

## REMARKS ON THE METHOD OF RECONSTRUCTION

**Gevorkyan H. A.**  
*Academician of NAS RA*

Reconstructive activity is a necessary component of the work of the historian, archaeologist, anthropologist, social philosopher, when he re-builds another reality, another society, another culture as a whole and tries to place in this wholeness - 'rationally', cogently, coherently - the given particular facts<sup>1</sup>. It can be said that any fact - event, deed, cultural monument, and so forth - is not an historical, cultural, social etc. phenomenon in itself, until yet it is incorporated in an integrity: much like the case of a stone, not even a carved one which gets its value, purposefulness, its immanent meaning when the restorer defines and finds its position in the wall of a ruined castle and places it there.

Besides the traits which are common for the reconstructions used in the field of the humanities, there are also peculiar features characteristic for each branch of it. Below I shall begin by considering the problem of reconstruction in historical studies, i.e. the *historical* reconstruction in a proper sense<sup>2</sup>, and shall focus on the case of reconstruction in the field of the history of science as the form most of all objectivized, alienated from the knowing subject; then I shall pass to the specific case where science, viewed in its historical perspective, displays its relationship to the humanities, similar to the other forms of culture. And after that I shall dwell on the key problems of reconstruction in cultural studies.

Historical memorials embody in objective, substantial forms certain ideas and concepts, practical aims, ideals of morality, art and knowledge; as a result of human activity and as a creation of human hands, reason and emotions they are bearers of definite ideal contents. Hence, the task of the historian is to reveal these contents and to conceive them - to 'read' them off - in their own language.

A parallel with art would discover an important trait of scientific knowledge and the peculiarities of its historical reconstruction.

A work of art always supposes a unity of the substantial form and the ideal contents: paraphrasing the well known aphorism, in the case of art it is important not only what is said (expressed) but how it is said, too. The lines, colors, sounds, words

---

<sup>1</sup> Armenian Mind, vol. IV, N 2, 2000, pp. 191-215.

<sup>2</sup> As to the field of general history, a more or less significant role is ascribed to historical reconstruction in different theories of the philosophy and methodology of history. The extreme approach supposes that written history is wholly a construction by the historian. Noteworthy are the conceptions developed in traditions of John Dewey's pragmatism (see Dewey 1938: 232-239), in the American schools of constructivism and presentism (J.H. Robinson, C.L. Becker, C. Beard, L. Goldstein et al.).

are not mere means for the incarnation of a feeling, emotion, idea; they themselves in their unrepeatable combination form the work of art as the very one, unique incarnation of that feeling, of that emotion, of that idea. And the latter ones, in their turn, become indeed aesthetic feeling, aesthetic emotion, aesthetic idea only when they are embodied in lines, colors, sounds, words.

All this turns out to be very important for the historical reconstruction of works of art: we need not only and not mainly to know, what was portrayed in the painting which reached us in damaged form, and what story related the poem which we know only in fragments; no, we need to contemplate and to hear them in colors and stanzas: only then will they appear before us as *works of art*, in the very sense of the term, and be of aesthetic value, and not merely a *knowledge* about them. It is impossible to imagine an historical reconstruction of memorials of art, exactly as works of art, in other way - by translating them into contemporary, known, understandable, intelligible for us forms of expression and representation. (Of course, such a transfer - description and retelling, - though not being an historical reconstruction, may be useful for acquainting us with a work of art.)

But the reconstruction of the history of science seems to be of quite a different kind. In the reconstructions of the evolution of science it is supposed that in every historical period science contains, in abstraction, all the previously obtained knowledge and by its form also it is more perfect: its language and theoretical structures are quite able to give us an adequate account and understanding of the knowledge of past epochs. This model has a solid ground in a certain aspect of modern science when it manifests itself as objective knowledge, i.e., as knowledge, which in an ideal case is alienated from the knowing subject, from the historical-and-cultural conditions of its formation. Present-day science as the outcome of previous evolution is considered to be a logically organized, systematic whole comprising the past states and results in a condensed, or, as German philosophers would say, in *aufheben* form. Therefore it is thought that the logical organization of present-day science itself proposes to the historian of science the logic he must discover in the history of science, - the logic substantiated in the succession of scientific ideas, conceptions, theories, which are arranged on the vector-arrow oriented towards present-day ideas, conceptions, theories. This brings to the idea of the acceptability and even necessity of a logically corrected history when, in particular, any fact is disregarded if it does not fit to be placed on the vector-arrow oriented to the present state of science. There is another consequence too - the translation of historical memorials of science into the language of contemporary science, the understanding of past ideas, conceptions, theories in the key-note of present-day science, of its ideals. So in this case, unlike the reconstruction of works of art, we think we have the right to represent the knowledge of the past epochs in our contemporary forms of knowledge and in our contemporary language of science, even if we have got our testimonies of the past knowledge from the fragments

of another context written in another language. The idea of *diachronous* wholeness of science lies at the basis of this viewpoint.

Thus, what was thought to be quite unacceptable in the case of reconstruction of works of art appears to be a quite legitimate, even routine way of work for the historian of science. This procedure, which is analogous to the translation of a literary work from one language into another, can be applied to historical reconstruction of science, in the hope that no damage is done to the reconstructed memorial of science. This procedure seems natural for the historian of mathematics who retells ancient writings in contemporary language, puts the problems, proofs and solutions in modern symbols and formulae, supposing that for mathematics it is the contents of knowledge that is important, and not the language, not the system of recording the knowledge. But in this field already, in the history of mathematics, the first difficulties arise: the divergence of the language used in the reconstruction from the language of the historical data results in the discrepancy of the constructed picture and understanding<sup>3</sup>. This concerns, primarily, the period of the beginning and shaping of any mathematical theory and/or discipline until it becomes autonomous. It may be called the period of *pre-history* of a given mathematical discipline, and the reconstruction of it, if done by the same procedure, turns out to be diversiform, always controversial; because in these cases the historian of science distinguishes and picks out from the syncretic whole what he is interested in, but what was not distinguished definitely in the consciousness of that historical time. Let's take an example: the pre-history of the ideas of infinitesimal calculi. The rudiments of the methods of this calculi and of its basic concept - infinitesimal - may be sought and revealed in Antiquity, beginning from Zeno, but - by picking these rudiments out of other contexts. One can get them by a particular interpretation of Democritus' atomism<sup>4</sup>. Then, mathematical infinity is the subject of chapters 4-8 of Book Three of Aristotle's "Physics" but of course in another context: the science about nature, Aristotle claims, deals with quantity, movement and change, and their description is bound up essentially with the concept of continuity, defined through the concept of infinity, namely, infinite divisibility. By these physical considerations and in the context of his *physics* Aristotle examines infinity in general and mathematical infinity in particular. And, lastly, infinity is considered in Euclid's "Elements", i.e. in the context of geometry. Geometrical models are typical of Archimedes' consideration and application of the methods of infinitesimal.

All these cases, of course, do not yet contain the infinitesimal calculi in its strict sense; nevertheless just this calculi prescribes now to the historian the goal and the vector of his research, for the sake of which he thinks he has the right to carve up and

---

<sup>3</sup> Here is an example: "If we want to understand the Egyptian fraction calculation as they understood it, we must introduce fractional denotations which would not resemble ours - with numerator and denominator, but would be based on Egyptian denotations," notes the well known historian of science, B.L. van der Waerden, in his *Ontwaken de Wetenschap* (Waerden 1935).

<sup>4</sup> Such an interpretation was given by S.Lourié in a special investigation (Lourié 1935).

to extract from philosophical, physical, geometrical contexts some chosen fragments and to put them upon the historical vector-arrow oriented to the *infinitesimal calculi*.

More it concerns the historical reconstruction of the empirical science. Physics in its strict sense, as a natural science based on experiment and carrying out its proofs in logico-mathematical language, begins from the works of Archimedes and of the Alexandrian school. However here the 'experiment' is understood peculiarly and differs from the experimental-empirical basis of modern science originating from the Scientific Revolution of the 17th century. An apparent case is the example of Archimedes' mechanics. In the Alexandrian school too the 'experiment' took the form of mechanical models to which perceptual geometrical images could be applied and thus the transition to mathematical language became possible. As to "Physics" of Aristotle, the fragments of which are used in reconstructing the prehistory of ancient mechanics, this work of Aristotle, even by its subject, differs from what is called physics as a natural science. Aristotle's "Physics" comprises his learning on the most general principles underlying the nature; it would correspond, in the later history of science, to philosophical reflection upon nature: that is the domain of science where "hypotheses are invented". So it was not accidental that the founders of the new, empirical science, the science about nature, rejected Aristotle's *physics*. (And only later the consciousness came again that the science about nature cannot avoid philosophical reflection upon the principles underlying the nature.) Nevertheless the historian of science, composing the pre-history of ancient mechanics, picks out from the context of Aristotle's "Physics" the fragments which he thinks to be the initial rudiments of that mechanics. As a result, the wholeness of *physics* in the Aristotelian sense, of course, is damaged. But the historian of science has some reasons for such a destructive work: already in Antiquity, during the shaping of the ideas of the mechanics of Archimedes and of the Alexandrian school, such a reconstruction *really* had taken place, i.e., a selection and re-interpretation of Aristotelian *physics* was done, having in view the ideal of mechanics as a natural science.

The discrepancy between the picture, constructed in this way, and its original was fully understood in the cases when this discrepancy turns to non-adequacy<sup>5</sup>. In

---

<sup>5</sup> Thomas Kuhn relates how he discovered for himself the difference between two approaches to Aristotle. At the beginning, "like most earlier historians of science, I approached these texts knowing what Newtonian physics and mechanics were. Like them, too, I asked of my texts the questions: How much about mechanics was known within the Aristotelian tradition, and how much was left for seventeenth-century scientists to discover? Being posed in a Newtonian vocabulary, those questions demanded answers in the same terms, and the answers then were clear": Aristotle and Aristotelians had still known little and in many cases were wrong. This is natural. "But was it conceivable that his errors had been so blatant?" Then the consciousness came that the very approach to these texts must be different: "For the first time I gave due weight to the fact that Aristotle's subject was change-of-quality in general, including both the fall of a stone and the growth of a child to adulthood. In his physics, *the subject that was to become mechanics was at best a still-not-quite-isolable special case...*" "Lessons learned while reading Aristotle have also informed my readings of men like Boyle and Newton, Lavoisier and Dalton, or Boltzman and Plank" (Kuhn 1977: xi-xii. Italics mine. - H.G.). By these considerations Kuhn thinks it is a mental aberration to suppose that the ideas of modern

particular, to have the full panoramic view of scientific evolution the historian has to present all the variety of ideas, conceptions, theories of every historical epoch, and not only those which were due to arrangement on the vector-arrow oriented to present-day science. Then, the historical approach leads to an *historical* understanding of the very concept of science, of its form, contents and scope, as various in different epochs and different civilizations. But this change of viewpoint not at all means to consider science placed simply in historical-and-cultural context. It means to consider science as a *phenomenon of culture*, with such characteristic traits of any cultural phenomenon as the individuality, the uniqueness and, therefore, the transiency in historical space and time<sup>6</sup>. So to this change of viewpoint corresponds the transition from the prime idea of *diachronous* wholeness of science to the idea of *synchronous* (F. de Saussure would say better - *idio-synchronous*) integrities in the history of science. As a result, the reflection upon it and its reconstruction cannot use *direct translation*, but must be mediated by its *interpretation*<sup>7</sup>.

In particular, considering the history of science in Western civilization from this point of view, the historian will avoid the destructive approach to syncretic integrity of the pre-history of a scientific discipline or theory. In this case Aristotle's *physics* will not be considered as an episode in the chain binding it with the mechanics of Archimedes and of Alexandrians and, then, with the beginnings of modern physics. On the contrary, the rudiments of the future mechanics in Aristotle's "Physics" themselves will be considered as an episode in the integrity of that *physics* - in the sense Aristotle meant to ascribe to this term. Similarly, the historian of science dealing with the Middle Ages will pay attention to medieval learning as a whole, comprising the *trivium* and *quadrivium*, and to their relation to philosophy and theology. Just the 'seven liberal arts' formed the medieval *learning*, let not identical in meaning with present 'scientific knowledge' and all the more with 'science' in the traditional English sense of the term - as 'natural science'. But the historian of science can show that the position and the functions of the 'seven liberal arts' as a whole in the system of medieval culture are of such a kind that will allow it to be represented as a corresponding parallel to (but not identical with) scientific knowledge in the system of culture of modern times.

This last viewpoint could be thought to exclude and replace the former one as not correct, not adequate. However I think they are not extreme alternatives but complementary kinds of reconstruction, each of them having its own relevant cases and

---

physics ensue from Aristotle's *physics*. Such an approach cannot be taken without reservation. Particularly, it is impossible to avoid the fact that in the evolution of ideas such a re-interpretation and re-construction had *really* taken place.

<sup>6</sup> Thus we come to the viewpoint widely shared, though variously, in the philosophy of history (O. Spengler), of language and culture (F. Boas), in the methodology of science (T. Kuhn) of our century.

<sup>7</sup> Saussure 1966.

domain of applications and its own restrictions. And each of them in its applications must have in view the limitations put by the other one<sup>8</sup>.

Thus, the history of science cannot reject the narratives in which contemporary theory prescribes to the historian the goal and the vector of his research, thus determining the search and selection of historical facts and their arrangement. As I noted above, such treatment of historical realities is not the 'invention' of historians of science, it has an objective analogue in the historical evolution of science itself: every new scientific phenomenon (idea, conception, theory), after it has established itself in science, *post factum* gathers around itself the facts of the historical past, re-interpreting them and placing them on the vector-arrow directed to that phenomenon<sup>9</sup>.

As to the second viewpoint which avoids the destructive approach to syncretic integrities and considers science as a cultural phenomenon, there are cases when it is the only possible way to present, illustrate, demonstrate to us an historical fact, the individuality, uniqueness and transiency of which cannot be overcome. Here is a striking example. There were several medieval Armenian pharmacopeias which were in use even up to the 19th century, especially due to their phytotherapeutic information. The most famous was the medical encyclopedia by Amirdovlat of Amasia, compiled in the middle of the 15th century. A strict set of parameters is used here in description, indications, directions for preparation of drugs, instructions for use etc.; characteristics corresponding to these parameters are used as well in descriptions of diseases. In accordance with tradition ascending up to Antiquity, the basic classification parameter is the '*nature*' of stuffs, i.e., their composition according to four elements - water, soil, air, fire, in different but fixed quantitative proportions, and four kinds of attributes - damp, dry, cool, hot - in different degrees. Let it be that from the contemporary point of view, in the context of present scientific theory, all this is 'naive' and 'false' but at one time it composed a closed theoretical system, described in the best way the existing medical and pharmaceutical facts and was valid, so to say, inherently. It was also, in a practical respect, a coherent system of measurement through which a quantitative estimation of qualitative characteristics of stuffs was given and thus well grounded recommendations were made concerning the preparation and use of drugs and the procedure of treatment. Its translation and adaptation to the language of contemporary medicine and pharmacology is simply impossible and meaningless. But if the historian of science

---

<sup>8</sup> A similar case of the complementarity of two approaches we shall come across below.

<sup>9</sup> Here are two striking examples. Though cybernetics came into existence in 1948 when Norbert Wiener's book appeared, but to make a full history of it, historians begin their narrative from some ideas (teleology, man-machine problem etc.) developed in ancient Greek philosophy and in science and philosophy of the last four centuries. Similar is the case of mathematical logic, which in a strict sense, was shaped at the border-line of the 19th-20th cc. but is considered as developed from the propositional logic of the Stoics. This peculiarity of historical reconstruction, which seems to be of epistemological interest only, has general significance. The fact that every generation re-writes history anew, is not only the result of discovering new data and of the development of the methodology of historical research, but largely because of this factor. There are, however, limitations which prevent this reconstructive activity from becoming a kind of free construction.

rejected on this ground these theoretical constructions as imperfect and/or false, he would deprive himself of the possibility of even understanding the facts of scientific interest contained in them<sup>10</sup>.

So here we had an illustration of a case when a text of the history of science demonstrated itself as a memorial of culture; in this case the analysis of its language and the reconstruction of its meaning requires an approach specific to cultural studies. That is what is discussed below.

There is no need to discuss here that the representation of the plurality of cultures through the plurality of languages cannot be considered as an analogy, as a mere useful parallel. It has an essential character and is confirmed by the fact of the integrity of language and culture in the Boasian concept of ethnology, in Sapir's and Whorf's ethnolinguistics, in the writings of Kroeber, C. Kluckhohn et al., the founders of the contemporary American cultural anthropology<sup>11</sup>. That is why, without entering into details, in connection with the method of historical reconstruction, I shall dwell on some characteristics of language in this trend of cultural studies.

The abstraction of the language from the wholeness of culture, which is practiced in linguistics, does not work in cultural studies<sup>12</sup>. For anthropology and ethnology, culture is an integrity, a syncretic whole, and hence, language is a manifestation of it: not even a mere part of culture, but a constituent in which culture realizes itself.

Two remarks on these assertions.

Through the abstraction of language from the wholeness of culture linguistics gains the chance for essential use of the methods of the exact and natural sciences, thus transferring from the scope of the humanities to the scope of science, meanwhile anthropology persists to remain a branch of the humanities; the applications of the methods of exact and natural sciences, if and when possible here, remain auxiliary means, not touching the very essence of cultural studies.

The second remark concerns the notion of wholeness, as it is applied to language and culture. The nuances of this notion are displayed by F. de Saussure in the following way. Every language, he states, is an individual, closed system with a characteristic

---

<sup>10</sup> These assertions about the independent value and intrinsic validity of theoretical constructions developed in another (different from modern science) system of ideas and concepts, being very important in the *cultural* aspect of the history of science, do not in the least imply an *epistemological* equivalence of them to the theoretical constructions of modern science based on experiment and carrying out its proofs in logico-mathematical language. Of course, cultural studies show the remarkable adaptability and conformity of the systems of concepts (and of institutions) equally of every culture to natural and social environment. But the idea of the epistemological equivalence of them to science becomes possible when science is considered merely as one of the instrumental-and-operational means for that adaptation and conformation. There are many and different manifestations of this idea, beginning with Bergson's motto 'Instinct and intellect are two different and equally beautiful solutions of one and the same problem', and up to conceptions equalizing science to metaphorical world-constructions. In all these cases the practical instrumental-operational aspect of the origin and function of science is exaggerated and the peculiarity of science - the objectivation and alienation of knowledge and its products from the knowing subject - is quite ignored.

<sup>11</sup> Cf. Stocking 1974: 7; Hoijer 1958: 554.

<sup>12</sup> Cf. Lévi-Strauss 1965: ch. IV.

structure, i.e., with an inner coherence and coordination of components comprising the system. Of course, there are certain constant principles permanently present in transitions from one language to another; languages being unique by their inner structures, of course, are comparable and distinguishable by certain common parameters - language universals, types of oppositions inhere in them etc. But this kind of comparability is external, it does not reveal the essential characteristics of a language: the living image of a language is given by its inner structure. This opposition of internal to external correlates to the opposition of the synchronous approach in linguistics to the diachronous<sup>13</sup>. Meanwhile the former approach regards the relations of the co-existing various components in a whole and, thus, studies them in the form as they are perceived by one and the same "collective mind" (the bearer of the language), - the latter approach regards the relations between similar elements in a succession which is not perceptible by one and the same "collective mind"; the facts belonging to different language systems (and subsystems) are grouped and classified according to an abstract pattern put on them.

Almost in the same terms F. Boas characterizes the notion of wholeness of culture and two methodological approaches in cultural studies. In ethnology all is individuality, he states; we have to study each ethnological specimen individually, in its history and in its medium. Similar phenomena, belonging to different cultural integrities, cannot be classified in one group. Because, although the outward appearance of two phenomena may be identical, yet their immanent qualities may be altogether different: therefore arguments from analogies of the outward appearance are deceptive<sup>14</sup>.

Boas does not doubt in the least the equal scientific value of the comparative method, i.e. the method of classification of phenomena, belonging to different cultural wholes, in abstractions of classes for the sake of deducing laws; this method has been productive for elaborating comparative psychology, evolutionism in mind and society, represented by the works of Tylor and Morgan, etc. But different is the case of ethnology, he states. What is remarkable in his assertions concerning ethnology, is the idea that a single phenomenon, the individual, gets its meaning and value when it is placed in a whole, and in this integrity it becomes a prospective subject of cultural studies. "The art and characteristic style of a people can be understood only by studying its productions as a whole," Boas notes. And the example he gives definitely clears up this important nuance: in the ethnological collection of the Indian tribes' museum the musical instruments cannot be classified and arranged by their types (string instruments, flutes or drums). We want a collection of them arranged according to tribes, together with all the other implements of a tribe. Because "the character of their music, the only object worth studying, which determines the form of the instruments, cannot be understood from the single instrument, but requires a complete collection of

---

<sup>13</sup> Saussure 1966.

<sup>14</sup> These statements one can find in Boas' "The Principles of Ethnological Classification", "Anthropology" and other writings (in: Stocking 1974).

the single tribe..."<sup>15</sup>. Indeed, let's have in view that the distinguished, individual existence and self-development of music as an art form, relatively independent and separated from (and abstracted from) rites, customs, social life etc. (and their material implements), takes place in other societies; it is not characteristic of societies of the Indian tribes' type.

So if we, as yet non-critically, accept the aforementioned conception of language and culture, we will come to two different kinds of the method of historical reconstruction, according to the two approaches in cultural studies.

One of them, which results in arranging individual facts or events (empirical data) in class-type and law-like generalizations, has its own heuristic value for historical reconstruction: such generalizations allow to find the place of each historical and cultural phenomenon in the constructed classification table and in the evolutionary development regularity, and thus to reconstruct (to foresee and define), through comparisons and analogies, individual facts and characteristics as vacant links in the chain. The periodic table of elements and the periodic law would give an illustration (though simplified) of the work of this kind of reconstruction. The best demonstration of the heuristic resources of this kind of historical reconstruction would be the classical theories of the philosophy of history: narrative history presents the historical facts or events not yet dissected by the reflective mind and in succession and relations, as if independently given to the historian; meanwhile the philosophy of history aims to represent history conceived through a certain principle and reconstructed in a pattern according to that principle. In this way missing details, traits, characteristics etc. are appended by interpretations, and thus the picture of historical phenomena is accomplished. This is the way of writing the philosophy of history by Voltaire as a synopsis of human culture, and by Hegel - as a process of self-realization of the idea of freedom. This is the way of writing history itself by Spengler and Toynbee, with their paralleling of whole fragments of the history of apart standing epochs: of Antiquity, the Middle Ages, and Modernity, of their civil history, history of the arts and sciences.

This kind of reconstructions in historical studies, and in cultural studies equally, in its extreme cases, (a) presents a "logically corrected" picture of history and culture, and (b) the individual historical and cultural fact appears in it as an illustration, manifestation, demonstration of the underlying general pattern.

In the pervading mood for denial of metaphysics a negative attitude towards this approach in historical and cultural studies predominated. The main objection comes to the point of validity of conjecturing the principles, categories, patterns which lie under this kind of reconstruction. On the other hand, however, the rejection of this approach results in the discarding of not only metaphysical conjectures, but also of any effort of theorizing. So the question is whether such a perspective of evolution towards the narrative and descriptive character of historical and cultural studies is acceptable. Is it possible a reflective knowledge, be it that of the historian's, the ethnologist's, the

---

<sup>15</sup> In Stocking 1974: 62.

linguist's, etc., - free of inherent tacit premises, categories, ideas, ideals, values etc.? Just they are explicitly formulated and used in theoretical constructions, in elaborating patterns, i.e., the map put over empirical and observational data. Most scholars use them implicitly, covertly in their historical, cultural, linguistic etc. studies, despite the overt general propensity for immediate knowledge, i.e., for gaining knowledge not mediated by conjectured principles, categories, patterns. But many of them, Kroeber and C. Kluckhohn in particular, are proponents of explication of those principles, categories, patterns. Even Bidney, keenly criticizing Kroeber and Kluckhohn for their apprehending "culture as a logical construction of the anthropologist" (Bidney 1996: xli), was not content with the predominating absolute cultural pluralism in cultural studies as a result of the *disregarding* of the *philosophical* systematization of cultural history and *metaphysical* concepts and norms. But, he states, anthropology must rise above the descriptive stage of empirical science, and for this purpose, "comparative studies of cultures and their values must be made with a view to *demonstrating universal* principles of cultural dynamics and *concrete rational* (i.e. not philosophical-metaphysical - H.G.) norms capable of universal realization..."<sup>16</sup>. And, again, Bidney, who, among other ethnologists, had severely criticized the *traditional* concept of evolutionism, discusses in his "Theoretical Anthropology" the possibility of supporting the concept of evolution, proposing a "theory of emergent evolution" founded on explicitly re-defined principles. This conception of evolution "involves a synthesis of opposites, the principles of continuity and discontinuity, dependence and independence, common elements and qualitative novelty... The theory of emergent evolution which I propose synthesizes all three principles by limiting the role of each in relation to the others"<sup>17</sup>. Special attention must be paid to this point: the classical conception of evolution could not contain the notion of the emergence of a principally new phenomenon; in the "logically corrected" picture of history and culture, as I stated above, the individual historical and cultural fact appeared as a mere manifestation of the underlying general pattern. Similar considerations must be expressed concerning the historical-comparative method which also fell into disgrace as a consequence of the progress in cultural studies. As to the sphere of history and linguistics, the historical-comparative method and the corresponding historical reconstruction, though in revised and improved forms, have never been abandoned completely.

So it must be stated that no study has succeeded in avoiding the task of theory construction, making assumptions and generalizations, explicit formulation of principles, categories etc., of course, together with a readiness and willingness to improve and re-define them in accordance with empirical evidence.

Now we have a starting point for the presentation of the problem of reconstruction corresponding to the other approach: the approach typical of contemporary cultural (as well as linguistic, social, historical) studies, the approach oriented to integrated

---

<sup>16</sup> Bidney 1958: 688-689.

<sup>17</sup> Bidney 1996: 46-47. cf. Also Kroeber 1958: 691-692.

wholes - not yet dissected by the reflective mind - in which a cultural (linguistic, social, historical) phenomenon occurs.

The best introduction to this kind of reconstruction would be the considerations of Ernst Cassirer concerning the task of the historian (and of the philosopher of history) but describing equally well the methodological approaches in cultural and linguistic studies. (Let's state also that historically the ideas of neo-Kantianism, and of German philosophy and methodology of science and of the humanities in general, have had a great impact on the formation of contemporary cultural studies.)

The first thing that must be said is that, according to Cassirer, man lives not in the "world in itself"; he lives in the "human world", objectivized from his individual existence, thought, feeling, - in the "human world" mediating his relations and interaction with the "world in itself". Man, Cassirer states, "has no separate individual being - he lives in the great forms of social life - in the world of language, of religion, of art, of political institutions. He cannot live his own life without constantly expressing it in these forms. He creates verbal symbols, religious symbols, mythical and artistic images - and it is only by the totality, by the system of these symbols and images, that he can maintain his social life - that he is able to communicate with other human beings and make himself understood by them"<sup>18</sup>.

The single forms of culture in their task of "building up a common world of thought and feeling", i.e., "the universe of culture", "do not follow a preconceived and predetermined scheme, a scheme that may be once and for all described in an *a priori* way of thought"<sup>19</sup>. The uniqueness of the "forms of culture", of these "systems of symbols and images", i.e., their divergency in space and time, calls for a corresponding to it reconstructive activity as the specific trait of historical studies. This divergency characterizes also the relation of the system of symbols and images of the historian to that of the historical reality he studies. The task of the historian consists not in translating the system of symbols and images of historical reality into the language of his own symbols and images. The task of the historian consists in reconstruction, in the re-building of another life, diverse in space and time, which has found its external expression in forms, symbols, material things. This task becomes feasible because of the method specific to history. In the English version of the lecture "The philosophy of history", delivered at Yale University, the term *interpretation* is used to denote this method, but its German correlate is given as *historisches Verstehen* - "historical understanding", and the task of the historian is called *historical hermeneutic*,<sup>20</sup> It is important to note that Cassirer's *interpretation* as historical understanding is not at all in

<sup>18</sup> Cassirer 1979: 137. It is worth noting that David Bidney refers to Cassirer in a very favorable context: "The cultural process is not reducible to psycho- biological processes simply because culture is a product of human creativity expressed in a world of symbolic forms - a thesis formulated from a neo-Kantian point of view by the philosopher Ernst Cassirer in his classic 'Philosophy of Symbolic Forms' (Bidney 1996: xxxix).

<sup>19</sup> Cassirer 1979: 72-73.

<sup>20</sup> Cassirer 1979: 129, 139. The translation of *Verstehen* and its derivatives as *interpretation* in certain contexts became the ordinary use of the term.

fact an irrational (or, at least, non-rational) concept of *Verstehen* used by the 'philosophers of life', G. Simmel and W. Dilthey. Cassirer's historical hermeneutic, and historical reconstruction, is a method rationally explicable and rationally applicable. Specifying *historical* knowledge, it does not in the least stand in opposition to *scientific* knowledge. It is described in the following way. The empirical basis of historical studies consists of special kind of physical objects - historical documents and historical monuments which are given to the historian as material things: written characters, inscriptions, colors on a canvas, statues, buildings etc. "But in all these material things the historian sees something quite different. This material becomes for him, so to speak, transparent. He does not study it for its own sake... What he finds in it is the testimony, and as it were, the revelation of past human life. He cannot immediately understand this life. All he knows about it are only single and scattered fragments. But here his real task begins. He has not only to collect these fragments, he has to complete them and to synthesize them; to bring them into a coherent order, to show us their unity and consistency... This intellectual and imaginative synthesis is what we call history - just as much as the synthesis of particular material phenomena in space and time according to general laws is called natural science"<sup>21</sup>.

This 'intellectual and imaginative synthesis' is well illustrated by an analogy with the deciphering of an unknown written text in an unknown language. And this analogy also demonstrates the essential difference between Cassirer's historical hermeneutic and the other conceptions of *Verstehen* which contrast it to rational ways of comprehension and associate it with irrational intuition, with empathy as the only means of conceiving the alien cultural world.

Of course, this conception of reconstruction requires some reservations concerning the understanding of historical reality and of the place which historical monuments occupy in it. Historical monuments as material things, of course, acquire their meaning when they are placed in an historical-cultural whole, but historians would hardly agree that these monuments are *merely means* of historical comprehension, as if a medium through which the true history, the real life exposes itself. And the forms of culture - language, myth, art, religion, science etc. in which the life of man proceeds □ turn out to be as if the only genuine historical reality, the true history. Meanwhile, despite these assertions, historical monuments are for the historian not merely a medium, some transparent things only, through which true historical reality exposes itself, but an essential part of that reality; and when their systematic wholeness is restored, it belongs to historical reality given in the reflective mind, as well as the forms of culture embodied, materialized in them and exposed through them. Indeed, we have a twofold, or rather, two-faced, reality here.

This conception of historical hermeneutic with its rational core is in consonance with Gadamer's hermeneutic and the tradition it created and, in general, with

---

<sup>21</sup> Cassirer 1979: 136-137.

phenomenological and hermeneutical trends connected with the names of Heidegger, Ricoeur, Derrida, et al.

The concept of interpretation, the central concept of the studies in these traditions and trends, is well illustrated by opposing it to the traditional logical analysis of language. In his "Philosophy in the Twentieth Century" A. Ayer, with a feeling of perplexity, narrates the conception of Heidegger, especially its metaphysical part with which the key questions of truth, existence, temporality etc. are connected (Ayer 1984: 226-230). I should describe the situation in the following way. The polysemy of words and expressions, the images associated with them, the metaphorical nature of language, the possibilities of its non-uniform understanding and interpretation in a cultural milieu - all this is the very core of the philosophical essays of Heidegger. But Ayer, being a philosopher of linguistic analysis, in the history of philosophy is interested in the *rational reconstruction* of thought, and his linguistic analysis discloses the *logically explicable* semantics of language. Here somewhere an indistinct border-line lies between the two kinds of language analysis: hermeneutics ("archaeology of language") and logical semantics. Ayer, a prominent philosopher, certainly understands Heidegger, but refuses to recognize the legitimacy of his way of philosophizing: for the analytical philosopher the polysemy of language, métaphores, the images, associated with words and expressions in their use, only obscure the meaning of words and expressions and can lead to mistakes and misunderstanding of speech/text. For Heidegger, on the contrary, these peculiarities of language individualize the texts representing the memorials of philosophy, science, culture, and in the polysemy of words and expressions, in the images associated with them all the sacramental essence is hidden.

The potentialities of this method of reconstruction of meaning may be well demonstrated by the example of Heidegger's "Parmenides" (Heidegger 1992). It deals with a problem of seemingly narrow interest - the meaning of 'truth' in Parmenides' poem and its understanding in different cultural contexts; but as a result we have here a unique interpretation of ancient Greek thought and of the evolution of philosophy.

This method of the reconstruction of meaning is not restricted to the limits of the humanities. The memorials of science, as phenomena of culture, also can be read, understood, interpreted in this way. The best evidence of it is given by J. Derrida in his analysis of E. Husserl's 'The Origin of Geometry', in which he 'returns' the origin of geometry to the world of language, culture, history (Husserl 1996).

## REFERENCES

- Ayer, A.J (1984). Philosophy in the Twentieth Century. New York: Vintage books.
- Bidney, D. (1958). The Concept of Value in Modern Anthropology.  
In: A.L. Kroeber (ed.). Anthropology Today: An Encyclopedic Inventory. Chicago, 111.: The University of Chicago Press.
- Bidney, D. (1996). Theoretical Anthropology. New Brunswick, N.J.: Transaction Publishers.

- Cassirer, E. (1979). *Symbol. Myth, and Culture*. New Haven and London: Yale University Press.
- Dewey, J. (1938). *Logic. The Theory of Inquiry*. New York: Henry Holt & Co.
- Heidegger, M. (1992). *Parmenides*. Bloomington and Indianapolis: Indiana University Press.
- Hoijer, H. (1958). *The Relation of Language to Culture*. In: A.L. Kroeber (ed.). *Anthropology Today. An Encyclopedic Inventory*. Chicago, 111.: The University of Chicago Press.
- Husserl, E. (1996). *The Origin of Geometry*. Introduction by Jacque Derrida. Translated into Russian from French and German. Moscow: Ad Marginem Press.
- Kroeber, A.L. (ed.). (1958). *Anthropology Today: An Encyclopedic Inventory*. Chicago, 111.: The University of Chicago Press.
- Kuhn, T.S. (1977). *The Essential Tension*. Chicago and London: The University of Chicago Press.
- Lévi-Strauss, C. (1963). *Structural Anthropology*. New York: Basic Books.
- Lourié. S. (1935). *The Infinitesimal Theory of Antique Atomists (in Russian)*. Moscow: Gosizdat.
- Saussure, F. de (1966). *Course in General Linguistics*. New York: McGraw-Hill.
- Stocking, G.W., Jr. (ed.) (1974). *The Shaping of American Anthropology. 1883-1911. A Franz Boas Reader*. New York: Basic Books.
- Waerden, B.L. van der (1935). *Ontwaken de Wetenschap (Russian translation)*. Moskow: Gosizdat.