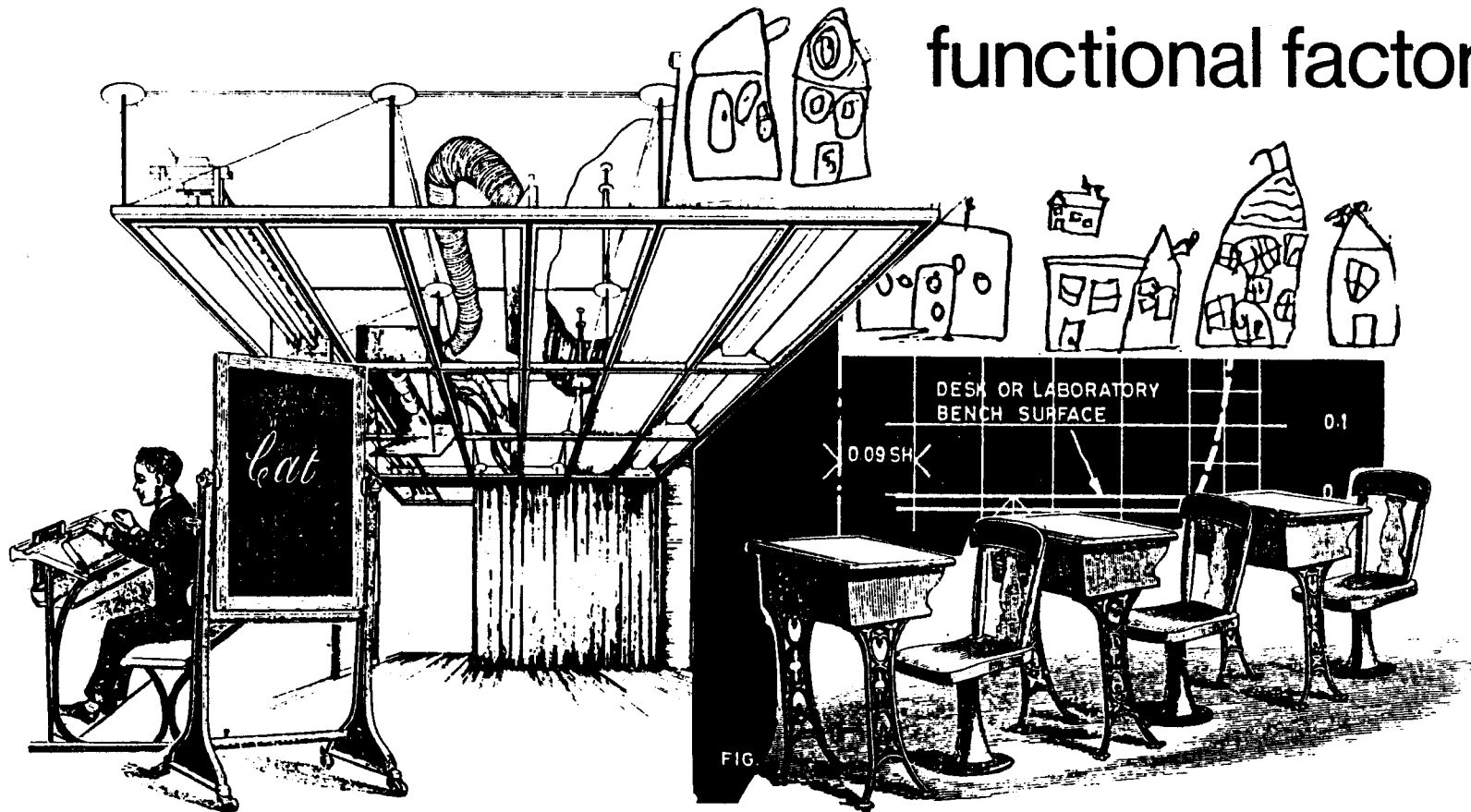


# buildings in use study

functional factors



## INTRODUCTION

Those responsible for buildings rarely examine, in a formal and comprehensive manner, the environment they have helped create. We believe that such examination is, however, the primary method through which better buildings can be created. Thus, what we learn from this study can be used--by clients and architects--in the design of future buildings.

This report is one product of the "Buildings in Use" study. The overall study examines architectural characteristics of existing buildings to determine how they have performed technically and functionally and the relationship between the environment of the building and the behavior of its user population. This working document specifically addresses the functional aspect of the study. Other aspects--technical, field tests --are covered in other reports.

## 'BUILDINGS IN USE' STUDY

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### FUNCTIONAL FACTORS

Functional factors, as we define them, are those aspects of a building that DIRECTLY SUPPORT USER ACTIVITY. For instance, floors, ceilings, or acoustics do not directly support user activity--we consider these the 'background' environment. A blackboard, a closet and an electrical outlet do directly support user activities and performance in elementary schools. Furniture was not included as a part of this study though it is a part of the functional/activity support system.

Functional/activity support systems can be categorized by the scale of the support object. This report is generally organized from small scale items to rooms.

- small built-in components--coat racks, blackboards, bulletin boards
- storage--shelves, cabinets or closets
- entire areas specifically designed for special activities--music, art, library, reading, etc.

For various reasons the architect is primarily concerned with the latter two of the above mentioned areas. Architects' efforts are given to thinking about and shaping spaces to respond to intended usage and to 'servicing' these activities with storage. This effort is evident in the way these areas are configured, the way the 'background' environment--structure, lighting, acoustics--is detailed, the careful thinking about the connections between these areas and the location and design of storage and services for them.

## BUILDINGS IN USE' STUDY

The first category--component scale 'items' of activity support--is usually, though by no means universally handled by choosing catalog, or 'typical', items and 'attaching' them to the room surfaces in a routine manner. This attitude reduces the potential effect of this activity support scale at best and can even result in problems related to correct function. This report documents cases of quite conscientious manipulation of this small scale of activity support to produce behaviors very reinforcing of activity and a more routine attitude which results in potential deficiencies.

### METHODS OF EVALUATION

For each factor discussed we have attempted to use objective measures in examining performance.

- 1) Anthropometric measures: relates to the measured dimensions of the element to the fit to a person's (or a child's) measure.
- 2) Measured use: regularly sampled observations of actual use.
- 3) Questionnaire data
- 4) Photographic documentation
- 5) Unobtrusive measures: ad hoc solutions, physical traces, records.
- 6) Room inventory

The criteria used in analyzing various functional elements are noted in the appropriate sections. If possible criteria are derived from standard sources; however, some criteria were developed from an analysis of observed phenomena.