

1893, are in the National Museum, Smithsonian Institution, Department of Arts and Industries.

In regard to current use of silk by Zoque, apparently the Cordrys did not carry their investigation as far east as San Bartolome (which, according to their map, they regarded as a Tzotzil town) where Starr, in 1898 found the woman's huipil worked in silk "brought from the mountains". An indication of interest in "natively cultivated silk" is a mention, in the paragraph following the Gage quotation, of the current use of the silk for belts in, respectively, a Zapotec and a Mazatec village. It is of interest that the present authors have recently encountered and recorded the significant use of cocoon silk in southern Oaxaca, which, at the beginning of the 19th century, impelled the study and the conclusions of both Humboldt and Muhlenpfordt.

The Cordrys, with zeal and perspicacity, have collected a large amount of valuable information. Mr. Cordry's skill as draughtsman and photographer has been a great asset in their research. The present volume shows that a mass of textile information is yet available in southern Mexico but the material is rapidly disappearing. Apparently the time has come when the accumulated knowledge of the indigenous spinning and weaving practices can begin to be correlated and integrated and serve as an appraisal of the cloth-weave attainment of the native population.

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*Western Guatemala, A Secondary Center of Origin of Cultivated Maize Varieties.* PAUL C. MANGELSDORF and JAMES W. CAMERON. (Reprinted without change of pagination from Harvard University, Botanical Museum Leaflets, vol. 10, no. 8, pp. 217-250, plates XXV-XXVI, August 21, 1942.)

This paper reports the results of cytological studies of extensive collections of maize from western Guatemala. The main conclusion is that this region constitutes a center from which was derived many varieties of maize which spread over Central America and North America. The data are interpreted in the light of hypotheses set up in a monograph published by Mangelsdorf and Reeves in 1939.<sup>1</sup>

This earlier paper offered a revolutionary reconstruction of the chief events in the history of maize. Maize originated from a wild form of pod corn in South America. This pure maize was brought northward in cultivation to Central America where it hybridized naturally with *Tripsacum*, a wild grass, producing teosinte (*Euchlaena*), and many new varieties of maize with varying amounts of *Tripsacum* admixture. The present paper concerns itself with the investigation of the geographical location of this hybridization, the extent of contamination of maize with *Tripsacum*, and the types of maize resulting.

Several circumstances suggested western Guatemala, and particularly a small area of the Department of Huehuetenango, as the place at which this hybridization likely occurred. Maize from this area was subjected to a very ingenious method of chromosome examination to detect *Tripsacum* admixture. The results seem to have borne out expectations, establishing the region as a secondary center of origin of maize varieties.

<sup>1</sup> P. C. Mangelsdorf and R. G. Reeves, *The Origin of Indian Corn and Its Relatives* (Texas Agricultural Experiment Station Bulletin, no. 574, 315 pp., May 1939).

Thus the brilliant maize investigations of Mangelsdorf and his associates continue to undermine the opinion, held for half a century or more, that the place of origin of maize was southern Mexico or Central America. We must now adjust our thinking to accept that region as secondary.

This paper leaves little or no doubt that the extent of *Tripsacum* admixture can be determined in fresh material which can be grown. The authors point out but do not emphasize another point which seems highly significant: that types of maize which have *Tripsacum* admixture as indicated by the chromosomes also exhibit recognizable morphological characters of ear, kernels, and vegetative parts. This would seem to indicate that old collections of non-viable maize from Indian tribes and archaeological sites now have or soon will have greatly augmented value in working out of the botanical and anthropological history of maize.

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#### EUROPE

*Italic Tomb-Groups in the University Museum.* EDITH HALL DOHAN. (xii, 109 pp., 65 pls., 60 figs. \$7.50. Philadelphia: University of Pennsylvania Press, 1942.)

This volume is really a catalogue of the contents of a large number of graves at Narce, Vulci and Pitigliano, localities lying within a radius of 70 miles northwest of Rome. Though the word "Etruscan" does not occur in Mrs. Dohan's index, these tombs would generally be so described. What we actually have, regardless of what ethnic name we may apply, is an Italic culture with a backlog of Central European Bronze Age inheritance and constantly increasing influence from the eastern Mediterranean, especially Greece. In the general European picture, studies of this kind are of especial importance not only for Italy, but for the great Central European province of the Hallstatt Culture of the Iron Age, and also for the belated North European culture of the late Bronze Age, which depended for so much of their inspiration on early Italy.

The tombs described in this book were opened in 1895 and 1896 by local excavators who later sold the contents to the University Museum. It was at the time believed that the excavators had worked carefully and really had respected the integrity of the tomb-groups. Mrs. Dohan's research has on the whole revealed nothing that would in the light of recent knowledge undermine that belief. Indeed a considerable part of all the material from early tombs in Italy reached museums from excavations no more rigidly supervised, and one must either accept this condition or abandon the study altogether.

Mrs. Dohan has done a real service in publishing her material thoroughly. All too often those who have described such graves in the past have selected according to their lights the objects to be described and illustrated. But in this book we find everything, even the most inconspicuous fragments fully described and well photographed. But one wishes that a second volume might be expected from Mrs. Dohan on the same subject. This one, being conceived as a catalogue, gives minute descriptions and the fullest references to everything similar that has been published. But there is still room for the further work, which one may hope that Mrs. Dohan will attempt, of drawing fuller conclusions from the vast amount of data that she has assembled. Much could be done,