Toward the improvement of teaching history and to provide student insights into the study of history, a course involving structure, relevancy, an interdisciplinary approach, and innovation is suggested which advocates analyzing what has happened in the past as a whole, as revealed by the various sciences of archaeology, anthropology, paleontology, biology, chemistry, and physics combined with human history, termed macrohistory. Examining the past in this way reveals an analogy between the function and structure on the biological level and on the social level, illustrating basic factors and processes of development such as unification which are common and interrelated. A sequential process of unification of living cells from one-celled protozoa to the trillion-celled organisms of man is compared with the unification of men into larger social groups, developing from the original family unit towards an international world unit. Unification makes possible another structure element -- specialization -- occurring in both the biological and human stages of development and causing increases in efficiency, interdependence, cooperation, and transportation, first between cells, then between men, and now between nations. A related document is ED 045 482. (Author/SJM)
A NEW HISTORY, MACROHISTORY, AND STRUCTURE IN HISTORY

In the current discussion of the possibilities for a "New History" one of the questions which needs to be considered is where history begins. In current usage history is usually interpreted to mean the written records of human events since man learned to write. This limits history to roughly the last five thousand years. However, history in its broadest sense is the study of the past. That is a large order if it is taken without qualification. Now archaeology and anthropology are revealing to us what was going on, if not the specific events, long before writing was invented. They would expand history, according to the latter definition, to cover the million or more years since man appeared on this planet. Though these subjects are now studied in separate courses, or classified as "prehistoric", they are thus relegated to a separate status as areas apart from history as such.

In the same way paleontology and biology are revealing what was happening in the preceding period of the past, the two billion or so years in which man was evolving from one celled animals. Chemistry is now disclosing how matter came to life in the billion or more years before that. And physics is showing how matter itself was created from particles of energy "in the beginning". That is as far back as we can go - at present!

The question is, is it not time we began to explore the possibility of a course to cover what has been going on in the past as a whole, as revealed by these various sciences, plus human history? Such a course might be called macrohistory though that name is rather uneuphonious. History teachers may question the value of such a course, its feasibility and the relevance of prehistory - if we prefer to call it that - to human history.
As to its value, one of the major controversies among historians has been over the question of whether there is structure in history. On the basis of the recorded history of human events many historians reject this possibility. However, when we look at the past as a whole, basic factors and processes appear which are common to the different stages of development covered by the sciences mentioned as well as to the history of man. These factors are basically interrelated and could therefore constitute a "structure" in history. Moreover, if "Relevancy" is as essential as many now think it to be, the generalizations which can be drawn in regard to these factors have innumerable applications in the problems of current history, and implications in the possibilities in the future history in which our students are going to be participants.

For example: one of the most serious problems of the present and the future is the danger of war. Unless nations can unite to eliminate this way of handling their disagreements the history of the future looks very dark. On the basis of the 5,000 years of recorded history the possibility of such unification seems unlikely, and very discouraging. However, when we look at the history of man as a whole, it shows that a process of unification has been going on throughout the 1,000,000 or more years man has been here. From the original family unit of early man through the clan, tribe and city state to the present national units man has been uniting into larger and larger groups. As the number of people in these units has increased from being numbered in tens to being numbered in hundreds of millions the number of units has decreased from the tens of thousands of families there may have been in the beginning to under 150 nations today. Moreover, one
In prehistory

In human history

UNIFICATION
Stages of Unification

- Family 10
- Clan 100s
- Tribe 1,000s
- City 10,000s
- Empire 100,000s
- United Nation (Common Market) 1,000,000s
- Region (United Nation) 10,000,000s
- World 100,000,000s

Number of people per unit

And smaller number of larger

Man has united into a smaller

Generalization

1,000,000s

And larger units
of the most significant developments of our present stage in history is the way in which nations are uniting in regional and even worldwide groups for specific functions. Some of these are more or less sovereign for their particular function and are thereby gradually decreasing the significance of national frontiers and national sovereignty. Thus internationalism is now slowly beginning to replace nationalism, just as nationalism has already, to a large extent, replaced tribalism. N.A.T.O. and the European Common Market are outstanding examples of this among the many others that could be mentioned, in which this process of unification is now going on function by function. (Figures 1 and 2 show diagramatically how this has been going on throughout the million years of human history.) Does this not show a continuing process which could be considered as structure in history, as well as relevancy between so-called prehistory and current history? But, what is more important, whether or not we call it macrohistory or structure, does it not provide a perspective we ought to be giving our students for use in their period in history in place of the common generalization, based on recorded history, "There have always been wars, and there always will be."

To go further, if history is broadened to include what has gone on in the past as a whole, it becomes apparent that in the biological stage of development the fundamental process in the evolution of man himself was the unification of living cells from the one-celled protozoa, with which life began, to the trillion-celled organism we call man. Then in turn, if we look at the preceding stage of chemical development in which atoms of different elements united to form the megatomolecules composed of millions of cells, that were the earliest form of life, again it was the
ongoing process of unification which produced life. And, if we go back to the physical stage in which matter came about by atomic particles of energy uniting to form atoms of the different elements, again it was the process of unification which produced matter itself. Thus a study of the past as a whole reveals there has been a process of unification going on since the formation of the earth, which has continued in each successive stage of development to men uniting into larger and larger groups and now the uniting of nations. Since this has been going on for some five billion years may it not be profoundly significant as to structure in history, and a possible basis for extrapolation as to future history in the millions of years scientists predict men should be able to live on this planet? Right now, of course, between the threat of annihilation by atomic war and our current alarm about ecological problems, man's days on the earth may seem numbered, but a study of macrohistory might enable us to see these dangers in a more valid perspective and calm our fears as to man's future. Men may well have been equally fearful about their continued existence at times in the past; for example during the plagues which wiped out major fractions of the population in some areas.

Unification, moreover, is only one of the structural elements revealed by such a study of macrohistory. In itself it raises the question of why it has taken place. One obvious answer is that as cells, or men, or nations unite it makes possible specialization. This is one of the most basic factors of development because of the increased efficiency it produces. It began in the biological stage of development with the differentiation or specialization of cells as one celled animals became united into many celled animals, which is what made possible the evolution of higher
Cooperation and Government

5. Interdependence makes necessary
4. Specialization causes Interdependence
3. The larger the group the more specialization is possible
2. Specialization increases efficiency and production
1. Specialization is made possible by unification.

Generalizations:

INTERDEPENDENCE and GOVERNMENT

SPECIALIZATION
HISTORIC STAGES OF SPECIALIZATION, INTERDEPENDENCE, COOPERATION, REGULATION AND GOVERNMENT.
organisms and hence of man. It continued as men became united into larger and larger groups in prehistory and ancient history and could specialize by crafts. It was basic in the development of the Industrial Revolution in modern times with the creation of the factory system in which men could specialize by tasks on the assembly line. Now it is exemplified by the specialization of nations in the growth of economic internationalism.

These increases in specialization in both the biological and human stages of development inevitably caused increases in interdependence, first between cells, and then between men, and now between nations. Here is one of the most significant and important factors in the study of current problems. Interdependence strengthened unification and at the same time made necessary coordination, first of the different kinds of cells, and then regulation, through cooperation or government, of the different crafts, industries and nations. (Figures 3 and 4 present this graphically.) Coordination and regulation require communication. This is another of the basic factors in historical development or the structure of history. It is fundamental in the relationships between individuals, age groups (witness the "generation gap"), racial and economic groups, and nations, as well as in a study of the problems of propaganda, censorship, and freedom of speech and the press. Students can understand and appreciate its functions and significance better if they look at it from the beginning with the development of speech in primitive man, writing in ancient history, and printing in the Renaissance, through to electrical and electronic communication in modern times. Actually, however, it began with the specialization of some of the cells as nerve cells for communication in the
biological stage of development. Here, as in the other factors we have mentioned, the analogies between the function on the biological level and on the human or social level are so great it provides a very helpful model for revealing the basic generalizations in regard to communication. For example, "All limitations on communication are harmful."; both on the biological and social level of historical development. This is the kind of value in the macrohistoric approach. If it sounds more philosophic than historic, it is the more interdisciplinary! Also it is basic and highly relevant in any study of civil liberties and the Bill of Rights. Combining all the developments in communication in the past with a discussion of its implications and applications in current history can provide a unit for a course in macrohistory which is far more effective for teaching its significance than mentioning them in separate and compartmentalized courses as we may do now. Is this not an appropriate and extremely valuable contribution to include in our program for history? The same could be said for units on each of the basic factors in historical development we have mentioned.

One other such factor, which should be included, is the development of transportation which is closely related to the growth of unification, interdependence and communication. A discussion of its growth from the specialization of cells for the different tissues and organs of the circulatory system in biological evolution through the increases in the speed and volume of transportation by man in the harnessing of animal, wind, steam, gasoline, jet and rocket power, on land, water, in the air and in space is a fascinating study in itself of man's conquest of distance and time. But its implications in historical development in man's cultural, political and economic growth are as useful as it is fascinating.
It may be argued that discussion of the stages of development before man should be left to the various sciences. However, as they are usually taught they are more concerned with mechanics within their respective fields than with the developmental aspects. As they are now compartmentalized they fail to show the evolutionary continuity between their different stages in the past, which, after all, is the province of history. So if we really believe in an interdisciplinary approach how can we fail to consider a course along the above lines? Actually as it enlarged the breadth as well as the depth of history it could add to its value and prestige. But if we do not want to call it history, or macrohistory, the name does not matter. The important question is whether the time has not come for us to consider the possibilities in a course of this kind whatever it is called, and when or wherever it is taught. If history departments do not want to take it on science departments may, but I would cherish the opportunity for history, where I believe it really belongs.

Some may question how it would fit in to a K through 12 program or any course of studies in history. Since it deals with the basic factors and processes in historical development it is fundamental in the history of every period and every area. Hence the logical place for it would be before students begin other courses in history. Then it would provide a developmental structure into which any particular course would fit and thus give unity among whatever compartmentalized courses we offer. At the same time it would help relieve the bewilderment of students by the multiplicity of heterogeneous events in chronological courses - which are very valuable in developing historical literacy - while providing an understanding and appreciation of what has been going on in the past as a whole.
Others may feel that history teachers are unprepared to handle the scientific knowledge involved. Actually the course would not require more than an elementary knowledge of the developmental aspects of the sciences involved which any college graduate with a liberal arts degree could have. However, it might be better, in any case, to employ team-teaching with science teachers covering the stages of development in their respective fields.

As a whole the basic premises of the course would be:

1. History is a process of development, not merely a succession of events.

2. There are basic processes and factors which are fundamental in historical development. These could constitute a structure in history.

3. These are present in all stages of development in the past and in the history of all areas or countries.

4. In order to discover these factors it is essential to look at the past as a whole, not just the 5,000 years of recorded history.

5. The greater the length of time studied the greater the perspective that may be gained and the more valid the generalizations that may be drawn.

6. An understanding of these factors and how they work gives students insight into what is going on in any course in history and how history may be influenced in their own period.

7. Therefore, to be able to play their part in history as effectively as possible students should become familiar with the factors in historical development.

Here is a possible "New History" which we believe should be given serious consideration in the current search for improvements in the teaching of history. It involves structure, relevancy, an interdisciplinary approach, and innovation—all the things we are talking so much about. Ideally it would be desirable to have a
team of historians and scientists from the several fields involved to develop materials for it. However, there is no reason why classroom teachers cannot develop their own courses along these lines, or introduce as many of the ideas suggested as they want to in their regular courses.

The final question is how to get started? Friends' Central School in Philadelphia has already introduced such a course and has taught it for five years now. It is a required course in the ninth grade so the structure it provides can give continuity to, and offer innumerable applications in the subsequent required courses in Ancient History, Modern European History, American History and Contemporary Problems, in the tenth, eleventh and twelfth grades. It has proved to be a very exciting course and has received almost unanimous approval from the students. These comments from their evaluations, submitted anonymously each year at the end of the course, are representative of their reactions.

"Personally I'd prefer to drop history but since nobody is going to let me I might as well get as much out of it as I can... But the new history (the name by which it has come to be called) is just principles which help me greatly in my adult life. This course has made me much more aware of unification and specialization and all the effects of these trends in our society today. It is different from other courses in that all of the things we have learned are not crammed so that we will pass the next exam, but material which will help in evaluation of our society."

"In the normal history course I tend to become bored, but in the new history I am always stimulated... I think the new history is much more meaningful and significant than the way history is usually taught."

"The new history is something you don't forget once you understand it. I think every student should have the opportunity of having the new history to prepare himself for the study of history in future classes."
"The course we have been having this year has been very exciting."

Friends' Central would be very glad to work with individual teachers, schools or organizations interested in exploring the possibilities, starting, or participating in the development of such a course.

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