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At Arm's Length: The Meanings of Spaces

We shape our buildings: thereafter they shape us.
—Winston Churchill (1874–1965)

A later segment on Martha's video shows the entrance of a third person, Mark, onto the scene. He is, apparently, one of Ted's friends, who happened to be at the same restaurant. Seeing Ted and his companion, he decided to go over to their table and say hello. A typical greeting encounter ensues, whereby Ted introduces Mark to Cheryl. Now, before proceeding to view and analyze the greeting ritual let's put the video on pause for a second to ponder a few relevant questions. How close do you think the two strangers, Cheryl and Mark, will stand to each other? Will they shake hands delicately or with force, for a relatively short or for a drawn-out period of time? Will they touch any other part of each other's bodies?

As we allow the video to go forward, we see that they stood, predictably, at arm's length from each other, that they did not touch any part of their bodies other than their hands. To the semiotician, the predictability of these behaviors suggests the existence of a *proxemic code*, as it is called, regulating the zones Cheryl and Mark maintained between each other and a *tactile code* governing touch. Executing the greeting ritual at a close distance would have been perceived by both Cheryl and Mark to constitute a breach of "personal space." It would have been interpreted as a transgression of an imaginary boundary line around the body that can only be traversed by those with whom a person is intimate. This is also why they did not touch any other body part, other than the hands. Now, since Cheryl's and Mark's behavior is semiotically

coded, it should come as no surprise to find that it is not universal. Indeed, people in other cultures touch much more upon meeting one another and stand closer to each other than people do in America.

Proxemics is the study of how people perceive and semiotically organize the zones they maintain between each other in culturally specific situations. The founder of this interdisciplinary science, which has become a target of research in anthropology, social psychology, and semiotics, was the American anthropologist Edward T. Hall (1914–2009), whose research paradigm for studying interpersonal zones consists of very precise notions and procedures, which he developed after systematically studying people interacting during World War II when he served in the US Army in Europe and the Philippines. Hall came to realize that failures in intercultural communication arose typically from unconsciously coded differences in the ways that members of different cultures perceived interpersonal zones and in the ways they acted within them.

As an example of how proxemic zones guide interpersonal behavior consider the following typical scenario. Imagine entering an elevator on the fifth floor of a multi-floor skyscraper. There are three people already in the elevator, obvious strangers to each other, because they are in separate corners of the elevator, facing the door or looking down at the ground, and silent. Where will you stand? Near one of the others? Or will you probably go to the remaining corner? In what direction will you orient your body? Will you face the other passengers or will you face the door? Without going into a detailed analysis of the situation, if you have been living in American society for a period of time, you will know exactly the answers to these questions. The proxemic code informs you to occupy the remaining corner, to face the door or look down at the floor to avoid eye contact with the others, and, of course, to maintain silence. So critical is this code in maintaining social harmony that if you decide to act in some other way—that is, to face the others, to look directly at them, to sing—they would become uneasy or angry with you, because they would interpret your behavior as being either conflictual or disturbed. To cope with your breach of conduct, they might ignore your actions completely, as if they had not occurred.

In 1963, Hall defined proxemics broadly as the study of how we “unconsciously structure microspace”—the distance between people in the conduct of daily transactions, as well as “the organization of space in houses and buildings, and ultimately the layout of towns.”¹ A few years later he expanded its definition to include “the interrelated observations and theories of the use of space as a specialized elaboration of culture.”² Hall’s proposal to study the zones people maintain between each other has led to a large body of data on this aspect of social behavior, most of it showing that such zones are measurable

with statistical accuracy, varying predictably and systematically according to age, gender, and other social variables. Today, proxemics is a robust area of research pursued by all kinds of social scientists. Hall did not explicitly use semiotic notions to study proxemic behavior, but his whole outlook and framework are, de facto, semiotic in nature. The inclusion of proxemics as a branch of nonverbal semiotics started in 1968 with Umberto Eco, who defined each zone as a particular kind of spatial sign.³

Interpersonal Space

To execute the greeting ritual, Mark and Cheryl extended their right hands, but kept their bodies at arm's length from each other—a boundary that, as Hall discovered, could be measured fairly accurately, allowing for predictable statistical variation.⁴ In American culture, he found that a distance of less than six inches between two people was reserved for intimates. Within this zone the senses are activated and physical presence is tangible. It is a zone reserved for love-making, comforting, and protecting. A six- to twelve-inch zone between individuals is the space where interactions between family members and close friends unfold. A distance of one and a half to four feet is the minimal comfort zone between non-intimate individuals. This is the space where handshaking and other forms of formal tactile communication are carried out. A distance of four to six feet is considered non-involving and non-threatening by all individuals. This is the space in which people carry out casual social discourse. Formal discourse, on the other hand, occurs within a seven- to twelve-foot zone. Finally, Hall found that a distance of twelve feet and beyond is the zone people tend to keep between themselves and public figures. Discourse at this distance is highly structured and formalized (for example, lectures and speeches). Parenthetically, it is interesting to note that the social meanings associated with interpersonal zones are reflected in common idioms, such as *Keep your distance*, *They're very close*, *We've drifted far apart*, *You're trespassing into my personal space*, *I can't quite get to him*, *Please keep in touch*, and so on.

Research has shown that such zones vary predictably. For example, younger people maintain closer zones when interacting than do older people; similarly, non-intimate individuals of the opposite sex stay farther apart than do those of the same sex. Also influencing interpersonal zones are factors such as the topic of discourse (pleasant topics draw people closer together, unpleasant ones keep them farther apart), the setting (lighting, noise, available space), the physical appearance of an interlocutor (those perceived to be more attractive

draw in the other person more), the interlocutor's personality (people tend to stay closer to a friendly person), and the status of the interlocutor (one with higher social status is given more space than one with a lower status).

Proxemic codes not only regulate interpersonal space, but also the orientation of the body and the social meanings ascribed to its relative location in the interaction context (above or below a platform, behind or in front of a desk). When someone is standing on a stage at the front of an audience, for example, they are perceived as being more important than someone sitting down. Speeches, lectures, classes, and various performances unfold in this way, with the speaker, performer, and teacher "at the front" or "on stage," and the audience members seated (usually). Officials, managers, directors, and the like sit behind a desk to mark their importance and superiority. Only their superiors can walk behind it to talk to them. To show friendliness, the person behind the desk would have to come out and sit with the other person in a different part of the room.

Touch

Similar to proxemic codes, tactile codes also regulate social interaction. Holding hands with a child entails a different tactility (variation in force or intensity) than holding hands with a lover. Patting a superior to convey approval or appreciation also involves a different tactile pattern than touching a friend. Needless to say, tactility varies across cultures. In San Juan, Puerto Rico, the rate at which people touch each other during social discourse is much higher than it is in Paris, London, or New York. In Japanese society, during infancy and childhood a close tactile relationship among family members is encouraged, but at adolescence and beyond touch in general is discouraged.⁵

Tactile codes inform individuals who they are allowed to touch and who not to touch, where it is permissible to touch another person, and so on. For example, a doctor or nurse may touch a patient, but the reverse is normally perceived as inappropriate. An adult may pat a child on the head, but a child patting an adult on the head has no specifiable social meaning. Touching oneself in certain parts, such as the head and the face, is generally acceptable, but touching oneself in the genital area is construed as either offensive and, in some places, illegal. Linking arms normally indicates companionship; putting one's arm around someone's shoulder typically indicates friendship or intimacy; and holding hands conveys intimacy of some kind.

The most common form of initial tactile communication in American culture is handshaking. The zoologist Desmond Morris claims that this greeting

ritual may have started as a way to show that neither person in a greeting activity was holding a weapon.⁶ It thus became a “tie sign,” because of the social bond it was designed to establish. Throughout the centuries, it evolved into a symbol of equality among individuals, being used to seal agreements of all kinds. Indeed, refusing to shake someone’s outstretched hand will invariably be interpreted, even today, as the opposite—a sign of aggressiveness or a challenge. Predictably, handshaking reveals a high degree of cross-cultural variation. People can give a handshake by squeezing the right hand (as Europeans and Americans do), shaking the other’s hand with both hands, shaking the right hand and then patting the other’s back or hugging the person, leaning forward or standing straight while shaking hands, and so on. Handshaking is not a universal social protocol, though. Southeast Asians, for instance, traditionally press their palms together in a praying motion to carry out the greeting ritual. The fact that they now also use the handshake form of greeting bespeaks of the influence of one culture on another.

Anthropologists are unclear as to why touching patterns vary so much across cultures, at least traditionally. The reason may be the ways in which people perceive the meaning of the self in relation to the body. In some societies, people think of themselves as literally “contained” in their skin. The privacy zones that define “self-space” in such cultures, therefore, include the clothes that cover the skin. On the other hand, in other cultures—as, for example, in most Middle Eastern ones—the self is perceived as being located down within the body shell. This results in a totally different patterning and perception of proxemic and tactile actions. Middle Eastern individuals are in general more tolerant of crowds, of noise levels, of touch, of eye contact, and of body odors than are most North Americans.

Some psychologists claim that, in evolutionary terms, one of the original functions of touch was to initiate a mating encounter. Remnants of this mechanism can still be seen in the fact that lovers hold hands, touch each other on the hair and face, pat each other to convey affection, and so on. Sexual touching is universal, although its specific coding varies widely. In her book, *The Gift of Touch*, Helen Colton poses the following embarrassing situation to illustrate how culturally diverse the sexual coding of touch is.⁷ Let us say that someone comes upon a strange woman in her bath. Which part of her body would the woman touch in order to conceal it? According to Colton, it depends on which culture she belongs to. Clearly, as Colton’s argument implies, the specific bodily parts that are perceived to be sexually suggestive differ widely from culture to culture. What is considered as erotic or obscene touching behavior in some cultures is considered natural or desirable behavior in others.

Territoriality

According to some biologists and psychologists, interpersonal zones and touch patterns are remnants of an innate territoriality mechanism that allows an animal to gain access to, and defend control of, critical resources such as food and nesting sites found in certain habitats. This is why animals compete for territories, either fighting actual battles or performing ritual combats as tests of strength, with the defeated animal being excluded from holding a territory or forced to occupy a less desirable locale. The victor then typically marks the boundaries of its conquered territory in a species-specific way. A cat, for instance, will urinate along the boundary that marks the territory it claims as its own. This sends out a scent to potential competitors signaling possession of a tract of land.

The Austrian zoologist Konrad Lorenz (1903–89) was among the first scientists to identify and document territoriality patterns. He discovered that they were an important part of an animal's repertoire of survival strategies, as critical, in evolutionary terms, as its anatomical characteristics. Lorenz also suggested that human aggression and warfare were explainable as residual territoriality impulses. Lorenz's controversial theory gained widespread popularity through a best-selling book by Robert Ardrey published in 1966, *Territorial Imperative*. The book subsequently generated a heated debate in academia and society at large on the nature and origin of human aggression.⁸ The notion of "human territoriality" has an intuitive logic to it: intrusions into one's home or car are perceived as signals of aggression, and humans mark off their territories with props such as landmarks, boundary lines, and fences, which would seem to have similar functions to the territoriality mechanisms of other species.

The instinct for securing territories as "survival spaces" became the target of psychological experiments with rats in the 1950s and 1960s. These received broad media coverage because of the implications they seemed to have for people living in crowded urban areas. The gist of the experiments can be condensed as follows. When two laboratory rats were enclosed in the same cage, the researchers found that each one would instinctively seize an area of approximately equal dimensions. When a third rat would be introduced into the same cage, then a tripartite arrangement of subdivided areas would seem to be negotiated among the three rats. However, there always seemed to be some initial reluctance to do so, as signaled by minor altercations among the three rats at the beginning of the negotiations. As each extra rat would be introduced progressively into the cage, more reluctance and aggression would ensue until a "critical mass" would apparently be reached whereby the rats in

the cage would either fight relentlessly or demonstrate some form of capitulation behavior. The implications for “urban overcrowding” that those experiments apparently had were not missed by journalists and reporters. They also seemed to provide an explanation as to why some people “snap,” as the expression goes, when this critical mass is surpassed; and why others seek rational solutions such as escaping into the suburbs, moving into the country, and so on.

Maps

Humans represent their territories with texts known as *maps*. Semiotically, maps are visual texts of significant spaces—spaces that mean something to us in some way—constructed with the three basic types of representational processes—indexicality, iconicity, and symbolism (Chap. 2). A map is, at one level, an indexical “territorial text,” since it indicates where a territory is located on terra firma. Its layout is iconic because it shows the features in a territory in topographical relation to each other. It involves symbolic coding as well because it is decipherable on the basis of conventionalized notational systems (key, scale, and so on). All civilizations have developed map-making techniques to meet a host of social needs. These were elaborated and refined in tandem with the rise and growth of the mathematical sciences, and especially in accordance with the principles of Cartesian coordinate geometry. In a fundamental way, maps are like words—they classify the world in specific ways. It is relevant to note that today, with GPS systems, the paper map has become virtually obsolete. The shift from paper to screen maps mirrors the larger shift away from Print Age textualities to electronic-digital ones.

How do we interpret a map? To say “I am here, but I want to get to there” on a map involves understanding (1) that *here* and *there* are indexes in map space standing for points in real space, and (2) that the movement from *here* to *there* on a map stands for the corresponding iconic (simulative) movement between two points in real space. However, this is only the denotative dimension of map interpretation, that is, the basic way in which we interpret it as a text composed of indexical, iconic, and symbolic signifiers. A map is also an interpretant of space. As Denis Wood aptly puts it: “the history of the map is our history because the connections from the map to the rest of the culture radiate from every part of it.”⁹ Moreover, as J. B. Harley observes, this is the reason why they are “persuasive”:¹⁰

Like all other texts, maps use signs to represent the world. When these become fixed in a map genre, we define them as conventional signs...Maps are also inherently rhetorical images. It is commonplace to say that cartography is an art of persuasion. What goes against modern wisdom is to suggest that *all* maps are rhetorical...They are part of persuasive discourse, and they intend to convince.

The first known maps were made by the Babylonians around 2300 BCE. Carved on clay tablets, they consisted largely of land surveys made for the purposes of taxation. More extensive regional maps, drawn on silk and dating from the second century BCE, have been found in China. The precursor of the modern map is believed to have been devised by the Greek philosopher Anaximander (c. 610–547 BCE). It was circular and showed the known lands of the world grouped around the Aegean Sea at the center and surrounded by the ocean. Anaximander's map constituted one of the first attempts to think beyond the immediate territorial boundaries of a particular society—Greece—even though he located the center of the universe in the Aegean Sea, thus betraying his own worldview. Around 200 BCE, the Greek geometer and geographer Eratosthenes (c. 276–195 BCE) introduced the technique of parallel lines to indicate latitude and longitude, although they were not spaced evenly and accurately. Eratosthenes' map represented the known world of his times, from England in the northwest to the mouth of the Ganges River in the east and to Libya in the south. Approximately 150 CE, the Greek scholar Ptolemy (c. 100–170 CE) published the first textbook in cartographic method, titled *Geographia*. Maps became the tools for planning travel and for exploration and the basis for naming new territories. In 1507, the German cartographer Martin Waldseemüller (c. 1470–1522) applied the name America to the newly identified transatlantic lands, further classifying America into North and South—a cartographic tradition that continues to this day—and differentiating the Americas from Asia. In 1570, the first modern atlas—a collection of maps of the world—was put together by the Flemish cartographer Abraham Ortelius (1527–98). The atlas, titled *Orbis Terrarum*, contained seventy maps. The world, it seemed, was now under the “control” of human semiotic skills.

An important development came in the sixteenth century when Gerardus Mercator (1512–94) developed the technique of cylindrical projection in 1569. This allowed cartographers to portray compass directions as lines, at the expense, however, of the accurate representation of relative size. The new maps led, in the nineteenth century, to topographic surveys in Europe for determining political boundaries. In 1891, the International Geographical Congress proposed the political mapping of the entire world on a scale of

1:1,000,000, a task that occupied cartographers for more than a century. Throughout the twentieth century, advances in aerial and satellite photography, and in computer modeling of topographic surfaces, greatly enhanced the versatility, functionality, accuracy, and fidelity of map-making and, thus, the geographic classification of geographical space. Towards the end of the century, the Geographic Information System (GIS) and the Global Positioning System (GPS) were invented to produce sophisticated maps from stored data (in the case of the latter) or to guide drivers of moving vehicles. The GPS tracks a vehicle's location by using signals from a group of space satellites. A computer in the vehicle combines the position data with stored street map data, producing optimal maps of the route to a destination.

Despite such technological sophistication, the basic premise underlying map-making has not changed since Mercator's era—it inheres in the segmentation of geographical space in terms of topological, political, and other categories. The traditional maps of North American aboriginal peoples, on the other hand, are designed to show the interconnectedness among the parts within the map space through a relation of distance, angulation, and shape. Western maps represent the world as an agglomeration of points, lines, and parts, related to each other in terms of the mathematics of the Cartesian plane; aboriginal maps represent the same world instead as a holistic unsegmentable entity. Arguably, the design of these kinds of maps has influenced the design of living areas. Aboriginal territories are interconnected to each other holistically; modern American territories (such as urban centers), on the other hand, are divided and subdivided into sections that are determinable in discrete ways. Not only does the layout of the city of New York, for instance, mirror a Cartesian map, but the city also names many of its streets in terms of the grid system: for example, 52nd and 4th refers to the intersection point of two perpendicular lines in the city grid. In a fundamental semiotic sense, such cities are the “iconic byproducts” of the worldview that has been enshrined by the widespread use of grid maps since the early sixteenth century.

Maps are clearly much more than maps, so to speak. As Thrower observes, some of our greatest achievements have been made possible through cartographic expression “from philosophical considerations on the nature of the earth to setting foot on the lunar surface.”¹¹ The representational power of maps thus raises a fundamental philosophical question: Is scientific representation (diagram-making) an attempt to encode reality in a particular cultural way, or is it independent of culture? Geometry and trigonometry are basically diagram-making sciences that have allowed human beings to solve engineering problems since ancient times, and the science of cartography has allowed explorers to solve travel problems with amazing accuracy. In the past, explorers

set out on a journey without knowing what they would encounter along the way, nor whether they would reach a land mass or a body of water. However, they still took their journeys of discovery with a high degree of assurance that they would find the intended destination, thanks to their maps.

What is even more remarkable is that cartography has permitted us to describe the positions of heavenly bodies and to calculate their distances from Earth with great exactness. It is truly mind-boggling to think that with the aid of a simple representational text (the map), we have been able to set foot on the moon and will no doubt be able to visit other places in the skies in the not-too-distant future.

What is the main implication of the foregoing discussion, semiotically speaking? It is a truly amazing one—namely, that discovery is guided by semiosis. Signs give shape to formless ideas, not in an arbitrary fashion, but in response to inferential processes that are tied to our experience of reality. Knowledge systems vary throughout the world. However, such variation is, upon closer scrutiny, superficial. Below the surface of these systems are sign creation processes that reflect imaginative universals in how reality is perceived. The problem is that we never get the “whole picture” at once. This is why special theories of the physical universe are possible and highly useful, but general ones are not. In other words, our knowledge systems can only give us partial glimpses of reality. What is important to note is that discoveries cannot be forced by logical analysis. They simply *happen*. However, they are not totally random or fortuitous, as cartographically directed exploration shows. Discovery is tied to unconscious modes of interconnecting experiences and their implications—implications that are captured in representational forms such as maps.

A perfect example of the relation between signs and discovery is the story of π (pi) = 3.14. Pi is the ratio that results when the circumference of a circle is divided by its diameter. Serendipitously, π appears in a number of mathematical calculations and formulas, such as the one used to describe the motion of a pendulum or the vibration of a string. It also turns up in equations describing the DNA double helix, rainbows, ripples spreading from where a raindrop falls into water, waves, navigation calculations, and the list could go on and on. Does this mean that the circle form is implicit in these domains? If so, what is the connecting link between the circle form that produced the notion of π and other forms such as rainbows?

The enigma of discovery is examined in a fascinating 1998 movie, titled *π : Faith in Chaos*, by American director Darren Aronofsky. A brilliant mathematician, Maximilian Cohen, teeters on the brink of insanity as he searches for an elusive numerical code that he believes is hidden in π —a code that might provide answers to the great questions of philosophy (What is life? Is there a

hidden pattern in nature? etc.). For the previous ten years, Cohen had been attempting to decode the numerical pattern beneath the ultimate system of ordered chaos—the stock market. As he verges on a solution, real chaos is swallowing the world in which he lives. Pursued by an aggressive Wall Street firm set on financial domination and a Kabbalah sect intent on unlocking the secrets hidden in their ancient holy texts, Cohen races to crack the code, hoping to defy the madness that looms before him. As the movie's subtext implies, the stream of digits after the decimal point in π seems to challenge us to try and find a pattern within them. Does a pattern exist? If so, how do we discover it? What is the attraction to this number? Is it perhaps the fact that a circle is probably one of the most perfect and simple geometric forms known to human beings? Why does π appear in nature, biology, and in many other domains of reality? It simply keeps cropping up, reminding us that it is there, and defying us to understand why. Very much like the universe itself, the more technologically advanced we become and as our picture of π grows larger, the more its mysteries grow. Because of this simple representational device— π —derived from taking a ratio, we are led to make discoveries serendipitously. That is, perhaps, the greatest mystery of all.

As a final word on maps, it is interesting to note that they have played a significant role not only in exploration, but also in narratives. Stories with maps showing where treasure is buried abound. In his introduction to *Treasure Island*, Robert Louis Stevenson describes how he sketched the island's imaginary shorelines, providing a framework for the reader to use in reading the text. The map traces the strategic movements of the pirates and the others in their search for the treasure. Sir Thomas More, Jonathan Swift, John Bunyan, Daniel Defoe, Sir Arthur Conan Doyle, Thomas Hardy, Joseph Conrad, William Faulkner, Michael Ondaatje, among others have similarly used maps as integral components of their plots.

Signifying Spaces

The discussion of territories and maps brings us logically to the topic of space itself as constituting a semiotic code. All societies build and design their streets, marketplaces, abodes, and public edifices with specific designs and culturally-focused meanings. Indeed, a building is hardly ever perceived by the members of a society as simply a pile of bricks, wood, or straw put together to provide shelter. Rather, its shape, size, features, and location are perceived to be signifiers that refer to a broad range of meanings. The rituals and behaviors that govern activities in private and public spaces are the outcome of these meanings: in American

society one knocks on the door of private dwellings, but not on the door of retail stores, to seek permission to enter (because a store is perceived to be a building that is literally open for business); one sits and waits for someone in a public foyer, atrium, or lobby, but not normally in a public bathroom (because the latter is a secretive personal space); one walks on a public sidewalk, but not on someone's porch without permission (because the porch is a private space).

We perceive a particular society as a communal space and by extension a communal body. This is why we refer to societies as being *healthy*, *sick*, *vibrant*, *beautiful*, or *ugly*. Indeed, visitors habitually judge a society instinctively as they would judge a human person, namely, on how its public spaces appear to the eye—*neat*, *dirty*, *organized*, *chaotic*, and so on. This is also why a society feels violated “as a single body” if someone defaces its public or sacred places. Conflicts among peoples or nations are often triggered by such transgressive acts against the “communal body.”

This perception would also explain why we talk of a city's roads as having *arteries*, of its downtown core as its *heart*, of its design as being *warm* or *cold*. In ancient Greece religious and civic structures in cities were designed to give a sense of aesthetic balance; streets were arranged in a grid pattern and housing was integrated with commercial and defense structures to give a feeling of organization and security. Renaissance city planners built radial streets leading to a central point, like spokes of a wheel, so as to promote social interaction. To this day, the downtown core is known as *centro* in Italy, reflecting the Renaissance design of cities as circles. The city of Siena is a classic example of this kind of design; so too is the city plan of seventeenth-century London and the streets of Mannheim and Karlsruhe in Germany. After the Industrial Revolution, the concept of the Cartesian grid started to gain a foothold on city designs (as mentioned earlier). Modern grid cities are the semiotic structural byproducts of Cartesian geometry.

The gist of the foregoing semiotic story is that cities, shelters, buildings, and communal sites are built in specific ways that bear culture-specific meanings. This is why the buildings of a particular university stand for that institution visually; why St. Peter's basilica symbolizes a specific religion; and so on. Market squares, sacred sites, and other kinds of communal places are invariably perceived as meaningful by the members of a society. Public spaces are those sites where communal or social interactions of various kinds take place; private spaces are those places that individuals have appropriated or designated as their own; and sacred spaces are those locales that are believed to have metaphysical, mythical, or spiritual attributes. Spatial codes also inform people how to act and behave in such places: the way one dresses for church is different from the way one dresses for work; the way one behaves in a restaurant is different from the way one behaves at home, and so on.

As a concrete example of the meanings that are attributed to buildings and sites, consider the shopping mall. In all societies, past and present, certain spaces are set aside for community interaction. In villages, the market square is a locus for people to enact certain rituals, to exchange goods and services, to socialize. These same kinds of functions are served, in modern urban societies, by the shopping mall. The mall, therefore, is much more than just a locus for shopping. It satisfies several semiotic needs at once. It is a signifying space that imparts a feeling of security and protection against the outside world of cars, mechanical noises, and air pollution. It also provides shopping solutions to personal problems. It has transformed shopping into a social activity, rather than one based on need. People in malls perceive shopping typically as a form of recreation, buying things that they may not need, but finding the act pleasurable in itself. Cinemas, restaurants, and amusement parks are found within some malls, enhancing the entertainment factor. The Mall of America in Bloomington, Minnesota, for instance, has more than 400 stores, around fifty restaurants, several night clubs, and a giant roller coaster, drawing millions of visitors per year, equal or greater in number than Walt Disney World, the Grand Canyon, or Graceland (the home of rock legend Elvis Presley). Malls have morphed, in effect, into self-contained “fantasylands,” where one can leave the problems, dirt, and hassles of modern life literally outside.

Buildings

Buildings are not only shelters. As in all things human, they are also perceived as signs with connotative values literally built into them. We typically react to our home, for instance, as if it were an extension of self-space. At a denotative level, a home, whether a crude hut or an elaborate mansion, has a straightforward meaning: it is a shelter providing protection from weather and intruders. It also demarcates territory, constituting a privately bounded space that ensures safety and preserves sanity. When one steps inside, one feels as if one has retreated into the safety of one's own body. This is why intrusion into a home is felt as a violation of the self.

However, denotation stops there. Within the home, each room elicits a specific type of connotative meaning. Take the bedroom as an example. Concealing a bedroom has a practical basis: we are extremely vulnerable when we are sleeping, and so it is judicious to keep sleeping areas concealed or secret. The ancient Egyptians hid their bedrooms at the back or the sides of their homes. North American families also prefer to keep their bedrooms away from the line of sight. However, bedrooms are also signs of the self. It is

the room where we display our persona, through decoration, accoutrements (photos, objects) and other meaning-bearing objects. This is why only intimates are allowed to share that space literally and symbolically. Conceptions of “clean” and “dirty” in a home are also interpretable at the level of connotation. Dirt is really no more than displaced matter. An object “out of its proper place” must be put back or reallocated, otherwise it might be perceived as litter or debris. This is particularly true with regard to our kitchens, because we think of them as “dirt-free” or “dirt-removal” spaces. We can tolerate “dirty” bedrooms much more because food is not involved and because they are out of the line of sight.

The experience of the home space contrasts with the experience of other kinds of spaces, especially those designated as sacred. When one enters a church, a chapel, a synagogue, a temple, or a mosque, one tends to speak with a lower voice, to walk more quietly, to feel a sense of respect and reverence. The configuration and set-up of the sacred space is also laden with meanings. In a Catholic church, for example, the altar is more sacred and therefore less traversable than the area containing the pews. A confessional is a very intimate enclosure. It cannot be lit or made overly amenable. It imparts a feeling of intimate reflection, providing a physical space within which one can look into the dark depths of the soul to reveal to God one’s weaknesses. The way the altar faces is also highly meaningful. As a table for eating spiritually along with Christ, it was once put against the wall of the church with the priest’s back to the people. The language spoken was Latin, which further imbued the ceremony with a detached, abstract, and yet, seemingly spiritual, quality. Nowadays, the altar and the priest are oriented towards the faithful. This new configuration conveys a feeling of communion with and among the people, not just of communion with God. The change in orientation of the altar reflects, clearly, a change in emphasis on the part of the Church and its members.

Sacred buildings make individuals feel that they have entered a special place, a place where contact with the deities is real and meaningful. Indeed, the word *church* comes from Greek *ekklesia*, meaning “those called out,” that is, those called by God away from their communities to form a new and spiritually deeper community. New Testament metaphors bear this out. Christians refer to the *body of Christ*, to Christ as the *head*, and to the faithful as *members* (originally meaning “limbs”). This feeling that the congregation is part of a communal body has spawned its own architectural traditions. In some modern-day designs of churches the altar is placed in the center of a circular arrangement, allowing people to face each other and thus to feel united through the ongoing ceremony.

Churches, temples, mosques, and other sacred buildings stand out clearly from their surroundings and have a pronounced architectural character. Since the dawn of history, people have sought to establish their relationship to the forces of nature by building substantial structures commanding attention, in places where the divinities are thought to reside, and where miracles and supernatural events are thought to take place. Around these, the ceremonies of worship were elaborated. As a result, priests and rulers became very powerful because they were thought to have direct access to the divinities. Egyptian rulers built elaborate tombs in the form of *mastabas*, rectangular masses of masonry that were transformed into the great pyramids around 1500 BCE. These immense buildings testify to the vast social control that Egyptian pharaohs exerted over the populace. Other cultures have similar monuments. In India, the commemorative monument takes the form of a large hemispherical mound, called a *stupa*; in Southeast Asia it is called a *wat*—a richly sculptured stone complex that is approached by a ceremonial bridge. In the Mayan and Inca cultures, ceremonial monuments resembled the Egyptian pyramids, in that they used the same kinds of architectural design.

Churches were the tallest buildings of medieval European cities and towns. The spires on those churches rose majestically upwards to the sky, imparting a sense of awe as people looked up. There was no doubt as to which group had political and social power in medieval Europe. The churches were, literally and symbolically, places of power and wealth. As the churches started to lose their clout and wealth after the Renaissance, other kinds of buildings emerged to reflect in their architecture the new cultural order. The tallest buildings were the palaces of aristocrats and the emerging bourgeoisie. Today, the tallest structures in cities such as Dallas, Toronto, Montreal, New York, Chicago, Los Angeles, and London are owned by large corporations and banks. Wealth and power now reside in these institutions. Inside these mammoth buildings there is a structure that mirrors the social hierarchical structure implicit within it—the jobs and positions with the lowest value are at the bottom of the building; the more important ones at the top. The company's executives reside, like the gods on Mount Olympus, on the top floor. The atmosphere on this level is perceived to be rarefied and other-worldly. This architectural symbolism is the reason why we use expressions such as “to work one's way up,” “to make it to the top,” “to climb the ladder of success,” “to set one's goals high,” and so on.

It is often the case that not only buildings, but also entire cities are believed to represent a form of heaven on earth. As Humphrey and Vitebsky note:¹²

Many ancient civilizations believed that it was the reproduction of the structure of the cosmos in sacred architecture that made human life possible by providing a model for the laws of society on earth. This view applied to the city as well as

to the temple and it made the spiritual and political dimensions of power virtually identical. In Mesoamerica, the city was often laid out as an exact model of a heavenly city. The Aztec capital of Tenochtitlán was constructed according to a divine ideogram, while at Teotihuacan, the entire city, containing thousands of temples, was itself equivalent to a great temple.

Overall, buildings are semiotic texts. This is why, in addition to size and shape, a building's location bears meaning. An office building in the downtown core signifies, in general, more prestige than a building on the outskirts of town. Head offices are normally located downtown. Since the late 1960s, the design of such buildings has been influenced by the style known as postmodernism. The AT&T building in New York City, built in 1984, is a classic example of this style. With its allusions to Renaissance architectural forms and design features evoking Chippendale furniture, it combines historical tradition with satirical style, the old with the new, the important with the trivial. Postmodernists strive for individuality, mocking those who seek standardized ways of constructing buildings.

In a sense, architecture is all about imposing order on space or in giving it an "aesthetic feeling," so to speak. It reflects the general semiotic-aesthetic principle that when things look right, they are right. In ancient Greece, religious and civic citadels were oriented in such a way as to give a sense of aesthetic balance to the inhabitants—streets were arranged in a grid pattern and housing was integrated with commercial and defense structures. In the Renaissance, the design of cities around piazzas was in sharp contrast to the narrow, irregular streets of medieval cities. Renaissance city planners stressed wide, regular radial streets forming concentric circles around a central point, with other streets radiating out from that point like spokes of a wheel. To this day, the downtown core of many Italian cities reflects this Renaissance view of city design. In China, the principle of "things looking right" has even been given expression in the form of the "art of placement," known as *Feng Shui*. Practitioners of this art use an octagonal template called the *ba-gua* to assess an area, since the orientation, layout, and placement of objects within the area are considered to be significant in metaphysical terms.

Today hotels and recreational buildings (for example, casinos) are taking on some of the symbols of power that were once associated exclusively with churches, aristocratic palaces, banks, and corporations. The city of Las Vegas is a perfect example of a city designed to cater to our modern-day craving for recreation and consumption. The tall hotel towers that mark its landscape are symbols of a world of fast money, quick recreational fixes, and consumerist delights.

Overall, we perceive territories, spaces, and shelters as signs and sign systems—systems that have allowed us to exercise some control over nature. This has, of course, had many positive consequences. However, it has also brought about some extremely negative ones as well. One of these is the level of pollution and overcrowding that has put survival of the earth at risk. The effort to free the world of pollution and to control population growth is leading more and more to futuristic scenarios that are more frightening than anything ever written in science fiction. Entire urban communities may be enclosed in plastic domes in the future. Temperature and humidity inside the domes would be controlled, and electronic filters would keep the air clean and fresh. The world, however, would be a terrifying place. Let's hope that this will not occur and that rather than attempting to control nature, we can come to some co-existential *modus vivendi* with her.

Cyberspace

The concept of space in the age of the Internet has become amplified—there are now two spatial realities in human life, real and virtual. The current world of digital communication technologies impels all of us to become more involved with one another, no matter what language we speak, what culture we come from, where we live physically, and who we are. We are all denizens of the same digital global village. Everything from purchasing goods, accessing and recording information, seeking recreation and even courtship takes place through the space in which the village exists—cyberspace. This has engendered a new perception of what information, communication, and literacy are—retrieving many of the features of orally based tribal life. The new media have, indeed, become the new message—to paraphrase McLuhan. They have offset the individualistic and privatizing forces of the Print Age, allowing people to engage with each other in a more communal way, deconstructing authorship and the primacy of canonical texts. Even sources of authoritatively coded knowledge, such as print encyclopedias, have now become open to the participation and collaboration of everyone, not just individual experts—as can be seen by the advent and spread of the various “wikis” on the Internet, which, going against all traditions of the past, allow for the collaborative editing of content by users. The advent of the global village signals that the world is morphing gradually into a paradigmatically different one from any imaginable social system of the past. The whole semiotics of space is in fact in need of revision or at least some amplification.

Computers and various digital devices allow users to move and react in simulated environments, manipulating virtual objects in place of real objects. Constant engagement in such environments is conditioning us more and more to perceive the body as separable from the mind. Everything from courtship on websites to self-presentation and diary-keeping on social media, now illustrates the role of cyberspace as a connecting space—a veritable electronic village. The term *cyberspace* was coined by American writer William Gibson (b. 1948) in his 1984 science fiction novel *Neuromancer*, in which he described cyberspace as a place of “unthinkable complexity.” Human lives are literally becoming unthinkably complex in that space, which Baudrillard called the hyperreal space of the mind (as mentioned), seeing it as more real than real space. Cyberspace now has its own communities and virtual spaces with their own set of conventions for communicating and interacting. As Mikael Benedikt observed a while back, in cyberspace “the tablet becomes a page becomes a screen becomes a world, a virtual world. Everywhere and nowhere, a place where nothing is forgotten yet everything changes.”¹³

Neuromancer was the inspiration for the emergence of cyberpunk science fiction writing. Cyberpunk narratives take place typically in a bleak, dehumanized future world dominated by technology and robotic humans. Gibson’s description of cyberspace is worth repeating here.¹⁴

Cyberspace. A consensual hallucination experienced daily by millions of legitimate operators. A graphic representation of data abstracted from the banks of every computer in the human system. Unthinkable complexity. Lines of Light ranged in the nonspace of the mind, clusters of constellations of data. Like city lights, receding.

The Internet promises a type of immortality that only religions in the past could have ensured. Although the form of immortality is devoid of consciousness (which religions pledge), it is nonetheless a real possibility that most people would never have been able to contemplate previously. What is online about ourselves will define us well beyond our mortal lives. In the past, only artists, writers, musicians, and other “important” individuals would have been able to leave behind their “selves” for posterity through their work; now virtually anyone can do something similar. Our Facebook pages and our tweets define us, remaining in cyberspace well beyond our physical lives. In cyberspace we can leave a record of ourselves for future generations to read. This is affecting not only how we remember and grieve, but also how we view mortality. Cyberspace, like Gibson claimed, is indeed an infinite one, in both

the physical and spiritual senses—it is a virtual universe without physical boundaries and it provides a bizarre sense of reassurance that life will go on even after we are dead in the real world.

Notes

1. Edward T. Hall, "A system for the notation of proxemic behavior," *American Anthropologist* 65 (1963): 1004.
2. Edward T. Hall, *The hidden dimension* (New York: Doubleday, 1966).
3. Umberto Eco, *Einführung in die Semiotik* (München: Fink, 1968), 344–49.
4. Hall, *The hidden dimension*, pp. 12–15.
5. See, for instance, Michael Argyle, *Bodily communication* (New York: Methuen, 1988).
6. Desmond Morris, *The human zoo* (London: Cape, 1969).
7. Helen Colton, *The gift of touch* (New York: Putnam, 1983).
8. Robert Ardrey, *The territorial imperative* (New York: Atheneum, 1966).
9. Denis Wood, *The power of maps* (New York: The Guilford Press, 1992), 144. In *How to lie with maps*, 2nd ed. (Chicago: University of Chicago Press, 1996), Mark Monmonier shows how easily it is to misinterpret maps in cultural terms.
10. J. B. Harley, *The new nature of maps: Essays in the history of cartography* (Baltimore: Johns Hopkins University Press, 2001), 36–7.
11. Norman J. W. Thrower, *Maps & civilization* (Chicago: University of Chicago Press, 1999), 233.
12. Caroline Humphrey and Piers Vitebsky, *Sacred architecture* (London: Duncan Baird, 1997), 13.
13. Michael Benedikt, *Cyberspace: First steps* (Cambridge: MIT Press, 1991), 1.
14. William Gibson, *Neuromancer* (London: Grafton, 1984), 67.

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