Thus, in the example we mentioned that in some sense the amount of information increased, and in some sense its amount did not change; the question of whether it decreased (for example, for the teacher) does not even arise. This seems obvious, even though teachers sell their wares by giving the information that they have to others. Nevertheless, this position is confusing to some because in their opinion it creates a strange situation: no matter how much information from our memory that we transfer to others, its amount does not decrease. Here again it is appropriate to recall Wiener's remark: "Information is information, not matter or energy" (Wiener, 1961). Apparently some investigators in this situation are somewhat bothered by our usual "material" notions of wares. However, all agree that the teacher does not transmit either matter or energy to the students.

Perhaps it is useful and instructive to compare the need for food with the need for information. It is obvious that food exists as long as an entity using it exists (i.e., the organism eating it). Actual information should also be interpreted in exactly the same way. It exists as long as a user of it exists. If, for example, no one will ever eat rabbits, then rabbits will not be actual food because actual implies the existence of a user of this food. This approach is also valid in relation to information. If no one ever "eats" information, that is, if certain signals are never in any way taken into the consideration, then these signals are not the source of actual information. The user makes signals informative as he or she sees fit.

It should be noted that up to now both information and signals have been considered in broad terms. However, it is necessary to narrow somewhat any further discussion of these concepts, at least down to those forms that are present in any information activity within the framework of information science. In other words, we will focus our attention on the satisfaction of IN with the help of documents or, as they are sometimes called, documentary information. For this reason, we now turn to the discussion of such objects as documents, objects containing potential information.

2.5
Document

It is difficult to say when humanity felt the necessity of preserving information outside of memory. However, it is possible to say with confidence that this occurred in the period between the creation of language and the creation of writing. The phenomenon of writing itself was early society's answer to an arising necessity. With the appearance of writing, the document also appeared, which we shall define as a *material carrier with information fixed on it*. Within the framework of our conceptions about information, which were described earlier, we will make more precise the sense in which information is fixed on a docu-

ment. For this we will consider from whose point of view something that is fixed is considered information, and then how it is fixed.

First note that the information described in a document represents information that has some importance for the author and hence is actual information that the author *expresses* with the help of some means of fixing it in the document. In analyzing the nature of the origin of IN, as well as the role of information in the process of vital activity, it was shown that IN itself as well as the realization of information, are mental states that in many cases are difficult to express exactly. Therefore, by *expression* in this context we mean a recording of information realized in some language by the author of the document. How well the fixed (documentary) information corresponds to what the author of this document wanted to express depends on the author's ability to express his or her mental state on the one hand, and on the author's fixing technique and skills on the other hand.

From the time of their appearance, written documents satisfied an important function for society—the transmission of information in time and space. Apparently *pictograms*, which were representations of the general content of communication in the form of pictures or a sequence of pictures, were used as the first attempts to fix information. Pictograms have been known as far back as the neolithic period. Cave walls, rock faces, and stones have been used as information carriers. Strictly speaking, pictograms are not a means of fixing any definite spoken language, that is, they are not writing in the proper sense. Nevertheless, with their help, the creation of the first documents became possible, although documents such as rock faces or cave walls were at times extremely inconvenient to use (for example, when moving from a residence it was impossible to take them along). Practically, the creation of written documents began with the invention of phonetic writing, in which each sound was denoted by a special symbol. This invention proved so successful that such symbols have been successfully used up to now. Essentially for the last millennia (writing has been known from the end of the fourth to the beginning of the third millennium B.C. (in Egypt and Mesopotamia) only the carriers and the technical means of fixing information have been perfected and changed. Note also that with the development of both, the concept of a document has been enriched to now include new forms; and not all documents are now written, (consider photographs, phonetic recording, etc.). However, we will focus on written documents, and in the following discussion when speaking of a document we will mean a written document.

The creator of a document expresses in it "something," that is information from the creator's point of view (this "something" corresponds to the creator's IN). Recall that during our earlier discussion of the need for information itself, it was shown that various types of IN exist, and that for each type of IN, information is required corresponding to the given type. Thus, it is valid to speak about various types of information, types that are generated by existing types of IN and suitable for satisfying exactly these types of IN. To illustrate this point it