

purple color. One most commonly sees in a state of nature the white heads which are tinted with lavender or pale purple at the base of the ray floret. The heads in each case are nearly uniform in size, being about an inch and three-fourths across.

There are several other species worthy of mention. *Dahlia imperialis*, *D. scapigera*, *D. dissecta* and *D. pubescens*. *Dahlia dissecta* was discovered by Mr. C. G. Pringle growing on limestone ledges fifty miles east of San Luis Potosi. "It is a very unique species, being scarcely more than two feet high and of bushy habit from an almost woody base." The flower heads are two or three inches broad, with about eight mauve colored rays. *Dahlia pubescens* was found by the same botanist on calcareous bluffs of prairies bordering the valleys of small streams in the State of Mexico and to the north of Toluca. It is a small plant, one and a-half to two feet high, with heads two to three inches broad, with a yellow disc surrounded by eight rays which are purple, with lines of deeper color which changes with age to light purple or dull rose.

The tubers of these plants, particularly those growing on the lava beds along the southern mountainous rim of the Valley of Mexico, are hard to obtain, because of the depth to which they sink in the lava pockets. All of the species store up in their tubers a substance called inulin, chemically allied to starch. The substance is in solution in the cell, much as sugar is, but crystallizes out in needle-shaped crystals upon the addition of alcohol. This substance is stored up as a reserve food to meet the demands of the plant during the active growing season, and the tubers with this stored substance perpetuate the species during the long droughts which are frequent in Mexico.

The dry season in the region of the Valley of Mexico lasts from about the first of October until about the first of June, when

there are signs of the returning rainy season. During the drought the tubers of the Dahlias lie dormant until the first rain moistens the soil, when they spring up in great numbers everywhere on the lava beds. The plants grow vegetatively until the end of August, when they flower in the greatest profusion. The rainy season is characterized in the Valley of Mexico by afternoon thunder showers. The morning will be cool, and the air bracing, until evening, when the sky becomes overcast and the rain comes down sometimes in torrents.

A consideration of these meteorological conditions ought to influence the cultivation of the Dahlia, which has not been entirely understood. It will repay some energetic nurseryman to obtain fresh tubers directly from the mountains of Mexico by a personal visit to the native home of the plant. It will repay him to collect tubers of every plant with a different shade of color. As already intimated, the plants in a state of nature are extremely variable. This variation in nature, as compared with the variation produced by cultivation, is just as striking, and shows us that many of the species are in an extremely unstable state of equilibrium as regards their plasticity. This great plasticity in a state of nature explains how so many new colors and forms originated, almost as if by magic, when the Dahlia was first introduced into cultivation. The inherent possibilities of color and form were represented in the protoplasm, and only needed the stimulus of a varied culture to bring out these latent acquired characteristics.

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CURRENT NOTES ON ANTHROPOLOGY.

INSCRIPTION OF THE CROSS AT PALENQUE.

THIS most famous of all the Mayan inscriptions has been subjected to a searching analysis by Dr. Förstemann (in *Globus*, Vol.

72, No. 3). He reads it in the direction advocated by Rau, beginning at the left upper corner, and confirms Rau's opinion that it is a chronological record. The very large glyph which in this plan comes first he states is a compound of the three glyphs used for the highest customary time-periods of the Mayas, — 360, 7,200 and 144,000 days, and is to be understood as signifying 'time-counter,' or 'historical table.'

The inscription itself is made up of a series of glyphs representing dates; between these is another series representing spaces of time, and a third class of unknown meaning, perhaps historic facts. If the latter, the glyphs would read like the following:

"March 4, 1893; Cleveland, President; 4 years; March 4, 1897."

Or it may be that not historic data, but religious notions are intended, such as the supposed control of a certain period of time by a certain divinity, etc. At any rate, this scheme of the inscription, whatever its application, seems to be well established by this learned and thoughtful article by the most erudite student of the subject living.

THE ETHNOLOGY OF KISSING.

THE kiss was unknown, I think, among the aboriginal tribes of America and of Central Africa. From the most ancient times, however, it has been familiar to the Asiatic and European races. The Latins divided it into three forms—the *osculum*, the *basium* and the *suavium*; the first being the kiss of friendship and respect, the second of ceremony and the third of love. The Semites always knew the kiss, and Job speaks of it as part of the sacred rites, as it is to-day in the Roman Church.

The Mongolian kiss, however, is not the same as that which prevails with us. In it the lips do not touch the surface of the person kissed. The nose is brought into light contact with the cheek, forehead or

hand; the breath is drawn slowly through the nostrils, and the act ends with a slight smack of the lips. The Chinese consider our mode of kissing full of coarse suggestiveness, and our writers regard their method with equal disdain.

Darwin and other naturalists have attempted to trace back the kiss to the act of the lower animals who seize their prey with their teeth, etc. An interesting recent study of the subject is by M. Paul d'Enjoy, in the *Bulletin* of the Paris Anthropological Society, Vol. VIII., No. 2.

THE ABORIGINES OF INDIA.

Two articles on the Dravidian stock of Hindostan have recently appeared. One is by Professor Oppert, in Nos. 4 and 5 of *Globus* (Bd. 72); the other by Dr. Zaborowski in the *Bulletin* of the Anthropological Society of Paris (1897, fasc. 2).

Professor Oppert refers to the Aryan invasion of India, and the profound differences between the two stocks which have been maintained by the caste system until the present day. He points out in detail the sharp contrasts in the morphology of the Dravidian and Aryan linguistic stocks, describing the former as concrete, the latter as abstract in its conceptions. Without directly connecting the Dravidian with the Ural-Altaic group, he draws attention to certain similarities between them.

Dr. Zaborowski reviews the recent ethnographical literature of the subject, and argues that the Dravidians of southern India descend from the same family as the Mois of Cochin China and the Malayan tribes of the island world. He supports this from somatic traits, coincidences of customs and religions, and partially from linguistic research. While his article does not carry conviction, it is a result of a careful study of the question.

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