Monitoring of Museum Environment Using Telephone Line
-----Pilot Plant for Museum Climate Data Logging and
Analysis System (McdLAS)-----

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This paper describes a new attempt to monitor environmental factors, including temperature, relative humidity, illuminance, carbon dioxide concentration in the exhibition and storage environment of museums. Tests were made as follows: temperature, humidity, and other data, obtained every 20 minutes by sensors installed at fixed observation points in exhibition rooms and other places, were accumulated in the logger, which is a memory device; and the data was then transmitted to a personal computer installed at a distance via the existing internal telephone circuit connecting the computer with the logger.

The data was transmitted accurately via the system, and results were satisfactory. The new system enables detailed observation and the acquisition of new information not detected by conventional methods. Monitoring by conventional automatic recorders required a lot of time to sort and analyze the data; however, the new system substantially reduced the time.

One problem still awaiting solution is the early development of a method to compress and store the growing accumulation of data.