

Circulation Realms

In many modern public buildings and in many parts of cities the problem of disorientation is acute. People have no idea where they are, and they experience considerable mental stress as a result.

Kevin Lynch reports:

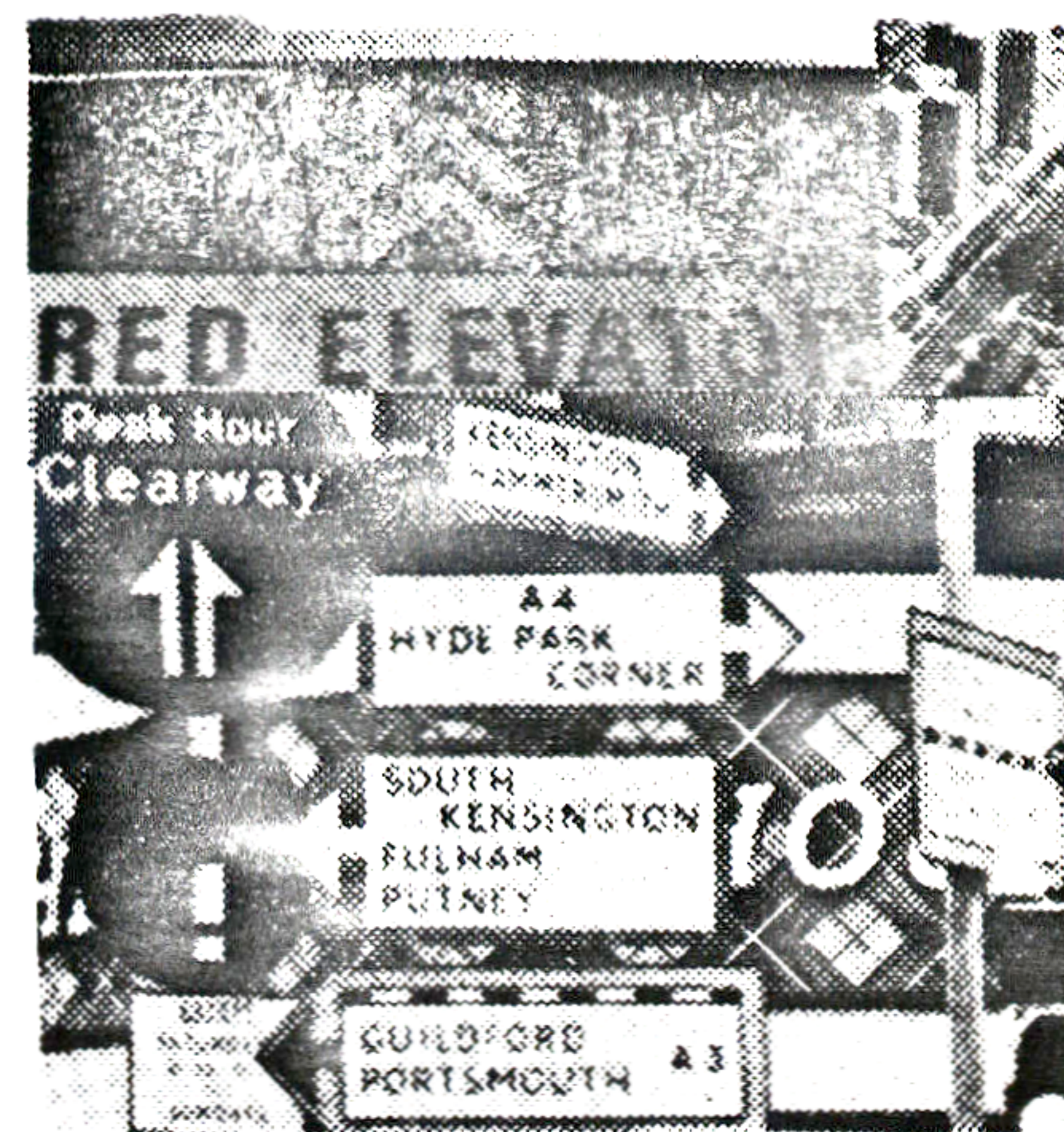
"... the terror of being lost comes from the necessity that a mobile organism be oriented in its surroundings. Jaccard quotes an incident of native Africans who became disoriented. They were stricken with panic and plunged wildly into the bush. Witkin tells of an experienced pilot who lost his orientation to the vertical, and who described it as the most terrifying experience in his life. Many other writers in describing the phenomenon of temporary disorientation in the modern city,

speak of the accompanying emotions of distress."

"The Image of the City", Kevin Lynch, The MIT Press, Cambridge, Massachusetts, 1960, p. 125.

It is clear that a person must be able to orient himself in any environment, building, complex of buildings or city.

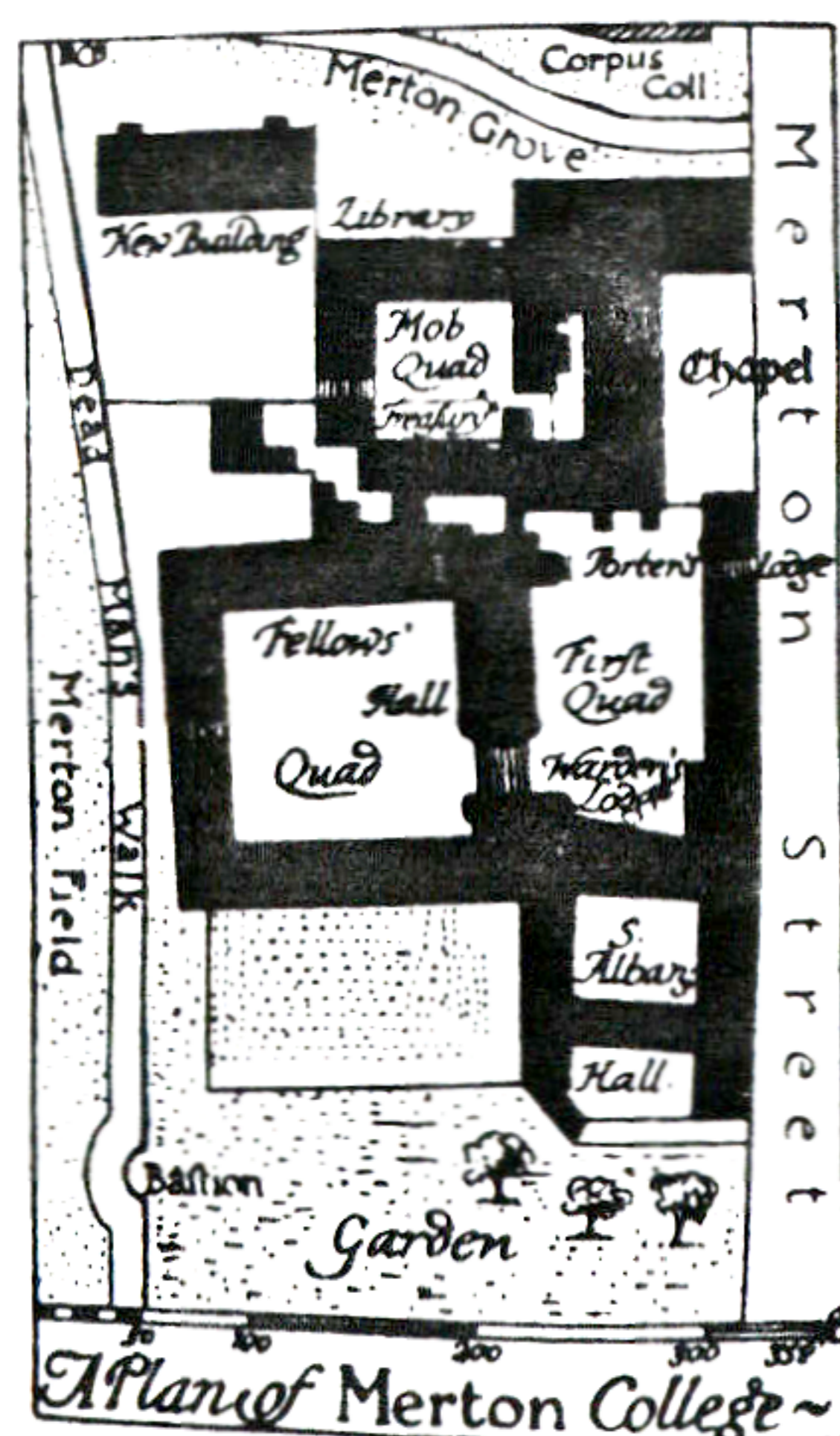
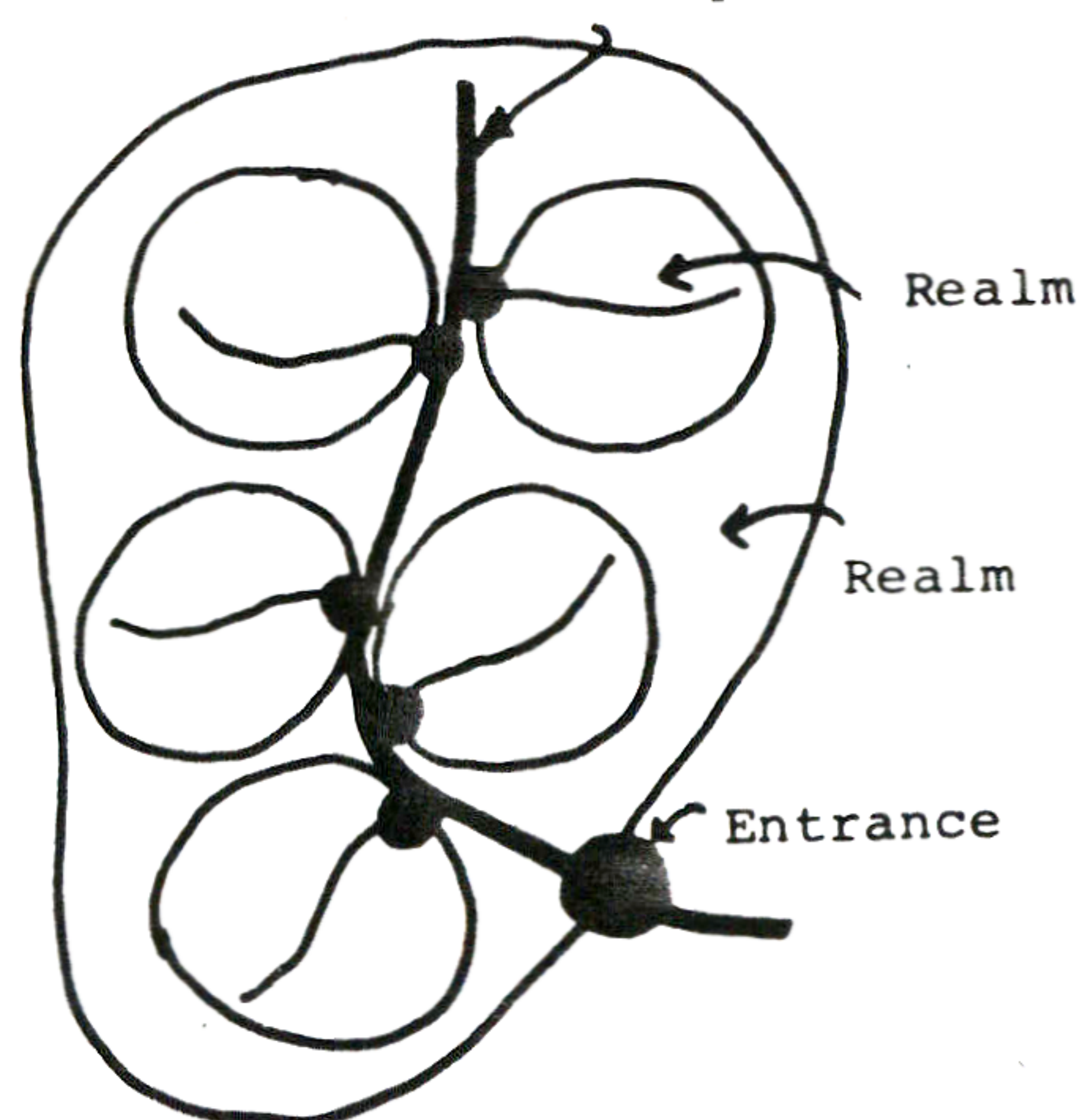
It is easiest to state the circulation problem, for the case of a complete stranger who has to find his way around the complex of buildings.



Imagine yourself as the stranger, looking for a particular address, within the building. From our point of view, the building is easy to grasp, if someone can explain the position of this address to you, in a way that you can remember easily, and carry in your head while you are looking for it. To put this in its most pungent form: *A person must be able to explain any given address within the building, to any other person, who does not know his way around, in one sentence.*

(continued over)

Circulation Space



Therefore: In order to be clear, a building complex must follow four rules:

- 1. It is possible to identify a nested system of realms in the complex, the first and the largest of these realms being the entire complex.*
- 2. Each of these realms has an identity which is so well defined that the realm can have a name. In particular each realm has clearly marked entrances, so that you always know when you are entering or leaving a realm.*
- 3. Each realm has a main circulation space which opens directly from the entrances to that realm.*
- 4. The entrances to any realm, open directly off the circulation space of the next realm above it.*

If a complex of buildings has a nested set of realms, which follow these four rules, it will always be easy to find your way around it. If any one of these four rules is broken, it will be hard to make a simple mental map, for at least some addresses, and therefore hard to find your way around inside the complex.

Circulation Realms

Problem (continued)

At first sight, it might seem that the problem is only important for strangers—since a person who is familiar with a building can find his way around no matter how badly it is organized. However, psychological theory suggests that the effect of badly laid out circulation has almost as bad an effect on a person who knows a building, as it does on a stranger.

We may assume that every time a person goes toward some destination, he must carry some form of map or instructions in his mind. The question arises: How much of the time does he have to be consciously thinking about this map, and his destination? If he spends a great deal of time, looking out for landmarks, thinking about where to go next, etc., then his time is entirely occupied, and leaves him little time for the process of reflection, tranquil contemplation, and thought which are the basic prerequisites for a healthy functioning day. Both in his work, and in his personal emotional life, a person needs a great deal of time to digest the days events; Dream studies, for example, suggest strongly that a person will become more and more disturbed if he is prevented from the constant process of re-evaluation, and chewing over the days activities.

We conclude that any environment which requires that a person pay attention to it constantly is a bad environment; as bad for a person who knows it, as for a stranger. A good environment is one which is easy to understand.

What makes an environment easy to understand? What makes an environment confusing?

Let us imagine that a person is going to a particular address, within a building. Call this address A. The person who is looking for A, or going to A, does not go directly towards A—unless it happens to be visible from the point where he starts. Instead, he sets his journey up to form a series of steps, in which each step is a kind of temporary intermediate goal, and a taking off point for the next step. For example: First go through the gate, then to the second courtyard on the left, then to the right hand arcade of the courtyard, and then through the third door. This sequence: (Gate, Second courtyard, Right hand arcade, Third door) is a kind of map which the person has in his head.

If it is always easy to construct such a map, it is easy to find your way around the building. If it isn't easy, it is hard to find your way around.

What features must a building have, to be sure that it will always be possible to construct such a map? Let us first ask about the characteristics of the map itself.

A map works because it identifies a nested system of realms (in this case Building, Courtyard, Arcade, Place served by the doorway) with the property that you go to the entrance of a realm, then go into a main circulation space associated with that realm, and go from that circulation to the entrance of the next smaller realm. You make one decision at a time, and each decision you make narrows down the extent of the building which remains to be explored, until you finally narrow it down to the particular address you are looking for.

It seems reasonable to say that any useful map through a building complex must have this structure, and that any building complex in which you cannot create maps of this kind is confusing to be in. This is borne out by intuition. Take the following examples. Each of them has a system of realms which allows you to make such maps very easily.

An Oxford College. Here the college is made up of courts, each court has a collection of rooms called a "staircase" opening off it, and the individual suites of rooms open off these staircases. The realms are: College, Courts, Staircases, Rooms.

Manhattan. Here the city is made up of major areas, each major area has certain central streets, and arteries. The realms are: Manhattan, Districts, realms defined by the avenues (1st Avenue for instance) and realms defined by cross streets and individual buildings. Manhattan is clear because the districts are so well defined, and the realms defined by the streets are subordinate to the realms defined by the avenues.

Any simple office building with several floors, and one two-sided corridor. Here the realms are Building, Floors, Offices, the circulation space for the building being lobby and elevators, and the circulation space for each floor being the corridor.

By: Christopher Alexander, Barbara Schreiner and Ronald Walkey.

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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.