange rate of the (trade) dirham of fulûs was 150 (not 140) to the dînâr. If each trade dirham (as stated above) weighed 24 dirham weights, the 150 dirhams would have amounted to 3,600 dirham weights instead of 3,360; and at 23 1/3 pounds of copper for a dînâr, each dirham weight would represent only 1/3,600 of a dînâr (\$0.0007 8/9) instead of 1/3,360 dînâr (\$0.0008 1/3). If, however, the value of the dirham weight of copper was \$0.0008 1/3, the price of copper would have been 25 pounds for a dînâr.

Maqrîzî's appeal to the authorities for the return to the gold-silver standard of exchange was not answered at this time; and even when the coinage of good silver was reintroduced in 1415 A.D. (818 A.H.) by Sultan al-Mu'ayyad Shaikh, the gold-copper exchange remained dominant, and commodity prices were quoted in terms of the trade dirham, less frequently in terms of silver.

Maqrîzî then, in another treatise on money (written apparently in response to a demand from Sultan al-Mu'ayyad), while praising the Sultan for his silver coinage, complains that he permits it to be a mere accessory to "pieces of copper," a condition introduced under the "infamous" Sultan Faraj; he asks that the Sultan issue orders forbidding the use or mention of any coins except the Mu'ayyadi silver in legal documents, in accounts and registers, or in the market quotations of any commodities, however cheap or dear (*BAF*, I, pp.42-44).

The use of the trade dirham, as has been noted above, continued well throughout the century; silver itself was equated not directly with dirham weights of copper, but with trade dirhams. At the same time, dirham weights of copper were also quoted in terms of the trade dirham (e.g., 12 trade dirhams for a pound of copper, or 1 trade dirham for 12 dirham weights; i.e.,  $144 \div 12$ ).

The number of trade dirhams to the dînâr was frequently changed during the century; it was sometimes increased and sometimes decreased, rising as high as 460 in 458 A.H., but being reduced definitely in the same year to 300. This necessitated changes in the rates of exchange of trade dirhams into copper coins, as did also changes in the copper coinage when made. But, as has also been noted above, the changes in the rates relating to trade dirhams and copper coins were not always made simultaneously with those relating to trade dirhams and gold, nor were they always made in the same proportion.

As a result, ambiguity sometimes resulted in the interpretation of contracts and deeds of trust, and this became the subject of legal discussion. One Egyptian writer of the XVth century A.D. states that in his time, when a contract or deed contains the word "dirham" without the qualifying word "silver," dirham was interpreted in Egypt to mean four dirhams of the weight of the "dirham of seven" (i.e., the dirham weight of 2.975 grams) in coppers (fals). This statement confirms the explanation given above that "dirham" as used in quotations during this century meant not one but several dirham weights of copper, the number varying from time to time.

The author of the statement just mentioned (the passage is in *JA*, XV, 1880, 241; translated also, slightly differently, XIV, 1879, 497) died in 861 A.H. The rate 4 dirham weights of 2.975 grams each to a trade dirham equals about  $3 \frac{3}{4}$  dirhams of 3.186 grams each and a market rate of about 38 trade dirhams per pound of 144 dirham weights. On the other hand, a rate of 4 dirham weights (of 3.186 grams each) to a trade dirham would be a rate of 36 trade dirhams per pound. The latter (36) was the actual rate proclaimed, for instance, twice in 854 A.H., alternating within the same year with two quotations of 42 trade dirhams per pound ( $3 \frac{1}{7}$  dirham weights of 3.186 each) for a trade dirham. The last previous rate recorded, in 843 A.H., was 27 trade dirhams per pound, making the trade dirham  $5 \frac{1}{3}$  dirham weights of 3.186 grams or, in the actual coinage then introduced, 4 units of 4.25 grams (8 coins of 2.125 grams each). Whether the rate 4 silver dirham weights of coppers to the trade dirham was at one time the exact equivalent of some actual current market rate is uncertain; it was probably rather a roughly calculated average rate, and at the same time, perhaps, as a legal fiction, combined an occasionally quoted 4 dirham weights (but of 3.186 grams) with the legal weight of the silver coinage (2.975 grams), to which the trade dirham theoretically belonged.

The exchange rate of trade dirhams and gold, as indicated above, changed frequently, sometimes at comparatively short intervals.

In 805 A.H. (Rajab; January 25 - February 23, 1402 A.D.) the quoted rate of 65 dirhams per *dinâr* given by Ibn T.B., VI, 106.5 (the dirham worth then \$0.0434), it was suggested above, already referred to the trade dirham rather than to the (debased) silver dirham. If the cost of copper, estimated at  $4 \frac{1}{2}$  dirhams per *riḡl* in 798, still held at this date, the supposed trade dirham would have equaled 32 dirham weights (3.186 grams each) of copper. The weight of the current copper coins at this time is not known; if they weighed  $\frac{1}{4}$  dirham each (as they did in 807 A.H.), there would have been 128 coins to the trade dirham; if coins of the 759 A.H. coinage (weighing 1 *mithqâl* each) were still current, 24 such coins would have made 1 trade dirham.

In 807 A.H. (Ṣafar 21 and Dhu l-Qa'da 2: August 30, 1404, and May 1, 1405 A.D.) the (trade) dirham was proclaimed at 100 to the *dinâr* (Ibn T.B., VI, 115.15, 121.20), or at \$0.028, but before the end of 807 A.H., i.e., before June 28, 1405 A.D., the quotation was 150 dirhams of *fulûs* to the *dinâr* (*Ighâtha*, 72.1); this quotation is given by Maqrîzî as of the date at which he was writing his *Ighâtha* (81.2); and since he dates his finished corrected copy of the work as in the first month of 808 A.H. (cp. *Ighâtha*, 86.9) it may be concluded that the quotation refers to 807 A.H. - this despite a reference to 808 in the body of the text (83.15).

At any rate, on II Rabî' 18, 808, October 14, 1405, during the sultanate of al-Malik al-Manṣûr Yûsuf, it was at 150, or \$0.018  $\frac{2}{3}$  (Ibn T.B., VI, 167.20; the text makes 500,000 dirhams equal  $3,033 \frac{1}{3}$  gold *mithqâls*, which would mean 164.833 dirhams per *mithqâl*; evidently  $3,333 \frac{1}{3}$  dirhams is to be read, making exactly 150 dirhams per *mithqâl*); it is clear from the *Ighâtha* that Ibn T.B. means trade dirhams of *fulûs*, though he does not specifically indicate this.

Sometime between II Jumâdâ 7 and Ramaḍân 19, 808 A.H., i.e., between October 20, 1405 A.D., and March 10, 1406 A.D., the quotation was 250 dirhams of fulûs to the dînâr, or \$0.0112 ('Alî Pâshâ, 141.20, from Maqrîzî); the rise in the cost of gold is ascribed here to the great expenditures of Sa'd ad-Dîn ibn al-Ghurâb, who had been nâzir al-khaṣṣ and is called here "emir"; Sa'd ad-Dîn became an emir in II Jumâdâ 7, 808 (Ibn T.B., VI, 173.8), after Faraj's return to the sultanate following Manṣûr Yûsuf's short interregnum; Ibn Ghurâb died Ramaḍân 19, 808, according to *Khiṭaṭ*, II, 420.21, *Dau'*, I, 65.213.

In assigning to the trade dirham the value \$0.0112 it has been assumed that when the dînâr is quoted it is always the standard dînâr of \$2.80, despite the fact that in 808 A.H. the Nâṣirî dînâr of less weight was issued, that the Venetian ducat was common, and that later the Ashrafî became standard; but the term used in the foregoing quotations is generally mithqâl, while other gold coins are called by special names (e.g., Ibn T.B., VI, 253.20, "dînâr Nâṣirî", once, however, the dînâr, assumed to be the standard dînâr, is called dînâr makhtûm: 'Alî Pâshâ, XX, 140.18, in reference to 826 A.H.). If the Nâṣirî, however, was meant, the trade dirham at 250 per dînâr would have been worth only \$0.0094, copper at 12 dirhams only \$0.1128 per pound, and a dirham weight of copper only \$0.000783 (instead of \$0.000933).

The quotations for the years after 808 follow in abbreviated form:

817 A.H. (after Ramaḍân: November, 1414 A.D.): trade dirhams 12 per Venetian silver coin ('Alî Pâshâ, XX, 40.18; 141.4 from bel.), probably \$0.01 or \$0.011, a value based on the estimated intrinsic value of Venetian silver, \$0.14 or \$0.15 (cp. trade dirham of 808 A.H., and following items).

818 A.H. (Ṣafar 24: May 5, 1415 A.D.): trade dirhams 18 per Mu'ayyadî silver ('Alî Pâshâ, XX, 40.18, 142.4); probably \$0.01 or \$0.011, a value based on estimated intrinsic value of the Mu'ayyadî, between \$0.17 and \$0.18.

818 A.H. (before Dhu l-Ḥijja: February, 1416 A.D.): trade dirhams 260 per dînâr, or \$0.0108 according to Ibn T.B. (VI, 356.14), but 280 dirhams, \$0.010, according to 'Alî Pâshâ, XX, 51.3, from Ibn Ḥajar.

818 A.H. (Dhu l-Ḥijja: February, 1416 A.D.): trade dirhams 250 per dînâr (Ibn T.B., VI, 356.16); \$0.0112.

819 A.H. (began March, 1416 A.D.): trade dirhams 230 per dînâr ('Alî Pâshâ, XX, 51.3); \$0.01217.

820 A.H. (Muḥarram 5: February 22, 1417 A.D.): trade dirhams 208 1/3 per dînâr, \$0.01344; cp. Ibn T.B., VI, 360.21: "48 dînârs the exchange of which is 10,000 dirhams"; probably 48 dînârs is an approximation, and the market quotation was 210. In view of the last and the next quotations perhaps dînâr is here an error for ducat; if so, the quotation was equal to 230 per dînâr; \$0.01217.

821 A.H. (Sha'bân: September, 1418 A.D.): trade dirham 7 per (half) Mu'ayyadî; probably \$0.01217; cp. *Khiṭaṭ*, II, 94.2: "7,000 dirhams of fulûs equal 1,000 Mu'ayyadîs" and "1,000 African [but see s.v. "Ducat" and "Mu'ayyadî"] dînârs equal 30,000 Mu'ayyadîs"; i.e., 210 trade dirhams equal 1 ducat, or probably 230 trade dirhams equal 1 dînâr ('Alî Pâshâ, XX, 142.9, in reproducing Maqrîzî's figures, reads "9 dirhams" for "7 dirhams").

823 A.H. (1420 A.D.): trade dirhams still at 7 to the (half) Mu'ayyadi (*Khiṭāṭ*, II, 427.7); probably \$0.01217 (cp. 821 A.H.).

825 A.H. (Ṣafar 18: February 11, 1422 A.D.): trade dirham probably at 240 per dīnār (\$0.01117); actually at 220 per ducat (ifrantī; Ibn T.B., VI, 537.16); cp. 818 A.H., when 230 ducats equal 250 mithqāls, and 829 when the ducat about equaled the Ashrafi dīnār. The trade dirham is also equated with a dirham weight of the Mu'ayyadi silver dirham.

826 A.H. (after Ramaḍān: August, 1423 A.D.): trade dirham 240 per dīnār (\$0.0117); cp. 'Alī Pāshā, XX, 142.18 (see 51.7 for the month): "Wheat at 60 dirhams [i.e., per irdabb], or 4 irdabbs for a makhtūm dīnār" (cp. above, under "Gold Dīnār").

829 A.H. (1425-1426 A.D.): trade dirham 225 per ducat (\$0.010 4/9); cp. 'Alī Pāshā, XX, 142.22. This was probably about January 17, 1426, when the Ashrafi was coined and the ducat was ordered surrendered. The value assigned is predicated on the ducat at \$2.35, its intrinsic value; it is possible, however, that the ducat was above its intrinsic value: if the trade dirham had its value of 826 A.H. (\$0.0117), the ducat would be \$2.63. But see the quotation for copper in 832 A.H., p. 70.

834 A.H., before Ṣafar (November, 1430 A.D.): trade dirham 285 per Ashrafi dīnār; \$0.008245+ (Ibn T.B., VI, 667.12; cp. 'Alī Pāshā, XX, 142.28).

834 A.H. (Ṣafar 29: November 16, 1430): trade dirham 235 per Ashrafi dīnār, \$0.01 (Ibn T.B., VI, 667.13; see "Ashrafi Dīnār," p. 50).

834 A.H. (probably Ramaḍān: May, 1431): trade dirham 280 per Ashrafi dīnār, \$0.0084; cp. Ibn T.B., VI, 668.7; 'Alī Pāshā, XX, 51.15, states that it had reached 285 and remained thus to the end of Sultan Barsbai's reign (841 A.H.); so Ibn T.B., "and all this continued, no one was able to oppose it in any respect." 'Alī Pāshā repeats this, XX, 142.9, and then adds that in Ramaḍān (May, 1431) it was proclaimed at 200; this is probably an error for 280; cp. Ibn T.B.'s words (668.6): "then after this [after I Rabi'] it was proclaimed at 280."

836 A.H. (II Jumādā 21, 29: February 12, 20, 1433 A.D.): trade dirham at 280 per Ashrafi dīnār (Ibn T.B., VI, 686.3, 687.14), or \$0.00839. The Sultan, however, forced his armies to accept silver reckoned at 220 trade dirhams per dīnār ('Alī Pāshā, XX, 142.29, quotes the Ashrafi dīnār at 270 for 836 A.H., without month).

843 A.H. (Dhū l-Ḥijja 7: May 10, 1440 A.D.): trade dirham at 285 per Ashrafi dīnār (Ibn T.B., VII, 111.10), \$0.008245.

855 A.H. (Muḥarram: February, 1451 A.D.): trade dirham apparently at 285 per Ashrafi. 'Alī Pāshā (XVIII, 68) and *Mémoires*, 1923 (p. 161), from the *Nashq* of Ibn Iyās, give under the year 854 A.H., 1450 A.D., the extreme price of wheat for the Nile year (i.e., 1450-1451) as 7 dīnārs; but Ibn Iyās in his *History* (II, 31) places this quotation under the year 853 A.H., though clearly referring to events of the next two years (*ibid.*, II, 118: merely "in Jaqmaq's sultanate"); Ibn T.B. (VII, 355, note *v...w*), also clearly referring to the same event, gives 2,000 dirhams per irdabb, i.e., 285 dirhams per Ashrafi.

856 A.H. (before I Rabi' 17: April 7, 1452): trade dirhams had been at 320 per Ashrafi dinâr, \$0.00734 according to Sakhâwî (*Tibr*, 382.3); but see later in Dhu l-Qa'da, below.

856 A.H. (I Rabi' 17: April 7, 1452): trade dirham at 285 per Ashrafi dinâr (Ibn T.B., VII, 224.3), \$0.00825.

856 A.H. (Dhu l-Qa'da: November, 1452): trade dirham at 320 per Ashrafi dinâr, \$0.00734; Ibn T.B., VIII, 135.10, who adds that this was the highest gold price he had known (but see later).

857 A.H. (early part equals 1453 A.D.): trade dirham at 330 per Ashrafi dinâr (Ibn T.B., VIII, 186.5), or \$0.00712.

857 A.H. (I Jumâdâ 21: May 30, 1453 A.D.): trade dirham proclaimed at 285 per Ashrafi dinâr, \$0.00825, because of popular distress (Ibn T.B., VIII, 186.4).

857 A.H. (I Jumâdâ 26: June 4, 1453 A.D.): trade dirham at 320 per dinâr (Ibn T.B., VIII, 186.17), \$0.00734.

857 A.H. (Dhu l-Qa'da 1: November 3, 1453 A.D.): trade dirham at 335 per dinâr (Ibn T.B., VIII, 196.2), \$0.007.

857 A.H. (after Dhu l-Qa'da): trade dirham at 350 per dinâr (Ibn T.B., VIII, 199.9), \$0.00671.

857 A.H. (Dhu l-Hijja 23: December 25, 1453 A.D.): trade dirham at 320 per dinâr by proclamation (Ibn T.B., VIII, 199.7), \$0.00734.

858 A.H. (II Jumâdâ 2, 9: May 30, June 6, 1454 A.D.): trade dirham 320 per dinâr (Ibn T.B., VIII, 208.9, 19), \$0.00734.

858 A.H. (Rajab 1: June 27, 1454 A.D.): trade dirham 350 per dinâr, \$0.00671; Ibn T.B., VIII, 209.7; this was in trade, not by proclamation.

859 A.H. (Muḥarram: January, 1455): trade dirham at 370 (Ibn T.B., VIII, 222.22), \$0.006351.

859 A.H. (I Rabi' 9 and 12: February 27 and March 2, 1455 A.D.): trade dirham at 300, \$0.0078 1/3; Ibn T.B. (VIII, 225.8, 17): by proclamation. "This caused great distress, especially to such poor as had taken gold for something they sold at the former exchange rate and now found it at this rate."

859 A.H. (Dhu l-Qa'da 1: Oct. 13, 1455): trade dirham again proclaimed at 300 (Ibn T.B., VIII, 245.19).

860 A.H. (Ramaḍân, end: August, 1456): trade dirham at 360 per dinâr, \$0.00652 7/9, in trade, and at 350 in exchange (Ibn T.B., VIII, 276.20), \$0.00671.

860 A.H. (after Ramaḍân and before Muḥarram): trade dirham at 375 (Ibn T.B., VIII, 291.12; VII, 473.5), \$0.0062 2/3.

861 A.H. (Muḥarram 6: December 4, 1456 A.D.): trade dirham at 300, \$0.0078 1/3, by proclamation (Ibn T.B., VIII, 291.11).

861 A.H. (I Rabi': February, 1457 A.D.): trade dirham at 420 per Ashrafi dinâr (Ibn T.B., VIII, 297.10), \$0.005595.

862 A.H. (beginning: November 19, 1457): trade dirham at 450 (Ibn T.B., VIII, 309.1), \$0.0052 2/9.

862 A.H. (before I Rabi' 3: January 19, 1458 A.D.): trade dirham at 460 (Ibn T.B., VIII, 310.20), \$0.0051.

862 A.H. (I Rabi' 3: January 19, 1458 A.D.): trade dirham at 300 (Ibn T.B., VIII, 311.3: "the gold Ashrafi at 300," but Vat. MS, fol. 76b.13, adds "dirham"; cp. Ibn Iyâs, II, 61.22: "the gold dinâr at 300"; but 'Alî Pâshâ, XX, 143.8: "the gold dinâr at 300 half silvers"!), \$0.0078 1/3, by proclamation.

866 A.H. (Shawwâl 19: July 17, 1462 A.D.): trade dirham at 300 to the dinâr, \$0.00783 (Ibn T.B., VIII, 429.14: "the irdabb of wheat at 1 1/2 dinârs," to which Vat. MS, fol. 142b.22, adds: "I mean at 450").

Apparently the trade dirham continued to be quoted, and at about this rate, for many years. Sultan Qâ'it Bâi in the endowment deed of his mosque, dated 879 A.H., 1474 A.D., though he specified that payment be made "in coppers," stated the value in terms of "dirhams fulûs." And when, in 881 A.H., 1476-1477 A.D., prices were quoted in terms of silver, the trade dirham price was used also; see under "Copper" (p. 72).

#### IV. Copper Coins

Copper (nuhâs aḥmar; but as the name of a copper coin, fals, pl. fulûs), a coin passing occasionally by tale, but generally by weight; when weighed, coppers were quoted in exchange by the Egyptian pound (riṭl), 16.18 ounces or 458.78 grams, divided into 144 dirhams, each of approximately 3.186 grams (cp. *Ighâtha*, 81.1: 23 1/3 pounds for 1 mithqâl; *Ṣubḥ*, III, 444.6: "118 Egyptian pounds for 500 dirhams").

When the copper coin (fals) actually weighed one dirham (as it did in 724: 'Alî Pâshâ, XX, 50), the name dirham was properly applied to it; but "dirham" was sometimes used of a copper coin of different weight and finally (as has been explained above) came to mean an imaginary unit, a varying fraction of a gold dinâr and payable in a varying amount of copper which might be three, or four, or five or more times the actual dirham weight.

During the first half of the VIIIth century A.H. (XIV A.D.) a dirham weight of copper passed in trade with a value of about \$0.003, or sometimes \$0.002; and at least at times there were actual coins of this weight and value. Coined copper then varied between \$0.28 and \$0.42 per pound avoirdupois.

Thus in 693, 1 ûqiya (12 dirham weights) sold for 1/4 silver dirham (\$0.14), i.e., an Egyptian pound of 144 dirham weights, for 3 silver dirhams (\$0.42) or 1 dirham weight of copper for \$0.00291 ('Alî Pâshâ, XX, 50, 139 et seq.). In 694, 1 ûqiya was priced at 1/6 silver dirham (1 pound for 2 silver dirhams, 1 dirham weight of copper for \$0.00194; Maqrîzî, *Sulûk*, I, 810.11). In 695 A.H., according to Maqrîzî (*Ighâtha*, 70.15), fulûs weighing 1 dirham (i.e., 3.186 grams) were struck and priced again at 2 silver dirhams per riṭl (i.e., \$0.28 per pound, \$0.00194 per dirham weight). This, according to Maqrîzî, was the first time copper passed by weight.

In 705 A.H. copper coins, light in weight, were surrendered at 2 1/2 (silver) dirhams (\$0.35) per pound, and new full-weight coins were struck (Maqrîzî, *Histoire des Sultans Mamlouks*, II, ii, p. 255).

In 717 A.H. ('Alî Pâshâ) 1 copper dirham coin was worth 1/48 silver dirham (\$0.00291 again); in 724 A.H. copper coins weighing 1 dirham are again said to have been struck and a pound priced at 2 silver dirhams (\$0.28); but (according to *Ṣubḥ*, III, 224.19) the fulûs continued at 1/48 silver dirham until the latter part of the reign of Ḥasan ibn Muḥammad (ended 762 A.H.). There are extant a few copper coins dating between 733 and 735 A.H. which weigh between 2.97 and 3.11 grams each, though more coins weigh less than this; cp. Lavoix, *op. cit.*

In 759 A.H. (1358 A.D.) copper coins called "the new" (al-judad) were struck, each weighing 1 mithqâl, i.e., 4.25 grams, priced at 1/24 of a silver dirham each, i.e., at \$0.00583, making coined copper now about 4 1/2 silver dirhams or \$0.63 per pound, or \$0.00437 per dirham weight (*Ṣubḥ*, III, 444.1; the price is given as "one qîrât," i.e., 1/24 part of a silver dirham; Ibn Kathîr, in 'Alî Pâshâ, XX, 50, makes the date 756 A.H. and the weight 1 dinâr: price, 24 fulûs for a dirham). Ibn Duqmâq ('Alî Pâshâ, *loc. cit.*) states that in 759 A.H. "new fulûs were struck, each fals at 2 of the old." But Ibn Kathîr states that previously "old fulûs were at 1 1/2 riṭls for a dirham," which is evidently a mistake for "1 riṭl at 1 1/2 dirhams," since Suyûṭî ('Alî Pâshâ, *loc. cit.*) explains this statement as showing that a silver dirham had been worth 2/3 of a riṭl of coppers; and *Ṣubḥ* also states that the old fulûs became priced at 1 1/2 dirhams per riṭl (\$0.21 per pound) after the new were issued. Maqrîzî (in *JA*, XV, 1880, p. 260) dates the new coinage in 750 A.H. (fulûs weighing 1 mithqâl at 24 to the silver dirham), but also (p. 268) apparently dates the same coinage in 759 A.H., adding that people now paid 1 dirham for what had previously cost 1/2 dirham; this agrees with Ibn Duqmâq's statement (see above); but it refers to number (24 instead of the previous 48 coins to the silver dirham), since the new coins contained more copper than the old. A few extant coins dated after 759 A.H. weigh between 4.01 and 4.26 grams each (also some weigh 1/2 those weights); but others weigh less.

In 794 A.H. (1392 A.D.) and the following years there was a great increase in copper coinage, ascribed to the importation of copper from Europe; but the weight of the individual coins decreased (the amount of decrease is not specified, but was possibly one-third). This change is said to have resulted in confusion in the copper coinage and to have been one of the causes of financial disorder in general (Ibn Furât, IX, 313.24; cp. Maqrîzî, *Khiṭaṭ*, II, 396.6, 397.4; Suyûṭî, *Ḥusn*, II, 183.24; *JA*, XV, 1880, p. 261). The new coins were struck in 794 by Maḥmûd ibn 'Alî, the major-domo, in Alexandria in a mint which he now opened (or reopened); and in Cairo, where he farmed out the mint for this purpose; the coinage continued until he was removed from charge of the mints in Ramaḍân, 797 (*Khiṭaṭ*, II, 396.15).

As the silver coinage was also fluctuating at this time, and prices were quoted generally in terms of copper, the difficulty caused by uncertainty in the standard copper coin passing by tale is evident. See further under 806 A.H.

On II Jumâdâ 26, 798 A.H. (1395-1396 A.D.), 48 coppers were again (as in 717) equal to one silver dirham (Ibn Furât, IX, 439.21: "1/4 and 1/6 dirham")



equal 20 fulûs"); but the value is uncertain because the gold-silver exchange rate is not specified. However, on Dhu l-Ĥijja 4, 800 A.H. (1399 A.D.), 24 coppers were equal to 1 dirham (*Sulûk*, MS); at \$0.0933 for the value of the dirham (as it was in Muḥarram of 801 A.H.) the single copper was \$0.00388.

Between 800 and 806 A.H. (1396 and 1403-1404 A.D.) there are no definite available quotations for copper. The period between 803 and 806 A.H. in particular was, as explained above, one of great confusion during which, while the gold-copper quotations replaced gold-silver quotations, this occurred indirectly through the medium of the trade dirham.

In the meanwhile, the quotations for copper in terms of silver (as long as they were so quoted) would naturally have risen with the decline in the value of the silver coinage, irrespective of any change in the intrinsic value of copper which may have occurred coincidentally to affect the quotations. There are two (out of three) recorded but not specifically dated quotations for copper which may belong between 798 and 806 A.H., namely, that copper "rose" to 4 1/4 and then to 4 1/2 "dirhams" per riṭl.

These quotations are in *Ṣubḥ* (III, 444.6): copper rose to "500 dirhams for 118 riṭls [4 1/4 dirhams per riṭl], then 500 dirhams for 111 riṭls [4 1/2 dirhams per riṭl], finally to 1 dirham for an ûqîya [1/12 riṭl; 12 dirhams per riṭl]." The quotation 4 1/4 would date possibly before 798 A.H.; and the third quotation, 12 dirhams, coincides with a quotation for 814 A.H., which is also the date when the item in the *Ṣubḥ* was written. The *Ṣubḥ* does not note the decline in value of the silver-alloy dirham as an explanation of the change in copper quotations. It states that copper was high because little of it arrived in Egypt and merchants exported the coins from the country. This was probably correct to some degree, but if so it refers to a period after the beginning of the XVth century, not to the years immediately following 794 A.H., when, as has been noted, Maqrîzî states that copper was imported in large quantities.

In 805 A.H., 1402 A.D., copper (as suggested above) was at 4 1/2 (trade) dirhams per pound (riṭl); since the trade dirham was worth \$0.0434, copper was about \$0.19 1/2 per pound, or \$0.0013 5/9 (13 5/9 mills) per dirham weight, and a coin of 1/4 dirham weight would have been worth \$0.00035 (compare the modern Egyptian faḍḍa or para, worth early in the last century about \$.00031).

About 806 A.H. (August 21, 1403 - August 19, 1404) copper coins ceased to pass by tale and passed by weight, at the rate of 6 dirhams for a riṭl of coppers, which now weighed only 1/4 dirham each, according to Suyûṭî (*Ĥusn*, ed. 1321 A.H., II, 184.5), who adds: "after the weight had been a mithqâl," though (183.24) he had said that already in 794 A.H. coppers deficient in weight had been coined. Maqrîzî (in Sacy, *BAF*, I, p. 48) mentions the change to weighing as of 806 A.H., and adds that it was by order of Yalbughâ as-Sâlimî, though Yalbughâ actually was removed and imprisoned at the very beginning of 806 (Ibn T.B., 108.9). Though Maqrîzî here calls this the first instance of weighing copper coins, in the *Ighâtha* (70.15; see above) he states that this had been so in 695 A.H. (1296 A.D.).

In 807 A.H. (1405 A.D., probably before July) copper sold at  $23 \frac{1}{3}$  riṭls per dînâr, i.e., at about \$0.12 per pound, or, if the trade dirham was at 140 per dînâr, at 6 trade dirhams per pound (at 150, the pound would have cost  $6 \frac{1}{2}$  trade dirhams; see under "Trade Dirham" the discussion of *Ighâtha*, 80.18, 72.1).

The next quotation for copper after 808 A.H. is dated in Dhû l-Qa'da, 814 A.H. (February 14 - March 14, 1412 A.D.), when Sultan Faraj ordered it to be at 12 dirhams (\$0.1344) per riṭl, or \$0.000933 per dirham weight; as a result, the shops were closed and there were riots ('Alî Pâshâ, XX, 50.3 from bel., quoting Ibn Ḥajar). It would appear therefore that the Sultan's order made a decided alteration in exchange. It may be surmised that with the rise in the number of trade dirhams to the dînâr from 150 in 807 A.H. (cp. p. 63 under 807 A.H.), when copper was 6 or  $6 \frac{1}{2}$  dirhams per riṭl, to 250 to the dînâr, at which it was now (see above, under "Trade Dirham," p. 64), there had been some corresponding rise in the price of copper in terms of the trade dirham. At 250 (i.e., an increase of  $\frac{2}{3}$ ), copper should have been about 10 trade dirhams (or \$0.112) per riṭl, instead of 12 trade dirhams per riṭl; at 12, a trade dirham equaled only 12 dirham weights of copper; at 10 it would have equaled  $14 \frac{2}{5}$  dirham weights.

826 A.H. (after Ramaḍân: August, 1423): good copper at 9 dirhams per riṭl; i.e., at \$0.1,050 per riṭl, or \$0.000729 per dirham weight, or about 16 dirham weights to the trade dirham. See 'Alî Pâshâ, XX, 51.6; the passage is not clear; before this quotation some of the current copper coins were found to be adulterated (mukhlûṭa), and the price was fixed at 5 dirhams per riṭl, while the "pure" coins were to be at 7 dirhams for "2 riṭls"; this seems so absurd that not even the opposition (munâza'a) which it is said to have aroused can make it plausible; probably the first quotation was 17 dirhams for two riṭls. Even when a new quotation was made at 9 for the pure copper (munqât), it was necessary to use threats to secure its acceptance.

828 A.H. (1424 - November, 1425): copper at 12 dirhams per riṭl, or \$0.14 if the trade dirham was at 240. According to 'Alî Pâshâ (XX, 51.9, 142.19), copper had become very scarce because the Sultan had accumulated large amounts, and when it was rumored that the exchange rate was to be altered, people refused to expend copper coins, hoping for a profit.

832 A.H. (October 11, 1428 - September 29, 1429 A.D.): good copper at 18 dirhams (\$0.188) per riṭl, or at 1 trade dirham for 8 dirham weights of copper (see 'Alî Pâshâ, XX, 51.12, 142.24). The price is based on a quotation of 829, with the trade dirham at \$0.01+ (but see next entry); the copper coinage is said to have been in such uncertainty that notaries were forbidden to draw up business contracts or agreements except in terms of gold or silver. At \$0.188 per riṭl of 144 dirham weights, each dirham weight equaled \$0.0013; 1 trade dirham equaled 8 dirham weights of copper.

838 A.H. (Sha'bân: March, 1435 A.D.): new copper coins were issued to pass by tale, probably 8 coins to the trade dirham (\$0.00105 each), and 27 trade dirhams (\$0.22653) per riṭl ('Alî Pâshâ, XX, 142.32; cp. 51.17); they weighed therefore probably 2.124 grams each or  $\frac{1}{2}$  mithqâl (4.25 grams). The

text of 'Alī Pâshâ' is not clear: "Coppers were current which the Sultan had coined at 18 pieces of them for each dirham; and he abolished the first [i.e., old] coppers; and the exchange of a dīnâr of these was at the rate of 27 [trade?] dirhams [i.e., per riṭl] and of the old at 18; and they were accepted from the sellers and taken to the mint and coined into new ones." New coins were at 27 trade dirhams for 144 dirham weights; therefore each trade dirham was  $1/27$  of 144 or  $5\frac{1}{3}$  dirham weights. If 18 coins also were at 1 trade dirham, each new coin weighed  $1/18$  of  $5\frac{1}{3}$ , or  $8/27$  dirham weights of 3.186 grams, or .944 gram. But the first "18" in the passage is probably an error for "8," as in the quotation of 863 A.H. for the "new" fulûs;  $1/8$  of  $5\frac{1}{3}$  (or  $2/3$ ) of 3.186 grams equals 2.124 grams, or  $1/2$  of a mithqâl. The old copper at 18 trade dirhams (\$0.151) per riṭl (or \$0.00105 per dirham weight, 8 dirham weights to the trade dirham, i.e., at  $2/3$  the value of the new) was probably the adulterated copper mentioned under 826

854 A.H. (before II Rabî': April 14, 1450 A.D.): new coppers had been at 42 trade dirhams per riṭl (Ibn T.B., VIII, 61.12; Sakhâwî, *Tibr*, 307.12, who omits "new"), i.e., at \$0.3465 if the trade dirham was at 285 (\$0.00825) per Ashrafi dīnâr as it was in 843 (and became again in 856 A.H.), or at \$0.3085 per riṭl if the dirham was at 320 (\$0.007344) as early in 856. At \$0.3465, each dirham weight was \$0.0024, and  $3\frac{3}{7}$  dirhams of copper made a trade dirham (at \$0.3085 each dirham weight would have been \$0.0021423).

854 A.H. (II Rabî' 1: April 14, 1450 A.D.): new copper at 36 (Ibn T.B., VIII, 68.11) trade dirhams per riṭl, \$0.297 if the dirham was at 285 (\$0.00825), or \$0.2642 if it was at 320 (\$0.00734); the new coins alone to pass by tale (*Tibr*, 307.11); at \$0.297 each dirham weight was \$0.002, and there were 4 dirham weights to a trade dirham.

854 A.H. (II Rabî' 4: April 17, 1450 A.D.): copper again at 42 dirhams, \$0.3465, per riṭl (Ibn T.B., VIII, 68.16); each dirham weight was \$0.0024, and  $3\frac{3}{7}$  dirham weights made a trade dirham.

854 A.H. (I Jumâdâ 9: June 20, 1450 A.D.): old coppers at 36 dirhams, \$0.297, per riṭl, the new to pass by tale (Ibn T.B., VIII, 75.18).

863 A.H. (I Jumâdâ 1: March 6, 1459 A.D.): old coppers ordered discontinued; new coppers to pass by tale, 4 to a half dirham, 8 to a dirham (Ibn T.B., VIII, 322.14); if this means 8 to a trade dirham, each coin equaled \$0.000979; and if the coin weighed 2.24 grams (see 838 A.H.) a dirham weight equaled \$0.001465.

863 A.H. (I Jumâdâ 2: March 7, 1459 A.D.): old coppers again permitted, at 24 dirhams (\$0.188) per riṭl (Ibn T.B., VIII, 322.16), \$0.0013055 per dirham weight, or 6 dirham weights for a trade dirham.

864 A.H. (II Jumâdâ 14: April 6, 1460): old fulûs forbidden, but the order rescinded (Ibn T.B., VIII, 337.9).

866 A.H. (Shawwâl 24: July 22, 1462 A.D.): old fulûs ordered disused and sold at 25 dirhams (\$0.1958  $1/3$ ) per riṭl (Ibn T.B., VIII, 429.21), or \$0.00204 per dirham weight. Each trade dirham bought 5.76 dirham weights of copper.

867 A.H. (Dhu l-Qa'da 8: July 25, 1463 A.D.): new coppers 36 dirhams (\$0.282) per riṭl by weight after having been by tale, 4 for a dirham (Ibn T.B., VIII, 675.19; but see under 863 A.H., above). If 36 trade dirhams bought 144 dirham

weights (1 riṭl), each trade dirham bought 4 dirhams by weight; if 1 trade dirham equaled 4 coins, each coin at the given rate was 1 dirham in weight (cp. in 879 A.H.); but see again under 863 A.H.

868 A.H. (Şafar 20: November 3, 1463): old coppers at 36 dirhams per riṭl (\$0.282), or \$0.00198 per dirham weight; transactions by tale to cease (Ibn T.B., VIII, 445.19).

869 A.H. (Dhû l-Ḥijja 24: August 17, 1465): old coppers at 30 dirhams per riṭl, the new, 4 coins per dirham (Ibn T.B., VIII, 503.1: "business ceased because the people feared a loss from the old coppers"); but this was annulled two days later as far as price was concerned, though apparently not for new coins by tale (see next item).

870 A.H. (I Rabî' 19: November 9, 1465): coppers at 36 per pound, instead of by tale; but this was then annulled, and tale resumed (Ibn T.B., VIII, 510.12; cp. 512.12 where prices are quoted, and Vat. MS adds "by tale"; see also s.v. 879).

873 A.H. (Şafar 8: August 28, 1468): new coppers at 24 dirhams per riṭl, \$0.1880, \$0.0013 per dirham weight, having been at 36 (Ibn T.B., VIII, 675.19; cp. VIII, 765.14).

879 A.H. (Dhû-l Ḥijja: April 8 - May 6, 1475 A.D.): new coppers coined at 36 dirhams per riṭl (\$0.282, or \$0.001958 per dirham weight); old coppers at 24 dirhams per riṭl (\$0.188, or \$0.0013 per dirham weight), having passed previously by tale, 4 coins to a [trade] dirham, according to Ibn Iyâs (II, 157.7), who adds that the people thus lost 1/3 of their money ('Alî Pâshâ, XX, 51.19, quoting this passage, reads 1/6 for 1/3). At 4 coins per [trade] dirham each coin had been \$0.00196 (i.e., the same value of a dirham weight of coppers when "new" coppers, which were now "old" coppers, were at 36 dirhams per riṭl); the present "old" coppers evidently weighed 1 dirham weight each coin (cp. under 867); and the loss per coin (or per dirham weight) was 1/3 of \$0.00196, or \$0.00066, making each coin or dirham weight \$0.0013.

881 A.H. (Rajab: October 20 - November 18, 1476 A.D.): old fulûs at 18 coins per half silver (Ibn Iyâs, II, 127.11); 36 per silver, i.e., at \$0.00422 each copper coin, instead of \$0.00196 as in 879). This was apparently an attempt to return to a gold-silver-copper basis of quotation and eliminate the trade dirham; coppers, instead of costing \$0.0013 or \$0.002, now, when equated with silver, cost more than twice as much. But evidently the old method of evaluation continued in practice also, so that two systems of prices existed side by side and led to confusion, as Ibn Iyâs (5c 231.21) notes was a fact in 892 A.H. Cp. the price in 759-761, \$0.00437 for a dirham weight of copper with \$0.00422 now.

881 A.H. (Ramaḍân: December 18, 1476-January 16, 1477 A.D.): trade dirham apparently again made official; new coppers by decree at 36 (trade) dirhams per riṭl, according to Ibn Iyâs, II, 127.17 (\$0.282; \$0.001958 per dirham weight); gold, silver, and copper all ordered to pass by weight.

892 A.H. (Muḥarram: December 28, 1486 - January 26, 1487 A.D.): copper passed by tale, at 24 for the half silver (Ibn Iyâs, 5c, 231.20).

903 A.H. (Dhu l-Ḥijja: July 21 - August 18, 1498 A.D.): new coppers (fulûs) 14 per half silver (i.e., 28 per silver), and 30 half (15 whole) silvers for 1 dînâr,

according to Ibn Iyâs (II, 344.8). This made the dînâr equal 420 coppers; 1 copper equaled \$0.0056, and 1 silver \$0.157.

#### Tabular Summary of Currency Changes

A summary of the data given above concerning the changes in gold, silver, trade dirham, and copper exchange rates appears in the table on pp. 74-79.

In the column headed "Gold" it should be noted that the terms "Dînâr" and "Mithqâl" are used interchangeably in the histories until 1416 A.D., 819 A.H.

In the column headed "New Copper" the price quoted per pound up to 1396 A.D., 798 A.H., is in silver dirhams; thereafter, in trade dirhams.

CURRENCY AND EXCHANGE IN CAIRO,

Date A.D.*			Date A.H.*			Gold		Silver			
Yr.	Mo.	Day	Yr.	Mo.	Day	Name of coin	Value in dollars	Name of coin	No. to one dinâr	No. of trade dirhams to silver	Value in dollars
1296			695			Dinâr	2.80	Dirham	20	..	.14
1324			724								
1300			700			Mithqâl	2.80	Dirham	20	..	.14
1357			758								
1358			759			(Dinâr	2.80	Dirham	..	..	..
1374	VI	12	776	I	1	or	..	Dirham	18(?)	..	.155
1388	V		790	V			..	Dirham	30	..	.094
1390			792				2.80	Dirham	24	..	.117
1392			794			mithqâl)	..	Dirham	20	..	.14
1394			796			"	2.80	Dirham	26½	..	.1064
1396	III	7	798	V	26	"	2.80	Dirham	..	..	..
1398	IX	13+	801	I	1+	"	2.80	Dirham	30	..	.0933
1401	II	15	803	VII	1	"	2.80	Dirham	30	..	.0933
1402	XII	(?)	805	VII-		"	2.80	Dirham	..	..	..
1404	VIII	30	807	II	21	"	2.80	Dirham	..	..	..
1405	V	3	807	X	4	"	2.80	Dirham	..	..	..
1405	VI-		807	XII-		"	2.80	Dirham	..	..	.0933 <sup>c</sup>
1405	X	13	808	IV	22	"	2.80	Dirham	..	..	..
1406	III		808	IX		"	2.80	Dirham	..	..	..
1412	II		814	XI		{ Dinâr or mithqâl	2.80	Dirham	..	..	..
1412	VI	19+	815	III	8+	"	2.80	Dirham	..	..	..
1414	XI	14+	817	IX	1+	"	2.80	Grosso <sup>f</sup>	..	..	.135
1415	IV	25	818	II	24	"	2.80	Mu'ayyadi	..	18	.20
1416	II	1	818	XII	1	"	2.80	..	..	..	..
1416	II	15	818	XII	15	"	2.80	..	..	..	..
1416	III		819	I		"	2.80	Mu'ayyadi <sup>i</sup>	..	9(?)	.1008(?)
1416	VII(?)		819	VI(?)		Mithqâl	2.80	..	..	..	..
1417	II	22	820	I	5	Florin	2.55	Mu'ayyadi <sup>i</sup>	30	..	.085
1418	IX		821	VIII		Mithqâl	2.80	..	..	..	..
1420			823			Ducat	2.55	Mu'ayyadi <sup>i</sup>	30	7(?)	.085(?)
1422	II	11	825	II	18	Ducat	2.55	Mu'ayyadi	..	20 <sup>k</sup>	.20
1423	VIII		826	IX		Dinâr <sup>m</sup>	2.80	..	..	..	..
1424-5			828								
1426	I	17	829	II	26	Ashrafî	2.35	..	..	..	..
1426			829			Ducat	2.35?	..	..	..	..
1428-9			832								
1430	IX-		834	II-		Ashrafî	2.35	..	..	..	..
1430	IX	16	834	II	29	Ashrafî	2.35	..	..	..	..
						Ducat	3.30	..	..	..	..
1430	XII		834	III		Ashrafî	2.35	..	..	..	..
1433			836			Ashrafî	2.35	..	..	..	..
1433	II	12	836	VI	21	Ashrafî	2.35	..	..	..	..
1433	II	20	836	VI	29	Ashrafî	2.35	Ashrafî	..	..	.176 <sup>e</sup>
1433	IV		836	VIII		Ashrafî	2.35	Ashrafî	..	..	"

Trade dirhams			New copper				Old copper			
No. to one dinar	No. to silver	Value in dollars	No. of dirham wts. to trade dirham	Cost per lb. in sil. dir. <sup>b</sup> or tr. dir.	Cost per lb. in dollars	Cost per dirham wt. in dollars	No. of dirham wts. to trade dirham	Cost per lb. in trade dirhams	Cost per lb. in dollars	Cost per dirham wt. in dollars
..	..	..	..	{ 2* or 3*	{ .28 or .42	{ .00194 or .00291				
..	..	..	..	{ 2* or 3*	{ .28 or .42	{ .00194 or .00291				
..	..	..	..	4½*	.63	.00437				
..	..	..	..	4½*						
65 <sup>c</sup>	..	.0434								
100 <sup>d</sup>	..	.0280	24	6(?)	.168	.0117				
150 <sup>f</sup>	..	.0187	..	6	.121	.0084				
150	..	.0187								
250	..	.0112								
250(?)	..	.0112	..	12	.134(?)	.00093 (?)				
..	12	(.0112)								
..	18 <sup>h</sup>	.0112								
260	..	.0108								
250	..	.0112								
..	9(?)									
..	..	.0122								
230 <sup>i</sup>	..	.0122								
208⅓	..	.0134								
230	7	.0121								
240 <sup>f</sup>	..	.0116								
240	..	.0116	12	12	.14	.00097				
225	..	.0104	8	18	.188	.0013				
285	..	.00824								
235	..	.01								
230										
280	..	.0084								
270	..	.0087								
280	..	.0084								
280	..	.0084								

CURRENCY AND EXCHANGE IN CAIRO

Date A.D.*			Date A.H.*			Gold		Silver			
Yr.	Mo.	Day	Yr.	Mo.	Day	Name of coin	Value in dollars	Name of coin	No. to one dînâr	No. of trade dirhams to silver	Value in dollars
1435	III		838	VIII		Ashrafî	2.35	..	..	..	..
1440	V	10	843	XII	7	Ashrafî	2.35	Zâhirî	..	24	.198
1440	V	10	843	XII	7	Ashrafî	2.35	Ashrafî	..	20	.165
1450	II(?)		854	I(?)		"	"	..	..	..	..
1450	IV	14	854	IV	1	"	"	..	..	..	..
1450	IV	17	854	IV	4	"	"	..	..	..	..
1450	VI	20	854	V	9	Ashrafî	2.35	{Zâhirî	..	24	.198
								{Ashrafî	..	20	.165
1451	IX	27+	855	IX		"	"				
1452	III	21+	856	III		Ashrafî	2.35	..	..	..	..
1452	IV	7	856	III	17	{Ashrafî	2.35	..	..	..	..
						{Zâhirî	2.35	..	..	..	..
1452	XI	13+	856	XI		Ashrafî	2.35	..	..	..	..
1453	V	30-	857	V	21-	Ashrafî	2.35	..	..	..	..
1453	V	30	857	V	21	Ashrafî	2.35	..	..	..	..
1453	VI	4	857	V	26	Ashrafî	2.35	..	..	..	..
1453	XI	3	857	XI	1	Ashrafî	2.35	..	..	..	..
1453	XII	25-	857	XII	23-	Ashrafî	2.35	..	..	..	..
1453	XII	25	857	XII	23	Ashrafî	2.35	..	..	..	..
1454	V	30	858	VI	2	Ashrafî	2.35	..	..	..	..
1454	VI	6	858	VI	9	Ashrafî	2.35	..	..	..	..
1454	VI	27	859	VII	1	Ashrafî	2.35	..	..	..	..
1455	I		859	I		Ashrafî	2.35	..	..	..	..
1455	II	27	859	III	9	{Ashrafî	2.35	..	..	..	..
						or					
						dînâr	2.35	..	..	..	..
1455	III	2	859	IV	12	"	2.35	..	..	..	..
1455	X	13	859	XI	1	"	"	..	..	..	..
1456	VIII	end	860	IX	end	"	"	..	..	..	..
1456	X		860	XII		"	"	..	..	..	..
1456	XII	2	861	I	4	"	"	..	..	..	..
1457	II		861	III		"	"	..	..	..	..
1457	XI		862	I		"	"	..	..	..	..
1458	I	17-	862	III	1-	{Dînâr	2.35	..	..	..	..
						or					
						{Ashrafî					
1458	I	19	862	III	3	"	"	..	..	..	..
1458	II	28	862	IV	13	"	"	Înâlî	..	24	.188
1459	III	6,7	863	V	1,2	"	"	..	..	..	..
1462	VII	17	866	X	19	"	"	..	..	..	..
1462	VII	22	866	X	24	"	"	..	..	..	..
1463	VII	25	867	XI	8	"	"	..	..	..	..
1463	XI	3	868	II	20	"	"	..	..	..	..
1465	VIII	17	869	XII	24	"	"	..	..	..	..
1465	XI	9	870	III	19	{Ashrafî	2.35	..	..	..	..
						or					
						dînâr	2.35	..	..	..	..
1468	VIII	28	873	II	8	"	"	..	..	..	..
1475	VI-		879			"	"	..	..	..	..



1382-1469 A. D. (Continued)

Trade dirhams			New copper				Old copper			
No. to one dīnār	No. to silver	Value in dollars	No. of dirham wts. to trade dirham	Cost per lb. in sil. dir. or tr. dir.	Cost per lb. in dollars	Cost per dirham wt. in dollars	No. of dirham wts. to trade dirham	Cost per lb. in trade dirhams	Cost per lb. in dollars	Cost per dirham wt. in dollars
..	..	..	5 1/3	27 <sup>o</sup>	.2268	.001575	8	18	.1512	.00105
285	..	.00825								
..	..	..	3 3/4	42 <sup>p</sup>	.3465	.0024				
..	..	..	4	36 <sup>p</sup>	.297	.002				
..	..	..	3 3/4	42 <sup>p</sup>	.3465	.0024				
..	..	..	..	..	..	..	4	36 <sup>c</sup>	.297	.002
320	..	.00734								
285	..	.00825								
285	..	.00825								
320	..	.00734								
330	..	.00712								
285	..	.00825								
320	..	.00734								
335	..	.007								
350	..	.0067								
320	..	.00734								
320	..	.00734								
320	..	.00734								
350	..	.0067								
370	..	.00635								
300	..	.00783								
300	..	.00783								
300	..	.00783								
360	..	.00652								
375	..	.00626								
300	..	.00783								
420	..	.0056								
450	..	.00522								
460	..	.00511								
300	..	.00783								
300	..	.00783								
(300	..	.00783)	(5 1/2) <sup>s</sup>	(27)	(.21)	(.00146) <sup>t</sup>	6 <sup>u</sup>	24	.188	.0013
300	..	.00783								
300	..	.00783	..	..	..	..	5 19/25	25 <sup>v</sup>	.1958	.00136
..	..	..	4 <sup>w</sup>	36	.282	.00196				
..	..	..	..	..	..	..	4	36	.282	.00196
..	..	..	x	..	..	..	4 4/5	30	.261	.00112
..	..	..	4	36 <sup>y</sup>	.282	.00196				
..	..	..	6	24	.188	.0013				
..	..	..	..	..	..	..	y			

CURRENCY AND EXCHANGE IN CAIRO,

Date A.D.*			Date A.H.*			Gold		Silver			
Yr.	Mo.	Day	Yr.	Mo.	Day	Name of coin	Value in dollars	Name of coin	No. to one dīnār	No. of trade dirhams to silver	Value in dollars
1475	VI		879	XI		{ Ashrafi or dīnār	2.35	..	..	..	..
1476	X-XI		881	VII		"	"	"Silver"	..	..	.152
1476	XII		881	IX		"	"	..	..	..	..
1498	VII-VIII		903	XII		"	"	"Silver"	..	..	.157

Notes to Table

- <sup>a</sup>Plus sign (+) or minus sign (-) attached to a date means, respectively, after or before.
- <sup>b</sup>Asterisk indicates silver dirhams.
- <sup>c</sup>65 dirhams per mithqâl (and 60 per ducat); but see above, p. 53, for this dirham.
- <sup>d</sup>1404-1405 A.D., 807 A.H., 100 by proclamation on August 30, 1404 A.D., Şafar 21, 807 A.H., and again on May 3, 1405 A.D., Dhū l-Qa'da 4, 807 A.H. (Ibn T.B., 115.15, 121.19).
- <sup>e</sup>*Ighâtha*, 72.1 (cp. 77.1); the weight of each coined silver dirham at 5 dirhams of fulûs (i.e., trade dirhams), each of which dirhams is counted 24 coins.
- <sup>f</sup>1405 A.D. For Maqrîzî's quotations 140 and 150, see above, p. 70.
- <sup>g</sup>Venetian silver coin.
- <sup>h</sup>18 trade dirhams to 1 Mu'ayyadî, 15 to 1 grosso.
- <sup>i</sup>These are probably half Mu'ayyadîs, in which case, value of whole Mu'ayyadîs in dollars is double that indicated.
- <sup>j</sup>Or 210 trade dirhams for 1 florin.
- <sup>k</sup>By weight, not by tale (see p. 57).
- <sup>l</sup>Or 220 trade dirhams for 1 ducat.
- <sup>m</sup>Dīnār makhtûm.
- <sup>n</sup>Ashrafi silver possibly at \$0.26 now.

1382-1469 A. D. (Continued)

Trade dirhams			New copper				Old copper			
No. to one dinâr	No. to silver	Value in dollars	No. of dirham wts. to trade dirham	Cost per lb. in sil. dir. <sup>b</sup> or tr. dir.	Cost per lb. in dollars	Cost per dirham wt. in dollars	No. of dirham wts. to trade dirham	Cost per lb. in trade dirhams	Cost per lb. in dollars	Cost per dirham wt. in dollars
..	..	..	4	36 <sup>aa</sup>	.282	.00196	6	24 <sup>bb</sup>	.188	.0013
..	..	..	4	36	.282	.00196				
..	..	..	..	dd						

<sup>a</sup>These are "new" coppers, to pass by tale, 8 to the trade dirham.

<sup>p</sup>"New" coppers.

<sup>q</sup>"Old" coppers; the "new" were to pass by tale.

<sup>r</sup>"Dinâr" and "Ashrafî" are used interchangeably after 1455 A.D.

<sup>s</sup>"New" coppers, to pass also by tale, 8 to 1 trade dirham (cost per pound not recorded).

<sup>t</sup>If each old copper weighed 2.124 grams.

<sup>u</sup>"Old" coppers.

<sup>v</sup>"Old" coppers ordered surrendered at this rate.

<sup>w</sup>"New" coppers; they had been 4 by tale.

<sup>x</sup>"New" coppers, 4 coins per dirham; the order was then canceled (but see note y).

<sup>y</sup>Order for this exchange rate then canceled and exchange by tale resumed.

<sup>z</sup>"Old" coppers had been current by tale at 4 coins per trade dirham each (\$0.00196) before June, 1475.

<sup>aa</sup>New coinage.

<sup>bb</sup>"Old" coins.

<sup>cc</sup>"Half silvers" (nisf fidḡa) were quoted at 18 "old" coppers.

<sup>dd</sup>"New" coppers, 28 per "silver" by tale; each equaled \$0.0054, and 30 half silvers equaled 1 gold dinâr.

## FOOD PRICES

In this section an attempt will be made to evaluate the available prices of food at Cairo during the years 1382-1497 A.D., 784-903 A.H.

The prices in Arabic sources are quoted in terms of currencies of fluctuating exchange values; to reduce the quoted prices to a common denominator they have all been evaluated in terms of the United States gold dollar, as explained in the chapter on "Currency" (pp. 41 et seq.).

It is of course recognized that the resulting dollar prices are not to be regarded as accurate; the factors involved in the calculation are themselves variable and the data incomplete; for example, the exchange rates of the various currencies are not always recorded for the date at which prices are quoted. And the quotations in terms of the native currencies, coming in general each from one source only—and that recorded casually in manuscripts of political chronicles,—may sometimes be inaccurately copied.

Even more disturbing is the absence of data concerning wages paid at the date of the quotations of prices of food, or at other times, as will be seen later when this subject is treated.

Nevertheless it is hoped that the results of the inquiry may have a comparative value, the stated prices, with ample allowance for a margin of error, being taken as showing an order of magnitude.

The main sources for the quotation of prices are the following:

Sauvaire, in *Journal Asiatique*, 1887 (10), pp. 200-259.

'Alî Pâshâ, *al-Khiṭaṭ al-Jadîda*, XX, pp. 140-143.

Ibn al-Furât, *at-Ta'riḫ*, Vol. IX (prices for the years 789-799 A.H., 1387-1396 A.D.).

Maqrîzî, *Ighâthat al-Umma*, pp. 7-41 (for prices until 808 A.H., 1405 A.D.).

E. Strauss, in *Revue des Études Islamiques*, 1950, pp. 56-71, and in his *Tôledhâth ha-Yehûdhîm*, 1951, pp. 132-137 (used for his prices from unpublished manuscript sources between 784 and 849 A.H., 1382 and 1446 A.D.).

Sakhâwî, *at-Tibr al-Masbûk*, for prices between 845 and 857 A.H., 1441 and 1453 A.D.

Ibn Taghrî Birdî, *Hawâdith ad-Duhûr*, cited as Ibn T.B., VIII (for prices between 847 and 874 A.H., 1443 and 1470 A.D.).

Ibn Iyâs, *Badâ'i' az-Zuhûr*, Bûlâk ed., 1894, Vol. II, pp. 116-336 (= ed. Kahle-Muşṭafa, 1936, cited by me as Vol. 5c, pp. 40-373), for prices after 874 A.H., 1470 A.D.

Since the prices quoted in this section are assigned to definite dates, and in the sources they appear in chronological sequence, the exact references by volume and page of the sources have been given only when the quotations call

for special discussion. The dates given in the sources are, of course, Mohammedan calendar dates (except those given by Strauss); these have been equated with dates A.D.; in the Strauss study they are given as monthly or seasonal dates A.D., and the A.H. dates have been added only approximately, as the Arabic manuscripts from which he quotes are not available here at present.

#### Explanation of the Table on Pages 82-89

A summary of the principal food prices is given in the form of a table on pp. 82-89; the prices of other occasionally recorded foods are appended in notes to the table, pp. 90-93.

The data in the successive columns of the table are:

Columns 1 through 4.—The year, with the number of the month and the day when available, of the Julian calendar (A.D.) and the Mohammedan calendar (A.H.); for the names of the months designated as I, II, etc., see above, "Calendar," p. 26.

Column 5.—The exchange value of the dirham, taken from the table given above, under "Currency," pp. 74 et seq.

Columns 6 through 11.—The price of wheat in dirhams per irdabb and in U. S. dollars per bushel reckoned at 5 bushels per irdabb, and then similarly the price of barley and beans. When prices in the sources are given in other currency than dirhams, an asterisk (\*) is inserted in the dirham column, and the Arabic price is given in the notes.

Column 12.—The price of wheat in dollars per pound, reckoned at 285 pounds avoirdupois (129.276 kilograms) per irdabb or 57 pounds per bushel.

Columns 13 and 14.—The price of flour in dirhams per baṭṭa and dollars per pound, reckoned at 50 pounds per baṭṭa.

Columns 15 and 16.—The price of bread in dirhams per riṭl and dollars per pound (1 riṭl being reckoned as 1 pound avoirdupois).

Columns 17 and 18.—The price of "toasted" cheese (jubn maqlî or mashwî) in dirhams and dollars per riṭl or pound; when white (abyaḍ) cheese is quoted, the price is given in the notes.

Columns 19 and 20.—The price of dressed beef in dirhams and dollars per riṭl or pound. Occasional prices for whole beef are given in the notes.

Columns 21 and 22.—The price of dressed mutton in dirhams and dollars per riṭl or pound; whole mutton is quoted in the notes.

Columns 23 and 24.—The price of sesame oil in dirhams and dollars per riṭl or pound.

Column 25.—Reference numbers for appended notes to any of the data given under the dates indicated in columns 1 through 4.

FOOD PRICES IN CAIRO

A.D.			A.H.			Exchange value of dirhams in U. S. dollars	Wheat		Barley		Beans		Wheat
(Julian)							Dir. per irdabb	Dols. per bu.	Dir. per irdabb	Dols. per bu.	Dir. per irdabb	Dols. per bu.	Dols. per lb.
Year	Mo.	Day	Year	Mo.	Day	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1382	III		784			.14	100	2.80	40	1.12	..	..	..
						.14	40	1.12					
1384	beg.		786			.14	8	.224	6	.168	..	..	..
						.14	15	.42	8	.224			
1385						..	50	1.40					
1388			790			.094	8	.15					
1394	IX	2	796	XI	16	.1064	40	.85	20	.43	20	.43	.0149
	XII		797	II		.1064	70	1.49	40	.85	40	.85	.0261
1395	I		797	III		.1064	40	.85					
	I+		797	III+		.1064	50	1.28					
	I	29	797	IV	6	.1064	66	1.44	33	.72	33	.72	.0252
	IX		797	XI		.1064	80	1.70	50	1.06	54	1.15	.0298
	X	17	798	I	2	.1064	60	1.28					
	X	24	798	I	9	.1064	90	1.92	..	..	50	1.06	
	X	24+	798	I	9+	.1064	100	2.13	..	..	..	..	.0374
1396	II	12	798	V	1	.1064	150	3.19	..	..	..	..	.056
	II	12+	798	V	1+	.1064	175	3.72	..	..	..	..	.0653
1396	II	2	798	V	?	.1064	200	4.26	150	3.19	..	..	..
	II	27	798	V	16	.1064	130	2.77	..	..	..	..	..
	III	23+	798	VI	12+	.1064	100	2.34					
	III	26	798	VI	15	.1064	50	1.07	30	.638	30	.638	
	IV	2	798	VI	22	.1064	..	..	..	..	..	..	..
	IV	6	798	VI	26	.1064	104	2.21	..	..	..	..	.0388
	IV	6+	798	VI	26+	.1064	120	2.55	60	1.275			
	IV	9	798	VI	29	..	..	..	..	..	..	..	..
	X					.1064	50	1.06	30	.638			
	X+					.1064	60	1.28					
	XII-		799	III	9-	.1064	40	.85					
	XII?		799	III	9-	.1064	28	.60	..	..	..	..	.0105
	XII	11	799	III	9	.1064	36	.77	..	..	..	..	.0135
1397	IX		799	XII		.1064	..	..	..	..	..	..	..
1398	VIII	18	800	XII	4	.0933	..	..	..	..	..	..	..
	IX+		801	I+		.0933	73	1.36					
1399	VI	21	801	X	15	.0933	30	.638	..	..	..	..	..
	VI	22	801	X	16	.0933	40	.75	..	..	..	..	..
1400	beg.					.0933	35	.64	25	..	27	.502	
	beg.					.0933	40	.75	25				
			802			.0933	70	1.31	..	..	..	..	..
	VIII-		802-			.0933	120	2.24	..	..	..	..	..
			803										
1402						..	50	.93	25				
1403	II		806			.0434	70	.46	70+	.46+	90	.781	..
	VIII		806	II-III		.0329	120	.79					
	X (mid)		806	IV		.0329	240	1.58	130	.855			
	X		806	IV		.0329	250	1.65					
1404	II		806	VIII		.0329	350	1.96	250	1.625	250	1.645	.0344
	IV		806	X		.0329	400	2.24	..	..	..	..	.0393
	VIII		807	II		.0187	220	1.23	130	.486			
	VIII+		807	II+		.0187	250	1.40	140	.523			
1405			807-8			.0187	450	1.68	300	1.12	300	1.12	.0295

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(1382-1497 A. D.)

Flour		Bread		Cheese		Beef		Mutton		Sesame oil		Notes
Dir. per batta	Dols. per lb.	Dir. per ritl	Dols. per lb.	Dir. per ritl	Dols. per lb.	Dir. per ritl	Dols. per lb.	Dir. per ritl	Dols. per lb.	Dir. per ritl	Dols. per lb.	(25)
(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	
..	..	..	..	..	..	..	..	..	..	..	..	1
..	..	..	..	..	..	½	.07	⅘	.112	..	..	
12	.0255	⅓	.0355	¾	.0798	1	.1064	1¼	.1330	..	..	2
..	..	..	..	..	..	..	..	..	..	..	..	
22	.0468	⅔	.0425	..	..	1	.1064	1¼	.133	..	..	3
..	..	..	..	..	..	..	..	..	..	..	..	
26	.0553	⅔	.0425	..	..	..	..	..	..	..	..	
44	.0743	⅘	.085	..	..	..	..	..	..	..	..	
..	..	..	..	..	..	..	..	..	..	..	..	4
..	..	½	.0532	..	..	..	..	..	..	..	..	
..	..	¼	.0266	..	..	..	..	..	..	..	..	
..	..	½	.0532	..	..	..	..	..	..	..	..	
..	..	½	.0532	..	..	..	..	..	..	..	..	
11	.0234	⅙	.0177	..	..	..	..	..	..	..	..	
14	.0292	⅕	.0213	..	..	..	..	..	..	..	..	
12	.0255	..	..	..	..	1	.1064	1¼	.1330	..	..	5
..	..	⅛	.01164	..	..	..	..	..	..	..	..	6
..	..	..	..	..	..	..	..	..	..	..	..	7
..	..	..	..	..	..	..	..	..	..	..	..	8
..	..	..	..	..	..	..	..	..	..	..	..	9
..	..	..	..	..	..	..	..	..	..	..	..	10
..	..	..	..	..	..	1½	.07	..	..	..	..	
..	..	..	..	..	..	..	..	2½	.082	..	..	
..	..	..	..	..	..	3	.0987	5	.1645	..	..	
..	..	..	..	..	..	7	.1307	15	.2805	..	..	11

FOOD PRICES IN CAIRO

A.D.			A.H.			Exchange value of dirhams in U. S. dollars	Wheat		Barley		Beans		Wheat
(Julian)							Dir. per irdabb	Dols. per bu.	Dir. per irdabb	Dols. per bu.	Dir. per irdabb	Dols. per bu.	Dols. per lb.
Year	Mo.	Day	Year	Mo.	Day	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1)	(2)		(3)	(4)		(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1408	VI		811	III		.0112	100	.22	70	.157			
1409	XII		812	VIII		.0112	..	..	..	..	120	.269	
1410	VI		813	II		.0112	220	.49	120	.269	150	.34	
	VI		813	II		.0112	..	..	..	..	160	.36	
	VII		813	III		.0112	250	.56	130	.291	..	..	..
	X		813	VI		.0112	120	.27	40	.088	70	.16	..
	X		813	VI		.0112	..	..	..	..	80	.20	
1410	X		813	VI		.0112	140	.31	60	.134			
1411	VII		814	IV		.0112	140	.31	90	.201	160	.358	..
	X		814	VII		.0112	100	.22	..	..	..	..	..
1413	IV		816	I		.0112	180	.40	130	.291	150	.336	.0070
	IX		816	VII		.0112	120	.27	100	.224	120	.269	..
1414			816			..	..	..	..	..	..	..	..
			817			..	..	..	..	..	..	..	..
1415	IV		818	II		.0112	*	.19	70	.157	80	.179	.00333
	IV		818	II		.0112	*	.28					
	X		818	VIII		.0112	150	.34	130	.291	160	.358	.0060
1416	I		818	XI		.0112	300	.68	250	.560	300	.68	.0119
	II	15	818	XII	15	.0112	600	1.34	400	.896	..	..	.0235
	III		819	I		.0112	800	1.79	..	..	..	..	..
	V		819			.0112	200	.45	..	..	255	.571	..
	V		819	V		.0112	250	.56					
1419	II		822	III		.0121	300	.73	250	.605	300	.726	..
	II		822	III		.0121	..	..	..	..	250	.605	
	X		822	XI		.0121	300	.73					
1420	I		823	I		.0121	400	.97	250	.605	250	.605	.0170
	VIII		823	VIII		.0121	300	.73	180	.436	..	..	..
1421			824			.0121	250	.61	170	.411	170	.411	.0107
1421			824			.0121	..	..	..	..	180	.436	..
1423	I		826	II		.0116	60	.14	60	.139	70	.162	..
	I		826	II		.0116	90	.21	65	.151	75	.174	..
	III		826	IV		.0116	60	.14	..	..	..	..	..
	IX		826	X		.0116	120	.28					
	X		826	XI		.0116	150	.35	60	.139	70	.162	.0061
	XII		826	XII		.0116	..	..	..	..	..	..	..
1424			827			.0116	120	.28	40	.093	60	.139	.0049
			827			.0116	140	.32	45	.105	70	.162	.0056
			827			.0116	200	.46	70	.142	100	.232	.0081
			827			.0116	210	.49	100	.232	..	..	.0086
	XI		828	I		.0116	..	..	..	..	..	..	..
1425	VI, VIII		828	IX		.0116	200	.46	150	.348			
	IX-X		828	XII		.0116	300	.70	280	.418	300	.690	.0140
	IX-X		828	XII		.0116	250	.58					
	XI		829	I		.0116	250	.58	..	..	..	..	..
	XI		829	I		.0116	400	.93	300	.696			
1426	III		829	V		.0104	300	.68					
	III		829	V		.0104	200	.46					
1428			831			.0104	400	.83					
	VIII		831	XI		.0104	350	.73					
1430	IX		834	I		.0104	*	.22	*	.103	..	..	..



(1382-1497 A. D.) (Continued)

Flour		Bread		Cheese		Beef		Mutton		Sesame oil		Notes
Dir. per batta	Dols. per lb.	Dir. per ritl	Dols. per lb.	Dir. per ritl	Dols. per lb.	Dir. per ritl	Dols. per lb.	Dir. per ritl	Dols. per lb.	Dir. per ritl	Dols. per lb.	
(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
..	..	..	..	..	..	..	..	7	.0784			
..	..	..	..	10	.112	5	.056	6½	.0728			
..	..	..	..	..	..	7	.0784	9	.1008	..	..	12
60	.0134											
..	..	..	..	9	.0998	6	.0672	8	.0896			
50	.0112											
..	..	..	..	..	..	..	..	..	..	..	..	13
100	.0224											
140	.0313	..	..	12	.1344							
..	..	..	..	..	..	..	..	..	..	..	..	14
..	..	..	..	8	.0968	6	.0726	8	.0968			
120	.0290	2	.0242	8	.0968	5½	.0665	7½	.0907	..	..	15
..	..	..	..	12	.1452							
..	..	2	.0242	9	.0989	6½	.0786	10	.1240	..	..	16
..	..	..	..	10	.1210							
35	.0081	¾	.0087	7	.0812	5	.0580	8	.0928	..	..	17
..	..	..	..	..	..	..	..	..	..	..	..	18
..	..	1	.0116									
..	..	..	..	9	.1044	..	..	7	.0812	..	..	19
..	..	..	..	10	.1160	..	..	7½	.0870	..	..	20
..	..	..	..	7	.0812							
..	..	1½	.0155									
90	.0209	1½	.0174									
..	..	..	..	14	.1624	9	.1044	20	.2320	..	..	21
..	..	..	..	..	..	..	..	..	..	..	..	22

FOOD PRICES IN CAIRO

A.D.			A.H.			Exchange value of dirhams in U. S. dollars	Wheat		Barley		Beans		Wheat
(Julian)							Dir. per irdabb	Dols. per bu.	Dir. per irdabb	Dols. per bu.	Dir. per irdabb	Dols. per bu.	Dols. per lb.
Year	Mo.	Day	Year	Mo.	Day		(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1)	(2)		(3)	(4)		(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1433	IV		836	VIII		.0084	*	.31	..	..	..	..	..
	VIII?		837	I		.0084	90	.15	..	..	..	..	..
	IX		837	II		.0084	180	.30	..	..	110	.185	..
1434	Sum.		838	VII-VIII		.0084	250	.42	..	..	..	..	..
1435	X		839	III		.0084	*	.47	..	..	..	..	..
	XI mid.		839	IV	23	.0084	400	.67	170	.29	..	..	.0118
1436	XII		840	VI		.0084	100	.17	..	..	..	..	..
	XII		840	VI		.0084	140	.26	..	..	..	..	..
1440	III		843	XI		.00825	154	.27	..	..	..	..	..
1443	VII-VIII later		847	VI		.00825	300	.50	..	..	..	..	..
1444	IV	20	848	I	1	.00825	220	.36	..	..	..	..	..
1445			849			.00825	200	.33	..	..	..	..	..
			849			.00825	120	.20	95	.157	90	.148	.0035
			849			.00825	110	.18	90	.148	95	.157	.0032
1446	Y		849	X		.00825	170	.28	..	..	130	.215	.0049
	I		849	X		.00825	180	.32	140	.231	..	..	..
1448	IX		852	VII		.00825	120	.20	..	..	..	..	.0035
1449	VI		853	V		.00825	300	.50	..	..	..	..	.0088
	VII		853	VI		.00825	290	.49	..	..	..	..	..
	VIII		853	VII		.00825	400	.66	..	..	..	..	.0116
1449	X	18	853	IX	1	.00825	600	.99	..	..	..	..	.0174
1450	I	15+	853	XII		.00825	800	1.32	..	..	500	.83	.0231
	II	14+	854	I		.00825	800	1.32	..	..	..	..	.0231
	VI		854	V		.00825	500	.83	280	.46	360	.59	.0145
	VIII	10+	854	VII		.00825	600	.99	400	.66	400	.66	.0174
	VIII	25	854	VII	15	.00825	700	1.16	..	..	..	..	..
	IX	9	854	VIII	1	.00825	1000	1.65	600	.99	..	..	.0289
	X		854	IX		.00825	1200	1.98	800	1.32	700	1.15	.0347
1451	II		855	I		.00825	1500	2.48	1000	1.65	1000	1.65	.0435
	II+		855			.00825	2000	3.30	..	..	..	..	..
	IV		855	III		.00825	1000	1.65	700	1.16	..	..	.0289
	VIII	10	855	VII		.00825	900	1.49	500+	.83+	..	..	..
	VIII	29	855	VII		.00825	900	1.49	500	.83	..	..	.0261
1452	I	23	856	I		.00825	800	1.32	400	.66	..	..	.0231
	V		856	IV		.00825	400	.66	200	.33	..	..	.0116
	XI		856	XI		.00734	320	.47	140	.21	..	..	.0083
1453	VII	8	857	VII		.00734	140	.25	90	.13	..	..	..
1454	XI		859	XII		..	..	..	..	..	..	..	..
1455	IV		859	V		.00783	..	..	140	.29	..	..	..
	VIII	12	859	VIII	27	.00783	175	.28	130	.20	..	..	..
	VIII	12+	859	VIII	27+	.00783	140	.22	105	.16	..	..	..
1456	I		860	III-		.00783	120	.19	..	..	..	..	.0033
	II	8-12	860	III		.00783	270	.42	..	..	..	..	.0073
	III	9	860	IV	1	.00783	200	.31	..	..	..	..	.0054
	VIII	30	860	IX	30	.0065	260	.34	..	..	..	..	.0060
	XII	2	861	I	4	.00783	470	.74	..	..	..	..	.0130

(1382-1497 A. D.) (Continued)

Flour		Bread		Cheese		Beef		Mutton		Sesame oil		Notes
Dir. per batṭa	Dols. per lb.	Dir. per riṭl	Dols. per lb.	Dir. per riṭl	Dols. per lb.	Dir. per riṭl	Dols. per lb.	Dir. per riṭl	Dols. per lb.	Dir. per riṭl	Dols. per lb.	
(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
..	..	..	..	..	..	..	..	..	..	..	..	23
..	..	..	..	..	..	..	..	..	..	..	..	24
110	.0209	3	.0252									
..	..	..	..	9	.0743							
..	..	..	..	8	.0640	5	.0413	8	.0660	..	..	25
..	..	..	..	7	.0578							
40	.0066											
100	.0165	..	..	..	..	..	..	..	..	..	..	26
150	.0248											
200	.0330											
250	.0413	5½	.0424	..	..	..	..	..	..	..	..	27
270	.0446	6	.0495									
170	.0281	..	..	..	..	..	..	..	..	..	..	28
..	..	..	..	14	.1155	..	..	..	..	15	.1238	29
300+	.0495+	..	..	..	..	..	..	..	..	..	..	30
400	.0660	..	..	18	.1485	..	..	..	..	22	.1815	31
500	.0825	8	.0660							24	.1980	32
..	..	..	..	..	..	..	..	..	..	..	..	33
250	.0413	4	.0330									
250	.0413	3	.0248	..	..	..	..	..	..	..	..	34
230	.0380	4	.0330									
..	..	2	.0165									
120	.0176	1½	.0110									
..	..	..	..	..	..	..	..	..	..	..	..	35
..	..	..	..	..	..	..	..	..	..	..	..	36

FOOD PRICES IN CAIRO

A.D.			A.H.			Exchange value of dirhams in U. S. dollars	Wheat		Barley		Beans		Wheat
(Julian)							Dir. per irdabb	Dols. per bu.	Dir. per irdabb	Dols. per bu.	Dir. per irdabb	Dols. per bu.	Dols. per lb.
Year	Mo.	Day	Year	Mo.	Day		(6)	(7)	(8)	(9)	(10)	(11)	(12)
(1)	(2)		(3)	(4)		(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1459	V	19	863	VII	16	.00783	..	..	300	.47	..	..	..
	X	28	864	I	1	.00783	300	.47	..	..	..	..	.0080
1460	III-IV		864	VI		.00783	600	.94	400	.63	400	.63	.0163
1462	VI	29	866	X	6	.00783	270	.43	180	.28	270	.42	
	VII	17	866	X	19	.00783	*	.56	..	..	..	..	..
	VII	18	866	X	20	.00783	*	.71	..	..	..	..	.0125
	VII	23	866	XI	6	.00783	*	.47-	200	.313	280	.44	.0082
1464	III	10	868	VII	1	.00783	360	.56	320	.50	300-	.47-	.0098
1465	VI	20	869	X	25	.00783	*	.47	..	..	..	..	..
1466	I	27	870	VI	9	.00783	420	.66	..	..	..	..	.0116
	II	17	870	VII	1	.00783	600	.94	..	..	..	..	.0165
1466	III	19	870	VIII	1	.00783	540	.86					
	III	28	870	VIII	10	.00783	1000+	1.57+					
	IV	17	870	IX	1	.00783	400	.63					
	IV	17+	870	IX	1	.00783	300	.47					
1468	I	15-	872	VI	29-	.00783	500	.78					
	I	25	872	VI	29	.00783	300	.47	..	..	..	..	..
	IV	24+	872	X	14	.00783	600	.94					
	VI	22+	872	XII	1+	.00783	700	1.10					
	VIII	30-	873	II	10-	.00783	600	.94	300	.47	200	.31	
	VIII	30	873	II	10	.00783	400	.637	..	..	..	..	..
	VIII	31	873	II	11	.00783	750	1.17					
	X	8	873	III	20	.00783	400	.63					
	X	8+	873	III	20+	.00783	800+	1.25+					
	X	24-31	873	IV	6-13	.00783	900	1.41	..	..	..	..	.025
1469	IV	6-8	873	IX	23-25	.00783	600	.94					
	VII	10	873	X	29	.00783	1000	1.57					
	XI		874	V		.00783	*	1.88	700	1.096	700	1.096	..
1470	III	4+	874	IX-		.00783	1000	1.57	..	..	..	..	..
	VII		875	I		..	..	..	..	..	..	..	..
1484	VI		889	V		.00783	*	.24	..	..	..	..	.0041
1486	XI		891	XI		.00783	..	..	..	..	..	..	..
1487	I		892	I		..	..	..	..	..	..	..	..
	I		892	I		.00783	*	2.82	..	..	..	..	.05
	I		892	I		..	*	2.35	..	..	..	..	.0415
	I		892	I		..	*	1.88	..	..	..	..	.033
1491	VII		896	IX		..	*	1.157	..	..	..	..	..
1495	IV		900	VII		..	*	.14	..	..	..	..	..
	VIII		900	XI		.00783	..	..	..	..	..	..	..
1496	I		901	IV		..	*	.094	..	..	..	..	.00165
1497	VIII		902	XII		.00783	1000	1.57					
	XI		903	III		..	*	1.41	..	..	..	..	..

(1382-1497 A. D.) (Concluded)

Flour		Bread		Cheese		Beef		Mutton		Sesame oil		Notes
Dir. per batṭa	Dols. per lb.	Dir. per riṭl	Dols. per lb.	Dir. per riṭl	Dols. per lb.	Dir. per riṭl	Dols. per lb.	Dir. per riṭl	Dols. per lb.	Dir. per riṭl	Dols. per lb.	
(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
..	..	..	..	..	..	..	..	..	..	..	..	37
..	..	1 $\frac{4}{5}$	.0141	..	..	..	..	..	..	..	..	38
170	.0266	4	.0293	..	..	..	..	..	..	..	..	39
..	..	..	..	..	..	..	..	..	..	..	..	40
120	.0188	..	..	..	..	..	..	..	..	..	..	41
90	.0141	1 $\frac{5}{7}$	.0134	..	..	..	..	..	..	..	..	42
120	.0188	..	..	8	.0626	5	0392	8	.0626	24	.1879	43
..	..	..	..	..	..	..	..	..	..	..	..	44
120	.0188	2 $\frac{10}{3}$	.0163	..	..	..	..	..	..	..	..	45
180	.0271											
..	..	..	..	..	..	..	..	..	..	..	..	46
..	..	..	..	..	..	..	..	..	..	..	..	47
..	..	5	.039	..	..	..	..	..	..	..	..	48
..	..	..	..	..	..	..	..	..	..	..	..	49
..	..	..	..	..	..	..	..	..	..	..	..	50
..	..	..	..	..	..	..	..	..	..	..	..	51
*	.00751	..	..	..	..	..	..	..	..	..	..	52
..	..	..	..	..	..	..	..	..	..	..	..	53
..	..	*	.0825	..	..	..	..	..	..	..	..	54
450	.0705	..	..	..	..	..	..	..	..	..	..	55
..	..	..	..	..	..	..	..	..	..	..	..	56
..	..	..	..	..	..	..	..	..	..	..	..	57
..	..	..	..	..	..	..	..	..	..	..	..	58
..	..	..	..	..	..	..	..	..	..	..	..	59
..	..	3 $\frac{3}{8}$	.00294	..	..	..	..	..	..	..	..	60
*	.0046											
..	..	..	..	..	..	..	..	..	..	..	..	61

## Notes to Table

	Year	A.D. Mo.	Day	
1	1382	III		Wheat fell to 40 when barley was imported.
2	1394	XII		Mutton: price given for whole; dressed mutton at 1½ dir. (\$0.16) per pound.
3	1395	IX		Mutton, raw, at 1¼ dirhams (\$0.133) per pound; cooked, 2 dir. (\$0.21); beef, cooked, at 1 dirham.
4	1396			<i>Ighâtha</i> , 42.3: wheat at 200 dirhams, barley at 150. The 200 quoted by <i>Ighâtha</i> apparently corresponds to Ibn al-Furât's quotation of 175, to which he adds that, if it is sifted, the price is 2 dirhams for each qadaḥ, which would be 192 dirhams per irdabb. The date in Ibn Furât is in Jumâdâ I, which began February 11, 1396.
5	1397	IX		Mutton: price given for raw; cooked at 2 dir. (\$0.21) per pound.
6	1398	VIII	18	Bread, 8 pounds for 1 dirham, or 8 ûqiya for 2 fals: <i>Sulûk</i> , MS Paris no. 1727, fol. 266a.22.
7	1399	VI	21	<i>Ighâtha</i> , 42.9.
8	1399	VI	22	<i>Ighâtha</i> , 42.10.
9	1400			<i>Ighâtha</i> , 42.11.
10	1400	VIII-		Wheat: Ibn Iyâs, I, 340.2: "4 Ashrafîs per irdabb"; presumably he means 4 dinârs.
11	1405			The following prices are from <i>Ighâtha</i> (pp. 77-79).

	Dirhams fulûs	Quantity	Dols.	Qt.
Wheat (excluding expense)	450	irdabb	1.67	bu.
Wheat (cleaned)	600	irdabb	2.23	bu.
Barley (excluding expense)	300	irdabb	1.12	bu.
Beans (fûl)	300	irdabb	1.12	bu.
Peas (bisilla)	800	irdabb	2.98	bu.
Chick peas	500	irdabb	1.86	bu.
Steer (baqar)	15,000	ra's	280.00	head
Beef, raw	7	riṭl	.13	lb.
Mutton	15	riṭl	.279	lb.
Chicken	100 to 20	wâḥid	1.86 to .372	ea.
Goose	200 to 50	wâḥid	3.72 to .93	ea.
Sheep	2,000	ra's	37.20	ea.
Camel	7,000	—	130.20	ea.
Melon seed (lubb yaqîin)	120	qadaḥ	41.00	bu.
Rice	15	qadaḥ	5.17	bu.
Carrots	500	irdabb	1.86	bu.
Radish seed	150	qadaḥ	51.66	bu.
Turnip seed	300	qadaḥ	103.15	bu.
Sesame oil	1,200	qinṭar	.223	lb.
Watermelon (in season)	20	wâḥida	.372	ea.
Grapes (in season)	4	riṭl	.074	lb.
Squash (or pumpkin)	100	qinṭar	.0186	lb.

Sugar	70	riṭl	1.31	lb.
Olive oil	550	qinṭar	.103	lb.
Cotton gown	1,500	—	27.90	ea.
Linen (unbleached)	10+	dhirâ'	.31+	yd.
Egg (chicken)	½	wâḥida	.0093	ea.
Lemon (or citron)	3	wâḥida	.056	ea.
Uncarded flax	20	riṭl	.372	lb.
Purslane (badhr ar-rajla)	60-70	qadaḥ	24.11	bu.
Pears	50+	riṭl	.93+	lb.
Manna (shirkhushk)	30,000	qinṭar	5.58	lb.
Taranjubîn	15,000	qinṭar	2.79	lb.
Lotus	1	wâḥida	.0186	ea.
Cucumber	1½	wâḥida	.0279	ea.
Young chicken	37	wâḥid	.688	ea.
2 cotton cloaks sold from an estate and washed	2,240	—	20.83	ea.

12	1411	X		Mutton: undressed, at 9 dirhams.
13	1415	IV		Wheat: ½ to ½ dinâr.
14	1416	V		Ibn T.B. (VI, 356.2): Prices were down "a little" from wheat at 600 and barley at 400 when the Sultan investigated prices.
15	1420	I		Mutton: skinned, 7½.
16	1421			Mutton: skinned, at 10 dirhams.
17	1423	I		Mutton: skinned, at 8 dirhams; with skin, 7 dirhams.
18	1423			Wheat: 60 dirhams or ¼ dinâr makhtûm ('Alî Pâshâ).
19	1424			Mutton: skinned, at 7 dirhams; with skin, 6 dirhams.
20	1424			Mutton: skinned, 7½ dirhams; with skin, 6½ dirhams.
21	1425	XI		Cooked mutton at 20 dirhams.
22	1430	IX		Wheat: .47 dinâr; barley, .22 dinâr.
23	1433	IV		Wheat: ⅓ Ashrafî dinâr per irdabb.
24	1435	X		Wheat: 1 dinâr.
25	1446	I		Mutton: skinned, at 8 dirhams; with skin, 6 dirhams.
26	1449	VI		Barley: 1 dinâr per irdabb.
27	1450	I	15+	Sakhâwî: flour, 220 dir. per baṭṭa (\$0.0288 per pound); bread, 7 awâqî for 3 dirhams.
28	1450	VI		Barley: "From 280 to 300."
29	1450	VIII	10+	Rice: 1,500 dir. per ird. (\$2.48 per bu.), "very scarce"; white cheese, 12 dir. per riṭl, \$0.0990 per pound.
30	1450	IX		Strauss quotes Ibn Iyâs, II, 31.32, for wheat at 5, then 7, dinârs in September, 1450 (Sha'bân, 854), but the account (II, p. 31 et seq.) shows that he is referring to prices after the continued fall of the Nile, i.e., after October (T.B., VIII, 93.1) and after Ramaḍân end (November 6; VIII, 95.19), namely Muḥarram, 855, February, 1451 (T.B., VIII, 100.8). See further above, s.v. "Trade Dirham," p. 65.
31	1450	X		White cheese: 15 dirhams per riṭl, \$0.1238 per pound.
32	1451	II		"Cheese very scarce"; white cheese, .12 dirham per riṭl, \$0.0990 per pound; linseed oil, 15 dir. (\$0.1238) per pound; olive oil, 24 dir. (\$0.198) per pound; rice, 2,300 dir. per ird. (\$13.80) per bu.; straw, 500 dir. (\$4.13) per load; water, 20 dir.+ (\$0.165+) per skin; fire wood, 100 dir.

- (\$.825) per load (probably 91 pounds; cp. Spiro); green clover, 20, then 30 dir. per faddân (\$.122-\$.183 per acre).
- 33 1451 II+ Ibn Iyâs, II, 32 (and in 'Alî Pâshâ, XX, 142) assigns these prices incorrectly to 853 A.H.; he quotes wheat at 5, then 7, Ashrafîs, i.e., gold Ashrafîs, per ird. (\$2.35, then \$3.25 per bu.); bread at "2 halves," i.e., at 1 whole silver Ashrafî or \$.165 per pound, but probably meant at ½ Ashrafî or \$.082 per pound.
- 34 1451 VIII 29 Linseed oil, 13 dir. (\$.1073) per pound; good (olive) oil, 18 dir. (\$.1845) per pound; clarified butter (samn), 40 dir. (\$.33) per pound.
- 35 1454 XI Fire wood (tamarisk, *ṭarfa*), 120 dir. (\$.99) per load.
- 36 1455 IV All prices down (under Sultan's control) except barley, now at 140 dir. per ird. (after having been between 60 and 180) because of scarcity in the Sultan's granaries.
- 37 1459 V 19 Straw, 170 dir. (\$1.33) per load.
- 38 1459 X 28 Bread, 1½ dir. for 10 awâqî.
- 39 1460 III-IV Other foods at high prices, straw, 400 dirhams (\$3.13) per load.
- 40 1462 VII 17 Wheat: 1½ dînârs per irdabb.
- 41 1462 VII 18 Wheat: 1½ dînârs per irdabb.
- 42 1462 VII 23 Wheat: Less than 1 dînâr per irdabb; bread, 1 dir. for 7 awâqî.
- 43 1464 III 10 8 dir. per pound for dressed mutton; 7 dir. (\$.0548) per pound for whole lamb with skin; bee's honey, 24 dir. (\$.1879) per pound; white cheese, 5 dir. per riṭl, \$.0392 per pound.
- 44 1465 VI 20 Wheat at 1 Ashrafî per irdabb.
- 45 1466 I 27 Bread at 1½ dir. for ½ riṭl and ½ ûqîya.
- 46 1468 I 25 Wheat: price 300 dir. by order of the Sultan, who opened his granaries, as did the emirs, and this price prevailed for a time (VIII, 617.14).
- 47 1468 VIII 30 and  
1468 X 8 Price of wheat (400 dir.) by decree, but market price was unaffected.
- 48 1468 X 24-31 Toasted cheese (*mashwî*) and "button" cheese (*jibn azrâr*) at one price (Ibn T.B., VIII, 687.20).
- 49 1469 XI Wheat, 4 Ashrafîs per irdabb; straw, 1 Ashrafî per load.
- 50 1470 III 4 Wheat had been at 4 Ashrafîs per ird., but the Sultan opened two granaries and sold at 1,000 dir. per ird. (Ibn Iyâs, II, 116.20).
- 51 1470 VIII Strauss, p. 59, gives wheat at 7 Ashrafîs in August, referring to Ibn Iyâs, III (5c) 44.6; but this refers to the price in Jaqmaq's days, which he has cited under September, 1450.
- 52 1484 VI Wheat at ½ dînâr per ird.; flour at 4 half silvers per baṭṭa (Ibn Iyâs, II, 222.17).
- 53 1486 XI Rice at 6 Ashrafîs (\$14.10) per irdabb, \$2.82 per bu.; then rose to 12 dînârs (\$28.20) per ird., \$5.64 per bu. (Ibn Iyâs, II, 240.6).
- 54 1487 I Bread, ½ niṣf per riṭl (Ibn Iyâs, II, 241.22).
- 55 1487 I Wheat, 6 Ashrafîs per ird.; bread so scarce that people ate even Indian corn (*dhura*) bread (Ibn Iyâs, II, 242.8).



56	1487	I	Wheat, 5 Ashrafis per irdabb when the Sultan opened several granaries (Ibn Iyâs, II, 242.13).
57	1487	I	Wheat, 4 Ashrafis per irdabb because of increased arrival of Indian corn (Ibn Iyâs, II, 242.23).
58	1491	VII	All grains very cheap; wheat at 1 dînâr for 3 ird. (Ibn Iyâs, II, 271); 'Alî Pâshâ, XX, 143.24, reads "1 irdabb at 1 Ashrafi."
59	1495	IV	Wheat, $\frac{3}{10}$ dînâr per irdabb.
60	1496	I	Grain exceedingly cheap; wheat at 1 dînâr (\$2.35) for 5 ird.; flour at three halves (i.e., $1\frac{1}{2}$ silver dirhams, \$0.228) per baṭṭa (Ibn Iyâs, II, 293.24).
61	1497	XI	Wheat at 3 Ashrafis (\$7.05) per irdabb (Ibn Iyâs, II, 336.1).

### Normal Prices of Various Foods

Prices of commodities, being recorded by writers of political history, are treated by them only incidentally, usually when they are regarded as abnormally high, and a few times when they are abnormally low; what is regarded as normal is usually not specifically stated.

One exception is a general statement referring to the period between 1347 and 1378 A.D., during which Qalqashandî (*Ṣubḥ*, III, 448.15) quotes the following prices in dirhams, which have here been equated in dollars at \$0.14 per dirham:

- Wheat, 15 dirhams per irdabb, \$0.42 per bushel
- Barley, 10 dirhams per irdabb, \$0.28 per bushel.
- Mutton,  $\frac{1}{2}$  dirham per riṭl, \$0.07 per pound.
- Sugar,  $1\frac{1}{2}$  dirhams per riṭl, \$0.21 per pound.
- Sugar, refined,  $2\frac{1}{2}$  dirhams per riṭl, \$0.35 per pound.
- Rice, higher than wheat or barley.
- Chickens, from 1 to 3 dirhams, \$0.14 to \$0.42 each.

In general it is the price of wheat which is recorded in the histories; prices of other commodities when given appear generally to follow the rise and fall of wheat prices. This is particularly true of the price of other grains, and, even more directly, the price of flour and bread.

The price of barley, in the 71 times that it is quoted simultaneously with wheat, averages about 62 per cent of the price of wheat; in 41 simultaneous quotations of beans and wheat, the price of beans averages about 76 per cent the price of wheat. Mammâtî (p. 359) notes that when payment was made in kind, barley could usually be substituted for wheat at the rate of two bushels of barley for one of wheat (i.e., the price of barley was 50 per cent that of wheat),  $1\frac{1}{2}$  bushels of beans for one of wheat (i.e.,  $66\frac{2}{3}$  per cent). In these comparisons the prices are based on volume. Barley weighs 80 to 84 per cent of an equal volume of wheat; beans, 103 to 105 per cent of wheat (*Description*, XVII, 422-423; *Egyptian Economic and Political Review*, January, 1955, p. 28).

The prices of wheat, flour, and bread and their inter-relationship will be treated below in a special study (see p. 100).

Primarily, the price of wheat depended upon the annual Nile flood of late September, either the actual amount of the flood or its prediction in the early stages of the rise in June. Moreover, the effect of a low Nile in any year extended normally over the following year also, even though in the second year the rise of the river had been satisfactory. This is expressed as a principle by Maqrîzî (*Ighâtha*, 42.4 et seq.), who explains that the scanty harvest of the first of the two years leaves little grain for sowing in the second year; furthermore, in the second year fewer men are available for agriculture.

But other factors often entered into the price of wheat. The quoted prices refer almost exclusively to the city markets in Cairo and the supply of wheat there; the Cairo wheat markets were supplied from the products of the northern and southern provinces. Adverse winds sometimes kept the grain ships from landing at Cairo (Ibn T.B., VIII, 252.10). Grain merchants, if not satisfied with Cairo prices, refused to unload their grain there, and proceeded to the export port of Alexandria (cp., for 1396 A.D., 798 A.H., Ibn Furât, IX, 439.7).

The release or withholding of supplies stored in the Cairo granaries from previous seasons was also a factor; and the price of bread was sometimes artificially raised by the proprietors of the bakeries.

Epidemics and starvation so reduced the peasant population that at times agriculture suffered from a lack of workers; disease among cattle was at times hurtful to agriculture, likewise.

Changes in the various currency exchange rates, or mere rumors of expected changes, might disturb orderly business procedures and prices. Ibn Taghrî Birdî, for instance, records that the proclamation (in 1457 A.D., 862 A.H.) of the retirement of a debased currency at a certain future date led to a rise in the price not only of necessities but also of luxuries, because merchants, in order to avoid accepting the debased coins, refused to sell despite the demand, while the public, in order to get rid of the debased coins in their possession, rushed to buy anything of comparatively permanent value (Ibn T.B., VII, 494.16, VIII, 308.20, et seq.).

But the government, when aroused to the economic effects of coinage changes, was able through its market inspectors to correct in some degree a sudden fall in prices by enforcing an edict to raise prices in the markets an amount equal to a change in coinage values and thus stabilize conditions.

Two examples of the effect of these various factors on the price of wheat will be given in detail. The height of the Nile in these examples is referred to a zero at the bottom of the Nilometer well, which itself is taken as about 68 1/2 ft. (8.15 m.; according to others, 8.00 m.) above the level of the Mediterranean, and a little less than 35 ft. below the top of the well.

Cubit XVI, about 27 1/4 feet from the bottom of the well, was the level at which the Cairo Canal was normally opened, about August 7 (Julian), while the river was rising rapidly to reach an average of 32 1/3 ft. (19 1/3 cubits) maximum around September 22 (Julian).—See *The Cairo Nilometer*, pp. 87 et seq., 191 et seq.

The Price of Wheat and the Rise of the Nile  
1394-1396 A.D., 796-798 A.H.

On June 20, 1394 A.D., Julian (Sha'bân 20, 796 A.H.), the Nile was at 10 ft. 7 in. above the bottom of the Nilometer well, only 2 1/2 in. under the average, but then its normal rise was delayed, and it reached 27 1/4 ft., expected on August 7, only on August 27; the level was 29 1/2 ft., or 2 1/2 ft. below the average on September 13, though in October it rose, unusually, 1/4 inch.

Wheat sold on September 13 at 40 (silver) dirhams per irdabb or more, equal to about 85 cents per bushel, and continued at 40 dir. for a month (Ibn al-Furât, IX, 353.12, 387.3, where Dhu l-Qa'da 6 should be 16, Coptic Tût 16; 387.17).

Sultan Barqûq returned to Cairo from Syria on December 7 or 8 (Julian; 15 or 16 tropical), 1394 (Şafar 12 or 13, 797 A.H.), and because of the demand for food resulting from the size of the returning army, wheat rose to 70 dir. the ird., \$1.49 per bushel (Ibn al-Furât, 398.24). The price then alternately fell and rose; it became, for example, 40 dir. per ird., or 85 cents a bu. (399.2), then 60 dir. or more (\$1.28 per bu.). On January 29, 1395 (Julian; II Rabi' 6, 797), it was at 66 dir., or \$1.44 per bu., and so it continued to fluctuate (403.3).

The Nile in June, at the commencement of the rise in 1395 A.D. (Ramadân 1, 797 A.H.), was about 3 1/2 feet below the average. But the river then rose at an unheard-of rapid rate, reached 16 cubits 11 days early, and after falling until August 31 it began the next day to rise again; on September 11 it was at 32 1/4 ft., more than 2 ft. above the average normally expected for September 22; it was even reported that the river had risen another foot by September 24. The whole country was inundated in the fall of 1395. Wheat sold at 80 dirhams per ird., or \$1.70 per bu., when the river was at its highest (Ibn F., 416.1). Evidently the unusual high flood aroused fear that sowing would be delayed.

Moreover, Maqrîzi (*Ighâtha*, 42.1) gives this year (797 A.H., 1395 A.D.) as an example of a year with a good Nile, while on the other hand, because of the previous year's drought, there was little seed for sowing, and prices remained high.

Wheat in September, 1395 A.D. (Dhu l-Qa'da, 797 A.H.), was at 80 dir. per ird., or \$1.70 a bu. (Ibn F., 416.3). Though in October (Muḥarram, 798 A.H.) wheat dropped to 60 dir. per ird., or \$1.28 a bushel (Ibn F., 427.3), it was still well above normal.

The wheat that was being sold apparently came from the reserves in the government granaries, for in the same month, October, the major-domo (ustâdâr) Jamâl ad-Dîn forced the price up to 80 dirhams again or \$1.70, then to 90 dir. per ird. (Ibn F., 427.17), or \$1.92 a bushel; and finally millers were ordered to take 10,000 ird. at 100 dirhams (Ibn F., 428.5), or \$2.13 per bushel.

Prices continued high into January, 1396 A.D. (II Rabi', 798 A.H.), and on January 20 the Sultan ordered that each day 20 irdabbs of wheat should be baked into bread for the poor and the pious in the various foundations of the city (Ibn F., 432.18), similarly on February 17 (I Jumâdâ 7) that each of the poor

should be given a zabdiya (3 pounds) of cooked food (zakhamiyat ṭa'âm) and a loaf of bread, or 1/2 dir. in place of bread, 1 dir. in place of the cooked food, or 1 1/2 dirhams in place of both (Ibn F., 434.20).

In the beginning of February prices had risen again because no grain had arrived at Cairo and wheat went to 150 dir. per ird., \$3.19 per bu., then to 175 dir., \$3.72 per bu. (cp. Ibn F., 435.2); to 200 dir., \$4.26 per bu., according to *Ighâtha* (42.3).

On February 26, 1396 A.D., some wheat ships arrived at the Old Cairo and Bûlâq docks; the price of wheat dropped first 10 dirhams per ird., then to 130, 120, and finally 110 dir., i.e., \$2.77, \$2.55, \$2.34 per bu.; further drop was prevented by continued government forced purchase at a fixed price (Ibn F., 438.26); by April 2 bread was selling at 1/4 dirham (about 2 2/3 cents) a pound (439.3), instead of 8 1/2 cents as it had been six weeks before.

But the following day, April 3, 1396 A.D., the importers of wheat, when they arrived and found that the great drop in prices at Cairo would not enable them to recover their capital investment in the wheat and the cost of shipping, left for Alexandria without discharging their cargoes; bread almost ceased to be found in the bakeries because millers reduced the manufacture of flour (Ibn F., 439.12).

On April 4, millers were ordered to increase the supply of bread, but, despite the drastic punishment of some of them, they failed to comply (Ibn F., 439.12).

On April 7 bread sold at 1/4 dirham a loaf (2 2/3 cents a pound if the loaf weighed the usual pound, but see below); wheat rose to 104 dirhams per irdabb, \$2.21 a bushel (Ibn F., 439.18), and even to 120 dirhams, \$2.55 a bushel (Ibn F., 439.23).

On April 10 bread was selling - if found at all - at 1/4 dirham for a half-pound loaf, i.e., at almost 5 1/3 cents per pound (Ibn F., 440.7).

Prices apparently remained at these levels until June, 1396 A.D. Then the height of the Nile of 1396 A.D. began to be announced; on June 20 (Ramadân 13, 798 A.H.) it was at 6 cubits, or 6 inches above normal; the awaited 16-cubit level came two days early; and the September-October maximum was normal.

By December, 1396 (I Rabi', 799), wheat had dropped below 40 dir. per ird., 85 cents a bushel, then to 28 dir., 60 cents; but on December 13, on the re-appointment of Muḥammad al-Burjî as market inspector (he had incurred the hostility of the people during the period of high prices in the previous September; see Ibn F., 389.8), wheat rose to 36 dir. (Ibn F., 457.11), or 77 cents per bu.

On January 2, 1397, prices were still rising because no wheat was arriving as yet.

But by the time that the wheat from the new harvest did arrive in April or May, 1397 (Ramadân, 799 A.H.), prices dropped to about what they had been before the drought of 1394 A.D., 796 A.H., according to Maqrîzî (*Ighâtha*, 42.6; he calls the new harvest "the harvest of 798," meaning the harvest resulting from the Nile of Ramadân-Dhu l-Ḥijja, 798, but gathered about Ramadân, 799). The price of wheat may have been about 85 cents a bushel, 40 dir. per ird., though no actual quotation is available.

The Nile of the year 1397 A.D., 798 A.H., was satisfactorily high, but prices had not yet dropped to what appears normal, 42 cents a bu. for wheat, for on September 20, 1397 (Dhu l-Hijja 26, 799 A.H.), flour was selling at 12 dir. per baṭṭa, or 2 1/2 cents per pound (Ibn F., 470.16), instead of about 1 1/2 cents, and wheat would have been correspondingly above normal. Ibn al-Furât specifically notices that, despite the good Nile, prices remained comparatively high (ghâliya 'alâ ḥâlihâ).

The Price of Wheat and the Rise of the Nile  
1448-1457 A.D., 852-861 A.H.

June, 1448 - May, 1449 A.D.

On June 20, 1448 A.D. (Julian), 852 A.H., the Nile was at 11 ft. 7 in., 9.7 in. above the average. It reached 27 ft. 3 in. (16 cubits) on July 31, seven days earlier than usual. The maximum in September was 31 ft. 9 in., only 3 in. below the average. Wheat in September was very cheap, 120 dir. per ird., or 20 cents per bushel (Ibn T.B., VIII, 57.9).

June, 1449 - May, 1450 A.D.

In 1449 A.D. (853 A.H.), though on June 20 the Nile was at 13 ft. 7 in., 2 1/2 ft. above the average, wheat was at 300 dir. per ird., or 50 cents per bu. (VII, 46.10). There had been rumors in June (II Rabi', 853; VII, 46.9) that the Sultan intended to wage war in Syria against the Qarâ Yuluk Turcomans, which may have led merchants to raise prices. The market inspector 'Alî ibn Aqbars was dismissed on June 25 for inefficiency, i.e., for failure to prevent the unjustified rise (cp. Subkî, *Kitâb Mu'id an-Ni'am*, ed. Myhrman, p. 92.13, for his right to do so), and 'Alî ibn Iskandar succeeded him (VII, 171.15 and note s). But the price of wheat dropped only a little; before July 22 it was still 49 cents a bushel (VIII, 47.1), for the river's rise was retarded; and when on August 14 it even fell (VII, 173.20), wheat jumped to 400 dir. per ird., 66 cents a bushel (VII, 174.2). Some wheat had arrived at Bûlâq early this month, and 'Alî ibn Iskandar asked the third chamberlain, Sûdûn as-Sûdûnî, to sell half of it to the public, but he refused (VII, 172.12), expecting still higher prices, for the Nile this year did not reach the 16th cubit (27 1/4 ft.) till August 20, thirteen days late.

On September 20 (1449 A.D.) 'Alî ibn Iskandar was dismissed and the major-domo, Zain ad-Dîn Yaḥyâ, was ordered to perform the duties of market inspector (VII, 179.7). He had announced on September 16 (Rajab 28, 853 A.H.) that wheat would be sold on September 20 at a dinâr per ird. (VIII, 51.10), i.e., 47 cents per bu., but when he took office and opened his granary, he broke his promise and fixed the price at 500 dirhams (VIII, 51.12), 83 cents per bu.

The Nile stopped rising for the year on September 24, at 30 1/2 ft. (VIII, 52.6), 1 1/2 ft. below the average. The price of wheat continued advancing, and on October 18 was at 600 dir. per ird., 99 cents per bu. (VIII, 52.12).

In January, 1450, wheat was at 800 dir. (VIII, 57.12; read so, not 300), \$1.32 per bu., and the same after February 14 (Muḥarram, 854 A.H.; VIII, 60.11). Before February 25 (Muḥarram 12) it had reached 1,000 dirhams per irdabb, \$1.56 per bushel (*Tibr*, 271.3), but on February 25 it was at 600 again, 99 cents per bushel (*Tibr*, 300.27).

#### June, 1450 - May, 1451 A.D.

The Nile's rise in June, 1450, was promising at first, the June 20 level being 11 ft. 6 1/2 in., 3/4 ft. above the average; wheat was down to 500 dir. per ird. (VIII, 78.3), 83 cents per bu.

But then the rise again slowed; on August 17 it was only about 27 ft., a little less than the height expected on August 15 (*Tibr*, 310.22); this was in fact the maximum height of the year, 5 feet short of the average September maximum.

Wheat was at 600 dir., 99 cents a bu., about the middle of August (VIII, 86.1); Sakhâwî (*Tibr*, 311.21) adds that this price was accepted by sellers only because they feared that otherwise they would be mobbed.

The price reached \$1.16 about August 24 (VIII, 88.20) and \$1.65 (1,000 dir. per ird.) on September 9 (VIII, 92.6); Sakhâwî adds that the Sultan sent agents to Cyprus to bring wheat to Cairo (*Tibr*, 312.19), but the Franks seized four grain ships on November 14 (*ibid.*, 323.27). Early in November, wheat was \$1.98 per bushel (1,200 dir. per ird.; VIII, 95.21; *Tibr*, 312.22), and \$2.48 in February, 1451 (VIII, 100.8); before the end of 854 A.H., i.e., before February 3, 1451 A.D., it had reached even \$3.30 per bushel, 2,000 dirhams per irdabb (VII, 341.12).

But on March 30 (Şafar 26, 855 A.H.) the Sultan ordered wheat to be sold from his granaries at \$1.65 per bu. (1,000 dir. per ird.) and the price began to go down (*Tibr*, 346.22); in April it was at \$1.32 per bu. (VIII, 105.16: "800 to 1,000 dirhams").

#### June, 1451 - May, 1452 A.D.

In the Nile year June, 1451 - May, 1452 A.D. the drought continued; the June 20 level of the Nile was at 8 ft., or 2 3/4 ft. below normal; the 16th cubit, 27 1/4 ft., was reached five days late, on August 12, and the river stopped rising on September 22, at 30 ft. 10 in., more than 1 ft. below normal.

By this time many of the population had been reduced to poverty; many others had gone to Syria (VIII, 108.22; cp. 110.21); and the population was further reduced by an unusually large number of deaths.

The price of wheat dropped slightly in August and September to \$1.49 per bu. (900 dir. per ird.; VIII, 110.24, 112.18); at the end of January or beginning of February, 1452, it was at \$1.32 (VIII, 122.15); in April or May, when the incidence of death was increasing, wheat was down to 66 cents per bu. (400 dir. per ird.; VII, 124.16).

## June, 1452 - May, 1453 A.D.

The rise of the Nile was favorable in 1452-1453 (856-857); though on June 20 the level was  $10 \frac{1}{3}$  ft., about  $5 \frac{1}{2}$  in. below normal, it reached  $27 \frac{1}{4}$  on August 2, five days early, and the maximum,  $31 \frac{3}{4}$  ft., on September 25, was 5 in. above the average (VIII, 132.11). Wheat was comparatively cheap at 47 cents per bushel (320 dir. per ird.) in November (VIII, 135.3).

## June, 1453 - May, 1454 A.D.

The June 20 level in 1453 A.D. was more than  $3 \frac{1}{2}$  ft. above the average, at  $14 \frac{1}{2}$  ft., and on July 8 wheat dropped to 25 cents a bu. (140 dir. per ird.; VIII, 188.12).

The  $27 \frac{1}{4}$  ft. level was reached one day early, on August 6, and on September 24 it was more than  $31 \frac{2}{3}$  ft., slightly less than the average final height. Wheat continued cheap throughout 1453 and into 1454 A.D. (VIII, 358.21).

## June, 1454 - May, 1455 A.D.

The June minimum was  $2 \frac{1}{2}$  ft. above the normal, the traditional  $27 \frac{1}{4}$  ft. was reached on time, August 7, and the final height, on September 24, was  $32 \frac{1}{2}$  ft., a little above normal (VIII, 213.15). Prices remained down the rest of the year, into 1455 (VIII, 220.12).

## June, 1455 - May, 1456 A.D.

The river on June 20, 1455 A.D., was 1 ft.  $10 \frac{1}{2}$  in. above the average, at  $12 \frac{2}{3}$  ft., and the awaited  $27 \frac{1}{4}$  ft. was reached five days early, on August 2.

But on August 12 the rise stopped, because of the premature opening of the Munajjâ Canal north of Cairo, a breach in the dikes in that region, and the inundation of the fields. The price of wheat began to rise at Cairo; but it reached only 28 cents per bu. (175 dir. per ird.); when the damage was repaired, the Nile resumed its rise, and wheat returned to 25 cents per bu. (VIII, 242.6-16).

On September 26 the Nile reached its maximum, 32 ft.  $8 \frac{1}{2}$  in.,  $\frac{2}{3}$  ft. above the average (VIII, 244.3). Wheat had dropped to 19 cents per bushel (120 dirhams per irdabb) before the early days of February, 1456 A.D. (before I Rabi', 860 A.H.; VIII, 251.21).

But later, in February, because of a large export of wheat by merchants to take advantage of higher prices in drought-stricken Syria, wheat at Cairo rose to 42 cents per bu. (270 dir. per ird.; VIII, 251.20, 252.2-7). On March 9 (II Rabi' 1, 860) the price was down again, 31 cents per bushel (200 dir. per ird.; VIII, 254.19).

June, 1456 - May, 1457 A.D.

The Nile season of 1456 was propitious so far as the river was concerned; on June 20 the river was 2 ft. 7 in. above the average, at 13 ft. 14 1/2 in.; it was at 27 1/4 ft. on July 30, eight days before that height was expected.

But in August the Sultan's purchased mamlûks were plundering shopkeepers and merchants, or were forcing them to sell at any price offered. Merchants withheld their wares from the markets, so that prices to the populace rose by August 25 (VII, 471.1-15); by August 30, wheat was at 260 dir. per ird., which at the temporary exchange rate of that date (350 or 360 dir. per dînâr) would be 34 cents per bu., or, at the preceding and following rate, 41 cents per bu. (VIII, 276.20).

On September 3 the Nile was 6 1/2 in. above the average at 32 ft. 7 in. (VIII, 277.2). However, on December 4 a proclamation of a change in the gold-copper dirham exchange rate from 375 to 300 per dînâr, and rumors that a new silver coinage was to be issued, led merchants to refuse to accept the current coins; business halted, and wheat rose to about 74 cents per bu. (470 dir. per ird.; VIII, 291.11-22).

The Normal Price of Wheat, Flour, and Bread, 1382-1469 A.D.

#### Wheat

Wheat was sold in the Cairo markets by the irdabb (ardabb), in sacks, about 285 pounds to the sack, equal to about 5 bushels of about 57 pounds each.

The normal price may be roughly estimated at about \$2.10 an irdabb, \$0.42 per bushel or \$0.0074 per pound.

\*The weight of the irdabb given above is about the average weight of a number of irdabbs of wheat as determined in 1800 A.D. by the French Expedition in Egypt (*Description*, XVII, pp. 53, 421: 268 livres poids de Marc, which at 1.08 pounds per livre would be 289 pounds).

The size of the irdabb, however, being a measure of volume, differed with time and place, and the weight of its content also differed with the nature of the content, wheat itself also differing in weight as produced in different localities; a list of different estimated irdabb weights is given in *JA* (Ser. VIII, No. 8, 1886, p. 284). The weight of the irdabb of Cairo in the XVth century A.D. is given by Qalqashandî (III, 445), measured by the qadaḥ (which he says was a small qadaḥ, of 232 dirham weights) as 96 qadaḥs, or 22,272 dirhams; this, at 3.186 grams per dirham weight, equals 70,958.59 grams or only 156.437 pounds. But Qalqashandî also notes that in Upper and Lower Egypt the weight of the irdabb is 11 Cairo waibas (bi l-Miṣrî), and, the waiba being 1/6 of an irdabb, the provincial irdabb weighed 11/6 of a Cairo irdabb, 40,882 dirhams or 286.8 pounds. Since the wheat sold in Cairo was brought in sacks from the provinces, the weight of about 285 pounds per irdabb at Cairo is apparently confirmed (but see below under "Flour").



For purposes of comparison it might be noted that wheat per bushel in the United States between 1885 and 1926 weighed between 57 and 58 pounds (*Wheat Studies of the Food Research Institute*, IV, No. 2, December, 1927, p. 94); this, at 5 bushels per irdabb, would be 285 to 290 pounds (the standard sack of flour in the XIXth century also weighed 280 pounds: *EB*, article "Bread").

As noted earlier, prices quoted in Arabic chronicles pertain to times of great scarcity or, occasionally, of great abundance; a normal price is given only in the *Subh* (III, 448) for the period 1347-1378 A.D. (748-780 A.H.), namely, 15 dirhams per irdabb, or \$0.42 per bushel (for an estimate of 20 dirhams per irdabb in 1315 A.D., see below, p. 102). By inference the normal price may have been a little less than this in the XVth century A.D., since Ibn T.B. (VIII, 135.4, in 856 A.H.) characterized \$0.40 to \$0.45 per bushel (320 dirhams per irdabb) as satisfactory only in comparison with previous high prices; he regards \$0.56 as higher than normal. On the other hand he regards \$0.20 to \$0.30 per bushel (in 1453 A.D., 857 A.H.) as remarkably cheap (Ibn T.B., VIII, 188.11, 358.21: 140 trade dirhams, i.e., \$1.027, per irdabb), and so 'Alī Pâshâ (XX, 142.15) quotes 60 (trade) dirhams per irdabb, i.e., about 14 cents a bushel, in 826 A.H., 1423 A.D., as being exceedingly cheap (*rakhuṣa jiddan*).

The number of quotations for wheat available (and included in the table on pp. 82-89) for 1382-1497 A.D. (784-903 A.H.) is 167, unequally distributed among 63 years; for instance, for 1395 A.D. alone there are 7, for 1396 there are 13 entries.

The average price per bushel of wheat in these 167 entries is \$0.97 (\$0.017 per pound), 2 1/3 times the theoretical normal (\$0.42).

The number of entries is heavily weighted with high prices, since the historians show a larger number of fluctuations in a year of extraordinary dearth than in years of unusual plenty. Moreover, the variation from the normal price is much larger in extent above normal than it is below normal, since demand may send the price up two and three dollars above the normal, whereas the drop below normal could at the most be 30 cents in the year of greatest supply (the actual lowest price quoted is 9 cents per bushel in 1496; it was 14 cents in 1423 and again in 1495, 15 cents in 1388 and again in 1433). Nevertheless, of the 167 available prices, 61, or 36 1/2 per cent, are below 50 cents per bushel.

It will be seen that there are 52 years out of a total of 115 years without quotations, presumably then good years, with wheat also probably below 50 cents per bushel.

In all these estimates the varying exchange rates are involved, which are infrequently quoted simultaneously with wheat prices. The greatest uncertainty concerns the years immediately before the definitely known change from the gold-silver basis to that of gold and trade dirhams in 1404 A.D., 807 A.H. Whereas the average of the 14 years for which prices are quoted in the period 1382-1405 A.D. is \$1.21 per bushel (varying between \$2.05 in 1396 and \$0.15 in 1388), the average of 47 years between 1408 and 1497 is \$0.62 per bushel (varying between \$2.08 in 1451 or \$2.35 in 1487 and \$0.09 in 1496).

The highest individual quotation before the change in the exchange basis was \$3.72 per bushel, in February, 1396; after the change the highest was \$3.00, in April, 1451; the lowest, \$0.15 per bushel in 1888 and \$0.19 in 1456.

The weight and price of wheat at Cairo as given above was for uncleaned grain, mixed with other seeds, with barley, with dirt and stones (Ibn T.B., VIII, 513, note *d*: qamḥ musha'ar al-ghalat), estimated at 17 per cent of the total by volume, and at least that percentage by weight; and it included also the weight of the sack and cordage, estimated at 3 1/2 per cent (*Ighâtha*, 77.2; *JA*, XIX, 1882, p. 153; *Description*, XIX, p. 46, XVII, p. 421). The irdabb of wheat yielded then only about 228 pounds, or 44.4 pounds per bushel of wheat berries (see further, under "Flour"). Cleaned wheat was apparently also sold, in smaller measures; Ibn al-Furât (IX, 435.3) in 798 A.H. quotes sifted wheat (idhâ ghurbila) at 2 dirhams per qadaḥ (i.e., at 192 dirhams per irdabb) "or more, when [uncleaned] wheat was at 150, then at 175, per irdabb" (i.e., at \$20.00 per irdabb when uncleaned wheat was at about \$16.00, then at \$18.66).

According to Maqrîzî (*Ighâtha*, 77.3), when wheat was cleaned it lost 1/6 of an irdabb. As an irdabb contains 96 qadaḥs of uncleaned wheat, this would equal 80 qadaḥs of cleaned wheat. Maqrîzî gives the cost of cleaning wheat as 3 dirhams per irdabb; 80 qadaḥs of cleaned wheat would, at the rate of 150 dirhams for uncleaned wheat (see above), cost a minimum of 153 dirhams, and a qadaḥ of cleaned wheat would cost at least 1.91 dirhams, close to the 2 dirhams of Ibn Furât's quotation. An irdabb of cleaned wheat would cost 182+ dirhams, or (at \$0.1064 per silver dirham) \$19.41 as against \$15.96 per irdabb of uncleaned wheat.

Prices quoted for wheat in England also are apparently for uncleaned wheat, cleaning taking place in the mill; but in the United States, prices are for cleaned wheat as sold at the pit, and are therefore, as quoted, too high for comparison with prices in other countries.

For purposes of rough comparison the following quotations for wheat per bushel are added:

Egypt, in 1315 A.D., 715 A.H., 20 (silver) dirhams, i.e., \$2.80 per irdabb, \$0.56 per bushel, used in estimating the value of fief incomes of the army (*Khiṭaṭ*, II, 218.13).

Egypt at the beginning of the XIXth century A.D., \$0.30 per bushel (*Description*, XVII, 401: 4 francs, 30 centimes per hectolitre).

Egypt, at Assiut, same period, \$0.30 per bushel (*ibid.*, XVII, 49: 2 pataques, 30 medins per irdabb).

Egypt, at Qene, same period, \$0.21 to \$0.32 per bushel (*ibid.*, XVII, 335: "3 to 4 1/2 pataques per tellis").

Egypt, Cairo, about 1836 A.D., \$0.44 to \$0.53 per bushel (Lane, *Manners and Customs*, Appendix: "400 piasters for 8 irdabbs"; also, chapter on "Industry," "50 piasters to 63 piasters, 13 shillings, 2 1/5 pence, per irdabb.")

England, village, 1208-1448 A.D., average \$0.20 per bushel (Gras, *The Economic and Social History of an English Village*).

England, 1656-1705 A.D., average \$1.35 per bushel (*EB*, article "Grain Trade": 42 shillings, 10 d. per quarter).

France, beginning of XIXth century, \$1.00 per bushel (*Description*, XVII, 401).  
 United States between 1933 and 1940, \$0.40 to \$1.40 (U.S. Bureau of Labor  
 Statistics, in *San Francisco Chronicle*, December 20, 1940).

### Flour

Flour was sold in Cairo by the baṭṭa, weighing about 50 pounds (riṭl), at the rate of about \$0.013 per pound when wheat in the Cairo markets was \$0.0074 per pound.

The weight 50 pounds (riṭl) is given by Ibn Mammâtî (365.10) and also in a treatise quoted in *JA*, 1884, p. 419 (6 baṭṭas equal 300 riṭls, and 144 qadaḥs equal 300 riṭls, making the qadaḥ of flour 2 1/12 pounds and the waiba 33 1/3 pounds).

According to Ibn al-Furât (IX, 435.4) the baṭṭa was 1/4 irdabb (1 1/2 waibas); like the irdabb itself a measure of volume, it becomes a measure of weight for a specific commodity and evidently would not necessarily be a measure of weight for another commodity. Compared with an irdabb of wheat of 285 pounds, an irdabb (4 baṭṭas) or 200 pounds of flour would weigh 70 per cent of an equal amount of wheat.

The cause of this 30 per cent loss was apparently as follows (see above, under "Wheat," p. 102): 3 1/2 per cent (of the 285 pounds gross) was the weight of the sack and cordage (*Description*, XVII, p. 421); 16 2/3 per cent was lost in cleaning the wheat of extraneous matter (ghalat: *Ighâth al-Umma*, p. 77: i.e., 1/6 of an irdabb); an estimated 10 per cent was lost in grinding. Actually the grinding loss was possibly less, since the grinding was very coarse and little of the bran was separated from the flour (*Description*, XVII, p. 309); in some parts of Egypt it was not separated at all; the fact that flour sold in Cairo was apparently regarded as "fine" ('alâma; cp. Ibn T.B., VIII, 57.9, 512.11, etc.) would imply only that it was fine contrasted with whole-wheat flour. (The loss by grinding in England was 12 1/2 per cent: *EB*, article "Bread").

An estimate that wheat in Egypt yielded 73 1/3 per cent of its own weight in flour (*Description*, IX, p. 136), if applied to the 275 pounds of uncleaned wheat minus the weight of the container, would again approximate the 200 pounds per irdabb of flour (50 pounds per quarter irdabb).

The normal price of flour as given above, \$0.013 per pound, is the average price of seven quotations recorded when wheat at the same dates (in 1413, 1448, 1449, 1452, 1462, 1464, 1484) was at \$0.0071, almost its normal price of \$0.0074 per pound (see above, under "Wheat"). Flour under this estimate was about 1.87 times the price of wheat; or flour cost \$0.006 more than wheat a pound.

There are available only 38 quotations for flour when wheat prices are recorded at the same date; and as usual, they, like wheat, are generally abnormal, more frequently called high than low. The average of these 38 quotations is \$0.0332 per pound for flour, against \$0.0200 for wheat; flour is then 1.66 times wheat.

The cost factors in the price of flour are given in part by Maqrîzî (*Ighâtha*, 77.2) for 1403 A.D., 806 A.H., when he ascribed high prices to the inflation of the currency, and the trade dirham was quoted at 150 to the dinâr (i.e., \$0.0187

per dirham) while wheat was at 450 dirhams (\$8.415) per irdabb or \$0.0296 per pound:

Brokerage	10 dirhams	\$0.187
Cartage	7 dirhams	.131
Sifting	3 dirhams	.056
Grinding	30 dirhams	.561
Total	50 dirhams	\$0.935

The total cost of the wheat converted into flour was (\$8.415 + \$0.935) \$9.350, which (for the 200 pounds of flour produced, as estimated above) was \$0.04676 per pound (or \$2.338 per baṭṭa), about 1.6 times the initial cost of the wheat (\$0.0296). This did not include the profit of the flour merchant. Unfortunately Maqrîzî did not add the selling price of the flour; but if the average price (as estimated above) was about 1.8 times the price of wheat, the price of flour would have been \$0.0533 per pound, a margin of \$0.0065 per pound over the cost of flour (compared with \$0.0056 estimated above).

At this estimate the dealer, selling the flour in units of 50 pounds at the supposed price of \$2.665 per baṭṭa, would have a margin of \$0.325 per baṭṭa to cover his own selling costs, including the container, and his profits.

However, the cost factors given by Maqrîzî in producing flour may have been different at other times; for instance, compared with Maqrîzî's  $6\frac{2}{3}$  per cent of the cost of wheat for grinding, Ibn Taghrî Birdî (VIII, 101.2) makes it about 8 per cent (120 dirhams when wheat was 1,500 dirhams "or less" per irdabb, but he adds that this was so high that most people began to grind the wheat at home). Lane (*Manners and Customs*) prices it at 12 per cent (50 piasters for grinding 8 irdabbs costing 400 piasters).

In the actual individual quotations of the price of wheat and of flour the fluctuations in the relation of the price of flour to that of wheat as compared with the theoretical averages deduced above are considerable.

### Bread

Bread (khubz) at Cairo, made of relatively fine flour ('alâma) and baked in the form of moderately thick loaves or cakes (raghîf), was sold by weight, probably at between \$0.011 and \$0.0113 per pound in normal times (i.e., when wheat was about \$0.0074 per pound, and flour at about \$0.013 per pound); i.e., bread cost about 1.42 times the cost of wheat and about 83 per cent of the cost of flour (per pound).

These estimates are lower than the averages of the actually recorded data, which on the whole are for years when wheat was unusually high, and quotations vary considerably from the average. In the 22 years of simultaneously quoted wheat and bread prices, bread is \$0.0209 per pound and wheat \$0.0309, bread being 1.48 times wheat per pound.

In the 19 simultaneous quotations of bread and flour bread is \$0.0318 per pound and flour \$0.0355 per pound, bread averaging 87 per cent of the cost of flour.

Flour at Cairo was found to yield about 80 per cent of its own weight in bread (this was about 1800 A.D.: see *Description*, IX, p. 136; wheat yielded  $11/15$  of

its own weight in flour and 10/11 of its own weight in bread); one pound of flour made 1.24 pounds of bread. The average in England was formerly 78 per cent of a pound of flour to a pound of bread, or 1.28 pounds of bread to a pound of flour; cp. *EB*, article "Bread": 90 four-pound loaves to a sack of 280 pounds of flour.

The initial cost of a pound of bread at any date should therefore have been 80 per cent of the cost of a pound of flour (\$0.016), or, in normal times, \$0.0128; the difference between \$0.0118 and \$0.0128, namely \$0.001 or 8 per cent of the flour price, and 13 1/2 per cent of the price of wheat, would represent the charges of the baker. These charges are not stated in the Arabic sources; in the early XIXth century A.D., however, when prices were comparable to the normal price of the IXth century A.H., baking cost 10 per cent of the price of wheat (Lane, *Manners and Customs*). That the millers attempted to keep the price of bread high even when the market price of wheat was falling is evident from an incident in 787 A.H., when a number of them were severely punished for this reason (Ibn al-Furât, IX, 439).

Individual quotations for bread vary considerably from the average. The nearest actual quotation for the theoretically normal conditions is for 1461-1462 A.D., 866 A.H., when wheat was at \$0.00825 per pound, flour at \$0.0141, and bread at \$0.0134 (bread 1.60 times wheat, 95 per cent of flour), so that the seller of bread received about 21 per cent over the cost of his flour.

The actual bread prices in four quotations are less than the estimated minimum, 80 per cent of the cost of flour, namely, 60, 63, 74, and 76 per cent, and two additional quotations are exactly 80 per cent (a total of 6 out of the 23 quotations).

In 1452 A.D., 856 A.H., while flour was at \$0.0215 per pound (80 per cent of which is \$0.0172), bread is actually quoted at \$0.01101 (Ibn T.B., VIII, 135.7), i.e., at 63 per cent of flour; but since at the same time wheat was only \$0.00825 per pound, the price of bread is in normal proportion (133 per cent) to that of wheat, but disproportionately low in relation to the disproportionately high price of flour.

In two quotations the price of bread in relation to flour is higher than the estimated normal; in the last month of 853 A.H. it was 103 per cent, and in the first month of 854 A.H. it was 110 per cent. With respect to the first quotation Ibn T.B. (VIII, 57.13) notes that there was little flour to be found in the markets; with respect to the second, the higher price for bread continued though the supply was comparatively plentiful in the markets.

The data, as has been seen, are too few to supply an explanation of the variations in the relation of the price of bread to that of flour - whether bread in the XVth century A.D. sometimes contained less wheat than at others, or whether the price of bread was based on wheat and flour on hand before the date of the sale of bread.

When bread is quoted by the loaf without specification of weight, the inference is probably in general that the pound loaf is intended. An exception is found in a quotation for 1396 A.D., 798 A.H. (Ibn al-Furât, IX, 439.17; "a loaf at 1/4 dirham"), where the price (\$0.02662) is disproportionately low, and the next quotation (IX, 440.7) specifies the weight of the loaf to be a "little more

than half a pound." Other weights mentioned are  $13/24$  pound ( $1/2$  riṭl and  $1/2$  uqîya; Ibn T.B., VIII, 512.12, in 1465-1466 A.D., 870 A.H.);  $7/12$  pound (7 awâqî; Sakhâwî, *Tibr*, p. 262, in 1449 A.D., 853 A.H., and Ibn T.B., VIII, 430.20, in 1462 A.D., 866 A.H.);  $2/3$  pound (8 ûqîya: Maqrîzî, *Sulûk*, MS Paris no. 1727, fol. 262a.22, on August 18, 1398 A.D., Dhu l-Ḥijja 4, 800 A.H., at 2 fulûs, i.e., 3 fulûs per pound= $1/8$  dirham=\$0.01164); less than  $5/6$  pound ("less than 10 awâqî"; Ibn T.B., VIII, 329.4, in 1460 A.D., 864 A.H.). In his endowment deed dated 1470-1471 A.D., 875 A.H., Sultan Qâ'it Bâi (64.22), providing bread for employees of his mosque, was careful to specify loaves of "1 Egyptian pound of good flour." Larger loaves seem to be implied, however, in a passage (Ibn T.B., V, 599.12, referring apparently to the famine of 1394-1395 A.D., 797 A.H.) in which 40 irdabbs of wheat are said to yield 8,000 loaves of bread; since 40 irdabbs, or 11,400 Egyptian pounds, of wheat, should according to the stated estimates yield about 1,036 pounds of bread, each of the 8,000 loaves would weigh  $1\frac{1}{3}$  pounds.



The data mentioned above about bread all refer to wheat bread, as has been noted before. Exceptionally, bread from other grains was eaten in Cairo.

Bread made from maize (dura or dhura) or from millet (dukhn) was eaten in Cairo in July, 1470 A.D. (875 A.H.), according to Ibn Iyâs (III, 5c, 443), who says this had not happened before even when wheat reached 7 Ashrafîs, i.e., \$16.45 per irdabb, or \$3.29 per bushel, in the sultanate of Jaqmaq (in 854 A.H., 1450 A.D., according to Ibn T.B., VII, 341.14, where wheat is quoted at 2,000 trade dirhams, i.e., \$16.50 per ird., or \$3.30 per bu., the same as Ibn Iyâs's quotation of 7 Ashrafîs). Bread of dura flour was sometimes eaten by the fallâḥîn, but dura was not generally brought to the city markets, hence the tax on land sown to dura was paid in money (*Description*, XVII, pp. 58, 59).

Loaves of bread made from kushkâr (or kishkâr), according to Ibn Iyâs (I, 229.20), were eaten in 1374 A.D., 775-776 A.H., in a period of great drought; kushkâr is defined as "coarse meal" by Spiro Bey (s.v.) and by Burckhardt (*Arabic Proverbs*, no. 544), and as "bran" by Spitta-Bey (*Grammatik*, p. 511, proverb no. 232), in contrast to 'alâma, "fine" flour.

## INCOME: FIEFS; STIPENDS AND WAGES

Only a very few data are available for estimating the income of the people of Egypt in the XVth century A.D., and these data are concerned mainly with the income of members of the ruling, military, class on the one hand and on the other with stipends and wages of those holding positions in the endowed mosques and other institutions. In both, the amounts paid to individuals are fixed by the Sultan, either as absolute head of the army, or, in general, as founder of the endowment, stipulating the payment to be made for each type of employment.

In addition there are some general remarks made by Maqrîzî in his *Ighâtha* with respect to the income of various classes of the population and its relation to prices around 807 A.H., when changes in the currency system of Egypt resulted, according to him, in the ruin of the country.

The data do not provide for any systematic or comparative study of the subject; at best they may indicate the general order of magnitude of the income of various classes of the population throughout the period; but no adequate attempt can be made to indicate the rise and fall of incomes in the course of the century and relate them to the violent fluctuations in the price of commodities, though the difference in wages provided by the endowment deeds of Sultan Mu'ayyad in 1420 A.D. and Qâ'it Bâi in 1470 A.D. for identical duties might superficially seem to be significant (see later).

Maqrîzî in the *Ighâtha* divides the population of Egypt into seven economic classes, beginning with the ruling military class of all ranks, and ending with the poverty-stricken, the chronically unemployed; it is proposed here to present available data on income as far as possible in relation to his classification.

It will be seen that there is a vast difference between the luxury provided by the income of the upper classes and the simple life possible under the income of the ordinary laborer or peasant (with whom should be grouped perhaps those in the lowest grades of the military).

The mere maintenance of life in Egypt, however, was comparatively easy; as will be seen, a pound or a pound and a half of bread, with possibly a few vegetables, satisfied the accepted minimum standard of living; clothing for summer and winter was of the simplest; its adequacy as a covering, not the rivalry for splendor of the upper classes, was the only factor. By way of comparison, still in the early XIXth century (according to Lane, *Manners*, App. C) the household expenses of a family of four, even of the middle classes in the cities, amounted to about 36 cents (7 1/2 piasters, 18 pence) per day, and this included such items as meat, coffee, and tobacco.

## Income of the Military Classes

1. The first division of Egypt's population, as classified by Maqrîzî in his *Ighâtha* (see above), included all members of the government, particularly the army from the commander-in-chief to the lowest grade in the standing army (or reserves).

The income of the various grades had been fixed at the time of the cadastral survey of Sultan Muḥammad ibn Qalâ'ûn in April-May, 1316 A.D. (Muḥarram-Şafar, 716 A.H.), and apparently served as a standard for payment, though not in the exact amounts recorded, down to the time of Sultan Barqûq and the beginning of the XVth century A.D.

Maqrîzî (*Khiṭaṭ*, II, 218.11 et seq.) gives an account of these incomes, as the estimated gross value ('ibra) of the yield of the fief assigned to each individual or group of individuals, the stated amount including usually the estimated value of the fief's agricultural products, whether paid in kind or in money or in both.

This estimated gross income is expressed as a number of dînârs, which, however, is only a nominal amount, since the dînâr has varying values as applied to the income of different grades in the army (see below). It is apparently what is called elsewhere the "army dînâr" (dînâr jaishî) a term which occurs, for example, in the *Şubḥ* (IV, 50.11; 51.6), and is quoted from the *Dîwân al-Inshâ'* in *Histoire des Sultans Mamlouks* (I, ii, p. 201): "Some of the men of the standing army (ḥalqa) have in their names a [fief] income of a number of army dînârs ('ibrat danânîr jaishîya), but with no [actual] income at all." Anastase-Maria de Saint-Élie (*an-Nuqûd al-'Arabîya*, pp. 112.15 et seq.) states that the yield of a fief with an income of 100 of these nominal (musammâ lâ ḥaqîqa) army dînârs might actually be more than that of another fief with 200 dînârs. Ibn Mammâtî (369.1 et seq.) uses the term "dînâr jundî" instead of "dînâr jaishî" with the same meaning, and lists whole, half, and quarter dînârs when used of the payment to different classes of the army.

Apparently, then, army dînârs are the dînârs of which a fixed, traditional number was the assessed (or "book") income of a fief (Dozy, however, s.v. "dinar," quoting *ZDMG*, IX, p. 608, note, defines "army dînârs" as dînârs weighing more than ordinary dînârs).

The actual amount of the incomes is given in the *Khiṭaṭ* passage as a number of dirhams, usually calculated at the rate of 10 dirhams per (nominal) dînâr, but sometimes at 7, 8, or 9 dirhams per dînâr. The resulting total gross number of dirhams (al-intifâ') includes the value of an unstated amount of wheat reckoned at 20 dirhams per irdabb, or other grain at 10 dirhams per irdabb; the cost, in dirhams, for processing the grain (of each kind) is also given, and this cost, subtracted from the gross number of dirhams income, leaves the net (khâliş) dirham income.

The fief incomes provided by the cadastral survey of 1316 A.D. are summarized in the table on p. 109.



## INCOME OF THE MILITARY CLASS

Rank	Gross income (dînârs)	No. of dirhams to dînâr	Gross income (dirhams)	Cost of processing grain (dirhams)	Net income (dirhams)	Net income (dollars)
Emirs, class 1 (a)	100,000	10	1,000,000	100,000	900,000	\$126,000
Emirs, class 1 (b)	85,000	10	850,000	70,000	780,000	109,200
Emirs, class 2 (a)	40,000	10	400,000	35,000	365,000	51,100
Emirs, class 2 (b)	30,000	8	240,000	24,000	216,000	30,240
Emirs, class 3 (a)	10,000	10	100,000	7,000	93,000	13,020
Emirs, class 3 (b)	7,000	10	70,000	5,000	65,000	9,100
Inspector-governor	20,000	8	160,000	15,000	145,000	20,300
Governor (2d class emir)	15,000	8	120,000	10,000	110,000	15,400
Governor (3d class emir)	5,000	7	35,000	3,000	32,000	4,480
Commander of mamlûks	1,200	10	12,000	1,000	11,000	1,540
Commander of ḥalqa	1,000	9	9,000	900	8,100	1,134
Adjutant of army	400	9	3,600	400	3,200	448
400 Sultan's mamlûks	1,500	10	15,000		15,000	2,100
500 Sultan's mamlûks	1,300	10	13,000		13,000	1,720
500 Sultan's mamlûks	1,200	10	12,000		12,000	1,680
600 Sultan's mamlûks	1,000	10	10,000		10,000	1,400
1,500 men of ḥalqa	900	10	9,000		9,000	1,260
1,350 men of ḥalqa	800	10	8,000		8,000	1,120
1,350 men of ḥalqa	700	10	7,000		7,000	980
1,300 men of ḥalqa	600	10	6,000		6,000	840
1,300 men of ḥalqa	500	10	5,000		5,000	700
1,100 men of ḥalqa	400	10	4,000		4,000	560
1,032 men of ḥalqa	300	10	3,000		3,000	420

The fief incomes included in the list, as noted above, consisted of a part of the product, or value of the product, of that portion of Egyptian territory which was assigned for the purpose to the individuals in question.

The unit of fief land consisted of one town or village, sometimes two or more towns or villages, as center, and the surrounding agricultural lands; each such unit of area contained a surveyed number of acres (faddâns), upon which the fixed number of dînârs was assessed, to be collected by the fiefee from the peasants. The amount per acre differed according to its productivity, i.e., the extent to which it was irrigated by the Nile flood: it represented the land tax of the area, whether paid directly to individual fiefees or to the Sultan's financial bureaus.

The "fief" of any individual or bureau was in general a combination of several regional land units; the assessed number of dînârs (the 'ibra) of a unit was said to form a part of, or "be current in" (yajrî fi), his fief (iqṭâ'). These units of territory were not necessarily contiguous; indeed, they frequently lay in widely separated areas.

The fief assignment was subject to change whenever the rank or office of the fiefee changed, at the pleasure of the Sultan.

According to Nuwairî (*Nihâya*, VIII, pp. 200 et seq.) a current register (jarîdat iqṭâ') of all the geographical units of Egypt, grouped according to provinces, and listing the name of each unit as well as its estimated value (called the

"army" assessment, 'ibra jaishiya), was kept by the secretariat of the army, which entered opposite each place name the name of the individual to whom it had been assigned, with a notation of any change in assignment.

Another register (jarîdat al-jaish) listed alphabetically the holders of fiefs, in order of rank, emirs as well as the Sultan's mamlûks, the standing army or reserves (ajnad al-ḥalqa), the Arab and Turcoman emirs, with the amount of the fief of each of them, and other pertinent data.

The range of incomes as given by Maqrîzî (see above) was derived from such an army register (jarâ'id diwân al-jaish) which Maqrîzî himself states that he saw (*Khiṭat*, I, 95.11).

### The Fiefs of Emirs

It must be noted that in general an emir was required to maintain out of his stated income the number of mamlûks, or horsemen, designated by his rank as emir of a hundred, of forty, or of ten. At one time at least, the diploma of an emir designated one-third of his fief for himself and two-thirds for his subordinates (*Khiṭat*, II, 216.2 et seq.). The latter received from the emir a diploma assigning to each, as the emir wished, a specific portion of the land constituting his own fief, for which he kept his own journal (masîr), submitting it to the central army government for review and confirmation of his appointments. Nuwairî (VIII, 206.10) calls the emirs' contingents "soldiers" (ajnad) and (207.2) refers to them also as his mamlûks and adherents (mamâlîk al-amîr wa-alzâmhû).

It is evident, then, that the personal income of an emir whose fief yielded him 100,000 dinârs, or 1,000,000 dirhams a year, for instance, was only one-third that amount, or, reckoned as army dinârs, only \$42,000 a year.

On the other hand, they, and particularly those who were favorite emirs and mamlûks, received in addition daily rations of meat, bread, and other food, barley for their horses, and clothing; extra supplies, including sweets, in the month of Ramadân and on the Feast of Sacrifices; horses were distributed among them twice each year; and some received gifts of money on special occasions, as well as lands and buildings (*Khiṭat*, II, 216.14 et seq., cp. *Ṣubḥ*, IV, 51.7).

Emirs who in addition to their emirate were appointed to office received fiefs with additional income. There are not available statements of the total income from such fiefs; but an indication of the size of some of them may be seen in the gifts which, at a later date, high officials customarily made to the Sultan when he visited one of them. For example, Fakhr ad-Dîn ibn Abi l-Faraj the major-domo on one such occasion in 821 A.H., 1418 A.D., presented to Sultan Mu'ayyad 10,000 dinârs and this was soon after he had added 30,000 dinârs from his own fief to the amount which he as major-domo had collected for the Sultan during the latter's absence in Syria.

A partial check on the fief incomes quoted above from Maqrîzî is supplied for around 1393-1395 A.D., 793-795 A.H., by Ibn Duqmâq's *Kitâb al-Intiṣâr*, in which is included apparently an incomplete copy of an army register of fiefs (jarîdat al-iqtâ'; see above). The preserved part of the work lists some of the provinces of Egypt with the towns of each, their fief income ('ibra) in dinârs,

and the acreage (faddâns) of most of them, but, for some, only income or acreage. There follows in each such entry in the register the phrase "and it is current (yajrî) in the fief of," and in some the name and rank of an emir, in others the name of a bureau, or a class name of the fiefees (emirs of 10, 40, or 100; Sultan's mamlûks; troopers of the ḥalqa); but frequently the space for the fiefee is left blank. The dînâr mentioned in the list is probably the army dînâr (dînâr jaishî), one-half the standard dînâr or less (see above).

Some examples of Ibn Duqmâq's data follow:

Grand Chamberlain Fâris min Qaṭlûja's fief included al-Maimûn, with 18,000 dînârs; Dalja, with 30,000 dînârs; and Isnâ and its islands, with 22,000 dînârs; - a total of 70,000 dînârs as a part of his income (Ibn Duqmâq, V, 5.5, 19.12, 30.2).

Qumushbughâ al-Ḥamawî al-Yalbughâwî in 793 A.H., 1391 A.D., when made a first-grade emir in Cairo, was given the fief of Emir Inâl al-Yûsufî (who had been commander-in-chief), but the Sultan added to the fief three cities (Ibn al-Furât, IX, 247.18). Qumushbughâ became commander-in-chief the next year (*ibid.*, 301.22; Ibn T.B., V, 546.16); Ibn Duqmâq, in his incomplete list of fiefs, names as entering into Qumushbughâ's fief when commander-in-chief at least five places; one-half of Ashrûba with 10,000 dînârs, i.e., 5,000 dînârs; in the Fayyûm, Sumuṣṭa, with 1,513 faddâns of area, hence probably yielding, 4,000 dînârs at least; Bûtîj (in Bahnasa), 37,500 dînârs; Ṭûd (in Qûṣiyya Province), 8,000 dînârs; Farjûṭ, 20,000 dînârs (Ibn Duqmâq, V, pp. 3, 9, 24, 32) - a total of 74,500 dînârs for part of his fief income.

When Emir Baibars, Sultan Barqûq's nephew, was made commander-in-chief, succeeding Aitamish al-Bajâsî, and as usual received the latter's fief, the Sultan excepted from it an-Naḥrîriyya, Minyat Badrân, and Ṭukh al-Khail (Ibn T.B., VI, 25.5). The three centers (respectively about 62 m. north of Cairo, 35 m. north, and 136 m. south) yielded a combined income of 44,000 dînârs (Ibn Duqmâq, V, pp. 86, 76, 21). The reduction in Baibar's fief was probably made because his promotion from executive secretary to commander-in-chief passed over several intervening steps and his previous fief had been considerably smaller than that of Aitamish. If Aitamish's fief income had been only 200,000 dînârs (see above, p. 110), Baibars' fief as commander-in-chief might still have been more than 150,000 dînârs.

'Alî ibn at-Ṭablâwî, an emir of the second class and former wâlî (head of police) of Cairo, had in his fief part of Zaitûn, 1,400 dînârs; Iḥnâsiyya as-Ṣughrâ, 10,000; one-half of the oases of Barqa (54,000), 27,000; Ḍahr al-Jumal, 1,800; one-third of Adfa (5,000), 1,666; and one-third of Danqâm, the area of which was 1,954 faddâns and (at about four dînârs per faddân) the income perhaps 7,500 dînârs, or 2,500 for Ibn at-Ṭablâwî: the total, at least 43,000 dînârs. In Qalqashandî's table, emirs of the second class received, as such, not more than 30,000 dînârs; but Ibn at-Ṭablâwî also held an important office.

Arghûn min Qashbughâ, an emir of the third class, had in his fief Kaum ar-Râhib, 2,500 dînârs, and al-Aqsarain, 9,000 dînârs; a total of 11,500, as compared with Qalqashandî's maximum of 9,000.

• Ibrâhîm ibn Yûsuf ibn Burlughî, whom Ibn Duqmâq (V, 7.26, 26.10) calls "Bulrughî, an emir of five," but Ibn Furât (IX, 135.12; cp. Ibn T.B., V, 472.20),

an "emir of ten," shared the fief of Ibn at-Ṭablâwî (one-third of Danqâm, which had an area of 1,954 faddâns [see above] and one-third of Adfa, 5,000 dinârs); an estimate of his total listed income was at least (1,600 + 1,666) 3,266 dinârs; this is well below Qalqashandî's maximum of 9,000 for an emir of the third grade.

Baisaq ash-Shaikhi, however, also an emir of the third class, had in his fief Ishî and Ṭambadî with the large yield of 40,000 dinârs, which in the list is the stipend of a favorite emir of the second class. Baisaq was Sultan Barqûq's emir of the horse, and had conducted the advance caravan with success in 1390 A.D., 792 A.H. (Ibn Furât, IX, 238.10); moreover, this had previously been the fief of an emir of the second class, and, before that, of the first class (Ibn Duqmâq); Baisaq himself did not become an emir of the second class till 1397 A.D., 799 A.H. (Ibn T.B., V, 571.18).

Abwân and its villages, with a yield of 16,100 dinârs, was registered in the bureau of four emirs of the third class, each receiving 4,025 dinârs (Ibn Duqmâq, V, 2.16); the table lists 7,000 for the "outside" third-class emirs.

Ibshâq and Ṭambabû, yielding 13,000 dinârs, was in the bureau of 'Alân al-Yaḥyâwî al-Khaṣṣakî (Ibn Duqmâq, V, 2.10), who became an emir of the third class in 793 A.H. (Ibn T.B., V, 536.20). Favorite third-class emirs in the list receive 10,000 dinârs.

#### Effect of Change in Coinage

The fief incomes of the government and members of the military classes discussed above refer to conditions before the change in currency in the early years of the XVth century.

The effect of the change from silver coinage to copper coinage on incomes and prices around 807 A.H., 1404-1405 A.D., is explained by Maqrîzî (*Ighâtha*, 84.11). He discusses first the effect on the fief income of the government, particularly the vizierate, charged with furnishing supplies for the Sultan's bureaus.

Before the change, Maqrîzî states, when the vizierate received 60,000 silver dirhams, it purchased with that amount 1,500 hundredweights of mutton at 40 (silver) dirhams each. The exchange rate previously cited by Maqrîzî was 24 silver dirhams per dinâr, or \$0.117 per dirham, and mutton then cost only \$4.68 per hundredweight, or \$0.0468 per pound.

After the change the vizierate's income was 60,000 nominal dirhams of fulûs, i.e., "trade" dirhams (which meant actually 10,000 pounds of coined copper pieces, or 1,440,000 dirham weights of copper, making each trade dirham 24 dirham weights of copper). With these 60,000 trade dirhams (or their equivalent in gold at the current copper-gold exchange) the vizier bought 66 1/3 hundredweights of mutton at the rate of 900 dirhams per hundred weight (the text reads by error "700"; see also *JA*, Ser. VII, No. 19, 1882, p. 157). At the exchange rate Maqrîzî had noted for this date (*Ighâtha*, p. 81), namely, 140 (trade) dirhams per dinâr, equal to \$0.02, the price of mutton was now (about 807 A.H.) \$18.00 per hundred pounds or \$0.18 per pound instead of \$0.0468.

Expressed differently (*Ighâtha*, 73.6 et seq.), an income from land amounting previously to 20,000 (silver) dirhams meant about 1,000 dinârs in gold, and was enough to provide for all the recipient's wants and leave something to spare, while now it amounted to the apparently larger income of 100,000 dirhams (in copper) but only 666 gold dinârs.

#### Income of the Sultan's Mamlûks

The income of the 2,000 Sultan's mamlûks is given in the cadastral survey of 1316 A.D. as ranging between 1,000 and 1,500 army dinârs each (contrasted with the range of 7,000 to 10,000 for emirs of the lowest class). From the wording of the Maqrîzî account of the survey it would appear that these incomes were derived in the same way as other incomes included in the survey, namely, from fiefs. The Sultan's mamlûks in the enumeration stand between the emirs and the soldiers of the reserves (*ajnad al-ḥalqa*), both of which classes were fief holders. And Maqrîzî states (*Khiṭaṭ*, I, 90, 32) that during the survey, early in 1316 A.D. (Muḥarram-Ṣafar 716 A.H.), the stipends (*rawâtib*) of a number of the Sultan's mamlûks of the barracks (*atbâq*) were cut off and they were given fiefs instead; the majority, however, were left with increased monthly stipends.

In Ibn Duqmâq's list of fiefs, dating around 1392 A.D., 794 A.H., a large number of fiefs are designated as belonging jointly to Sultan's mamlûks and men of the standing army (*ḥalqa*), though none are assigned to the mamlûks alone.

Qalqashandî (*Ṣubḥ*, XIII, 159.2) gives the form of a diploma for fiefs issued to Sultan's mamlûks and captains of the standing army, on the one hand, and men of the standing army, on the other, with a slight difference in form (an extra blank line) to indicate the higher rank of the mamlûks and captains; this corresponds also to their higher incomes.

It is not clear how mamlûks who held fiefs administered them; possibly the income was collected by the vizier or by other officials, who paid it to the individuals in the stipulated amounts as stipends, so that practically all Sultan's mamlûks were paid in the same way. It is to be noted that in the list of their incomes mentioned above no grain is included, as it is in the fief income of emirs.

Ibn Taghrî Birdî (VI, 387.5) states that before Barqûq's sultanate the army was divided into three distinct and entirely separate divisions: (a) the standing army or reserves, who had fiefs; (b) the Sultan's mamlûks, who received monthly stipends and supplies (*jawâmik wa-rawâtib*) from the Sultan's bureau (*diwân as-Sultân*), with annual clothing allotments; and (c) emirs' mamlûks. According to Maqrîzî, the mamlûks' supplies included a daily allotment of meat, and fodder for their horses, and there were additional money distributions when the armies went on a campaign to distant regions.

Sultan Barqûq, after his succession in 1382 A.D., 784 A.H., when he made large purchases of mamlûks until they numbered 5,000, established a separate bureau, the *diwân al-mufrad*, to provide for their stipends. Many districts in Egypt were added to the fief which he had held as emir, to supply the income for the new bureau, which was placed under the major-domo (*ustâdâr*) and taken from the vizier, who had formerly provided the stipends (*Khiṭaṭ*, II, 223.29-32).

It is not stated that the older mamlûks at that time were left in possession of their fiefs, but, as has been indicated, the Ibn Duqmâq list of about 793 A.H. does mention mamlûks' fiefs.

Ibn T.B. (VI, 387.10) maintains that in Barqûq's sultanate there occurred other changes in the hitherto clearly marked threefold division of the armies; for then the emirs began to buy, or to receive, from the Sultan the fiefs of the standing army for their own mamlûks and at the same time introduce them into the Sultan's entourage (bait) to receive stipends there, so that one emir's mamlûk might at one and the same time have the stipend of a Sultan's mamlûk, of a soldier of the ḥalqa, and of an emir's mamlûk—reducing the army to one-third its former size. On October 6, 1418 A.D., Ramaḍân 5, 821 A.H., the Sultan ordered that a choice be made between service as an emir's mamlûk or in the standing army (Ibn T.B., VI, 386.10).

According to Ibn T.B. (VIII, 690.13 et seq.), until the end of Barsbai's sultanate, 1437 A.D., 841 A.H., and apparently as early at least as Mu'ayyad's reign, which began in 1412 A.D., 815 A.H., the stipend of a Sultan's mamlûk was 2,000 dirhams a month, i.e., 24,000 dirhams per year; the amount provided in the Muḥammad ibn Qalâ'un table was from 10,000 to 15,000 dirhams per year.

However, in the earlier period 10,000 to 15,000 (silver) dirhams represented between \$1,400 and \$2,100, while in the later period 24,000 (trade) dirhams meant only about \$270 at the exchange rate then prevailing (\$0.0112).

After Barsbai's sultanate, partly as a result of the sale or exchange of fiefs (which, as has been noted, had been a practice with respect to the fiefs of the standing army according to Maqrîzî as early as 749 A.H.), many who were not mamlûks had become a charge on the bureaus of stipends (under the major-domo) and that of supplies (the vizierate). The new claimants included the sons of emirs (aulâd an-nâ's), scholars, merchants, the general public, "and even Christians" (Ibn T.B., VIII, 691.4).

At the same time the amount of the stipend had risen from 2,000 dirhams a month to as much, in some instances, as 10,000 dirhams a month, and the daily provision of meat had risen from 3 pounds (one zubdiya) to 9, 12, 30, and even 45 pounds (15 zubdiya) a day (690.21).

These excesses were annulled by Sultan Qâ'it Bâi in November, 1468 A.D. (II Rabi', 873 A.H.), and the stipend of the mamlûks was fixed again at 2,000 dirhams a month, with 3 pounds of meat and 3 nosebags of barley (5 bags to the intimate mamlûks; 690.18). At the same time those who had become Sultan's mamlûks through sale or exchange of their fiefs were ordered to recover them and return them (690.15; Ibn T.B. notes that Sultans Inâl and Khushqadam had wished to institute this reform but could not; cp. 691.13 et seq.).

It seems evident that among those who at this time had bought fiefs or secured them by exchange were some Sultan's mamlûks; for Ibn T.B. (VIII, 697.20-698.5) notes that Qâ'it Bâi, when he rejected some of them for his campaign, ordered that if one thus rejected were a fief holder he should supply a substitute or pay 100 dinârs, but if he were the receiver of a stipend of 2,000 dirhams he should pay 20 dinârs; and this, Ibn T.B. adds, the Sultan did to those "who were of the class [jins] of the mamlûks whom slavery had tried and were the foremost of the realm."

The confusion that exists in regard to the constitution of the army at this time is shown by the fact that Ibn Iyâs (5c, 24.21) interprets this order of Qâ'it Bâi as affecting the aulâd an-nâ's (Egyptian-born sons and grandsons of emirs), not the Sultan's own mamlûks.

#### Income of the Ajnâd al-Ḥalqa

The income of the men of the standing army or enlisted troops (ajnâd al-ḥalqa) was derived from fiefs, as noted in the table given above, but as with respect to mamlûks who held fiefs, it is not clear whether or not they administered their fiefs in the same way as did the emirs, personally through a resident agent, a fallâh.

In Ibn Dûqmâq's list of fiefs, as has been noted before, a large number are designated as belonging to these ajnâd al-ḥalqa (sometimes together with Sultan's mamlûks), though without specific mention by name of any individuals. For example, Barâniqa, with a yield of 2,400 dinârs from 549 faddâns was the fief of four of the ajnâd al-ḥalqa, each taking 600 dinârs (Ibn Duqmâq, V, 3.22; \$840 if army dinârs are meant). The basin (ḥauḍ) known as al-Yahûdi, yielding 300 dinârs, was the fief of one soldier (jundî; V, 103.9); and a small village yielding 1,000 dinârs was the fief of two, each then with 500 dinârs (V, 99.19). These figures all appear in the table of ḥalqa incomes where 300, 500, and 600 dinârs equal respectively 3,000, 5,000, and 6,000 dirhams.

The scale of fief incomes fixed in 1316 A.D. as evaluated in dirhams evidently remained standard into the next century; in 1418 A.D., 821 A.H., there are cited as examples men of the standing army the income (mutaḥaṣṣil) of whose fiefs was 3,000 dirhams, and others with 7,000 dirhams (Ibn T.B., VI, 388.21-389.2). However, while the number of dirhams remains the same, they are now trade dirhams (one MS of the text specifies them as copper, fulûs), not silver, with a vast difference in actual values, as noted before.

The composition of the standing army, as an effective military organ, had begun to change when, a few years after an-Nâṣir Muḥammad ibn Qalâ'ûn's death in 1340 A.D., 741 A.H., his son Sha'bân became Sultan (1345 A.D., 746 A.H.), and the holders of these fiefs began to sell them or exchange them, and men who were not soldiers came to hold them: Maqrîzî (*Khîṭaṭ*, II, 219.10) states that by his time most of the fiefs of the standing army were held by merchants and craftsmen (aṣḥâb ḥiraf wa-ṣinâ'ât).

As has been noted before, the sons of emirs (aulâd an-nâ's), who when young were given supplies of money, meat, bread, and fodder, were allotted fiefs in the standing army when they were of the proper age (*Khîṭaṭ*, II, 216.14; *Ṣubḥ*, IV, 51.10).

It is evident, however, that the income of the men of the standing army, as low as 3,000 dirhams a year, 250 a month, when paid in trade dirhams at perhaps \$0.0084 each, yielding about \$2.00 a month or 7 cents per day, actually placed the recipients in the lower of Maqrîzî's economic classes, and it is not surprising that they preferred to exchange their fiefs for stipends from the Sultan's bureaus.



The incomes of officials other than those of the military class are only sparsely recorded. But the number of times that high bureau officials were put under pressure to pay large fines is evidence that they seized numerous opportunities to amass fortunes.

Legally, however, the officials received a monthly stipend of money and an allotment of grain; the largest amount paid to the vizier was 250 army dinârs per month with daily rations of meat, condiments, bread, and fodder, valued at about an additional 250 dinârs; there were also yearly allotments to some officials of sugar, candles, olive oil, and clothing, and still other perquisites in Ramaḍân and on other holidays (*Khiṭaṭ*, II, 224.20), like those described above for the emirs.

Of the learned classes with government appointments, the Cadis received generally 50 dinârs a month, in addition to their salaries from the endowments of the college mosque to which they were appointed (*Khiṭaṭ*, 244.22, and see below on Endowments).

#### Income of the Civilian Classes

2. The second of Maqrîzî's economic classes included the successful merchants who, while their real incomes were affected by the change in currency (*Ighâtha*, 73.6), were still living in ease and luxury. Such were, for example, the importers of spices and slaves by ship and caravan. Their wealth is often described by historians merely as "incalculable"; its extent may be estimated from the fact that Sultan Barqûq in 1394 A.D., 796 A.H., borrowed from the head merchant Ibrahim ibn 'Umar al-Maḥallî and two other merchants 1,000,000 dirhams (Ibn T.B., V, 562.5), about \$100,000 at the time; and that Sultan Faraj in 1403 A.D., 806 A.H., took from al-Maḥallî's estate 100,000 dinârs (*Khiṭaṭ*, II, 369.2; *Dau'*, I, 113.11), about \$280,000. In a single transaction a slave merchant sold to Sultan Khushqadam in 1466 A.D., 871 A.H., 100 mamlûks for 20,000 (Ashrafi) dinârs (Ibn T.B., VIII, 534.16), \$47,100.

Maqrîzî, (*Ighâtha*, 74.6) includes also as an example in this class a merchant who formerly would sell goods at a profit of 1,000 (silver) dirhams - i.e., between \$150 and \$200 - and in 807 A.H. would sell the same wares at a profit of 300 (trade) dirhams - i.e., about \$56.

3. Maqrîzî's third class is the shopkeepers, retail sellers of dry goods and victuals (*aṣḥâb al-bazz wa-arbâb al-ma'âyish*). Since they always set their prices to yield a profit (and apparently because they deal in the necessities of those who live in the city) they ordinarily were able to cover their own expenses and save something; but at the time of the debasement of the currency they barely had enough to supply their own needs and keep out of debt.

4. The fourth of Maqrîzî's economic classes is the peasants or farmers (*aṣḥâb al-falâḥa wal-ḥarth*). Those whose lands had been sufficiently watered by the Nile in recent years had become wealthy and lived at ease, but many of the less fortunate had died (*Ighâtha*, 74.20). However, even the more fortunate fallâḥîn were the prey of unscrupulous fief holders, officials, and Bedouin (Ibn T.B., VIII, 279.14, 654.20, 692.4).



5. Maqrîzî's fifth class includes scholars, teachers and students, notaries (shuhûd), ordinary soldiers of the standing army or reserves (but see above), small property owners (man lahu 'aqâr), recipients of a stipend or salary (ma'lûm) from the Sultan - i.e., those with a comparatively small fixed monthly income. An example given is one whose income had formerly been 100 dirhams per month, received in silver at perhaps 30 silver dirhams to a dînâr, \$9.33 per month, but then was paid in (trade) dirhams, equal to 2/3 dînâr, or \$1.83 (i.e. when [trade] dirhams were 150 to the dînâr, or \$0.0183 1/3 each). Maqrîzî maintains that what formerly cost him for necessities one-fifth of his income of 100 silver dirhams, or \$1.90 3/5, now cost him practically his entire income of \$1.83 1/3 a month. Their plight was so evil that many either "died or wished for death" (*Ighâtha*, 75.4).

In another passage (*Ighâtha*, 85.4) Maqrîzî gives as an example a man of the "middle class" (aṭ-ṭabaqa al-wuṣṭâ), which seems to be the same as his fifth class here, whose monthly stipend (ma'lûm) amounted to 10 dirhams a day. Previously, when he received his 10 dirhams as silver, he could buy 3 pounds of mutton for 2 dirhams (or at 2/3 dirham per pound, which at \$.117 per silver dirham would be \$0.078 per pound, not \$0.0468 as noted for the vizierate), condiments for 2 dirhams, and a meal for his household, 4 dirhams; that is, formerly he had 2 dirhams a day left for other expenses.

But with the change from silver to copper, he received his 10 dirhams in the cheaper metal; and 3 pounds of mutton would now cost him 27 of those dirhams (i.e., at the exchange rate of \$0.02 per trade dirham, \$0.54, or \$0.18 per pound, as noted above); condiments would cost him at least 10 dirhams, and a meal for his household, 37 dirhams - how, Maqrîzî asks, can one whose income is 10 dirhams spend 37 dirhams for one meal, to say nothing of olive oil, water, rent, fodder for his animal, clothing, etc.?

6. The sixth class in the *Ighâtha* includes those who practice a trade or profession; wage earners, porters, servants, grooms, weavers, those in the building trades (bunât), laborers, etc. Maqrîzî states (*Ighâtha*, 75.4) that their wages had increased several fold because death had reduced their number drastically.

The only available specific reference to wages in this era refers to 1348 A.D., 749 A.H., when laborers were offered 1 1/2 [silver] dirhams (\$0.21 if dirhams were 20 to the dînâr) and 3 loaves of bread a day for work on a dam being built in the Nile (*Khiṭaṭ*, II, 168.33). A comparison with the pay provided in the endowment deeds (see later) for menial labor in 1420 A.D. (823 A.H.) and 1470 A.D. (875 A.H.) would indicate that \$0.21 a day and 3 or 4 loaves of bread were 5 to 10 cents above the pay of an unskilled workman.

Around 1800 A.D., peasants hired for simple agricultural work were paid from 4 cents to 14 cents a day, depending on the province in which they worked (*Description*, XVII, p. 33: from 5 to 19 medins, 1/28 franc each): the expenses for food were about 2 cents per day (3 medins), and total expenses less than 4 cents per day (70 francs per year; p. 34). Day laborers in Cairo received about 10 cents per day (*Description*, XVIII, p. 324: 15 paras or medins).

In 1836 A.D. a male servant in Cairo received from 3 to 6 cents a day, but many gifts in addition (Lane, *Manners*, chapter on "Domestic Life": "a dollar to two dollars, four to eight shillings per month").

7. Maqrîzî's seventh class includes the poor and destitute (ahl al-khaṣaṣa wal-maskana), of whom most had died of hunger and cold, he states.

Provision for the poor, however, was common in Egypt, and beggars were numerous enough to constitute a class of the population. Aside from the private giving of alms, the Sultans on holidays and festive occasions, as well as in times of distress, made lavish distributions; on the occasion of sacrifices, the flesh of the slaughtered animals was shared with the poor; endowment deeds such as that of Qâ'it Bâi provided that the excess of income over that required for fulfilling the definite provisions of the deed should be used for almsgiving (L.A. Mayer, *The Buildings of Qāyṭbāy*, 83.23; cp. 77, 78.14). When the number of poverty-stricken became extremely large, the Sultan sometimes distributed them among the emirs to make provision for them.

Begging on the streets, in fact, became almost a profession at times, and able-bodied men with gainful positions (known as ju'ardiya) preferred to join the infirm in their importunities. Ibn Taghrî Birdî tells of an occasion in Ramaḍân, 841 A.H., March, 1438 A.D., when the plague was severe and Sultan Barsbâi distributed large sums in the streets of Cairo, his official was attacked by persons eager to partake in the distribution. The Sultan summoned the head of the vagabonds (sulṭân al-ḥarâfîsh) and the shaikh of the beggars' guild (shaikh aṭ-ṭawâ'if) and compelled them to have the able-bodied return to their trades, and send any of them thereafter found begging to work on the excavations (VI, 763.9 et seq.).

#### Stipends in Endowment Deeds

The meager data concerning incomes and wages given above may be supplemented by the provisions of the endowment deeds of the mosque of Sultan al-Mu'ayyad (dated 823 A.H., 1420 A.D.) and of the mosque and tomb of Sultan Qâ'it Bâi (dated II Jumâdâ 24 and 28, 879 A.H.: November 5 and 9, 1474 A.D.) for those filling positions in the mosque services ('Alî Pâshâ, V, 127-129; Mayer, *Buildings*).

A selection of the data in the two deeds is appended (pp. 120 f.) in the form of tables, the recipients of the stipends provided being classified here as (1) administrators, (2) participants in the mosque educational and religious services, (3) laborers.

The administrators fall in Maqrîzî's first economic class, the lower brackets thereof; those engaged in the mosque services, in his fifth class; the laborers, in his sixth class (see above).

In the tables the monthly stipends have been evaluated in dollars on the basis of the exchange rates prevailing at the date of the deeds or the previous known rate. In the Mu'ayyad deed, payments are specified as a given number of half silvers; the rate used in evaluating these is that calculated for 1418 A.D., namely, \$0.085 per half Mu'ayyadi.

The Qâ'it Bâi deed provides that payment is to be made "in the new fulûs coined of red copper, the currency (ma'âmala) of Egypt at present," a designated number of dirhams "or what coins may take the place thereof in exchange." These "new coppers" would be apparently those mentioned above under 873 A.H. According to Ibn Iyâs (II, 157.7; 5c, 102.4) in this same year, 879 A.H., but later, in Dhu l-Hijja, i.e., between April 8 and May 6, 1475 A.D., a new issue of copper coins was struck (see above, p. 72). While the actual number or weight of copper coins received might differ, the exchange value in gold of the stated number of "trade dirhams" (dirhams fulûs) was that established in 866 A.H., 1462 A.D., 300 to the dînâr, or \$0.00783 per trade dirham (see above, p. 67).

The value of the data provided in the deeds, for this and other reasons stated below, is only relative and partial; many of the positions mentioned are evidently only part-time positions and do not necessarily indicate the entire income of the persons holding them.

It will be seen that part of the emoluments provided include in some of the positions a number of pounds of bread daily. No attempt has been made to add the money value of the bread to the cash stipend, though sometimes it is the more important element.

If the income of the endowment dropped at any time, the amounts paid were necessarily decreased accordingly (Mayer, *Buildings*, 83.21). However, by the daily allowance of bread provided in the deed, at least a minimum support of life was guaranteed.

Apparently the bread allowance was provided for more positions by Qâ'it Bâi than by Mu'ayyad; by both for more positions than had been provided in the endowment deed of Sultan Qalâ'ûn in 1284 A.D., 683 A.H., in which bread was provided only for the teachers of orphans and the orphans themselves (*Sulûk*, I, 1001.21).

A comparison between the endowments provided by the Mu'ayyad and Qâ'it Bâi deeds in the XVth century A.D. and earlier deeds of Sultan Qalâ'ûn in 1284 A.D. (683 A.H.) and an-Nâsir Muḥammad 1303 A.D., 703 A.H. (reproduced as excursions by Muḥammad, Muṣṭufâ Ziyâda in his edition of Maqrîzî's *Sulûk*, I, pp. 997 et seq., 1040 et seq.) shows that the amounts paid for comparable positions are of the same order of magnitude, with variations that do not indicate any general increase or decrease from time to time (the dollar value of the silver dirham being taken as \$0.14, i.e., 20 dirhams to the dînâr, in the earlier period).

The part-time nature of the positions provided by the endowment deeds is clearly evident for the executive positions, since many of them were held by those who held positions also in the central government, from which their main income came.

In the Mu'ayyad deed, the office of controller (nâzir), with authority to carry out the terms of the endowment as they apply to the mosque service, and to appoint and remove the recipients of the stipends, was given jointly to the executive secretary (dawâdâr) and the confidential secretary (kâtib as-ṣîrr).

## Endowment Stipends (Monthly) in Mu'ayyad and Qâ'it Bâi Deeds

Recipient	Mu'ayyad Mosque			Qâ'it Bâi Mosque		
	Silver half dirhams	Dollars	Bread daily (lbs.)	Trade dirhams monthly	Dollars	Bread daily (lbs.)
I. Administration						
Controller (nâzir)	500	42.50		2,100	16.44	
Superintendent (shâdd)	200	17.00		2,000	15.76	6
Administrator (mubâshir)				1,500	11.73	4
Collector of rents (jâbî)	100	8.50		500	3.92	2
Trust officer (amin)	90	7.65				
Notary (shâhid, for revenues)	60	5.10		800	6.17	3
Cashier (şairafi)				500	3.92	2
Document secretary (muwaqqi')	40	3.40		500	2.25	3
Notary (shâhid, for construction)	30	2.55				
Bailiff (bardadâr)	20	1.70		500	3.90	2
II. Mosque Services						
Shaikh of Sûfis <sup>a</sup>	550	46.75		3,000	23.49	10
Teacher of Shafiite law	150	12.75				
Teacher for aṭ-Ṭaḥâwî's legal works	150	12.75				
Teacher of traditions (qâri' l-ḥadîth)	150	12.75		300	2.34	3
Koran teacher	150	12.75				
Prayer leader, chief (imâm)	120	10.20	4	500	3.91	3
Teacher of Malikite law	100	8.50				
Teacher of Ḥanbalite law	100	8.50				
Preacher (khaṭîb)	100	8.50		500	3.91	3
Roll keeper (kâtib ghaiba) of Sûfis	60	5.10	4	800	6.17	3
Prayer leaders (imâm)	60	5.10				
Roll keeper of students	40	3.40	4			
Koran readers (ḥâfiẓ)	40	3.40	4	200	1.58	2
Librarian (khâzin kutub)	40	3.40	4	200	1.58	2
Students	40	3.40	4	500	3.91	3
Koran readers (qurrâ')	30	2.55				
Teacher of orphans	30	2.55	2	400	2.93	3
Reader of Bukhârî's traditions	25	2.12	4	300	2.35	3
Muezzin (head) <sup>b</sup>				250	1.86	2
Muezzins	15	1.28		200	1.57	2
Monitor of students or Sûfis ('arif)	15	1.28	2	100	0.78	2
Orphans	10	0.85	2	100	0.78	2
Choral chanters (jauqa)	5	0.43		150	1.18	2

As the dawâdâr was an emir of the first class with a large fief, the 500 dirhams (\$42.50 a month, or \$510.00 a year) provided in the deed was a small part of his entire income ('Alî Pâshâ, V, 125.21).

In the Qâ'it Bâi deed the Sultan's executive secretary (Jânibak min Qânibak) is named as actual controller, the nominal controller being the Sultan himself (Mayer, *Buildings*, 85.4, 86.11, 21, but see below). Qâ'it Bâi provided that after his death the office of controller (nâzir) should pass in succession to the

## Endowment Stipends (Monthly) in Mu'ayyad and Qâ'it Bâi Deeds (Continued)

Recipient	Mu'ayyad Mosque			Qâ'it Bâi Mosque		
	Silver half dirhams	Dollars	Bread daily (lbs.)	Trade dirhams monthly	Dollars	Bread daily (lbs.)
III. Manual Labor						
Water dispenser (muzammalâtî)				1,200	9.40 <sup>c</sup>	
Head doorkeeper (bawwâb)	60	5.10				
Water dispenser (muzammalâtî)				600	4.65	2
Water-supply workman (sawwâq sâqiya)	60	5.10		600	4.65	
Servant of Sûfis (khâdim Şûfiya)	60	5.10	4	550	4.33	3
Doorkeeper (bawwâb)	45	3.82		300	2.35	2
Water dispenser (muzammalâtî)	43	3.63		500	3.92	3
Water dispenser (muzammalâtî)	40	3.40	4	300	2.35	2
Koran keeper (khâdim rab'a)	40	3.40	4	550	4.36	3
Prayer-rug keeper (khâdim sâjjâdât)	40	3.40	4			
Water carrier (saqqâ') and sprinkler				300	2.35	2
Intendant in mausoleum (zimâm al-qubba)	40	3.40	4			
Perfumer (mubakhkhir)	40	3.40	4	300	2.35	2
Metal worker (sabbâk)	30	2.55		150	1.18	
Cleaner (farrâsh)	30	2.55		250	1.96	2
Sweeper (kannâs)	30	2.55		250	1.96	2
Stone mason (murakhkhim)	30	2.55		200	1.58	
Water carrier (saqqâ')				200	1.58	?
Lampighter (waqqâd)	20	1.70		250	1.96	3
Koran distributor (mufarriq)				150	1.18	2
Water dispenser (muzammalâtî)	15	1.28				

<sup>a</sup>Also teacher (mudarris) of Hanafite law in Mu'ayyad mosque; lecturer on religion in Qâ'it Bâi mosque on Friday.

<sup>b</sup>And timekeeper for prayers (mawâqit).

<sup>c</sup>And one irdabb of wheat.

commander-in-chief of the armies; the grand executive secretary; the chief head of guards (ra's naubat an-nuwab); an emir of the first class; and then his executive secretary, all of whom are named in person. After the death of these officials, the office was to go jointly to whoever was grand executive secretary and confidential secretary, the former to receive two-thirds of the stipend provided, the latter one-third (Mayer, *Buildings*, 84.15).

Positions in the mosque services also were often only part-time positions. The professor or lecturer (mudarris) met his students at an appointed hour of the afternoon daily; this was the regular custom in mosques and hermitages (khawâniq), according to a statement in the Mu'ayyad deed ('Alî Pâshâ, IV, 127.19), which repeats in substance the more precise prescriptions of the deed of al-Malik an-Nâsir Muḥammad of 1303 A.D., 703 A.H. (*Sulûk*, I, 1045.15).

In the biographies, one finds many examples of men of the learned classes who held several positions simultaneously. The well-known historian Ibn Khaldûn in 1384 A.D., 786 A.H., was professor in both the Qamḥiya and the Zâhiriya

College Mosques at the same time apparently that he was also Chief Malikite Cadi (Fischel, *Ibn Khaldûn and Tamerlane*, p. 122).

Cadi Aḥmad ibn 'Alî ibn Ḥajar was appointed Chief Shafiite Cadi and Shaikh of the Baibarsîya Khanqa simultaneously in 1448 A.D., 852 A.H. (Ibn T.B., VII, 157.8).

Cadi Walî ad-Dîn Muḥammad as-Saftî (who died in January, 1451 A.D., toward the end of 854 A.H.), was Shaikh of the Jamâliya College Mosque at the same time that he held several other offices, including that of agent of the exchequer (wakîl bait al-mâl); he amassed great wealth, part of which, however, he had inherited from his father (Ibn T.B., VII, 351.20). Nevertheless he cut off the stipends provided for students in the endowment deed of a mosque of which he was controller (*ibid.*, 353.4).

It is possible that most of the other executive officials also held other positions or had other sources of income.

The provisions in the Mu'ayyad deed for a physician (ṭabîb ṭabâ'i'i), oculist (kaḥḥâl), surgeon (jarâ'iḥî), and architect, with 30 half silver dirhams per month each from the mosque funds, were clearly not their full professional incomes; at any rate, their services were performed not at the mosque, but at the Mu'ayyad Hospital near the Citadel (*Khiṭat*, II, 408.22).

Among the minor positions provided by the endowment deeds, the duties proscribed in the deeds indicate that some of these appointees also may have had other gainful positions. For example, the duties of the Koran reciters or group chanters required attendance only at the five prayer times a day, these persons alternating in attendance.

However, the gatekeepers were clearly on duty at the mosque all day or all night; \$5.10 monthly (17 cents per day) for the head doorkeeper or \$3.82 for the other doorkeeper (13 cents per day) in the Mu'ayyad mosque, and the \$2.35 per month, 7 or 8 cents per day plus 2 loaves of bread (i.e., about 1 or 2 cents per loaf in normal times, a total of 10 cents per day), represented their entire wages.

The men employed in cleaning the mosque and its adjoining street, and one in charge of the water supply, also were constantly on duty, apparently.

But the repair man (sabbâk) or metal worker or stone mason (murakhkhim) with \$1.20 to \$2.50 per month (and no daily bread) had only occasional tasks at the mosque.

The amounts provided in the deeds were, of course, the arbitrary decision of the Sultan, just as were the stipends paid to the army. It is possible that he had in mind the prevailing wage scale of the time; but there is evidence also that, in regard to the higher positions, personal reasons sometimes influenced him.

That in the course of time the terms of the endowments came to be disregarded by the officials is stated by Ibn Taghrî Birdî (VI, 729.11); they had seized control of the endowments and administered them arbitrarily, appointing to positions in the mosques men who did not have the stipulated qualifications. The author notes that it was to guard against such evils that there had been established the office of controller of pious foundations (naẓîr al-aûqâf; see also in the list of officials given earlier in these notes, *UCPSP*, Vol. 15, p. 108,

the nâzir al-aḥbâs). This "controller," it should be observed, had the authority to investigate the administration even of one who was controller of an individual mosque or khanqa. But Ibn T.B. maintains that the controller of pious foundations had become a partner in the misuse of endowment income. The office belonged in the financial-bureaucratic branch of the government (the mubâshirîn), though its duties had on some occasions been entrusted to a high military official such as the viceroy of Egypt or the executive secretary; and when in 838 A.H. the Sultan sent a *cadi* to investigate the trust, Ibn Taghrî Birdî maintains (VI, 729.14) that a qualified emir (of the military service) would have been better able to enforce observance of the terms of the trust deeds.

This neglect of the terms of the endowment deed and the alteration of the prescribed amount of the stipends had been charged against controllers and other officials of the foundations already by the historian an-Nuwairî in 1324 A.D., 724 A.H. (quoted in *Sulûk*, I, 1042.9, 1050.15).

