

Short Corridors

"...long corridors set the scene for everything bad about modern architecture."

Where a number of rooms are to share a circulation path, it is common practice to string them along a straight corridor. However, the intuition persists that, from a human point of view, long corridors with many rooms off them are dysfunctional: People dislike them; they represent bureaucracy and monotony.

Let us try to make this intuition more specific. What evidence is there that long corridors contribute to human uneasiness?

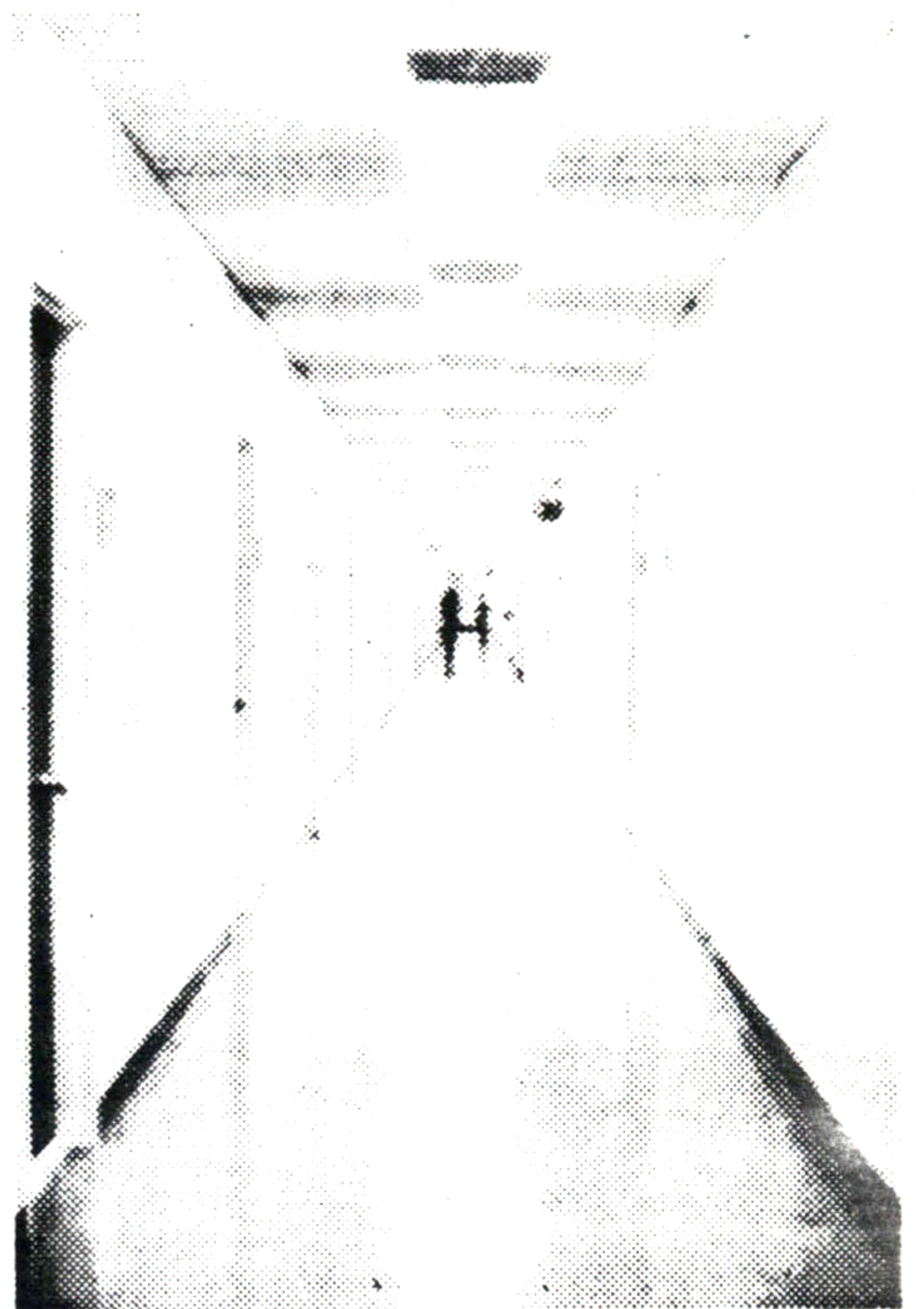
We refer first to a study by Mayer Spivack on non-conscious effects of long hospital corridors on perception, communication and behavior:

"Four examples of long mental hospital corridors are examined. . . It is concluded that such spaces interfere with normal verbal communication due to their characteristic acoustical properties. Optical phenomena common to these passageways obscure the perception of the human figure and face, and distort distance perception. Paradoxical visual cues produced by one tunnel created interrelated, cross-sensory illusions involving room size, distance, walking speed and time. Observations of patient be-

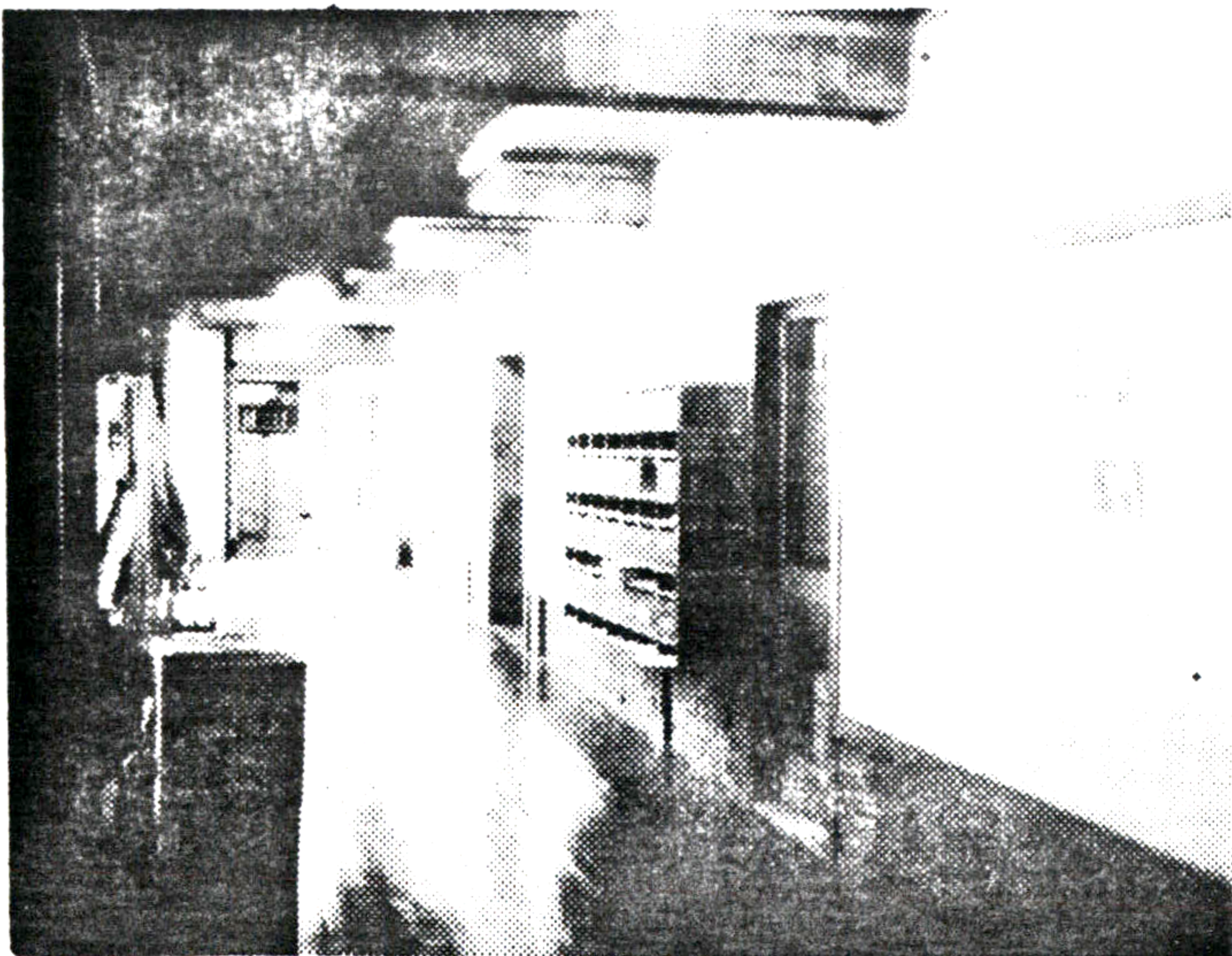
havior suggest the effect of narrow corridors upon anxiety is via the penetration of the personal space envelope." (M. Spivack, "Sensory Distortion in Tunnels and Corridors", *Hospital and Community Psychiatry*, 18, No. 1, January, 1967.)

Another piece of evidence comes from a questionnaire distributed by Silverstein in 1965. The sample was small (12), so the results must be taken with a grain of salt. The questionnaire asked people to describe in depth those elements in buildings that contributed most to impersonal and institutional feelings. Subjects reported experiences with many different building types: army barracks, dormitories, office buildings, government agencies, and so forth. The most recurring theme in their remarks was the unpleasantness associated with long corridors. A typical statement is quoted above, in the headline. (This material is unpublished; for a discussion see *Van der Ryn and Silverstein, Dorms at Berkeley, Center for Planning and Development Research, Berkeley, 1967, pp. 23-24, 62-63.*)

This evidence is speculative; it certainly does not prove the intuition. However, it is extremely suggestive.



If we assume the intuition is correct, then the question arises: how can we establish the upper limit on corridor length? Evidence suggests that there is a definite cognitive breakpoint between things seen as "long corridors". The evidence, which we present on the back, indicates that 50 feet is about the longest unit of corridor length that people feel comfortable with; much beyond 50 feet and the corridor begins to feel monotonous, institutional. (continued over)



Therefore: Make each stretch of corridor less than 50 feet; in effect, this means no more than 5 or 6 units opening off the side of any single stretch of corridor. Break longer corridors into less-than-50-foot units by jogging them, opening one side to a court, widening them into lobbies, etc.

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Problem (continued)

Upper limit for corridor length.

An experiment, done by the authors, is relevant. It was found that, in the perception of rectangles, there is a definite cognitive break between that class of rectangles with ratio 5:1 or less, and that class of rectangles with ratio greater than 5:1. Rectangles from the first class are seen as *rectangles* with a specific proportion. Rectangles from the second class are seen merely as "long thin things".

This result suggests that there may be a clear cognitive distinction between rectangles (and hence, perhaps, corridors) which have a ratio of less than 5:1, and those which have a ratio greater than 5:1. According to this distinction, a corridor 10 feet wide would have an upper limit on its length of 50 feet.

Another suggestive piece of evidence is the following: It is known that when a person sees 4 or 5 regularly spaced objects of the same kind, he perceives them as a *unit*. He can judge their number without counting them. When the number of objects goes above 5 or 6, he no longer sees them as forming a unit. He now sees them as a *collection*. If he wants to estimate their number, he has to count them, one by one, in sequence. At this stage, it seems likely that the feeling of monotony and repetition sets in. In its most extreme form, we may say that the perceiver, faced with a "collection," sees the objects as digits. If the objects were offices along a corridor, then the perceiver would begin to see the offices, and their inhabitants, as digits. (G. Miller, "The Magical Number Seven, Plus or Minus Two: Some Limits on Our Capacity for Processing Information", in D. Beardslee, and M. Wertheimer (Eds.), *Readings in Per-*

ception, New York: Van Nostrand, 1958, esp. p. 104; also E. L. Kaufman, M. W. Lord, T. W. Reese and J. Volkman, "The Discrimination of Visual Number", *American Journal of Psychology*, 62, 1949, pp. 498-525.)

This result suggests that there may be a cognitive distinction between corridors which have five or less equally spaced doors, and those which have more than five.

(As it happens, both of these breakpoints coincide approximately: Given standard corridor widths, and standard office sizes, they both make a distinction between corridors less than 40-50 feet long and those more than 40-50 feet long.) Since common sense indicates that a corridor becomes unpleasant when it has five or more equally spaced doors down one side, and when it is more than five times as long as its width, it is very likely that this breakpoint is the one we are looking for.

Context

Any building with rooms opening off corridors; especially double loaded corridors. (Ron Walkey has pointed out that corridors can be longer than fifty feet provided there is changing visual stimulus on at least one side; for example a single loaded corridor where the unloaded side is full of windows looking onto something interesting.)



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This pattern is tentative. If you have any evidence to support or refute its current formulation, please send it to the Center for Environmental Structure, P.O. Box 5156, Berkeley, California 94705; we will add your comments to the next edition.