

Germany during the past few years, and there are hardly any universities remaining which offer no facilities for the higher education of women, but these changes have been brought about by the courageous and energetic work of a few fair-minded professors, and in the face of the fanatical opposition of the great majority of them. "The boasted freedom of the universities is again contradicted in their attitude towards the education of women. No one expects the state to be liberal, but liberality is looked for in the highest educational centers of the country. But with what results? Determined, almost fanatical, opposition to the extension of university privileges to women \* \* \* For those women who desire to secure a broader education than is afforded by the girls' schools, and who can easily enough take up university work and profit from it, there can be no valid reason for keeping them out. It makes one lose faith in the ideals of university enlightenment" (p. 416). Nevertheless, the first German woman has already taken the degree of Doctor of Philosophy at the University of Berlin, and in 1896 six young ladies of high social position, who had been trained by the enthusiastic and devoted Helene Lange, took the final examination set for the boys of a Berlin *Gymnasium*, and received high rank. "It will be seen," says Professor Russell, "that the woman question will soon supersede the Greek question." The crying need for women at present is the foundation of public *Gymnasias* for girls. In spite of several recent setbacks, progress can be safely predicted in this line. The latest news from Germany is that a *Gymnasium* for girls has been started in Hannover, and that the one in Karlsruhe, which has hitherto been in private hands, has been taken over by the city.

We have no space left for discussing German methods of teaching. The most important general difference between them and those which we know in this country is that less is left to the initiative of the scholar; he does much less of his work out of school hours, and the teacher takes a much more active part in the work of instruction. The joy and refreshment which the American boy gets out of his athletics are unknown to the German, but (what we are less in the habit of remembering)

he has an immense resource in music, to which he gives a large part of his hours of recreation. As regards special studies, the account given of the new method in teaching modern languages is most illuminating, and gives record of marvellous results. But the whole book will become the useful companion of those who are interested in securing better and better systems in the education of the young.

CHRISTINE LADD FRANKLIN.

BALTIMORE.

*The Native Tribes of Central Australia.* By SPENCER BALDWIN, M.A., and F. J. GILLEN. New York, Macmillan Co. 1899.

This work is an important contribution to Australian anthropology, being a careful monograph on the Arunta tribe, with observations on some neighboring tribes, giving an account of ceremonies, traditions, customs and myths. As Mr. Cushing identified himself with Zuni Indians so the authors became initiated members of the Arunta tribe, and thus came into intimate knowledge of many facts of great interest, especially as throwing light on Totemic organization. The Totemic myths and ceremonies are treated in great detail. The Totem groups at the time of the year when rain may be expected and food animals breed, conduct simple ceremonies of chants of invitation, with representative plays which will insure the multiplying of the food. These ceremonies are essentially childish, are in the same spirit as the 'rain, rain, go away, come again another day' of civilized children. While these ceremonies do not appeal to supernatural beings, that is beings who are over rain, kangaroos, etc., but to the Rain, Kangaroo, etc., as themselves animate beings, yet as conciliatory the acts must be called religious, as coercive, unreligious, and the native mind continually vacillates from one to the other position. As to the origin of Totemism the authors (p. 127) can pronounce no opinion, yet (p. 209) the origin is sufficiently indicated as derived from the dominant food of any section of a tribe. With regard to such a Totem as Rain we see that the whole tribe have a general Rain dance, and the specialization of function is only partial to the Rain group (p. 193).

As to primitive marriage the authors tend toward a promiscuity theory as *versus* Westermarck (p. 111). It is notable that the 'muscle' dance as sexual lure is found amongst the Arunta (p. 381). Religion as mere craft is suggestively noted (p. 130). The intense solidarity and communism of savage life is vividly portrayed in this work. The account of socialization suggests that if we could penetrate animal organization, for example, crows, we might find quite similar methods, a general animistic interpretation and adaptation, and a sort of unspecialized Totemism, for instance, in rain calls. In this work we find plenty of hard dry facts, of external description, thorough and precise, but we have little large, comparative and psychic interpretation. We learn very little of how the natives think and feel. The conservatism of savage life is alluded to, as also the rather narrow but real chance of variation. Their powers of observation and memory in what directly concerns their livelihood is mentioned, as is also their very limited power of numeration. In adaptive intelligence they are in one point inferior to the elephant, who thatches himself, for though the Australian has warm skins of kangaroo he has never thought to use them as defense from the cold which often goes below freezing point. As clothing is unknown to him, we must revise our definition of man as an animal that wears clothes.

The authors are far from making clear the concept of the natives as regards the life of the individual after death. They continually use the word 'spirit'; but the essence or vital core of the individual which changes residence is really concrete (pp. 137 and 516), and it seems obvious that the natives have not risen to the idea of body and spirit. It would certainly be highly desirable that a skilled psychologist should closely interpret the psychic basis of the ceremonies, etc., described, should study emotions and their expressions, and test the psychic power of the natives in various ways.

The work has good maps and photographic illustrations. Some of the faces and figures are finely sculpturesque, for example pages 35 and 43, and the full face, p. 38, is a veritable Olympic Zeus.

HIRAM M. STANLEY.

*Guide to Excursions in the Fossiliferous Rocks of New York State.* By JOHN M. CLARKE, State Paleontologist. June, 1899. Pp. 1-120. Or Handbook 15, University of the State of New York.

This booklet is somewhat of a novelty in American geological literature. Every student of geology knows that New York State is classic ground for many of the Paleozoic formations of America. But a knowledge of how to see the various formations and collect their characteristic fossils to the best advantage in the shortest time and with the least expense can be obtained only after much experience. Here, however, most of this information is at hand and students of geology can go directly to classical localities and lovers of nature to some of the prettiest spots in the State.

In this booklet are described in detail 27 excursions, each demanding from 1 to 7 days. All of the trips can be made in from 56 to 72 days. The best and most readily accessible sections are described and directions given to railroads, the places to stop over night and the localities and beds furnishing characteristic fossils from the Cambrian to the Chemung, including the post-Glacial clays.

It is to be hoped that other States will profit by New York's example and that similar booklets for Maryland, Ohio, Indiana, Illinois and Iowa will follow.

C. S.

#### BOOKS RECEIVED.

*Praxis und Theorie der Zellen und Befruchtungslehre.* VALENTIN HÄCKER. Jena, Gustav Fischer. 1899. Pp. viii + 260. Mark 7.

*Physical Nature of the Child.* STUART H. ROWE. New York and London, The Macmillan Company. Pp. xiv + 206. \$1.00

*The Elements of Physics for use in High Schools.* HENRY CREW. New York and London, The Macmillan Company. 1899. Pp. xiii + 347. \$1.10.

#### SCIENTIFIC JOURNALS AND ARTICLES.

*The American Naturalist* for July opens with an article by T. H. Montgomery, 'Observations on Owls, with particular regard to their Feeding Habits,' which clearly demonstrates the comparative abundance of small rodents as well as the numbers destroyed by owls.