

History and the Social Sciences

The Longue Durée

FERNAND BRAUDEL

There is a general crisis in the human sciences: they are all overwhelmed by their own progress, if only because of the accumulation of new knowledge and the need to work together in a way which is yet to be properly organised. Directly or indirectly, willingly or unwillingly, none of them can remain unaffected by the progress of the more active among them. But they remain in the grip of an insidious and retrograde humanism no longer capable of providing them with a valid framework for their studies. With varying degrees of clear-sightedness, all the sciences are preoccupied with their own position in the whole monstrous agglomeration of past and present researches, researches whose necessary convergence can now clearly be seen.

Will the human sciences solve these difficulties by an extra effort at definition or by an increase in ill temper? They certainly seem to think so, for (at the risk of going over some very well trodden ground and of raising a few red herrings) today they are engaged more busily than ever in defining their aims, their methods, and their superiority. You can see them vying with each other, skirmishing along the frontiers separating them, or not separating them, or barely separating them from their neighbours. For each of them, in fact, persists in a dream of staying in, or returning to, its home. A few isolated scholars have managed to bring things together: Claude Lévi-Strauss¹ has pushed 'structural' anthropology toward the procedures of linguistics, the horizons of 'unconscious' history, and the youthful imperialism of 'qualitative' mathematics. He leans toward a science which would unite, under the title of communications science,

anthropology, political economy, linguistics.... But is there in fact anyone who is prepared to cross the frontiers like this, and to realign things in this way? Given half a chance, geography would even like to split off from history!

But we must not be unfair. These squabbles and denials have a certain significance. The wish to affirm one's own existence in the face of others is necessarily the basis for new knowledge: to deny someone is already to know him. Moreover, without explicitly wishing it, the social sciences force themselves on each other, each trying to capture society as a whole, in its 'totality'. Each science encroaches on its neighbours, all the while believing it is staying in its own domain. Economics finds sociology closing in on it, history — perhaps the least structured of all the human sciences — is open to all the lessons learned by its many neighbours, and is then at pains to reflect them back again. So, despite all the reluctance, opposition, and blissful ignorance, the beginnings of a 'common market' are being sketched out. This would be well worth a trial during the coming years, even if each science might later be better off readopting, for a while, some more strictly personal approach.

But the crucial thing now is to get together in the first place. In the United States this coming together has taken the form of collective research on the cultures of different areas of the modern world, 'area studies' being, above all, the study by a team of social scientists of those political Leviathans of our time: China, India, Russia, Latin America, the United States. Understanding them is a question of life and death! But at the same time as sharing techniques and knowledge, it is essential that each of the participants should not remain buried in his private research, as deaf and blind as before to what the others are saying, writing, or thinking! Equally, it is essential that this gathering of the social sciences should make no omissions, that they should all be there, that the older ones should not be neglected in favour of the younger ones that seem to promise so much, even if they do not always deliver it. For instance, the position allotted to geography in these American exercises is almost nil, and that allowed to history extremely meager. Not to mention the sort of history it is!

The other social sciences are fairly ill informed as to the crisis which our discipline has gone through in the past twenty or thirty years, and they tend to misunderstand not only the work of

historians, but also that aspect of social reality for which history has always been a faithful servant, if not always a good salesman: social time, the multifarious, contradictory times of the life of men, which not only make up the past, but also the social life of the present. Yet history, or rather the dialectic of duration as it arises in the exercise of our profession, from our repeated observations, is important in the coming debate among all the human sciences. For nothing is more important, nothing comes closer to the crux of social reality than this living, intimate, infinitely repeated opposition between the instant of time and that time which flows only slowly. Whether it is a question of the past or of the present, a clear awareness of this plurality of social time is indispensable to the communal methodology of the human sciences.

So I propose to deal at length with history, and with time in history. Less for the sake of present readers of this journal, who are already specialists in our field, than for that of those who work in the neighbouring human sciences: economists, ethnographers, ethnologists (or anthropologists), sociologists, psychologists, linguists, demographers, geographers, even social mathematicians or statisticians — all neighbours of ours whose experiments and whose researches we have been following for these many years because it seemed to us (and seems so still) that we would thus see history itself in a new light. And perhaps we in our turn have something to offer them. From the recent experiments and efforts of history, an increasingly clear idea has emerged — whether consciously or not, whether excepted or not — of the multiplicity of time, and of the exceptional value of the long time span. It is this last idea which even more than history itself — history of a hundred aspects — should engage the attention and interest of our neighbours, the social sciences.

History and time spans

All historical work is concerned with breaking down time past, choosing among its chronological realities according to more or less conscious preferences and exclusions. Traditional history, with its concern for the short time span, for the individual and the event, has long accustomed us to the headlong, dramatic, breathless rush of its narrative.

The new economic and social history puts cyclical movement in the

forefront of its research and is committed to that time span: it has been captivated by the mirage and the reality of the cyclical rise and fall of prices. So today, side by side with traditional narrative history, there is an account of conjunctures which lays open large sections of the past, ten, twenty, fifty years at a stretch ready for examination.

Far beyond this second account we find a history capable of traversing even greater distances, a history to be measured in centuries this time: the history of the long, even of the very long time span, of the *longue durée*. This is a phrase which I have become accustomed to for good or ill, in order to distinguish the opposite of what François Simiand, not long after Paul Lacombe, christened '*l'histoire événementielle*' the history of events. The phrases matter little; what matters is the fact that our discussion will move between these two poles of time, the instant and the *longue durée*.

Not that these words are absolutely reliable. Take the word event: for myself I would limit it, and imprison it within the short time span: an event is explosive, a '*nouvelle sonnante*' ('a matter of moment') as they said in the sixteenth century. Its delusive smoke fills the minds of its contemporaries, but it does not last, and its flame can scarcely ever be discerned.

Doubtless philosophers would tell us that to treat the word thus is to empty it of a great part of its meaning. An event can if necessary take on a whole range of meanings and associations. It can occasionally bear witness to very profound movements, and by making play, factitiously or not, with those 'causes' and 'effects' so dear to the hearts of the historians of yore, it can appropriate a time far greater than its own time span. Infinitely extensible, it becomes wedded, either freely or not, to a whole chain of events, of underlying realities which are then, it seems, impossible to separate. It was by adding things together like this that Benedetto Croce could claim that within any event all history, all of man is embodied, to be rediscovered at will. Though this, of course, is on condition of adding to that fragment whatever it did not at first sight appear to contain, which in turn entails knowing what is appropriate—or not appropriate—to add. It is the clever and perilous process which some of Jean-Paul Sartre's recent thinking seems to propose.²

So, to put things more clearly, let us say that instead of a history of events, we would speak of a short time span, proportionate to individuals, to daily life, to our illusions, to our hasty awareness—above all the time of the chronicle and the journalist. Now, it is worth

noting that side by side with great and, so to speak, historic events, the chronicle or the daily paper offers us all the mediocre accidents of ordinary life: a fire, a railway crash, the price of wheat, a crime, a theatrical production, a flood. It is clear, then, that there is a short time span which plays a part in all forms of life, economic, social, literary, institutional, religious, even geographical (a gust of wind, a storm), just as much as political.

At first sight, the past seems to consist in just this mass of diverse facts, some of which catch the eye, and some of which are dim and repeat themselves indefinitely. The very facts, that is, which go to make up the daily booty of microsociology or of sociometry (there is microhistory too). But this mass does not make up all of reality; all the depth of history on which scientific thought is free to work. Social science has almost what amounts to a horror of the event. And not without some justification, for the short time span is the most capricious and the most delusive of all.

Thus there is among some of us, as historians, a lively distrust of traditional history, the history of events—a label which tends to become confused, rather inexactly, with political history. Political history is not necessarily bound to events, nor is it forced to be. Yet except for the factitious panoramas almost without substance in time which break up its narrative,³ except for the overviews inserted for the sake of variety, on the whole the history of the past hundred years, almost always political history centred on the drama of 'great events', has worked on and in the short time span. Perhaps that was the price which had to be paid for the progress made during this same period in the scientific mastery of particular tools and rigorous methods. The momentous discovery of the document led historians to believe that documentary authenticity was the repository of the whole truth. 'All we need to do', Louis Halphen wrote only yesterday,⁴ 'is allow ourselves to be borne along by the documents, one after another, just as they offer themselves to us, in order to see the chain of facts and events reconstitute themselves almost automatically before our eyes.' Toward the end of the nineteenth century, this ideal of history 'in the raw', led to a new style of chronicle, which in its desire for exactitude followed the history of events step by step as it emerged from ambassadorial letters or parliamentary debates. The historians of the eighteenth and early nineteenth centuries had been attentive to the perspectives of the *longue durée* in a way in which, afterwards, only a few great

spirits—Michelet, Ranke, Jacob Burckhardt, Fustel—were able to recapture. If one accepts that this going beyond the short span has been the most precious, because the most rare, of historiographical achievements during the past hundred years, then one understands the preeminent role of the history of institutions, of religions, of civilisations, and (thanks to archaeology with its need for vast chronological expanses) the ground-breaking role of the studies devoted to classical antiquities. It was only yesterday that they proved the saviours of our profession.

The recent break with the traditional forms of nineteenth-century history has not meant a complete break with the short time span. It has worked, as we know, in favour of economic and social history, and against the interests of political history. This has entailed upheavals and an undeniable renewal, and also, inevitably, changes in method, the shifting of centres of interest with the advent of a quantitative history that has certainly not exhausted all it has to offer.

But above all, there has been an alteration in traditional historical time. A day, a year once seemed useful gauges. Time, after all, was made up of an accumulation of days. But a price curve, a demographic progression, the movement of wages, the variations in interest rates, the study (as yet more dreamed of than achieved) of productivity, a rigorous analysis of money supply all demand much wider terms of reference.

A new kind of historical narrative has appeared, that of the conjuncture, of the cycle, and even of the 'intercycle', covering a decade, a quarter of a century and, at the outside, the half-century of Kondratiev's classic cycle. For instance, if we disregard any brief and superficial fluctuations, prices in Europe went up between 1791 and 1817, and went down between 1817 and 1852. This unhurried double movement of increase and decrease represents an entire intercycle measured by the time of Europe, and more or less by that of the whole world. Of course these chronological periods have no absolute value. Francois Perroux⁵ would offer us other, perhaps more valid, dividing lines, measured with other barometers, those of economic growth, income, or the gross national product. But what do all these current debates matter! What is quite clear is that the historian can make use of a new notion of time, a time raised to the level of explication, and that history can attempt to explain itself by dividing itself at new points of reference in response to these curves and to the very way they breathe.

Thus Ernest Labrousse and his students, after their manifesto at the last Rome Historical Congress (1955), set up a vast enquiry into social history in quantitative terms. I do not think I am misrepresenting their intention when I say that this enquiry must necessarily lead to the determination of social conjunctures (and even of structures) that may not share the same rate of progress, fast or slow, as the economic conjuncture. Besides, these two distinguished gentlemen—the economic conjuncture and the social conjuncture—must not make us lose sight of other actors, though their progress will be difficult if not impossible to track, for lack of a precise way of measuring it. Science, technology, political institutions, conceptual changes, civilisations (to fall back on that useful word) all have their own rhythms of life and growth, and the new history of conjunctures will be complete only when it has made up a whole orchestra of them all. In all logic, this orchestration of conjunctures, by transcending itself, should have led us straight to the longue durée. But for a thousand reasons this transcendence has not been the rule, and a return to the short term is being accomplished even now before our very eyes. Perhaps this is because it seems more necessary (or more urgent) to knit together 'cyclical' history and short-term traditional history than to go forward toward the unknown. In military terms, it has been a question of consolidating newly secured positions. Ernest Labrousse's first great book, published in 1933, was thus a study of the general movement of prices in France during the eighteenth century,⁶ a movement lasting a good hundred years. In 1943, in the most important work of history to have appeared in France in twenty-five years, this very same Ernest Labrousse succumbed to this need to return to a less cumbersome measure of time when he pinpointed the depression of 1774 to 1791 as being one of the most compelling sources, one of the prime launching pads of the French Revolution. He was still employing a demi-intercycle, a large measure. In his address to the International Congress in Paris in 1948, *Comment naissent les révolutions?* (How are revolutions born?), he attempted this time to link a new-style pathetic fallacy (short-term economic) to a very old style pathetic fallacy (political, the 'revolutionary days'). And behold us back up to our ears in the short time span. Of course, this is a perfectly fair and justifiable procedure, but how very revealing! The historian is naturally only too willing to act as theatrical producer. How could he be expected to renounce the drama of the short time span, and all the best tricks of a very old trade?

Over and above cycles and intercycles, there is what the economists without always having studied it call the secular tendency. But so far only a few economists have proved interested in it, and their deliberations on structural crises, based only on the recent past, as far back as 1929, or 1870 at the very most,⁷ not having had to withstand the test of historical verification, are more in the nature of sketches and hypotheses. They offer nonetheless a useful introduction to the history of the *longue durée*. They provide a first key.

The second and far more useful key consists in the word structure. For good or ill, this word dominates the problems of the *longue durée*. By structure, observers of social questions mean an organisation, a coherent and fairly fixed series of relationships between realities and social masses. For us historians, a structure is of course a construct, an architecture, but over and above that it is a reality which time uses and abuses over long periods. Some structures, because of their long life, become stable elements for an infinite number of generations: they get in the way of history, hinder its flow, and in hindering it shape it. Others wear themselves out more quickly. But all of them provide both support and hindrance. As hindrances they stand as limits ('envelopes,' in the mathematical sense) beyond which man and his experiences cannot go. Just think of the difficulties of breaking out of certain geographical frameworks, certain biological realities, certain limits of productivity, even particular spiritual constraints: mental frameworks too can form prisons of the *longue durée*.

The example which comes most readily to mind is once again that of the geographical constraint. For centuries, man has been a prisoner of climate, of vegetation, of the animal population, of a particular agriculture, of a whole slowly established balance from which he cannot escape without the risk of everything's being upset. Look at the position held by the movement of flocks in the lives of mountain people, the permanence of certain sectors of maritime life, rooted in the favourable conditions wrought by particular coastal configurations, look at the way the sites of cities endure, the persistence of routes and trade, and all the amazing fixity of the geographical setting of civilisations.

There is the same element of permanence or survival in the vast domain of cultural affairs. Ernst Robert Curtius's magnificent book,⁸ which has at long last appeared in a French translation, is a study of a cultural system which prolonged the Latin civilisation of the Byzantine Empire, even while it distorted it through selections and

omissions. This civilisation was itself weighed down by its own ponderous inheritance. Right up to the thirteenth and fourteenth centuries, right up to the birth of national literatures, the civilisation of the intellectual élite fed on the same subjects, the same comparisons, the same commonplaces and catch-words. Pursuing an analogous line of thought, Lucien Febvre's study *Rabelais et le problème de l'incroyance au XVI^e siècle*,⁹ is an attempt to specify the mental tools available to French thought at the time of Rabelais. Febvre was concerned to define the whole body of concepts which regulated the arts of living, thinking, and believing well before Rabelais and long after him, and which profoundly limited the intellectual endeavours of the freest spirits from the very outset. Alphonse Dupront's subject¹⁰ too appears as one of the freshest lines of research within the French school of history. In it the idea of the crusade is examined in the West after the fourteenth century; that is, well after the age of the 'true' crusade, in the continuity of an attitude endlessly repeated over the *longue durée*, which cut across the most diverse societies, worlds, and psyches, and touched the men of the nineteenth century with one last ray. In another, related field, Pierre Francastel's book *Peinture et société*,¹¹ demonstrates the permanence of 'geometric' pictorial space from the beginnings of the Florentine Renaissance until cubism and the emergence of intellectual painting at the beginning of our own century. In the history of science, too, all the many model universes are just as many incomplete explanations, but they also regularly last for centuries. They are cast aside only when they have served their turn over a long period. The Aristotelian concept of the universe persisted unchallenged, or virtually unchallenged, right up to the time of Galileo, Descartes, and Newton; then it disappeared before the advent of a geometrised universe which in turn collapsed, though much later, in the face of the Einsteinian revolution.¹²

In a seeming paradox, the main problem lies in discerning the *longue durée* in the sphere in which historical research has just achieved its most notable successes: that is, the economic sphere. All the cycles and intercycles and structural crises tend to mask the regularities, the permanence of particular systems that some have gone so far as to call civilisations¹³ — that is to say, all the old habits of thinking and acting, the set patterns which do not break down easily and which, however illogical, are a long time dying.

But let us leave our argument on an example, and one which can be swiftly analysed. Close at hand, within the European sphere, there is

an economic system which can be set down in a few lines: it preserved its position pretty well intact from the fourteenth to the eighteenth century or, to be quite sure of our ground, until about 1750. For whole centuries, economic activity was dependent on demographically fragile populations, as was demonstrated by the great decline in population from 1350 to 1450, and of course from 1630 to 1730.¹⁴ For whole centuries, all movement was dominated by the primacy of water and ships, any inland location being an obstacle and a source of inferiority. The great European points of growth, except for a few exceptions which go only to prove the rule (such as the fairs in Champagne which were already on the decline at the beginning of the period, and the Leipzig fairs in the eighteenth century), were situated along the coastal fringes. As for other characteristics of this system, one might cite the primacy of merchants; the prominent role of precious metals, gold, silver, even copper, whose endless vicissitudes would only be damped down, if then, by the decisive development of credit at the end of the sixteenth century; the repeated sharp difficulties caused by seasonal agricultural crises; let us say the fragility of the very basis of economic life: and finally the at first sight utterly disproportionate role accorded to one or two external trade routes: the trade with the Levant from the twelfth to the sixteenth century and the colonial trade in the eighteenth century.

These are what I would define, or rather suggest in my turn following many others, as being the major characteristics of mercantile capitalism in Western Europe, a stage which lasted over the longue durée. Despite all the obvious changes which run through them, these four or five centuries of economic life had a certain coherence, right up to the upheavals of the eighteenth century and the industrial revolution from which we have yet to emerge. These shared characteristics persisted despite the fact that all around them, amid other continuities, a thousand reversals and ruptures totally altered the face of the world.

Among the different kinds of historical time, the longue durée often seems a troublesome character, full of complications, and all too frequently lacking in any sort of organisation. To give it a place in the heart of our profession would entail more than a routine expansion of our studies and our curiosities. Nor would it be a question of making a simple choice in its favour. For the historian, accepting the longue durée entails a readiness to change his style, his attitudes, a whole

reversal in his thinking, a whole new way of conceiving of social affairs. It means becoming used to a slower tempo, which sometimes almost borders on the motionless. At that stage, though not at any other—this is a point to which I will return—it is proper to free oneself from the demanding time scheme of history, to get out of it and return later with a fresh view, burdened with other anxieties and other questions. In any case, it is in relation to these expanses of slow-moving history that the whole of history is to be rethought, as if on the basis of an infrastructure. All the stages, all the thousands of stages, all the thousand explosions of historical time can be understood on the basis of these depths, this semistillness. Everything gravitates around it.

I make no claim to have defined the historian's profession in the preceding lines—merely one conception of that profession. After the storms we have been through during recent years, happy not to say naïve the man who could believe that we have hit upon true principles, clear limits, the Right School. In fact, all the social sciences find their tasks shifting all the time, both because of their own developments and because of the active development of them all as a body. History is no exception. There is no rest in view, the time for disciples has not yet come. It is a long way from Charles-Victor Langlois and Charles Seignobos to Marc Bloch. But since Marc Bloch, the wheel has not stopped turning. For me, history is the total of all possible histories—an assemblage of professions and points of view, from yesterday, today, and tomorrow.

The only error, in my view, would be to choose one of these histories to the exclusion of all others. That was, and always will be, the cardinal error of historicising. It will not be easy, we know, to convince all historians of the truth of this. Still less, to convince all the social sciences, with their burning desire to get us back to history as we used to know it yesterday. It will take us a good deal of time and trouble to accommodate all these changes and innovations beneath the old heading of history. And yet a new historical 'science' has been born, and goes on questioning and transforming itself. It revealed itself as early as 1900, with the *Revue de synthèse historique*, and with *Annales* which started to come out in 1929. The historian felt the desire to concentrate his attention on all the human sciences. It is this which has given our profession its strange frontiers, and its strange preoccupations. So it must not be imagined

that the same barriers and differences exist between the historian and the social scientist as existed yesterday. All the human sciences, history included, are affected by one another. They speak the same language, or could if they wanted to.

Whether you take 1558 or this year of grace 1958, the problem for anyone tackling the world scene is to define a hierarchy of forces, of currents, of particular movements, and then tackle them as an entire constellation. At each moment of this research, one has to distinguish between long-lasting movements and short bursts, the latter detected from the moment they originate, the former over the course of a distant time. The world of 1558 which appeared so gloomy in France, was not born at the beginning of that charmless year. The same with our own troubled year of 1958. Each 'current event' brings together movements of different origins, of a different rhythm: today's time dates from yesterday, the day before yesterday and all former times.

The quarrel with the short time span

These truths are of course banal. Nonetheless, the social sciences seem little tempted by such remembrance of things past. Not that one can draw up any firm accusation against them and declare them to be consistently guilty of not accepting history or duration as dimensions necessary to their studies. The 'diachronic' examination which reintroduces history is never absent from their theoretical deliberations.

Despite this sort of distant acknowledgment, though, it must be admitted that the social sciences, by taste, by deep-seated instinct, perhaps by training, have a constant tendency to evade historical explanation. They evade it in two almost contradictory ways: by concentrating over-much on the 'current event' in social studies, thanks to a brand of empirical sociology which, disdainful of all history, confines itself to the facts of the short term and investigations into 'real life'; by transcending time altogether and conjuring up a mathematical formulation of more or less timeless structures under the name of 'communications science'. This last and newest way is clearly the only one which can be of any substantial interest to us. But there are enough devotees of the current event to justify examining both aspects of the question.

We have already stated our mistrust of a history occupied solely with events. To be fair, though, if there is a sin in being overconcerned with events, then history, though the most obvious culprit, is

not the only guilty one. All the social sciences have shared in this error. Economists, demographers, geographers are all balanced (and badly balanced) between the demands of yesterday and of today. In order to be right they would need to maintain a constant balance—easy enough, and indeed obligatory, for the demographer, and almost a matter of course for geographers (particularly ours, reared in the Vidalian school)—but rare for economists, held fast to the most short lived of current events, hardly looking back beyond 1945 or forecasting further in advance than a few months, or at most a few years. I would maintain that all economic thinking is trapped by these temporal restrictions. It is up to historians, so economists say, to go back further than 1945, in search of old economies. Economists thus voluntarily rob themselves of a marvelous field of observation, although without denying its value. They have fallen into the habit of putting themselves at the disposal of current events and of governments.

The position of ethnographers and ethnologists is neither so clear nor so alarming. Some of them have taken great pains to underline the impossibility (but intellectuals are always fascinated by the impossible) and the uselessness of applying history within their profession. Such an authoritarian denial of history would hardly have served Malinowski and his disciples. Indeed, how could anthropology possibly not have an interest in history? History and anthropology both spring from the same impulse, as Claude Lévi-Strauss¹⁵ delights in saying. There is no society, however primitive, which does not bear the 'scars of events', nor any society in which history has sunk completely without trace. This is something there is no need to complain about or to insist on further.

On the other hand, where sociology is concerned, our quarrel along the frontiers of the short term must necessarily be a rather bitter one. Sociological investigations into the contemporary scene seem to run in a thousand different directions, from sociology to psychology to economics, and to proliferate among us as they do abroad. They are, in their own way, a bet on the irreplaceable value of the present moment, with its 'volcanic' heat, its abundant wealth. What good would be served by turning back toward historical time: impoverished, simplified, devastated by silence, reconstructed—above all, let us say it again, reconstructed. Is it really as dead, as reconstructed, as they would have us believe, though? Doubtless a historian can only too easily isolate the crucial factor from some past

age. To put it in Henri Pirenne's words, he can distinguish without difficulty the 'important events', which means 'those which bore consequences'. An obvious and dangerous oversimplification. But what would the explorer of the present-day not give to have this perspective (or this sort of ability to go forward in time), making it possible to unmask and simplify our present life, in all its confusion — hardly comprehensible now because so overburdened with trivial acts and portents? Claude Lévi-Strauss claims that one hour's talk with a contemporary of Plato's would tell him more than all our classical treatises on the coherence or incoherence of ancient Greek civilisation.¹⁶ I quite agree. But this is because for years he has heard a hundred Greek voices rescued from silence. The historian has prepared his way. One hour in modern Greece would tell him nothing, or hardly anything, about contemporary Greek coherence or incoherence.

Even more to the point, the researcher occupied with the present can make out the 'fine' lines of a structure only by himself engaging in reconstruction, putting forward theories and explanations, not getting embroiled in reality as it appears, but truncating it, transending it. Such manoeuvres allow him to get away from the given situation the better to control it, but they are all acts of reconstruction. I would seriously question whether sociological photography of the present time is any more 'true' than the historical portrayal of the past, more particularly the more it tries to get any further away from the reconstructed.

Philippe Ariès¹⁷ has emphasised the importance of the unfamiliar, of surprise in historical explanation: you are in the sixteenth century, and you stumble upon some peculiarity, something which seems peculiar to you as a man of the twentieth century. Why this difference? That is the question which one then has to set about answering. But I would claim that such surprise, such unfamiliarity, such distancing — these great highways to knowledge — are no less necessary to an understanding of all that surrounds us and which we are so close to that we cannot see clearly. Live in London for a year and you will not know much about England. But by contrast, in light of what has surprised you, you will suddenly have come to understand some of the most deep-seated and characteristic aspects of France, things which you did not know before because you knew them too well. With regard to the present, the past too is a way of distancing yourself.

In this way historians and social scientists could go on forever bating the ball back and forth between dead documents and all-too-living evidence, the distant past and the too-close present. But I do not believe that this is a crucial problem. Past and present illuminate each other reciprocally. And in exclusively observing the narrow confines of the present, the attention will irresistibly be drawn toward whatever moves quickly, burns with a true or a false flame, or has just changed, or makes a noise, or is easy to see. There is a whole web of events, as wearisome as any in the historical sciences, which lies in wait for the observer in a hurry: the ethnographer dwelling for three months with some Polynesian tribe, the industrial sociologist delivering all the clichés of his latest investigation, or who truly believes that he can thoroughly pin down some social mechanism with cunningly phrased questionnaires and combinations of punched cards. Social questions are more cunning game than that. In fact, what possible interest can we take, we the human sciences, in the movements of a young girl between her home in the sixteenth arrondissement, her music teacher, and the Ecole des Sciences-Po, discussed in a sound and wide-ranging study of the Paris area?¹⁸ They make up a fine-looking map. But if she had studied agronomy or gone in for water-skiing, the whole pattern of her triangular journeys would have been altered. It is nice to see on a map the distribution of all domiciles belonging to employees in a large concern. But if I do not have an earlier map, if the lapse of time between the two maps is not sufficient to allow the tracing of a genuine movement, then precisely where is the problem without which any enquiry is simply a waste of effort? Any interest in enquiries for enquiry's sake is limited to the collection of data at best. But even then these data will not all be ipso facto useful for future work. We must beware of art for art's sake. In the same way I would question whether any study of a town, no matter which, could be the object of a sociological enquiry in the way that Auxerre¹⁹ was, or Vienne in the Dauphiné,²⁰ without being set in its historical context. Any town, as an extended social entity with all its crises, dislocations, breakdowns, and necessary calculations, must be seen in relation to the whole complex of districts surrounding it, as well as in relation to those archipelagos of neighbouring towns which Richard Häpke, the historian, was one of the first to discuss. Similarly, it must also be considered in relation to the movement, more or less distant in time, sometimes extremely distant, which directs this whole complex. It cannot be of no interest, it must

rather surely be crucial to note down particular urban/rural exchanges, particular industrial or mercantile competition, to know whether you are dealing with a movement in the full flush of its youth, or at the end of its run, with the beginnings of a resurgence or a monotonous repetition.

One last remark: Lucien Febvre, during the last ten years of his life, is said to have repeated: 'History, science of the past, science of the present'. Is not history, the dialectic of time spans, in its own way an explanation of society in all its reality? And thus of contemporary society? And here its role would be to caution us against the event: do not think only of the short time span, do not believe that only the actors which make the most noise are the most authentic—there are other, quieter ones too. As if anybody did not know that already!

Communication and social mathematics

Perhaps we were wrong to linger on the tempestuous borders of the short time span. In actual fact, that debate proceeds without any great interest, certainly without any useful revelations. The crucial debate is elsewhere, among our neighbours who are being carried away by the newest experiment in the social sciences, under the double heading of 'communications' and mathematics.

But this will be no easy brief to argue. I mean it will be by no means easy to prove that there is no sort of social study which can avoid historical time, when here is one which, ostensibly at least, has its being entirely outside it.

In any case, the reader who wishes to follow our argument (either to agree or to dissociate himself from our point of view) would do well to weigh for himself, one after another, the terms of a vocabulary which, though certainly not entirely new, have been taken up afresh and rejuvenated for the purposes of these new debates. There is nothing more to be said here, obviously, about events, or the *longue durée*. Nor a great deal about structures, though the word—and the thing—is by no means entirely free from uncertainty and debate.²¹ Nor would there by any point in dwelling on the words synchronous and diachronous: they are self-defining, though their function in the actual study of social questions might be less easy to make out than it appears. In fact, as far as the language of history is concerned (insofar as I conceive it) there can be no question of perfect synchrony: a sudden halt, in which all time spans would be suspended, is almost an absurdity in itself, or, and this comes to the

same thing, is highly factitious. In the same way, a descent following the onward stream of time is conceivable only in terms of a multiplicity of descents, following the innumerable different rivers of time.

These brief summaries and warnings must suffice for now. But one must be more explicit when dealing with unconscious history, models, and social mathematics. Besides, these commentaries will, I hope, without too much delay, link together what is problematic in all the social sciences.

Unconscious history, is, of course, the history of the unconscious elements in social development. 'Men make their own history, but they do not know that they are making it.'²² Marx's formula pinpoints the problem, but does not explain it. In fact it is the same old problem of short time span, of 'microtime', of the event, that we find ourselves confronted with under a new name. Men have always had the impression, in living out their time, of being able to grasp its passage from day to day. But is this clear, conscious history delusory, as many historians have agreed? Yesterday linguistics believed that it could derive everything from words. History was under the illusion that it could derive everything from events. More than one of our contemporaries would be happy to believe that everything is the result of the agreements at Yalta or Potsdam, the incidents at Dien Bien Phu or Sakhet-Sidi-Youssef, or again from that other event, important in a different way it is true, the launching of the sputniks. Unconscious history proceeds beyond the reach of these illuminations and their brief flashes. One has, then, to concede that there does exist, at some distance, a social unconscious. And concede, too, that this unconscious might well be thought more rich, scientifically speaking, than the glittering surface to which our eyes are accustomed. More rich scientifically, meaning simpler, easier to exploit—not easier to discover. But the step from bright surface to murky depths—from noise to silence—is difficult and dangerous. Equally let it be said that 'unconscious' history, belonging half to the time of conjunctures and wholly to structural time, is clearly visible more frequently than one would willingly admit. Each one of us can sense, over and above his own life, a mass history, though it is true he is more conscious of its power and impetus than of its laws or direction. And this consciousness is not only of recent date (like the concerns of economic history), although today it may be increasingly sharp. The revolution, for it is an intellectual revolution, consisted in confronting this half

darkness head on, and giving it a greater and greater place next to, and even to the detriment of, a history purely of events.

History is not alone in this prospecting (quite the reverse, all it has done has been to follow others into the area, and adapt the perspectives of the new social sciences for its own use), and new instruments of knowledge and research have had to be created:

hence models, some more or less perfected, some still rather rough and ready. Models are only hypotheses, systems of explanations tied solidly together in the form of an equation, or a function: this equals that, or determines the other. Such and such a reality never appears without that one, and constant and close links are revealed between the one and the other. The carefully constructed model will thus allow us to inquire, throughout time and space, into other social environments similar to the observed social environment on the basis of which it was originally constructed. That is its constant value.

These systems of explanation vary infinitely according to the temperament, calculations, and aims of those using them: simple or complex, qualitative or quantitative, static or dynamic, mechanical or statistical. I am indebted to Lévi-Strauss for this last distinction. A mechanical model would be of the same dimensions as directly observed reality, a reality of limited dimensions, of interest only to very small groups of people (this is how ethnologists proceed when dealing with primitive societies). When dealing with large societies, where great numbers come in, the calculation of the average becomes necessary: this leads to the construction of statistical models. But what do these sometimes debatable distinctions really matter!

In my opinion, before establishing a common programme for the social sciences, the crucial thing is to define the function and limits of models, the scope of which some undertakings seem to be in danger of enlarging inordinately. Whence the need to confront models, too, with the notion of the time span: for the meaning and the value of their explanations depend fairly heavily, it seems to me, on their implied duration.

To be more clear, let us select our examples from among historical models,²³ by which I mean those constructed by historians. They are fairly rough and ready as models go, not often driven to the rigour of an authentic scientific law, and never worried about coming out with some revolutionary mathematical language—but models nonetheless, in their own way.

Above we have discussed mercantile capitalism between the

fourteenth and the eighteenth centuries: one model which, among others, can be drawn from Marx's work. It can be applied in full only to one particular family of societies at one particular given time, even if it leaves the door open to every extrapolation.

There is already a difference between this and the model which I sketched out in an earlier book,²⁴ of the cycle of economic development in Italian cities between the sixteenth and eighteenth centuries.

These cities became in turn mercantile, 'industrial', and finally specialists in banking, this last development being the slowest to grow and the slowest to die away. Though in fact less all-embracing than the structure of mercantile capitalism, this sketch would be much the more easily extended in time and space. It records a phenomenon (some would say a dynamic structure, but all structures in history have at least an elementary dynamism) capable of recurring under a number of common circumstances. Perhaps the same could be said of the model sketched out by Frank Spooner and myself²⁵ which dealt with the history of precious metals before, during, and after the sixteenth century: gold, silver, copper—and credit, that agile substitute for metal—all play their part too. The 'strategy' of one weighs on the 'strategy' of another. It would not be particularly difficult to remove this model from the special and particularly turbulent world of the sixteenth century, which happened to be the one we selected for our observations. Have not economists dealing with the particular case of underdeveloped countries attempted to verify the old quantitative theory of money, which was, after all, a model too in its own fashion?²⁶

But the time spans possible to all these models are brief compared with those of the model conceived by the young American social historian Sigmund Diamond.²⁷ Diamond was struck by the double language of the dominant class of great American financier contemporaries of Pierpont Morgan, consisting of a language internal to their class, and an external language. This last, truth to tell, was a brand of special pleading with public opinion to whom the success of the financier is presented as the typical triumph of the *self-made man*, the condition necessary for the nation's prosperity. Struck by this double language, Diamond saw in it the customary reaction of any dominant class which feels its prestige waning and its privileges threatened. In order to camouflage itself, it is necessary for it to confuse its own fate with that of the City or the Nation, its own private interests with the public interest. Sigmund Diamond would

willingly explain the evolution of the idea of dynasty or of empire, the English dynasty or the Roman empire, in the same way. The model thus conceived clearly has the run of the centuries. It presupposes certain conditions, but these are conditions with which history is abundantly supplied; it follows that it is valid for a much longer time span than either of the preceding models, but at the same time it puts into question much more precise and exact aspects of reality.

At the limit, as the mathematicians would say, this kind of model is akin to the favourite, almost timeless models of sociological mathematicians. Almost timeless, in actual fact, travelling the dark, unintended byways of the extreme *longue durée*.

The preceding explanations must of necessity provide only an inadequate introduction to the science and theory of models. And historians are far from standing in the forefront. Their models are hardly more than bundles of explanations. Our colleagues are more ambitious and advanced in research, attempting to establish links between the theories and languages of information or communications theory or of qualitative mathematics. Their merit—and it is a great one—is in absorbing the subtle language of mathematics into their domain, though this runs the risk, should our attention flag even slightly, of its escaping from our control and running off. Heaven only knows where! Information and communications theory, qualitative mathematics, all come together under the already substantial patronage of social mathematics. And we must try, as far as we are able, to light our lantern by their flame too.

Social mathematics²⁸ is made up of at least three languages, and there is still scope for them to mingle and develop more. Mathematicians have not yet come to the end of their inventiveness. Besides, there is not one mathematics, the mathematics (or, if there is, it is only as an assertion, not a fact): 'one should not say algebra, geometry, but an algebra, a geometry' (Th. Guilbaud)—which does not make our problems, or theirs, any easier. Three languages, then: that of necessary facts (a given fact, and its consequence), which is the domain of traditional mathematics; the language of contingent facts, dating from Pascal, which is the domain of the calculation of probabilities; and finally the language of conditioned facts, neither determined nor contingent but behaving under certain constraints, tied to the rules of a game, to the 'strategic' axis in the games of Von Neumann and Morgenstern,²⁹ those triumphant games which have gone on developing on the basis of their inventors' first bold

principles. Game theory, with its use of wholes, of groups, and of the calculation of probabilities, opens the way to 'qualitative' mathematics, and from that moment the move from observation to mathematical formulation does not have to be made along the painful path of measurements and long statistical calculations. One can pass directly from an observation of social reality to a mathematical formulation, to the calculating machine, so to speak.

Of course, the machine's diet has to be prepared in advance, since there are only certain kinds of food which it can cope with. Besides, the science of information has evolved as a function of true machines and their rules of functioning, in order to promote communication in the most material sense of the word. The author of this article is by no means a specialist in these complex fields. The research toward creating a translating machine, which I followed from afar but nonetheless followed, has left me and many others deep in thought. All the same, two facts remain: (1) such machines, such mathematical possibilities, do exist; and (2) society must prepare itself for social mathematics, which is no longer our old accustomed mathematics of price curves and the graphs of birthrates.

Now, while the workings of the new mathematics may often elude us, the preparation of social reality for its use, fitting it out and trimming it appropriately, is a task we can well cope with. The preliminary treatment has up till now been almost always exactly the same: choose some unified limited object of observation, such as a 'primitive' tribe or a demographic 'isolate', in which almost everything can be seen and touched directly, then establish all possible relationships, all possible games among the elements thus distinguished. Such relationships, rigorously worked out, provide the very equations from which mathematics will be able to draw all possible conclusions and projections in order to come up with a model which sums them all up, or rather takes them all into account.

Obviously a million openings for research exist in these areas. But one example is worth any amount of prolonged explanation. We have Claude Lévi-Strauss as an excellent guide, let us follow him. He can introduce us to one area of these researches, call it that of a science of communications.³⁰

'In any society', writes Lévi-Strauss,³¹ 'communication operates on at least three levels: communication of women, communication of goods and services, communication of messages.' Let us agree that these are, at their different levels, different languages, but languages

nonetheless. If that is so, are we not entitled to treat them as languages, or even as language, and to associate them, whether directly or indirectly, to the sensational progress made by linguistics, and even more by phonemics, which 'will certainly play the same renovating role with respect to the social sciences that nuclear physics, for example, has played for the physical sciences'?³² That is saying a lot, but sometimes one has to say a lot. Just as history is caught in the trap of events, linguistics, caught in the trap of words (the relation between word and object, the historical evolution of words), was set free by the phonemic revolution. It became aware, beneath the word, of the unit of sound which is the phoneme, at that point paying no attention to its sense, but carefully noting its placing, the sounds accompanying it, the grouping of these sounds, the infra-phonemic structures, and the whole underlying unconscious reality of language. On the basis of the few dozen phonemes which occur in every language in the world, the new mathematical calculations set to work, and in so doing set linguistics, or at least one aspect of linguistics, free from the realm of social studies to scale the 'heights of the physical sciences'.

To extend the meaning of language to elementary structures of kinship, myths, ceremonial, economic exchanges is to attempt that difficult but worthwhile route to the summit. Claude Lévi-Strauss showed this sort of courage initially when dealing with matrimonial exchanges—that first language, so essential to all human communication that there is no society, whether primitive or not, in which incest, marriage within the nuclear family, is not forbidden. Thus, a language. And beneath this language he sought the one basic element which would, so to speak, correspond to the phoneme. That element, that 'atom' of kinship, was put forward by our guide in its most simple format in his thesis of 1949:³³ the man, his wife, their child, and the child's maternal uncle. On the basis of this quadrangular element and of all known systems of marriage within these primitive worlds—and they are many—the mathematicians were enabled to work out all possible combinations and solutions. With the help of the mathematician André Weill, Lévi-Strauss was able to translate the observations of the anthropologist into mathematical terms. The resulting model should provide proof of the validity and stability of the system, and point out the solutions which it implies.

The procedure of this research is clear: to get past superficial observation in order to reach the zone of unconscious or barely

conscious elements, and then to reduce that reality to tiny elements, minute identical sections, whose relations can be precisely analysed. It is at this 'micro-sociological [of a certain kind, I would add] stage that one might hope to discover the most general structural laws, just as the linguist discovers his at the infra-phonemic level or the physicist at the infra-molecular or atomic level'.³⁴ This is of course an activity which can be pursued in a good many other directions. Thus, what could be more instructive than to see Lévi-Strauss coming to grips, this time, with myths, and in a light-hearted way with cooking. Myths he reduced to a series of individual cells, or mythemes; the language of cookbooks he reduced (none too seriously) to gustemes. Each time, he has sought the deepest, least conscious layers. I am not concerned. 'While I speak, with the phonemes in my speech; nor, unless very exceptionally, when I am at the table, do I concern myself with "gustemes", if gustemes in fact exist. And yet, each time, the subtle and precise interplay of relationships is there, keeping me company. As far as these simple, mysterious relationships go, will the final act of sociological research be to grasp them where they lie beneath all languages, in order to translate them into one Morse code that is the universal language of mathematics? That is the prime ambition of the new social mathematics. But that, if I may say so, is another story.'

But let us get back to the question of time spans. I have said that models are of varying duration: they are valid for as long as the reality with which they are dealing. And for the social observer, that length of time is fundamental, for even more significant than the deep-rooted structures of life are their points of rupture, their swift or slow deterioration under the effect of contradictory pressures. I have sometimes compared models to ships. What interests me, once the boat is built, is to put it in the water to see if it will float, and then to make it ascend and descend the waters of time, at my will. The significant moment is when it can keep afloat no longer, and sinks. Thus the explanation which Frank Spooner and I proposed for the interplay of precious metals seems to me to have little validity before the fifteenth century. Earlier than that, the competition between metals was of a violence quite unparalleled in previous observations. It was up to us then to find out why. Just as, going downstream this time, we had to find out why the navigation of our over-simple craft became first difficult and then impossible in the eighteenth century with the unprecedented growth of credit. It seems to me that research

is a question of endlessly proceeding from the social reality to the model, and then back again, and so on, in a series of readjustments and patiently renewed trips. In this way the model is, in turn, an attempt at an explanation of the structure, and an instrument of control and comparison, able to verify the solidity and the very life of a given structure. If I were to construct a model on the basis of the present, I would immediately relocate it in its context in reality, and then take it back in time, as far back as its origins, if possible. After which, I would project its probable life, right up to the next break, in accordance with the corresponding movement of other social realities. Unless I should decide to use it as an element of comparison, and take it off through time and space, in search of other aspects of reality on which it might shed new light.

Would I be wrong to believe that the models put forward by qualitative mathematics, at least insofar as they have been shown to us up till now,³⁵ would lend themselves ill to such excursions, above all because they are committed to traveling along only one of time's many possible highways, that of the extreme *longue durée* sheltered from all accidents, crises, and sudden breaks? I well refer, once again, to Claude Lévi-Strauss, because his experiments in this field seem to me the most well thought out, the clearest, and the most securely rooted in the social experience which any such undertaking should be based on and return to. Let us note that each time he is concerned with questioning a phenomenon which develops only very slowly almost timelessly. All kinship systems persist because there is no human life possible beyond a certain ratio of consanguinity, so that, for a small group of people to survive, it must open onto the outside world: the prohibition of incest is a reality of the *longue durée*. Myths too, developing slowly, correspond to structures of an extremely long duration. Without even bothering to pick out the oldest, one could collect together all the versions of the Oedipus story, so that classified according to their different variations, they might throw light on the underlying impulse which shapes them all. But let us suppose for a moment that our colleague was not interested in myths, but in, say, the images projected by, and succeeding interpretations of, 'Machiavellianism', and that he was seeking the basic elements in this fairly straightforward and very widespread doctrine, which came into being in the middle of the sixteenth century. Everywhere here he would find rifts and reversals, even in the very structure of Machiavellianism, for it is not a system which

has the theatrical, semipartial solidty of myth. It is sensitive to any action and reaction, to all the various inclemencies of history. In a word, it does not have its being solely within the calm, monotonous highways of the *longue durée*. Thus the process recommended by Lévi-Strauss in the search for mathematisable structures is valid not only on the level of microsociology, but also in confronting the infinitely small and the extreme *longue durée*.

Does this mean that this revolutionary qualitative mathematics is condemned to follow only the paths of the extreme *longue durée*? In which case, after a hard struggle, all we find ourselves with are truths built rather too much on the dimensions of eternal man. Elementary truths, aphorisms amounting to no more than mere common sense, are what the disappointed might be inclined to say. To which would come the reply, fundamental truths, able to cast new light on the very bases of all social life. But that is not the whole question.

I do not in fact believe that these experiments—or analogous experiments—cannot be conducted outside the scope of the very *longue durée*. The stuff of qualitative social mathematics is not figures but links, relationships, which must be fairly rigorously defined before they can be rendered into a mathematical symbol, on the basis of which one can study all the mathematical possibilities of these symbols, without having to trouble oneself any more about the social reality which they represent. Thus the entire value of the conclusions is dependent upon the value of the initial observation, and on the selection of essential elements within the observed reality and the determination of their relationships. One can thus see why social mathematics has a preference for what Claude Lévi-Strauss calls mechanical models, that is to say, models based on fairly narrow groups in which each individual can, so to speak, be directly observed, and in which a highly homogeneous social organisation enables a secure definition of human relationships, in a simple and concrete way, and with few variations.

So-called statistical models, on the other hand, deal with large and complex societies, in which observation can be carried out only according to averages, or in other words according to traditional mathematics. But once the averages have been arrived at, should the observer be able to establish, on the scale of groups rather than of individuals, those basic relationships which we have been discussing and which are necessary to the formulation of qualitative

mathematics, then there would be nothing to stop him from making use of them again. So far as I know, there have not been any attempts made along these lines. But these are early days for such experiments. For the moment, whether one is dealing with psychology, economics, or anthropology, all the experiments have been carried out in the way I discussed when speaking of Lévi-Strauss. But qualitative social mathematics will not have proved itself until it has confronted a modern society with involved problems and different rates of development. I would wager that this venture will tempt one of our sociologist-mathematicians; I would wager equally that it will prompt a necessary revision of the methods according to which the new mathematics has operated so far, penned up in what I would call, in this instance, the excessive *longue durée*. It must rediscover the diversity of life—the movement, the different time spans, the rifts and variations.

Time for the historian, time for the sociologist

And here I am, after an incursion into the timeless realms of social mathematics, back at the question of time and time spans. And incorrigible historian that I am, I stand amazed yet again that sociologists have managed to avoid it. But the thing is that their time is not ours: it is a great deal less imperious and less concrete and is never central to their problems and their thoughts.

In truth, the historian can never get away from the question of time in history: time sticks to his thinking like soil to a gardener's spade. He may well dream of getting away from it, of course. Spurred on by the anguish of 1940, Gaston Roupnel³⁶ wrote words on this subject that will make any true historian suffer. Similar is the classic remark made by Paul Lacombe who was also a historian of the grand school: 'Time is nothing in itself, objectively, it is only an idea we have.'³⁷ But do these remarks really provide a way out? I myself, during a rather gloomy captivity³⁸ years (1940-45). Rejecting events and the time in which events take place was a way of placing oneself to one side, sheltered, so as to get some sort of perspective, to be able to evaluate them better, and not wholly to believe in them. To go from the short time span, to one less short, and then to the long view (which, if it exists, must surely be the wise man's time span); and having got there, to think about everything afresh and to reconstruct everything

around one: a historian could hardly not be tempted by such a prospect.

But these successive flights cannot put the historian definitively beyond the bounds of the world's time, beyond historical time, so imperious because it is irreversible, and because it flows at the very rhythm of the earth's rotation. In fact, these different time spans which we can discern are all interdependent: it is not so much time which is the creation of our own minds, as the way in which we break it up. These fragments are reunited at the end of all our labours. The *longue durée*, the conjuncture, the event all fit into each other neatly and without difficulty, for they are all measured on the same scale. Equally, to be able to achieve an imaginative understanding of one of these time spans is to be able to understand them all. The philosopher, taken up with the subjective aspect of things, inferior to any notion of time, never senses this weight of historical time, of a concrete, universal time, such as the time of conjuncture that Ernest Labrousse³⁹ depicts at the beginning of his book like a traveller who is constantly the same and who travels the world imposing the same set of values, no matter the country in which he has disembarked, nor what the social order with which it is invested.

For the historian everything begins and ends with time, a mathematical, godlike time, a notion easily mocked, time external to men, 'exogenous', as economists would say, pushing men, forcing them, and painting their own individual times the same colour: it is, indeed, the imperious time of the world.

Sociologists, of course, will not entertain this oversimplified notion. They are much closer to the *dialectique de la durée* as put forward by Gaston Bachelard.⁴⁰ Social time is but one dimension of the social reality under consideration. It is within this reality just as it is within a given individual, one sign of particularity among others. The sociologist is in no way hampered by this accommodating sort of time, which can be cut, frozen, set in motion entirely at will. Historical time, I must repeat, lends itself less easily to the supple double action of synchrony and diachrony: it cannot envisage life as a mechanism that can be stopped at leisure in order to reveal a frozen image.

This is a more profound rift than is at first apparent: sociologists' time cannot be ours. The fundamental structure of our profession revolts against it. Our time, like economists' time, is one of measure.

When a sociologist tells us that a structure breaks down only in order to build itself up afresh, we are happy to accept an explanation which historical observation would confirm anyway. But we would wish to know the precise time span of these movements, whether positive or negative, situated along the usual axis. An economic cycle, the ebb and flow of material life, can be measured. A structural social crisis should be equally possible to locate in time, and though it. We should be able to place it exactly, both in itself and even more in relation to the movement of associated structures. What is profoundly interesting to the historian is the way these movements cross one another, and how they interact, and how they break up: all things which can be recorded only in relation to the uniform time of historians, which can stand as a general measure of all these phenomena, and not in relation to the multiform time of social reality, which can stand only as the individual measure of each of these phenomena separately.

Rightly or wrongly, the historian cannot but formulate such opposed ideas, even when entering into the welcoming, almost brotherly realm of Georges Gurvitch's sociology. Did not a philosopher⁴⁰ define him recently as the one 'who is driving sociology back into the arms of history'? But even with him, the historian can recognise neither his time spans nor his temporalities. The great social edifice (should one say model?) erected by Georges Gurvitch is organised according to five basic architectural aspects:⁴¹ the deeper levels; the level of sociability; the level of social groups; the level of global societies; and the level of time. This final bit of scaffolding, temporalities, the newest and the most recently built, is as if superimposed on the whole.

Georges Gurvitch's temporalities are various. He distinguishes a whole series of them: the time of the *longue durée* and slow motion, time the deceiver and time the surprise, time with an irregular beat, cyclic time running in place, time running slow, time alternating between running slow and fast, time running fast, explosive time.⁴² How could a historian believe in all this? Given such a range of colours, he could never reconstitute a single, white light—and that is something he cannot do without. The historian quickly becomes aware, too, that this chameleon-like time barely adds any extra touch, any spot of colour to the categories which had been established earlier. In the city that our friend has built, time, the last to arrive, cohabits quite naturally with all the other categories. It fits itself to

the dimensions of their homes and their demands, according to the 'levels', sociabilities, groups, and global societies. It is a different way of rewriting the same equations without actually changing them. Each social reality secretes its own peculiar time, or time scale, like common snails. But what do we historians get out of all this? The vast edifice of this ideal city remains static. History is nowhere to be seen. The world's time, historical time is there, but imprisoned, like Aeolus in his goat's skin. It is not history which sociologists, fundamentally and quite unconsciously, bear a grudge against, but historical time—which is a reality that retains its violence no matter how one tries to bring it to order and to break it down. It is a constraint from which the historian is never free, while sociologists on the other hand almost always seem to manage to avoid it, by concentrating either on the instant, which is always present as if suspended somewhere above time, or else on repeated phenomena which do not belong to any age. So they escape the two contradictory movements of the mind, confining them within either the narrowest limits of the event or the most extended *longue durée*. Is such an evasion justifiable? That is the crux of the debate between historians and sociologists, and even between historians of differing persuasions.

I do not know whether this rather excessively cut and dried article, relying overmuch, as historians have a tendency to do, on the use of examples, will meet with the agreement of sociologists and of our other neighbours. I rather doubt it. Anyway, it is never a good thing, when writing a conclusion, simply to repeat some insistently recurrent leitmotif. Should history by its very nature be called upon to pay special attention to the span of time and to all the movements of which it may be made up, the *longue durée* appears to us, within this array, as the most useful line to take toward a way of observing and thinking common to all the social sciences. Is it too much to ask our neighbours that, at some stage in their reasoning, they might locate their findings and their research along this axis?

For historians, not all of whom would share my views, it would be a case of reversing engines. Their preference goes instinctively toward the short term. It is an attitude aided and abetted by the sacrosanct university courses. Jean-Paul Sartre, in recent articles,⁴³ strengthens their point of view, when he protests against that which is both oversimplified and too ponderous in Marxism in the name of the biographical, of the teeming reality of events. You have not said everything when you have 'situated' Flaubert as bourgeois, or

Tintoretto as petty bourgeois. I entirely agree. But in every case a study of the concrete situation—whether Flaubert, Valéry, or the foreign policies of the Gironde—ends up by bringing Sartre back to its deep-seated structural context. His research moves from the surface to the depths, and so links up with my own preoccupations. It would link up even better if the hourglass could be turned over both ways—from event to structure, and then from structure and model back to the event.

Marxism is peopled with models. Sartre would rebel against the rigidity, the schematic nature, the insufficiency of the model, in the name of the particular and the individual. I would rebel with him (with certain slight differences in emphasis) not against the model, though, but against the use which has been made of it, the use which it has been felt proper to make. Marx's genius, the secret of his long sway, lies in the fact that he was the first to construct true social models, on the basis of a historical *longue durée*. These models have been frozen in all their simplicity by being given the status of laws, of a preordained and automatic explanation valid in all places and to any society. Whereas if they were put back within the ever-changing stream of time, they would constantly reappear, but with changes of emphasis, sometimes over-shadowed, sometimes thrown into relief by the presence of other structures which would themselves be susceptible to definition by other rules and thus by other models. In this way, the creative potential of the most powerful social analysis of the last century has been stymied. It cannot regain its youth and vigour except in the *longue durée*. Should I add that contemporary Marxism appears to me to be the very image of the danger lying in wait for any social science wholly taken up with the model in its pure state, with models for models' sake?

What I would like to emphasise in conclusion is that the *longue durée* is but one possibility of a common language arising from a confrontation among the social sciences. There are others, I have indicated, adequately, the experiments being made by the new social mathematics. The new mathematics draws me, but the old mathematics, whose triumph is obvious in economics—perhaps the most advanced of the human sciences—does not deserve to be dismissed with a cynical aside. Huge calculations await us in this classic field, but there are squads of calculators and of calculating machines ready too, being rendered daily yet more perfect. I am a great believer in the usefulness of long sequences of statistics, and in the necessity

of taking calculations and research further and further back in time. The whole of the eighteenth century in Europe is riddled with our workings, but they crop up even in the seventeenth, and even more in the sixteenth century. Statistics going back an unbelievably long way reveal the depths of the Chinese past to us through their universal language.⁴⁴ No doubt statistics simplify the better to come to grips with their subject. But all science is a movement from the complex to the simple.

And yet, let us not forget one last language, one last family of models, in fact: the necessary reduction of any social reality to the place in which it occurs. Let us call it either geography or ecology, without dwelling too long on these differences in terminology. Geography too often conceives of itself as a world on its own, and that is a pity. It has need of a Vidal de la Blache who would consider not time and place this time, but place and social reality. If that happened, geographical research would put the problems of all the human sciences first on its agenda. For sociologists, not that they would always admit it to themselves, the word ecology is a way of not saying geography, and by the same token of dodging all the problems posed by place and revealed by place to careful observation. Spatial models are the charts upon which social reality is projected, and through which it may become at least partially clear; they are truly models for all the different movements of time (and especially for the *longue durée*), and for all the categories of social life. But amazingly, social science chooses to ignore them. I have often thought that one of the French superiorities in the social sciences was precisely that school of geography founded by Vidal de la Blache, the betrayal of whose thought and teachings is an inconsolable loss. All the social sciences must make room 'for an increasingly geographical conception of mankind'.⁴⁵ This is what Vidal de la Blache was asking for as early as 1903.

On the practical level—for this article does have a practical aim—I would hope that the social sciences, at least provisionally, would suspend their constant border disputes over what is or is not a social science, what is or is not a structure... Rather let them try to trace those lines across our research which if they exist would serve to orient some kind of collective research, and make possible the first stages of some sort of coming together. I would personally call such lines mathematisation, a concentration on place, the *longue durée*... But I would be very interested to know what other specialists would

suggest. For it goes without saying that this article has not been placed under the rubric *Débats et Combats*⁴⁶ by pure chance. It claims to pose, but not resolve, the obvious problems to which, unhappily, each one of us, when he ventures outside his own specialty, finds himself exposed. These pages are a call to discussion.

NOTES

1. Claude Lévi-Strauss, *Structural Anthropology*, (tr. Claire Jacobson and Brooke Grundfest Schoepf), London, 1968, 1,300 and *passim*.
2. Jean-Paul Sartre, 'Questions de méthode', *Les Temps Modernes* nos. 139 and 140, 1957.
3. 'Europe in 1500', 'The World in 1880', 'Germany on the Eve of the Reformation', and so on.
4. Louis Halphen, *Introduction à l'histoire*, Paris: P.U.F., 1946, p. 50.
5. See his *Théorie générale du progrès économique*, *Cahiers de R.I.S.E.A.*, 1957.
6. *Esquisse du mouvement des prix et des revenus en France au XVIII^e siècle*, 2 vols., Paris: Dalloz, 1933.
7. Considered in René Clémens, *Préliminaires d'une théorie de la structure économique*, Paris: Domat-Montchrestien, 1952; see also Johann Akerman, 'Cycle et structure', *Revue économique*, no. 1, 1952.
8. Ernst Robert Curtius, *Europäische Literatur und lateinisches Mittelalter*, Berne, 1948.
9. Paris, Albin Michel, 1943; 3rd edn., 1969.
10. 'Le mythe de croisade: essai de sociologie religieuse', thesis, Sorbonne.
11. Pierre Francastel, *Peinture et société: Naissance et destruction d'un espace plastique, de la Renaissance au cubisme*, Lyon, 1951.
12. Other arguments: I would like to suggest those forceful articles which all of them advance a similar thesis, such as Otto Brunner's (*Historische Zeitschrift*, vol. 177, no. 3) on the social history of Europe; R. Bultmann's (*ibid.*, vol. 176, no. 1), on humanism; Georges Lefebvre's (*Annales historiques de la Révolution française*, no. 114, 1949) and F. Hartung's (*Historische Zeitschrift*, Vol. 180, no. 1), on enlightened despotism.
13. René Courtin, *La Civilisation économique du Brésil*, Paris, 1941.
14. As far as France is concerned. In Spain, the demographic decline was visible from the end of the sixteenth century.
15. Claude Lévi-Strauss, *Structural Anthropology*, p. 23.
16. Diogène couché', *Les Temps Modernes*, no. 195, p. 17.
17. *Les Temps de l'histoire*, Paris, 1954, especially p. 298 et seq.
18. P. Chombar de Lauwe, *Paris et l'agglomération parisienne*, Paris, 1952, 1:106.
19. Suzanne Frère and Charles Bettelheim, *Une Ville française moyenne*, Auxerre en 1950, *Cahiers de Sciences Politiques*, no. 17, Paris, 1951.
20. Pierre Clément and Nelly Kydias, *Vienne sur-le-Rhône: Sociologie d'une cité française*, *Cahiers des Sciences Politiques*, no. 71, Paris, 1955.