release of arrows, which lead the distinguished scientist to so remarkable conclusions. The well-established fact that the non-existence of certain color-names does not prove color-blindness, was shown by Mr. W. E. A. Axon to hold true among the English gypsies. Besides these papers, reports on new explorations were not wanting. Papers on psychophysics, which we consider an important branch of anthropology, were not included in the list of papers read before the Section of Anthropology of the British Association.

MENTAL SCIENCE.

Drawing among Primitive Peoples.

THE application of the inductive method to the study of mental facts — and that, too, from its first appearance in Locke or Herbart — inevitably brought into prominence the observation of minds different from our own, and in particular of peoples less advanced than ourselves in the march of civilization. The seed thus sown has borne good fruit; and in the works of Lubbock and Tylor, of Bastian, of Steinthal and Lazarus, and many others, we have an excellent foundation for an anthropological psychology. The object of this movement is not only to record as far as possible the probable history of our early attempts at culture and the long succession of gradually outgrown customs and beliefs, but also to co-ordinate the various works of mental evolution, to arrange them in some serial order, — as Romanes does with animal evolution, — and thus help to furnish the categories for a general psychology, which will be none the less scientific because it needs to be enlivened by the tact of a humane observer.

Among the characteristics that contribute most to this end are, what have always been and still remain the two great kinds of human expression, language and handiwork, and especially art. The permanence of the latter mode of expression makes it of crucial value to the anthropologist. Dr. Richard Andree, in reviewing the art-productions of savage tribes as shown by their drawings, emphasizes the great development which this talent can attain in conjunction with a low state of psychical development. Travellers often mention the power of savages to rapidly sketch characteristic figures, and among the oldest relics of the cave-dwellers we find distinct tracings of animal forms. As in so many other respects, an analogy is present between the drawings of primitive men and of children. Figure sketching (in outline) and ornamentation are the prominent characteristics of both; while the power of landscape-sketching, as well as a sense for natural beauty, is a much later acquisition. Among the forms drawn, plants are seldom found: what is full of motion and life — the horse, etc. — first attracts the attention, and is transferred to bone, clay, or stone. At times ornamental and figure work go together, but much oftener a development of the one or other alone is possible. The Maoris and the Fiji-Islanders confine themselves to ornaments, and seldom draw a figure. Among the Australians the development of ornamentation has stopped at a certain stage, — with recurrent stereotyped forms of wedges, crosses, and 'herring-bone' patterns, — while scenes from their doings are recorded with much fidelity, and color is often used to lend reality to the design. The Bushmen excel in painting (though without perspective), and trace with great accuracy the scenes of daily life, of hunting, warring, etc. As figure-painting allows of very various development, we find different styles of conventionalism — the art of ancient Peru is a notable example — in different tribes. Other peoples — and here the Arctic tribes stand in the first rank — aim at a faithful representation here: ornamentation finds no place, and such subjects as fishing, sleighing, etc., are the usual ones. The attempts at human forms are often failures; but the drawings of their most common animals, as the reindeer, are sufficiently exact to serve as a means of zoölogical identification.

Even the humerous is found on the primitive 'canvas,' and especially among the fun-loving negro tribes. Exaggeration of small peculiarities (as in children) is the marked trait. The natives of the Loango coast carve in a spiral on elephant's tusks a whole carnival of ridiculous figures, — sailors, officers, *savants*, etc.

The material of the artist is very various. Many cut and daub their utensils; the Peruvians decorate their woven fabrics; the Australians draw on blackened bark; the Africans carve in ivory. The universal imitative bent, of which the desks and walls of a school-room often show striking evidence, appears in many curious savage 'art-galleries.' On the island of Depuch, off the north-west coast of Australia, are found scratched on the smooth rock a crowd of men, birds, fish, crabs, bugs, etc., and colored black, white, red, yellow, and (seldom) blue. This seems to have been a pastime of these fishermen for generations.

While the drawing talent is thus quite a general one, the possibility of a large development of it is limited. It usually stagnates in conventionalism, and seldem reaches the stage, as it does in the Eskimo, of being utilized as a pictographic language.

In conclusion, Dr. Andree calls attention to the fact that almost everywhere the men alone are the artists. In one case this rather anomalous phenomenon leads to curious results. Among the Papuans of New Guinea, vessels and implements of wood are quite generally decorated, while the pots made by the women are devoid of all ornamentation.

RE-ACTION AND INHIBITION TIME. — If it is arranged that a certain action is to take place at a given signal, it will be found that a quite constant time elapses between the signal and the re-action. Besides executing a motion, we can exert our will towards restraining an act; and this not always by the contraction of an antagonistic muscle, but by a direct inhibitory action of the nervous centres. Dr. Gad of Berlin has measured the time necessary to thus inhibit the action of the muscles used in mastication, and announces the important result that this time is the same as is necessary for an ordinary re-action. This is true not only under ordinary conditions, but the variations in the time by practice, by fatigue, under the influence of narcotics, etc., for the two acts, is about the same, as is shown in the following table: —

	Re-action-time.	Inhibition-time.
Before practice	0.25 sec.	0.30 sec.
After practice	0.15 "	0.14 "
With weak stimulus	0.20 "	0.17 "
With strong stimulus	0.12 "	0.11 "
After fatigue	0.18 "	0.16 "
8 minutes after taking alcohol	0.12 "	0.09 "
30 minutes after taking alcohol	0.25 "	0.20 "

In short, the mechanism of inhibition works as accurately and as delicately as that of re-action.

A REMARKABLE CASE OF AMNESIA. — The many strange phenomena of amnesia have been enriched by the experience of one of the ablest living psychologists, Professor Bain. Some months ago Professor Bain fell from his horse, and was unconscious for about three hours afterwards. During this time his shoulder, which had been sprained by the accident, was set without his knowledge. Upon regaining consciousness, it was found that he had lost all remembrance of what had occurred an hour before the accident, as well as of the three hours following. He was found on a different road from that which he can remember having intended to take, and so must have changed his mind. Of this he has lost all recollection; otherwise there were no mental effects. The editor of *Mind*, who tells the story, adds another case in which a gentleman, after falling from a carriage, remained unconscious for nearly four months. Upon re-awakening, not only was this interval a total blank to him, but the events of the week preceding the accident were equally lost. Important transactions which he had made during that week were forgotten. This suggests that there may be some relation between the duration of unconsciousness after the accident and the memory-blank before. At all events, the phenomena, mysterious as they are, deserve to be recorded. The authenticity and careful analysis of the above cases add to their value.