THREE NOTES ON EARLY TURKISH

SIR GERARD CLAUSON

1. DEVERBAL NOMINAL SUFFIXES

In Chapter VII of *Studies* I included, with other lists, a list of the deverbal nominal suffixes in what I called "pre-8th century Turkish", that is the form of the language which can be reconstructed by a comparative study of the surviving remains of the oldest known Turkish languages, the Türkü of the Orkhon inscriptions and related texts, Uyğur, and the Xākānī of Kāşğarī's *Dīwānu'l-luğāti'l-Turk* (hereafter quoted as *Kaş*, sometimes followed by a reference to Atalay's translation) and the *Kutaḏğu : Bilig* (quoted as *KB*, sometimes followed by a reference to the verse in R.R. Arat's edition).

In the present paper I propose to examine some of these suffixes rather more closely and to endeavour to state more precisely their forms and functions and the kind of verbs to which they were attached. For the latter purpose I distinguish, rather unscientifically, between two kinds of verbs, (1) verbs describing action, whether they are transitive, like "to hit (someone)", or intransitive like "to walk"; (2) intransitive verbs describing a state like "to be tired" and "to be red".

Leaving out of account the gerunds ending in a single vowel (*-a : /-e : / -ı : /-i : /-u : /-ü :*) which are sometimes used as nouns or adjectives, these suffixes fall morphologically into two groups:

1. By "early Turkish" I mean the stage in the language defined in the first paragraph of this paper. References to "Studies" are to my *Turkish and Mongolian Studies* (Royal Asiatic Society, Prize Publication Fund, Vol. XX, 1962). By "verbal" and "nominal" suffixes I mean suffixes used to form verbs and nouns (including adjectives) respectively, and by "deverbal" and "denominal" suffixes I mean suffixes attached to verbs and nouns to form such words. For the reasons stated in Studies, p. 60, I transcribe both the velar and postpalatal unvoiced plosives by *k*, but the velar and postpalatal voiced plosives (or, more probably, at any rate in the first case, fricatives) by *ğ* and *g* respectively. Words which seem to be noted only once (hapax legomena) are marked with an obelus†.

A. those consisting of a vowel (sometimes elided) followed by a single consonant, the forms of which vary with the forms of the verbs to which they are attached;

B. those consisting of a consonant, or occasionally two consonants, followed by a vowel and perhaps a final consonant, which, apart from variations required by vowel harmony, are attached in the same form to all verbs.

Group A

In *Studies* pp. 152 ff. I enumerated ten suffixes in this group; I should have added two more, and make good this deficiency below. Of the original ten the existence of one, *-p*, is doubtful; if it really existed, the words which carried it were really gerunds used as nouns or adjectives and I leave it out of account. A second, *-r*, is merely the suffix of the aorist participle, and words which carried it were really participles used as nouns or adjectives; I leave it too out of account. A third, *-ç*, is in a class by itself; it is attached only to verbs ending in *-n-*; one or two of the words which carry it, for example *tınç* "rest, repose" and perhaps *énç* "peace", are derived from monosyllabic verbs which seem to be basic, all the rest are derived from reflexive forms of verbs. I suggested in *Studies*, and still believe, that this suffix is merely a crasis of *-ış /-iş /-oş /-öş /-uş /-üş*;[2] it has the same functions as that suffix, and although one or two words formed from monosyllabic verbs ending in *-n-*, for example *éniş* "descent" derived from *én-*, carry the latter suffix I have not found any words carrying it which are derived from reflexive verbs in early Turkish. The remaining seven (or rather eight) suffixes are as follows.

(1) *-ot /-öt /-ut /-üt* (?) (/-t). This is a rather rare suffix and probably very old. The vowel seems to be an integral part of the suffix, and when it is attached to a verb ending in a vowel that vowel is elided. When it is attached to a dissyllabic verb the second vowel in the verb is usually elided. Examples are *éşidüt†* "hearing"; *bütüt†* "completing"; *beküt†* "securing, secure" (from *bekü :-*, one vowel elided); *basut* "help, support" (the semantic connexion with *bas-* is rather tenuous); *takşut* "poem, verse" (from *takış-*, *-ı-* elided); *tegşüt†* "exchange" (from *tegiş-*, *-i-* elided); *kaçut* "flight in panic"; *köçüt* "a horse used for travelling"; *kedüt* "wearing apparel"; *kurut* "dry cheese" (from *kurı :-*, *-ı-* elided); *yaşut* "secret". There are one or two irregular forms, *adırt* "difference" from *adır-* and *bért* "tax" (something which one gives) from *bér-*, in which the

2. Regarding the nature of the rounded vowels in this and the following suffixes see the third Note below.

-*u*-/-*ü*- has fallen out after -*r*-, and *konat*† "a settlement, or group of people" (*Kaş.* 1 .357) which seems to be the only instance of -*a*- in this position, in *KB* 4471 it is spelt *konut*. It will be seen that all these words except *kurut* are derived from verbs of action, and apart from one or two concrete nouns they connote action of some kind. The suffix can therefore reasonably be described as active in character.

(2) -*ğ*-/-*g*/-*ığ*/-*ig*/-*oğ*/-*ög*/-*uğ*/-*üg*. This is the commonest of all the deverbal suffixes in early Turkish. When it is attached to verbs ending in vowels only -*ğ*/-*g* is required; when it is attached to verbs ending in consonants the form is -*oğ*/-*ög*/-*uğ*/-*üg* after verbs of which the last vowel is rounded, in other cases it is -*ığ*/-*ig*. The second vowel of dissyllabic verbs is usually elided. It is attached to verbs of both kinds and forms simple nouns, or less often adjectives, of action or state as the case may be. Examples are *isteg* "request" from *iste :*-; *ağrıg* "pain" from *ağrı :*- "to be painful"; *uğra :ğ* "aim, purpose" from *uğra :*-; *ukuğ* "understanding" from *uk-*; *öğretig* "teaching" from *ögret-*; *ölüg* "dead, a corpse" (but not "death", which is *ölüm* because you can die only once) from *öl-*. An example of the abberviated form is *oldruğ* "(a place) to sit down" *(KB)* from *oldur-*.

Although I listed only one suffix -*Vk* in *Studies* closer examination shows that there are in fact two.

(3) -*k*/-*ak*/-*ek*. This is rather rarer than (2) but seems to perform exactly the same functions. When it is attached to a verb ending in a vowel only -*k* is required. When it is attached to a verb ending in a consonant the form seems to be always -*ak*/-*ek*, the second vowel in dissyllabic verbs normally being elided. Possible differences between this suffix and (2) are that this is usually attached to verbs ending in vowels, and usually forms adjectives, while (2) usually forms nouns, but it seems impossible to discover why in individual cases one suffix was chosen rather than the other. Moreover it must be remembered that in the Arabic script *g* and *k* are indistinguishable and in the Uygur script often *ğ* as well as *g* and *k*, so that unless they have survived until modern times the exact form of some words is unascertainable. Examples of words derived from verbs ending in vowels are *exsa :k* "lame"; *egsü :k* "deficient"; *amra :k* "loving, friendly" (this was the original meaning, later it came to mean, ungrammatically, "beloved"); *tire :k* "pillar, support"; *yağu :k* "neighbour", and of those derived from verbs ending in consonants *bıçak* "knife"; *boğnak* "stifling" etc. (from *boğun-*, -*u*- elided); *térne :k* "assembly, gathering" (from *térin-*, -*i*- elided); *kesek* "piece".

(4) *-ok/-ök/-uk/-ük* (?). The vowel in this suffix behaves in the same way as that in (1). It can be attached to verbs of both kinds but in all cases forms adjectives, or less often nouns, of state. It can therefore be described as passive in character. Examples are *ağruk* "a heavy object" (from *ağrı:-* "to be heavy", *-ı-* elided); *olduk* "unshod, smooth" (from *oldı:-*); *aruk* "tired"; *azuk* "stray, strayed"; *üzük* "torn off, broken"; *bıçuk* "cut off" (this word was later changed both in form and meaning, becoming *buçuk* "half" in Republican Turkish); *basruk* "pressed down" (from *basur-*, *-u-* elided); *teglük* "blind, blinded" (from *tegil-* "to be blinded, *-i-* elided) *kemdük*† (of a bone) "stripped of meat" *(Kaş.*; from *kemdi:-*†, *KB* 4131); *yastuk* "pillow" (from *yasta:-*). An unusual word is *ıduk* from *ıd-* "to send"; *Kaş.* I 65 explains that it originally meant "(of an animal) set free and dediacted to God", and from this came to mean "holy, blessed" and the like. There is at any rate one irregular form in *-ik*, *egrik* "spun yarn; a whirlpool" from *egir-* "to twist".

(5) *-l/-ıl/-il.*)his suffix is so old and rare that I am not sure that this is the full range of vocalisation, but *ükil* suggests that *-ul/-ül* was not used. It seems to be attached to the same kinds of verbs as (4) and to have the same passive functions. Examples are *ükil* "numerous" (a Kıpçak word, literally "heaped up", from *ük-*; *Kaş.* I 78; compare *üküş* below); *ına:l* "trusted" from * *ına:-*; *osa:l* "lazy, idle", *tüke:l* "complete, entire" from *tüke:-* "to come to an end"; *kısıl* "a narrow gorge", from *kıs-* "to compress"; *kızıl* "red".

(6) *-m/-ım/-im/-om/öm/-um/-üm.* This is a fairly common suffix governed by the same phonetic rules as (2). It is attached only to verbs of action and describes a single act of the kind connoted by the verb, or occasionally a concrete thing which is the result of a single act. Examples are *oktam* "a single bow shot" from *okta:-*; *egim* "one fold"; *ekim* "one sowing"; *alım* "a debt owing to oneself" and *bérim* "a debt due from oneself" from *al-* "to receive" and *bér-* "to give"; *üdrüm* "a choice, the choicest", from *üdür-* (second *-ü-* elided).

(7) *-ın/-in/-on/-ön/-un/-ün.* This suffix is rather rare, but as in the case of (1) and (4) the vowel seems to be an integral part of it, so that "long" is *uzu:n* from *uza:-* with the *-a-* elided, and "smoke" *tütün* from *tüte:-* with a similar elision. It is attached to verbs of all kinds and forms concrete nouns and nouns and adjectives of state which are intransitive or passive in character. Very often when it is attached to a transitive verb the meaning is nearer to

that of the reflexive form. Examples are *egin* "shoulder" (something which bends); *ekin* "a crop" (something which has been sown); *ükün* "a heap" (something piled up); *bütün* "complete"; *tolun* "full" (only of the moon; "full" in a wider sense is *tolu :*); *térin* "a religious community" (something that has been brought together"), *sağın* "an animal kept for milking".

(8) *-ış*/*-iş*/*-oş*/*-öş* (?) /*-uş*/*-üş* (/*-ş*). This is a fairly common suffix of which the vowel seems to be an integral part, so that "praise" is *alkış* from *alka :-* with the *-a :-* elided; "share" *ülüş* from *üle :-*; "curse" *karğış* from *karğa :-* and "wish" *küsüş* from *küse :-*. There are, however, a few words like "advice" *keŋe :ş* from *keŋe :-* and *irte ːş* "search" from *irte ː-* in which *-ş* is attached directly to the verb. This inevitably raises the question whether there were not originally two suffixes ending in *-ş* with different functions and vocalisation as there were with *-k*. As the phonetic difference would, however, occur only in regard to verbs ending in *-a :-*/*-e :-* it is unlikely that sufficient evidence will be found to settle the point. The fact remains, however, that while the suffix appears to be attached only to verbs of action and to be active in character it does seem to have more than one function. In a great many words it connotes reciprocal action, for example *atış* "throwing at one another", *itiş* "pushing one another"; *alış bériş* "trade, commerce" (literally "receiving from and giving to one another"), *tapış†* "mutual trust" *(Kaş.)*. In other words like *ağış* "rise" and *éniş* "descent" there is no element at all of reciprocal action. There are some words which it is difficult to put decisively into either class, since while clearly more than one party is involved in the action it is not clear that they are reciprocally involved. Examples are *biliş* "an acquaintance, friend"; *aytış* "interrogation" (from *ayıt-* "to ask", *-i-* elided); *üküş* "many" (a piling together).

I said above that I should have included two more suffixes in the list. They are the following.

(9) (*-z*/) *-ız*/*-iz*/*-oz*/*-öz* (?) /*-uz*/*-üz*. The existence of this deverbal nominal suffix was first suggested by W. Bang in *Das negative Verbum der Türksprachen*, Sitzungberichte der Preussischen Akademie der Wissenschaften, Berlin, 1923 p. 114. The examples which he gave were (i) *tepiz* "a salt pan" from *tep-* "to kick, stamp"; (ii) *u :z* "a craftsman" from *u :-* "to be able"; (iii) *ö :z* "soul, self" from *ö :-* "to think"; (iv) *toğız* (which should be *tuğız*) "a child" from *tuğ-* "to be born" (described as "Çağatay", but in fact quoted by Radloff from the 17th century author Abu'l-Ğāzī); (v) *kadız* "cinnamon bark"; he gave no origin for this word, and in fact no suitable one can be found. *Kaş.* lists only

ka :ḍ- "to die in a snow storm", but there is evidence that *kay-* "to turn back"
was originally *kaḍ-*; (vi) Osmanli *tıkız* "thickset"; Kazax *tıǧız* "thick, packed
tight" from *tık-* "to thrust, cram". He might have added (vii) *tüküz* "whole,
complete" in Çağatay, from *tüke :-* (*-e :-* elided) which survived as *tüküz/düküz*
in Osmanli (Sami, *Qamus-i Turki,* A.H. 1308 p. 632). Of these the only words
which are manifestly derived from the verbs quoted are (iv), (vi) and (vii),
and these are all comparatively modern words. There are however one or two
old words which clearly bear this suffix, (viii) *küve :z* "proud" (Uyğur, *Kaş.*
and *KB*) which, together with *küven-* "to be proud" in Uyğur, *Kaş.* and *KB*
(later forms like Republican Turkish *güven-* now have different meanings),
must have been derived from ** küve :-* and (viii) *yetiz* "broad" (Uyğur, *Kaş.*
and Xwarazmian) probably derived from *yet-* "to reach". There are of course
many other words ending in *-z* in early Turkish, some of them names of parts
of the body, and there was certainly a denominal nominal suffix *-z*, for example
in *ikkiz* "a twin" from *ikki :* "two", although this was not, as has been sugges-
ted, a dual suffix, see *Studies* p. 143. It is possible that a careful search among
them might produce further examples of words carrying a deverbal suffix.

(10) *-ŋ /-ıŋ /-iŋ /-uŋ /-üŋ.* This is a rare suffix which seems to be governed
by the same phonetic rules as (2) and to have much the same functions as (7).
Examples are *üşeŋ* "smooth" from *üşe :-* "to scrape"; *büriŋ* "a wave" (someth-
ing twisted) from *bür-* "to twist"; *çıvşaŋ†* "sour" *(Kaş.)* from *çıvşa :- (Kaş.)* ;
yaḍıŋ "spread out, shallow (water)" from *yaḍ-* "to spread out".

Thus it will be seen that all the consonants which existed in early Turkish
except two voiced plosives *(b* and *d)*, two voiced fricatives *(v* and *ḍ)*, *ñ, s* and *y*
were used as deverbal nominal suffixes. It is therefore not surprising that some
of them were also used as deverbal verbal suffixes. But what is interesting is
that five of the deverbal nominal suffixes are, phonetically speaking, more or
less identical with deverbal verbal suffixes which convey the same or similar
meanings. The nominal suffix *-ot- /öt /-ut /-üt* (?) which is active in character is
practically identical with the verbal suffix *-t-* which forms causatives. The
nominal suffix *-ok /-ök /-uk /-ük* (?) which is passive in character is practically
identical with the verbal suffix *-k-* which is used *inter alia* to form intransitive
from transitive verbs. The nominal suffix *-l /ıl /il* which is also passive in charac-
ter is identical with the verbal suffix *-l-*, the normal suffix used to form passives.
The nominal suffix *-ın /-in /-on /-ön /-un /-ün* which is intransitive or passive
in character is practically identical with the verbal suffix *-n-* which forms
reflexives. The nominal suffix *-ış /-iş /-oş /-öş /uş /-üş /(/-ş)* when it connotes
reciprocal action is practically identical with the verbal suffix *-ş-* which, *inter*

alia, forms reciprocals. I t is possible that the other uses of the verbal suffix -ş-, for example to convey the idea of co-operation, may give a clue to the functions of the nominal suffix in cases where it does not connote reciprocal action.

It seems clear from all this that the deverbal nominal and verbal suffixes in early Turkish evolved on closely parallel lines at a stage in the language much earlier than any of which we have direct knowledge, at a time when the clear distinction between nouns and verbs had not yet fully emerged and at any rate some monosyllables were used for both purposes. It is of course well known that a few examples of this latter phenomenon survived into the historical period.

Group B

I enumerated in Studies a little over thirty suffixes in this group. On most of them, for example -*maç*/-*meç*, the suffix used to form names of foddstuffs, there is no more that need be said, but I can perhaps say something useful about the remainder.

(1) -*ğa*: /-ge: This is obiriously a very old suffix and the words which carry it fall into two different groups. The first group consists of words which are clearly derived from verbs which were still current in early Turkish (some are still in current use). Examples are two words which were common nouns, but were more often used as official titles in early Turkish, *bilge* : "counsellor" and the like (literally "knower" from *bil-* "to know") and *öge* : with much the same meaning (literally "thinker" from *ö :-* "to think"), *öli :ge :†* "a plant which produces bird-lime" *(Kaş.,* from *öli :-* "to be moist"); *tilge :†* "a slice (of meat)" *(Kaş.,* from *til-(dil-))* ; *tamğa :†* in the sense of "stream, tributary" *(Kaş. I* 424, from *tam-* "to drip"); *kısğa :* "short" from *kıs-.* The second group consists of words which cannot be so derived; examples are *avıçğa :* "an old man"; *berge :* "a whip; *çuvga :* "a post horse; *çeçge :†* "a weaver's reed"; *tümge :* "simple -minded"; *torı :ga :* "a skylark"; *kumursğa :* "an ant"; *kurtğa :* "an old woman"; *yorınçğa :* "clover, lucerne"; indeed if the -*ğa :*/-ge : is stripped off some of these words what is left is something which could not possibly have been a verb in early Turkish. There is an intermediate group of words which could morphologically be derived from known verbs but have no semantic connection with them: *bürge :* "flea" *(bür-* means "to twist"); *çekürge :* "locust" *(çekür-* is a possible, but not recorded, Causative form of *çek-)* ; *tamğa :* in the sense of "a property mark" (for *tam-* see above); *karğa :* "crow" *(kar-* is "to mix", *ka :r-* "to overflow"). It is of course possible that at any rate words for

implements, plants and animals were borrowed from some other language, in which case their structure might not be unusual.

(2) -*ma :*/-*me :* In early Turkish this suffix, which was rare, had a passive character; for example *Kaş. I* 481 says that *bıçma: yorınçğa :* meant "reaped lucerne" and that nouns and adjectives with this suffix had a passive meaning (*ʿalā maʿnāʾl-mafʿūl*). In Republican Turkish it has taken over the functions of A (2) (-*ğ* etc.) but retains its original function in a few old words like *kesme*.

(3) -*mı :*/-*mi :* *Tegirmi :* seems to be the only word with this suffix and it was probably only a secondary form of -*ma :*/-*me :*; *Kaş. I* 490 in fact spelt the word *tegirme :*.

(4) -*ğu :*/-*gü :* This is one of several suffixes which was attached to verbs both to form gerunds, that is purely verbal forms, and to form nouns which are usually concrete. The verbs concerned are usually verbs of action, but the suffix does not seem to have any specific character, active or passive. Examples are *içgü :* "drink", *yê :gü :* "food", *türtüngü:* "ointment". This is also one of the suffixes used to form names of implements, for example *bıçğu :* "a saw"; *bile :gü :* "a whetstone"; *tokı :ğu :†* "a drum-stick" (Uyğur); *tire :gü :* "a column, support"; *yüli :gü :* "a razor".

(5) -*ğVç*/-*ğVç*. Most of the words with this suffix, which seems to be attached only to verbs of action are names of implements, and in early Turkish most of them have -*u*-/-*ü* as the central vowel irrespective of the vowel in the verb; examples are *bıçğu :ç* "scissors"; *bürgü :ç* "a spade for turning loaves in the oven"; *tutğuç* "a kettle-holder", *yapğuç* "a cover". There are however some words with -*a*-/-*e*- as the central vowel, perhaps only after -*ı*-/-*i*-, for example *kisğa :ç* "pincers" and *ağınğaç* "ladder" (the earliest occurrence of this word is in the 14th century in Koman and Kıpçak; in Uyğur and *KB* "ladder" was *şatu :*, probably a loan word). This is perhaps a composite suffix -*ğa :*/-*ge*/-*ğu :*/ -*gü :* with the denominal suffix -*ç* attached; the latter is usually a diminutive, and it is true that "scissors" (*bıçgu :ç*) are smaller than "saw" (*bıçğu :*), but there is no evidence that all the implements concerned were small.

(6) -*laç*/-*leç* (/-*lıç*/-*liç*). This suffix is very rare; examples which I have noted are *ıkıla :ç†* "a spirited horse"; *sukarlaç†* (*börk*) "a tall (cap)"; *yawlaç†* (*sic*, with a *wāw*) "fine goat skin"; and three names of birds, *karğıla :ç* "swallow" (later metathesised to *karlıga :ç*); *sundıla :ç* "sparrow, finch"; *todlıç†* an unidentified game bird (*KB* 5377). Except for the last, which might be connected with *to :ḍ* "bustard", none of them have a Turkish etymology, and

nearly all of them are *hapax legomena*; both they, and the suffix, were probably borrowed from some other language. Another similar suffix -*wa :ç* is certainly Iranian and means "voice"; it occurs in *sanduwa :ç* "nightingale" borrowed from Sogdian and meaning "sweet voiced" (see W.B. Henning in *Transactions of the Philological Society* 1945, p. 161)., and *yala :waç /yala :vaç* "messenger, envoy", of which the first element has not yet been identified.

(7) -*ğut /-güt*. In *Studies I* mentioned only three words with this suffix *alpa : ğut, baya :ğut, ura :ğut* and ventured the opinion that it was deverbal. This can now be confirmed, since other words which carry it are certainly derived from verbs, *ögüt* "advice" from *ö̆ :-* ; *uruŋut (*urunğut)* "army commander" from *urun-* ; *çapğut* "quilted body armour" from *çap-* (it later became *çaput* and acquired other meanings); *kızğut* "exemplary punishment" from *kız-* and *yapğut†* "a pad" from *yap-*. It seems to be active in character, and might be a compound of -*ğu :/-gü :* (?) and -*ut /-üt*. It is obviously very old; no satisfactory etymology of *ura :ğut* "woman" has yet been suggested.

(8) -*kVğ /-kVg* and -*ğVk /-gVk*. In *Studies* I suggested that these were different suffixes. Further research raises a doubt whether the first ever really existed. After some words which were obviously mistranscribed have been eliminated, the only evidence for its existence seems to be *arkağ* "the woof of woven material"; as there is another, later, word *arğaç* with the same meaning and as "the warp of woven material" is *arış* it is tempting to explain all three words as deverbal nouns in -*kağ*, -*ğaç* and -*ış* respectively from *ar-*, but there are difficulties about this theory. The only known meanings of *a :r-* are "to be tired" and "to deceive", and "warp" seems to be *erüş* in Uyğur and has front vowels also in a number of mediaeval and modern languages.

There is no doubt at all of the existence of the suffix -*ğVk /-gVk*, but there is some evidence that -*ğa :k /-ge :k* and -*ğuk /-gük* were different suffixes.

(i) -*ğa :k /-ge :k*. In a good many words, which are derived from verbs of action, this suffix connotes frequent or repeated action; examples are *içgek* "blood-sucker, vampire" from *iç-* "to drink"; *ötgek* "diarrhoea" from *öt-* "to pass through"; *eşgek* "donkey" from *eş-* "to trot"; *bezge :k* "ague, shivering" from *bez-* "to shiver" and many more. Even in words like *tamğa :k* "throat" and *bıçğa :k* "a segment" (one of several), where the repeated action is not immediately apparent it is nevertheless inherent. It is possible that this too is a compound suffix made up of -*ğ /-g* (?) and -*k /-ak /-ek*. Some support for this theory can be found in the fact that in Uyğur a class of demons was called *içgek yêk* "vampires (suffix -*gek)* and gluttons (suffix -*k)*". It is also significant

that the deverbal suffix -*ğa :n / -ge-n*, which is *prima facie* a Present Participle, also connoted frequent or repeated action.

(ii) -*ğuk / -gük*. This suffix is much less common and its function is obscure. It occurs in such words as *kazğuk* "peg" from *kaz-* "to dig"; *talğuk (*talkğuk)* "nail, peg, tang" from *talk-* (meaning obscure); *tirgük* "pillar, support" (from *tire :-*, with -*e :-* elided"); and probably also in words like *yalŋuk* (? for *yalinğuk)* "man" from *yalin-* "to be naked" and *kalŋuk* (? for *kalinğuk)* "matted" (hair etcetera) from *kalın-*, reflexive form of *kal-*. This too may be a compound suffix.

(9) -*çak / -çek*. I said in *Studies* that this suffix, which is rare, was attached only to reflexive verbs; if this had been so it might have been explained as a compound of -*ç* (for -*ış / -iş*) with the denominal diminutive suffix -*k*; but it also occurs in *bürçek* "curly, curled" from *bür-*, and possibly *burçak* "bean, pea" if this is derived from *bur-* "to be fragrant". Other examples are *bilinçek* "a stolen object which is recognised *(bilin-)* and recovered"; and, with -*ü-*, *bürünçük* "a woman's veil" from *bürün-* "to wrap oneself up".

(10) -*dak / -dek*. I am now doubtful if this was ever a deverbal suffix. It was certainly a denominal suffix in such words as *bağırdak* "a garment covering the region of the liver *(bağır)*" and *belindek* "terrifying" from *beliŋ* "panic"; *yalındak* "naked", which was given as an example of the deverbal suffix, might have been derived from *yalın* "naked".

(11) -*ğıl / -gil*. This is rare even as a denominal suffix; I have found only two words in which it is certainly a deverbal suffix, *bıçğıl* "a crack in the hands caused by the cold" from *bıç-* and *kızğıl* "reddish" from *kız-*. It seems to be intransitive or passive in character and might be a compound suffix with -*l* as the second element.

(12) -*ğın / -gin*. This is a rather rare suffix, which is, I now believe, only the phonetic variant of -*ğun / -gün* which is attached to verbs which do not contain a rounded vowel. If so, there is a single suffix -*gın / -gin / -ğun / -gün* which had intransitive and passive functions. Examples are *térgin* "collected; stagnant (water)" from *tér-* ; *tizgin* "reins" from *tiz-* "to arrange (in a straight line)"; *kaçgın* "runaway" from *kaç- todğun†* (of a river) "constantly flowing" *(Kaş. I* 438, from *tod-* "to be full") and *tutğun* "a prisoner". This too seems to be a compound suffix with -*ın / -in / -un / -ün* as the second element.

(13) -*ma :n / -me :n*. This suffix, which is also a denominal suffix *(Studies* p. 149), is rare in both cases and its function is obscure. Examples are *örtmen* "roof, flat surface" from *ört-* "to cover"; *batma :n* "a weight (unit of weight)"

from *bat-* "to sink"; *tegirme :n* "a mill' from **tegir-* "to revolve" (?); *sıkma :n* "the season for pressing grapes; a wine-press" from *sık-* "to squeeze"; *sökme :n†* "(a warrior) who breaks through the enemy's ranks" *(Kaş. I 444)* from *sök-*. The vowel is usually long in *Kaş.*, and morphologically it could be a compound of *-ma :/-me :* and *-n*, but it does not seem to be predominantly intransitive or passive in character.

2 . INITIAL Ş- IN EARLY TURKISH

In *Studies* p. 142 I pointed out that only a very careful word by word examination of the words (about 40)' with initial *ş-* in *Kaş.* would make it possible to decide whether there were any genuine Turkish words with initial *ş-* in early Turkish. I have now examined these and also other words with initial *ş-* in the early texts and the following is, I believe, a complete list of all the words concerned except one or two derived from verbs included in the list.

There are three onomatopoeics *şa :b şa :b†* ; *şa :r şa :r†* and *şal şul†*. *Kaş.* himself says that the first two are secondary forms of *çap* and *ça :r* and *şal şul* "clumsy" is obviously in the same class.

There are several words which are secondary forms of words beginning with *ç-, s-* or *t-*. These are *şöbik†* *(çöbik), şuvşat- (suvşat-), şuvşaş-†* *(suvşaş-), şağı :la :-†* *(çağı :la :-), şünük†* (described by *Kaş.* as a secondary form of *çünük* "planetree"), *şı :ş (sı :ş), şeş- (seş-), şış- (sış-)* and *şişek (tişek)*.

There are several words which are known to be Iranian:- *şa :bu :k†* "quick" and its abbreviation *şap*, from Persian *çābūk* ; *şaḍ* the well known Türkü title, descended from an Old Persian word which is also the ancestor of Persian *şāh* ; *şaḍapıt* a title of which the first element is *şaḍ* ; *şük* "silent", a direct loan from Sogdian; *şımnu :* "demon", also a direct loan from Sogdian, and descended from an Old Persian word which is also the ancestor of Persian *ahriman* ; *şor* "salt" in Uyğur, probably a direct loan from Persian.

Şéŋ "a (Chinese) pint" in Uyğur is the Chinese word *sheng*, and *şa :†* a kind of bird *(Kaş.III 211)* is also probably a Chinese loan word. *Kaş.* obviously knew something of the Chinese language, since on the same page he listed *şi :†* describing it as "an exclamation addressed to the king of China meaning *abayta'l-la'n*".

In *Kaş. III* 239 there is a word *şanbu :y†* which is described as a Gancak (this is a more plausible transcription than Kençek) word meaning "a drinking

party at night", (for which the Persian word is *şabnişīn*, literally "night session"). It occurs, in a section containing words ending in *-y* which are arranged under headings giving the third consonant, for example *kunçu :y* under *Ç* and *buğda :y* under *D*; as it is entered under *B* the spelling is obviously correct. Nevertheless it looks like a metathesis of *şabnu :y*. This would be, like several other Gancak words, Iranian (though probably not specifically Persian) and compounded of *şab* "night" and *nu :y* which might possibly be connected etymologically with Persian *nūş* "drinking"

There are several names of plants in *Kaş.* :- *şa :v†* a word used in Uç for "a plant like soapword"; *şuğlu :†* and *şuŋla :†* for two kinds of Solanum and *şamu :şa :†* "fenugreek". The second and third look morphologically like Chinese expressions and all four are no doubt loan words. *Şekirtük†* (*Kaş. I* 504) "pistachio nut" is not described specifically as a secondary form but it probably is, as it survives in several modern languages as *çekirdek* and the like. It may be a loan word or possibly have some kind of onomatopoeic basis from the noise made in cracking it.

We are left with a very small residue. Four words are names of artifacts:- *şabıŋ†* "an iron bar", *şatu :* "a ladder", *şütük†* "ink" and *şala :şu†* "a kind of Chinese woven fabric". The last must be Chinese and the rest are almost certainly loan words.

Şat "bravery, daring" (*Kaş. I* 320; *KB* 776) can hardly be genuine Turkish, considering how rare it is and how many other words there are with this meaning. *Şu :t†* "origin" (*Kaş. III* 120) is described as a word used in Khotan only and is no doubt Indian or Iranian (Saka?) like other words used in that area. *Şoti :†* (*Kaş. III* 218; vowels uncertain) is described as *ğayr aşlıya* "not originally Turkish" and translated by an unvocalised word which might be *şabaṭ* "a milliped" or *şibiṭṭ* "aniseed". *Şi :n†* (*Kaş. III* 140) is a Çigil word translated *al-sarīr*, a word which has several meanings but here perhaps means "throne" or "couch". Morphologically it looks Chinese.

It will be seen that except for *şat* "bravery" and *şatu :* "a ladder", which occurs in *Uyğur*, *KB* 6033 and following verses, and Çağatay (*Sanglax fol.* 259r20 of the facsimile) all the words beginning with *ş-* which are not onomatopoeics, secondary forms or known to be loan words are *hapax legomena*. *Şatu :* "ladder" is the only one used at all widely; it is associated in *KB* 6033 with *bağna :* "the rung of a ladder". Neither of these words has a Turkish etymology and they too are almost certainly loan words, perhaps Iranian or

Tokharian. The result is that there is no good evidence that any genuine Turkish word began with ş- in the early period.

3. THE VOWELS -O-/-Ö- IN THE SECOND SYLLABLE OF EARLY TURKISH WORDS

In introducing this study I must point out that, while in almost all the alphabets used for writing or transcribing the Turkish languages, there are at most four letters representing rounded vowels, these have to be used to represent a much wider range of actual sounds varying from very high back *o* and front *ö* to very low back *u* and front *ü*, so that when an intermediate sound has to be represented, the choice between these four letters depends entirely on the writer's judgement whether that sound is higher or lower and further forward or back than the middle point.

When I first became acquainted with the Osmanli language, as it then was, nearly sixty years ago it struck me as extremely odd that in such a perfectly constructed and regular language "eight" was *sekiz,* "nine" *dokuz* and "ten" *on* but "eighty" *seksen* and "ninety" *doksan,* and I asked why? I was told that the reason was that Turkish words never had -*o*- or -*ö*- in the second syllable. This too struck me as extremely odd. I could see that in these circumstances vowel harmony might turn *sekiz on* through *sekson* into *seksen,* but I noticed that most Turkish words which had -*o*- in the first syllable had -*u*- in the second, for example *dokuz* and *otuz,* so why, I asked, *doksan* and not *doksun*? No-one could tell me, so I dropped the subject.

Nearly fifty years later when I began to study the vocabulary of early Turkish and the forms which these early words have assumed in Republican Turkish, as it had then become, I noticed with growing interest that early Turkish words with -*o*-/-*ö*- in the first syllable and another rounded vowel in the second seemed to fall into two quite distinct groups, (1) those in which the second vowel became -*u*-/-*ü*- like *dokuz* and *otuz*; most words seemed to belong to this group, for example *orun, boyun, bölük, gönül* and (2) a smaller group which followed the pattern of doksan and had -*a*-/-*e*- in the second sylable, for example *orta, ortak, boğaz, tutam.* When I extended my researches to other languages I was disconcerted to find that while the same two groups seemed to exist, the same word did not always fall in the same group in all the languages concerned. For example "thick" is *yoğun* in Republican Turkish, the equivalent of *yoğan* in most other languages after account has been taken of certain

consonantal changes, and *yogın* in Türkmen. Finally when I came to Kırğız,[3] I found that while the same two groups seemed to exist, and the pattern in the first group was still the same, for example *toğuz, otuz, orun, moyun, köŋül,* the pattern in the second was usually *-o-/-ö-* , *-o-/-ö-*, for example *tokson, orto, ortok, boğoz,* but that some words, for example, *tutam,* had the same pattern as elsewhere and some words, for example, *bölök,* were in the second group and not the first.

As far as I know Kırğız is almost unique, [4] in having *-o-/-ö-* in the second syllable; the adjacent Turkish languages, Kazax, [5] Uzbek, [6] and the Türki of Chinese Turkestan [7] all follow the same pattern as Republican Turkish except that Kazax substitutes *-ı-/-i-* for *-u-/-ü-* in the first group and there are some very odd vocalisations in Türki, for example *boyun/boyan* and *tokuz/ tokoz.*

If this were all the evidence that was available regarding the vocalisation of early Turkish we should almost inevitably have concluded that there were in it the same two groups of words as there are in Kırğız (which seems in this respect to be the most archaic living Turkish language) and that in the first group *-o-/-ö-* in the first syllable was followed by *-u-/-ü-* in the second and in the second *-o-/-ö-* was followed by *-o-/-ö-*, although a good deal of difficulty would have been experienced in fixing the original forms of those words which fall in different groups in diffferent modern languages. Fortunately however we have two sources of information which go back to a much earlier period.

It is well known that there were a good many Turkish loan words in the earliest Mongolian which has survived, that of the 13th century, and the alphabet of the hP' ags-pa inscriptions and documents of this period [8] and the

3. See K.K. Yudahin, Kirgizsko-Russkiy Slovar', Moskva, 1965.

4. In the rather scanty vocabulary of the Sarığ Yuğur of Kansu in China (see S. Ye. Malov, Yazık Jeltıh Uygurov, Alma Ata, 1957) there are one or two traces of the *-o-/-ö- -o-/-ö-* pattern, for example *tokson* and *töşön-/töşün-,* but the latter is more of an embarrassment than a help since it corresponds to *töşen-/döşen-* "to spread out one's bedding" in all other languages, a word derived from *töşe :-* which always had a final *-e :-*.It also appears from V.V. Radlof, Opyt Slovarya Tyurkskih Nareçiy, St. Petersburg, 1888–1911 that the vocalisation of what are called the Altay, Teleut and Lebed dialects in southern Siberia is more or less identical wich that of Kırğız, and this is confirmed by N. A. Baskakov, Russko-Altayskiy, Slovar' Moskva, 1964.

5. See Kh. Mahmudov and G. Musabaev, Kazahsko-Russkiy Slovar', Alma Ata, 1954.

6. See A. K. Borovkov, Uzbeksko-Russkiy Slovar', Moskva 1959.

7. See G. Jarring, An Eastern Turki-English Dictionary, Lund, 1964.

8. See N. Poppe, The Mongolian Monuments in hP'ags-pa Script, Wiesbaden, 1957.

Chinese syllabary used to transcribe the 13th century Secret History [9] both distinguish between -o- / -ö- and -u- / -ü- although the latter is a less efficient instrument for distinguishing between -o- and -ö- and -u- and -ü- respectively. The evidence from the ḥP ags-pa texts on this point amounts to two words only, *oran* "place" *(oron)* and *töröl* "rebirth" (a Mongolian (?) deverbal noun from the Turkish verb *törö :-* "to be born"). That from the Secret History is not much more extensive, *ordo* "palace" *(ordo :) ; örüg* "rest" *(örüg), oron* "place, throne" etc. *(oron), botoğan* "camel colt" *(boto :* with a Mongolian suffix); *bö'e* "shaman, magician" *(bögö :,* which survives in Republican Turkish as *büyü* "sorcery"), *bö'ere /bögere* "kidneys" *(bögör)* bökö "hero, wrestler" *(böke :* in all early Turkish languages), *bölek* "troop, horde" *(bölök), töre/döre* "customary law" *(törö :), töre-döre-* "to be born" *(törö :-), konok* "quarters for the night" *(konok), koŋğor* "chestnut-coloured" (horse) *(koŋor)*.

These words do not give any impression of homogeneity, and indeed we know for other reasons that words were taken into Mongolian at various dates and from different Turkish languages. The prevailing pattern is -o- / -ö-, -o- / -ö-, even in one word *bökö*, which was probably always *böke :* in Turkish, and there are examples of -o- / -ö-, -a- / -e- even in words like *oran* and *bölek* which do not in most Turkish languages belong to this group; there is only one case of -ö- -ü-, *örüg*.

The second and much more important volume of evidence is provided by the early Turkish texts written in alphabets which distinguish between *o, ö, u* and *ü,* the Brāhmī alphabet in the case of the texts published by Prof. A. von Gabain in *Türkische Turfantexte VIII,* Abhandlungen der deutschen Akademie der Wissenschaften zu Berlin, 1954, and the Tibetan alphabet in the case of the texts of which I published a word list in *Studies* pp. 96. ff..

The following is, I hope, a complete list of the dissyllabic and longer words in these texts which have -o- / -ö- in the first syllable. I have divided it into two parts (a) verbs, and (b) other words. Words which have vowels other than -o- / -ö- in the second syllable are bracketed; T indicates words from the Tibetan texts, the rest are from the Brāhmī; numerals indicate the number of occurences if greater than one. To avoid confusion I have normalised the consonantal spelling; the phonetic value of some of the letters of the Brāhmī alphabet used in Sinkiang is still uncertain, and in any case the spelling of some texts is so erratic that it is hard to believe that the scribe knew how to spell, I have therefore substituted *b* for *p* and so on, when unusual consonants are used.

9. See E. Haenisch, Wörterbuch zu Manghol un Niuca Tobca' an, Leipzig, 1939.

(a) *ökön-ör*; *olor-op*, *-or*; *ölör-göke*; *bol-or* 27 (*bol-ur* 5 in two texts); (*boşġu :t-up*); *koḍ-op* 2, *-or* 2; *koşol-mış*; *kotrol-mış*; *kölö-p*; *kör -ö*, *-öp*; *köröl-öp*; *közön-ür* (*közün-ür*); (*sök-üp*); *yoḍ-op*.

(b) *öçlög*; *oḍoġ*; *oḍġorak* (*oḍġurak*); (*ötgürü* 3); *ötön-ü* T.; *ötrö* 2 (*ötrü*); *otoz* 9 (*otuzar*); *oġol* 3 (*u :ġul*); *ögrönç*, (*ögrünçü* T.), *ögrönçlög*; *ölömlög*; *öŋtön*, (*öŋtünki*); (*onunç*); *örö*; *orto :*; *örtlög*; *oron* 2; *osoġloġ*; (*bötün* for *bütün*); *bölök* 5 (*bölük*); *boşġot* 2; *boyondrok*; *çökög*; *töpö-n* T; *tötöşlüg*; (*tokuzar*) *tögö*; *tolo*; *tönökçi*; *töŋörge*; *törö* 3 and 2 T; *törlög* 3 (*törlüg* 6, and 1 T); *toson*; *tözlög*; (*tözlüg* 2); *tözön* 1 B, 2 T (*tözün* T); (*koburġa*); *kolonluġ*; *kövtöŋ*, *kögös* T; *kölök*; *köŋöl*, *köŋlöm* 2; (*köŋil*, *köŋülim*); *sögöt*, *sönök*; (*yok-uġ* T); *yoġon* (*yoġun*); *yoġrot*; *yoksoz*; (*yötül*); *yörög* 2 (*yörüg*).

Before discussing the conclusions to be drawn from these spellings it will be useful to consider words in which *-o-/-ö-* is known, or believed, to have occurred in the second syllable after some other vowel in the first syllable.

So far as words containing *-u-/-ü-* in the the first syllable are concerned, there does not appear to be any word in the Brāhmī or Tibetan texts in which *-o-/-ö-* is found in the second syllable, but there is at any rate one word, and perhaps more will be found, in which it is fairly certain that *-ö-* originally followed *-ü-*. "Bridle" in Uyğur and Xākānī (four occurrences in *Kaş.*, but no main entry) had two rounded vowels. The form in 14th century Xwarazmian (*Quṭb* and the *Nahcu'l-farādīs*), Koman and most modern languages is *yügen* (or *cügen* in those languages in which *y-* has become *c-*). In Çağatay it was *üyen*, in various Arabic-Kıpçak vocabularies *yügen*, *üygen* and *üyen*, in -Azerbai jani *yüyen* and in Türkmen *uyan*, which was apparently the form in Osmanli until the word became obsolete. In Kırğız, however, it is *cügön*. The early Turkish form must have been *yügö :n*.

I now turn to the more difficult subject of those words in the Brāhmī and Tibetan texts in which an unrounded vowel in the first syllable is followed by *-o-/-ö-* in the second. The following words occur, *egsö-* "to diminish" (Intransitive); *alko* "all' 2, 1 T, (*alku* 2); *énçgö* "peace, quiet"; *artok* "more" 10; *a :rok* "tired"; *belgör-* "to appear" (but see below); *kèrtö* "true" (*kèrtü*); *kèrtgönç* faith" (*kèrtgünç*); *kayo* "which?" 7 (*kayu* 9); *yaŋloġ* "erroneous"; *yarok* "light"; *yazok* "sin". On the other hand in the following words *-u-/-ü-* appears in the second syllable, *içür-*; *aḍut*; *eḍgü* 11; *aġu*; *altun* 2; *anutul-*; *irü*; *azu*; *belgü*, *belgülüg*, *belgürt-me :*; *berü :*; *bışrun-*, *bışrunul-*; *tetrü*; *kigür-*; *kelür-*; *kendü* 2; *sergür-*; *sayu*; *yètür-*; *yinçü*; *yaŋku*.

The amount of evidence provided by these texts is not a sufficient foundation for more than tentative conclusions, and in any event they are all in Uyğur, so that strictly speaking any conclusions reached would apply only to that language, but there is no reason to suppose that there was any substantial difference between the vocalisation of ordinary Uyğur on the one hand and that of the earlier Türkü and later Xākānī languages on the other.

Subject to that, the following tentative conclusions can be reached:-

(1) in basic dissyllabic words (including verbs), that is those not derived from a monosyllabic noun or verb, if -o-/-ö- in the first syllable was followed by a rounded vowel in the second, it too was -o-/-ö-, for example ŏtoz, ökön-, ordo :, boto :, törö :, törö :-, koŋor.

(2) The vowel attaching deverbal verbal suffixes (passive etc.) consisting of a single consonant to monosyllabic verbs containing -o-/-ö- was also -o-/-ö-, for example koşol-, kotrol-, köröl-. The causative suffix -Vr-, which is closely parallel to the alternative forms -dur-/-tur-/-tür- and -ğur-/-gür- is a possible exception, the form was certainly -ur-/-ür- when it was attached to verbs containing unrounded vowels, for example içür-, kelür-, yĕtür- and, in spite of the form ölör- from öl-, it is possible that this suffix was stable even after -o-/-ö- in the verb.

(3) The vowel attaching conjugational suffixes (aorist, gerund etc.) to such verbs and longer verbs with -o-/-ö- in the second syllable is also -o-/-ö-, for example ökön-ör, olor-op, bol-or, koḍ-op.

(4) As regards the deverbal nominal suffixes listed in the first Note in this paper,

(i) There is good evidence that A (4) was -ok/-ök whatever the preceding vowel, for example artok, a :rok, bölök, konok, kölök, sönök, yarok, yazok ; there is no evidence to show whether it was, or was not, -uk/-ük after -u-/-ü- in the preceding syllable, but this is improbable.

(ii) It is probable but not certain that A (1) was -ot/öt; boşğot points in this direction, and as the word meaning "murder" with two rounded vowels in Kaş. I 52 became ölet in several mediaeval and modern languages and ölöt in Kırğız it is likely that it was originally öl-öt, but there does not seem to be any evidence regarding words with vowels other than -o-/-ö- in the preceding syllable.

(iii) Forms like cökög, yörög; ölömlög and tötöşlüg suggest that -oğ/-ög; -om/-öm and -oş/-öş should be included among the alternative forms of A

(2), (6) and (8). The position regarding A (7) is uncertain. There was no such alternative in A (3) or probably in A (5).

(5) The original vocalisation of basic dissyllables with unrounded vowels in the first syllable and rounded vowels in the second in early Turkish is uncertain, but it is likely that some contained *-u-/-ü-*, which has survived as *-u-/-ü-* or *-ı-/-i-* ; for example there is no reason for supposing that *aḍut* "handful"; *eḍgü*: "good"; *ağu*: "poison"; *altun* "gold" ever had any other vowel in the second syllable. At the same time it is equally likely that some contained *-o-/-ö-*, which has survived as *-a-/-e-* or perhaps *-ı-/-i-*. *énçgö, egsö-* and *kértö* look plausible forms, and "axe" was almost certainly originally *balto :*. It has a final rounded vowel in Uyğur, Xākānī *(Kaş. I* 418) and 11th Century Oğuz *(Kaş. I* 14, 2) but the form in 14th century Xwarazmian *(Quṭb* and the *Nahcu'l-farādīs)*, Koman, Kıpçak and most modern languages, including Kırğız, is *balta* although Türki has *paldu/paltu (Jarring* p. 223).

Looking at the picture as a whole it seems to be proved beyond doubt that *-o-/-ö-* did exist in the second syllables of some early Turkish words and that these have become some other vowel in all words in most modern languages and some words even in Kırğız, where the original *-o-/-ö-* survives in many words. It seems reasonable to suppose that these changes took place gradually at different times in different languages, but we have no means of finding out why *-o-/-ö-* became different vowels in different words in the same language and in the same word in different languages. It is possible that this depended on the quality of the *o*, the open *o* as in Republican Turkish *otuz* tending to become *a*, and the close *o* as in Republican Turkish *oğlu* tending to become *u*. Owing to the inadequacy of the alphabets used we have no means of finding out when *-o-/-ö-* bacame *-u-/-ü-*, but it is clear that *-o-/-ö-* began to become *-ı-/-i-* or *-a-/-e-* very soon after the 11th century. Words which have a rounded vowel (which has now become *-a-/-e-)* in the second syllable in Türkü and Uyğur also had it in Xākānī, but the same words with the new vocalisation, for example *toksan* for *tokso :n*, begin to appear in all authorities from the 13th century onwards, the Tefsir (A.K. Borovkov, *Leksika Sredneaziatskogo Tefsira XII-XIII* vv., Moskva, 1963). the earliest Xwarazmian texts, the oldest Arabic-Kıpçak vocabularies and the rest, and it is likely that the change began in about the 12th or 13th century.