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DIORAMA ILLUSTRATES PRINCIPAL FEATURES OF TEA PLANTATION IN CEYLON

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Tea is represented in the exhibits of vegetable food products in Hall 25 by samples from various parts of the world, by a full-size reproduction of a tea bush from southern China, and by photographs showing its cultivation, harvesting, handling and transport. In addition, there has now been installed a diorama, depicting in miniature, a tea plantation in the rocky highlands of Ceylon. This adjoins the coffee plantation diorama described in Field Museum News of October, 1935.

The tea bush is a small tree or shrub (*Thea sinensis*), native to the uplands of southeastern Asia's monsoon regions. It thrives best in rocky or undulating tracts where water flows freely, yet without washing away the light, friable soil. The finest grades of tea are produced at high elevations in Ceylon and northeastern India where the plantations often measure up to 2,500 acres or more.

In the foreground of the Museum's diorama are represented extensive fields or tea gardens covering steep hillsides in a landscape which extends for miles to end in distant mountain crags. Through the plantation runs a rapidly-flowing stream, on the near banks of which are located the factory and other buildings necessary for various operations. Between the rows of bushes women are seen at work. On their backs are baskets into which they gather the tea leaves, tossing them over their shoulders. Outside the factory are stacks of chests ready to be transported by ox-carts. A procession of these is seen on the road. To one side is a nursery for the production of young plants to replace old and diseased tea bushes, or for use in extending the plantation.

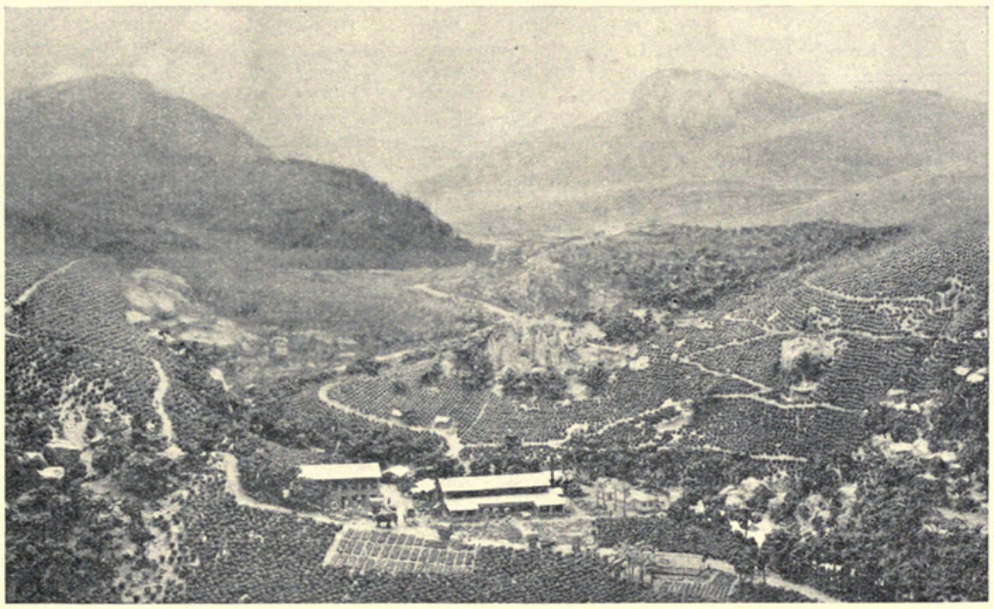
Under natural conditions a tea bush may attain a height of twenty or thirty feet, but in order to produce a size convenient for plucking and increase leaf production, the bushes are pruned every year during the dry season (October to March). In India pruning is done in such a way as to produce bushes with a saucer-shaped top.

The harvest season begins in late March or early April, depending upon the arrival of the monsoon, and lasts through the wet period until the end of September. If the very delicate best quality of tea is required, only the bud and the two youngest leaves are plucked, but if quantity is the aim three or four leaves may be taken. The fresh leaves are transported to the factory after plucking.

Two distinct classes of processed tea are generally recognized, known to the trade as black and green tea. The former is a product of Ceylon, India, the Malay States, and China. Japan and China are almost exclusively the producers of green tea.

In the manufacture of black tea, as soon as the leaves are delivered at the factory, they are withered or wilted on trays for about eighteen hours in a draft of dry cool air. Next, by rolling them on tables they are crushed, and given the characteristic twist found in finished tea. They are then passed through a sifter and graded according to size. The following step, and the one most important in the manufacture of black tea, is to allow the leaves to ferment until the tannin in them becomes sufficiently oxidized to give the proper "body," aroma, and color to the tea infusion. The final operation is to arrest further fermentation by "firing" the leaves in hot air. The finished tea is then sifted into the following grades which descend in quality in the order named: broken orange pekoe, orange pekoe, pekoe, souchongs, and fannings. These are packed separately in 100-pound chests lined with metal sheets, for export to New York, London, and other centers where they are blended before marketing.

In the case of green tea, the fresh leaves are not allowed to wither or ferment, but instead are placed directly in a roasting pan and "fired" at high temperature. Then they are emptied onto a bamboo mat, rolled by hand, and dried over a charcoal fire. Chief grades are hyson and gunpowder from China, pan- and basket-fired from Japan.



Miniature Model of Tea Plantation

A new addition to the economic botany exhibits in Hall 25, showing how tea is grown in Ceylon. The diorama is the work of Preparator John R. Millar and assistants. Staff Artist Charles A. Corwin painted the background.

Brick tea is prepared from the coarser leaves and sometimes the prunings. These are steamed and placed in stacks to induce fermentation. The mass is then sorted, mixed with rice paste, steamed lightly, and pressed into molds. This form is used mostly in China for convenience in handling where transportation of bulky material is difficult, and for the use of travelers.

The use of tea as a beverage is believed to have been known in China prior to the sixth century. In Japan and Malaysia its cultivation was established during the ninth century. Tea first became known in Europe during the sixteenth century but not until the middle of the following century did the English become familiar with the beverage. The importation of tea into North America began toward the close of the eighteenth century. About the middle of the last century experiments were begun in Ceylon and India to cultivate tea on an extensive scale, and since that period the industry has continued to increase. Tea can be grown in some parts of the United States, such as South Carolina, but the development of the industry here is prevented by the low cost of labor in Asia.

The Museum's diorama is the work of Preparator John R. Millar, and has a painted background by Staff Artist Charles A. Corwin. Assistance in the preparation of important details was given by Mr. Adolph Hammer and by several workers assigned to the Museum by the federal Works Progress Administration.

REPLICA OF HUGE DIAMOND

A glass replica of one of the world's largest diamonds, the Jonker, has been presented to the Museum by Mr. Harry Winston, of New York. It is exhibited in H. N. Higinbotham Hall (Hall 31) near a similar replica of the Cullinan diamond.

The Jonker diamond, a flawless, blue-white stone, is an angular fragment from a larger crystal. It weighs in its rough state 726 carats (more than one-quarter of a pound), and measures two and one-half inches by one and three-quarters by one and one-quarter. It ranks somewhere from fourth to sixth in size of known fine diamonds. Jacobus Jonker, a diamond digger, found it January 17, 1934, on his claim on the Elandsfontein farm in the Transvaal, South Africa.