

the first time in public. The sending station was the South Tower of the Crystal Palace, the wave-length employed being 8.3 metres. The quality of the pictures was naturally much inferior to those with which the present-day viewer is familiar: only 120 scanning lines being used as compared with the 400 lines now employed by the British Broadcasting Corporation. The projected picture was twelve feet by nine feet and could be clearly seen by everyone in this large theatre. It was illuminated by a high-intensity arc lamp. The programme included the transmission of fashion plates of ladies hats; the various coloured flowers were quite brilliant and the gaily and variegated headgear sometimes used by officers abroad came out very distinctly. A coloured cartoon of Popeye the Sailor caused much amusement. Colour television is still in the early stages of development, but the transmission was very successful and the unexpected show was well received by the spectators.

THE present apparatus used by Baird Television transmits a 120-line picture, the scanning at both transmitter and receiver being by mechanical means. The transmitter consists of a mirror drum with twenty mirrors inclined at different angles revolving at 6,000 r.p.m. These mirrors reflect the scene to be transmitted through a lens, causing an image to be formed on a rotating disk with twelve concentric slots at different distances from its periphery. By this means the field given by the 20-line drum is interlaced six times to give a 120-line picture repeated twice for each revolution of the disk. Each of the slots is covered with a light filter, blue-green and red being used alternately, the effect of this being to transmit alternate lines of the picture corresponding to a blue-green image and a red image. At the receiving station a similar device is employed, the rotating drum in this case being much larger (12 in. in diameter in place of the 8 in. at the transmitter). Light from a high intensity arc lamp is concentrated on the moving aperture in the disk and yields sufficient light to fill a screen 12 ft. × 9 ft.

Archæological Expedition to Syria

SIR LEONARD AND LADY WOOLLEY, it is announced, are leaving England for Syria, where the British Museum Expedition under Sir Leonard's direction will resume excavations immediately at Tell Atchana in the Amk plain on the Orontes, North Syria. This site, as has been shown by the previous seasons' excavations, has surpassed anticipation in its importance for the cultural relations of Asia and the eastern Mediterranean at an early date. The results which have been obtained already, as has recently been demonstrated by Sir Arthur Evans, when correlated with the information now accruing from the excavations of French archæologists at the Syrian site of Ras Shamra, have already thrown light on chronological and other problems of the Minoan civilization of Crete, as well as indicated the extent of Cretan influence on Asianic culture. The work of the British Museum Expedition in the coming

season will be devoted mainly to the further exploration and clearing of the palace, of which, as was pointed out by Sir Leonard Woolley in his recent lecture before the Royal Institution (see *NATURE*, January 29, p. 194), the architecture both in material and in style is as essentially Cretan as the painted pottery discovered on this site. It is hoped that additions to knowledge of political and social conditions of the time may accrue from further discoveries of the cuneiform tablets, from which it has already been established that the building is a royal palace dating to about 1600 B.C. Sir Leonard Woolley will be accompanied by Mr. P. W. Murray-Threepland, who will again act as his assistant, and by Mr. Ralph Lavers, acting as architect of the expedition, who has had previous experience of archæological investigation at Tell el-Amarna in Egypt and in Crete.

Dynamic Ecology of Sand Dunes

AT the Friday evening discourse at the Royal Institution on February 4, Prof. E. J. Salisbury discussed "Plants of the Sand Dunes and Why They Grow There". Sand dunes are a unique type of habitat. They depend on plants for their development. They show such rapid changes that the dynamic character of communities of plants is here forced upon our notice. Moreover, because a sequence in space corresponds to the sequence of development in time, the nature of these changes can be ascertained with certainty. The pioneer plants are rapidly growing grasses equipped with leaves which are so constructed that they automatically adjust their rate of water loss to the water income. Further, these grasses can endure burial by sand and are indeed stimulated thereby to grow through to the new surface. All these features enable them to endure the desert-like conditions and mobility of their rooting medium. Although the water content of young dunes is less than four per cent, it is maintained at a comparatively constant though low level owing to the occurrence in sunny weather of conditions that promote internal deposition of dew within the dunes. Sand dunes thus illustrate in a striking manner the dynamic character of vegetation and the fallacy of the widespread belief that to preserve a natural area all that is necessary is to leave it alone.

Dublin Zoo and Bird Sanctuary

AT the annual meeting of the Royal Zoological Society of Ireland, held at Dublin on January 26, Lord HolmPatrick was re-elected president, Dr. J. Agar Matson honorary secretary, Mr. Cecil Pim honorary treasurer. It was announced that Dr. B. B. Farrer, superintendent and secretary of Dublin Zoo for the past twenty-six years, is retiring. Dr. Matson reported that during the year 1937 there was an increased attendance at the Zoo of 152,173 visitors as against 151,109 in 1936, receipts having increased from £3,561 to £3,661. Membership increased by 54. The Government's grant of £1,000 was continued and various improvements and works are being carried out, the new bear enclosure now