

Color Light Symphonies

Colored light can be made to sway, blend and sweep over displays, theaters, or buildings by a new control mechanism just perfected, J. L. Stair, Chicago electrical engineer, announced to the Illuminating Engineering Society.

Like a piano player, the color combinations are controlled automatically by a perforated paper roll fed into the machine.

"The dimming of the circuits is accomplished without flicker, and changes in color may be made exactly in a predetermined order," Mr. Stair said. "The fact that the control is based upon electro-pneumatics gives the opportunity for exact, quiet control, practically as subtle as that to be found in the pipe organ.

"As a perforated paper roll passes the openings in a tracker bar, the functions of turning on and off circuits and the operation of the dimmers are automatically performed. The nature of the color combinations may be predetermined and transcribed to the paper roll.

"The machine has great flexibility, inasmuch as all circuits are in no way related. The operation of the dimmer is independent of the electrical circuits, enabling any combination to be pre-set. Further flexibility is obtained by various speed controls, and the use of manual operation by means of a console keyboard."

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Russians Dig at Samarkand

The ancient history of Samarkand, famed city destroyed by the Mongol conqueror Genghis Khan in 1220 A. D., is being dug out of the earth by a Russian archaeological expedition. The present season's work has been completed and nothing more can be accomplished until next spring.

Clay utensils bearing a strong resemblance to Roman vases have been unearthed in the lowest levels of earth reached by the spade. These raise the question of contact between Rome and this eastern center. The finds demonstrate that the city had its origin as far back as the second century. Well preserved houses from a later period, containing coins, lamps, and household utensils, have been excavated. Art panels and reliefs of considerable beauty have been recovered and are now in the Museum of Samarkand.

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Maya Cities Found by Lindbergh—Continued

on only two occasions before this time. In 1926 Dr. Kidder and a companion, J. Eric Thompson, now of the Field Museum, visited the city, and not until last February when Col. Lindbergh located it during a Pan-American Airways trail-blazing flight was it seen again by a white man.

Air travel will become a routine part of the Carnegie Institution's archaeological work in the Maya region as soon as funds can be secured for a light amphibian airplane and equipment, Dr. Kidder indicated on his return to Washington. With the use of Pan American Airways bases at Cozumel Island and Belize, a two-year program of detailed aerial exploration could be carried out for about \$50,000. Col. Lindbergh will act as an advisor to the archaeologists

on the aeronautical aspects of the work.

Landings made on inland lakes and along the coast during the flights demonstrated how the airplane could be used in Middle America to transport archaeologists over distances that would require many days of difficult land travel.

Dr. Oliver Ricketson, Carnegie Institution archaeologist, participated in the flights of the first three days and Dr. Kidder was in the party the last three days. Other members of the party besides the Lindberghs were W. I. Van Dusen, Pan-American Airways official; Charles Lorber, co-pilot, and William Ehmer, radio operator. The flights took place October 6, 7, 8, 9, and 10.

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Telegrams from Lindbergh Plane—Continued

believes this is probably center of some ancient Maya city and both first and second ruins discovered may be part of same city where Mayas neared height of their amazing era which flourished more than thousand years ago.

1:15 P. M.—Northbound again now over trackless bush. Great highway elevated and built out of blocks of solid stone may still lie under the 150 feet of dense jungle below.

1:30 P. M.—Col. Lindbergh now discovered third Maya city to be credited to expedition today. As in previous cases it has sloped hills from highest of which masonry of Mayas shows above jungle and it is an almost perfect square. Santa Cruz Indians below take to cover at sight of the plane. The type of vegetation is changing fast. Numbers of small temples and dwelling mounds are seen to the north.

2:15 P. M.—The crumbling walls of a majestic Maya temple pyramid estimated at 60 to 70 feet in height marked the fourth ancient city found by Col. Lindbergh within past two hours. Dr. Kidder described it as a perfect type of Maya empire edifice. Its original glory was the central part of a flourishing city. The mound was sighted by Col. Lindbergh fully 22 miles away when it was seen on

the horizon. There are no signs of modern human habitation. The ruins are thirty miles north of Santa Cruz.

5:45 P. M.—That section of Quintana Roo indicated by blank on maps because it has never been mapped is likely filled with small mounds, indicating the presence of minor temples, private dwellings and other small buildings. Coba, one of the largest of the ruins, discovered some time ago was re-discovered about 2:45 P. M. Ten minutes later turning toward coast, we sighted Tulum, one of the first coastal ruins to be discovered. It made a beautiful sight from the air with its 25 buildings strung along the seacoast, and grouped about a great square. Col. Lindbergh circled the site three times so that pictures might be taken and then decided to land to allow the party to explore the site at first hand. The rubber boat was inflated and the entire party went ashore. Col. Lindbergh visited every spot on site, showing considerable interest, and Dr. Kidder told history. The tide started coming in during the two and one-half hours stay ashore, and everyone had considerable amusement getting back to plane. Everyone but Mrs. Lindbergh got well soaked, and Dr. Kidder got first rowing lesson on his turn as captain of the Tulum ferry company. We took off for Cozumel Island at 5:34 P. M.

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