

sidered a fraud, and so punished. Such products may be seized, confiscated, and rendered unfit for use, by the competent authorities.

#### Executive Provisions.

The police administrations are charged with the supervision and the execution of these laws, having power to make and enforce the necessary regulations.

There is generally a State commission of control, composed of three or more experts, appointed with the necessary police powers, to whom this subject is intrusted. They have under their directions the inspectors, veterinarians, and chemists necessary for the proper execution of the laws and regulations. The co-operation of the local police officials, whenever necessary, is obligatory.

The commission meet at least twice a year for the transaction of business. They must also make at least two inspections a year of all factories and warehouses for food.

The inspection and supervision of all establishments intended for the public preparation, manufacture, or sale of foods must be performed by the inspecting officials employed by the commission. The inspections of these establishments must take place at least twice a year, and without previous notification to the owners. Reports of such inspection are made in writing to the commission.

The inspecting officials have the right to enter any establishment within their jurisdiction during the usual business hours or when such places are open to the public, and to take for examination such samples as are necessary.

When the examination of samples cannot take place on the spot, but demands a chemical, microscopical, or similar examination, two samples must be taken, and placed under seal, by the inspecting official, in the presence of the owners or their representatives, who likewise may affix their own seals thereto. One of these samples is forwarded to the commission with a report, and a request for the proper examination thereof, and the other is retained by the inspecting official. On demand of the owner, another similarly sealed sample may be retained by him.

When there is reason to believe that a food is adulterated or unwholesome, the inspecting official may order it detained until a proper examination can be made.

If the sample proves, on examination, to be adulterated or unwholesome, the cost of said examination is paid by the offender; but otherwise the State pays the cost of the samples taken and of the examination.

All unwholesome foods are to be confiscated and destroyed without compensation to the owner.

Private individuals may have samples of food examined by the experts of the commission on complying with prescribed regulations and by paying a moderate charge, or free of charge in many countries.

EDGAR RICHARDS.

#### THE ANCIENT ETRUSCANS.<sup>1</sup>

THE problem of the ethnologic position of the ancient Etruscans must be considered as yet unsolved. In spite of the prolonged labors of Corssen and Deecke, the theory that attached the Etrusci to the Indo-European stock rests on such feeble foundations that it is rejected by some of the ablest specialists in this branch; while the Turanian or Ugric origin, so vehemently advocated by Dr. Isaac Taylor, Mr. Robert Brown, jun., and others, is now dismissed as untenable by all the continental Etruscologists.

As for those other hypotheses which connect the inhabitants of Etruria with the ancient Copts, with the Israelites, with the Lydians, with the Armenians, with the Hittites, with the Celts, with the Basques, and what not, they never had enough in their favor seriously to attract the attention of scholars.

One defect in these theories has been that they were all based on one ethnic element only. Their authors seem unaware that in the present condition of ethnologic science it is insufficient to deduce conclusions from the language only, or the arts only, or the legends or the physical features only, of a nation: all these must

be taken into account where the problem is complex, and the verdict of each must be carefully weighed.

My attention was especially called to this problem while spending some months in Italy early in the present year, where I had the opportunity of seeing the many museums of Etruscan antiquities which are so intelligently preserved and displayed in that country.

I had reached the Italian shores by the most ancient travelled route from the coast of Africa; that, indeed, which was taken by the pious Æneas himself, sailing from Carthage by way of the Isle of Pantellaria to Marsala, the ancient Lilybæum.

On a clear day one is rarely out of sight of land on this crossing, for no sooner do the bold headlands on either side of ancient Carthage sink in the south-west than the volcanic cone of Pantellaria rises in sight; and when that is lost to view, the mountainous coast of southern Sicily is soon perceived. The distance between the two islands is not quite sixty English miles, — an interval of space which was not enough to offer any serious barrier to even very early ploughmen of the Mediterranean main.

I dwell on these geographic details with a purpose, as you will see later; and I mention the fact of my journey in Africa, as it was the observations I made there which first led me to the conclusions I am about to present in this paper. Part of my time had been passed on the borders of what is called "la Grande Kabylie," — that portion of the province of Algiers which is inhabited by the Kabyles, the most direct descendants of the ancient Libyans.

They are a strange people, these Kabyles, both in customs and physical aspect. Natives of Africa time out of mind, many of them present the purest type of the blonde races, — blue or gray eyes, tawny beard, fair complexion, curly light or reddish hair, muscular in build, and often tall in stature. When I came to look at the many evidently portrait busts on the tombs of the ancient Etruscans, there was something in the features, in the shape of head and face, which reminded me of these Kabyles. Slight as it was, it induced me to compare the two peoples in other details, and it is the result of this comparison which I now submit to be weighed and judged by those competent in such matters.

Etruscan remains are found in Italy from the Gulf of Salerno to the River Po, and from the Tyrrhenian Sea to the Adriatic. One inscription, indeed, has been unearthed at Verona, perhaps one near Chiavenna; and even at Chur I was shown one, in the Rætian Museum, which the curator averred had been dug up near that city. Certain it is, however, that the right bank of the Po was substantially the northern limit of Etruscan culture.

They were essentially city-builders and city-dwellers; and at the height of their power, which we may put about five or six hundred years before the Christian era, they appear to have had three federations, of twelve cities each, within the limits I have named. This statement might easily lead to an excessive idea of their numbers; but it is well ascertained that the Etruscans constituted by no means the bulk of the population. They were only the ruling class, a slave-holding aristocracy; while the large majority of the inhabitants belonged to native Italian tribes, as the Umbri, the Osci, the Ligures, and others.

All the ancient writers recognize the Etruscans as intruders on Italian soil, and they themselves are said fully to have acknowledged this, and indeed to have had certain legends as to the time and place of their first permanent settlement on the peninsula. It is only in utter defiance of these semi-historic reports that Virchow and others bring them down from the Alps, across the plains of Lombardy, through the defiles of the Apennines, and at length to the shores of the Tyrrhenian Sea. Neither the classical historians nor the Etruscans themselves knew a vestige of such a tradition. The erudite Otfried Muller, who has collected every thing to be found in Greek and Latin literature concerning them, states that it is the unanimous testimony of antiquity that the earliest Etruscans reached the western shore of Italy, crossing the sea from the south; and he adds that it is undeniable (*unleugbar*) that such was the belief of the Etruscans themselves. We know that by tradition and religious customs they assigned as their first permanent settlement the city of Tarquinii, the modern Corneto, on the shore of the Mediterranean, twelve miles north of Civita Vecchia.

<sup>1</sup> Abstract of a paper by Daniel G. Brinton, M.D., read before the American Philological Society, Oct. 18, 1889.

To this venerable site the priests and soothsayers resorted from all parts of Etruria to perfect themselves in the pure and ancient "Etruscan discipline." Here their hero-god Tages, a wondrous gray-haired boy, sprang into life from a ploughed furrow, and taught their ancestors the mysteries of the diviner's craft and the nobler arts of life. This locality, I say, according to uniform tradition, was where their progenitors first established themselves, crossing the sea from somewhere to the south. Such a tradition, so definitely preserved, cannot be cast aside without sound reasons.

The date of this landing has been given by Müller at about two hundred and ninety years before the founding of Rome, while other writers are inclined to put it earlier by five hundred years. Between a thousand and twelve hundred years before the Christian era is probably as near as we can now fix it.

Now that the extensive excavations in Etruscan sites enable us to have a survey of the whole field of their operations, it is conceded more and more that the line of their migration was from south to north, from cisapennine to transapennine localities. Their settlements at Marzabotto, Bologna, and beyond, were visibly later and of briefer duration than in Etruria proper. The Etruscan alphabet of North Italy also reveals plain marks of degeneration, and the forms of the inscriptions are less archaic.

We do not have to depend upon guess-work for a knowledge of the physical features of the Etruscans: we have a vast realm of mimetic art preserved, much of it unquestionably faithful to the originals; and, in spite of the frequent custom of incineration, hundreds of genuine Etruscan skeletons have come down to us in a good state of preservation.

It surprises me, that in spite of this, and although the anthropometric results I am about to quote have been published for years, Dr. Deecke, in his recent edition of Müller's "Etrusker," takes no note of them, but repeats the old statement that this people was short in stature, heavy-set, obese, and dark. Of course, Dr. Isaac Taylor, in order to give countenance to his theory that the Etruscans were Turanians, is glad to adopt this opinion. He would not have liked to take cognizance of the modern anthropologists who have studied the subject, for nothing more fatal to his theory can be imagined than their results.

The old notion seems to have arisen from expressions in two late Roman poets, Virgil and Catullus, who speak of the Etruscans as fat. *Pinguis Etruscus* and *obesus Etruscus* are their words. It has also been commented on that the Etruscan cinerary urns frequently represent short, stout men, with disproportionately large heads and arms. This, however, was merely a technique of the national artists. They often put all their work on the upper, and effaced the lower portion of the figure, as not presenting individual characteristics. Where the full figure is shown, as in some beautiful specimens in the Museum at Florence, the squat appearance referred to is not apparent.

Fortunately we do not have to rely on the contradictory testimony of art to learn the stature of the Etruscans. The Italian anatomists have measured two hundred of their skeletons, and from these have deduced, in accordance with well-known osteologic rules, the height of the average individual. The result shows them to have been an unusually tall race, the average of the two hundred persons having been 1.75 metres, or very nearly five feet nine inches. This is greater than the average height of our soldiers during the war, which was 1.70 metres, and is rather above the average of the soldiery of any European nation to-day, though less than some of the picked corps, — the French carabineers, for example. It is a little more than the average stature of the Algerian Kabyles, who, nevertheless, are a tall race, averaging above 1.70 metres.

Dr. Taylor and his followers do not fare better when it comes to cranial measurements. The typical skull of the Turanian stock is short and roundish, — brachycephalic; that of the Etruscan was markedly of the long type, — dolichocephalic. MM. Hovelacque and Hervé quote the results of three extended measurements of the cephalic index by Italian craniologists as showing 75.6, 76, and 77.3. Less than a fourth of the crania can be called brachycephalic.

It is interesting to compare these figures with measurements

from the skulls of the modern descendants of the ancient Libyans, — the Kabyles. According to data furnished by two excellent observers, MM. Topinard and Lagneau, these are respectively 76.7 and 77.3, almost absolutely the same as for the old Etruscans.

There is a current tradition in Italy that the Etruscans were blondes, with light hair and blue eyes. I met a Tuscan wine-merchant who lived near Florence, and he pointed with pride to his handsome blond beard, informing me that his family claimed Etruscan descent, and that his beard was proof of it. There is evidence from ancient art that this piece of folk-lore is correct; and the eminent anthropologist I have just quoted, M. Topinard, sums up, with his usual correctness, our anthropologic knowledge of this people when he says, "From the evidence before us, we may decide that the Etruscans were of large stature, blondes, and dolichocephalous; while their predecessors, the Umbrians, were small and brachycephalous."

In all these physical traits we discover a coincidence with the ancient Libyan or true Berber type, as seen in the Kabyles of the Djurdjura Mountains, the Rifians of Morocco, and the former inhabitants of the Canary Islands, the Guanches. There is no doubt but that the last mentioned were a true branch of the Berber stock. The fragments of their language, which have been collected and critically edited by Sabin Berthelot and others, prove that it was closely allied to the dialect of the Morocco Rifians. Their skeletons show them to have been an unusually tall race, quite a number of individuals ranging from six to six and a half feet in height. Their skulls present the same dolichocephalic index as the Kabyles; and that they were largely blondes, is attested by the early navigators, who speak of their long yellow hair reaching down to below their waists. The presence of these blondes on the Canaries destroys the theory sometimes advanced, that the blond hue of the Kabyles arose from admixture with the Goths at the period of the dissolution of the Western empire; for the Canaries were peopled by the Berbers long before the Christian era, and Dr. Verneau has quite recently discovered Numidian inscriptions there. But, for that matter, this hypothesis is untenable for other reasons. The blond Berbers are referred to on Egyptian monuments; and, as for the Goths in Africa, they had entirely disappeared as early as when Procopius wrote his history.

All this goes to show that the physical type of the ancient Etruscans was the same as that of the ancient Libyans, and entirely distinct from any then existing on the Italian or Hellenic peninsulas. This identity can be traced in other features of importance to the anatomist. The orbital index of the modern Kabyles is 88.1; of the Etruscans, 87.4, a remarkable approximation. The nasal indices of both range between 44 and 49. In both there is a lack of accentuation of the cranial prominences.

Wherever the first settlers of Tarquinii came from, they do not seem to have brought with them the higher arts of life. Most of these were later acquisitions, learned from their neighbors, the Greeks of Sicily and Magna Grecia, and in longer voyages for trading and piracy, which extended to Greece itself, to the coasts of Asia Minor, to Egypt, and to the Semitic cities of Palestine and their colonies at Carthage and elsewhere. Etruscan art yields positive testimony to all these influences, especially that of the Greeks. The Etruscan alphabet appears to me to have been derived directly from the Greek, and not from the Phœnician, as Rawlinson and others have thought. We must carefully exclude all these external borrowings if we would make a correct comparison of real Etruscan culture-traits with those of other nations. When this is done, it will be found that in some characteristics they stood in bold relief from all the nations I have mentioned.

No one of these is more conspicuous than the position assigned to woman in Etruscan civilization. It was in astonishing contrast to her place among the polished Greeks, and still more so to her station in Oriental life. With the Etruscans, evidently a strictly monogamous people, she was the equal and the companion of her husband. She sat by his side at the feasting-board; she was cared for in the most attentive manner; her image was carved with his on their common tomb; and there are a thousand evidences that she was not merely the idol, but the honored help-

mate, of the man. It was from this Etruscan example that early Rome drew the principle of monogamy and of the substantial independence of woman; and, whatever we have of that noble element in modern life, it is a legacy through Rome from ancient Etruria.

This was decidedly neither a Hellenic nor an Eastern principle, but we do find it from the earliest times among the Berbers. Even in spite of the polygamous doctrines of Mohammedanism, the woman still retains her position in Kabyle life as the companion and helpmeet of man. Their *Kanoun*, or ancient code of laws, often in conflict with the Koran, and always respected in preference to it, protects her autonomy in a variety of ways, and the independence of her position has been a frequent theme of comment with travellers.

Another marked and peculiar element in Etruscan life was the recognition of the principle of confederation in politics. Their league of twelve independent cities was the first of its kind in the ancient world. Canon Rawlinson forcibly points out how far it was superior to the temporary and unstable alliances of the Greeks. In this lay the secret of the rapid success of Etruria.

Here, again, is a singular identity with North Libyan governmental features. The very word "Kabyle" (the Arabic *q'bail*) means "confederation," and refers to their ancient system of a political union of thoroughly independent communities. Nor is this a recent growth. The name by which the Kabyles were known to the Latin writers was *Quinquegentes* ("the five nations"), referring to the coalition which then, as now, existed among them.

The Etruscans were bold navigators. For more than a century (600-500 B.C.) they were the virtual masters of the Mediterranean. It may be objected that in this they were unlike the Libyans; but it must be remembered that the Libyans undoubtedly did at that time venture out into the Atlantic as far as the Canary Islands, and peopled them, — a greater distance from land than the passage of the Mediterranean requires.

I cannot pursue this parallel in other directions, for lack of material. We know something about the Etruscan religion; but Christianity and Mohammedanism have effaced every vestige of the ancient cult of the Berbers. The architecture of the Etruscans was wonderful; but, beyond the fact that the ancient Libyans were builders of megalithic monuments and of dwellings of cut stone, little has come down to us regarding their knowledge of this art.

One of the ablest of ancient historians, Dionysius of Halicarnassus, asserted that the Etruscan language was *sui generis*, without affinity with any other. Such seems to have been also the most recent verdict of modern linguistic research. Dr. C. Pauli, one of the best authorities on it now living, pronounces all attempts to trace its relationship to be failures; and Dennis, the learned English Etruscologist, states his opinion that it is as isolated as the Basque. Dr. Pauli, indeed, decries all attempts to trace, in the present state of our knowledge, its affinities, and himself sets the example of studying it from its own monuments alone.

These monuments are not insignificant. We have preserved to us, more or less complete, over six thousand inscriptions in the Etruscan alphabet and language, a few of them bilingual, usually with the Latin. We know the value of the Etruscan letters, and, up to a certain point, the phonetics of the tongue. Some words have been preserved to us in Greek and Latin writers with their meanings, and the sense of others can be approximately made out from their recurrence in a great many inscriptions of a certain class. We also have the numerals, and a multitude of proper names, personal and geographic.

If, with this apparatus at command, I venture to disregard Pauli's warning, and to institute a comparison between the Etruscan and Libyan languages, it is because I think the material is sufficient at least to be worth the attention of students. So far as I know, no one has attempted any such comparison before; nor do I find that this possible origin of the Etruscans has as yet been advanced, obvious as it seems to be.

One reason of this has doubtless been the extremely little available knowledge of the Libyan tongues, ancient or modern. What we do definitely know may be briefly rehearsed.

The modern Libyan, or Berber, is spoken by hordes scattered from Timbuctoo to the Mediterranean, and from the shores of the Atlantic to the borders of Egypt. It is divided into a number of dialects, which are phonetically grouped into two classes, — the "strong" and the "weak," — characterized by the regular transformation of certain consonantal sounds, principally *k* to *l*, *t* and *o* to *d* or *r*, *s* to *ch*, etc. When the action of these phonetic laws is understood and allowed for, the fundamental unity of all the dialects becomes apparent, both in their vocabulary and grammar.

The themes are both nominal and verbal; but the latter are much the more numerous, and form the grammatical characteristic of the group. They are nearly all consonantal, and may be of one, two, three, or four letters, subject to internal vowel change, and modification of the idea by prefixes and suffixes.

The modern Kabyle, which has adopted many Arabic words, is written with the Arabic alphabet; which, however, does not render correctly some of its sounds. The Touareg, the dialect of the desert, has preserved an alphabet of its own, no doubt a form of the ancient Numidian, which in turn was derived from the Semitic Carthaginian. The Tamachek, as this venerable A B C is called, does not express the vowel-sounds nor separate the words. It is said to have been retained principally through the efforts of the women, who are the *literate* of the tribe.

The ancient Libyan or Numidian was the parent stem of these dialects. Some hundreds of inscriptions in it have been preserved, a few of them bilingual: so there is a possibility that we may recover the grammar of this now lost tongue. Professor Newman, indeed, has made an effort to restore it from modern Berber dialects; but I am surprised that he has made no use of this epigraphy.

These various Libyan dialects form the western branch of a large family of tongues, of which the eastern branches include the modern and ancient Coptic, the Abyssinian, and others. The whole family has been called "Hamitic," or "Cushite," or "Proto-Semitic," of which terms the first is the best, simply because it conveys no preconceived hypothesis. The grammar of all the Hamitic languages shows similar traits. The nouns have a masculine and feminine form; the radical may be of one or more syllables, and, unlike the Semitic tongues, it remains unaltered in the process of word-building; there are plural but not dual forms; relation is expressed by both prefixes and suffixes; and the verb originally had but one form, instead of the two or more found in the Semitic languages.

The general grammatic aspect of these languages, however, leaves no doubt but that at some remote epoch they were derived from the same original form of speech from which the Semitic languages trace their descent: hence they are classified as the "Hamito-Semitic" stock.

Where was the original seat of the tribe who spoke this parent tongue, has not been ascertained. The uniform opinion of scholars has been that it was somewhere in western Asia; and, though the question does not immediately concern the present discussion, I cannot forbear adding that I hold this to be a mistake, and that the original seat of the Semites was on or near the Atlantic coast.

In conclusion, I would submit the following as the results of this inquiry: 1. The uniform testimony of the ancient writers and of their own traditions asserts that the Etruscans came across the sea from the south, and established their first settlement on Italian soil near Tarquinii: this historic testimony is corroborated by the preponderance of archæologic evidence as yet brought forward. 2. Physically the Etruscans were a people of lofty stature, of the blonde type, with dolichocephalic heads. In these traits they corresponded precisely with the blonde type of the ancient Libyans, represented by the modern Berbers and the Guanches, the only blonde people to the south. 3. In the position assigned to woman and in the system of federal government, the Etruscans were totally different from the Greeks, Orientals, and Turanians, but were in entire accord with the Libyans. 4. The phonetics, grammatical plan, vocabulary, numerals, and proper names of the Etruscan tongue present many and close analogies with the Libyan dialects, ancient and modern. 5. Linguistic science, therefore, concurs with tradition, archæology, sociologic traits, and anthropologic evidence, in assigning a genetic relationship of the Etruscans to the Libyan family.