

noting the quantity of knowledge absorbed by the mind. Such an examination is not a mere matter of testing and registering—it is a creative exercise of the mind.

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#### *THE 'NEW RACE' IN EGYPTIAN HISTORY.*

DURING the session of the International Geographical Congress, Professor Flinders Petrie invited a number of the members to visit the extraordinary collection of Egyptian antiquities exhibited at the University College, the results of his excavations between Ballas and Nagada in the early months of 1895. They may well be called 'extraordinary,' as they introduce an entirely new element into the history of ancient Egypt, proving the presence on the Nile 'of a fresh and hitherto unsuspected race, who had nothing of the Egyptian civilization,' to quote Professor Petrie's words. Not that they were uncivilized. Far from it. Their culture was in some respects superior to that of the Egyptians of their age; but it was wholly independent of it, developed in another center, under an entirely different inspiration and technique, proving it the product of another ethnic group.

These intruders overthrew the great civilization of Egypt at the close of the VIth dynasty, and were in turn overthrown by the rise of the XIth dynasty at Thebes. In the current chronology this would place them from 3300 to 2800 B. C. They completely expelled or destroyed the former inhabitants for more than a hundred miles along the Nile Valley, in the district situate between Gebelen and Abydos. How thoroughly they extirpated their predecessors in this region may be judged by the fact that, in opening over two thousand of their graves and examining several of their town sites, not a single Egyptian object was found. Nor did they care to learn any Egyptian

art; for though they worked extensively and skilfully in clay, all their vessels are made by hand, and they refused to adopt the potter's wheel, which was then and long before familiar to the Egyptians. They brought with them a culture belonging to the highest neolithic type. I have never seen in any other collection, flint implements of equal finish or so graceful in outline. Beautifully polished beads and small ornaments of cornelian, amethyst, turquoise, garnet and other hard stones were found in abundance. Stone vases were shown in great variety and of graceful outlines.

The decorative designs are often elaborate, some in conventional lines, spirals and network, some representing boats, birds, trees and human beings. Animal designs in relief are portrayed with artistic consciousness.

Of metals, copper was the only one in frequent use. Adzes, needles, harpoons and daggers were manufactured from it.

Their mode of interment was altogether unknown to the Egyptians. The bodies were buried in the gravel, not in rock tombs. The graves were square pits, and the corpse was laid in a contracted position with the head to the south and the face to the west. The custom of incineration did not prevail; but there are signs of funereal human sacrifices, and apparently of cannibalism.

It is not likely that they shared the Egyptian's skill in architecture. Two of their towns which were examined showed remains of structures of mud brick of small size.

What were the ethnic relations of these mysterious invaders, this 'new race,' as Professor Petrie called them?

In the interesting address which he made to us on the occasion of our visit, he expressed himself cautiously but with a positive conviction. From numerous analogies

of culture, of cranial forms, of geographic position, of historic references, he had been led to the conviction that they belonged to the Berber or Libyan groups, that vast ethnic stock which occupied the whole of north Africa, west of the Nile Valley, above the Soudan. His arguments seemed to myself and others quite sufficient, at least in the present stage of the investigation.

What is especially noteworthy is the fact that civilization was highest on their arrival. Later it degenerated, and finally became absorbed in the Egyptian. Therefore, if Professor Petrie is right in his identification, we must credit to the Numidian-Libyan tribes of the fourth millenium B. C. a culture of native growth higher in many respects (though inferior in others) to that of the Egyptians who were their contemporaries.

Of the many and brilliant discoveries we owe to the indefatigable zeal of Professor Petrie, this last, of which I give this cursory account, is perhaps the most important for the history and ethnography of the Nile Valley and northern Africa.

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#### CURRENT NOTES ON PHYSIOGRAPHY (XIV.).

##### FOUREAU'S EXPEDITION INTO THE SAHARA.

FOR the third time, Foureau has been repulsed by the Touaregs in his attempt to cross the desert and reach the inland district of Air. The nomads resent the intrusion of European explorers, and do not wish to hear of commerce or trans-Saharan railways. Although not an expert in geographical description, Foureau's account of his unfortunate expedition gives many interesting sketches of the *hammada*, or rugged sandstone uplands, too stony for camels to cross; the *erg*, or sandy areas of the lower lands, with chains of dunes trending N. E. -S. W., as if controlled by the trade winds; the numerous *wadies*, or stream courses,

universally adopted as routes of travel, although caravans are here sometimes overwhelmed by floods from which there is no escape where the walls are steep. Gently sloping plateaus (*hammada*), dissected by long consequent valleys to the north and broken by short and steep obsequent streams on their south-facing escarpments, are characteristic features of the regions south of Wargla, in latitude 27°. Much of the surface near the wadies is minutely dissected, and would be called 'bad lands' by our Western explorers. The barrenness of the stony plateaus is complete; but along the wadies there are acacias and scattered herbage on which horses and sheep find a scanty pasture. A little wheat is raised on the flood plains. Swarms of grasshoppers sometimes consume the vegetation. The people are excessively poor, and all are great beggars, clamoring for gifts. In November, 1893, minima of -6° C. were recorded several times; sleeping without a tent, the explorer's blanket was covered with frost nearly every morning. Although suffering from cold, Foureau found, on the other hand, plenty of water in pools along the wadies, for in the five winter months of 1893-'94 there was rain on twenty-two days. Snow was seen on the plateaus. On several mornings there was dense fog. The Touaregs thought the cold spell was brought by the explorers. Moufflons were seen on the *hammadas*, and antelopes were common on the *erg* districts (Bull. Soc. géogr., Paris, XVI., 1895, 10-74).

##### LACCOLITIC MOUNTAIN GROUPS.

THE fourteenth annual report of the United States Geological Survey contains an interesting chapter on the laccolitic mountain groups of Colorado, Utah and Arizona, by Whitman Cross. It serves as an extension of the report on the Henry mountains by Gilbert of some years ago. While the chief value of this chapter is in