

In particular, a crystallographer leads off by showing how visual configuration passes through 'occupation' and finishes with abstract organization. This, of course, is but one way of saying that material objects tend to obey the law of *prägnanz*, as in *Gestalt* theory. It is also a species of homopolar bond with Dr. Arnheim's paper later on, concerning artistic form. Meanwhile, an astronomer contributes a chapter full of interesting twentieth-century views upon that typically Greek theme, permanence *versus* change. Next come a couple of distinguished biological essays, and then one by Dr. H. B. Cott (of camouflage fame) dealing with the appearance of animals, this implying the existence of vision. The subtle point here is the over-riding influence of contrast, itself a variety of form. Later chapters describe brain patterns, and the functional substitute. The editor (Mr. L. L. Whyte) himself concludes with a chronology of form, and a bibliography.

Slight in bulk, this volume yet represents a prodigious effort, the magnitude of which the reader may not realize until he reaches the last few pages. Then he may discern something of the cost, in the hard labour of thought, which the composition and illustrations must have involved. Seldom can the yield have been more worth while. This said, it may not be too graceless to remark upon a few obvious omissions from the book-list; for example, Speiser's profound "Mathematische Denkweise", Beilby's "Aggregation and Flow of Solids", and E. S. Russell's "Directiveness of Organic Activities", all immediately concerned with the growth of pattern. Incidentally, Koehler's book (p. 246) deals with a multitude of facts, and its title needs an 's' accordingly. Naturally, it is fully recognized that the present volume has been produced in connexion with an exhibition of contemporary art, and that therefore its bias (in so far that it has one) is in that direction.

Nevertheless, there is at least an equal need for a corresponding treatment linked specifically with classical art, including humanist architecture. Some material already exists for such a venture, and even the people to undertake it. But by then, "Aspects of Form" will itself have become a classic.

F. I. G. RAWLINS

SOUTH AMERICAN INDIANS

Handbook of South American Indians

Edited by Julian H. Steward. Vol. 6: Physical Anthropology, Linguistics and Cultural Geography of South American Indians. (Smithsonian Institution: Bureau of American Ethnology, Bulletin 143.) Pp. xiii+715+47 plates. (Washington, D.C.: Government Printing Office, 1950.) 5 dollars.

WITH volume 6, the "Handbook of South American Indians" is complete except for the index. As forecast in the review of vol. 5, the subjects treated are early man (Part 1), physical anthropology (Part 2), and languages (Part 3); but in addition there is a long section on geography and plant and animal resources (Part 4).

The main contribution to Part 1 is a devastating summary by T. D. McCown of previous work, in which he shows that there has been much writing and little progress in the past thirty-five years. Apart from the Argentine remains, none of which has been proved to be of great age, there are various

discoveries in Brazil, Ecuador and Lower California which have been held to constitute a Lagoa Santa race. He shows that there are far too few skeletons to support the claim that they form a race, and throws considerable doubt on the antiquity of the Ecuadorian examples. He gives Bird's discoveries of cultural material in South Chile a kindly mention, but does not refer to the single skull, apparently comparable with those of Lagoa Santa, which he was able to reconstruct from a cremation.

The uneven distribution of the available information is particularly apparent in the part dealing with physical anthropology. There are four sections—on skeletal remains, the living Indian, the Mestizos and the physical anthropology of Chile. The last three do not confine themselves to anthropometry, pigmentation and hair, but include also brief general discussions of blood groups and basal metabolic rates, and an account of the physical anthropology of the internal organs of the non-Indian inhabitants of Chile.

The vast subject of linguistics is ably summarized by J. Alden Mason, who emphasizes the incompleteness of our knowledge and disclaims any sort of finality. The plan of this section is a general introduction, followed by notes on each group, with a bibliography. The languages are grouped in larger divisions where possible, but a great many still have to be regarded as independent. A most useful map, in a pocket at the end of the book, accompanies this section.

The final section is much more than mere background. It contains a great deal of information of ethnological and archaeological importance, including discussions of the domestication of animals and the origins of cultivated plants; for example, very valuable summaries of recent work on maize and cotton. A recent paper on the Cucurbitaceæ found in the Pre-ceramic deposits of North Peru by T. W. Whitaker and J. B. Bird is not mentioned, but this is an indication, not of omission, but of the inevitable delay in the publication of this volume. Map 7, a relief map of South America, which appears in this section, is so much reduced as to be of little use.

It is impossible to finish this brief notice without expressing once more the immense debt owed by all students of South America to those responsible for the compilation and publication of this "Handbook".

G. H. S. BUSHNELL

AMERICAN FORAGE AND PASTURE CROPS

Forage and Pasture Crops

A Handbook of Information about the Grasses and Legumes grown for Forage in the United States. By W. A. Wheeler. (Prepared under the auspices of the Field Seed Institute of North America.) Pp. xi+752. (New York: D. Van Nostrand Co., Inc.; London: Macmillan and Co., Ltd., 1950.) 60s. net.

AS the United States turns to the grass, legume or other forage crop to restore lands, so Britain begins to approach the temporary ley scientifically as a fertility-building crop. Soil conservation may have more spectacular connotations than has the homely phrase, 'good husbandry', yet the aim of the agronomist in either country is to use pasture and