Michael Brian Schiffer with Andrea R. Miller, The Material Life of Human Beings: Artifacts, behaviour, and communication. Routledge. London - New York 1999, 158 p.

The materiality of human communication and behaviour in a world filled with artefacts is easily forgotten. This is often due to communication theories which are based on a model set by speech. Speech as a primary example of communication process reduces it to a simple sender-receiver-model. In these two-bodied models one loses the essentiality of the material medium in communication. Although the bond between communication and artefacts has been noticed in social sciences, the observation has not had any profound effect on the praxis of research or communication theories. The role of artefacts is still somewhat secondary in communication models.

Michael Schiffer's work is an attempt to construct a general communication theory for all social sciences. His point of departure is radically artefactual: people are not directly linked to each other — rather the connection is fundamentally constructed through artefacts. One could even say that there does not exist any interpersonal communication but there is always an artefact between two humans. This is evident in the case of literature or handicrafts but artefacts come to play even when two persons speak; most areas of human bodies are intentionally or non-intentionally altered with make-up, colouring, clothes, ornaments, various medical operations, body-building etc. Artefacts are all over us.

According to Schiffer, the paradigm for communication theory has to be brought from archaeology, which has not alienated itself from the materiality of communication. Archaeology has developed its own terminology and methods to study the role of artefacts in communication. Schiffer extends his theoretical construction to human behaviour, and strong links between artefacts and human behaviour have been acknowledged in archaeology for a long time. Because Schiffer considers concepts such as meaning, sign, inten-

tion, culture and value to be behaviourally problematic, they are left outside his theory. The avoidance of the notions stems from Schiffer's positivist and behaviourist stance, which is ever-present in his theory.

Schiffer defines the process of communication as "the passage of consequential information from interactor to interactor". The culmination point in communication is the receiver and the receiver's reaction to received information. This brings the concepts of communication and behaviour close to each other to the extent that Schiffer considers the separation of two concepts theoretically superfluous. He defines behaviour as the receiver's response to communication processes.

Central concepts in a communication process are interaction and interactor. The former is "any matter-energy transaction taking place between two or more interactors". Humans, artefacts and even phenomena independent of humans can act as interactors. The minimal engagement between two interactors Schiffer calls a performance. In a communication process different interactors can acquire either the role of a sender, emitter or receiver. Taking into consideration all possible interactors, and not just humans, the theory supersedes the human perspective and widens the spectrum of communication.

Schiffer sees the three-body model of communication as analogous to archaeological investigation. In archaeology, the sender is in the past and the emitter is the only evidence of the past event. The archaeologist is the receiver. Guided by present-day performances he observes the traces of past performances - such as fragments of pots - and tries to draw conclusions about the performances that formed them - in this case the actions of a potter. In archaeology, the processes to obtain information about the materiality of ordinary life has been elaborated and formalised. The archaeologist is like Sherlock Holmes, who deduces the past events from small traces. Principally, the same model applies to all communication, only the time scale differs.

To stitch up the gap between the past and the present performances Schiffer introduces the concept of correlon, which is defined as "the relation-

al statements of archaeological knowledge with which an interactor's present-day performances can be linked to its past interactors". It is the cognitive basis of archaeological research or even more generally of all relational knowledge. Correlons underlie all communication.

The concept of correlon comes quite near to concepts of meaning and sign. Schiffer's straightforward rejection of these concepts might seem a bit too hasty. The same problem presents itself in the example of a professor writing a letter. From the letter-writing event Schiffer distinguishes a focal interactor (the letter being written) from other interactors (the professor, a stamp, an envelope *etc.*), which are grouped in relation to the focal interactor. Schiffer points out that the separation and the valuation of different interactors of the performance is dependent on the investigator's research problem. Still the example leaves questions: Is it possible to distinguish between primary and secondary interactors in a communication process without any understanding of its meaning? Can artefacts be stripped of their meanings and still given a role in any communication process?

Before undertaking any analysis of a communication process one has to demarcate it from other communication processes, and this requires some understanding of the processes before applying the model. Even the possibility of demarcation within one process seems to be futile without the concept of meaning. In the letter-writing

example it is impossible to tell where the performance begins and ends if one does not know what it means to write a letter. In Schiffer's theory the questions of meaning and demarcation are left outside; they seem to be self-evident and already given. Although he explicitly constructs the theory as free from the concepts of meaning, value or sign, the problem of meaning seems to be implicitly ever-present. Is it possible to construct a communication theory uniting all social sciences without those difficult concepts, and has Schiffer succeeded in this task?

Though brief, Schiffer's book has ambitious aims. It arouses many thoughts and questions. Consistently and clearly, Schiffer defines one concept after another and their relations without forgetting his artefactual and material basis. Schiffer succeeds to show the diversity and complexity of communication. He constructs the new theory step-by-step in a way, which takes the reader into consideration. At some levels of research Schiffer's theory can prove its value by bringing clarity to concepts and their relations. But it still leaves many questions to be answered. This book is just a beginning in the development of a general communication theory.

Visa Immonen
Department of Cultural Studies / Archaeology
Henrikinkatu 2
FIN-20014 University of Turku
Finland

Before I proceed with the review of Michael Brian Schiffer's latest book, The Material Life of Human Beings: Artifacts, Behavior and Communication, I feel the need to address the question of what can the opinion of a designer working with digital media, and with a keen interest in archaeology, contribute to the current discussions about material culture? It turns out that designers are often put into the situation where they are asked to, for example, create a "Gaudí chair". It may also be the case that a designer joins an R&D (research and development) effort whose ultimate goal is the creation of "the digital Stradivarius". Both of these cases, which I might add are based on real life circumstances, present the designer with challeng-

es not unlike those faced by the archaeologist working with ancient material remains. That is, for the archaeologist, being able to re-construct the past is as much a possibility as it is for the designer to be able to create an object that captures the essence of Gaudí. Both the archaeologist trying to make sense of the past, and the designer trying to create a meaningful product from descriptions of artifacts face similar questions: How to bridge the gap between then and now? As Michael Shanks (1996:125) has pointed out: the past is gone, but the artifact remains?

It is possible that, in the future, both the study of material culture, and archaeology, can make a contribution to the discipline of design. At the

same time, design research may be able to provide insights to archaeology on why things *are* the way they *are*. In the meanwhile, we are left to find our way through the multiple theories and studies of which this book is an example.

In my review, I would like to extend my comments not only to the text, but also address what the author himself labels as the project of the book (p. x). Early on, Schiffer announces his objective, namely from an archaeological perspective, "to build a general theory of communication that also handles behaviour" (p. 5). The question that obviously arises is that one of What does an effort like this entail? First of all, it means that the text does not intend to provide an account of a particular work, from a specific point of view, but rather, that the author seeks to present a synthesis of knowledge from different disciplines with the hopes of arriving at one general explanation that can be applied to as many particular cases as possible. In archaeology, such high-level, or general theories, have been described as "research strategies", or "controlling models" with abstract rules that aim to "explain the relationship among the theoretical propositions that are relevant for understanding major categories of phenomena" (Trigger 1997:22). Furthermore, it has been noted, "in the human domain, general theories refer exclusively to human behaviour, hence there are no theoretical formulations at this level that pertain specifically to archaeology rather than to the social sciences in general" (Trigger 1997:22). It is in this context that the magnitude of Schiffer's effort must be examined and assessed: Although in length the book is relatively brief, the breadth of the arguments presented encompass a vast territory.

Schiffer's strategy is based on the creation of an ontology through the use of vocabulary and traditional categorisation schemas. As is customary in this type of approach, "the properties defining the category are shared by all members" (Lakoff 1990:40). This is in contrast with other methods of categorisation that might make use of concepts such as centrality and membership gradience (Lakoff 1990). Accordingly, in Schiffer's theory, the basic category is the *artifact*, this being defined as a "material phenomenon that exhibit one or more properties produced by a given species" (p. 120). In a theory that seeks to encompass human behaviour, the question that immediately arises is that one of How do you reconcile not only the co-existence of the organic and inorganic, but also the disparate nature of their life cycles? How can humans, and human behaviour, be reduced to the realm of artifacts? This is indeed a radical proposition that is bound to be met with scepticism. Yet Schiffer solves this dilemma in a very simple manner: artifacts need not be limited to being stationary, inanimate objects. According to Schiffer's theory, human behaviour can be seen "as relational phenomena at several scales whose *boundaries* does not lie at the edge of a moving organism but *extend* beyond it to include materials involved in activities" (p. 12). In Schiffer's view, humans use artifacts to augment the performance of the body. In the process of doing so, the body itself is transformed into an artifact. An instance of this type of behaviour is illustrated by Schiffer through the example of how the use of makeup by the human interactor enacts a transformation of the body into an artifact for the purpose of sending information to a receiver, during the process of communication (p. 34).

In his theory, Schiffer does not really offer an explanation of what constitutes information. He also chooses to ignore important issues related to the role of language in the shaping of meaning. Nevertheless, this is a carefully constructed work in which the author makes use of high-level theoretical methods, to prove his hypotheses. For example, Schiffer uses inductive reasoning in an attempt to debunk the notion of culture as a phenomenon that is exclusive to humans. He points out how "...on the basis of theory and considerable evidence, it has also been argued that some non-human species are culture-bearers" (p. 1). One could bring up the counter-argument that "in more than thirty years of observation of chimpanzee tool use there have been no technological advances: each new generation of chimpanzees appears to struggle to attain the technical level achieved by the previous generation" (Mithen 1999:77). Or further point out that "Human cultural traditions are usually about different ways of doing the same task, rather than whether the task is undertaken or not" (Mithen 1999:77). But within the scope of this project, Schiffer's objective is not necessarily to argue that humans are the same as animals, but rather, to extend the scope of his theory to apply to all possible cases. It is in this context that Schiffer advances one of the main

hypotheses of his work, namely that "Incessant interaction with endlessly varied artifacts is...the empirical reality of human life and what makes it so singular" (p. 2).

Further on, Schiffer employs a deductive strategy to propose that, at the most basic biological level, human behaviour can be seen as a performance. In this performance, according to Schiffer, there is an engagement between three possible types of interactors: 1) humans, 2) artifacts and 3) externs, or "interactors that arise independently of people such as sunlight and clouds (p. 122). The relational statements, or correlates, used to link together these terms can be modelled by the investigator. "One does this by positing a hypothetical correlate or correlates to account for the linkage assumed in an inference... (p. 55). An immediate problem with this proposition is that one should be ready to accept a sort of *tabula rasa* notion of the human, the artifact, and the environment. (As if culture could exist, and be explained, without mind and language.) Though this may the situation within the conditions of the laboratory walls, and during the course of an experiment, it is the case in the real world. Meaningful activity with artifacts is what distinguished human activity, and we can almost be certain that artifacts, including humans, "never survive within a culture without being meaningful to their users" (Design in the Age of Information 1997). The current state of the environment, is testimony to this painful reality. Furthermore, recent research suggests that human understanding is more dependent on our biological reality than was previously believed. That is, human knowledge can be seen as embodied understanding. It is not the result of our observations of things "out there", but rather, the outcome of our direct, embodied, interaction with the world.

Throughout the book, there seems to be no reference, or mention, of the terms emotion, meaning, and expression. One cannot fail to notice the lack of any formulation in Schiffer's work regarding the role of these concepts in the construction of artifacts and human communication. In fact, Schiffer restricts the dimension of meaning to that which is "of consequence". One could suppose that the substitution is meant to treat the subject in a more neutral manner. These are, after all, heavily loaded terms. In this manner, one has to agree with the proposition that "the tendency

to obliterate the individual traits of an object is directly proportional to the degree of emotional distance of the observer" (Shanks 1996:40). This, of course, need not contradict Schiffer's agenda to construct an all encompassing theory of human behaviour. However, it highlights what in my opinion is the most pressing critique one could make of this work. Namely, the insistence of imposing absolute truths in a world that has realised the necessity and importance of developing a second order understanding. This type of understanding is not less scientific and "brings different ways of looking at the world into interaction and dialogue" (Design in the Age of Information 1997:30-31).

There are aspects of brilliance in Schiffer's work. Among them I would single out his attribution to the receiver of the role of emitter (or sender) of the signal in the communication act. In the context of the archaeologist seeking to explain the relevance of data from the past, this reversal has the effect of opening up spaces for further discussion: the message emitted by the scholar is clearly identified as his or her interpretation of the facts, and as a communication event it is placed in a more accurate chronological context, namely *here* and *now*.

Lily Diaz
Media Lab
University of Art and Design Helsinki (UIAH)
Hämeentie 135 C
FIN-00560 Helsinki
Finland

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