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The following Paper was then read by the Author :—

ON THE ETRUSCAN LANGUAGE. By the Rev. ISAAC
TAYLOR, M.A.

THE origin of the Etruscan people and the nature of their language is a mystery which has perhaps excited more fruitless curiosity than any similar question. Niebuhr believed the problem would prove to be insoluble ; at the same time he considered its solution to be of such great importance that he expressed himself willing to share his fortune with the man who should be so fortunate as to make the discovery.

The question is important because it is bound up with the early history of Rome. The first chapter of Roman history cannot be truly written until the Etruscan secret has been discovered.

At the time when legend ceases and history begins, the mighty Etruscan nation ruled Italy from Vesuvius to the Alps, Rome herself being included in the Etruscan dominion, and being ruled by an Etruscan Lucumo. It was from her Etruscan masters that she acquired the rudiments of culture, and learned the arts of masonry, of pottery, of metal-working, and of writing. When at last the Romans had freed themselves from the Etruscan dominion, a struggle for supremacy commenced, which was not finally concluded for six centuries. In two centuries more the Etruscan language died out. This nation—once so mighty, so wealthy, so civilized—disappeared utterly, leaving behind only the crumbling walls of deserted cities, still encompassed by vast cemeteries which have filled the museums of Europe with costly objects of luxury and art—vases, cups, lamps, statues, mirrors, gems, jewellery, and armour. More than all, these tombs have yielded 3,000 inscriptions, written in a strange, uncouth language, wholly different from any form of speech which is known to have been spoken in any of the neighbouring lands.

The interpretation of this language is the only philological problem of first-rate importance which still remains unsolved. I have undertaken to set before you to-night an account of the progress which has been made towards its solution.

Not long ago there were three such unsolved problems. Three ancient civilizations bequeathed to the modern world a sealed literary treasure. The temples of Egypt, the palaces of Assyria, the tombs of Etruria, had preserved three unknown literatures,

written in three unknown languages, the interpretation of which has been the task of our own century. The task is now well-nigh accomplished. The inscriptions of Egypt and Assyria are a mystery no longer; the inscriptions of Etruria, which were the first to be attacked by scholars, have been the last to guard their secret.

The Etruscan riddle differs altogether in its nature from the other two. To explain an inscription in an unknown language two things must be found out. In the first place, it is necessary to ascertain the phonetic value of the signs or letters; secondly, we must discover the linguistic affinities of the language. Now in the case of the Hieroglyphic and the Cuneiform inscriptions, it was the first of these obstacles which presented the difficulty; when that difficulty had been overcome, the rest was comparatively easy. And so when a happy guess had shown that certain recurring sets of signs in the inscriptions must represent the names of Cleopatra and Ptolemy, of Darius and Xerxes, the interpretation of the Egyptian and the Assyrian records followed as a thing of course. It was only a question of sagacity and patience to work out all those magnificent results which have been obtained.

But with regard to the Etruscan inscriptions the obstacle has been of a wholly different order. The value of the Etruscan letters is easily found, as they are only modified forms of the Phœnician or Carthaginian letters, and are themselves the source from which the well-known Roman letters have been derived. The problem is, therefore, to discover some cognate language—some language ancient or modern—belonging to the same family of speech, by the aid of which the Etruscan inscriptions may be interpreted.

Now, if we knew positively the meaning of a single Etruscan sentence containing a dozen words, it would not be difficult to detect the linguistic affinities of the language. A bilingual inscription, such as that famous Rosetta stone which gave the key to the hieroglyphic records, would amply serve the purpose.

It is true there are in existence a few bilingual inscriptions in Etruscan and Latin; but, unfortunately, they are either so meagre or so mutilated as to be of very limited value. One of the best of them comes from a sarcophagus found at Perugia. It contains only four Etruscan words, and these are all of them proper names. On the side of the sarcophagus, in well-formed, carefully cut letters, is the Latin inscription:—

P. VOLUMNIVS A. F. VIOLENS CAFATIA NATVS

On the lid of the sarcophagus we have the Etruscan translation, somewhat rudely scratched, in letters of the very latest forms:—

PUPVELIMNA AU CAHATIAL

These inscriptions evidently date from the early days of the

Empire, when the Etruscan language was dying out, and Latin was the ruling language at Perugia. In this sarcophagus was buried the descendant of a long line of Etruscan nobles—himself the last Etruscan, the first Roman, of his race.

Now if we rearrange the two inscriptions, so as to show how the several words correspond, we have—

Latin:— P. VOLUMNIUS A.F. VIOLENS, CAFATIA NATUS.

Etruscan:—PUP. VELIMNA AU. CAHATIAL.

The agreement of the Prænomen, the Nomen, and the Patronymic is easy to follow. The Latin Agnomen VIOLENS has no direct equivalent in the Etruscan translation, though probably, like other Agnomina, it may be derived by translation from CAHATI, the name of the man's mother.* The most important point to notice is that CAHATIAL, the last word of the Etruscan record, is equivalent to CAFATIA NATUS, the last words of the Latin inscription. In another bilingual inscription the Etruscan word CAINAL is in like manner translated by CAINNIA NATUS. Hence we learn positively the meaning of the suffix *al*, which occurs many hundred times in Etruscan inscriptions. It was the regular Etruscan metronymic; it is usually appended to the mother's name, and means "child" or "born of." Our nearest approach to the names CAHATIAL or CAINAL are the English patronymics, such as Johnson and Thompson; metronymics like Marychild or Lucychild, if we had them, would exactly represent the Etruscan nomenclature.

The bilinguals give us some small further help. The word SEC or SECH occurs in 79 epitaphs, all of which relate to women. The Etruscans must have had a word meaning "daughter"; and such a word must necessarily have been often used in mortuary inscriptions. This meaning is perfectly suitable in all the 79 inscriptions which contain the word SEC. In one case this word SEC appears to be translated by the Latin *filia*.† We may, therefore, take it as certain that SEC meant "daughter."

In like manner there are 89 epitaphs, all of them relating to men, which contain the word CLAN. In one bilingual this is represented in the Latin version by F., which of course stands for *filius*. It is agreed on all hands that CLAN must mean "son," or perhaps distinctively "eldest son."

The suffix -ISA occurs in innumerable inscriptions. There can be no doubt that it designates married women. Thus HERINISA would be the "wife of Herini."

Here then are four definite results. We have the meanings of

* See p. 195, *infra*.

† Corssen, p. 164, note.

the four Etruscan vocables which occur most frequently in the inscriptions. They are—

-AL	“child of.”
SEC	“daughter.”
CLAN	“son.”
-ISA	“wife of.”

We have now reached the first stage of our inquiry. I shall presently recall your attention to these four words, the meanings of which were correctly surmised some eighty years ago.

During the next half-century numerous Etruscan inscriptions were discovered and classified. They were discussed in many learned books, but no real progress was made towards the elucidation of the Etruscan mystery. The key was not found. At last, in the year 1847, a discovery was made not one whit less important in its way than the memorable discovery of the Rosetta stone. The Princess of Canino had the good fortune to find in a newly excavated tomb on her estate a pair of ivory dice. These dice, which are now in the Cabinet des Médailles at Paris, were inscribed with six Etruscan words,—one word on each of the six faces. These words are :—

MACH, HUTH, CI, SA, ZAL, THU.

This discovery naturally excited the greatest interest, as it was at once perceived that these six words could only be the first six Etruscan digits. Bunsen repeatedly declared his conviction that these dice would prove to be the key to unlock the secret of the Etruscan language. Numerous attempts have been made to connect these six words with the numerals used by other races of ancient Italy. All these attempts, however, have failed so conspicuously that eminent scholars, such as Prof. Max Müller and Prof. Corssen, have doubted whether these words are numerals at all. Prof. Corssen goes further; he thinks it quite out of the question that they can be numerals. He is of opinion that the words on the dice are closely akin to Latin. He thinks they are to be arranged and translated as follows :—

Mach	thu-zal	huth	ci-sa.
Magus	donarium	hoc	cisorio facit.

Mr. Ellis pertinently observes that with this arrangement of the words the sentence is good Gaelic, and means :—

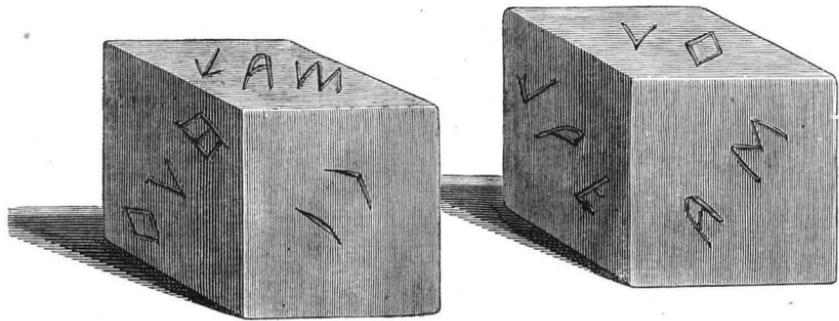
“Mac Dougal gave this.”

It is equally good Armenian with the sense—

“Magus cuts the recompense of his vow.”

Lastly, Lord Crawford takes the words as a mixture of Gothic and Greek, and translates them as a sort of gambler's prayer :—

“May these sacred dice fall double sixes.”



THE ETRUSCAN DICE (*Actual size*).

Everything, in short, can be made out of anything if once the needful license be allowed. We have only to choose our language, arrange our words, allow ourselves as much phonetic license as may be needful, and then the interpretation follows.

Whether, however, any such wild guess-work can be at all permitted,—whether it is possible that these six words can be anything else than Etruscan numerals, this is the question which must be positively settled before we go further. The importance of this question cannot be overrated. It decides absolutely the nature of the Etruscan language.

On the tombstones of all races four facts are commonly recorded—name, parentage, marriage, and age.

Among the thousands of Etruscan epitaphs there are naturally many which record the age attained by the deceased person. Such inscriptions can easily be picked out from the rest by their containing figures similar to the well-known Roman figures. Here, for instance, are a few instances of such inscriptions:—

LARIS : SETHRES : CRACIAL * AVILS : XXVIII
 PEPNA : RUIFE : ARTHAL AVILS XVIII
 VIPINANAS . VELTHUR . VELTHURUS . AVILS XV
 CEICNAS : ARNTH : AENTHAL : AVILS : XXIX
 SIATHILARNTHU AVILS XXIX
 ANES ARNTH VELTHUAL CLAN LUPU AVILS L
 ARNT . THANA . LUPU . AVILS XVII
 U.IZENI RAMTHAL LUPU . AVI[LS]. XXIII
 AVILS LXX LUPU

In all these cases the figures which denote the age are preceded by the word AVILS. There can be no doubt that this word AVILS means "aged." Also the word LUPU, which is sometimes introduced, must mean "he died." We obtain therefore, these three formulæ for expressing the age of the deceased:—

- (1) A. B. avils XXIX
- (2) A. B. lupu avils XVII
- (3) A. B. avils LXX lupu

In all the formulæ the word AVILS is immediately followed by the figures.

Now, sixteen epitaphs have been found in which this word AVILS is followed, not by figures, but by words. Omitting, for the sake of brevity, the names of the deceased, which always precede the record of the age, the sixteen epitaphs are as follows:—

1.	lupu	avils	<i>machs</i>	<i>zathrums</i>	
2.		avils	<i>machs</i>	<i>semphalchls</i>	lupu
3.		avils	<i>machs</i>	<i>mealchlsc</i>	
4.		avils	<i>huths</i>	<i>muvalchls</i>	lupu
5.		avils	<i>huths</i>		lupu
6.		avils	<i>huths</i>	<i>celchls</i>	
7.		avils		<i>cealchls</i>	lupu
8.		avils	<i>cis</i>	<i>cealchls</i>	
9.		avils	<i>cis</i>	<i>muvalchls</i>	
10.		avils	<i>thunesi</i>	<i>muvalchls</i>	lupu
11.	lupu	avils	<i>esals</i>	<i>cezpalchals</i>	
12.		avils	<i>sas</i>		
13.		avils	<i>tivrs sas</i>		
14.		avils	<i>sesphs</i>		lupuce
15.		avils		<i>ciemzathrms</i>	lupu
16.		avils	<i>cis</i>	<i>zathrmsc</i>	

There can be no reasonable doubt that the words in italics, which exactly take the place of the usual figures in the three formulæ for denoting age, must be Etruscan numerals.

In all known languages, numbers between twenty and one hundred are constructed on the same model. Let us take, for instance, the English numbers—

Twenty four,
 Thirty two,
 Forty three.

We see that in every case there is a short word, called the *digit*, and a longer word called the *decade*. The digits, two, three, and four, are dissimilar in form. The decades, twenty, thirty, and forty, have a common suffix *-ty*, which means "ten." The first syllables of the decades are digits which have undergone slight phonetic modifications. If we now examine our Etruscan numerals, it is easy to pick out the decades and the digits. The words MEALCHLSC, MUVALCHLS, CEALCHLS, CELCHLS, SEMPHALCHLS, CEZPALCHALS, ZATHRUMS, and CIEMZATHRMS can only be decades; while the words MACHS, HUTHS, CIS, THU-NESE, ESALS, and SAS must be digits. Here then, without any reference to the dice, we have got six words purporting to be Etruscan digits. It is obvious that inscribed dice, and inscriptions on coffins recording people's ages, can have no words in common except digits. If there is an agreement of a fair proportion, say four or five, of the two sets of words which purport to be digits, the proof is overwhelming that both the words on the dice and the words in the epitaphs are really numerals, and nothing else.

The correspondences are these—

Dice Digits.

MACH
HUTH
CI
SA
ZAL
THU

Epitaph Digits.

MACH-S
HUTH-S
CI-S
SA-S
ESAL-S
THU-NESI

The last digit is probably a compound denoting either 7, 8, or 9. As to the others, the agreements are as remarkable as the differences. The chief difference is the regular addition of a final *s* in the epitaph digits. This can very easily be accounted for. The dice digits must be the cardinal numbers, one, two, three, four, five, six. Taking AVILS to mean *ætatis*, the epitaph digits would be ordinals, and the final *s* would be the ordinal suffix, corresponding to *th* in the English ordinals four-th, fif-th, and six-th.

We may therefore take it as beyond dispute that we have really got hold of the first six Etruscan digits, and also of at least ten other numerals lower than one hundred. The philological importance of this result can hardly be exaggerated. Jacob Grimm, the great comparative philologist, has laid down the law that numerals take the first rank as evidences of the affinities of language. There are few who will venture to gainsay him.

But here comes a great difficulty; a difficulty so great, that for more than a quarter of a century it has rendered useless the key to the Etruscan language which the dice have supplied. How are we to ascertain the order in which these six words are to be arranged? Any one of the six words on the dice might denote any one of the first six numbers. There are fifteen possible arrangements—all different. How shall we allot the six words to the six digits? Our six keys are of no use till we know how to place them in the six key-holes. It is possible to evade this difficulty by beginning with the decades instead of the digits. Taking our sixteen epitaphs, it is manifest that two of them (Nos. 5 and 12) contain only dice digits, and therefore relate to children not more than six years of age. In one epitaph (No. 14) the word SESPHS is shown by the effigy of the deceased to denote the age of a lad in his teens, while another (No. 13) is anomalous, since the word TIVRS might mean "tenth," or it might mean "days," "weeks," or "months." Setting these four epitaphs aside, there remain twelve inscriptions which certainly contain decades. These decades are of two kinds. We have—

MEALCHLSC	ZATHRUMS
MUVALCHLS (thrice)	ZATHRMSC
CELCHLS, or CEALCHLS (thrice)	CIEMZATHRMS
SEMPHALCHLS	
CEZPALCHLS	

Discarding the final sibilant as being only the ordinal sign, we have nine inscriptions in which the decade ends in *l-ch-l*. This, therefore, must be a decadal suffix corresponding to *-ty* in English, *-zig* in German, *-ginta* in Latin, or *-kovra* in Greek.

Here then, at least, is something absolutely certain and definite, free from all doubts and ambiguities, which may be used as the starting-point in determining the family of languages to which the Etruscan speech belonged.

Now it is utterly out of the question that the Etruscans can have been a colony of Negroes, or Hottentots, or South-Sea Islanders, or Mexicans, or Peruvians, or Red Indians. The portraits in their tombs, to say nothing of geographical considerations, are enough to dispose of any such hypothesis.

Putting aside the languages of such impossible races, the languages of Europe and Asia divide themselves into three grand divisions:—

- I. The Aryan or Indo-European languages,—such as Sanskrit, Persian, Greek, Latin, German, Russian, or Welsh.
- II. The Semitic languages,—such as Phœnician, Hebrew, Arabic, and Assyrian.
- III. The Turanian languages, comprising the various Finnic, Turkic, Mongolic, Dravidic, and Malayic dialects.

Thus the problem reduces itself to this simple question,—In which of the three great families of speech—Aryan, Semitic, or Turanian, are there any decades resembling this Etruscan decade? Are there any languages in which *l-ch-l*, or any equivalent root, is used as a decadal suffix?

To this very definite question there is a very definite answer. The Aryan and the Semitic languages are at once put out of court. The claims of Hebrew, Arabic, Phœnician, Coptic, Celtic, Oscan, Umbrian, Latin, Greek, Gothic, and Slavonic, all of which have been urged by learned men, in learned books, disappear before this simple test. In none of them do the decades end in *l-k-l*.

The Turanian languages are left. If *they* do not satisfy our test, the Etruscan language must, as some have thought, stand apart, solitary and kinless among all the known languages of the earth;—a single shattered peak as it were, emerging out of the deluge which has overwhelmed the whole linguistic world to which it formerly belonged.

Fortunately, however, our test is satisfied by the North Turanian, Altaic, or Finno-Turkic family of speech, a class which includes the languages of the Lapps, Finns, Magyars, Turks, Tatars, Mongols, and Samoyedes.

The westernmost of these languages is the Lapp. Now in Lapp the word *lokke* means both ten, -teen, and -ty. Thus we have—

wit = 5	lokke = 10	wit-a-lokke = 50
kut = 6	lokke = 10	kut-a-lokke = 60
kolm = 3	lokke = 10	kolm-a-lokke = 30

In the construction of these Lapp decades a formative or euphonic α is supplied between the digital and decadal sign, just as in the Etruscan decade, CE-A-LCHL, where the first syllable is obviously the digit which appears on the dice as CI.

The root *l-k*, with the meaning "ten" or "ty," is not confined to Lapp and Etruscan. It appears in various Finnic languages in an abraded and softened form, as in the Wogul *lu* = 10, or in the Tscheremiss *lo* = "ty" in *ko-lo* = 20. It is also found in the Turkic languages. For instance, in Koibal Tatar we have decades ending in *-lex* and *-rek*, as *i-lex* = 50, and *ke-rek* = 40. In Uiyur Tatar the guttural is softened, and we have *lava* = 10, a form transitional to the Finnic *lu* = 10. Therefore, this Etruscan decade exists in each of the two great divisions of Altaic speech. It can also be traced in the Basque, a remote congener of the Finnic languages.*

The second *l* in the Etruscan root *l-k-l* has to be accounted for. Now, there are several reasons for supposing that the Etruscans, like some other Turanian nations, counted by scores instead of by tens. In this case the suffix *l-k-l* ought to denote "twenty." Since the Turanian root *l-k* means "ten," the form *l-k-l* may be taken as a reduplicated form, *l-k+l-k*, or 10+10. Now, supplying a vowel, it is plain that in such a word as *lekkl*, the final guttural would be very difficult to pronounce, and would be certain ultimately to disappear, leaving *lekl* to mean "twenty."

It may therefore be affirmed that the Turanian languages afford a complete and satisfactory explanation of this Etruscan decade.†

The scientific method of research is to subject any supposed discovery to every possible test of its correctness. If the true key has been found, it ought to open all the wards of the lock. Now the two triads of Etruscan numerals—

* Basque, *ogei*=20. Cf. Georgian *ozei*=20.

† I am not prepared to affirm that the Aryan *d-c-n*=10 may not ultimately be connected with the Turanian *l-k*=10. In fact, in some of the Teutonic languages there seem to be faint echoes or survivals of the primitive Turanian form. Thus the *l* has been retained in the English numerals *e-leven* and *two-lee*; while in the Lithuanian, which approximates more closely to Finnic forms than other Aryan languages, we have the exceptional and anomalous numeral *try-lika*=13.

MACHS	MEALCHLSC	CIS	MUVALCHLS
MACHS	SEMPHALCHLS	CIS	CEALCHLS
MACHS	ZATHRUMS	CIS	ZATHRMS

if compared together, show that ZATHRUM must be an Etruscan decade, totally different in its formation from the decades ending in -LOHL. No such decade as ZATHRUM, or anything the least like it, is known in any Aryan or Semitic form of speech. If the Turanian languages can explain this decade as well as the other, the weight of our evidence is not simply doubled, but increased a thousand-fold. A single coincidence between the Etruscan and the Turanian decades might possibly be accidental; that there should be two such coincidences, both of them accidental, is quite incredible.

Rejecting the ordinal suffix (*s*), the Etruscan decade is ZATHRUM. Now, letter for letter,* this is the same as one of the Yenisiseian decades. We have—

<i>Etruscan</i>	z - a - th - r - u - m
<i>Yenisisei</i>	s - ai - th - j - u - ñ

The Siberian decade *saiithjuñ* signifies "forty." The Yenisiseian languages leave no doubt as to the composition of this numeral. The first syllable, *sai-*, means "four," and the second syllable, *-thjuñ*, is the usual decadal suffix, equivalent to "ty." Thus we have—

kina	= 2	khin-thjuñ	= 20
khalā	= 5	khal-thjuñ	= 50

Now we find this word *thjuñ*, meaning "ten" or "-ty," running through a host of Altaic languages from China to the Baltic. Thus we have—

<i>Mantshu</i>	DJUAN	=	10
<i>Mongol</i>	DJUN	=	10
<i>Samoyed (Motor)</i>	DJIUM	=	10
<i>Yakut</i>	DJEAN	=	10
<i>Turkish</i>	ON	=	10
<i>Ostiak</i>	JON	=	10
<i>Volga Finn</i>	KJEMEN†	=	10
<i>Baltic Finn</i>	KYMMEN	=	10

* The letter *s* is pronounced like the letter *s* in the word sugar. The sound of the Etruscan *z* was probably the same. The final ñ in *saiithjuñ* is the nasal ñ, which is constantly interchanged with *m*. An Etruscan *r* answers to a Turkic *j*. (See *Etruscan Researches*, p. 206.) The letters *r* and *j* are also interchangeable in Siberian languages. (See Schott, *Tat. Spr.*, pp. 28, 29, 35.)

† A primitive *d* or *t* sometimes becomes *k* in Finn, e. g. old Magyar *turck* = Finn *kurku*.

It may, therefore, be asserted not only that the Etruscan decades can be explained by the Altaic languages, but that every Altaic language, from the Baltic to the Amoor, possesses either one or both of the two Etruscan decadal suffixes which we find in such records of age as *machs me-a-lchl-sc*, or *machs za-thrum-s*.

So much for the Etruscan decades. They have given us what seems to be a key to the lost speech of the Etruscans. We have now to see if our key is *the* key. Will it give consistent and probable interpretations of the six digits on the dice which have so long baffled the efforts of philologers?

The great difficulty in interpreting the words on the dice is to obtain a starting-point. This, fortunately, is supplied by the decades. We have seen that the Etruscan decade *ZA-THRUM* meant *for-ty*, hence we gather that the first syllable *ZA* was equivalent to "four" in Etruscan. You are aware that the Accadian, one of the cuneiform languages of Babylonia, presents us with the most ancient form of Turanian speech. In Accadian the number "four" is *sa* or *sa-na*. Therefore, in endeavouring to interpret the numerals on the dice, we may begin by assuming that the word *SA* means "four."

Our next step is also on firm ground. In the Etruscan Museum at Florence there is an Etruscan die marked with pips. On this die the face with four pips has opposite to it a face with two pips. Moreover, Signor Campanari, a well-known archæologist, who collated a number of Etruscan dice marked with pips, comes to the conclusion that the Etruscan practice was to put "four" and "two" on opposite faces. Let us now take our dice and see what word comes opposite to *SA*. In both of the dice it is *CI* or *KI*. This word therefore ought to mean "two" in Etruscan, and if our key is the right key, it ought also to mean "two" in the Altaic languages. This we find to be the case. Throughout the Altaic languages *ki* is the stem of the numeral "two." In twenty-three Turkic and Tataric languages *iki* or *ikke* means "two." In Wotiak *ki* (in *ki-z=20*) means "two." In Tscheremiss *ko* (in *ko-lo=20*) means "two." In the Finnic languages *kik*, *kyt*, *ket*, *kaks*, or some similar word, means "two." In Samoyed *ky-dy* means "two." In Yenissei *ki-na* means "two." In Avar *ki-go* means "two." In these languages the last syllable is a numerical formative. In Accadian, the most ancient Altaic language, *kas* is "two." More than all, in those Altaic languages which have preserved a dual, the dual formative is *k* or *g*.

There are various subsidiary proofs that we are right so far in taking *sa* as "four" and *ci* as "two." First, the effigy of the man whose age is *MACHS ZATHRUMS* represents a man in the prime of life, and we have seen that *ZATHRUM* ought to mean "forty." Again, the decade *CI-EM-ZATHRUMS* must denote some multiple of forty, and

as 120 or 160 are impossible ages, CIEM must mean "twice," and CI-EM-ZATHRMS must be eighty. This is confirmed by the effigy on the sarcophagus, which represents a very aged man.

Now, if CIEM means twice, it must contain as its stem the Etruscan word for "two." That is, it must have as its stem one of the words on the dice. The only word on the dice from which CI-EM could be formed is CI. Therefore CI means "two," and CIEM-ZATHRM is twice forty or "eighty," as the effigy would lead us to expect.*

There is yet another test of the correctness of our results. The effigy of the man whose age was CIS CEALCHLS is now in the British Museum. It represents a man in the prime of life, neither old nor young. According to the preceding analysis, CE-A-LCHL would be "two score," and the words CIS CEALCHLS would inform us that the man died in his forty-second year. Our English numerals "forty" and "two score" denote the same number, so there is no difficulty in supposing that the Etruscan numeral ZATHRUM may have been a synonym of CEALCHL.

Four of the dice digits are left—ZAL, HUTH, MACH, and THU. The word ZAL has not much resemblance to any Aryan numeral, though Professor Max Müller thinks it might be identified phonetically with the Latin *tres*. It is hardly needful to resort to so violent an expedient, as we find the exact word in the Siberian tongues. It is obviously the Yukagir *jal* in *jal-on*, "three."† This is obviously the same as the Ostiak *chol* in *chol-ym*, "three," which again is the same word as the Finnic words for "three," viz., *kol-m*, *kol-on*, *kor-om*, and *har-om*.

The word HUTH (elsewhere written HUT) corresponds very closely to the Finnic words for "six." In Lapp, Wogul, Tschermis, and Ostiak, "six" is *kut* or *chut*. In Wotiak the vowel changes, and "six" is *kuat*. In Magyar we have the further change to *hat*, where the initial letter is the same as in the Etruscan word, though the vowel sound is different.

The two remaining words, MACH and THU, are both explained by the Samoyed *muk-tuh*, "six," or I + V. The first syllable of

* There is no escape whatever from this conclusion. The effigy absolutely restricts the meaning of *ciemzathrm* to either 70, 80, or 90. The first of these meanings is excluded, because seven being a prime number, there is no decade of which 70 can be a multiple. Again, if *ciem-zathrm* were 90, then *-zathrm* must be 30, and *ciem-* must mean "thrice." Hence the dice digits *sa* and *ci* would both of them denote "three," which is absurd. Therefore the only possible solution which the two effigies permit is to take *sa*=4, and *ci*=2.—Q. E. D.

† Dr. Schott has shown that *zal*=*jal*. (*Tat. Spr.*, pp. 34, 35.) The sounds are so close that the Mongol has only one sign for *z* and *j*. The suffix *-on* in *jal-on*, is a numerical formative, meaning "number," and does not belong to the root.

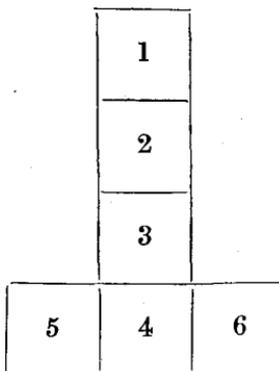
this word means "one," the second means "five." We also have the two elements separately. In Tungus we have *muk* in *muk-on*, "one," which is the same word as the Mordwin (Finnic) *vaike*, "one," the letters *m* and *v* being interchanged according to a common law.* In Tungus we have *tun* in *tun-ga*, "five," and in Magyar "five" is *öt*.

It may be said that the Etruscan word *THU* = 5 does not much resemble the Hungarian word *öt* = 5. Both, however, seem to be derived from a primitive word for "hand," of which the Samoyed *uten*, "hand," may be taken as the primitive type. In Ostiak this word takes the differentiated forms *uta* and *tui*, one of which means "hand," and the other "finger." These words, *uta* and *tui*, have respectively undergone the same changes as the Hungarian *öt* and the Etruscan *thu*.

We obtain therefore the following interpretation of the words on the dice:—

MACH	=	1
CI	=	2
ZAL	=	3
SA	=	4
THU	=	5
HUTH	=	6

Now if we are right in our determination of these words, the disposition of the words on the dice ought to agree with the way in which the numbers were usually placed on pip-marked dice. According to the investigations of Signor Campanari, Etruscan pip-marked dice were marked according to the scheme given by cutting out the following diagram and folding it round a cube.



* Schott, *Tat. Spr.*, pp. 30, 31.

The Turanian interpretation of the dice marked with words gives the following arrangement:—

1		
2		
3		
6	4	5

The correspondence is so close as to clench the argument.

I am, I think, justified in asserting that the Etruscan numerals can be explained by means of the Turanian languages. That neither the Aryan nor the Semitic languages will explain them stands confessed. The task has often been attempted. Pott, the greatest authority on numerals, has reviewed these attempts, and has discussed the dice numerals at considerable length, and he pronounces the verdict that they cannot be Aryan and cannot be Semitic. The latest advocates of an Aryan solution of the Etruscan problem seem to have accepted this decision as final, and they have consequently been obliged, either to contend, with Dr. Corssen, that the words on the dice are not numerals at all, or else, with Mr. Ellis, that the Etruscan was an Aryan language which possessed Turanian numerals. Which of these suppositions is the more impossible I will not undertake to say.

The difficulty of giving an Aryan or a Semitic interpretation to the decades is even greater than the difficulty with the digits.

With one exception, Lord Crawford passes over the decades in silence. He translates AVILS MACHS MEALCHLS, "aged 18—a leper." The decade *mealchl* is, he thinks, related to the Latin *macula*, "a spot." What diseases are denoted by such words as MUVALCHLS, CEALCHLS, and SEMPHALCHLS, he does not inform us.

Dr. Corssen, the latest and most distinguished advocate of the Aryan theory, is quite unable to explain these words MEALCHLS, MUVALCHLS, CEALCHLS, ZATHRUMS, and the rest, as Italic decades. In a sort of heroic despair he has broached the astounding theory that they are the names of peculiarly carved coffin ornaments whose particular nature he cannot explain. The word AVILS, which he admits means "aged," he takes to signify the name of the man

who carved them. The record AVILS LXXI he translates "aged 71," but the parallel record AVILS MACHS MEALCHLSC means, he says, *Avilius Magus meaculos* [*sculpsit*].

That these words are really decades will not be disputed by any one who is not blinded by a preconceived theory. I am therefore entitled to demand that any future advocate of an Aryan or Semitic theory, should any such arise, must fairly meet and answer my argument from the numerals.

But if it be admitted, as it must be, that the Etruscan numerals are decisively Turanian, it follows, I think, without further evidence, that the Etruscan belongs to the Turanian family of languages.

If, however, this should be disputed, there is an abundance of other evidence. We can try our key in other locks, and see if it will open them.

One lock, hitherto unopened, lies ready to our hand. Next to the numerals, the household words denoting the commonest relationships of life are the most persistent in their vitality. Other words change as languages grow old. These words, which are the first to be lisped by baby lips, outlive almost every other element of language. Such words, therefore, rank very high in philologic value.

We have already seen that the bilingual inscriptions determine the meaning of the four most frequent vocables on the Etruscan monuments. All these are, fortunately, words of kinship, so precious to the philologist. They are—

SEC	"daughter"
CLAN	"son"
-AL	"child"
-ISA	"wife"

None of these relationships are thus designated, so far as I am aware, in any Aryan language, nor have any passable Aryan etymologies been proposed for them.* In the Turanian languages, however, we find them all, and with the same meanings which they bear in Etruscan. Thus we have—

Etruscan	CLAN	son	}
Turcoman	<i>oglan</i>	son	
Etruscan	-ISA	wife	}
Mongol	<i>izi</i>	wife	
Tungus	<i>asi</i>	wife	

* As an example of the far-fetched etymologies propounded, I may mention that SEC, "daughter," has been derived either from the Latin *sequor*, or *seco*, as well as from the Slavonic *posagu*, "marriage." For CLAN we are referred to the Latin words *genitus*, *gnatus*, and *grandis*. Mr. Ellis allows that *sec* must be a Finnic word, but does not see that his admission is fatal to his theory of the Aryan character of Etruscan.

Etruscan	-AI	child
Tungus	<i>uli</i>	child
Tatar	<i>aul</i> and <i>ol</i>	son
Etruscan	SEC	daughter
Lapp	<i>sakko</i>	offspring*
Susian	<i>sak</i>	son
Scythic	<i>sak-ri</i>	son
Tungus	<i>a sak-an</i>	daughter

Next to the numerals and the designations of kinship, the words which possess the highest philologic value are the personal pronouns, and some forms of the verb-substantive. Here the correspondence is very close between the Etruscan and the Altaic languages. Thus the personal pronoun of the first person in Etruscan is *in*, and in Magyar *en*. In Etruscan the verb-substantive, first person singular, is *mi*, "I am." In Mongol it takes the forms *amui*, *bui*, and *bi*, while in Tatar it is *mi-n*, the final *n* being a vestige of the pronoun of the first person just referred to.

For the numerous correspondences between the vocabulary of the Etruscans and of the Altaic nations, I must refer to my "Etruscan Researches."†

One of the most certain conclusions of modern philology is that grammar is of far greater value than vocabulary as a test of the affinities of language. How, without guesswork or unwarrantable

* The Turanian root *s-k* seems to have originally meant "child," and afterwards to have been differentiated in meaning so as to designate "son" in some languages and "daughter" in others. The original meaning is seen in the Lapp *sakko*, "offspring," and also in the cuneiform Scythic, where the root *sacho* denotes filial descent, as in the verb *sacho-hut*, "we are descended," "we are the offspring."

† For example :—

Etruscan : <i>ma</i> =land	{ Finn : <i>ma</i> =land
Etruscan : <i>mantissa</i> =a bit, a make-weight	{ Accadian : <i>ma</i> =land
Etruscan : <i>damnus</i> =horse	{ Yenissei : <i>mintus</i> =a bit, a little
Etruscan : <i>etera</i> =young	{ Finn : <i>damna</i> =mare
Etruscan : <i>leine</i> =he lived	{ Lapp : <i>damp</i> =horse
	{ Yakut : <i>edder</i> =young
	{ Magyar : <i>lenni</i> =to be
	{ <i>leny</i> =existence
	{ Finn : <i>elenda</i> =Life
Etruscan : <i>tular</i> =tombs	{ Hunnic : <i>teulo</i> =a grave
Etruscan : <i>cahati</i> =violent	{ Tatar : <i>katti</i> =violent
Etruscan : <i>vari</i> =red	{ Ostiak : <i>wyry</i> =red
Etruscan : <i>Tages</i> =a soothsayer	{ Wotiak : <i>tataja</i> =soothsayer
	{ Lapp : <i>tajeteje</i> =a knower one who knows

assumptions, can we detect any elements of Etruscan grammar in the huge chaos of the Etruscan inscriptions? We can only work, with any safety, from the known to the unknown. Now it is a certainty that the words on the dice are numerals. It is therefore obvious that if any of the words on the dice occur in other inscriptions, some contiguous word may be expected to exhibit a plural form. Now the numerals CI, ZAL, and HUTH, are found not only on the dice but also in other inscriptions. In every case where they are found the next word ends in *r*. We have the following phrases:—

CI CLENAR
 CLENAR CI
 CLENAR ZAL
 HUTH NAPER
 HUT NAPER
 NAPER CI
 NAPER XII

Here there is a very definite grammatical result. It is as certain as any such inference can be that *-ar* or *-er* was a plural suffix in Etruscan. Now Dr. Schott, perhaps the highest authority on the Altaic languages, has expressed his opinion* that in all the Altaic languages the plural has been developed from a primitive form in *r*. This is still the plural sign in many Turanian languages,† though, in others, it has become either *s*, *t*, or *k*, according to well-known phonetic laws.

The Etruscans seem also to have had a plural in *l* as well as in *r*, since we find numbers expressed by figures in juxtaposition with the word RIL, which must mean "years." This transition from *r* to *l* is very simple, and has taken place in the Tungusic languages, which mostly form their plurals in *l*, instead of in *r*.

What was the Etruscan genitive? This is not difficult to detect, and is of great importance. The inscription on a recently-found sarcophagus runs as follows:—

RAMTHA:PHURSETHNEI:ARNTHAL:SECH:THANCHVILUS:SEINTHIAL:
 AVILS XXXII

Here the first three words constitute the name of a woman; the word SECH, as we have seen, means "daughter"; and the two next words constitute the name of a man. What is the inference? If we had such an inscription as

"Sarah Jane daughter William Johnson age 32,"

* Schott, *Tatar. Sprach.*, pp. 48, 49.

† The Dravidic plural is *mar*, the Mongolic is *ri*, *nar*, and *ner*, the Turkic is *lar*, *ler*, *nar*, *ner*, *tar* and *ter*, and in the case of some pronouns it is *r* only.

we should conclude that Sarah Jane was daughter of William Johnson, and died at the age of 32. Hence it appears that the name THANCHVILUS SEINTHIAL is in the genitive case. But there is here no inflection. This genitive can only be explained as a genitive of position.

Other instances of this genitive of position can easily be adduced. Thus the word MARIS is repeatedly used on the mirrors, to denote a divine "boy," the "child" of one of the Gods. Thus we have MARIS TURAN, meaning the "boy of Venus," and MARIS THALNA, the "boy of Juno." Here it is clear that the words Turan and Thalna are uninflected genitives. Again, TULAR means "tombs," "sepulchral niches," or *columbaria*. The inscription TULAR LARNA, found on a stele, must mean "the burying-places of Larna." So also HINTHIAL PATROCLES means the "ghost of Patrocles." In all these cases we have a genitive of position, not of inflection.

The genitive of position is decisively non-Aryan, but is used in various Altaic languages, ancient and modern. We find it, for instance in Scythic, Accadian, and Susian, three cuneiform languages, as well as in the living languages of the Wotiaks and the Tschere-miss. Such a primitive device for expressing the genitive has naturally disappeared from the more advanced Turanian languages.

Side by side with this genitive of position we have in the Altaic languages a genitive of inflection, the sign of which was *-na* or *-n*. This also is represented in Etruscan. In one bilingual inscription VARNAL is translated VARIÂ NATUS. The metronymic suffix is *-AL*, and it is difficult to account for the letter *n*, which does not belong to the mother's name, except by supposing it to be a genitival sign, as in other Altaic languages. Thus, Var-n-al would correspond to Varia's child.

There can be no doubt that the Etruscan suffix *l* means "belonging to." Thus, in a bilingual inscription the Etruscan Gentile name VENZ-ILE is translated by the Latin VENZ-IUS, the suffixes *ius* and *ile* both expressing the formation of a Gentile name from the personal name of an ancestor,* and corresponding to the final *s* in such an English name as Williams. Again, two Bacchic cups are inscribed FUFUN-L, which evidently means "belonging to Fufuns," the Etruscan Bacchus. In another case we have *Truia-l*, meaning a Trojan, "one belonging to Troia," and a similar explanation might be given of the common metronymic suffix in *-AL*. This formative *l* is found in all Altaic languages, as, for instance, in the well-known Turkic formation of the ethnic term Osmanli from the personal name of Osman.

* This is also effected by the genitival suffix *-na*, Thus the Etruscan Gentile name CNEV-NA is Latinized GNÆV-IUS.

The words VELSNACh, a "Volcian," and RUMACH, a "Roman," show that the ethnic suffix in Etruscan was *ach*. The same suffix is found in Susian, a Turanian cuneiform language, where *Susiak* denotes a "Susian." The ethnic appellations of the Altaic peoples are ordinarily formed in the same way; as Ostiak, Wotiak, Kosak, Jurak, Koriak, Karakalpak, Kalmuk, and many more.

Although my subject is "the Etruscan Language," I must not conclude without reminding you that language constitutes only a portion of the available evidence as to the affinities of nations. The features and the religions of races are transmitted as surely and certainly as their forms of speech. Therefore the sciences of Comparative Anthropology and Comparative Mythology may claim to have a voice in this matter as well as the science of Comparative Philology.

Now we have no lack of evidence as to the outward appearance of the Etruscans, and the testimony of ancient writers agrees with the evidence of the earlier mural paintings and portrait statues.* They are represented as differing altogether from the slender symmetrical forms of the Greeks and Romans. Their appearance must have resembled that of the Turanian races of Northern Asia, such as the Mongols, Tatars, Samoyedes, and Lapps.

This portrait of an Etruscan warrior, which is reduced from a well-known bronze statue found at Ravenna, might be mistaken for the representation of a Samoyed. As a rule the Etruscans had short, stout, sturdy figures, with large heads, thick arms, black hair and eyes, scanty beard, and, above all, the high cheek-bones, so characteristic of the Mongoloid race, as well as the oblique eyes with which we are so familiar in Chinese and Japanese drawings.

I would strongly recommend you to study the wonderfully realistic portrait figures which repose on the lid of the great terracotta sarcophagus which has lately been placed in the British Museum from the Castellani collection. The eyes, you will see, are as oblique as those of a Kalmuk or a Chinese. It may, I think, be safely said that those two portraits are alone sufficient to dispose of a whole library of books which have been written to prove the Aryan affinities of the Etruscans.

Next, if the Etruscans were Turanians, their religion should also be Turanian. This is a very important branch of the evidence, which I can only speak of in the very briefest manner.

Our information as to the religion of the Etruscans is ample. Some four hundred bronze mirrors have been found in Etruscan

* The type changes in later works of art, and conforms itself more to the Roman type. So the modern Turks have completely lost the Mongoloid type of feature which distinguished them when they first entered Europe, and the Magyars are fast losing it.

tombs; they are usually engraved with mythological subjects, and the names of the several deities are frequently given. These representations are of two classes. Sometimes we have scenes from a mythology purely Etruscan, with names wholly strange to all the Aryan mythologies. For another class of scenes the poems of Homer and Hesiod, which were evidently familiar to the cultured Etruscans, are freely laid under contribution. The Greek names are sometimes spelt in Etruscan fashion, as *ACHLE* for Achilleus, and *UTUZE* for Odysseus. Very often, however, though the scenes are plainly taken from the cycle of Hellenic myth, the names of the personages who take part in these scenes are neither the Greek nor the Roman names, but Etruscan equivalents or translations.

Here, for instance, is a very fine mirror which represents the Hesiodic myth of the birth of Athena. We see Athena as she springs full-armed from the head of Zeus, which has been cleft open by Hephaistos with his axe. This is one of the plainest of the nature myths. From the vault of Heaven, which has been cleft by the axe of Fire, springs the full-grown Dawn, armed with her spear-like rays of light. The Day and the Night stand on either side of the Dawn, and assist at the birth of the glorious maid.

Now in this mirror the Etruscan names of the Deities are exact translations of the Aryan names into Turanian speech. The "Sky," instead of being called Zeus or Jupiter, is named *TINA*, which seems to be the same word as the Chinese *tien*, "heaven," "sky," the Tartar *teñ-ri*,* "heaven," "God," and the Accadian *deñ-ir*, which has the same meaning. The wielder of the fiery axe, instead of being named Vulcan or Hephaistos, is called *SETH-LANS*, a word which in Finnic speech means "the fire-god." The Day, the spouse of Heaven, is not called Hera or Juno, but *THAL-NA*, a word which seems to be akin to the Samoyedic *tala*, "day," with the common Etruscan formative *-na*. In like manner, the Night, who uplifts the Dawn above her head, is called *THANA*, a word which we may compare with the Tataric word *tin*, *tun*, *tünna*, "night."

That the Etruscans were Turanians, and that they belonged to the North Turanian or Altaic branch of the Turanian stem, cannot, I think, be denied. To which of the Altaic races they approached most nearly is a more doubtful question. My own belief is that there were in Etruria two races, more or less blended—a conquered race, and a race of conquerors. This conclusion agrees with the testimony of Livy, from whom we learn that in Etruria the speech of the country folks differed from the speech of the towns-people. Count

* The root is *teñ*, the suffix being only a formative.



THE BIRTH OF MINERVA.

(Half-size.)

Conestabile, the most eminent of Italian archæologists, has just announced a discovery which throws great light on this question. From archæological evidence alone he has come to the conclusion that there were two races in Etruria. He thinks there was an earlier aboriginal race who practised the cremation of their dead, and who were the subjects or slaves of a later race of conquering invaders who buried their dead. My own philological investigations entirely support this conclusion. It seems to me that the inscriptions on the cinerary urns, which are usually poor and cheap, can as a rule be best explained by means of the Finnic languages,* whereas the inscriptions on the costly sarcophagi contain words more closely akin to the Tataric languages.†

The belief is becoming generally accepted that, before the advent of the Aryans, the whole of Europe was occupied by a race of Turanian aborigines, to whom the Siculians, Pelasgians, Iberians, Ligurians, Aquitanians, and Silures belonged, and whose language is now represented by the speech of the Finns, Lapps, and Basques.

I believe the older race in Etruria belonged to these Finnic or Pelasgic aborigines, who, about ten centuries B.C., were invaded and conquered by a horde of Tatars—the Rasenna or Tursenna,—who swooped down on Italy, just as in later times the kindred race of the Huns swept over Gaul and Italy; as the Magyars settled on the Danube plain, already occupied by kindred hordes of Bulgarians, Huns, and Turks; as the Seljuks settled on the Bosphorus, or the Tatars in the Crimea.

Such an hypothesis will explain every difficulty. No other hypothesis has been suggested by which the admitted facts can be accounted for.

The CHAIRMAN:‡—If I may judge from the very close attention with which the paper has been listened to, I have no doubt that I shall do right in at once tendering to Mr. Taylor the thanks of all present for the great pleasure he has given us. I shall now be very happy to hear any remarks which any one may like to make upon the subject.

Lord TALBOT DE MALAHIDE.§—I cannot help expressing the gratification

* For proof that cremation was once universal among the Finnic races, see Donner, *Vergl. Wörterb.*, p. 106.

† We have, for instance, two sorts of decades in *-thrum* and *-lechl*, one Tataric, the other Finnic in type. The Tataric decades have as yet only been found on costly sarcophagi, obviously the resting-places of wealthy nobles. Again, the words *THUI* and *LUPU* seem nearly synonymous, both meaning *mortuus est*. The first, a Finnic word, is usually found on cinerary urns, the second, a Tataric word, on sarcophagi.

‡ Rev. Robinson Thornton, D.D., Vice-President.

§ President of the Royal Archæological Institute.

with which I have listened to the interesting and learned lecture which has just been delivered, and from which, I am sure, we have all derived a great amount of information. The subject of the Etruscan language and the history of the Etruscan people form one of the most interesting, as well as one of the most obscure questions with which we have to deal. As Mr. Taylor has told us, a vast number of theories have been propounded on the subject, and some of them have been of a most absurd character. There is no language on earth to which the Etruscan language has not been affiliated at one period or another. Even the country to which I belong, Ireland, has been one of those which has claimed close relationship with the Etruscans. A learned friend of mine wrote a very elaborate work, in which he proved, to his own satisfaction, that every Etruscan inscription could be interpreted by appealing to Gaelic or to Erse sources. He analyzed several very interesting inscriptions, and among the rest that long inscription which has been shown to us by Mr. Taylor, and which, whether it is strictly Etruscan or not, is, no doubt, one of the earliest inscriptions which have been found in Italy, and must have considerable analogy with the Etruscan. After fully considering that inscription, he came to the conclusion that it very clearly indicated that it contained sailing directions for entering the port of Wexford. (Laughter.) This shows that a person may ride a hobby to death; and the case has been very similar with a number of other people who have taken up the subject. But of recent years Archæology has become somewhat more of an exact science; clearer reasoning has been applied, and induction has been brought to bear upon a larger range of facts connected with the subject. Certainly our advancing knowledge of Philology has been one of the matters which have been of the greatest possible assistance to us in determining the origin of many nations, and I trust that it may prove so in the case of the Etruscans. I do not profess to have gone into the details, and I have never seen the cubes or dice which Mr. Taylor has brought under our notice to-night, although I have heard a great deal about them. It would therefore be very presumptuous on my part to attempt to criticise, or to enter into any *minutiæ* in reference to these deep philological questions. Certainly the facts mentioned by Mr. Taylor with reference to the decades and to the mode of numeration are very strong and plausible; and I think that is one of the strongest arguments for pronouncing the Etruscan to have been a Turanian language. Mr. Taylor did not mention whether, among the Turanian languages which he had compared with the Etruscan, he had compared the Basque.

Mr. TAYLOR.—There are faint traces of the Etruscan in the Basque, which is distinctly related to the Finnish. I will show you the comparative nearness of the Basque and Etruscan. The first of the Etruscan numerals—*mach*, “one”—you get in the Siberian languages, as *muk*, “one.” In the Basque you cannot get so near; the nearest you get is *bat*, “one.” No doubt it is the same word, but the letters have changed very much. We know that the *m* and *b* were interchangeable, and that the letter *t* would sometimes interchange

with *k*. But we have in Basque the word *beatz*, a finger; and *beatz* is nearer to *mack* than *bat*. I spent several months in trying to connect Etruscan with Basque; but I found the Finn was very much nearer than the Basque.

LORD TALBOT DE MALAHIDE.—No doubt the Finnic nations spread over a great portion of Europe before the Celts and the rest of the Germanic nations; and if there is any relationship between the Basques and the Etruscans, it would be a most important fact to be made acquainted with. I suppose nothing has been known of the Ligurian language?

MR. TAYLOR.—About half a dozen words, and two of them are decidedly Basque.

LORD TALBOT DE MALAHIDE.—How about the Oscan?

MR. TAYLOR.—That is closely akin to Latin.

LORD TALBOT DE MALAHIDE.—Those inscriptions at Pompeii can be read?

MR. TAYLOR.—Yes.

LORD TALBOT DE MALAHIDE.—There is a suggestion which I should like to make with reference to these cubes. Are they loaded, or are they made to be loaded?

MR. TAYLOR.—I do not know whether they have been played with, but they are very large, very heavy, and of pure ivory.

LORD TALBOT DE MALAHIDE.—If they had been loaded, or intended to be loaded, that would have been a criterion by which you could have ascertained where the highest number was.

MR. TAYLOR.—I did not notice. I had them in my hand nearly an hour, but I did not observe whether there was any loading in them or not.

LORD TALBOT DE MALAHIDE.—With reference to the mortuary inscriptions, have you satisfied yourself that they merely express the years of the age of the deceased persons, because in the Roman inscriptions the months and days are generally given as well.

MR. TAYLOR.—I pointed out one that I thought might contain the days or weeks.

MR. F. A. ALLEN.—This is a very interesting discovery, because it appears that all the civilized countries of antiquity were really Turanian in origin. It appears, through the medium of our discoveries, as if civilization had been handed down by the races which we now call Turanian. It has been observed by writers that the Etrurian year agrees, within eight or ten minutes, with that of the Aztecs in America; and there are several other points of identity which are curious, and which are shown by Mr. Hyde Clarke's discoveries in reference to the antiquities and inscriptions in America, and also Accadian inscriptions. If the Etruscan is shown to be Accadian, we establish a bond of union between the Old World and the New. Mr. O'Brien, the learned editor of a work called *Phœnician Ireland*, was once "twitted" by some one who said, "You might as well say the Phœnicians got to America." To which he replied, "Well, 'Algonquin' means in Phœnician 'noble people,' or 'noble race,'—a title which has very often been arrogated by tribes both savage and civilized." These things are valuable, as pointing to the unity of mankind,

and they may be very cognate to the questions discussed before us. I have always thought, from the close connection of the Egyptian and other civilizations with the Etruscan, that it must be Turanian in origin, although it has been asserted on high authority that it was Semitic, or even Aryan.

Rev. G. CURREY, D.D.—In connection with this very interesting subject, I may refer to an instance in which the Etruscans are brought into contact with another people. We all know that the Romans derived from the Etruscans their arts of divination. We find in Ezekiel an account of Nebuchadnezzar casting lots and making divinations before he marched against Jerusalem, and we are told "he made his arrows bright, he consulted with images, he looked into the liver" (Ezek. xxi. 21), evidently practising the arts of divination common among the Turanians, and by them introduced into Rome. Now the Chaldean arts of divination seem to have been derived from the old inhabitants, the Accadians. And so, when we find the Chaldeans practising these arts in the same way as the Etruscans, we have a curious point of contact between the Etruscans and Chaldeans.

Mr. TAYLOR.—M. Lenormant has brought out these facts very forcibly in his essay on the magic of the Chaldeans, showing that their magic was the magic of the Finns.

A MEMBER.—I should like to draw attention for a moment to the striking figures which have been referred to by Mr. Taylor, and which are in the British Museum. I believe these figures to be worth many books, and certainly their character shows something very similar to the Chinese or Mongolian type. They show a great length of foot and slightness of body and arms and legs. I should be glad if Mr. Taylor could give us his views in reference to them.

Mr. TAYLOR.—This touches on a remarkable point which I should have mentioned myself, had it not been for fear of exceeding the limits of the time at our disposal. One of these figures is that of a man of extreme old age and emaciation, which accounts for its slightness. It represents, moreover, a man whose body had not been burned, but buried, and, therefore, he ought to be one of the Tartaric, rather than of the Finnic stock. Here, as well as in that portrait of the Etruscan warrior which I have shown you, you have great obliquity of the eyes and height of the cheek-bones; and I should take one as an example of the conquering, and the other of the conquered race. In the later Etruscan portraits you have a greater approximation to the Greek and Roman type of figure. These Mongol features have absolutely vanished from the Turks of the present day, through their intermarrying with Aryan women. The Osmanli have lost their characteristics, just as the Hungarians are losing them.

The CHAIRMAN.—I have listened to Mr. Taylor's paper with a double pleasure; not only because it is a valuable philological and ethnological Essay, but also on account of its logical value. I was much delighted with the way in which the inductive method was put before us. We have been shown by the most complete induction, and by a comparison of resemblances

and variations made in the most careful and convincing manner, how it was that the language of the Etruscans must be identified with the speech of the Turanian races, and with no others. I think the paper is very valuable as a logical exercise, and also because it asserts most distinctly a hypothesis which I have adhered to for some years. I always thought that the Etruscan would turn out to be Finn, and I am glad to find that Mr. Taylor has arrived at that conclusion. When I began to study philology, the Finn hypothesis was sneered at by some savants, but it is now declared to be an indisputable fact. There is a peculiar word used of this people; Diodorus says, "They call themselves Rasena." Now we find the Finns speaking of themselves, and of their equally Turanian neighbours, as "Suomalainen" and "Rosso-lainen"; and thus we find the root of "Rasena" (the Latin Rhoxolani) in a Finn word. Considerations of this kind inclined me much to adopt the Finn hypothesis. It is necessary to justify the introduction into our Transactions of a paper like the present, and that justification I was prepared to offer, but Mr. Taylor has done it for himself. Before I conclude, I should like to ask Mr. Taylor one question, on a subject mentioned by Dr. Lepsius; and that is, whether there are any remains of Etruscan roots in the language of the Grisons in the Alps.

Mr. TAYLOR.—With regard to the name of Rasena, I think it can be philologically shown that the Etruscans were closely related to the Accadians, and in the tenth chapter of Genesis we find that two of the cities that were built were called Accad and Resen. As to the remains of the Etruscans in the Grisons, a scientific commission was sent out to try and find Etruscan words, but it met with no marked success. I do not think Dr. Steub's work carries much conviction. No doubt there are some resemblances, but they are very feeble, and we cannot tell what the Etruscan words are. In the Grisons a glacier is called *käse*, and that word, I believe, is the name for a snow-covered mountain in Lapp.

A vote of thanks to the Society of Arts for the use of their room brought the proceedings of the session to a close.