

tive, though freer than the Renaissance artists. He does not try to remake nature; yet he somehow manages to convey the impression that you can walk around in his spaces. Paul Klee relates time to space and the dynamic perception of changing space as one moves through it. Chagall, Miró, and Kandinsky all seem to know that pure colors—especially red, blue, and green—come to a focus at different points in reference to the retina and that extreme depth can be achieved with color alone.

In recent years, the sense-rich work of Eskimo artists has been cherished by collectors of modern art, partly because the Eskimo approach is similar in many ways to that of Klee, Picasso, Braque, and Moore. The difference is this: everything the Eskimo does is influenced by his marginal existence and is related to highly specialized adaptations to a hostile, demanding environment which allows almost no margin for error. The modern artists of the West, on the other hand, have through their art begun to consciously mobilize the senses and to eliminate some of the translation processes required by objective art. The art of the Eskimo tells us that he lives in a sense-rich environment. The work of modern artists tells us just the opposite. Perhaps this is the reason why so many people find contemporary art quite disturbing.

One cannot in a few pages do justice to the history of man's growing awareness; first of himself, second of his environment, then of himself scaled to his environment, and finally of the transaction between himself and his environment. It is only possible to sketch in the broad outlines of this story, which demonstrates more and more clearly that man has inhabited many different perceptual worlds and that art constitutes one of the many rich sources of data on human perception. The artist himself, his work, and the study of art in a cross-cultural context all provide valuable information not just of content but even more important of the *structure* of man's different perceptual worlds. Chapter VIII explores the relationship of content and structure and draws examples from another art form, literature, that is also rich in data.

VIII

THE LANGUAGE OF SPACE

Franz Boas was the first anthropologist to emphasize the relationship between language and culture. He did this in the most simple and obvious way, by analyzing the lexicon of two languages, revealing the distinctions made by people of different cultures. For example, to most Americans who are not ski buffs snow is just part of the weather and our vocabulary is limited to two terms, snow and slush. In Eskimo, there are many terms. Each describes snow in a different state or condition, clearly revealing a dependence on an accurate vocabulary to describe not just weather but a major environmental feature. Since Boas' time anthropologists have learned more and more about this most important relationship—language to culture—and they have come to use language data with great sophistication.

Lexical analyses are usually associated with studies of the so-called exotic cultures of the world. Benjamin Lee Whorf, in *Language, Thought, and Reality*, went further than Boas. He suggested that every language plays a prominent part in actually molding the perceptual world of the people who use it.

We dissect nature along lines laid down by our native languages. The categories and types that we isolate from the world of phenomena we do not find there . . . on the contrary, the world is presented in a kaleidoscopic flux of impressions which has to be organized by our minds—and this means largely by the linguistic systems in our minds. We cut nature up, organize it into concepts, and ascribe significances as we do, largely because we are parties to an agreement to organize it in this way—an

agreement that holds throughout our speech community and is codified in the patterns of our language. The agreement is, of course, an implicit and unstated one, *but its terms are absolutely obligatory*; we cannot talk at all except by subscribing to the organization and classification of data which the agreement decrees.

Continuing, Whorf notes points which are significant for modern science.

. . . no individual is free to describe nature with absolute impartiality but is constrained to certain modes of interpretation even while he thinks himself most free. (Italics mine.)

Whorf spent years in the study of Hopi, the language of Indians who live on the northern Arizona desert mesas. Few, if any, white men can claim to have mastered the Hopi language on the highest levels of fluency, though some do better than others. Whorf discovered part of the difficulty when he began to understand the Hopi concepts of time and space. In Hopi, there is no word which is equivalent to "time" in English. Because both time and space are inextricably bound up in each other, elimination of the time dimension alters the spatial one as well. "The Hopi thought world," says Whorf, "has no imaginary space . . . it may not locate thought dealing with real space anywhere but in real space, nor insulate space from the effects of thought." In other words, the Hopi cannot, as we think of it, "imagine" a place such as the missionary's heaven or hell. Apparently, to them there is no abstract space, something which gets filled with objects. Even the spatial imagery of English is foreign to them. To speak of "grasping" a certain "line" of reasoning, or "getting the point" of an argument, is nonsense to the Hopi.

Whorf also compared English and Hopi vocabularies. Even though the Hopi build substantial stone houses, they have a dearth of words for three-dimensional spaces; few equivalents of room, chamber, hall, passage, crypt, cellar, attic, and the like. Furthermore, he noted, "Hopi society does not reveal any individual proprietorship or relationship of rooms." The Hopi concept of a room is apparently somewhat like a small

universe because "hollow spaces like room, chamber, hall are not really named as objects are, but are rather located; i.e., positions of other things are specified so as to show their location in such hollow space."

Antoine de St.-Exupéry wrote and thought in French. Like other writers, he was preoccupied with both language and space and expressed his thoughts concerning the externalizing integrating functions of language in *Flight to Arras*.

What is distance? I know that nothing which truly concerns man is calculable, weighable, measurable. True distance is not the concern of the eye; it is granted only to the spirit. Its value is the value of language, for it is language which binds things together.

Edward Sapir, who was Whorf's teacher and mentor, also speaks with suggestive force about the relation of man to the so-called objective world.

It is quite an illusion to imagine that one adjusts to reality essentially without the use of language and that language is merely an incidental means of solving specific problems of communication or reflection. The fact of the matter is that the "real world" is to a large extent built up on the language habit of the group.

Sapir's and Whorf's influence has extended far beyond the narrow confines of descriptive linguistics and anthropology. It was their thinking that caused me to consult the pocket Oxford dictionary and extract from it all terms referring to space or having spatial connotations, such as: together, distant, over, under, away from, linked, enclosed, room, wander, fell, level, upright, adjacent, congruent, and so on. A preliminary listing uncovered close to five thousand terms that could be classified as referring to space. This is 20 per cent of the words listed in the pocket Oxford dictionary. Even deep familiarity with my own culture had not prepared me for this discovery.

Using the historical approach, the modern French writer Georges Matoré, in *L'Espace Humain*, analyzes metaphors in literary texts as a means of arriving at a concept of what he calls the unconscious geometry of human space. His analysis indicates a great shift from the spatial imagery of the Renais-

sance, which was geometric and intellectual, to an emphasis on the "sensation" of space. Today, the idea of space employs more *movement* and goes beyond the visual to a much deeper sensual space.

LITERATURE AS A KEY TO PERCEPTION

Matoré's analysis of literature is similar in some respect to one I employed in the course of my research. Writers, like painters, are often concerned with space. Their success in communicating perception depends upon the use of visual and other clues to convey *different* degrees of closeness. In light of all that had been done with language, it seemed possible, therefore, that a study of literature might produce data on space perception against which I could check information obtained from other sources. The question I asked myself was whether one could use literary texts as data rather than simply as descriptions. What would be the result if, instead of regarding the author's images as literary conventions, we were to examine them very closely as highly patterned reminder systems which released memories? To do this, it was necessary to study literature, not merely for enjoyment or to grasp the overall theme or plot, but self-consciously in order to identify the crucial components of the message that the author provided the reader to build up his own sensations of space. It must be remembered that communications are on many levels; what is relevant on one level may not be on another. My procedure was to strip out the level that contained references to the sensory data described in Chapters IV, V, and VI. The passages that follow are of necessity taken out of context and therefore lose some of their original meaning. Even so, they reveal how great writers perceive and communicate the meaning and uses of distance as a significant cultural factor in interpersonal relations.

According to Marshall McLuhan, the first use of three-dimensional visual perspective in literature occurred in *King Lear*. Edgar seeks to persuade the blinded Gloucester that they stand atop the cliffs at Dover.

Come on, sir; here's the place: stand still. How fearful
And ~~dear~~ 'tis to cast one's eyes so low!
The crows and choughs that wing the midway air
Show scarce so gross as beetles: half way down
Hangs one that gathers samphire, dread trade!
Methinks he seems no bigger than his head:
The fishermen that walk upon the beach
Appear like mice; and yond tall anchoring bark
Diminish'd to her cock; her cock, a buoy
Almost too small for sight: The murmuring surge,
That on the unnumber'd idle pebbles chafes
Cannot be heard so high. I'll look no more,
Lest my brain turn and the deficient sight
Topple down headlong.

Image is piled on visual image to reinforce the effect of distance seen from a height. The passage comes to a climax with the use of sound or lack of it. At the end, as at the beginning, the sense of dizziness is evoked. The reader almost feels himself sway with Gloucester.

Thoreau's *Walden* was published over a century ago, but it might have been written yesterday.

One inconvenience I sometimes experienced in so small a house, was the difficulty of getting to a sufficient distance from my guest when we began to utter the big thoughts in big words. You want room for your thoughts to get into sailing trim and run a course or two before they make their port. The bullet of your thought must have overcome its lateral and ricochet motion and fallen into its last and steady course before it reaches the ear of the hearer, else it may plough out again through the side of his head. Also our sentences wanted room to unfold and form their columns in the interval. Individuals, like nations, must have suitable broad and natural boundaries, even a considerable neutral ground, between them. . . . In my house we were so near that we could not begin to hear. . . . If we are merely loquacious and loud talkers, then we can afford to stand very near together, cheek by jowl, and feel each other's breath; but if we speak reservedly and thoughtfully we want to be farther apart, that all animal heat and moisture may have a chance to evaporate.

In this one short passage, Thoreau says much that applies to points made elsewhere in this volume. His sensitivity to the need to stay outside the olfactory and thermal zones (the zones within which one can smell breath and feel the heat from another's body), and his pushing against the wall to get more space in which to voice the big thought, point up some of the unconscious distance-sensing and distance-setting mechanisms.

I first read Butler's novel *The Way of All Flesh* as a boy. His vivid spatial images have remained with me ever since. Any writing that stays with a reader for thirty-five years is worth another look, so I reread Butler. The scene is played on a sofa which Christina, Ernest's mother, uses to psychological advantage when sweating confessions out of her son. Christina is speaking to Ernest:

"My dearest boy," began his mother *taking hold of his hand* and placing it within her own, "promise me never to be afraid either of your dear papa or of me; promise me this, my dear, as you love me, promise it to me," and *she kissed him again and again and stroked his hair*. But with her other hand she still kept hold of his; she had got him and she meant to keep him. . . .

"Of your *inner* life, my dear, we know nothing beyond such scraps as we can glean in spite of you, from little things which escape you almost before you know that you have said them."

The boy winced at this. It made him feel *hot and uncomfortable* all over. He knew well how careful he ought to be, and yet, do what he could, from time to time his forgetfulness of the part betrayed him into unreserve. His mother *saw that he winced*, and enjoyed the scratch she had given him. Had she felt less confident of victory, she had better have foregone the pleasure of touching as it were the eyes at the end of the snail's horns in order to enjoy seeing the snail draw them in again—but she knew that when she had got him well down into the sofa, and held his hand, she had the enemy almost absolutely at her mercy, and could do pretty much what she liked. . . . (Italics mine.)

Butler's use of intimate distance is intense and accurate. The effect of physical closeness and contact, the tone of voice,

the hot ~~flash~~ of anxiety, the perception of his wince show how effectively and purposefully Ernest's personal "bubble" had been penetrated.

One of Mark Twain's trademarks was the distortion of space. The reader sees and hears things that are impossible at distances that are impossible. Living on the edge of the Great Plains, Mark Twain was under the expansive influence of the frontier. His images push, pull, stretch, and squeeze until the reader feels giddy. His incredible sense of the spatial paradox is illustrated in *Captain Stormfield's Visit to Heaven*. Captain Stormfield has been on his journey to heaven for thirty years and is describing to his friend Peters a race he had with an uncommonly large comet.

By and by I closed up abreast of his tail. Do you know what it was like? It was like a gnat closing up on the continent of America. I forged along. By and by I had sailed along his coast for a little upwards of a hundred and fifty million miles, and then I could see by the shape of him that I hadn't even got up to his waistband yet.

Then follows a description of the race, the excitement and interest among the "hundred billion passengers" who "swarmed up from below."

Well, sir, I gained and gained, little by little, till at last I went skimming sweetly by the magnificent old conflagration's nose. By this time the captain of the comet had been roused out, and he stood there in the red glare for'ard, by the mate, in his shirtsleeves and slippers, his hair all rats' nests and one suspender hanging, and how sick those two men did look! I just simply couldn't help putting my thumb to my nose as I glided away and singing out:

"Ta-ta! ta-ta! Any word to send to your family?"

Peters, it was a mistake. Yes, sir, I've often regretted that—it was a mistake.

Stripped of the paradoxical there are a number of very real distances and details that can be observed in Mark Twain's account. This is because all descriptions, if they are valid, must maintain a consistency between the details perceived and the distances at which these details can actually

be discerned; the state of disarray of the captain's hair, and the expressions on the mate's and captain's faces. These observations are only possible within the closest range of public distance (Chapter X). Then there is the distance that Stormfield is from Peters, which is quite close.

St.-Exupéry had an exquisite sense of personal and intimate space as well as knowledge of how to use the body and the senses to communicate. In the following passages from *Night Flight* three short sentences describe three senses and as many distances.

Rising, she opened the window and felt the wind on her face. Their room overlooked Buenos Aires. A dance was going on in a house near by and the music came to her upon the wind, for this was the hour of leisure and amusement.

A little later while her husband the aviator still sleeps.

. . . She looked at the strong arms which, in an hour, would decide the fortune of the Europe mail, bearing a high responsibility, like a city's fate.

. . . Wild things they were, those hands of his, and only tamed to tenderness; their real task was dark to her. She knew this man's smile, his gentle ways of love, but not his godlike fury in the storm. She might snare him in a fragile net of music, love and flowers, but, at each departure, he would break forth without, it seemed to her, the least regret. He opened his eyes, "What time is it?" "Midnight."

In *The Trial*, Kafka contrasts northern and southern European behavior. His conventions regarding olfactory distance are revealed in the following passage:

He answered with a few polite formalities which the Italian received with another laugh, meanwhile nervously stroking his bushy iron-grey mustache. This mustache was obviously perfumed; one was almost tempted to go close up and have a sniff at it.

Kafka was very conscious of his *body* and its *space requirements for movement*. His criterion for crowding was set in terms of restrictions on movement.

After taking leave of the Manager he pressed up to K. so close that K. had to push his chair back in order to have any freedom of movement.

. . . K. caught sight of a small side pulpit attached to a pillar almost immediately adjoining the choir. . . . It was so small that from the distance it looked like an empty niche intended for a statue. There was certainly no room for the preacher to *take a full step backwards* from the balustrade. The vaulting of the stone canopy, too, began very low down and curved forward, . . . in such a way that a medium-sized man could not stand upright beneath it but would have to keep leaning over the balustrade. The whole structure was designed to harass the preacher; . . ." (Italics mine.)

Kafka's use of the word "harass" shows awareness of the communicative significance of architecture. His oppressive kinesthetic spaces release in the reader hidden feelings engendered by past architectural harassments, reminding him again that his body is something more than a shell, a passive occupant of x number of cubic feet.

From the Japanese novelist Yasunari Kawabata one gets some of the flavor of Japanese sense modalities. The first scene quoted below is out in the open. The second is more intimate. Shifting sensory involvements and their associated moods characterize this novel.

He had to go to the post office before it closed, he said, and the two of them left the room.

But at the door of the inn he was seduced by the mountain, strong with the smell of new leaves. He started climbing roughly up to it.

When he was pleasantly tired, he turned sharply around and tucking the skirts of his kimono into his obi, he ran headlong back down the slope.

Back in the inn Shimamura, about to return to Tokyo, is talking to his geisha:

. . . as she smiled, she thought of "then" and Shimamura's words gradually colored her whole body. When she bowed her head, . . . he could see that even her back under her kimono was flushed a deep red. Set off

by the color of her hair, the moist sensuous skin was as if laid naked before him.

If one examines literature for structure rather than content, it is possible to find things that will shed light on historical trends and shifts in sense modalities. There is no doubt in my mind but that such shifts are highly relevant to the type of environment that man finds most congenial at different times and for different cultures. Whether I have, with this brief review, made my point—that literature is, in addition to everything else, a source of data on man's use of his senses—remains to be seen. To me at least the historical and cultural differences are quite obvious. These differences may not, however, be equally clear to those who read for content alone.

The next two chapters deal with the same data but from a different point of view; how man structures space as fixed, semifixed, or moving, as well as the several distances he uses in interacting with his fellows. In other words, it describes the building blocks that should be used in designing our homes and our cities.

IX

THE ANTHROPOLOGY OF SPACE: AN ORGANIZING MODEL

Territoriality, spacing, and population control were discussed earlier in this book. *Infraculture* is the term I have applied to behavior on lower organizational levels that underlie culture. It is part of the proxemic classification system and implies a specific set of levels of relationships with other parts of the system. As the reader will remember, the term proxemics is used to define the interrelated observations and theories of man's use of space.

Chapters IV, V, and VI were devoted to the senses, the physiological base shared by all human beings, to which culture gives structure and meaning. It is this *precultural* sensory base to which the scientist must inevitably refer in comparing the proxemic patterns of Culture A with those of Culture B. Thus, we have already considered two proxemic manifestations. One, the *infracultural*, is behavioral and is rooted in man's biological past. The second, *precultural*, is physiological and very much in the present. The third, the *microcultural* level, is the one on which most proxemic observations are made. Proxemics as a manifestation of microculture has three aspects: fixed-feature, semifixed-feature, and informal.

Although proper translation from level to level is ordinarily quite complex, it should be attempted by the scientist from time to time if only for the sake of perspective. Without comprehensive systems of thought which tie levels together, man develops a kind of schizoid detachment and isolation that can be very dangerous. If, for example, civilized man continues to ignore the data obtained on the *infracultural* level about the consequences of crowding, he runs the risk of developing the equivalent of the behavioral sink, if indeed he

has not already done so. The experience of James Island deer chillingly recalls the Black Death which killed off two-thirds of Europe's population in the mid-fourteenth century. Though this great human die-off was due directly to *Bacillus pestis*, the effect was undoubtedly exacerbated by lowered resistance from the stressfully crowded life in medieval towns and cities.

The methodological difficulty in translating from level to level stems from the *essential indeterminacy of culture*, which I discussed in *The Silent Language*. Cultural indeterminacy is a function of the many different levels on which cultural events occur and the fact that it is virtually impossible for an observer to examine simultaneously with equal degrees of precision something occurring on two or more widely separated analytic or behavioral levels. The reader can test this for himself by simply concentrating on the phonetic details of speech (the way sounds actually are made) and at the same time trying to talk eloquently. I do not mean simply to enunciate clearly but to think about where you place your tongue, how you hold your lips, whether your vocal chords are vibrating or not, and how you are breathing with each syllable. The indeterminacy referred to here requires additional comment. All organisms are highly dependent on redundancy; that is, information received from one system is backed up by other systems in case of failure. Man himself is also programmed by culture in a massively redundant way. If he weren't, he could not talk or interact at all; it would take too long. Whenever people talk, they supply only part of the message. The rest is filled in by the listener. Much of what is *not* said is taken for granted. However, cultures vary in what is left unsaid. To an American, it is superfluous to have to indicate to a shoeshine boy the color of the paste to be used. But in Japan, Americans who do not indicate this may send out brown shoes only to have them returned black! The function of the conceptual model and the classification system, therefore, is to make explicit the taken-for-granted parts of communications and to indicate relationships of the parts to each other.

What I learned from my research on the infracultural level was also very helpful in the creation of models for work on the cultural level of proxemics. Contrary to popular belief,

territorial behavior for any given stage of life (such as courting or rearing the young) is quite fixed and rigid. The boundaries of the territories remain reasonably constant, as do the locations for specific activities within the territory, such as sleeping, eating, and nesting. The territory is in every sense of the word an extension of the organism, which is marked by visual, vocal, and olfactory signs. Man has created material extensions of territoriality as well as visible and invisible territorial markers. Therefore, because territoriality is relatively fixed, I have termed this type of space on the proxemic level *fixed-feature space*. The next section will be devoted to fixed-feature space, followed by discussions of semifixed-feature and informal space.

FIXED-FEATURE SPACE

Fixed-feature space is one of the basic ways of organizing the activities of individuals and groups. It includes material manifestations as well as the hidden, internalized designs that govern behavior as man moves about on this earth. Buildings are one expression of fixed-feature patterns, but buildings are also grouped together in characteristic ways as well as being divided internally according to culturally determined designs. The layout of villages, towns, cities, and the intervening countryside is not haphazard but follows a plan which changes with time and culture.

Even the inside of the Western house is organized spatially. Not only are there special rooms for special functions—food preparation, eating, entertaining and socializing, rest, recuperation, and procreation—but for sanitation as well. If, as sometimes happens, either the artifacts or the activities associated with one space are transferred to another space, this fact is immediately apparent. People who “live in a mess” or a “constant state of confusion” are those who fail to classify activities and artifacts according to a uniform, consistent, or predictable spatial plan. At the opposite end of the scale is the assembly line, a precise organization of objects in *time* and *space*.

Actually the present internal layout of the house, which

Americans and Europeans take for granted, is quite recent. As Philippe Ariès points out in *Centuries of Childhood*, rooms had no fixed functions in European houses until the eighteenth century. Members of the family had no privacy as we know it today. There were no spaces that were sacred or specialized. Strangers came and went at will, while beds and tables were set up and taken down according to the moods and appetites of the occupants. Children dressed and were treated as small adults. It is no wonder that the concept of childhood and its associated concept, the nuclear family, had to await the specialization of rooms according to function and the separation of rooms from each other. In the eighteenth century, the house altered its form. In French, *chambre* was distinguished from *salle*. In English, the function of a room was indicated by its name—bedroom, living room, dining room. Rooms were arranged to open into a corridor or hall, like houses into a street. No longer did the occupants pass through one room into another. Relieved of the Grand Central Station atmosphere and protected by new spaces, the family pattern began to stabilize and was expressed further in the form of the house.

× Goffman's *Presentation of Self in Everyday Life* is a detailed, sensitive record of observations on the relationship of the façade that people present to the world and the self they hide behind it. The use of the term façade is in itself revealing. It signifies recognition of levels to be penetrated and hints at the functions performed by architectural features which provide screens behind which to retire from time to time. The strain of keeping up a façade can be great. Architecture can and does take over this burden for people. It can also provide a refuge where the individual can "let his hair down" and be himself.

× The fact that so few businessmen have offices in their homes cannot be solely explained on the basis of convention and top management's uneasiness when executives are not visibly present. I have observed that many men have two or more distinct personalities, one for business and one for the home. The separation of office and home in these instances helps to keep the two often incompatible personalities from conflicting and may even serve to stabilize an idealized version of each

which conforms to the projected image of both architecture and setting.

The relationship of fixed-feature space to personality as well as to culture is nowhere more apparent than in the kitchen. When micropatterns interfere as they do in the kitchen, it is more than just annoying to the women I interviewed. My wife, who has struggled for years with kitchens of all types, comments on male design in this way: "If any of the men who designed this kitchen had ever worked in it, they wouldn't have done it this way." The lack of congruence between the design elements, female stature and body build (women are not usually tall enough to reach things), and the activities to be performed, while not obvious at first, is often beyond belief. The size, the shape, the arrangement, and the placing in the house all communicate to the women of the house how much or how little the architect and designer knew about fixed-feature details.

Man's feeling about being properly oriented in space runs deep. Such knowledge is ultimately linked to survival and sanity. To be disoriented in space is to be psychotic. The difference between acting with reflex speed and having to stop to think in an emergency may mean the difference between life and death—a rule which applies equally to the driver negotiating freeway traffic and the rodent dodging predators. Lewis Mumford observes that the uniform grid pattern of our cities "makes strangers as much at home as the oldest inhabitants." Americans who have become dependent on this pattern are often frustrated by anything different. It is difficult for them to feel at home in European capitals that don't conform to this simple plan. Those who travel and live abroad frequently get lost. An interesting feature of these complaints reveals the relationship of the layout to the person. Almost without exception, the newcomer uses words and tones associated with a personal affront, as though the town held something against him. It is no wonder that people brought up on either the French radiating star or the Roman grid have difficulty in a place like Japan where the entire fixed-feature pattern is basically and radically different. In fact, if one were to set out to design two systems in contrasts, it is hard to see how one could do better. The European systems stress the

lines, which they name; the Japanese treat the intersecting points technically and forget about the lines. In Japan, the intersections but not the streets are named. Houses instead of being related in space are related in time and numbered in the order in which they are built. The Japanese pattern emphasizes hierarchies that grow around centers; the American plan finds its ultimate development in the sameness of suburbia, because one number along a line is the same as any other. In a Japanese neighborhood, the first house built is a constant reminder to the residents of house #20 that #1 was there first.

Some aspects of fixed-feature space are not visible until one observes human behavior. For example, although the separate dining room is fast vanishing from American houses, the line separating the dining area from the rest of the living room is quite real. The invisible boundary which separates one yard from another in suburbia is also a fixed-feature of American culture or at least some of its subcultures.

Architects traditionally are preoccupied with the visual patterns of structures—what one sees. They are almost totally unaware of the fact that people carry around with them internalizations of fixed-feature space learned early in life. It isn't only the Arab who feels depressed unless he has enough space but many Americans as well. As one of my subjects said: "I can put up with almost anything as long as I have large rooms and high ceilings. You see, I was raised in an old house in Brooklyn and I have never been able to accustom myself to anything different." Fortunately, there are a few architects who take the time to discover the internalized fixed-feature needs of their clients. However, the *individual* client is not my primary concern. The problem facing us today in designing and rebuilding our cities is understanding the needs of large numbers of people. We are building huge apartment houses and mammoth office buildings with no understanding of the needs of the occupants.

The important point about fixed-feature space is that it is the mold into which a great deal of behavior is cast. It was this feature of space that the late Sir Winston Churchill referred to when he said: "We shape our buildings and they shape us." During the debate on restoring the House of Com-

mons after the war, Churchill feared that departure from the intimate spatial pattern of the House, where opponents face each other across a narrow aisle, would seriously alter the patterns of government. He may not have been the first to put his finger on the influence of fixed-feature space, but its effects have never been so succinctly stated.

One of the many basic differences between cultures is that they extend different anatomical and behavioral features of the human organism. Whenever there is cross-cultural borrowing, the borrowed items have to be adapted. Otherwise, the new and the old do not match, and in some instances, the two patterns are completely contradictory. For example, Japan has had problems integrating the automobile into a culture in which the lines between points (highways) receive less attention than the points. Hence, Tokyo is famous for producing some of the world's most impressive traffic jams. The automobile is also poorly adapted to India, where cities are physically crowded and the society has elaborate hierarchical features. Unless Indian engineers can design roads that will separate slow pedestrians from fast-moving vehicles, the class-conscious drivers' lack of consideration for the poor will continue to breed disaster. Even Le Corbusier's great buildings at Chandigarh, capital of Punjab, had to be modified by the residents to make them habitable. The Indians walled up Corbusier's balconies, converting them into kitchens! Similarly, Arabs coming to the United States find that their own internalized fixed-feature patterns do not fit American housing. Arabs feel oppressed by it—the ceilings are too low, the rooms too small, privacy from the outside inadequate, and views non-existent.

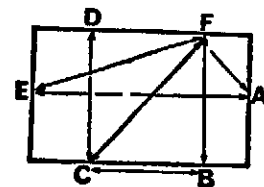
It should not be thought, however, that incongruity between internalized and externalized patterns occurs only between cultures. As our own technology explodes, air conditioning, fluorescent lighting, and soundproofing make it possible to design houses and offices without regard to traditional patterns of windows and doors. The new inventions sometimes result in great barnlike rooms where the "territory" of scores of employees in a "bull pen" is ambiguous.

SEMIFIXED-FEATURE SPACE

Several years ago, a talented and perceptive physician named Humphry Osmond was asked to direct a large health and research center in Saskatchewan. His hospital was one of the first in which the relationship between semifixed-feature space and behavior was clearly demonstrated. Osmond had noticed that some spaces, like railway waiting rooms, tend to keep people apart. These he called sociofugal spaces. Others, such as the booths in the old-fashioned drugstore or the tables at a French sidewalk café, tend to bring people together. These he called sociopetal. The hospital of which he was in charge was replete with sociofugal spaces and had very few which might be called sociopetal. Furthermore, the custodial staff and nurses tended to prefer the former to the latter because they were easier to maintain. Chairs in the halls, which would be found in little circles after visiting hours, would soon be lined up neatly in military fashion, in rows along the walls.

One situation which attracted Osmond's attention was the newly built "model" female geriatrics ward. Everything was new and shiny, neat and clean. There was enough space, and the colors were cheerful. The only trouble was that the longer the patients stayed in the ward, the less they seemed to talk to each other. Gradually, they were becoming like the furniture, permanently and silently glued to the walls at regular intervals between the beds. In addition, they all seemed depressed.

Sensing that the space was more sociofugal than sociopetal, Osmond put a perceptive young psychologist, Robert Sommer, to work to find out as much as he could about the relationship of furniture to conversations. Looking for a natural setting which offered a number of different situations in which people could be observed in conversations, Sommer selected the hospital cafeteria, where 36 by 72-inch tables accommodated six people. As the figure below indicates, these tables provided six different distances and orientations of the bodies in relation to each other.



- F-A* Across the corner
- C-B* Side by side
- C-D* Across the table
- E-A* From one end to the other
- E-F* Diagonally the length of the table
- C-F* Diagonally across the table

Fifty observational sessions in which conversations were counted at controlled intervals revealed that: *F-A* (cross corner) conversations were twice as frequent as the *C-B* (side by side) type, which in turn were three times as frequent as those at *C-D* (across the table). No conversations were observed by Sommer for the other positions. In other words, corner situations with people at right angles to each other produced six times as many conversations as face-to-face situations across the 36-inch span of the table, and twice as many as the side-by-side arrangement.

The results of these observations suggested a solution to the problem of gradual disengagement and withdrawal of the old people. But before anything could be done, a number of preparations had to be made. As everyone knows, people have deep personal feelings about space and furniture arrangements. Neither the staff nor the patients would put up with outsiders "messing around" with their furniture. Osmond, as director, could order anything he wanted done, but he knew the staff would quietly sabotage any arbitrary moves. So the first step was to involve them in a series of "experiments." Both Osmond and Sommer had noted that the ward patients were more often in the *B-C* and *C-D* relationships (side by side and across) than they were in the cafeteria, and they sat at much greater distances. In addition, there was no place to put anything, no place for personal belongings. The only territorial features associated with the patients were the bed and the chair. As a consequence, magazines ended up on

the floor and were quickly swept up by staff members. Enough small tables so that every patient had a place would provide additional territoriality and an opportunity to keep magazines, books, and writing materials. If the tables were square, they would also help to structure relationships between patients so that there was a maximum opportunity to converse.

Once the staff had been cajoled into participating in the experiments, the small tables were moved in and the chairs arranged around them. At first, the patients resisted. They had become accustomed to the placement of "their" chairs in particular spots, and they did not take easily to being moved around by others. By now, the staff was involved to the point of keeping the new arrangement reasonably intact until it was established as an alternative rather than an annoying feature to be selectively inattended. When this point had been reached, a repeat count of conversations was made. The number of conversations had doubled, while reading had tripled, possibly because there was now a place to keep reading material. Similar restructuring of the dayroom met with the same resistances and the same ultimate increase in verbal interaction.

At this point, three things must be said. Conclusions drawn from observations made in the hospital situation just described are not universally applicable. That is, across-the-corner-at-right-angles is conducive *only* to: (a) conversations of certain types between (b) persons in certain relationships and (c) in very restricted cultural settings. Second, what is sociofugal in one culture may be sociopetal in another. Third, sociofugal space is not necessarily bad, nor is sociopetal space universally good. What is desirable is flexibility and congruence between design and function so that there is a variety of spaces, and people can be involved or not, as the occasion and mood demand. The main point of the Canadian experiment for us is its demonstration that the structuring of semifixed-features can have a profound effect on behavior and that this effect is measurable. This will come as no surprise to housewives who are constantly trying to balance the relationship of fixed-feature enclosures to arrangement of their semifixed furniture. Many have had the experience of getting a room nicely arranged, only to find that conversation was impossible if the chairs were left nicely arranged.

It should be noted that what is fixed-feature space in one culture may be semifixed in another, and vice versa. In Japan, for example, the walls are movable, opening and closing as the day's activities change. In the United States, people move from room to room or from one part of a room to another for each different activity, such as eating, sleeping, working, or socializing with relatives. In Japan, it is quite common for the person to remain in one spot while the activities change. The Chinese provide us with further opportunities to observe the diversity of human treatment of space, for they assign to the fixed-feature category certain items which Americans treat as semifixed. Apparently, a guest in a Chinese home *does not move his chair* except at the host's suggestion. To do so would be like going into someone else's home and moving a screen or even a partition. In this sense, the semifixed nature of furniture in American homes is merely a matter of degree and situation. Light chairs are more mobile than sofas or heavy tables. I have noted, however, that some Americans hesitate to adjust furniture in another person's house or office. Of the forty students in one of my classes, half manifested such hesitation.

Many American women know it is hard to find things in someone else's kitchen. Conversely, it can be exasperating to have kitchenware put away by well-meaning helpers who don't know where things "belong." How and where belongings are arranged and stored is a function of microcultural patterns, representative not only of large cultural groups but of the minute variations on cultures that make each individual unique. Just as variations in the quality and use of the voice make it possible to distinguish one person's voice from another, handling of materials also has a characteristic pattern that is unique.

INFORMAL SPACE

We turn now to the category of spatial experience, which is perhaps most significant for the individual because it includes the distances maintained in encounters with others. These distances are for the most part outside awareness. I

have called this category *informal space* because it is unstated, not because it lacks form or has no importance. Indeed, as the next chapter will show, informal spatial patterns have distinct bounds, and such deep, if unvoiced, significance that they form an essential part of the culture. To misunderstand this significance may invite disaster.

X

DISTANCES IN MAN

Some thirty inches from my nose
 The frontier of my Person goes,
 And all the untilled air between
 Is private *pagus* or demesne.
 Stranger, unless with bedroom eyes
 I beckon you to fraternize,
 Beware of rudely crossing it:
 I have no gun, but I can spit.

W. H. AUDEN

"Prologue:

The Birth of Architecture"

Birds and mammals not only have territories which they occupy and defend against their own kind but they have a series of uniform distances which they maintain from each other. Hediger has classified these as flight distance, critical distance, and personal and social distance. Man, too, has a uniform way of handling distance from the fellows. With very few exceptions, flight distance and critical distance have been eliminated from human reactions. Personal distance and social distance, however, are obviously still present.

How many distances do human beings have and how do we distinguish them? What is it that differentiates one distance from the other? The answer to this question was not obvious at first when I began my investigation of distances in man. Gradually, however, evidence began to accumulate indicating that the regularity of distances observed for humans is the consequence of sensory shifts—the type cited in Chapters VII and VIII.

One common source of information about the distance

separating two people is the loudness of the voice. Working with the linguistic scientist George Trager, I began by observing shifts in the voice associated with changes in distance. Since the whisper is used when people are very close, and the shout is used to span great distances, the question Trager and I posed was, How many vocal shifts are sandwiched between these two extremes? Our procedure for discovering these patterns was for Trager to stand still while I talked to him at different distances. If both of us agreed that a vocal shift had occurred, we would then measure the distance and note down a general description. The result was the eight distances described at the end of Chapter Ten in *The Silent Language*.

Further observation of human beings in social situations convinced me that these eight distances were overly complex. Four were sufficient; these I have termed intimate, personal, social, and public (each with its close and far phase). My choice of terms to describe various distances was deliberate. Not only was it influenced by Hediger's work with animals indicating the continuity between *infraculture* and culture but also by a desire to provide a clue as to the types of activities and relationships associated with each distance, thereby linking them in peoples' minds with specific inventories of relationships and activities. It should be noted at this point that *how people are feeling toward each other* at the time is a decisive factor in the distance used. Thus people who are very angry or emphatic about the point they are making will move in close, they "turn up the volume," as it were, by shouting. Similarly—as any woman knows—one of the first signs that a man is beginning to feel amorous is his move closer to her. If the woman does not feel similarly disposed she signals this by moving back.

THE DYNAMISM OF SPACE

In Chapter VII we saw that man's sense of space and distance is not static, that it has very little to do with the single-viewpoint linear perspective developed by the Renaissance artists and still taught in most schools of art and architecture.

Instead, man senses distance as other animals do. His perception of space is dynamic because it is related to action—what can be done in a given space—rather than what is seen by passive viewing.

The general failure to grasp the significance of the many elements that contribute to man's sense of space may be due to two mistaken notions: (1) that for every effect there is a single and identifiable cause; and (2) that man's boundary begins and ends with his skin. If we can rid ourselves of the need for a single explanation, and if we can think of man as surrounded by a series of expanding and contracting fields which provide information of many kinds, we shall begin to see him in an entirely different light. We can then begin to learn about human behavior, including personality types. Not only are there introverts and extroverts, authoritarian and egalitarian, Apollonian and Dionysian types and all the other shades and grades of personality, but each one of us has a number of learned *situational* personalities. The simplest form of the situational personality is that associated with responses to intimate, personal, social, and public transactions. Some individuals never develop the public phase of their personalities and, therefore, cannot fill public spaces; they make very poor speakers or moderators. As many psychiatrists know, other people have trouble with the intimate and personal zones and cannot endure closeness to others.

Concepts such as these are not always easy to grasp, because most of the distance-sensing process occurs outside awareness. We sense other people as close or distant, but we cannot always put our finger on what it is that enables us to characterize them as such. So many different things are happening at once it is difficult to sort out the sources of information on which we base our reactions. Is it tone of voice or stance or distance? This sorting process can be accomplished only by careful observation over a long period of time in a wide variety of situations, making a note of each small shift in information received. For example, the presence or absence of the sensation of warmth from the body of another person marks the line between intimate and non-intimate space. The smell of freshly washed hair and the blurring of another person's features seen close up combine with the

sensation of warmth to create intimacy. By using one's self as a control and recording changing patterns of sensory input it is possible to identify structure points in the distance-sensing system. In effect, one identifies, one by one, the isolates making up the sets that constitute the intimate, personal, social, and public zones.

The following descriptions of the four distance zones have been compiled from observations and interviews with non-contact, middle-class, healthy adults, mainly natives of the northeastern seaboard of the United States. A high percentage of the subjects were men and women from business and the professions; many could be classified as intellectuals. The interviews were effectively neutral; that is, the subjects were not noticeably excited, depressed, or angry. There were no unusual environmental factors, such as extremes of temperature or noise. These descriptions represent only a first approximation. They will doubtless seem crude when more is known about proxemic observation and how people distinguish one distance from another. It should be emphasized that these generalizations are not representative of human behavior in general—or even of American behavior in general—but only of the group included in the sample. Negroes and Spanish Americans as well as persons who come from southern European cultures have very different proxemic patterns.

Each of the four distance zones described below has a near and a far phase, which will be discussed after short introductory remarks. It should be noted that the measured distances vary somewhat with differences in personality and environmental factors. For example, a high noise level or low illumination will ordinarily bring people closer together.

INTIMATE DISTANCE

At intimate distance, the presence of the other person is unmistakable and may at times be overwhelming because of the greatly stepped-up sensory inputs. Sight (often distorted), olfaction, heat from the other person's body, sound, smell, and feel of the breath all combine to signal unmistakable involvement with another body.

Intimate Distance—Close Phase

This is the distance of love-making and wrestling, comforting and protecting. Physical contact or the high possibility of physical involvement is uppermost in the awareness of both persons. The use of their distance receptors is greatly reduced except for olfaction and sensation of radiant heat, both of which are stepped up. In the maximum contact phase, the muscles and skin communicate. Pelvis, thighs, and head can be brought into play; arms can encircle. Except at the outer limits, sharp vision is blurred. When close vision is possible within the intimate range—as with children—the image is greatly enlarged and stimulates much, if not all, of the retina. The detail that can be seen at this distance is extraordinary. This detail plus the cross-eyed pull of the eye muscles provide a visual experience that cannot be confused with any other distance. Vocalization at intimate distance plays a very minor part in the communication process, which is carried mainly by other channels. A whisper has the effect of expanding the distance. The vocalizations that do occur are largely involuntary.

Intimate Distance—Far Phase

(Distance: six to eighteen inches)

Heads, thighs, and pelvis are not easily brought into contact, but hands can reach and grasp extremities. The head is seen as enlarged in size, and its features are distorted. Ability to focus the eye easily is an important feature of this distance for Americans. The iris of the other person's eye seen at about six to nine inches is enlarged to more than life-size. Small blood vessels in the sclera are clearly perceived, pores are enlarged. Clear vision (15 degrees) includes the upper or lower portion of the face, which is perceived as enlarged. The nose is seen as over-large and may look distorted, as will other features such as lips, teeth, and tongue. Peripheral vision (30 to 180 degrees) includes the outline of head and shoulders and very often the hands.

Much of the physical discomfort that Americans experience

when foreigners are inappropriately inside the intimate sphere is expressed as a distortion of the visual system. One subject said, "These people get so close, you're cross-eyed. It really makes me nervous. They put their face so close it feels like they're *inside you*." At the point where sharp focus is lost, one feels the uncomfortable muscular sensation of being cross-eyed from looking at something too close. The expressions "Get your face *out* of mine" and "He shook his fist *in* my face" apparently express how many Americans perceive their body boundaries.

At six to eighteen inches the voice is used but is normally held at a very low level or even a whisper. As Martin Joos, the linguist, describes it, "An intimate utterance pointedly avoids giving the addressee information from outside of the speaker's skin. The point . . . is simply to remind (hardly 'inform') the addressee of some feeling . . . inside the speaker's skin." The heat and odor of the other person's breath may be detected, even though it is directed away from subject's face. Heat loss or gain from other person's body begins to be noticed by some subjects.

The use of intimate distance in public is not considered proper by adult, middle-class Americans even though their young may be observed intimately involved with each other in automobiles and on beaches. Crowded subways and buses may bring strangers into what would ordinarily be classed as intimate spatial relations, but subway riders have defensive devices which take the real intimacy out of intimate space in public conveyances. The basic tactic is to be as immobile as possible and, when part of the trunk or extremities touches another person, withdraw if possible. If this is not possible, the muscles in the affected areas are kept tense. For members of the non-contact group, it is taboo to relax and enjoy bodily contact with strangers! In crowded elevators the hands are kept at the side or used to steady the body by grasping a railing. The eyes are fixed on infinity and are not brought to bear on anyone for more than a passing glance.

It should be noted once more that American proxemic patterns for intimate distance are by no means universal. Even the rules governing such intimacies as touching others cannot be counted on to remain constant. Americans who have had

an opportunity for considerable social interaction with Russians report that many of the features characteristic of American intimate distance are present in Russian social distance. As we shall see in the following chapter, Middle Eastern subjects in public places do not express the outraged reaction to being touched by strangers which one encounters in American subjects.

PERSONAL DISTANCE

"Personal distance" is the term originally used by Hediger to designate the distance consistently separating the members of non-contact species. It might be thought of as a small protective sphere or bubble that an organism maintains between itself and others.

Personal Distance—Close Phase

(Distance: one and a half to two and a half feet)

The kinesthetic sense of closeness derives in part from the possibilities present in regard to what each participant can do to the other with his extremities. At this distance, one can hold or grasp the other person. Visual distortion of the other's features is no longer apparent. However, there is noticeable feedback from the muscles that control the eyes. The reader can experience this himself if he will look at an object eighteen inches to three feet away, paying particular attention to the muscles around his eyeballs. He can feel the pull of these muscles as they hold the two eyes on a single point so that the image of each eye stays in register. Pushing gently with the tip of the finger on the surface of the lower eyelid so that the eyeball is displaced will illustrate clearly the work these muscles perform in maintaining a single coherent image. A visual angle of 15 degrees takes in another person's upper or lower face, which is seen with exceptional clarity. The planes and roundness of the face are accentuated; the nose projects and the ears recede; fine hair of the face, eyelashes, and pores is clearly visible. The three-dimensional quality of objects is particularly pronounced. Objects have roundness, sub-

stance, and form unlike that perceived at any other distance. Surface textures are also very prominent and are clearly differentiated from each other. Where people stand in relation to each other signals their relationship, or how they feel toward each other, or both. A wife can stay inside the circle of her husband's close personal zone with impunity. For another woman to do so is an entirely different story.

Personal Distance—Far Phase

(Distance: two and a half to four feet)

Keeping someone at "arm's length" is one way of expressing the far phase of personal distance. It extends from a point that is just outside easy touching distance by one person to a point where two people can touch fingers if they extend both arms. This is the limit of physical domination in the very real sense. Beyond it, a person cannot easily "get his hands on" someone else. Subjects of personal interest and involvement can be discussed at this distance. Head size is perceived as normal and details of the other person's features are clearly visible. Also easily seen are fine details of skin, gray hair, "sleep" in the eye, stains on teeth, spots, small wrinkles, or dirt on clothing. Foveal vision covers only an area the size of the tip of the nose or one eye, so that the gaze must wander around the face (*where the eye is directed* is strictly a matter of cultural conditioning). Fifteen-degree clear vision covers the upper or lower face, while 180-degree peripheral vision takes in the hands and the whole body of a seated person. Movement of the hands is detected, but fingers can't be counted. The voice level is moderate. No body heat is perceptible. While olfaction is not normally present for Americans, it is for a great many other people who use colognes to create an olfactory bubble. Breath odor can sometimes be detected at this distance, but Americans are generally trained to direct the breath away from others.

SOCIAL DISTANCE

The boundary line between the far phase of personal distance and the close phase of social distance marks, in the words of one subject, the "limit of domination." Intimate visual detail in the face is not perceived, and nobody touches or expects to touch another person unless there is some special effort. Voice level is normal for Americans. There is little change between the far and close phases, and conversations can be overheard at a distance of up to twenty feet. I have observed that in overall loudness, the American voice at these distances is below that of the Arab, the Spaniard, the South Asian Indian, and the Russian, and somewhat above that of the English upper class, the Southeast Asian, and the Japanese.

Social Distance—Close Phase

(Distance: four to seven feet)

Head size is perceived as normal; as one moves away from the subject, the foveal area of the eye can take in an ever-increasing amount of the person. At four feet, a one-degree visual angle covers an area of a little more than one eye. At seven feet the area of sharp focus extends to the nose and parts of both eyes; or the whole mouth, one eye, and the nose are sharply seen. Many Americans shift their gaze back and forth from eye to eye or from eyes to mouth. Details of skin texture and hair are clearly perceived. At a 60-degree visual angle, the head, shoulders, and upper trunk are seen at a distance of four feet; while the same sweep includes the whole figure at seven feet.

Impersonal business occurs at this distance, and in the close phase there is more involvement than in the distant phase. People who work together tend to use close social distance. It is also a very common distance for people who are attending a casual social gathering. To stand and look down at a person at this distance has a domineering effect, as when a man talks to his secretary or receptionist.

Social Distance—Far Phase

(Distance: seven to twelve feet)

This is the distance to which people move when someone says, "Stand away so I can look at you." Business and social discourse conducted at the far end of social distance has a more formal character than if it occurs inside the close phase. Desks in the offices of important people are large enough to hold visitors at the far phase of social distance. Even in an office with standard-size desks, the chair opposite is eight or nine feet away from the man behind the desk. At the far phase of social distance, the finest details of the face, such as the capillaries in the eyes, are lost. Otherwise, skin texture, hair, condition of teeth, and condition of clothes are all readily visible. None of my subjects mentioned heat or odor from another person's body as detectable at this distance. The full figure—with a good deal of space around it—is encompassed in a 60-degree glance. Also, at around twelve feet, feedback from the eye muscles used to hold the eyes inward on a single spot falls off rapidly. The eyes and the mouth of the other person are seen in the area of sharpest vision. Hence, it is not necessary to shift the eyes to take in the whole face. During conversations of any significant length it is more important to maintain visual contact at this distance than it is at closer distance.

Proxemic behavior of this sort is culturally conditioned and entirely arbitrary. It is also binding on all concerned. To fail to hold the other person's eye is to shut him out and bring conversation to a halt, which is why people who are conversing at this distance can be observed craning their necks and leaning from side to side to avoid intervening obstacles. Similarly, when one person is seated and the other is standing, prolonged visual contact at less than ten or twelve feet tires the neck muscles and is generally avoided by subordinates who are sensitive to their employer's comfort. If, however, the status of the two parties is reversed so that the subordinate is seated, the other party may often come closer.

At this distant phase, the voice level is noticeably louder than for the close phase, and it can usually be heard easily

in an ~~adjoining~~ room if the door is open. Raising the voice or shouting can have the effect of reducing social distance to personal distance.

A proxemic feature of social distance (far phase) is that it can be used to insulate or screen people from each other. This distance makes it possible for them to continue to work in the presence of another person without appearing to be rude. Receptionists in offices are particularly vulnerable as most employers expect double duty: answering questions, being polite to callers, as well as typing. If the receptionist is less than ten feet from another person, even a stranger, she will be sufficiently involved to be virtually compelled to converse. If she has more space, however, she can work quite freely without having to talk. Likewise, husbands returning from work often find themselves sitting and relaxing, reading the paper at ten or more feet from their wives, for at this distance a couple can engage each other briefly and disengage at will. Some men discover that their wives have arranged the furniture back-to-back—a favorite sociofugal device of the cartoonist Chick Young, creator of "Blondie." The back-to-back seating arrangement is an appropriate solution to minimum space because it is possible for two people to stay uninvolved if that is their desire.

PUBLIC DISTANCE

Several important sensory shifts occur in the transition from the personal and social distances to public distance, which is well outside the circle of involvement.

Public Distance—Close Phase

(Distance: twelve to twenty-five feet)

At twelve feet an alert subject can take evasive or defensive action if threatened. The distance may even cue a vestigial but subliminal form of flight reaction. The voice is loud but not full-volume. Linguists have observed that a careful choice of words and phrasing of sentences as well as grammatical or syntactic shifts occur at this distance. Martin Joos's choice

of the term "formal style" is appropriately descriptive: "Formal texts . . . demand advance planning . . . the speaker is correctly said to think on his feet." The angle of sharpest vision (one degree) covers the whole face. Fine details of the skin and eyes are no longer visible. At sixteen feet, the body begins to lose its roundness and to look flat. The color of the eyes begins to be imperceptible; only the white of the eye is visible. Head size is perceived as considerably under life-size. The 15-degree lozenge-shaped area of clear vision covers the faces of two people at twelve feet, while 60-degree scanning includes the whole body with a little space around it. Other persons present can be seen peripherally.

Public Distance—Far Phase

(Distance: twenty-five feet or more)

Thirty feet is the distance that is automatically set around important public figures. An excellent example occurs in Theodore H. White's *The Making of the President 1960* when John F. Kennedy's nomination became a certainty. White is describing the group at the "hideaway cottage" as Kennedy entered:

Kennedy loped into the cottage with his light, dancing step, as young and lithe as springtime, and called a greeting to those who stood in his way. Then he seemed to slip from them as he descended the steps of the split-level cottage to a corner where his brother Bobby and brother-in-law Sargent Shriver were chatting, waiting for him. The others in the room surged forward on impulse to join him. Then they halted. A distance of perhaps 30 feet separated them from him, but it was impassable. They stood apart, these older men of long-established power, and watched him. He turned after a few minutes, saw them watching him, and whispered to his brother-in-law. Shriver now crossed the separating space to invite them over. First Averell Harriman; then Dick Daley; then Mike DiSalle, then, one by one, let them all congratulate him. Yet no one could pass the little open distance between him and them uninvited, because there was this thin separation about him, and the knowledge they were there not as his patrons but as his clients. They

could come by invitation only, for this might be a President of the United States.

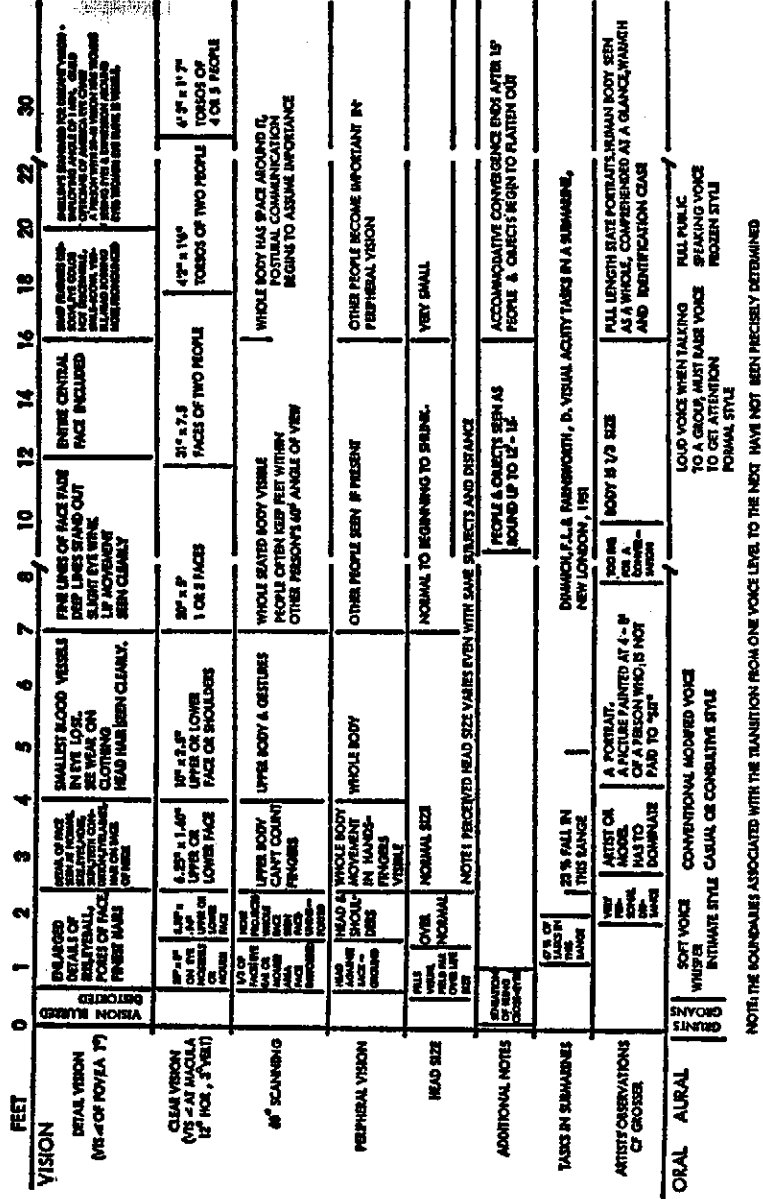
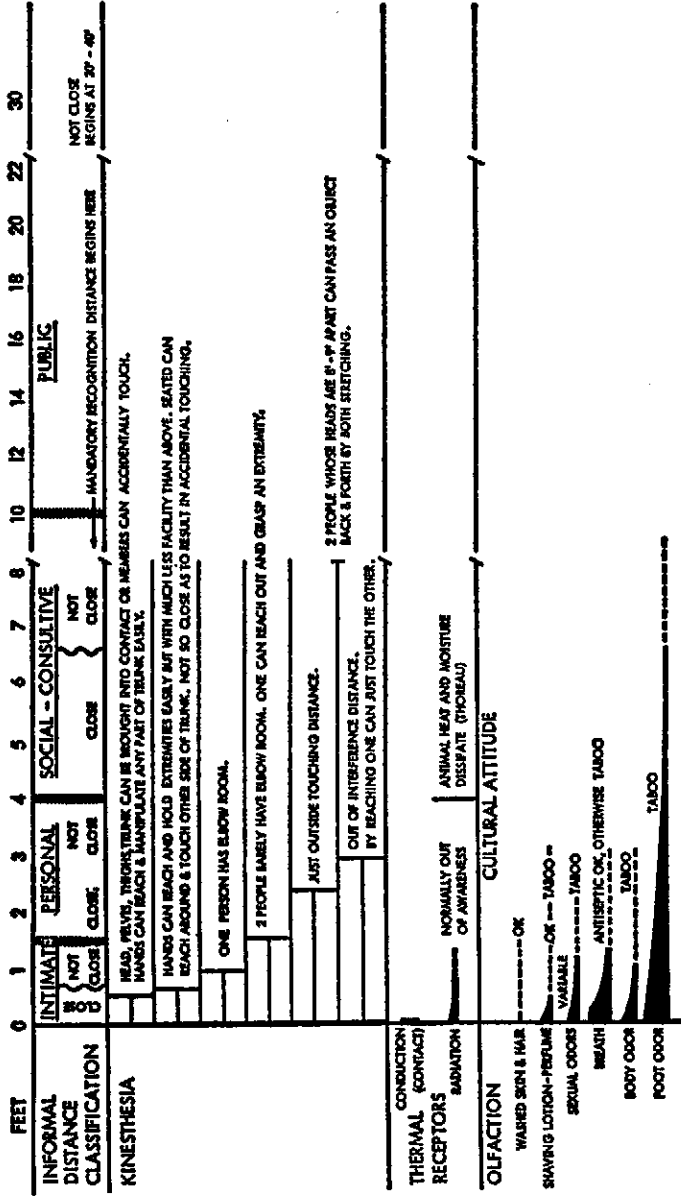
The usual public distance is not restricted to public figures but can be used by anyone on public occasions. There are certain adjustments that must be made, however. Most actors know that at thirty or more feet the subtle shades of meaning conveyed by the normal voice are lost as are the details of facial expression and movement. Not only the voice but everything else must be exaggerated or amplified. Much of the nonverbal part of the communication shifts to gestures and body stance. In addition, the tempo of the voice drops, words are enunciated more clearly, and there are stylistic changes as well. Martin Joos's *frozen style* is characteristic: "Frozen style is for people who are to remain strangers." The whole man may be seen as quite small and he is perceived in a setting. Foveal vision takes in more and more of the man until he is entirely within the small circle of sharpest vision. At which point—when people look like ants—contact with them as human beings fades rapidly. The 60-degree cone of vision takes in the setting while peripheral vision has as its principal function the altering of the individual to movement at the side.

WHY "FOUR" DISTANCES?

In concluding this description of distance zones common to our sample group of Americans a final word about classification is in order. It may well be asked: Why are there four zones, not six or eight? Why set up any zones at all? How do we know that this classification is appropriate? How were the categories chosen?

As I indicated earlier in Chapter VIII, the scientist has a basic need for a classification system, one that is as consistent as possible with the phenomena under observation and one which will hold up long enough to be useful. Behind every classification system lies a theory or hypothesis about the nature of the data and their basic patterns of organization. The hypothesis behind the proxemic classification system is this:

**CHART SHOWING INTERPLAY OF THE DISTANT AND IMMEDIATE RECEPTORS
IN PROXEMIC PERCEPTION**



NOTE: THE SOUNDABLES ASSOCIATED WITH THE TRANSITION FROM ONE VOICE LEVEL TO THE NEXT HAVE NOT BEEN PRECISELY DETERMINED

it is in the nature of animals, including man, to exhibit behavior which we call territoriality. In so doing, they use the senses to distinguish between one space or distance and another. The specific distance chosen depends on the transaction; the relationship of the interacting individuals, how they feel, and what they are doing. The four-part classification system used here is based on observations of both animals and men. Birds and apes exhibit intimate, personal, and social distances just as man does.

Western man has combined consultative and social activities and relationships into one distance set and has added the public figure and the public relationship. "Public" relations and "public" manners as the Europeans and Americans practice them are different from those in other parts of the world. There are implicit obligations to treat total strangers in certain prescribed ways. Hence, we find four principal categories of relationships (intimate, personal, social, and public) and the activities and spaces associated with them. In other parts of the world, relationships tend to fall into other patterns, such as the family/non-family pattern common in Spain and Portugal and their former colonies or the caste and outcast system of India. Both the Arabs and the Jews also make sharp distinctions between people to whom they are related and those to whom they are not. My work with Arabs leads me to believe that they employ a system for the organization of informal space which is very different from what I observed in the United States. The relationship of the Arab peasant or fellah to his sheik or to God is not a public relationship. It is close and personal without intermediaries.

Until recently man's space requirements were thought of in terms of the actual amount of air displaced by his body. The fact that man has around him as extensions of his personality the zones described earlier has generally been overlooked. Differences in the zones—in fact their very existence—became apparent only when Americans began interacting with foreigners who organize their senses differently so that what was intimate in one culture might be personal or even public in another. Thus for the first time the American became aware of his own spatial envelopes, which he had previously taken for granted.

The ability to recognize these various zones of involvement and the activities, relationships, and emotions associated with each has now become extremely important. The world's populations are crowding into cities, and builders and speculators are packing people into vertical filing boxes—both offices and dwellings. If one looks at human beings in the way that the early slave traders did, conceiving of their space requirements simply in terms of the limits of the body, one pays very little attention to the effects of crowding. If, however, one sees man surrounded by a series of invisible bubbles which have measurable dimensions, architecture can be seen in a new light. It is then possible to conceive that people can be cramped by the spaces in which they have to live and work. They may even find themselves forced into behavior, relationships, or emotional outlets that are overly stressful. Like gravity, the influence of two bodies on each other is inversely proportional not only to the square of the distance but possibly even the cube of the distance between them. When stress increases, sensitivity to crowding rises—people get more on edge—so that more and more space is required as less and less is available.

The next two chapters, dealing with proxemic patterns for people of different cultures, are designed to serve a double purpose: first, to shed additional light on our own out-of-awareness patterns and by this means hopefully to contribute to improved design of living and working structures and cities as well; and second, to show the great need for improved intercultural understanding. Proxemic patterns point up in sharp contrast some of the basic differences between people—differences which can be ignored only at great risk. American city planners and builders are now in the process of designing cities in other countries with very little idea of people's spatial needs and practically no inkling that these needs vary from culture to culture. The chances of forcing whole populations into molds that do not fit are very great indeed. Within the United States urban renewal and the many crimes against humanity that are committed in its name usually demonstrate total ignorance of how to create congenial environments for the diverse populations that are pouring into our cities.

XI

PROXEMICS IN A CROSS-CULTURAL CONTEXT: GERMANS, ENGLISH, AND FRENCH

The Germans, the English, the Americans, and the French share significant portions of each other's cultures, but at many points their cultures clash. Consequently, the misunderstandings that arise are all the more serious because sophisticated Americans and Europeans take pride in correctly interpreting each other's behavior. Cultural differences which are out of awareness are, as a consequence, usually chalked up to ineptness, boorishness, or lack of interest on the part of the other person.

THE GERMANS

Whenever people from different countries come into repeated contact they begin to generalize about each other's behavior. The Germans and the German Swiss are no exception. Most of the intellectual and professional people I have talked to from these two countries eventually get around to commenting on American use of time and space. Both the Germans and the German Swiss have made consistent observations about how Americans structure time very tightly and are sticklers for schedules. They also note that Americans don't leave any free time for themselves (a point which has been made by Sebastian de Grazia in *Of Time, Work, and Leisure*).

Since neither the Germans nor the Swiss (particularly the German Swiss) could be regarded as completely casual about time, I have made it a point to question them further about their view of the American approach to time. They will say

that Europeans will schedule fewer events in the same time than Americans do and they usually add that Europeans feel less "pressed" for time than Americans. Certainly, Europeans allow more time for virtually everything involving important human relationships. Many of my European subjects observed that in Europe human relationships are important whereas in the United States the schedule is important. Several of my subjects then took the next logical step and connected the handling of time with attitudes toward space, which Americans treat with incredible casualness. According to European standards, Americans use space in a wasteful way and seldom plan adequately for public needs. In fact, it would seem that Americans feel that people have no needs associated with space at all. By overemphasizing the schedule Americans tend to underemphasize individual space needs. I should mention at this point that all Europeans are not this perceptive. Many of them go no further than to say that in the United States they themselves feel pressured by time and they often complain that our cities lack variety. Nevertheless, given these observations made by Europeans one would expect that the Germans would be more upset by violations of spatial mores than the Americans.

Germans and Intrusions

I shall never forget my first experience with German proxemic patterns, which occurred when I was an undergraduate. My manners, my status, and my ego were attacked and crushed by a German in an instance where thirty years' residence in this country and an excellent command of English had not attenuated German definitions of what constitutes an intrusion. In order to understand the various issues that were at stake, it is necessary to refer back to two basic American patterns that are taken for granted in this country and which Americans therefore tend to treat as universal.

First, in the United States there is a commonly accepted, invisible boundary around any two or three people in conversation which separates them from others. Distance alone serves to isolate any such group and to endow it with a protective wall of privacy. Normally, voices are kept low to

avoid intruding on others and if voices are heard, people will act as though they had not heard. In this way, privacy is granted whether it is actually present or not. The second pattern is somewhat more subtle and has to do with the exact point at which a person is experienced as actually having crossed a boundary and entered a room. Talking through a screen door while standing outside a house is not considered by most Americans as being inside the house or room in any sense of the word. If one is standing on the threshold holding the door open and talking to someone inside, it is still defined informally and experienced as being *outside*. If one is in an office building and just "pokes his head in the door" of an office he's still outside the office. Just holding on to the door-jamb when one's body is inside the room still means a person has one foot "on base" as it were so that he is not quite inside the other fellow's territory. None of these American spatial definitions is valid in northern Germany. In every instance where the American would consider himself *outside* he has already entered the German's territory and by definition would become involved with him. The following experience brought the conflict between these two patterns into focus.

It was a warm spring day of the type one finds only in the high, clean, clear air of Colorado, the kind of day that makes you glad you are alive. I was standing on the doorstep of a converted carriage house talking to a young woman who lived in an apartment upstairs. The first floor had been made into an artist's studio. The arrangement, however, was peculiar because the same entrance served both tenants. The occupants of the apartment used a small entryway and walked along one wall of the studio to reach the stairs to the apartment. You might say that they had an "easement" through the artist's territory. As I stood talking on the doorstep, I glanced to the left and noticed that some fifty to sixty feet away, inside the studio, the Prussian artist and two of his friends were also in conversation. He was facing so that if he glanced to one side he could just see me. I had noted his presence, but not wanting to appear presumptuous or to interrupt his conversation, I unconsciously applied the American rule and assumed that the two activities—my quiet conversation and his conversation—were not involved with each

other. As I was soon to learn, this was a mistake, because in less time than it takes to tell, the artist had detached himself from his friends, crossed the intervening space, pushed my friend aside, and with eyes flashing, started shouting at me. By what right had I entered his studio without greeting him? Who had given me permission?

I felt bullied and humiliated, and even after almost thirty years, I can still feel my anger. Later study has given me greater understanding of the German pattern and I have learned that in the German's eyes I really had been intolerably rude. I was already "inside" the building and I intruded when I could see inside. For the German, there is no such thing as being inside the room without being inside the zone of intrusion, particularly if one looks at the other party, no matter how far away.

Recently, I obtained an independent check on how Germans feel about visual intrusion while investigating what people look at when they are in intimate, personal, social, and public situations. In the course of my research, I instructed subjects to photograph separately both a man and a woman in each of the above contexts. One of my assistants, who also happened to be German, photographed his subjects out of focus at public distance because, as he said, "You are not really supposed to look at other people at public distances *because it's intruding.*" This may explain the informal custom behind the German laws against photographing strangers in public without their permission.

The "Private Sphere"

Germans sense their own space as an extension of the ego. One sees a clue to this feeling in the term "Lebensraum," which is impossible to translate because it summarizes so much. Hitler used it as an effective psychological lever to move the Germans to conquest.

In contrast to the Arab, as we shall see later, the German's ego is extraordinarily exposed, and he will go to almost any length to preserve his "private sphere." This was observed during World War II when American soldiers were offered opportunities to observe German prisoners under a variety of

circumstances. In one instance in the Midwest, German P.W.s were housed four to a small hut. As soon as materials were available, each prisoner built a partition so that he could have *his own space*. In a less favorable setting in Germany when the *Wehrmacht* was collapsing, it was necessary to use open stockades because German prisoners were arriving faster than they could be accommodated. In this situation each soldier who could find the materials built his own tiny dwelling unit, sometimes no larger than a foxhole. It puzzled the Americans that the Germans did not pool their efforts and their scarce materials to create a larger, more efficient space, particularly in view of the very cold spring nights. Since that time I have observed frequent instances of the use of architectural extensions of this need to screen the ego. German houses with balconies are arranged so that there is visual privacy. Yards tend to be well fenced; but fenced or not, they are sacred.

The American view that space should be shared is particularly troublesome to the German. I cannot document the account of the early days of World War II occupation when Berlin was in ruins but the following situation was reported by an observer and it has the nightmarish quality that is often associated with inadvertent cross-cultural blunders. In Berlin at that time the housing shortage was indescribably acute. To provide relief, occupation authorities in the American zone ordered those Berliners who still had kitchens and baths intact to share them with their neighbors. The order finally had to be rescinded when the already overstressed Germans started killing each other over the shared facilities.

Public and private buildings in Germany often have double doors for soundproofing, as do many hotel rooms. In addition, the door is taken very seriously by Germans. Those Germans who come to America feel that our doors are flimsy and light. The meanings of the open door and the closed door are quite different in the two countries. In offices, Americans keep doors open; Germans keep doors closed. In Germany, the closed door does not mean that the man behind it wants to be alone or undisturbed, or that he is doing something he doesn't want someone else to see. It's simply that Germans think that open doors are sloppy and disorderly.

To close the door preserves the integrity of the room and provides a protective boundary between people. Otherwise, they get too involved with each other. One of my German subjects commented, "If our family hadn't had doors, we would have had to change our way of life. Without doors we would have had many, many more fights. . . . When you can't talk, you retreat behind a door. . . . If there hadn't been doors, I would always have been within reach of my mother."

Whenever a German warms up to the subject of American enclosed space, he can be counted on to comment on the noise that is transmitted through walls and doors. To many Germans, our doors epitomize American life. They are thin and cheap; they seldom fit; and they lack the substantial quality of German doors. When they close they don't sound and feel solid. The click of the lock is indistinct, it rattles and indeed it may even be absent.

The open-door policy of American business and the closed-door patterns of German business culture cause clashes in the branches and subsidiaries of American firms in Germany. The point seems to be quite simple, yet failure to grasp it has caused considerable friction and misunderstanding between American and German managers overseas. I was once called in to advise a firm that has operations all over the world. One of the first questions asked was, "How do you get the Germans to keep their doors open?" In this company the open doors were making the Germans feel exposed and gave the whole operation an unusually relaxed and unbusinesslike air. Closed doors, on the other hand, gave the Americans the feeling that there was a conspiratorial air about the place and that they were being left out. The point is that whether the door is open or shut, it is not going to mean the same thing in the two countries.

Order in Space

The orderliness and hierarchical quality of German culture are communicated in their handling of space. Germans want to know where they stand and object strenuously to people crashing queues or people who "get out of line" or who do

not obey signs such as "Keep out," "Authorized personnel only," and the like. Some of the German attitudes toward ourselves are traceable to our informal attitudes toward boundaries and to authority in general.

However, German anxiety due to American violations of order is nothing compared to that engendered in Germans by the Poles, who see no harm in a little disorder. To them lines and queues stand for regimentation and blind authority. I once saw a Pole crash a cafeteria line just "to stir up those sheep."

Germans get very technical about intrusion distance, as I mentioned earlier. When I once asked my students to describe the distance at which a third party would intrude on two people who were talking, there were no answers from the Americans. Each student knew that he could tell when he was being intruded on but he couldn't define intrusion or tell how he knew when it had occurred. However, a German and an Italian who had worked in Germany were both members of my class and they answered without any hesitation. Both stated that a third party would intrude on two people if he came within seven feet!

Many Americans feel that Germans are overly rigid in their behavior, unbending and formal. Some of this impression is created by differences in the handling of chairs while seated. The American doesn't seem to mind if people hitch their chairs up to adjust the distance to the situation—those that do mind would not think of saying anything, for to comment on the manners of others would be impolite. In Germany, however, it is a violation of the mores to change the position of your chair. An added deterrent for those who don't know better is the weight of most German furniture. Even the great architect Mies van der Rohe, who often rebelled against German tradition in his buildings, made his handsome chairs so heavy that anyone but a strong man would have difficulty in adjusting his seating position. To a German, light furniture is anathema, not only because it seems flimsy but because people move it and thereby destroy the order of things, including intrusions on the "private sphere." In one instance reported to me, a German newspaper editor who had moved to the United States had his visitor's chair bolted to the floor

"at the proper distance" because he couldn't tolerate the American habit of adjusting the chair to the situation.

THE ENGLISH

It has been said that the English and the Americans are two great people separated by one language. The differences for which language gets blamed may not be due so much to words as to communications on other levels beginning with English intonation (which sounds affected to many Americans) and continuing to ego-linked ways of handling time, space, and materials. If there ever were two cultures in which differences of the proxemic details are marked it is in the educated (public school) English and the middle-class Americans. One of the basic reasons for this wide disparity is that in the United States we use space as a way of classifying people and activities, whereas in England it is the social system that determines who you are. In the United States, your address is an important cue to status (this applies not only to one's home but to the business address as well). The Joneses from Brooklyn and Miami are not as "in" as the Joneses from Newport and Palm Beach. Greenwich and Cape Cod are worlds apart from Newark and Miami. Businesses located on Madison and Park avenues have more tone than those on Seventh and Eighth avenues. A corner office is more prestigious than one next to the elevator or at the end of a long hall. The Englishman, however, is born and brought up in a social system. He is still Lord — no matter where you find him, even if it is behind the counter in a fishmonger's stall. In addition to class distinctions, there are differences between the English and ourselves in how space is allotted.

The middle-class American growing up in the United States feels he has a right to have his own room, or at least part of a room. My American subjects, when asked to draw an ideal room or office, invariably drew it for themselves and no one else. When asked to draw their present room or office, they drew only their own part of a shared room and then drew a line down the middle. Both male and female subjects identified the kitchen and the master bedroom as belonging to the mother

or the wife, whereas Father's territory was a study or a den, if one was available; otherwise, it was "the shop," "the basement," or sometimes only a workbench or the garage. American women who want to be alone can go to the bedroom and close the door. The closed door is the sign meaning "Do not disturb" or "I'm angry." An American is available if his door is open at home or at his office. He is expected not to shut himself off but to maintain himself in a state of constant readiness to answer the demands of others. Closed doors are for conferences, private conversations, and business, work that requires concentration, study, resting, sleeping, dressing, and sex.

The middle- and upper-class Englishman, on the other hand, is brought up in a nursery shared with brothers and sisters. The oldest occupies a room by himself which he vacates when he leaves for boarding school, possibly even at the age of nine or ten. The difference between a room of one's own and early conditioning to shared space, while seeming inconsequential, has an important effect on the Englishman's attitude toward his own space. He may never have a permanent "room of his own" and seldom expects one or feels he is entitled to one. Even Members of Parliament have no offices and often conduct their business on the terrace overlooking the Thames. As a consequence, the English are puzzled by the American need for a secure place in which to work, an office. Americans working in England may become annoyed if they are not provided with what they consider appropriate enclosed work space. In regard to the need for walls as a screen for the ego, this places the Americans somewhere between the Germans and the English.

The contrasting English and American patterns have some remarkable implications, particularly if we assume that man, like other animals, has a built-in need to shut himself off from others from time to time. An English student in one of my seminars typified what happens when hidden patterns clash. He was quite obviously experiencing strain in his relationships with Americans. Nothing seemed to go right and it was quite clear from his remarks that we did not know how to behave. An analysis of his complaints showed that a major source of irritation was that no American seemed to be able to pick

up the subtle clues that there were times when he didn't want his thoughts intruded on. As he stated it, "I'm walking around the apartment and it seems that whenever I want to be alone my roommate starts talking to me. Pretty soon he's asking 'What's the matter?' and wants to know if I'm angry. By then I am angry and say something."

It took some time but finally we were able to identify most of the contrasting features of the American and British problems that were in conflict in this case. When the American wants to be alone he goes into a room and shuts the door—he depends on architectural features for screening. For an American to refuse to talk to someone else present in the same room, to give them the "silent treatment," is the ultimate form of rejection and a sure sign of great displeasure. The English, on the other hand, lacking rooms of their own since childhood, never developed the practice of using space as a refuge from others. They have in effect internalized a set of barriers, which they erect and which others are supposed to recognize. Therefore, the more the Englishman shuts himself off when he is with an American the more likely the American is to break in to assure himself that all is well. Tension lasts until the two get to know each other. The important point is that the spatial and architectural needs of each are not the same at all.

Using the Telephone

English internalized privacy mechanisms and the American privacy screen result in very different customs regarding the telephone. There is no wall or door against the telephone. Since it is impossible to tell from the ring who is on the other end of the line, or how urgent his business is, people feel compelled to answer the phone. As one would anticipate, the English when they feel the need to be with their thoughts treat the phone as an intrusion by someone who doesn't know any better. Since it is impossible to tell how preoccupied the other party will be they hesitate to use the phone; instead, they write notes. To phone is to be "pushy" and rude. A letter or telegram may be slower, but it is much less disrupting. Phones are for actual business and emergencies.

I used this system myself for several years when I lived in Santa Fe, New Mexico, during the depression. I dispensed with a phone because it cost money. Besides, I cherished the quiet of my tiny mountainside retreat and didn't want to be disturbed. This idiosyncrasy on my part produced a shocked reaction in others. People really didn't know what to do with me. You could see the consternation on their faces when, in answer to the question, "How do I get in touch with you?" I would reply, "Write me a post card. I come to the post office every day."

Having provided most of our middle-class citizens with private rooms and escape from the city to the suburbs, we have then proceeded to penetrate their most private spaces in their home with a most public device, the telephone. Anyone can reach us at any time. We are, in fact, so available that elaborate devices have to be devised so that busy people can function. The greatest skill and tact must be exercised in the message-screening process so that others will not be offended. So far our technology has not kept up with the needs of people to be alone with either their families or their thoughts. The problem stems from the fact that it is impossible to tell from the phone's ring who is calling and how urgent his business is. Some people have unlisted phones but then that makes it hard on friends who come to town who want to get in touch with them. The government solution is to have special phones for important people (traditionally red). The red line bypasses secretaries, coffee breaks, busy signals, and teen-agers, and is connected to White House, State Department, and Pentagon switchboards.

Neighbors

Americans living in England are remarkably consistent in their reactions to the English. Most of them are hurt and puzzled because they were brought up on American neighboring patterns and don't interpret the English ones correctly. In England propinquity means nothing. The fact that you live next door to a family does not entitle you to visit, borrow from, or socialize with them, or your children to play with theirs. Accurate figures on the number of Americans who adjust well

to the English are difficult to obtain. The basic attitude of the English toward the Americans is tinged by our ex-colonial status. This attitude is much more in awareness and therefore more likely to be expressed than the unspoken right of the Englishman to maintain his privacy against the world. To the best of my knowledge, those who have tried to relate to the English purely on the basis of propinquity seldom if ever succeed. They may get to know and even like their neighbors, but it won't be because they live next door, because English relationships are patterned not according to space but according to social status.

Whose Room Is the Bedroom?

In upper middle-class English homes, it is the man, not the woman, who has the privacy of the bedroom, presumably as protection from children who haven't yet internalized the English patterns of privacy. The man, not the woman, has a dressing room; the man also has a study which affords privacy. The Englishman is fastidious about his clothes and expects to spend a great deal of time and attention in their purchase. In contrast, English women approach the buying of clothes in a manner reminiscent of the American male.

Talking Loud and Soft

Proper spacing between people is maintained in many ways. Loudness of the voice is one of the mechanisms which also varies from culture to culture. In England and in Europe generally, Americans are continually accused of loud talking, which is a function of two forms of vocal control: (a) loudness, and (b) modulation for direction. Americans increase the volume as a function of distance, using several levels (whisper, normal voice, loud shout, etc.). In many situations, the more gregarious Americans do not care if they can be overheard. In fact, it is part of their openness showing that we have nothing to hide. The English do care, for to get along without private offices and not intrude they have developed skills in beaming the voice toward the person they are talking to, carefully adjusting it so that it just barely overrides the

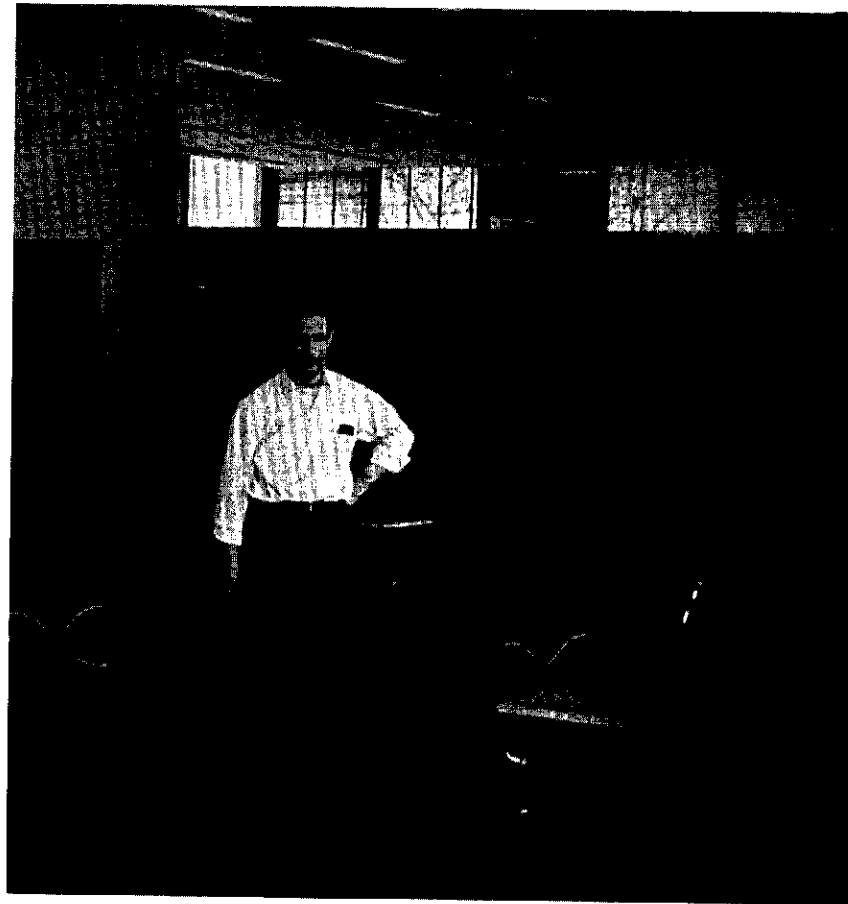


PLATE 12 shows the subject photographed at social distance. The full figure is visible but at the far phase of social distance the finest details of the face, such as the capillaries in the eyes, are lost.



PLATES 13 AND 14. Furniture arrangement in public places has a distinct relationship to the degree of conversation. Some spaces such as railway waiting rooms in which the seating provisions are formally arranged in fixed rows, tend to discourage conversation (sociofugal spaces). Others such as the tables in a European sidewalk cafe, tend to bring people together (sociopetal spaces).



PLATES 15 AND 16. Fixed-feature space describes the material objects and internalized design of rooms and buildings that govern human behavior. These two views of an over-crowded, poorly planned kitchen illustrate the frequent lack of congruence in modern building between design elements and the activities to be performed.

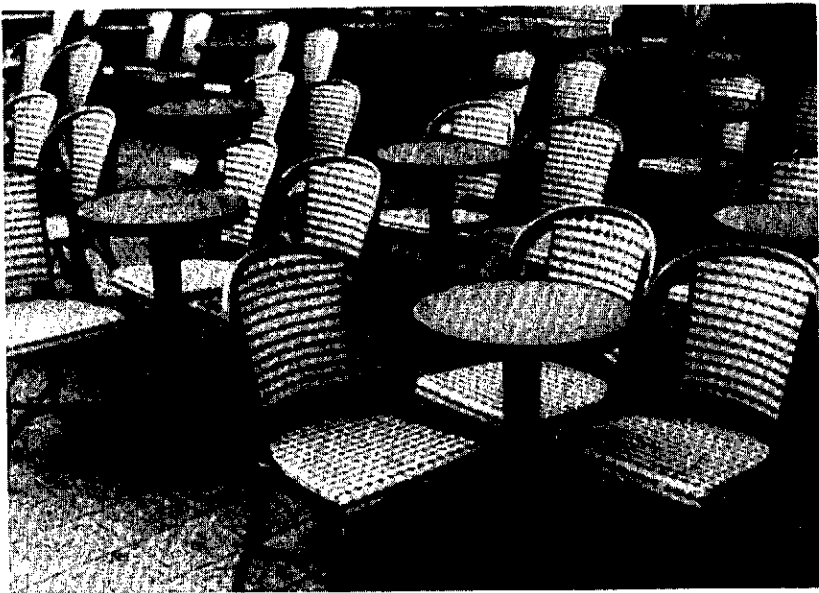




PLATE 17. San Marco Square in Venice is widely recognized as an ideal example of the successful enclosure of a large space. The freedom and relaxation these people obviously feel convey the sense of a space that is both exciting and comfortable.



PLATE 18. Sculpture adds a dimension to space, particularly if it can be felt, rubbed, patted, leaned against or climbed upon.



PLATES 19 AND 20. Proxemic patterns are often excellent clues to cultural differences. These two French scenes, showing the crowded spacing of cafe tables and a crowd of persons listening to an outdoor talk, indicate the French tendency to pack together more closely than do northern Europeans, English, and Americans, and suggest the resulting high sensory involvement evident in many aspects of French life.



PLATE 21. Japanese use and arrangement of space is beautifully illustrated by the fifteenth-century Zen monastery garden of Ryoanji outside the old capital of Kyoto. The placement of fifteen rocks rising from a sea of crushed gravel suggests the Japanese employment of all the senses in the perception of space and the tendency to lead the individual to a spot where he can discover something for himself, a tendency reflected in other areas of Japanese life as well.

background noise and distance. For the English to be overheard is to intrude on others, a failure in manners and a sign of socially inferior behavior. However, because of the way they modulate their voices the English in an American setting may sound and look conspiratorial to Americans, which can result in their being branded as troublemakers.

Eye Behavior

A study of eye behavior reveals some interesting contrasts between the two cultures. Englishmen in this country have trouble not only when they want to be alone and shut themselves off but also when they want to interact. They never know for sure whether an American is listening. We, on the other hand, are equally unsure as to whether the English have understood us. Many of these ambiguities in communication center on differences in the use of the eyes. The Englishman is taught to pay strict attention, to listen carefully, which he must do if he is polite and there are not protective walls to screen out sound. He doesn't bob his head or grunt to let you know he understands. He blinks his eyes to let you know that he has heard you. Americans, on the other hand, are taught not to stare. We look the other person straight in the eye without wavering only when we want to be particularly certain that we are getting through to him.

The gaze of the American directed toward his conversational partner often wanders from one eye to the other and even leaves the face for long periods. Proper English listening behavior includes immobilization of the eyes at social distance, so that whichever eye one looks at gives the appearance of looking straight at you. In order to accomplish this feat, the Englishman must be eight or more feet away. He is too close when the 12-degree horizontal span of the macula won't permit a steady gaze. At less than eight feet, one *must* look at either one eye or the other.

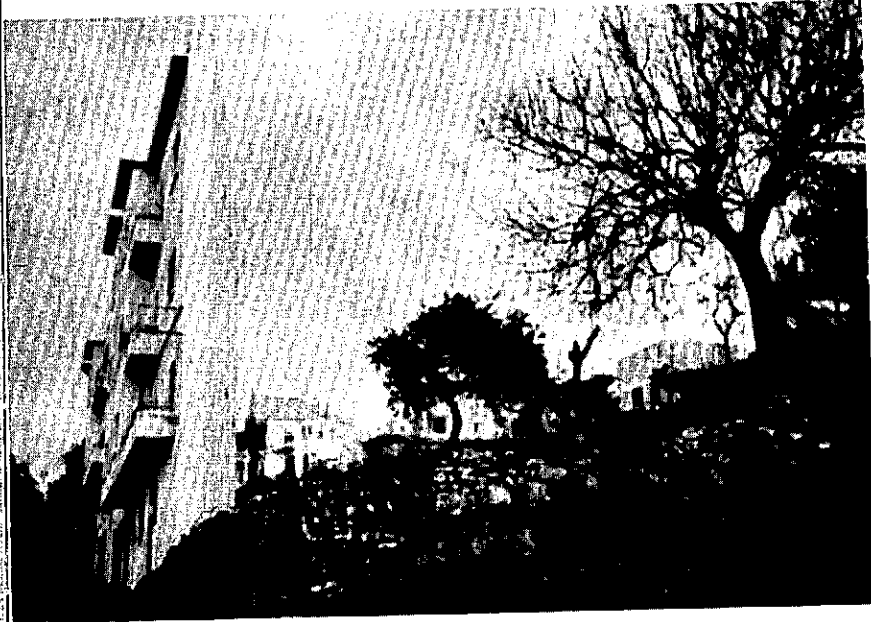


PLATE 22. The Arabs show a great overt sensitivity to architectural crowding and require enclosed spaces with unobstructed views. The "spite house" in Beirut was built to punish a neighbor by denying him a view of the Mediterranean.

THE FRENCH

The French who live south and east of Paris belong generally to that complex of cultures which border the Mediterranean. Members of this group pack together more closely than do northern Europeans, English, and Americans. Mediterranean use of space can be seen in the crowded trains, buses, automobiles, sidewalk cafés, and in the homes of the people. The exceptions are, of course, in the châteaux and villas of the rich. Crowded living normally means high sensory involvement. Evidence of French emphasis on the senses appears not only in the way the French eat, entertain, talk, write, crowd together in cafés, but can even be seen in the way they make their maps. These maps are extraordinarily well thought out and so designed that the traveler can find the most detailed information. One can tell from using these maps that the French employ all their senses. These maps make it possible for you to get around and they also tell you where you can enjoy a view; where you'll find picturesque drives, and, in some instances, places to rest, refresh yourself, take a walk, and even eat a pleasant meal. They inform the traveler which senses he can expect to use and at what points in his journey.

Home and Family

One possible reason why the French love the outdoors is the rather crowded conditions under which many of them live. The French entertain at restaurants and cafés. The home is for the family and the outdoors for recreation and socializing. Yet all the homes I have visited, as well as everything I have been able to learn about French homes, indicate that they are often quite crowded. The working class and the petite bourgeoisie are particularly crowded, which means that the French are sensually much involved with each other. The layout of their offices, homes, towns, cities, and countryside is such as to keep them involved.

In interpersonal encounters this involvement runs high;

When a Frenchman talks to you, he really looks at you and there is no mistaking this fact. On the streets of Paris he looks at the woman he sees very directly. American women returning to their own country after living in France often go through a period of sensory deprivation. Several have told me that because they have grown accustomed to being looked at, the American habit of *not* looking makes them feel as if they didn't exist.

Not only are the French sensually involved with each other, they have become accustomed to what are to us greatly stepped-up sensory inputs. The French automobile is designed in response to French needs. Its small size used to be attributed to a lower standard of living and higher costs of materials; and while there can be no doubt but that cost is a factor, it would be naïve to assume that it was the major factor. The automobile is just as much an expression of the culture as is the language and, therefore, has its characteristic niche in the cultural biotope. Changes in the car will reflect and be reflected in changes elsewhere. If the French drove American cars, they would be forced to give up many ways of dealing with space which they hold quite dear. The traffic along the Champs-Élysées and around the Arc de Triomphe is a cross between the New Jersey Turnpike on a sunny Sunday afternoon and the Indianapolis Speedway. With American-size autos, it would be mass suicide. Even the occasional "compact" American cars in the stream of Parisian traffic look like sharks among minnows. In the United States, the same cars look normal because everything else is in scale. In the foreign setting where they stand out, Detroit iron can be seen for what it is. The American behemoths give bulk to the ego and prevent overlapping of personal spheres inside the car so that each passenger is only marginally involved with the others. I do not mean by this that all Americans are alike and have been forced into the Detroit mold. But since Detroit won't produce what is wanted, many Americans prefer the smaller, more maneuverable European cars which fit their personalities and needs more closely. Nevertheless, if one simply looks at the styles of the French cars, one sees greater emphasis on individuality than in the United States. Compare the Peugeot, the Citroen, the Renault and the Dauphine and the little 2

C.V. shoebox. It would take years and years of style changes to produce such differences in the United States.

French Use of Open Spaces

Because total space needs must be maintained in balance, the urban French have learned to make the most of the parks and the outdoors. To them, the city is something from which to derive satisfaction and so are the people in it. Reasonably clean air, sidewalks up to seventy feet wide, automobiles that will not dwarf humans as they pass on the boulevards make it possible to have outdoor cafés and open areas where people congregate and enjoy each other. Since the French savor and participate in the city itself—its varied sights, sounds, and smells; its wide sidewalks and avenues and parks—the need for insulating space in the automobile may be somewhat less than it is in the United States where humans are dwarfed by skyscrapers and the products of Detroit, visually assaulted by filth and rubbish, and poisoned by smog and carbon dioxide.

The Star and the Grid

There are two major European systems for patterning space. One of these, "the radiating star" which occurs in France and Spain, is sociopetal. The other, the "grid," originated in Asia Minor, adopted by the Romans and carried to England at the time of Caesar, is sociofugal. The French-Spanish system connects all points and functions. In the French subway system, different lines repeatedly come together at places of interest like the Place de la Concorde, the Opéra, and the Madeleine. The grid system separates activities by stringing them out. Both systems have advantages, but a person familiar with one has difficulty using the other.

For example, a mistake in direction in the radiating center-point system becomes more serious the farther one travels. Any error, therefore, is roughly equivalent to taking off in the wrong direction. In the grid system, baseline errors are of the 90-degree or the 180-degree variety and are usually obvious enough to make themselves felt even by those with

a poor sense of direction. If you are traveling in the right direction, even though you are one or two blocks off your course, the error is easily rectified at any time. Nevertheless, there are certain inherent advantages in the center-point system. Once one learns to use it, it is easier for example to locate objects or events in space by naming a point on a line. Thus it is possible, even in strange territory, to tell someone to meet you at the 50 KM mark on National Route 20 south of Paris; that is all the information he needs. In contrast, the grid system of co-ordinates involves at least two lines and a point to locate something in space (often many more lines and points, depending on how many turns one has to make). In the star system, it is also possible to integrate a number of different activities in centers in less space than with the grid system. Thus, residential, shopping, marketing, commercial, and recreation areas can both meet and be reached from central points.

It is incredible how many facets of French life the radiating star pattern touches. It is almost as though the whole culture were set up on a model in which power, influence, and control flowed in and out from a series of interlocking centers. There are sixteen major highways running into Paris, twelve into Caen (near Omaha Beach), twelve into Amiens, eleven for Le Mans, and ten for Rennes. Even the figures don't begin to convey the picture of what this arrangement really means, for France is a series of radiating networks that build up into larger and larger centers. Each small center has its own channel, as it were, to the next higher level. As a general rule, the roads between centers do not go through other towns, because each town is connected to others by its own roads. This is in contrast to the American pattern of stringing small towns out like beads on a necklace along the routes that connect principal centers.

In *The Silent Language* I have described how the man in charge of a French office can often be found in the middle—with his minions placed like satellites on strings radiating outward from him. I once had occasion to deal with such a "central figure" when the French member of a team of scientists under my direction wanted a raise because his desk was in the middle! Even De Gaulle bases his international

policy on France's central location. There are those, of course, who will say that the fact that the French school system also follows a highly centralized pattern couldn't possibly have any relationship to the layout of offices, subway systems, road networks, and, in fact, the entire nation, but I could not agree with them. Long experience with different patterns of culture has taught me that the basic threads tend to be woven throughout the entire fabric of a society.

The reason for the review of the three European cultures to which the middle class of the United States is most closely linked (historically and culturally) is as much as anything else a means of providing contrast to highlight some of our own implicit patterns. In this review it was shown that different use of the senses leads to very different needs regarding space no matter on what level one cares to consider it. Everything from an office to a town or city will reflect the sense modalities of its builders and occupants. In considering solutions to problems such as urban renewal and city sinks it is essential to know how the populations involved perceive space and how they use their senses. The next chapter deals with people whose spatial worlds are quite different from our own, and from whom we can learn more about ourselves.

XII

PROXEMICS IN A CROSS-CULTURAL CONTEXT: JAPAN AND THE ARAB WORLD

Proxemic patterns play a role in man comparable to display behavior among lower life forms; that is, they simultaneously consolidate the group and isolate it from others by on the one hand reinforcing intragroup identity and on the other making intergroup communication more difficult. Even though man may be physiologically and genetically one species, the proxemic patterns of the Americans and the Japanese often strike one as being as disparate as the territorial display patterns of the American grouse and the Australian bowerbirds described in Chapter II.

JAPAN

In old Japan, space and social organization were interrelated. The Tokugawa shoguns arranged the daimyo, or nobles, in concentric zones around the capital, Ado (Tokyo). Proximity to the core reflected closeness of relationship and loyalty to the shogun; the most loyal formed an inner protective ring. On the other side of the island, across the mountains and to the north and south, were those who were less trusted or whose loyalty was in question. The concept of the center that can be approached from any direction is a well-developed theme in Japanese culture. This entire plan is characteristically Japanese and those who know them will recognize it as a manifestation of a paradigm that functions in virtually all areas of Japanese life.

As noted earlier, the Japanese name intersections rather than the streets leading into them. In fact, each separate cor-

ner of the intersection has a different identification. The route itself from point *A* to point *B* seems almost whimsical to the Westerner and is not stressed as it is with us. Not being in the habit of using fixed routes, the Japanese zero in on their destination when they travel across Tokyo. Taxicab drivers have to ask local directions at police booths, not just because streets are not named but because houses are numbered in the order in which they were built. Neighbors often do not know each other and so cannot give directions. In order to cope with this aspect of Japanese space, the American occupation forces after V-J Day named a few main thoroughfares in Tokyo, putting up street signs in English (Avenues A, B, and C). The Japanese waited politely until the end of the occupation to take the signs down. By then, however, the Japanese were trapped by a foreign cultural innovation. They discovered that it is actually helpful to be able to designate a route that connects two points. It will be interesting to see how persistent this change in Japanese culture will be.

It is possible to see the Japanese pattern that emphasizes centers not only in a variety of other spatial arrangements but, as I hope to demonstrate, even in their conversations. The Japanese fireplace (*hibachi*) and its location carries with it an emotional tone that is as strong, if not stronger, than our concept of the hearth. As an old priest once explained, "To really know the Japanese you have to have spent some cold winter evenings snuggled together around the *hibachi*. Everybody sits together. A common quilt covers not only the *hibachi* but everyone's lap as well. In this way the heat is held in. It's when your hands touch and you feel the warmth of their bodies and everyone feels together—that's when you get to know the Japanese. That is the real Japan!" In psychological terms there is positive reinforcement toward the center of the room and negative reinforcement toward the edges (which is where the cold comes from in the winter). Is it any wonder then that the Japanese have been known to say that our rooms look bare (because the centers are bare).

Another side of the center-edge contrast has to do with how and under what circumstances one moves and what is considered to be fixed-feature and what semifixed-feature space. To us the walls of a house are fixed. In Japan they are

semifixed. The walls are movable and rooms are multipurpose. In the Japanese country inns (the *ryokan*), the guest discovers that things come to him while the scene shifts. He sits in the middle of the room on the *tatami* (mat) while sliding panels are opened or closed. Depending on the time of day, the room can include all outdoors or it can be shrunk in stages until all that remains is a boudoir. A wall slides back and a meal is brought in. When the meal is over and it is time to sleep, bedding is unrolled in the same spot in which eating, cooking, thinking, and socializing took place. In the morning, when the room is again opened to all outdoors, bright rays of sunshine or the subtle pine scent of the mountain mists penetrates intimate space and sweeps it refreshingly clean.

A fine example of the differences in the perceptual world of the East and the West is the Japanese film *Woman in the Dunes*. The sensual involvement of the Japanese was never more clearly illustrated than in this film. Viewing it one has the feeling of being inside the skin of the screen subjects. At times it is impossible to identify what part of the body one is looking at. The lens of the camera travels slowly, examining every detail of the body. The landscape of the skin is enlarged; its texture is seen as topography, at least by Western eyes. Goose pimples are large enough to be examined individually while grains of sand become like rough quartz pebbles. The experience is not unlike that of looking at the pulsing life of a fish embryo under a microscope.

One of the terms most frequently used by Americans to describe the Japanese *modus operandi* is the word "indirection." An American banker who had spent years in Japan and made the minimum possible accommodation told me that what he found most frustrating and difficult was their indirection. "An old-style Japanese," he complained, "can drive a man crazy faster than anything I know. They talk around and around and around a point and never do get to it." What he did not realize, of course, was that American insistence on "coming to the point" quickly is just as frustrating to the Japanese, who do not understand why we have to be so "logical" all the time.

Young Jesuit missionaries working in Japan have great difficulty at first, for their training works against them. The

sylogism on which they depend to make their points clashes with some of the most basic patterns of Japanese life. Their dilemma is: to be true to their training and fail, or to depart from it and succeed. The most successful Jesuit missionary in Japan at the time of my 1957 visit violated group norms when he espoused local custom. After a brief syllogistic introduction he would switch and talk around the point and dwell at length on what wonderful *feelings* (important to the Japanese) one had if one was a Catholic. What interested me was that even though his Catholic brothers knew what he was doing and could observe his success, the hold of their own culture was sufficiently strong so that few could bring themselves to follow his example and violate their own mores.

How Crowded Is Crowded?

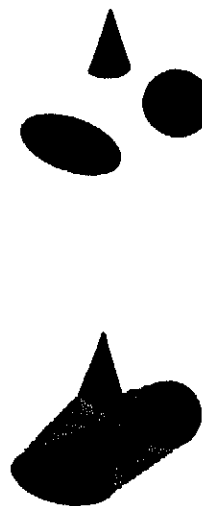
To the Westerner of a non-contact group, "crowding" is a word with distasteful connotations. The Japanese I have known prefer crowding, at least in certain situations. They feel it is congenial to sleep close together on the floor, which they refer to as "Japanese style" as contrasted with "American style." It is not surprising, therefore, to discover that according to Donald Keene, author of *Living Japan*, there is no Japanese word for privacy. Yet one cannot say that the concept of privacy does not exist among the Japanese but only that it is very different from the Western conception. While a Japanese may not want to be alone and doesn't mind having people milling around him, he has strong feelings against sharing a wall of his house or apartment with others. He considers his house and the *zone immediately surrounding it* as one structure. This free area, this sliver of space, is considered to be as much a part of the house as the roof. Traditionally, it contains a garden even though tiny, which gives the householder direct contact with nature.

The Japanese Concept of Space Including the Ma

Differences between the West and Japan are not limited to moving around the point vs. coming to the point, or the stressing of lines as contrasted with intersections. The entire

experience of space in the most essential respects is different from that of Western culture. When Westerners think and talk about space, they mean the distance between objects. In the West, we are taught to perceive and to react to the arrangements of objects and to think of space as "empty." The meaning of this becomes clear only when it is contrasted with the Japanese, who are trained to give *meaning* to spaces—to perceive the shape and arrangement of spaces; for this they have a word, *ma*. The *ma*, or interval, is a basic building block in all Japanese spatial experience. It is functional not only in flower arrangements but apparently is a hidden consideration in the layout of all other spaces. Japanese skill in the handling and arrangement of the *ma* is extraordinary and produces admiration and occasionally even awe in Europeans. Skill in handling spaces is epitomized in the fifteenth century Zen monastery garden of Ryoanji outside the old capital of Kyoto. The garden itself comes as a surprise. Walking through the darkened, paneled main building one rounds a bend and is suddenly in the presence of a powerful creative force—fifteen rocks rising from a sea of crushed gravel. Viewing Ryoanji is an emotional experience. One is overcome by the order, serenity, and the discipline of extreme simplicity. Man and nature are somehow transformed and can be viewed as in harmony. There is also a philosophical message regarding man's relation to nature. The grouping is such that no matter where one sits to contemplate the scene, one of the rocks that make up the garden is always hidden (perhaps another clue to the Japanese mind). They believe that memory and imagination should always participate in perceptions.

Part of the Japanese skill in creating gardens stems from the fact that in the perception of space the Japanese employ vision and all the other senses as well. Olfaction, shifts in temperature, humidity, light, shade, and color are worked together in such a way as to enhance the use of the whole



body as a sensing organ. In contrast to the single point perspective of Renaissance and Baroque painters, the Japanese garden is designed to be enjoyed from many points of view. The designer makes the garden visitor stop here and there, perhaps to find his footing on a stone in the middle of a pool so that he looks up at precisely the right moment to catch a glimpse of unsuspected vista. *The study of Japanese spaces illustrates their habit of leading the individual to a spot where he can discover something for himself.*

The Arab patterns which are described below have nothing to do with "leading" people anywhere. In the Arab world one is expected to connect widely separated points on his own, and very quickly too. For this reason the reader has to shift gears mentally when considering the Arabs.

THE ARAB WORLD

In spite of over two thousand years of contact, Westerners and Arabs still do not understand each other. Proxemic research reveals some insights into this difficulty. Americans in the Middle East are immediately struck by two conflicting sensations. In public they are compressed and overwhelmed by smells, crowding, and high noise levels; in Arab homes Americans are apt to rattle around, feeling exposed and often somewhat inadequate because of too much space! (The Arab houses and apartments of the middle and upper classes which Americans stationed abroad commonly occupy are much larger than the dwellings such Americans usually inhabit.) Both the high sensory stimulation which is experienced in public places and the basic insecurity which comes from being in a dwelling that is too large provide Americans with an introduction to the sensory world of the Arab.

Behavior in Public

Pushing and shoving in public places is characteristic of Middle Eastern culture. Yet it is not entirely what Americans think it is (being pushy and rude) but stems from a different set of assumptions concerning not only the relations

between people but how one experiences the body as well. Paradoxically, Arabs consider northern Europeans and Americans pushy, too. This was very puzzling to me when I started investigating these two views. How could Americans who stand aside and avoid touching be considered pushy? I used to ask Arabs to explain this paradox. None of my subjects was able to tell me specifically what particulars of American behavior were responsible, yet they all agreed that the impression was widespread among Arabs. After repeated unsuccessful attempts to gain insight into the cognitive world of the Arab on this particular point, I filed it away as a question that only time would answer. When the answer came, it was because of a seemingly inconsequential annoyance.

While waiting for a friend in a Washington, D.C., hotel lobby and wanting to be both visible and alone, I had seated myself in a solitary chair outside the normal stream of traffic. In such a setting most Americans follow a rule, which is all the more binding because we seldom think about it, that can be stated as follows: as soon as a person stops or is seated in a public place, there balloons around him a small sphere of privacy which is considered inviolate. The size of the sphere varies with the degree of crowding, the age, sex, and the importance of the person, as well as the general surroundings. Anyone who enters this zone and stays there is intruding. In fact, a stranger who intrudes, even for a specific purpose, acknowledges the fact that he has intruded by beginning his request with "Pardon me, but can you tell me . . . ?"

To continue, as I waited in the deserted lobby, a stranger walked up to where I was sitting and stood close enough so that not only could I easily touch him but I could even hear him breathing. In addition, the dark mass of his body filled the peripheral field of vision on my left side. If the lobby had been crowded with people, I would have understood his behavior, but in an empty lobby his presence made me exceedingly uncomfortable. Feeling annoyed by this intrusion, I moved my body in such a way as to communicate annoyance. Strangely enough, instead of moving away, my actions seemed only to encourage him, because he moved even closer. In spite of the temptation to escape the annoyance, I put aside thoughts of abandoning my post, thinking, "To hell with it.

Why should I move? I was here first and I'm not going to let this fellow drive me out even if he is a boor." Fortunately, a group of people soon arrived whom my tormentor immediately joined. Their mannerisms explained his behavior, for I knew from both speech and gestures that they were Arabs. I had not been able to make this crucial identification by looking at my subject when he was alone because he wasn't talking and he was wearing American clothes.

In describing the scene later to an Arab colleague, two contrasting patterns emerged. My concept and my feelings about my own circle of privacy in a "public" place immediately struck my Arab friend as strange and puzzling. He said, "After all, it's a public place, isn't it?" Pursuing this line of inquiry, I found that in Arab thought I had no rights whatsoever by virtue of occupying a given spot; neither my place nor my body was inviolate! For the Arab, there is no such thing as an intrusion in public. Public means public. With this insight, a great range of Arab behavior that had been puzzling, annoying, and sometimes even frightening began to make sense. I learned, for example, that if *A* is standing on a street corner and *B* wants his spot, *B* is within his rights if he does what he can to make *A* uncomfortable enough to move. In Beirut only the hardy sit in the last row in a movie theater, because there are usually standees who want seats and who push and shove and make such a nuisance that most people give up and leave. Seen in this light, the Arab who "intruded" on my space in the hotel lobby had apparently selected it for the very reason I had: it was a good place to watch two doors and the elevator. My show of annoyance, instead of driving him away, had only encouraged him. He thought he was about to get me to move.

Another silent source of friction between Americans and Arabs is in an area that Americans treat very informally—the manners and rights of the road. In general, in the United States we tend to defer to the vehicle that is bigger, more powerful, faster, and heavily laden. While a pedestrian walking along a road may feel annoyed he will not think it unusual to step aside for a fast-moving automobile. He knows that because he is moving he does not have the right to the space around him that he has when he is standing still (as I was in

the hotel lobby). It appears that the reverse is true with the Arabs who apparently *take on rights to space as they move*. For someone else to move into a space an Arab is also moving into is a violation of his rights. It is infuriating to an Arab to have someone else cut in front of him on the highway. It is the American's cavalier treatment of moving space that makes the Arab call him aggressive and pushy.

Concepts of Privacy

The experience described above and many others suggested to me that Arabs might actually have a wholly contrasting set of assumptions concerning the body and the rights associated with it. Certainly the Arab tendency to shove and push each other in public and to feel and pinch women in public conveyances would not be tolerated by Westerners. It appeared to me that they must not have any concept of a private zone outside the body. This proved to be precisely the case.

In the Western world, the person is synonymous with an individual inside a skin. And in northern Europe generally, the skin and even the clothes may be inviolate. You need permission to touch either if you are a stranger. This rule applies in some parts of France, where the mere touching of another person during an argument used to be legally defined as assault. For the Arab the location of the person in relation to the body is quite different. The person exists somewhere down inside the body. The ego is not completely hidden, however, because it can be reached very easily with an insult. It is protected from touch but not from words. The dissociation of the body and the ego may explain why the public amputation of a thief's hand is tolerated as standard punishment in Saudi Arabia. It also sheds light on why an Arab employer living in a modern apartment can provide his servant with a room that is a boxlike cubicle approximately 5 by 10 by 4 feet in size that is not only hung from the ceiling to conserve floor space but has an opening so that the servant can be spied on.

As one might suspect, deep orientations toward the self such as the one just described are also reflected in the language. This was brought to my attention one afternoon when

an Arab colleague who is the author of an Arab-English dictionary arrived in my office and threw himself into a chair in a state of obvious exhaustion. When I asked him what had been going on, he said: "I have spent the entire afternoon trying to find the Arab equivalent of the English word 'rape.' There is no such word in Arabic. All my sources, both written and spoken, can come up with no more than an approximation, such as 'He took her against her will.' There is nothing in Arabic approaching your meaning as it is expressed in that one word."

Differing concepts of the placement of the ego in relation to the body are not easily grasped. Once an idea like this is accepted, however, it is possible to understand many other facets of Arab life that would otherwise be difficult to explain. One of these is the high population density of Arab cities like Cairo, Beirut, and Damascus. According to the animal studies described in the earlier chapters, the Arabs should be living in a perpetual behavioral sink. While it is probable that Arabs are suffering from population pressures, it is also just as possible that continued pressure from the desert has resulted in a cultural adaptation to high density which takes the form described above. Tucking the ego down inside the body shell not only would permit higher population densities but would explain why it is that Arab communications are stepped up as much as they are when compared to northern European communication patterns. Not only is the sheer noise level much higher, but the piercing look of the eyes, the touch of the hands, and the mutual bathing in the warm moist breath during conversation represent stepped-up sensory inputs to a level which many Europeans find unbearably intense.

The Arab dream is for lots of space in the home, which unfortunately many Arabs cannot afford. Yet when he has space, it is very different from what one finds in most American homes. Arab spaces inside their upper middle-class homes are tremendous by our standards. They avoid partitions because Arabs *do not like to be alone*. The form of the home is such as to hold the family together inside a single protective shell, because Arabs are deeply involved with each other. Their personalities are intermingled and take nourishment

from each other like the roots and soil. If one is not with people and actively involved in some way, one is deprived of life. An old Arab saying reflects this value: "Paradise without people should not be entered because it is Hell." Therefore, Arabs in the United States often feel socially and sensorially deprived and long to be back where there is human warmth and contact.

Since there is no physical privacy as we know it in the Arab family, not even a word for privacy, one could expect that the Arabs might use some other means to be alone. Their way to be alone is to stop talking. Like the English, an Arab who shuts himself off in this way is not indicating that anything is wrong or that he is withdrawing, only that he wants to be alone with his own thoughts or does not want to be intruded upon. One subject said that her father would come and go for days at a time without saying a word, and no one in the family thought anything of it. Yet for this very reason, an Arab exchange student visiting a Kansas farm failed to pick up the cue that his American hosts were mad at him when they gave him the "silent treatment." He only discovered something was wrong when they took him to town and tried forcibly to put him on a bus to Washington, D.C., the headquarters of the exchange program responsible for his presence in the U.S.

Arab Personal Distances

Like everyone else in the world, Arabs are unable to formulate specific rules for their informal behavior patterns. In fact, they often deny that there are any rules, and they are made anxious by suggestions that such is the case. Therefore, in order to determine how the Arab sets distances, I investigated the use of each sense separately. Gradually, definite and distinctive behavioral patterns began to emerge.

Olfaction occupies a prominent place in the Arab life. Not only is it one of the distance-setting mechanisms, but it is a vital part of a complex system of behavior. Arabs consistently breathe on people when they talk. However, this habit is more than a matter of different manners. To the Arab good smells are pleasing and a way of being involved with each

other. To smell one's friend is not only nice but desirable, for to deny him your breath is to act ashamed. Americans, on the other hand, trained as they are not to breathe in people's faces, automatically communicate shame in trying to be polite. Who would expect that when our highest diplomats are putting on their best manners they are also communicating shame? Yet this is what occurs constantly, because diplomacy is not only "eyeball to eyeball" but breath to breath.

By stressing olfaction, Arabs do not try to eliminate all the body's odors, only to enhance them and use them in building human relationships. Nor are they self-conscious about telling others when they don't like the way they smell. A man leaving his house in the morning may be told by his uncle, "Habib, your stomach is sour and your breath doesn't smell too good. Better not talk too close to people today." Smell is even considered in the choice of a mate. When couples are being matched for marriage, the man's go-between will sometimes ask to smell the girl, who may be turned down if she doesn't "smell nice." Arabs recognize that smell and disposition may be linked.

In a word, the olfactory boundary performs two roles in Arab life. It enfolds those who want to relate and separates those who don't. The Arab finds it essential to stay inside the olfactory zone as a means of keeping tab on changes in emotion. What is more, he may feel crowded as soon as he smells something unpleasant. While not much is known about "olfactory crowding," this may prove to be as significant as any other variable in the crowding complex because it is tied directly to the body chemistry and hence to the state of health and emotions. (The reader will remember that it was olfaction in the Bruce effect that suppressed pregnancies in mice.) It is not surprising, therefore, that the olfactory boundary constitutes for the Arabs an informal distance-setting mechanism in contrast to the visual mechanisms of the Westerner.

Facing and Not Facing

One of my earliest discoveries in the field of intercultural communication was that the position of the bodies of people in conversation varies with the culture. Even so, it used to

~~puzzled~~ me that a special Arab friend seemed unable to walk and talk at the same time. After years in the United States, he could not bring himself to stroll along, facing forward while talking. Our progress would be arrested while he edged ahead, cutting slightly in front of me and turning sideways so we could see each other. Once in this position, he would stop. His behavior was explained when I learned that for the Arabs to view the other person peripherally is regarded as impolite, and to sit or stand back-to-back is considered very rude. You must be involved when interacting with Arabs who are friends.

One mistaken American notion is that Arabs conduct all conversations at close distances. This is not the case at all. On social occasions, they may sit on opposite sides of the room and talk across the room to each other. They are, however, apt to take offense when Americans use what are to them ambiguous distances, such as the four- to seven-foot social-consultative distance. They frequently complain that Americans are cold or aloof or "don't care." This was what an elderly Arab diplomat in an American hospital thought when the American nurses used "professional" distance. He had the feeling that he was being ignored, that they might not take good care of him. Another Arab subject remarked, referring to American behavior, "What's the matter? Do I smell bad? Or are they afraid of me?"

Arabs who interact with Americans report experiencing a certain flatness traceable in part to a very different use of the eyes in private and in public as well as between friends and strangers. Even though it is rude for a guest to walk around the Arab home eying things, Arabs look at each other in ways which seem hostile or challenging to the American. One Arab informant said that he was in constant hot water with Americans because of the way he looked at them without the slightest intention of offending. In fact, he had on several occasions barely avoided fights with American men who apparently thought their masculinity was being challenged because of the way he was looking at them. As noted earlier, Arabs look each other in the eye when talking with an intensity that makes most Americans highly uncomfortable.

Involvement

As the reader must gather by now, Arabs are involved with each other on many different levels simultaneously. Privacy in a public place is foreign to them. Business transactions in the bazaar, for example, are not just between buyer and seller, but are participated in by everyone. Anyone who is standing around may join in. If a grownup sees a boy breaking a window, he must stop him even if he doesn't know him. Involvement and participation are expressed in other ways as well. If two men are fighting, the crowd must intervene. On the political level, *to fail to intervene* when trouble is brewing is to take sides, which is what our State Department always seems to be doing. Given the fact that few people in the world today are even remotely aware of the cultural mold that forms their thoughts, it is normal for Arabs to view *our* behavior as though it stemmed from *their* own hidden set of assumptions.

Feelings about Enclosed Spaces

In the course of my interviews with Arabs the term "tomb" kept cropping up in conjunction with enclosed space. In a word, Arabs don't mind being crowded by people but hate to be hemmed in by walls. They show a much greater overt sensitivity to architectural crowding than we do. Enclosed space must meet at least three requirements that I know of if it is to satisfy the Arabs: there must be plenty of unobstructed space in which to move around (possibly as much as a thousand square feet); very high ceilings—so high in fact that they do not normally impinge on the visual field; and, in addition, there must be an unobstructed view. It was spaces such as these in which the Americans referred to earlier felt so uncomfortable. One sees the Arab's need for a view expressed in many ways, even negatively, for to cut off a neighbor's view is one of the most effective ways of spiting him. In Beirut one can see what is known locally as the "spite house." It is nothing more than a thick, four-story wall, built at the end of a long fight between neighbors, on a narrow strip of

land for the express purpose of denying a view of the Mediterranean to any house built on the land behind. According to one of my informants, there is also a house on a small plot of land between Beirut and Damascus which is completely surrounded by a neighbor's wall built high enough to cut off the view from all windows!

Boundaries

Proxemic patterns tell us other things about Arab culture. For example, the whole concept of the boundary as an abstraction is almost impossible to pin down. In one sense, there are no boundaries. "Edges" of towns, yes, but permanent boundaries out in the country (hidden lines), no. In the course of my work with Arab subjects I had a difficult time translating our concept of a boundary into terms which could be equated with theirs. In order to clarify the distinctions between the two very different definitions, I thought it might be helpful to pinpoint acts which constituted trespass. To date, I have been unable to discover anything even remotely resembling our own legal concept of trespass.

Arab behavior in regard to their own real estate is apparently an extension of, and therefore consistent with, their approach to the body. My subjects simply failed to respond whenever trespass was mentioned. They didn't seem to understand what I meant by this term. This may be explained by the fact that they organize relationships with each other according to closed social systems rather than spatially. For thousands of years Moslems, Marinites, Druses, and Jews have lived in their own villages, each with strong kin affiliations. Their hierarchy of loyalties is: first to one's self, then to kinsman, townsman, or tribesman, co-religionist and/or countryman. Anyone not in these categories is a stranger. Strangers and enemies are very closely linked, if not synonymous, in Arab thought. Trespass in this context is a matter of who you are, rather than a piece of land or a space with a boundary that can be denied to anyone and everyone, friend and foe alike.

In summary, proxemic patterns differ. By examining them it is possible to reveal hidden cultural frames that determine

the structure of a given people's perceptual world. Perceiving the world differently leads to differential definitions of what constitutes crowded living, different interpersonal relations, and a different approach to both local and international politics. There are in addition wide discrepancies in the degree to which culture structures involvement, which means that planners should begin to think in terms of different kinds of cities, cities which are consistent with the proxemic patterns of the peoples who live in them. Therefore, it is to a consideration of urban life that I wish to turn in the remaining chapters of this book.

XIII

CITIES AND CULTURE

The implosion of the world population into cities everywhere is creating a series of destructive behavioral sinks more lethal than the hydrogen bomb. Man is faced with a chain reaction and practically no knowledge of the structure of the cultural atoms producing it. If what is known about animals when they are crowded or moved to an unfamiliar biotope is at all relevant to mankind, we are now facing some terrible consequences in our urban sinks. Studies of ethology and comparative proxemics should alert us to the dangers ahead as our rural populations pour into urban centers. The adjustment of these people is not just economic but involves an *entire way of life*. There are the added complexities of dealing with strange communication systems, uncongenial spaces, and the pathology associated with an active, swelling behavioral sink.

The lower-class Negro in the United States poses very special problems in his adjustment to city living, which if they are not solved may well destroy us by making our cities uninhabitable. An often overlooked fact is that lower-class Negroes and middle-class whites are culturally distinct from each other. In many respects, the situation of the American Negro parallels that of the American Indian. The differences between these minority groups and the dominant culture are basic and have to do with such core values as the use and structuring of space, time, and materials, all of which are learned early in life. Some Negro spokesmen have gone so far as to say that no white man could possibly understand the Negro. They are right if they are referring to lower-class Negro culture. However, few people grasp the fact that cul-

tural differences of the type that many Negroes experience as isolating, while exacerbated by prejudice, are not the same as prejudice, nor are they inherently prejudicial. They lie at the core of the human situation and they are as old as man.

A point I want to emphasize is that in the major cities of the United States, people of very different cultures are now in contact with each other in dangerously high concentrations, a situation which brings to mind a study by pathologist Charles Southwick. Southwick discovered that *peromyscus* mice could tolerate high cage densities until strange mice were introduced. When this occurred there was not only a significant increase in fighting but an increase in the weight of the adrenal glands as well as the blood eosinophil count (both of which are associated with stress). Now even if it were possible to abolish all prejudice and discrimination and erase a disgraceful past, the lower-class Negro in American cities would still be confronted with a syndrome that is currently extremely stressful: the sink (popularly referred to as "the jungle"), the existence of great cultural differences between himself and the dominant white middle class of America, and a completely foreign biotope.

Sociologists Glazer and Moynihan in their fascinating book, *Beyond the Melting Pot*, have clearly demonstrated that in fact there is no melting pot in American cities. Their study focused on New York but their conclusions could apply to many other cities. The major ethnic groups of American cities maintain distinct identities for several generations. Yet our housing and city planning programs seldom take these ethnic differences into account. Even while writing this chapter I was asked to consult with an urban planning agency which was considering the problem of urban life in 1980. The entire plan under discussion was predicated on complete absences of both ethnic and class differences by this date. Nothing in man's past indicates to me that these differences will disappear in one generation!

THE NEED FOR CONTROLS

Lewis Mumford states that the primary reason for Hammurabi's code was to combat the lawlessness of the people flocking into the early Mesopotamian cities. Since then a lesson repeatedly brought home about the relationship of man to the city is the need for enforced laws to replace tribal custom. Laws and law enforcement agencies are present in cities all over the world, but at times they find it difficult to cope with the problems facing them and they need help. An aid to law and order that has not been used to the fullest extent possible is the power of custom and public opinion in the ethnic enclaves. These enclaves perform many useful purposes; one of the most important is that they act as lifetime reception areas in which the second generation can learn to make the transition to city life. The principal problem with the enclave as it is now placed in the city is that its size is limited. When membership increases at a rate greater than the capacity to turn rural peoples into city dwellers (which is the number that moves out of the enclave), only two choices remain: territorial growth or overcrowding.

If the enclave cannot expand and fails to maintain a healthy density (which varies with each ethnic group), a sink develops. The normal capacities of law enforcement agencies are not able to deal with sinks. This is illustrated by what has happened in New York City with its Puerto Rican and Negro populations. According to a recent *Time* report, 232,000 people are packed into three and a half square miles in Harlem. Apart from letting the sink run its course and destroy the city, there is an alternative solution: *introduce design features that will counteract the ill effects of the sink but not destroy the enclave in the process.* In animal populations, the solution is simple enough and frighteningly like what we see in our urban renewal programs as well as our suburban sprawl. To increase density in a rat population and maintain healthy specimens, put them in boxes so they can't see each other, clean their cages, and give them enough to eat. You can pile the boxes up as many

stories as you wish. Unfortunately, caged animals become stupid, which is a very heavy price to pay for a super filing system! The question we must ask ourselves is, How far can we afford to travel down the road of sensory deprivation in order to file people away? One of man's most critical needs, therefore, is for principles for designing spaces that will maintain a healthy density, a healthy interaction rate, a proper amount of involvement, and a continuing sense of ethnic identification. The creation of such principles will require the combined efforts of many diverse specialists all working closely together on a massive scale.

This point was stressed in 1964 at the second Delos conference. Organized by the Greek architect, town planner, and builder C. A. Doxiadis, the Delos conferences annually assemble an impressive array of experts from all over the world whose knowledge and skills can contribute to the proper study of what Doxiadis has termed *ekistics* (the study of settlements). The conclusions reached by this group were: (1) Both the New Town programs in England and Israel are based on inadequate, century-old data. For one thing, the towns were too small, yet even the greater size now proposed by English planners is based on very limited research. (2) Although the public is aware of the desperate situation of the ever-growing megalopolis, nothing is being done about it. (3) The combination of the catastrophic growth of both the number of automobiles and the population is creating a chaotic situation in which there are no self-correcting features. Either automobiles are precipitated to the heart of the city by free-ways (leading to the choked-up effect present in London and New York City) or the town gives way to the automobile, disappearing under a maze of freeways, as is the case with Los Angeles. (4) To keep our economies growing, few activities would promote such a wide spectrum of industries, services, and skills as rebuilding the cities of the world. (5) Planning, education, and research in *ekistics* must be not only co-ordinated and underwritten but raised to the highest level of priority in governments.

PSYCHOLOGY AND ARCHITECTURE

To solve formidable urban problems, there is the need not only for the usual coterie of experts—city planners, architects, engineers of all types, economists, law enforcement specialists, traffic and transportation experts, educators, lawyers, social workers, and political scientists—but for a number of new experts. Psychologists, anthropologists, and ethologists are seldom, if ever, prominently featured as permanent members of city planning departments but they should be. Research budgets must not be whimsically turned on and off as has happened in the past. When good, workable plans are developed, planners must not be forced to witness a breakdown in implementation which is so often excused on the grounds of politics or expediency. Also, planning and renewal must not be separated; instead, renewal must be an integral part of planning.

Consider the public housing constructed for low income groups in Chicago which has tended to dress up and hide but not solve the basic problem. Bear in mind that the low income population which is pouring into Chicago and many other American cities is largely Negro and comes from rural areas or small towns in the South. Most of these people have had no tradition or experience in urban living. Like the Puerto Ricans and Appalachian whites, many of the Negroes also suffer from a totally inadequate education. Row after row of high-rise apartments is less distressing to look at than slums but more disturbing to live in than much of what it replaced. The Negroes have been particularly outspoken in their condemnation of high-rise housing. All they see in it is white domination, a monument to a failure in ethnic relations. They joke about how the white man is now piling Negro on top of Negro, stacking them up in high rises. The high rise fails to solve many basic human problems. As one tenant described his building to me: "It's no place to raise a family. A mother can't look out for her kids if they are fifteen floors down in the playground. They get beaten up by the rough ones, the elevators are unsafe and full of filth (people in defiance

against the buildings use them as toilets), they are slow and break down. When I want to go home I think twice because it may take me half an hour to get the elevator. Did you ever have to walk up fifteen floors when the elevator was broken? You don't do *that* too often. . . ."

Happily, some architects are beginning to think in terms of two-, three-, and four-story developments designed with a view to human safety. There is very little data, however, on what kind of spaces are best suited to the Negro. My own experience dates back to World War II when I served with a Negro engineer general services regiment. The regiment assembled in Texas, and participated in all five European campaigns. However, it wasn't until we reached the Philippines that the men found a life on a *scale* that suited them. They could easily see themselves adapting to the Philippine society and economy where a man could set himself up in business in a bamboo stall no bigger than two telephone booths. The open market place with all its activity seems more suitable to the proxemic needs of the Negro than crowded American stores which are enclosed by walls and windows.

In other words, I think that it will ultimately be proved that *scale* is a key factor in planning towns, neighborhoods, and housing developments. Most important, urban scale must be consistent with ethnic scale, since each ethnic group seems to have developed its own scale.

There are in addition class differences, which are reported in the work of psychologist Marc Fried and sociologists Herbert Gans, Peggy Gleicher, and Chester Hartman, in a series of important publications on Boston's West End.

The Boston plans for slum clearance and urban renewal failed to take into account the fact that the working-class neighborhoods were quite different from those of the middle class. The West End residents were highly involved with each other; to them the hallways, the stores, the churches, and even the streets provided an essential part of living together in a community. As Hartman points out, in computing population density in the West End there was actually several times the living space available than would be apparent if judged by middle-class standards based solely on the dwelling unit. An additional point was made about the "urban village"

(Gans's term). The Boston West End was a device for turning immigrant villagers into city dwellers, a process which required about three generations. If it had to be "renewed" a more satisfactory solution would have been renovation rather than destruction of the entire neighborhood, which encompassed not only buildings but social systems as well. For when urban renewal forced removal to more modern but less integrated spaces, a significant number of Italians became depressed and apparently lost much of their interest in life. Their world had been shattered, not through malice or design but with the best of intentions, because in Fried's words: ". . . home' is not merely an apartment or a house but a local area in which some of the most meaningful aspects of life are experienced." The relationship of the West Enders to their urban village was in addition to everything else a matter of scale. The "street" was both familiar and intimate.

While very little is known about something as abstract as scale, I am convinced that it represents a facet of the human requirement that man is ultimately going to have to understand, for it directly affects the judgment of what constitutes proper population density. In addition, setting standards for healthy urban densities is doubly difficult because the basic rules for estimating the proper size of the family dwelling unit are unknown. In the last few years the sizes of dwelling spaces have had a way of slipping unnoticed from barely adequate to completely inadequate as economic and other pressures increase. Not just the poor but even the well-to-do find themselves squeezed by high-rise speculative builders who shave six inches here and a foot there to lower costs and increase profits. Nor can individual units be considered out of context. An apartment which is barely adequate becomes uninhabitable to some people at the exact moment that a rising apartment house next door cuts off the view.

PATHOLOGY AND OVERCROWDING

Like the link between cancer and smoking, the cumulative effects of crowding are usually not experienced until the damage has been done. So far, most of what is known of the

human side of cities are the bare facts of crime, illegitimacy, inadequate education, and illness; our most crying need at present is for imaginative research on a massive scale. Although there are many studies of urban life that will prove to be relevant once the relationship of the urban sink to human pathology has been accepted, I know only one which relates directly to the consequences of insufficient space. This research was done by the Chombart de Lauwes, a French husband-and-wife team who combine the skills of sociology and psychology. They produced some of the first statistical data on the consequences of crowding in urban housing. With typical French thoroughness the Chombart de Lauwes collected measurable data on every conceivable aspect of the family life of the French worker. At first they recorded and computed crowding in terms of the number of residents per dwelling unit. This index revealed very little and the Chombart de Lauwes then decided to use a new index to establish crowding—the number of square meters per person per unit. The results of this index were startling; when the space available was below eight to ten square meters per person social and physical pathologies doubled! Illness, crime, and crowding were definitely linked. When the space available rose above fourteen square meters per person, the incidence of pathology of both types also increased, but not so sharply. The Chombart de Lauwes were at a loss to explain the latter figure except to say that families in the second category were usually upwardly mobile and tended to devote more attention to getting ahead than they did to their children. A note of caution must be introduced here. There is nothing magic about ten to thirteen square meters of space. This figure is only applicable to a very limited segment of the French population at a particular time and has no demonstrable relevance to any other population. To compute crowding for different ethnic groups it is necessary to recall for a moment the earlier chapters dealing with the senses.

The degree to which peoples are sensorially involved with each other, and how they use time, determine not only at what point they are crowded but the methods for relieving crowding as well. Puerto Ricans and Negroes have a much higher involvement ratio than New Englanders and Americans

of German or Scandinavian stock. Highly involved people apparently require higher densities than less involved people, and they may also require more protection or screening from outsiders. It is absolutely essential that we learn more about how to compute the maximum, minimum, and optimum density of the different cultural enclaves that make up our cities.

MONOCHRONIC AND POLYCHRONIC TIME

Time and the way it is handled have a lot to do with the structuring of space. In *The Silent Language*, I described two contrasting ways of handling time, monochronic and polychronic. Monochronic is characteristic of low-involvement peoples, who compartmentalize time; they schedule one thing at a time and become disoriented if they have to deal with too many things at once. Polychronic people, possibly because they are so much involved with each other, tend to keep several operations going at once, like jugglers. Therefore, the monochronic person often finds it easier to function if he can separate activities in space, whereas the polychronic person tends to collect activities. If, however, these two types are interacting with each other, much of the difficulty they experience can be overcome by the proper structuring of space. Monochronic northern Europeans, for example, find the constant interruptions of polychronic southern Europeans almost unbearable because it seems that nothing ever gets done. Since order is *not* important to the southern Europeans the customer with the most "push" gets served first even though he may have been the last to enter.

To reduce the polychronic effect, one must reduce involvement, which means separating activities with as much screening as necessary. The other side of the coin is that monochronic people serving polychronic customers must reduce or eliminate physical screening so that people can establish contact. This often means physical contact. For the businessman who serves Latin Americans the success of the settee as contrasted with the desk is an example of what I mean. We have yet to apply even simple principles such as these to the planning of urban spaces. The highly involved poly-

chronic Neapolitan builds and uses the Galeria Umberto where everyone can get together. The Spanish plaza and the Italian piazza serve both involvement and polychronic functions, whereas the strung-out Main Street so characteristic of the United States reflects not only our structuring of time but our lack of involvement in others. Inasmuch as our large cities now incorporate significant elements of both of the types represented above, it might have a salutary effect on the relationships between the two groups if both types of spaces were provided.

City planners should go even further in creating congenial spaces that will encourage and strengthen the cultural enclave. This will serve two purposes: first, it will assist the city and the enclave in the transformation process that takes place generation by generation as country folk are converted to city dwellers; and second, it will strengthen social controls that combat lawlessness. As it is now, we have built lawlessness into our enclaves by letting them turn into sinks. In the words of Barbara Ward, we have to find some way of making the "ghetto" respectable. This means not only that they will be safe but that people can move on when the enclave has performed its functions.

In the course of planning our new cities and revamping our old ones, we might consider positively reinforcing man's continuing need to belong to a social group akin to the old neighborhood where he is known, has a place, and where people have a sense of responsibility for each other. Apart from the ethnic enclave, virtually everything about American cities today is sociofugal and drives men apart, alienating them from each other. The recent and shocking instances in which people have been beaten and even murdered while their "neighbors" looked on without even picking up a phone indicates how far this trend toward alienation has progressed.

THE AUTOMOBILE SYNDROME

How did we reach this state of affairs? One knows intuitively that there are many explanations in addition to the design and layout of buildings and spaces. There is, however,

a technical artifact built into our culture which has completely altered our way of life upon which we are now so completely dependent on to satisfy so many needs that it is difficult to conceive of our ever giving it up. I am referring, of course, to the automobile. The automobile is the greatest consumer of public and personal space yet created by man. In Los Angeles, the automobile town par excellence, Barbara Ward found that 60 to 70 per cent of the space is devoted to cars (streets, parking, and freeways). The car gobbles up spaces in which people might meet. Parks, sidewalks, everything goes to the automobile.

There are additional consequences of this syndrome that are worth considering. Not only do people no longer wish to walk, but it is not possible for those who do wish to, to find a *place* to walk. This not only makes people flabby but cuts them off from each other. When people walk, they get to know each other if only by sight. With automobiles the opposite is true. The dirt, noise, exhaust, parked cars, and smog have made the urban outdoors too unpleasant. In addition, most experts agree that the flabby muscles and reduced circulation of the blood that come from lack of regular exercise make man much more prone to heart attacks.

Yet there is no inherent incompatibility between man in an urban setting and the automobile. It's all a matter of proper planning and built-in design features which separate cars from people, a point stressed by the architect Victor Gruen in *The Heart of Our Cities*. There are already numerous examples of how this can be done by imaginative planning.

Paris is known as a city in which the outdoors has been made attractive to people and where it is not only possible but pleasurable to stretch one's legs, breathe, sniff the air, and "take in" the people and the city. The sidewalks along the Champs-Élysées engender a wonderful expansive feeling associated with a hundred-foot separation of one's self from the traffic. It is noteworthy that the little streets and alleys too narrow to accept most vehicles not only provide variety but are a constant reminder that Paris is for *people*. Venice is without a doubt one of the most wonderfully satisfying cities in the world, with an almost universal appeal. The most striking features of Venice are the absence of vehicular traffic,

the variety of spaces, and the wonderful shops. San Marco Square with automobiles parked in the middle would be a disaster and totally unthinkable!

Florence, while different from Paris or Venice, is a stimulating city for the pedestrian. The sidewalks in the central portion of town are narrow so that walking from the Ponte Vecchio to Piazza della Signoria one meets people face to face and has to step aside or go around them. The automobile does not fit in with the design of Florence and if the townspeople were to ban vehicular traffic from the center of town, the transformation could be extraordinary.

The automobile not only seals its occupants in a metal and glass cocoon, cutting them off from the outside world, but it has a way of actually decreasing the sense of movement through space. Loss of the sense of movement comes not only from insulation from road surfaces and noise but is visual as well. The driver on the freeway moves *in a stream of traffic* while visual detail at close distances is blurred by speed.

Man's entire organism was designed to move through the environment at less than five miles per hour. How many can remember what it is like to be able to see everything nearby quite sharply as one walks through the countryside for a week, a fortnight, or a month? At walking speeds even the nearsighted can see trees, shrubbery, leaves and grass, the surfaces of rocks and stones, grains of sand, ants, beetles, caterpillars, even gnats, flies and mosquitoes, to say nothing of birds and other wildlife. Not only is near vision blurred by the speed of the automobile but one's relationship to the countryside is vastly altered. I realized this once while riding my horse from Santa Fe, New Mexico, to the Indian reservations in northern Arizona. My route took me north of Mt. Taylor, which I knew well because I had passed its southern edge fifty times on the highway from Albuquerque to Gallup. Driving west at automobile speeds one watches the mountain rotate as different faces are presented. The whole panorama is finished in one or two hours and ends with the red-walled Navajo sandstone cliffs outside of Gallup. At walking speed (which is all one can do on a horse if great distances are to be covered) the mountain does not appear to move or rotate. Space and distance and the land itself have more meaning.

~~As~~ speed increases, sensory involvement falls off until one is experiencing real sensory deprivation. In modern American cars the kinesthetic sense of space is absent. Kinesthetic space and visual space are insulated from each other and are no longer mutually reinforcing. Soft springs, soft cushions, soft tires, power steering, and monotonously smooth pavements create an unreal experience of the earth. One manufacturer has even gone so far as to advertise his product by showing a car full of happy people *floating on a cloud above the road!*

Automobiles insulate man not only from the environment but from human contact as well. They permit only the most limited types of interaction, usually competitive, aggressive, and destructive. If people are to be brought together again, given a chance to get acquainted with each other and involved in nature, some fundamental solutions must be found to the problems posed by the automobile.

CONTAINED COMMUNITY BUILDINGS

Many factors in addition to the automobile are combining to gradually strangle the hearts of our cities. It is not possible to say at this time whether the flight of the middle class from the city can be reversed, or what the ultimate consequences will be if this trend is not reversed. There are, however, a few small encouraging spots on the horizon well worth watching. One of them is Marina City, Bertrand Goldberg's circular apartment towers in Chicago. The towers occupy a city block downtown on the edge of the Chicago River. The lower floors spiral upward and provide open-air, off-street parking facilities for the apartment residents. Marina City has many other features that answer the needs of city dwellers: restaurants, bars and taverns, a super market, liquor store, theater, ice skating rink, a bank, boat basins, and even an art gallery. It is safe, protected from weather and possible city violence (you don't need to go outside for anything). If tenant turnover isn't too great because of the small spaces in the apartments, some tenants may actually get to know each other and develop a sense of community. The view of a city, especially at night, is a delight and one of its greatest assets,

yet how few people get to appreciate it? Visually, the design of Marina City is superb. Viewed from a distance, the towers are like the pine trees on the ridges around San Francisco Bay; the balconies stimulate the fovea and beckon the viewer to come closer, promising new surprises with each shift in the visual field. Another promising approach to civic design is that developed by Chloethiel Smith, an architect in Washington, D.C. Miss Smith, always concerned with the human side of architecture, has managed to create interesting, esthetically satisfying, and humanly congenial solutions to problems in urban renewal. Automobiles are handled as inconspicuously as possible and kept away from people.

City planners and architects should welcome opportunities to experiment with radically new, integrated forms that will hold an entire community. One of the advantages of Marina City, apart from the excitement it generates visually, is that it represents a definite, well-delineated amount of contained space without the killing effect of long corridors. There will be no spilling out or spreading or sprawling from this structure. Its principal defect is the cramped living space, which a number of the tenants I have talked to experience as unduly confining. In the heart of the city one needs more space in the home, not less. The home must be an antidote for city stresses.

As now constituted, the American city is extraordinarily wasteful, emptying itself each night and every weekend. One would think that efficiency-minded Americans could do better. The result of the suburbanization of our cities is that the remaining residents are now predominantly the overcrowded impoverished and the very rich, with a sprinkling of holdouts from the middle class. As a result, the city is very unstable.

PROSPECTUS FOR CITY PLANNING OF THE FUTURE

The city has existed in various forms for some five thousand years and it seems unlikely that there will be a ready-made substitute for it. There is no doubt in my mind that the city is in addition to everything else an expression of the culture of the people who produced it, an extension of society that

performs many complex, interrelated functions, some of which we are not even aware of. From the perspective of the anthropologist one approaches the city with some degree of awe and the knowledge that we do not know nearly enough to plan intelligently for the city of the future. Yet plan we must because the future has caught up with us. There are several points which are crucial to the solutions of the numerous problems facing us today. They are:

1. Finding suitable methods for computing and measuring human scale in all its dimensions including the hidden dimensions of culture. The proper meshing of human scale and the scale imposed by the automobile presents us with a great challenge.
2. Making constructive use of the ethnic enclave. Somehow there is a close identification between the image that man has of himself and the space that he inhabits. Much of today's popular literature devoted to the search for identity reflects this relationship. A very real effort should be made to discover and satisfy the needs of the Spanish American, the Negro, and other ethnic groups so that the spaces which they inhabit are not only compatible with their needs but reinforce the positive elements of their culture that help to provide identity and strength.
3. Conserving large, readily available outdoor spaces. London, Paris, and Stockholm are models which if properly adapted could prove useful for American city planners. The great danger in the United States today is the continuing destruction of the outdoors. This can prove extraordinarily serious, if not fatal, to the entire country. Solving the problem of the outdoors and man's need for contact with nature is complicated by the increasing incidence of crime and violence associated with our city sinks. Parks and beaches are daily becoming more dangerous. This only intensifies the sense of crowding which urban residents experience when they are cut off from recreational facilities. In addition to city recreation areas and green belts, setting aside large sections of primitive outdoors is one of our greatest needs. Failure to take this step now could mean catastrophe for future generations.
4. Preserving useful, satisfying old buildings and neighbor-

hoods from "the bomb" of urban renewal. Not all new things are necessarily good nor are all old things bad. There are many places in our cities—sometimes only a few houses or a cluster of houses—which deserve to be preserved. They afford continuity with the past and they lend variety to our townscapes.

In this brief review I have said nothing about the very great strides the English have made in urban renewal under the London Plan, first set forth by Sir Patrick Abercrombie and Mr. J. H. Foreshaw in 1943. By the building of their "new towns," the English have characteristically demonstrated that they are not afraid to plan. Also, by preserving barriers of open country (green belts) separating major centers, they have insured future generations against the megalopolis pattern which we experience in the United States when cities merge. There have been mistakes, of course, but by and large our own city governments could learn from the British that planning must be co-ordinated and courageously applied. It must be emphasized, however, that using the English plans as a model is a matter of policy, not practice, for their plans would not in any case be applicable to America. Ours is a very different culture.

No plan is perfect, yet plans are necessary if we are to avoid complete chaos. Because environment structures relationships and planners cannot think of everything, important features will inevitably be omitted. To reduce the serious human consequences of planning errors, there must be built-in research programs which are adequately staffed and soundly financed. Such research is no more a luxury than are the gauges in an airplane cockpit.

XIV

PROXEMICS AND THE FUTURE OF MAN

This book emphasizes that virtually everything that man is and does is associated with the experience of space. Man's sense of space is a synthesis of many sensory inputs: visual, auditory, kinesthetic, olfactory, and thermal. Not only does each of these constitute a complex system—as, for example, the dozen different ways of experiencing depth visually—but each is molded and patterned by culture. Hence, there is no alternative to accepting the fact that people reared in different cultures live in different sensory worlds.

We learn from the study of culture that the patterning of perceptual worlds is a function not only of culture but of *relationship, activity, and emotion*. Therefore, people from different cultures, when interpreting each other's behavior, often misinterpret the relationship, the activity, or the emotions. This leads to alienation in encounters or distorted communications.

The study of culture in the proxemic sense is therefore the study of people's use of their sensory apparatus in different emotional states during different activities, in different relationships, and in different settings and contexts. No single research technique is sufficient in scope to investigate a complex, multidimensional subject like proxemics. The technique employed is a function of the particular facet of proxemics under examination at a given moment. In general, however, in the course of my research I have been more concerned with structure than content and more interested in the question "How?" than "Why?"