

Artifacts as Pathways and Remains of Organizational Life

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1 The Field of Analysis

The word artifact has a literal meaning — the one we generally find in dictionaries and to which we refer in current usage — and a conventional meaning among students of organizational culture.

In the first case, the artifact is: (a) a *product* of human action which exists independently of its creator; (b) *intentional*, it aims, that is, at solving a problem or satisfying a need; (c) *perceived by the senses*, in that it is endowed with its own corporality or physicality. Naturally, depending on the dictionaries, languages, cultural contexts in which the word is of current use, the stress given to one or the other of the three elements in the definition will change.

Students of organizational culture, for their part (see for example: Schein 1984, Siehl/Martin 1989), often mean by *artifacts* all the visible expressions of a culture, including therewith (as well as objects and the physical arrangements) patterns of behavior (such as rituals) on the one hand, and, on the other, abstract productions or mental representations (such as stories), which — while having an existence independent of their creators — call on the powers of comprehension of the destinees, rather than on their capacity to experience formal qualities concretely through the senses.

In this introduction and in most of the essays which follow artifacts will be spoken of in this first sense, even though not all the artifacts which come under that heading have the same “concreteness,” the same perceptible corporality: some (buildings and workplaces, for example) can be experienced by more than one of our senses, others (for instance, pictures) by only one of them; the presence of some is a hindrance which can only be got rid of by violent and destructive action (think of the shattered statues which so often put their seal on cultural revolutions), others (linguistic labels, for example) entrust their continuance to a written document or merely to the memory of members of the organization.

Obviously the dual distinction proposed (abstract/concrete, product/action) is subtle and ambiguous. The shifting nature of the watershed between the world of theory and the world of objects is acutely shown by Grafton-Small and Linstead in their essay; Rosen, Orlikowski, and Schmahmann stress the dialectical interplay of agency and concrete artifacts; Czarniawska-Joerges and Joerges tell us that a word — apparently immaterial and volatile — can weigh like a stone and that the definition of an object can change physical reality, modifying its loved or painful qualities. Despite this, it seems useful to me to insist on the dual distinction above for the following reasons: (a) by distinguishing between product and action, we have available a precious tool for the diachronic analysis of organizational phenomena and can better appreciate, on the one hand, the power of artifacts to steer and canalize — their being *pathways of action* — and, on the other, their capacity to witness to and reflect social and cultural dynamics — their being *remains and markers* of corporate life; (b) by distinguishing between mental and sensory experience, we can uncover neglected dimensions in organizational processes and perhaps open new and interesting vistas for research and for reflection on the aesthetic dimension of organizations (Jones/Moore/Snyder 1988, Strati 1990). It may not be without interest to note that by stressing, on the one hand, the artifact's nature as a product and, on the other, the way in which it lends itself to aesthetic — in a broad sense — experiences, we come closer to using the term in its strict etymological meaning (*ars, art + factum, made*).

The analysis of artifacts in most cases implies the analysis of a fundamental category of experience: space. Every object possesses a physical bound which circumscribes it and sets it off from other objects, a perceptible boundary which marks where it begins and ends (Hall 1959); space defines — or helps to define — the features of an artifact, its relations with other artifacts in the same setting and its meaning. On the other hand, the perception of space is indissolvably linked to the perception of “things” which frame it and define its contours. Thus, by taking the symbolism of corporate artifacts as the object of analysis, our attention is implicitly brought to bear on the symbolism of corporate space: they are faces of one and the same coin, two complementary modes of interpreting the corporate setting.

2 Artifacts in Traditional Organization Theory and Research

“Well, then, is there any record of a successful war being fought in Homer's day either under his command or with his advice?”

“No.”

“Then had he any practical skill? Is he said to have invented any ingenious technical or practical devices like Thales of Miletus or Anacharsis the Scythian?”

“He did nothing of that sort.”

[...]

“And so, Glaucon,” I continued, “when you meet people who admire Homer as the educator of Greece, and who say that in the administration of human affairs and education we should study him and model our whole lives on his poetry, you must feel kindly towards them as good men within their limits, and you may agree with them that Homer is the best of poets and first of tragedians. But you will know that the only poetry that should be allowed in a state is hymns to the gods and paeans in praise of good men; once you go beyond that and admit the sweet lyric or epic muse, pleasure and pain become your rules instead of law and the rational principles commonly accepted as best.”

Plato, *The Republic*, X.

The primacy of reason in western thought and the concern to safeguard the instrumental rationality of action in the utilitarian forms of human association evidently have ancient roots. This dialogue between Socrates and Glaucon would not have been out of place on the cover of any one of the works of the founding fathers of the so-called “classic” theory of organization. And when Socrates claims that art — fosterer of emotions — may be an element in the organization of the state only when it is instrumental to the aims of the state (today we would say: when it is “propaganda” or “state art”), I can't help thinking of the frantic efforts of those theorists who, once informal organization had been discovered and the inevitable interference of feelings in rationally planned production processes, tried and go on trying to trace back these unsuspected energies to the logic and specific purposes of the formal organization. If one thinks of the dominance of the rationalist and reductive paradigm in organization studies up to the

end of the 1970s, as documented by Ouchi/Wilkins (1985), it is hardly a surprise to find that the study of the physical setting as source of sensory, emotional, and symbolic experiences has had an altogether marginal role in organization theory.

Steele (1973) observed that Hawthorne's experiments — which originally aimed at studying the effects of the environment on productive behavior — might have opened interesting prospects for research in that direction (even if the research method would today be considered ingenuous and simplistic), but the startling discovery of “group norms” drew attention and research efforts off on quite another tack. Ironically, Steele notes, a re-examination of Hawthorne's findings reveals the influence — slight and mediated though it is — both of the interactions of the workers made possible by the change in setting (Homans 1950), and of the symbolic value that this change had taken on for them in terms of “spatial language.” After Hawthorne, the theory of the socio-technical system was, so to speak, another missed opportunity: the theorists of this approach, while recognizing the importance of the physical setting, concentrated their gaze on the fit between technology and the social structure of organizations, devoting only marginal attention to the quality, in terms of artifacts and culture, of the work environment.

A glance at the entry “physical setting” in the index of any textbook on organization analysis will refer you to theories of motivation, in particular to Maslow and Herzberg. Maslow (1943) saw setting as suited to the satisfaction of *primary*, as opposed to *higher, needs*, and Herzberg et al. (1959) described the setting as a *factor of hygiene* or extra-job factor — a possible source of discontent or indifference, but not of satisfaction — as opposed to job factors which are considered the authentic motivators. These notions have probably had a significant role generally in inducing students to underrate the influence of the setting and to judge other problems worthier of attention (Steele 1973, Sundstrom 1987). Independent of the value of these notions — there is no intention of questioning them here — we have here an interesting example of the power of a linguistic artifact — the label (Czarniaswka-Joerges/Joerges in this volume) — to structure a system of meaning: on the basis of labels and underlying assumptions (*primary and higher needs, hygiene factors and motivators*), the hierarchy of human needs has been fitted with a corresponding hierarchy of research themes which has influenced the stance and choice of field of scholars.

This failure in the working out of organization theory is matched by a visible gap in empirical research. From Sundstrom's (1986) census of 290 studies it emerges that research on work environments is dominated by laboratory experiments in which the level of analysis is that of the individual worker and the hypotheses to be checked deal, on the one hand, with the

effect on performance of factors like arousal, stress, distraction, overload, and fatigue, and, on the other, with the effect on job satisfaction of various perceived features of the job, one of which refers to physical working conditions. Some studies examine the relationship between work space, self-identity, status, and satisfaction; and one sole study adopts the organizational level of analysis in attempting to check the fit between two qualities of the organization — bureaucracy and interaction — and two qualities of office environment — differentiation and subdivision: the results turn out to be obvious or contradictory because of the inherent incapacity of the methods used to pick up the symbolic dimension in the observed phenomena. Not one of the empirical studies in the census organically examines the connection between the distinctive culture of the organization and properties of the work environment.

Particular mention in this brief survey should go to Steele's work (1973) exploring the expressive potential and symbolic qualities of the physical setting, within an OD (Organizational Development) perspective. On the basis of his long clinical experience Steele scrupulously reminds us that the attribution of meaning to a physical setting is an empirical question, but only occasionally does he discuss the social and cultural processes which determine it.

The “territory” (in a literal and metaphorical sense) neglected by students of organization has been — and in large measure still is — the domain of efficiency experts and architects/designers. Starting from Taylor's original concern with economy of motion and visual check on workers, efficiency experts have planned the physical setting according, in general, to rigorously instrumental criteria, mitigated by the widespread knowledge that the work environment should also be a status marker. Architects and designers for their part have shown over recent decades a widespread tendency in the plans to “interpret” the *needs* of contemporary society, turning themselves into disciples of theories and ideologies which drew, sometimes in nonchalant fashion, on all kinds of human and social sciences, making themselves proponents/interpreters of fads or supposedly universal criteria of “socially responsible” planning of the work environment (“open plan,” for example: see Hatch in the present volume). Summerson (1989) has suggested that this tendency is due in part to the architect's need to redefine his own professional role after witnessing the technical components of his skill and “the purely practical reasons for his existence being undermined by members of a new and flourishing profession,” i. e. engineers (1989: 18). This redefinition by architects of their own professional territory has perhaps been abetted by the marginal interest shown by social scientists in the physical setting of organizations. At least for them, what Hall (1959) claims seems particularly true: space is like sex, it's there but that's no reason for talking about it.

3 Artifacts in Organizational Cultural Literature

“The great dancer, Isadora Duncan, was once asked what dance meant to her. She replied: if it was sayable there’d be no need to dance it.”

Ceruti 1989: 16¹

When we speak of organizational cultural literature, we refer to the intellectual product of those scholars who — dissatisfied with the rationalistic and reductive paradigm which dominated organizational science up to the end of the 1970s — began looking at organizations as expressive forms and as systems of meaning, to be analyzed not merely in their instrumental, economic, and material aspects, but also in their ideational and symbolic features. For these scholars organizations are cultural entities, characterized by distinct paradigms, and the richness of corporate life can only be grasped through the use of holistic, interpretive, and interactive models. This intellectual production, from the end of the 1970s onwards, has undergone exponential development, and corporate culture is today one of the main domains of organizational research (Barley et al. 1988).

Curiously enough, even this literature has had little to say about corporate artifacts, the most evident, concrete, and tangible manifestations of the culture of an organization. Reporting on 280 articles and books on corporate culture and organizational symbolism, Berg (1987) found extremely few pieces explicitly and exclusively devoted to artifacts, and is astounded by this neglecting of the obvious, by this lack of attention to the most easily observed manifestations of corporate life. If we consider the definition of “symbol” most often quoted in this literature — “Symbols are objects, acts, relationships or linguistic formations that stand *ambiguously* for a multiplicity of meanings, evoke emotions, and impel men to action.” (Cohen 1976: 23) —, we can’t escape the conclusion that objects — though they are what we most readily associate the idea of symbol with — are the symbol least attractive to these enquirers.

In my review of the literature I have found two shining exceptions deserving special mention: (1) Pfeffer’s (1981) acute, though summary, analysis of the structuring of the space on a campus as expression of relationships and as mirroring of conflict between institutions; (2) Martin and Siehl’s (1983) reconstruction of DeLorean’s attempt to create a counter-culture inside General Motors. The two authors infer with great subtlety the counterposed cultural stances, the relative power of the actors, and the limits of acceptable deviance from the formal and stylistic qualities of particular artifacts (furnishings and dress especially).

Glancing in particular at the literature on the methods of organizational ethnography, I came across many authors insisting on the importance of

artifacts for the interpretation of culture, but very few who provide analytical indications: sometimes these indications are sketchy and debatable (e. g. Deal/Kennedy 1982: 128–129); some authors suggest extrapolating to artifacts methods designed for the analysis of other sources of information such as the behavior of natives or what they say (e. g. Spradley 1979: 9); others stress that the interpretation of artifacts requires a long stay in the field (Schein 1985) and suggest in-depth clinical interview with an informant as the most fitting tool for getting at preconscious assumptions and deep symbolic meanings (Schein 1987; Wilkins 1983a).

Different hypotheses, to some degree linked, can be put forward to explain this tendency of organizational cultural literature to pay lip-service to artifacts while neglecting them in substance. I shall set out these hypotheses below since they constitute the premiss of the theoretical reflections offered in the paragraphs that follow them.

First, organizational cultural researchers are — and remain so, even when they proclaim their interdisciplinarity — social scientists. What they are accustomed to doing, and what they do best, is to examine social behavior. When they study culture, their basic assumption is that behavior is the most important empirical correlative of culture. “A culture is expressed (or constituted) *only* by the *actions* and *words* of its members ...” (Van Maanen 1988: 3, emphasis added). When Beattie defines the purpose of social anthropology as the study of institutionalized social relations, he claims that “... the only *concrete* entities given in the social situation are people” (1964: 34, emphasis added). The analysis of things becomes the privileged object of attention only when they constitute the sole source of information available to us, which obviously only occurs when we study societies of the past whose culture we reconstruct through their remains. It is no accident that, in his *Content Analysis for the Social Sciences and Humanities* (1969), Holsti defines the study of human behavior through the analysis of artifacts as the specific task of archeology. The result is that the social scientist finds himself entirely at ease when analyzing written or verbal communications, but founders in the attempt to grasp the language of things.

This lack of attention towards artifacts may also be due to the fact that — differently from anthropologists who study cultures remote from their own — students of organizational cultures “share with their subjects and readers the same general linguistic and cultural landscape” (Van Maanen 1988: 23) and leave the interpretation of artifacts, which define the contours of that habitual landscape, to a “common sense” they take to be shared.

On the other hand, if the organizational ethnographer turns to cultural anthropologists for tools to analyze material culture, he frequently finds himself dealing with proposed inventories for the classification of objects

in function of their use, materials, or techniques employed, often by means of categories which in their turn reflect the ideas and technical knowledge of the observer.

It would be fair to remark that the great anthropologists — or simply the good ones — made and make quite different use of what they have “read out” of material culture, but it is difficult to borrow a gift for interpretation: in many cases competence is only acquired by working alongside those who have it, but this is — yet again — made difficult or impossible by the demarcation disputes, even of an ideological kind, which serve to defend the institutional set-up of the various disciplines. In recent years, for example, students of folklore have shown an increasing interest in organizations, and this might induce us to hope for the beneficial effects of a cross-fertilization of the two disciplines. But if, on the one hand, the presence in this volume of an essay by a scholar of folklore like Dick Raspa gives rise to optimism, I can’t, on the other hand, forget the argument that arose at the 1983 Santa Monica conference on organizational folklore, when the folklorists — mainly concerned to safeguard the traditions which arise spontaneously in workplaces — were suspicious that their skills might be exploited by organizational scientists to “interfere” in organizations to instrumentalize the expressive needs of the workers.

Another possible explanation for the neglect of artifacts came to mind on reading what Louis has to say of the universal level of the process whereby meaning is produced: “The universal level refers to the broad set of objective or physically feasible meanings or relevances of each thing ... The basic physical constraints are what Weick (1979) referred to as ‘grains of truth.’” (1983: 41). I wonder whether the interest in social reality of organizational cultural researchers — who certainly generally adopt a constructionist perspective in their view of reality — does not betray them into considering only social reality as a socially constructed reality, which would be paradoxical enough and, everything said, tautological, if Cassirer (quoted by Wexler 1983: 237) is right in claiming that “physical reality seems to recede in proportion as man’s symbolic activity advances.”

I shall illustrate a final (and perhaps the most important) reason for this disregard of artifacts by analyzing a small artifact which is quoted very frequently in the literature, both because it evidently stands for a widespread way of looking at things, and because of the authority of its author, who has a leading role in the development of the cultural approach to the study of organizations. I refer to the table in which Schein sets out the levels of culture and their interaction.

What does this table show us? Three rectangles joined by arrows. The spatial arrangement of the rectangles in the figure immediately and forcefully suggests a *hierarchy* of importance. While we very frequently perceive as more important the things set higher up, the definitions in this case

suggest that what is higher up is superficial or apparent, whereas what is lower down is profound, fundamental, thus more worthy of attention. This is exactly what Schein claims, and many students of organizational cultures who have neglected artifacts may have been led to do so by the *logic* of Schein’s arguments. What startled me when discussing with many colleagues the possibility of organizing a conference on artifacts was that *many of them remembered Schein’s table and the hierarchy* it suggests much better than they remembered the logic of his arguments.

A concrete image is notoriously more mnemonic than a concept, but the formal qualities of this artifact — symmetry, circularity, completeness — may well have reinforced, at the level of aesthetic experience, the mental experience implied by the “understanding” of the concepts the schema summarizes, and the capacity of the form to “persuade” may even have overwhelmed the capacity of the substance to “convince.” I believe that these processes are grasped at least intuitively by those used to employing visual aids in their teaching and in communicating and who feel lost without a blackboard, a projector, or a certain number of colored markers.

A second message of the table, more important than the first for the point of the present discussion, is the *suggestion of a pathway*: one does not get to the unconscious assumptions without passing the espoused values, there is no going beyond the frontier of unconscious knowledge without digging into words, tacit knowledge cannot be evoked unless it is drawn up to the level of conscious thought. From this perspective, Schein’s schema implicitly formalizes two basic assumptions which in large measure run through organizational cultural literature: (1) the idea that the intellectual unconsciousness can be treated, on the pattern of the psychoanalytic approach, in the same way as the affective unconscious and that iterative interviewing is the best tool for reaching the basic assumptions; (2) the idea

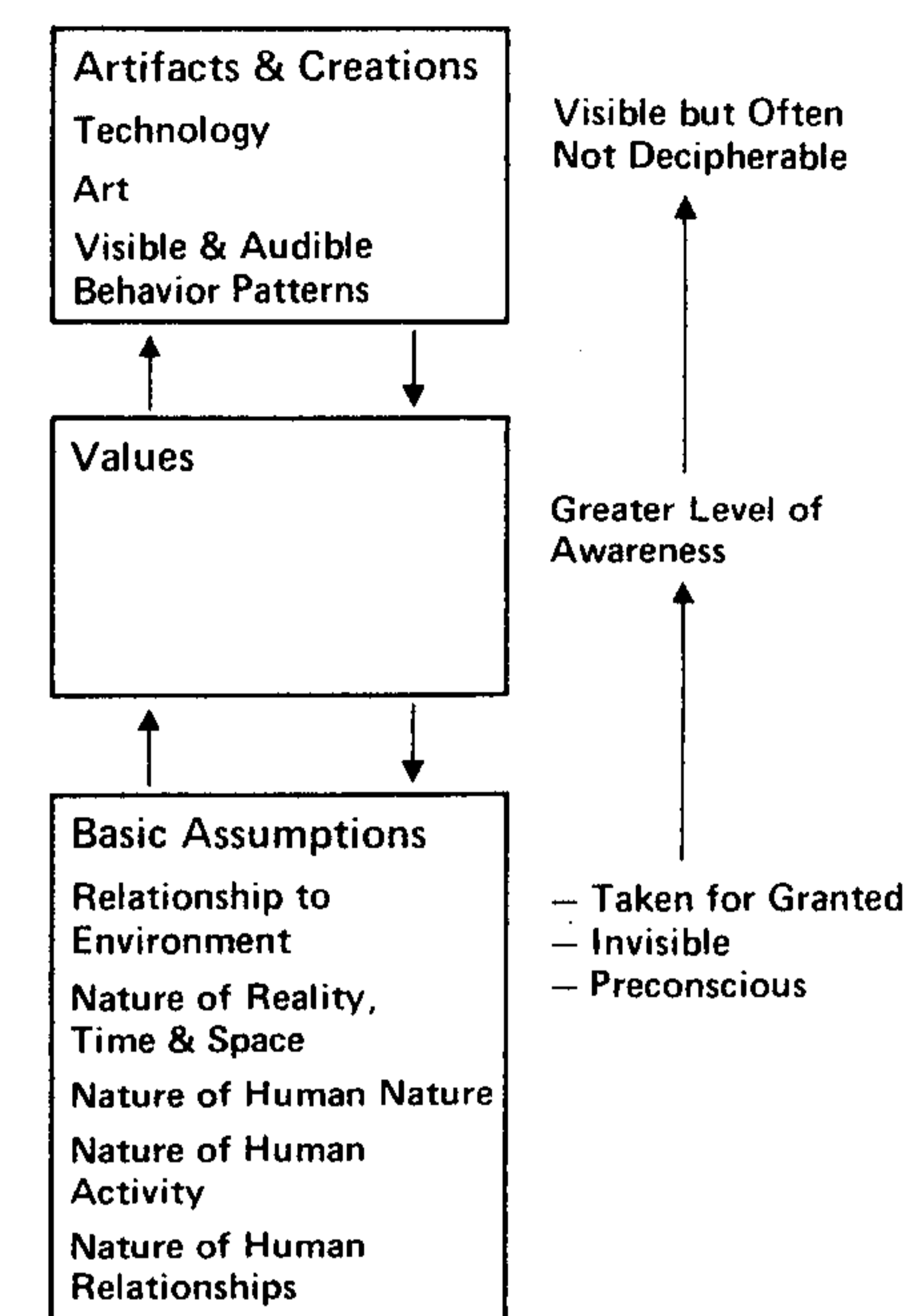


Figure 1: The Levels of Culture and Their Interaction

Source: Schein 1984: 4.

that the maps which orient action may be conscious or unconscious but they are solely cognitive, and that the whole of tacit knowledge is in no qualitative way different from conscious knowledge.

The first idea is shared largely by those scholars whose major training was in the area of clinical and social psychology, but it tends to be rebutted by those whose training was largely in anthropology. Often, in fact, ethnographers (for instance, Spradley 1979: 9) insist that tacit knowledge can't always be expressed by an informant, but must be inferred from observation of behavior, from the study of artifacts, and from their use (even if, as we have seen, we are told little about the possible criteria of inference). On the other hand, there is no such thing as an iterative interview which can bring to the informant's consciousness something he does not know he knows. As Piaget puts it: "the subject knows himself very badly, since to explain his own operations and even to glimpse the structures they imply would require him to reconstruct a whole past of which he has never been aware, not even in the moments he was going through the stages: despite everything Freud discovered about the affective unconscious, the intellectual past of an individual is even more unknown to him than his sentimental past" (1967: 120)¹.

The second assumption — i.e. the idea that tacit knowledge is of an intellectual kind — seems more widely shared, implicitly at least: unconscious assumptions are usually considered to be cognitive principles, abstract mental representations, synthetic and general in character, suited to the generation and ordering of cascades of progressively less abstract, more analytical, concepts and mental operations. This conviction seems consistent to me with the equally widespread idea that language constitutes the basic tool in the transmission of culture. But Hall (1959) reminds us that culture is not taught in the same way as language, and that a universe of behavior exists still unexplored, generally ignored, and *hardly observable*, which operates without emerging into consciousness and which lies alongside the universe of words and ideas.

It seems to me that our incapacity to explore this alternative universe is the real reason why a fundamental process of organizational life such as socialization is still a "black-box" for students (Siehl/Martin 1988). Louis, in her interesting essay of 1980 on the way in which individuals in organizational settings cope with entry experiences, particularly surprises, starts from the observation, documented in the literature (Hughes 1958), of the newcomer's experience of sensory overload, and sets herself to study the internal processes through which individuals adapt to the new setting. Nevertheless, she expressly admits that her description of coping bears only on the more rational aspects — the role of conscious thought, in particular — and concludes by saying that the newcomer's "learning the ropes" of the new setting remains inadequately explored.

The emphasis on mental processes and cognition is probably at the origin of our incapacity to give exhaustive explanation to such other fundamental organizational processes as control, persistence, and change (Ciborra/Lanzara, in this volume). I myself proposed a conceptual framework for interpreting the creation and change of organizational cultures, underlining the role of conscious feelings and retrospective rationalization in the genesis of values (Gagliardi 1986), but I often ran into situations which I was led to call "silent cultural changes" and which that scheme does not wholly explain or does not explain at all. I wonder whether our work as enquirers, given its intrinsically intellectual nature, doesn't perhaps lead us to sharpen certain capacities at the expense of others, putting us in the situation of fishermen who perfect their net, making it ever more suitable for catching certain fish, but letting others slip through.

A confirmation that the current approach to the study of organizational cultures has holes in it comes from my observation that in general two orders of factors are considered the components of culture: beliefs and values. Beliefs refer to the ontological and epistemological component of culture ("logos") — corresponding to cognitive experience — values to the ethical and deontological component ("ethos") — corresponding to moral experience. But there exists a third fundamental component to human experience, "pathos," the way we perceive and "feel" reality (and its representations in what we call art). The sensuous experience (see Witkin, this volume) — which can give rise to feelings of attraction and repulsion, pleasure and disgust, suffering and joy — is also culturally conditioned. Geertz (1973) includes in ethos the aesthetic component in culture: "A people's ethos is the tone, character, and quality of their life, its moral and aesthetic style and mood" (p. 127). But organizational culture researchers seem in general little inclined to recognize and describe the aesthetic component when they discuss the value systems of modern bureaucratic organizations. The distinction between ethos and pathos may be useful both in calling their attention to a neglected dimension, and — above all — because it is probable that the *mechanisms of influence* on behavior and the *modes of enquiry* into these two aspects of the cultural order are different. The basic hypothesis of this essay — and of this book — is that artifacts can provide a key giving privileged access to the sensory and aesthetic dimensions of corporate life. In the paragraphs that follow I shall attempt to explore — on the basis of my own research experience and of certain suggestions contained in the other essays in this book — the *pragmatic* dimension of artifacts (the relationship between artifacts and organizational action) and their *hermeneutic* dimension (what and how may artifacts speak to us when we are seeking to interpret the culture of an organization).

4 The Potency of Artifacts in the Structuring of Sensory Experience

“... no man need ever despair of gaining proselytes to the most extravagant hypothesis, who has art enough to represent it in any favourable colours. The victory is not gained by the men at arms, who manage the pike and sword; but by the trumpeters, drummers, and musicians of the army.”

*Hume*²

Let me introduce this theme by recounting something that happened to me recently.

The Istituto di Guerra Marittima – a training and refresher-course center for the Italian Navy – invited me to give a lecture on recent trends in organization theory, as part of a refresher course for Staff Officers. Beforehand I told my contact (the officer responsible for the course) that I wanted to preface my lecture with a brief discussion: it was my intention, I explained, to center what I had to say on the interests, knowledge, and language of my listeners. At this proposal, my interlocutor, on the other end of the phone, fell silent. As the silence went on I realized there was something wrong and asked if my suggestion would cause problems. The somewhat embarrassed reply was that it would be better if the formula was more traditional: first there should be the lecture, and then there’d be a discussion. I understood there was no point in arguing the matter or insisting.

On the day, I went to the Institute and was welcomed with great courtesy by the admiral who ran it. When the small group comprising the admiral, the people in charge of the programme, and myself entered the hall where I was to give the lecture, we were greeted with a brief service ritual of salute from the participants who were standing in wait in front of their chairs. The hall was rectangular (I *remember* it as windowless: if there were any, they were closed and/or hidden behind curtains, the lighting was certainly artificial, even though it was a lovely sunny day), taken up on one side by a platform on which towered the speaker’s lectern and seats were set for the “authorities” who accompanied me. In front of the platform were aligned the rows of seats for the course participants. I noticed that they had to bend their heads slightly backwards so as to look me in the face. The victim of habit, I scanned my lecture with questions of the “Is that clear?” kind, or comments like “I don’t know whether that’s clear” followed by a pause. I quickly cut down the pauses and avoided asking questions, even if merely rhetorical, because I “sensed” the unease of my hosts and of the participants.

At the end of the lecture there was a break for coffee in a room across from the hall. When the time for the break was up, one of my hosts said: “Good, now we move on to the discussion,” and I made to cross back over the corridor to the hall where I’d given the lecture, but was immediately rerouted. “No, Professor,” I was told, “the discussion takes place elsewhere.” And off we went elsewhere, quite some

way from the hall: one of those handsome lecture theaters, where everybody can see each other, functional, in no way off-putting, with large windows and plenty of daylight, lots of blackboard space, and comfortable benches for the trainees. I couldn’t hide my surprise and, congratulating them on the splendid room, asked why on earth they hadn’t arranged for me to give my lecture there. “Ah, no! ... you see, Professor, this is the ...” and the man who was telling me lowered his voice – “bollockdrome. The place where trainees can come out with all the bollocks they like.” I was stunned for a moment and had to think, but then I couldn’t prevent myself from coming out with my admiration for what I had to call “the unconscious organizational wisdom” of the institution.

This case, in my view, illustrates very clearly the possibility of using space to structure organizational relationships, to define and reinforce behavior patterns, and to handle contradictions through loose-coupling.

We are in a service institution: very high value indeed is placed on respect for authority, whether hierarchical or academic. When authority speaks, what it says is not subject to discussion, nor is it conceivable that what it says isn’t clear, because that would already be to “undermine” it. When authority speaks, the setting permits of only certain visual relationships and not others, it obliges people to dispose themselves in such a way as physically to acknowledge the distinction between social groups and maintain stability (Goffman 1959), it enforces particular postures which produce the sensory experience of dependence. Every detail of the setting reminds us, physically and symbolically, with all the motionless and unmoveable persistence of objects, what we are, what we must do, what we cannot do.

But the Navy is known for the quality of its officers, for its capacity to train them efficiently, for its openness to the outside world and to progress. (After the Second World War, when Italy went through its great economic development, the Navy was one of the sources that industry drew on for its executives.) Training in modern techniques requires the participation of students, interaction between them and the teacher, the possibility of discussion and of verifying the success of the learning process. All this must therefore take place, and it does take place: but elsewhere, in a place which inverts the initial situation, offering almost a mirror-image of it, in a setting which allows, suggests, promotes – physically and symbolically – everything that the first setting denied. The contradiction is dealt with through temporal and especially physical loose-coupling: the two values are enacted and testified to at different moments and in different places. But the hierarchical relationship between the two values must not be left in ambiguity, nor left to be inferred solely from the temporal succession: what happens *afterwards* might be the more important, not what happens first.

The problem is solved through a linguistic artifact: the definition of the second setting as the “bollockdrome.” “Drome” is the second element in

compound words like hippodrome and autodrome, and indicates a place where racing (for pleasure or in competition) takes place: the second element of the word thus underlines the message of absolute freedom — essential to the learning-process. But what race or compete are, by definition, “bollocks.” The hierarchy of values is re-established, unmistakably, through a linguistic artifact the features of which express the intention of alleviating the emotional tension which the definition of a hierarchy between values can bring about (Martin et al. 1983), shifting the discourse from the *serious* plane of logical congruence to the *jesting* plane of the amusing paradox.

4.1 The Pathways of Action

Artifacts are pathways of action and constitute a concrete element in the social structure: actors daily create and recreate the reality of their own identity and of the mutual relationships within bounds which are the result of previous choices, made by other actors or by themselves at different moments (see the contributions in this volume by Rosen/Orlikowski/Schmahmann and by Rusted). The most immediately perceptible of these bounds is the field within which the actors move, which is at the same time a physical and symbolic ground, the properties and contours of which are defined by artifacts. It embodies institutional arrangements, routines, cognitive frames, and imageries, and is at the same time part and expression of what Ciborra and Lanzara call the formative context, the deep-seated structure which influences the behavior of the actors and which “accounts for their skills, the inertia of their learning, and the unawareness of their actual practices” (Ciborra/Lanzara, this volume: p. 150).

Every organization over time constructs its own cultural identity, and the process of institutionalization has been thus defined as the progressive infusion of values into an arrangement originally conceived according to a strictly instrumental logic (Selznick 1957). The maintaining of this identity, which is the product of history and circumstances, becomes the main aim of the organization (Selznick 1948), and the set of values which uphold the cultural identity circumscribes the range of options available for organizational action. The alternatives for design and for physical and symbolic manipulation of the setting are similarly limited to a range of options which reflect both the contextually operating system of assumptions (Gagliardi 1986) and the previous design decisions inscribed in the corporate biography and which shape its future evolution (Kimberly 1987, 1988).

Through what processes do the physical setting and artifacts influence the behavior of the actors? And through what processes do the actors cope with the physical setting, whether that represents a familiar situation — as

happens with those already “inside” the culture of an organization — or whether it represents a new and unexpected situation — as happens with newcomers? Obviously, the two types of process can be distinguished only analytically — and to a limited degree — since they are inextricably linked and the existence of one cannot be posited without the existence of the other: it is more just, therefore, to consider them as two complementary and interactive aspects of a single process, the interplay between the physical setting and the person dwelling or arriving within it.

As we have already observed, this interrelationship has been studied only marginally with specific regard to the physical setting; generally it has been explored as an interrelationship between the individual and the overall organizational setting, viewed as a social and cultural reality and only implicitly as a “tangible” phenomenon. On this view, the analytical categories employed refer, directly or indirectly, to the cognitive capacities of the actors — individuals or social groups — and to the role of information elaborated in the mind. When the enquiry passes from the level of the overt information transmitted by the setting, and from the role of conscious thought in working it out, to go on to investigate less explicit and visible processes, the constructs more frequently encountered in the literature are those of script (Abelson 1976), schema (Bartlett 1932), frame (Bartunek 1988), theories-in-use (Argyris/Schön 1974). These constructs have been elaborated within a theoretical approach which views organizations as “bodies of thought” and as “sets of thinking practices” (Weick 1979: 45). They refer to (generally unconscious) *mental* processes, though it is sometimes stressed that these stimulate or are stimulated by emotions (e. g. Bartunek 1988).

It has been observed that cognitive maps can be encoded within material artifacts: for example, the schematic drawings of office space or a building itself may be “public representations of organizational theory-in-use to which individuals can refer,” revealing patterns of communication and control (Argyris/Schön 1978: 17); more frequently, however, students of organizational culture have looked for scripts in immaterial artifacts such as the stories which are recounted and passed down in an organization and which satisfy cognitive needs in members and the organization’s exigencies of control (Wilkins 1983b). These authors (who have tended — as we have seen — to neglect material artifacts) have mainly concentrated on the mental representations (such as the myths and stories) of a culture and on behavior patterns (such as the “rituals” in modern bureaucratic organizations): if their interest in social behavior brings out their epistemological affinity with sociological — rather than with anthropological — ethnography (Van Maanen 1988), their interest in mental representations brings out their epistemological affinity with the cognitive approach. The widespread emphasis placed on the definition of culture — or of the organization as

culture — in terms of “system of meanings” (Smircich 1983a, 1983b) is itself an indication of this general leaning. One may well wonder, however, whether in our search for “sense” we haven’t too hastily skimmed over the “senses,” and whether paying more attention to the “filters” which culture imposes on sensory experience might not improve our understanding of culturally specific mental representations and behavior patterns.

Clearly the physical setting influences the behavior of the actors since the first thing it does is to limit and structure their sensory experience. A specific setting allows us to do some things but not others — i. e. it sets us physical bounds in a strict sense — and it gives rise to certain sensations and not others. The selective stimuli — visual, aural, olfactory, tactile — transmitted by the habitat created by the organization accustom us (more rapidly perhaps than is usually thought or than we ourselves are aware of) to use our senses in a different way, so that the same event can be perceived in one setting entirely differently from the way it is perceived in another (Hall 1966).

The symbolic potency itself of artifacts — their capacity, as symbols, to rouse feelings and urge to action — is all the greater the more the symbol engenders sensations. Representing victory (Nike) as a beautiful half-naked woman, the Greeks did not aim at evoking in their warriors the idea of woman, but the sensations of erotic pleasure and the association of a panted-for victory with the instinctual desire for sexual conquest. For this reason the meaning of a symbol is often “intuitively sensed, not consciously interpreted” (Geertz 1973: 128); symbols — as products of creative work shaped to rouse sensations and emotions — have an internal dramatic structure, and their study is partly a study in the sociology of art (Cohen 1976: 30). Obviously, the tendency itself to associate pleasant or unpleasant sensations, attraction or disgust, with specific stimuli is not universal. Against a pre-cultural background, which has its roots in the biological past of mankind, patterns of association and reaction are structured which are the fruit of experience and history, and which are therefore culturally conditioned. The sense of beauty is a cultural product just like artifacts themselves:

The artist works with his audience’s capacities ... And though elements of these capacities are indeed innate — it usually helps not to be color-blind — they are brought into actual existence by the experience of living in the midst of certain sorts of things to look at, listen to, handle, think about, cope with, and react to; particular varieties of cabbages, particular sorts of kings. Art and the equipment to grasp it are made in the same shop (Geertz 1983: 118).

Paraphrasing the famous assertion of Max Weber quoted by Geertz (1973), we may say that people are prisoners not only of webs of significance, but also of subtended webs of sensation they themselves have spun.

4.2 Cognitive Maps, Sensory Maps, and Fourth-Level Controls

The wealth of associative and reactive capacities that people construct living in a specific organizational culture probably constitutes an important part of what is usually defined as tacit (Polanyi 1966, Spradley 1979) or informal (Hall 1959) knowledge, basic assumptions (Schein 1985), or mute learning (Ginzburg 1979).

Genetic epistemology suggests that a clear distinction must be made between two fundamental aspects of the subject’s behavior, that is to say “... on the one hand, his *actions* (*conduites*), on the other, the *knowledge* the subject himself has of them,” and that there is a “recurrent gap between epistemological consciousness of the constructive matrices and effective knowledge (action)” (Ceruti 1989: 125–126)¹. While philosophical psychology attributes to introspection a limitless power extending to the whole of mental life, the scientific psychology of action (*conduites*) bases itself on the premise that consciousness begins to be centered on the outcome of activity before it reaches its mechanism, and that corresponding to the relative consciousness of outcome there is an almost total unconsciousness of the mechanisms (Piaget 1974). “The real process of knowledge-formation does not consist, therefore, of a succession of states of consciousness ... On the contrary, we must refer to a succession of *activities* (both in the sense of actions and of operations) largely outside the field of consciousness” (Ceruti 1989: 127)¹.

The confines between the form of learning which implies unconscious mental operations and instinctual or intuitive learning are probably very shaky and perhaps not really conceivable. Hall (1959) alludes to these same processes when he claims that so-called informal knowledge consists of a set of activities learnt without the awareness of learning and automatically integrated into daily life.

Starting out from these considerations, we may propose a new construct, to be termed “sensory maps” — having their roots in the last and deepest level of the processes of adaption to the environment, i. e. the physiological level, while remaining culturally conditioned — reserving the term cognitive maps for those mental schemata which may be conscious or unconscious but which are “knowable” to the subject. Clearly sensory maps are not in the mind, nor even in the body, but come into operation in the interaction between the senses and a culturally and/or physically characterized setting. Perhaps they correspond to what Van Maanen (1977) terms the maps of space and time which the newcomers construct when their senses undergo the impact of a new setting.

The possible connection with the maps Van Maanen speaks of was suggested to me by the Kantian distinction between passive intuition and

intellectual knowledge: intuition corresponds to the “capacity to let oneself be soaked through by the sensory,”³ ordering it through the *a priori* categories of space and time, *before* (and often *without*) the intellect’s conferring of unity on the data of sensory experience through concepts.

The suggestion being made here is that the sensory maps are structured in reference to primordial needs of survival and primordial life experiences, and that they classify the stimuli of a setting along the reassurance/threat axis, to which the parallel inaction/flight/defence/attack axis corresponds. The newcomer’s sense of sensory overload can now be interpreted as the frenetic effort to adapt maps activated in previous situations, in the aim of redefining the codes of instinctive reaction to people and things — according to their positioning in space and time and of their every other perceptual feature — and the codes associating stimuli with pleasant/unpleasant sensations. The adaption of the corporal schema, i. e. of the perception we have of our body, may be an example of the activation of sensory maps and perhaps constitutes their basis: people used to moving in a space that can be seen and is free of obstacles, finding themselves in a dark place and/or with different artifactual surrounds, are forced to rapidly redefine their corporal schema, activating different senses and learning at speed — from their experience of impact with tangible reality — to use different patterns of adaptive reaction. These activities are probably at the heart — or, at all events, an important part — of what Berger and Luckmann (1966) term “habitualization.”

Sensory maps, which become active in the interaction between our senses and the artifacts of the organization in which we live, belong to what has been termed the “knowledge by clue,” which rises out of concrete and sensory experience and relies on subtleties not formalizable and often ineffable; a capacity of *low* intuition as distinct from *high* intuition:

... low intuition is rooted in our senses (though going beyond them) — and as such it has nothing whatever to do with the suprasensory intuition of the various eighteenth and nineteenth century irrationalisms, ... it is far removed from any higher consciousness, ... it links animal man tightly to other animal species (Ginzburg 1979: 156)¹.

Students of organizational culture often refer to Kuhn (1962). It may be worthwhile to recall the importance that Kuhn sets on exemplars — i. e. the *concrete* solutions to problems — in the spread of a paradigm: exemplars serve to carry tacit knowledge, and through them one learns to see things accordingly on the basis of perceptual processes over which we can exert no mental control. In a similar vein, Hall (1959) claims that the main agent of informal knowledge is the imitation of concrete models which permit us to learn in one go a whole set of linked activities without knowing what or which rules govern the thing one learns. This view is consistent, for that

matter, with the importance of imitation and of model-following in the learning of work values in organizations, documented in the literature (Bandura 1977, Weiss 1978).

As we know, Perrow (1972) picked out three levels of organizational control: (1) control which is expressed in direct orders; (2) control operating indirectly through programmes and procedures; (3) control exerted by operating on the *ideological* premises of action. The preceding set of considerations leads one to believe that the three levels picket out by Perrow should be increased by a fourth: that exercised by operating on the *sensory* conditions and premises of action, and for which organizational artifacts constitute the vehicle and the expression (see in particular Witkin in this volume).

An interesting question — which would merit detailed exploration — is the relationship between the control of sensory premises and control of the value premises which govern the criteria, more or less explicit, on the basis of which a thing is judged beautiful or ugly. From this viewpoint the distinction between the two levels of control reflects the distinction between general aesthetic experience (the perception of form) and “special” aesthetic experience, which implicates a *judgment of taste* on sensory experience⁴. Control of the sensory premises is achieved by operating on the construction and manipulation of the setting, control of the value premises of an aesthetic kind is achieved by encouraging the spread and interiorization of a specific aesthetic “discourse.” The two levels can be consistent, mutually reinforcing each other, or *vice versa* they can diverge: in the second case, the divergence is an indicator of the dialectical interplay of agency and structure, and reflects the diversity or the shift in relative power, in aspirations, and in the strategies of the corporate actors.

5 The Hermeneutic Dimension of Artifacts

“A simple artifact often holds the essence of a whole social system.”

Wuthnow et al. 1984: 4

This section will be introduced by a succinct illustration from my research experience with an Italian firm. I’m not going to give an accurate ethnographic account, both because the need to disguise the firm prevents me from giving certain details, and because the introduction to a collection of essays is perhaps not the most suitable place for giving a full description of a specific organizational culture. My aim is to give the reader the flavor

of an experience which significantly influenced my way of studying cultures and of identifying their essence.

The I.T.I.⁵ was a limited company producing instrumental goods for domestic and industrial use, selling in Italy and abroad, and considered — by customers and competitors — technically advanced and reliable. The firm had been set up about sixty years earlier as a small repair workshop, inherited by three brothers who had transformed it into a proper factory. I.T.I. had gradually expanded and had finished by taking on national importance. One of the brothers, an engineer with a marked capacity for innovation and technical design, had been the undisputed leader of the enterprise, running it up to the time of his death a few years previously. The firm had passed to the heirs of the three brothers who — after a period of uncertain interregnum — had designated as chairman and managing director a member of the family thought to be an able administrator and a clever negotiator. The firm, employing about 1500 people, was located in Serrato⁵, a town of about 20 000 inhabitants, founded in the remote past as a fortress and continuing as such up to the last century, as its position overlooking a river was considered strategically important and readily defended in case of war.

The occasion for my research came from the managing director, who declared that he wanted to “modernize” the firm. It was his view, on the basis of chance information from clients and competitors, that the market share was gradually decreasing, and he thought I.T.I. insufficiently open to the outside world and poorly integrated within itself. What exasperated him most was the futility of his attempts to get top management to work together. He wanted assistance in understanding the situation.

I spent some weeks looking at what was going on, collecting data, and interviewing people at various levels. I was mainly concentrating on observable behavior patterns and/or those to be inferred from the interviews, my aim being to reconstruct them and interpret them.

I.T.I. had a functional organization which took the form of two large groupings of activities: a technical section and a sales section for Italy. The technical section was split into four departments: product design, planning and organization of production, factory, buying. The domestic sales department consisted of a central office and a sales network using representatives who covered the country. The administration mostly handled the paperwork for the accounts and dealings between the two operative sections; the personnel department hardly existed. A few years previously a retired elderly man, with a successful past as an executive in a large company, had been taken on as general manager: he had quickly ceased to concern himself and had set about expanding and managing export sales, which was a separate department located in a town about 40 kilometers from Serrato. The offices and the factory occupied a single large building set across the river from the “old” fortified township, marking one of the edges of the “new” town. Inside the building, in a long narrow courtyard, stood a statue of the founder.

The two large sections into which I.T.I. was divided were run very independently by managers who had been many years with the firm and who only came together on official occasions, addressed each other formally though they had been working in the same firm for decades and communicated mainly in writing or through

“emissaries.” Horizontal relationships between intermediate levels in the two structures were strictly forbidden. The setting of production schedules followed on the whole a sequential logic: the technical section let it be known what kind of products would be available, the domestic sales department (and, on its part, the export sales department) let it be known what quantities they could sell, and on this basis production was planned and carried through. Variations to the programme were minimal, both because — the fact was admitted — forecasts were conservative, and because each of the parties adopted their own mechanisms to buffer oscillations, and individual policies aimed at influencing their respective contexts of reference. When it was absolutely necessary to modify a programme, modifications were agreed upon following the strict and formal procedure already mentioned.

The most surprising thing was the repetition of this model on the inside of the two sections. Each of the four departments in the technical section was organized so as to minimize its dependence both on the outside of the section and on the other departments in its own section. In consequence of this arrangement, the department which designed the product also designed even its most elementary components, and the factory made practically all the components of the product, often including the screws which — for one reason or another — were thought to be “special” and unavailable on the market. All the inevitable interdependencies between the four departments were dealt with by the respective heads through rigorously controlled and formalized mechanisms. The managing director’s attempt to question the wisdom of making everything themselves had been answered with a great display of figures to the effect that everything produced in-house was produced more cheaply than could be bought: in consternation the managing director wondered whether the principle of the “experience curve” did not hold for his firm. Within the domestic sales department there was no marketing in the usual sense: there was no market-research, nobody was concerned with product management, they did not employ advertising agencies, all the promotional material was produced in-house. In fact, what the firm bought in was almost exclusively raw materials, and the buying was done independently and autonomously — in line with their own needs — by the technical management and by the sales management, always with more than ample safety margins.

In appearance the situation could be interpreted according to the widespread stereotype of the technologically inclined firm used to dominating its market, but this interpretation did not explain the specificity of the patterns of behavior, their persistence, or the internal consistency of the overall structure. I was also puzzled by a sort of instinctive tendency of the managing director to not really put in question the existing structure and the men who ran it, despite the ample powers delegated to him by the other partners. All doubts about the rationality of the arrangement, all reference to the risks involved and to the eventual need of changing it ran up against a widespread belief in the obviousness, inevitability, and — at bottom — unquestionable rightness of the arrangement.

On the occasion of yet another visit to the firm, I was in taxi travelling the 30 kilometers separating Serrato from the chief town of the province. I was musing on another odd circumstance: as opposed to what usually happens in Italy when a firm is a basic element in the economy of a local community, neither the family owning I.T.I. nor members of the management had ever shown the slightest interest in local

politics and had never sponsored social or cultural initiatives for the community. One couldn't get away from the fact, I was thinking, that the founder's statue didn't stand — as so often happens — in the town square, but in the internal courtyard of the factory. My thoughts were interrupted by the taxi-driver asking me: "You see this fine road? Did you know that it was laid against the wishes of the people of Serrato? Did you ever hear the like, a town not wanting better connections with the big city?!" Then I suddenly understood: the fortress was the underlying metaphor, the concrete image hidden perhaps in the collective unconscious, perhaps taken in through the old people's stories, certainly incorporated and expressed in perceptible manner in the artifacts. With fresh eyes and a different viewpoint I thought of the contours of the physical space through which I had been wandering unknowingly till then.

The building housing the firm was protected on one side by the river. On one of the flanks overlooking the "new" city there was not a single aperture, on the others, very few windows, long and narrow, which no one ever looked out of and the shutters of which I had always seen closed, whereas there were tall wide windows opening onto the courtyard where the founder's statue had been erected. The two big sectors into which the firm was divided confronted each other across the neutral space of the courtyard, and were accessible only from the courtyard and only by means of an unavoidable narrow passage. In the same way, a single tortuous route permitted passage between the departments into which the technical section was subdivided; and the agents who arrived at general headquarters to deliver or obtain information were received in a room where a counter and a glass panel separated them from their central-office counterparts. Yet again I was conscious of the awkwardness and constraint of those enforced passageways, the reason for which I had not grasped and of which I had been given evasive explanations or rationalizations as rambling as the passageways themselves.

The fortress is the place to which access is controlled, where one learns to distrust outsiders and to rely only on oneself and one's own resources during long siege. The fortress was the code in operation, acting according to the syntactic principle of parallel repetition: as in a game of Chinese boxes, the fortress-city — cut-off, mistrustful, and self-sufficient — produces the fortress-firm, cut-off, wary, and self-sufficient, and this in turn generated fortress-sections and fortress-departments in its own likeness, shaping the physical and organizational structures with the cogency of a seal moulding wax.

"The responses which a specific culture gives to nature are the garments with which to clothe the ignorance of man" (Di Chiara 1986: 349)¹, and these garments are woven out of perceptual forms even before conceptions. The first way in which man protects his natural weakness is by building a shelter: perhaps it is because of this ancestral importance of the shelter that the constructed setting is deliberately or spontaneously used to recount the story of our security, of the certainties which allow us to live and to act. And it is probable that the bolder the convictions of an organization — and, in general, of a social group — the more it will be concerned to reify them, to immortalize them in lasting things, passing them on to succeeding

corporate generations through the language of the senses. From this point of view, the constructed setting of an organization is its "monument" and the reflection of its culture.

5.1 The Remains of Organizational Life

Siehl and Martin (1988) claim that cultural forms — as against the practices, formal above all, which constitute the object of study of traditional organizational research — are less susceptible to social desirability biases and more apt to reveal "enacted" themes, as opposed to "espoused" themes; I myself would add that artifacts and the organization of space are the cultural forms least likely to succumb to that risk: we can, in fact, "rehearse" for the time a ritual that no longer has meaning for us, we can send out false messages about our identity, we can give an artificial image of ourselves during a conversation, but we can't live for too long in an artifactual setting inconsistent with the "pathos" of our culture. It is a matter of perceptual dissonance, so to speak, prior even to its being cognitive: by dint of wearing a cultural "garment," we end up by adapting our way of "feeling" to it or we try to change clothes. It is important to note here that adapting oneself to the artifactual environment does not necessarily mean to enjoy it. On the contrary, it is possible that adaption implies suffering: this suffering can be endured dutifully — by those who inwardly share that way of feeling — or felt as ineluctable — by those who lack the power to make the setting consistent with their own different way of feeling.

One hypothesis which the study of the fortress-firm suggested to me was that artifacts can function as a "lapsus" of the collective unconscious, revealing profound modes of feeling different from or opposed to the rationalizations that the members of the culture offer, in perfect good faith, even to themselves. My idea is that organizations, *as utilitarian forms* of human association constructed and reconstructed for the achieving of certain specific goals, tend to censor the expression of the need for persistence and loyalty to themselves which they have *as cultures*, when this need clashes with the necessity to readapt to circumstances the fit of ends and means: failure to readapt would in fact do injury to the basic legitimizing principle of organizations in modern society, i. e. their instrumentality. But mythic significations do not give way to instrumental goals: the scansion of space according to the binary code "sacred/profane" — the fundamental antithesis which, according to Cassirer (Bolognini 1986), structures experience — corrects or underpins the scansion of space according to the rational claims dictated by the exigencies of practical life (Doxtater in this volume).

The possibility that artifacts evade censorship depends on two intrinsic features present in different measure in the various artifacts: the tendency,

proper to matter, to endure over time — something not always easy to manipulate — and the characteristic they have of being “ornament,” of being “innocent forms,” apparently without influence on the “important things” which are said and done. This hypothesis has often helped me to uncover unconscious messages, opposed to the stated claims (and *even* to those inferable from behavior), by analyzing, for example, the formal features, the illustrations, and all that goes into making up the “decoration” of a communication (on this point, see the essay in this volume by Dougherty and Kunda).

Obviously, a new building can reflect the cultural changes hoped for by the top management rather than the traditional values of the organization, office design may contradict the aspirations and conceptions of workers about what is to be understood as a satisfactory working environment (see Hatch in this volume), and members of the organization snatch every malleable possibility of the setting to express their values and personal ambitions — creating what Larsen and Schultz (in this volume) call “artifacts of style.” This simply means, in line with our argument, that artifacts evince and reflect social and cultural dynamics, our task is simply that of carefully decoding them as traces of organizational life. The physical setting is an arena in which diverse visions and interests, conflicts and bargains, the *tension*, in a word, implied by the actors’ constant attempt to create and recreate social reality become manifest (see all the contributions to the first part of this volume, as also the essay by Grafton-Small and Linstead). But if there is a dominant vision, this will be faithfully reflected by the artifacts.

The experience I just now related and all the essays in the third part of this book suggest more than anything the possibility that artifacts reveal a root metaphor explanatory of the *cultural order* and its translation into *organizational order*. If the explanation of structural variability is a central issue in organization theory, this possibility requires us to reexamine the supposed secondary and ancillary character of artifacts in the identification of the distinctive features — cultural and structural — of an organization, and attribute a different epistemological status to the analysis of artifacts in the hierarchy of possible research tools.

5.2 Root-Metaphors, Concrete Images, and Organizational Order

A root metaphor, according to Pepper (1942), is the area of common-sense fact which mankind uses as a basic analogy in its striving to understand the world. In Pepper’s view, there exists a constant tension between common

sense and refined knowledge. Starting from common sense, the person who poses himself the problem of responsible cognition seeks to reduce his doubts through two main types of corroboration: multiplicative and structural corroboration. “Multiplicative corroboration consists in attesting to the repetition of the ‘identical’ item of evidence in many different instances ... Structural corroboration consists in the convergence of qualitatively different items of evidence in support of a single item” (1942: 104–105). But structural corroboration requires a theory or hypothesis for the connection of the various items of evidence, and this theory or hypothesis is also drawn from common sense. Morgan (1986) claims that organization theorists, in their effort to develop expert knowledge on organization, use the same procedure, and that every theoretical view they work out is in fact a metaphor, a representation of organizational reality in terms of a situation or an object belonging to experience and common sense. Thus, if the very people who in an explicit and conscious way set themselves the problem of understanding and explaining the world are themselves caught in the ineluctable circle which binds expert knowledge to common sense, *a fortiori* it will be not different for a human group whose project is not that of providing itself and others with a systematic and conceptually formulated “theory,” but whose main concern is to survive and to act in face of the problems set by the environment. For this reason it seems plausible that at the deepest levels of a culture, at the heart of tacit or informal knowledge, what are to be found are concrete images rather than philosophies.

The strategies adopted by researchers in their efforts to give a holistic interpretation to culture tend to follow two main lines of argument, distinguished at bottom by the two differing epistemologies mentioned in section 4 above. Some students seek, in the deepest layers of culture, for the philosophies and cognitive principles which underpin the cultural order, and use the analysis of symbols and artifacts as confirmation of the abstract conceptions governing action (for example: Schein 1985, Schneider/Shrivastava 1984, Shrivastava/Schneider 1984). For those who adopt this approach (which we may term a “neo-platonic” approach), the essence or paradigm of a culture is a system of interrelated ideas. Other students instead seek to interpret the cultural order on the basis of a dominant drive (Benedict 1934) or an integrating theme (Barley 1983, Opler 1945) which can be stored in synthesizing symbols (Geertz 1973).

The hypothesis put forward here — of a concrete form which enables us to give a holistic interpretation of an organizational culture and which gives form to the culture in that it is an organization, clearly has more affinity with the approach of students of the second camp rather than the first. In our hypothesis, the basic assumptions — understood as general tendencies to see things and to act in specific ways — derive from a “mould” which defines their hierarchy and reciprocal relationships. What

particularizes the specific organizational culture described earlier is not “distrust” or “self-sufficiency,” but the stylistic and perceptual context which we have described in the image of the fortress.

It should be noted that the concrete image is not necessarily present to the minds of those who adopt behavior patterns homologous with it, precisely because the patterns may have been learned in an imitative way and absorbed through sensory experience without the subject consciously asking himself about their structure. It is also important to stress that in using the word “image” we are here making reference to the most common way of perceiving a sensory form, that is, by way of the eyes. But there exist equivalents to the image printed on the retina: the global perception of a form may be tactile (as with the blind), olfactory (such as that given to Proust by his “madeleine”), or aural (such as we receive from a musical composition, or in any case through hearing). And I believe it is to this multi-sensory valency that we can attribute the “concrete image’s” capacity to simultaneously activate self-consistent associative and reactive patterns. And it is in virtue of this multi-sensory valency that the concrete image which structures experience can be incorporated and transmitted by the whole setting of artifacts and not exclusively or necessarily by the iconography of an organization.

The idea that concrete forms can incorporate mental and value structures has been asserted by various writers, students of symbolism, art historians, and anthropologists. Bolognini, with Cassirer in mind, has claimed that “the logical space of geometry is analytic: it serves to order things and has value only as a logical condition of this order. Mythical space is synthetic: it is like a receptacle which gathers things and events and which takes on their axiological features. This is why it is a carrier of values, the very expression of the ways in which values are divided and shared” (1986: 91)¹. Douglas and Isherwood (1979) claim that goods establish and dramatize cultural categories. Csikszentmihalyi and Rochberg-Halton (1981) have explored the relationship between objects, the home, and the development of the self. Others have investigated the structural correspondencies between different formal and conceptual orders of social reality: Vernant (1969), for instance, sees in the structuring of space and in the political organization of ancient Greece the imprint of the same *habitus*; Panofsky (1974) has analyzed the relationship between Gothic architecture and scholasticism. However, it is Geertz (1983) who, in my view, grasps the nub of the question when, in his essay on art as a cultural system, he stresses that artifacts are not necessarily illustrations of conceptions already in force, but equally primary documents (Goldwater 1973) which materialize a way of experiencing and of feeling.

The relationship between artifacts and intellectual knowledge is ambiguous and probably of reciprocal interdependence. Perhaps we shall never

know whether concrete forms are the product of certain ideas, whether the ideas we receive are rationalizations of ways of feeling or whether the ideas we read off from forms are only *our* way of interpreting them. For this reason, if I were to claim that the specific metaphor used by a researcher to explain the structure and the behavior patterns of a particular organization is valid only if we are *certain* that it corresponds to the concrete image imprinted on the senses of its members, I would contradict everything I have said so far. The metaphor we latch onto may be an idea of our own, a rationalization we are forced to adopt by the necessity of communicating to others what we have intuited about another culture: its heuristic value lies solely in its plausibility as an overall criterion of interpretation of all we have observed and described. This observation takes us on to the problem of the methods available for the study of organizational cultures through their artifacts, which we shall investigate in the following section.

6 The Study of Artifacts

The research strategies available for the study of artifacts — as of other cultural forms — seem to fall under two distinct heads: (1) formalist and analytic approaches which tend to interpret artifacts by abduction — i. e. on the basis of general rules governing the conventions of signification (Manning 1987); (2) antiformalist, relativistic, contextual approaches which tend to interpret artifacts on the basis of “local” and inductive logics (Geertz 1983).

The two approaches can be combined in use. Barley (1983), for example, studying the culture of a funeral home, used the semiotic approach to interpret objects — though still through the linguistic mediation of members of the organization — and to identify an organizational theme integral to the culture which functions as a local syntactical principle, like the image of the fortress in the case of I.T.I. which I have described.

The limits of the semiotic approach in studying cultural artifacts derive from the fact that — as Barthes (1964) has observed — semiotics is not (as Saussure postulated) the general science of signs of which linguistics is a part, but a copy of linguistic knowledge which has been very timidly applied to non-linguistic objects. Bromberger (1979) has stressed that the significance of an object’s form depends on the “semantic dosage” — variable according to culture — of three functions: (1) the practical function, i. e. the *instrumentality* of the object as regards specific contextual needs; (2) the function of *social distinction* performed by the object as a sign

uniting a form and a meaning in an explicit relationship on the basis of a system of culturally recognized conventions; (3) a function *expressive* of specific values and ideologies, manifested analogically and for the most part in an implicit way, escaping individual consciousness. The meaning of an object as sign is consciously linked to the system of acquired expectations and habits which culturally define its use: from this viewpoint the semiotic-formalist approach is very useful. As symbol, however, the object must be interpreted on the basis of the subtle correspondences between its stylistic modalities — i. e. its formal particularities — and the culture that produces it. We are no longer in the field of semiotics but of general aesthetics, understood as a general theory of sensibility⁴.

The essays in this volume exploring the possibility of using artifacts as cultural indicators for the most part employ approaches which are more inductive and qualitative, postulating, more or less implicitly, the researcher's *identification* with the situation being investigated (see, in particular, the beginning of Schwartz's essay and the methodological proposal in Larsen and Schultz). To the reader this preference ought to appear consistent with the emphasis we have put on the artifact's being the expression of an organization's specific *way of feeling* (pathos).

Rosen (1989) has discussed the special epistemologically based problems rising out of the fact that in organizational research the studied and the studier most often inhabit the same society. At least as regards the analysis of artifacts and the sensory dimension of organizational life, it seems to me that this position offers opportunities foreclosed to the anthropologist studying isolated and exotic communities: it is unlikely, in effect, that a student of civilizations far removed from his own manage to "get inside the skin" of the natives, and Geertz's assertion (1983: 44) remains true: "we can never apprehend another people's or another period's imagination neatly, as though it were our own." But all those of us who study formal contemporary organizations may belong (or even do belong: see Sievers' essay) to the organizations under investigation. The way of feeling of the particular organization we are studying — should it have a distinct culture — is different from our own if we belong to other culturally characterized organizations, but we can quickly learn to feel in the same way as the organization we are studying feels: culturally specific codes can suspend or invert institutional codes (see the essay by Berg and Kreiner in this volume), but just because of this they tend to be structured *in relation* to those institutional codes spread throughout the society to which both the studied and the studier belong.

Since my experience at I.T.I. I have often wondered whether we wouldn't become more adept at grasping the language of artifacts if we were forced to use *them alone* for interpreting a culture, if we were in the position of the archeologist. I have thus adopted the habit — whenever possible — of

staying behind in the setting of the organization I am studying when everybody else has left: every "locus" has its "genius," and I believe it is less improbable to take hold of it when the din of voices has died away, the actors exit, and the stage is left empty. The voices and the actors are fundamental elements of the perceptual context: words, sentences, discourses can be creative products which rouse sensations and feelings, and it is mainly for their stylistic qualities that words, sentences, and discourses are discussed in this volume as "linguistic artifacts" (see the essay by Piccardo/Varchetta/Zanarini and that by Czarniawska-Joerges/Joerges in this volume); in the same way, people "resound," smell, are made visible through the way they dress, gesticulate, act. Nevertheless, the prevalence, on the one hand, of the pragmatic element in organizational communication and behavior, and our *cognitive* attitude towards them (our effort to *understand* their meaning, even symbolic), tend, on the other, to overwhelm our capacity to "let ourselves become soaked through" with their formal qualities.

Mirvis and Louis (1985) have claimed that a particular relationship gets established between the researcher and the human system he or she studies. An analysis of the emotional dynamics implicated in this relationship constitutes an important element in the process of research, in the same way that the examination of countertransference is an integral part of psychoanalytic practice. This claim provides the occasion to make two points crucial for my argument: (1) the researcher establishes transference with the physico-perceptual setting as well as with the human and social system; this relationship should not be hindered or immediately rationalized but lived without misgiving; (2) it is at the same time indispensable for the researcher to assume a *reflective* attitude enabling him or her to get a clear grasp of the specificity of the sensory maps which are structured in the setting. From this viewpoint a long stay in the setting hampers rather than fosters the capacity for reflection: the researchers — like the newcomers — adapt rapidly to the perceptual context so as to reduce the sensory overload, to harmonize with the physical setting and to give themselves over to what they best control — the relationship between their mind and the organization as a "body of thought."

The reader who has followed the thread so far will not be astonished by the final corollary to be drawn from the conceptual framework proposed: the ideal report of what we have "felt" that the natives "feel" can only be given in a way that enables our audience to "feel," and it demands that we use our creative imaginations. The aesthetic experience should be transmitted in ways consonant with its nature.

In treating this latter point, I shall need to refer yet again to a personal experience. Having finished a research project, I asked a member of the team to make a brief report on what she felt were the most important

findings in her field work, to be written up in whatever way she felt respected them best. She wrote a fairytale and we decided to include it in the research report. The research had been commissioned by the managing director of the organization we had been studying, a recent appointee from outside. In presenting the report, we spoke to our client about beliefs, values, and ideologies, and he made a visible effort, without great success, to follow our reasoning. Then, when the fairytale was read out, he blanched and said: "At last! Now I'm with you!"

7 Towards a Theory of Corporate Artifacts

Our starting point, in this introduction, was the definition of the artifact as an intentional product of human action perceptible through the senses, and we have surveyed the marginal role played by the study of the physical setting — as a source of sensory and emotional experience — in organization theory and organizational culture research.

Among the possible reasons for this neglect particular attention was given to the tendency to employ a cognitive paradigm even in the study of the symbolic aspects of the organization. We then suggested that organizational cultures be studied not just by picking out the ontological element (the logos) and the deontological element (the ethos), but also the sensory and aesthetic element (the pathos), formulating the hypothesis that corporate artifacts represent and are the vehicle of the pathos of corporate culture.

In exploring the pragmatic dimension of artifacts — their being the pathways for organizational action — and their hermeneutical dimension — their being remains of corporate life, documenting and reflecting its social and cultural dynamics —, a chain of linked ideas has been offered, which I shall now briefly run through for the sake of the reader.

Artifacts constitute a concrete element in the social structure and are most immediately perceptible of all the physical and symbolic bounds within which the actors move and which they strive to modify and manipulate ...

The physical setting influences the behavior of the actors because it selectively steers and structures their sensory experience ...

The wealth of associative and reactive capacities which people construct living in a specific setting is an important part of so-called tacit or informal "knowledge" ...

This wealth gets translated into "sensory maps" which become activated in the dynamic interaction between the senses and a specific physico-cultural

setting, and which can be distinguished from unconscious mental schemata ...

Sensory maps classify the stimuli in a setting along the reassurance/threat axis, to which the parallel inaction/flight/defence/attack axis corresponds ...

Adaption to a new setting implicates the redefinition of codes of instinctive reaction to people and things — according to their formal qualities — and of codes associating stimuli to pleasant/unpleasant sensations ...

The possibility therefore exists of a fourth level of organizational control (as against the three indicated by Perrow), which is exerted by operating on the sensory conditions and premises of action, and of which artifacts are the vehicle and expression ...

Organizational cultures tend to reify their basic assumptions and particular way of feeling (pathos) in the setting constructed by the organization ...

Material artifacts and the organization of space are less susceptible to social desirability biases than other cultural forms and more apt to reveal the enacted cultural themes and the tension implied by the actors' constant efforts to create and recreate social reality ...

In particular, artifacts can reveal the root metaphor which explains the cultural order and its translation into the organizational order ...

The root metaphor incorporated and transmitted by the artifactual setting tends to be a concrete multi-sensory image which simultaneously activates self-consistent patterns of association and reaction ...

Artifacts, as the expression of an organization's way of feeling (pathos), can be studied by means of inductive and qualitative approaches which postulate both the researcher's identification with the situation under investigation and his or her capacity — at the same time — to reflect on the sensations he or she feels ...

Reporting on what the researcher has picked up of the pathos of an organization requires the use of creative imagination and of ways of communicating consonant with the aesthetic nature of the experience to be communicated ...

The ideas set out above were developed out of the literature, out of my research experience — but above all in response to stimuli from the essays in this volume. From a certain point of view, it would have been more appropriate to have placed this sketch of a theory at the end of the book. Nevertheless, I have adopted as my own Weick's thesis (1987: 122) that: "Ideas ... gain their value from what they allow us to see in organizations. Evocative ideas need to be cultivated by theorists from the beginning because belief, not skepticism, precedes observation ... If believing affects seeing, and if theories are significant beliefs that affect what we see, then theories should be adopted more to maximize what we see than to summa-

alize what we have already seen.” I hope that this attempt at theorizing will help the readers *to see more* in the essays which follow and in the organizations they study or in which they live.

Notes

- 1 The translation is my own.
- 2 Quoted in C. K. Ogden and I. A. Richards (1949): *The Meaning of Meaning*. London: Routledge & Kegan Paul, p. 139.
- 3 I owe this trenchant formulation of the Kantian view to Fulvio Carmagnola, in conversation.
- 4 I owe the sharpness of this distinction to an exchange of ideas with Fulvio Carmagnola. On the difference between Aesthetics as a general theory of sensibility and Aesthetics as a theory of art, Formaggio has said: “... Throughout its history since the Greeks, it [Aesthetics] has dealt with two distinct classes of event: the facts of sensibility and artistic facts or events, i.e. sensory facts or events and those of artistic praxis and experience. Aesthetics has always claimed that they were confused together: by dealing with two totally different, even if mutually related, sets of event, Aesthetics has often been active in this confusion. Meanwhile in the modern world it has become evident that the events which constitute the artistic experience have nothing to do with those that constitute the aesthetico/sensory or contemplative experience. To create art is one thing, to contemplate a beautiful sunset is another. They belong to two different classes even on theoretical grounds. Today Aesthetics has no alternative but take this old story for granted and thus become a general theory of sensibility since it deals with the body, perception, memory, and by so doing becomes a prefatory science for physiology, psychology, the human sciences in general” (*Domus* 1986: 16).
- 5 The name is fictitious.

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