Royal Netherlands Academy
of Arts and Sciences
Heineken Lectures 2004



Dr A.H. Heineken Prize for History

Jacques Le Goff

Heineken Lectures 2004



The symposium The Other Middle Ages was held on September 28, 2004 in De Balie in Amsterdam.

Royal Netherlands Academy of Arts and Sciences Heineken Lectures 2004

Amsterdam, 2005

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Preface

Address by Willem Levelt, President of the Royal Netherlands Academy of Arts and Sciences, on the occasion of the presentation of the 2004 Heineken Prizes on October 1, 2004.

Both in the sciences and the arts, history provides us with a looking glass that helps us to focus on the real pioneers. It is much easier for us now to recognize the epoch-making contributions of such pioneers as Huygens and Newton, Lavoisier and Pasteur, the Humboldts or Darwin than it was for their contemporaries. A contemporary of Huygens would have had a hard time telling his lasting wave theory from his failing mechanistic theory of gravity. The buzzing genius of Newton spent much more time on alchemy than on the laws of gravity and optics. Who, then, could distinguish the really lasting contributions of these men from their many dead ends? I am deliberately ignoring the abysmal public condemnations of church or state officials concerning some of the loftiest scientific or scholarly insights of their subjects. Neither will I elaborate on the ideologically motivated, unremitting support by church or state of demonstrably false theories such as Lysenko's Lamarckianism or present-day church and often state-supported creationism. Systematic disinformation of the general public on the achievements of the arts and sciences is always looming. History's looking glass cannot be dispensed with.

Admittedly, however, history can be slow in its filtering exercise. It took no less than 34 years for Father Mendel's trailblazing genetic discoveries to become recognized by the scientific community, in fact only after others, in particular Hugo de Vries, rediscovered the same laws. These laws never came to the attention of Charles Darwin, a missed opportunity to integrate genetics into evolutionary biology. Here it was the scientific community itself that was to blame. Mendel did publish the details of his experiments and theoretical analysis in the 1866 proceedings of his local scientific academy in Brünn, but nobody took any notice of them.

The story is hardly different for the arts. In 1723, the town officials of Leipzig, due to appoint a new Thomas cantor, clearly preferred Telemann and Graupner over Johann Sebastian Bach. We would have known better, wouldn't we? Similarly, the town council here in Amsterdam took down The Oath-swearing of Claudius Civilis that Rembrandt had painted for the new town hall, rolled it up, and returned the masterpiece to him. This in fact led to its disfigurement, because Rembrandt then had to cut the painting down in order to find another buyer. The council clearly preferred the far less controversial town hall contributions by Flinck, Lievens and Jordaens.

Clearly, major achievements in science and the arts are by no means recognized as a matter of course, either within the scientific and artistic communities themselves or by society at large. One major function of awards such as the Heineken Prizes is to breed consensus. But consensus on what? Here prizes can serve quite different purposes. There are awards, such as dissertation prizes, whose function it is to make the scientific community aware of talented upstarts. Clearly, our laureates today are not in need of such career prizes.

All of them are established experts of great repute in their own professional communities. As a rule, major awards such as the Heineken Prizes are never career prizes. They rather fulfil one or both of two other functions.

The first one is to highlight a particular landmark empirical contribution. If the Dr H.P. Heineken Prize for Biochemistry and Biophysics had been around in Georg Mendel's time, he would no doubt have received it for his 1866 paper, probably in the presence of His Majesty King William III. And the reason would not have been the excellence or even the outstanding nature of this particular work, but rather the fact that it is fundamental to the field. That is the case for Professor Andrew Fire's discovery of RNA interference, for which he today receives the Dr H.P. Heineken Prize for Biochemistry and Biophysics. It is also the case for Professor Elizabeth Blackburn's identification of the structure of telomeres and her discovery of the enzyme telomerase, which will today be honored by the award of the Dr A.H. Heineken Prize for Medicine. In this respect, these two Heineken Prizes are like the Nobel Prizes for Science, which recognize unique breakthrough contributions. In fact, we are proud to say that in many cases, the juries of our Academy's Heineken Prizes have been well ahead of the Swedish Academy's committees in identifying such landmark contributions.

The second function is to highlight a landmark theoretical contribution. Some scientific contributions are fundamental without being discoveries in the strictly empirical sense. Newton experimentally discovered the spectral dispersion of light. In contrast, his breakthrough theory of universal gravity was not an empirical finding, but a theoretical reformulation of fundamental mechanical physics. Today's Dr A.H. Heineken Prize for Environmental Sciences recognizes Professor Simon Levin's contributions to fundamental theory, the theory of ecosystem dynamics.

For obvious reasons, however, these two types of landmark contributions, the empirical and the theoretical, rarely appear as pure cases. The experimentalist is always theoretically motivated and the only way for the theorist to stay honest is to remain in close contact with empirical work. The two are inseparably interwoven in the study of history. Professor Le Goff's theoretical reformulation of medieval history emerges from a host of groundbreaking empirical studies. The Dr A.H. Heineken Prize for History recognizes this innovative two-pronged approach.

Works of art are too, in their way, empirical contributions. The artist is a discoverer and each work is, to some extent, an experiment in triggering some intended perspective in the eye of the beholder. Mr Daan van Golden receives the Dr A.H. Heineken Prize for Art for his ability to create a contextual perspective on the work of art.

Where should such consensus be established? First of all in the professional communities themselves. A Heineken Prize tells the laureate's peers: 'this work is fundamental'. A modern scientific peer community is usually quite able to recognize excellence. But it can still take years before it reaches consensus on which new insights are essential to the blue-print of their science.

Second, but equally important, is to reach consensus in the larger community, which cares, or should care, about the contributions of science and scholarship to society.

As Simon Levin expressed it in a recent interview, 'Public interest is on the macro scale'. He was, of course, referring to macro scale effects in the environment, such as the maintenance of biological diversity, but there is a more general issue here. The public at large is not so much interested in telomerase or RNA interference, but rather in questions such as 'Will it give us a cure for cancer or for AIDS?'. And here there is a major gap to bridge. Professor Blackburn, in a recent interview, gave the example of Gleevec, an effective treatment of leukemia. There was a 30-year gap between the discovery of the chromosomatic disorder in this type of leukemia and the development of an effective drug. There is, as a rule, no linear pathway from knowledge to treatment.

But the gap is even wider than this example suggests. In many cases it is simply counterproductive to go for a cure or an application that is understandably wanted by the general public, for the simple reason that at the outset the scientist doesn't know what potential knowledge is relevant to the case at hand. Eventually, there is only one way for the scientist to proceed. It is to sit down and dissect the system, whether it is a chromosome, a cell, a layered system in the environment, or a state of affairs in medieval history. The process of discovery is entirely self-governed. It has its own logic. To be successful, it should not be deterred by public pressure, by a push for quick solutions. As Professor Blackburn put it recently, 'We weren't looking to cure cancer and yet it turns out that the enzyme telomerase is one of the most frequently found characteristics of cancer cells. That was not expected'.

At the same time, the scientist has a responsibility to explain this state of affairs to the general public, time and again. Why is it that we are spending public funds in this indirect, detached fashion? The Heineken Prizes invite the general public to regard these laureates as model cases. Each, in his or her own way, has made a major effort to inform the general public, to explain the relevance of their work for our living environment, for our health care and for our understanding of ourselves as human beings. If their outstanding example helps to shape public opinion, these prizes will have been money well spent.

Willem J.M. Levelt

President of the Royal Netherlands Academy of Arts and Sciences

lacques Le Goff and his research

The research

When Pour un autre Moyen Âge was first published in 1977, medievalist Jacques Le Goff had already done much to change the way we view the Middle Ages. Le Goff, dubbed 'the Pope of the Middle Ages' by the press and affectionately known as the 'gourmand historian' by his colleagues, is one of the most important representatives and pioneers of the 'New History', in which the emphasis in historical research has shifted from political figures and events to the history of mentality and historical anthropology. To put it in simple terms: what was life like for 'the common man'?

This shift in perspective has led not only to studies on countless new subjects (such as the significance of the visual imagination), but also to new ways of looking at old ones. One of Le Goff's great insights is that the 11th- to 13th-century Church was a totalitarian institution that successfully gave society meaning and direction by introducing the concept of Purgatory. Knightly discipline and the use of sermons and powerful visual images to disseminate the Church's message among the masses made it possible for mere mortals to achieve the Christian ideal, provided they followed the Church's teachings.

Le Goff is a prolific writer who has published works on politics, intellectualism, economics and the human body as well as a number of biographies. In addition to a life of St. Francis of Assisi, he has written a tome about Saint Louis that is more than a biography; it is a minute reconstruction of the mythologising of the French king and the exploitation of that myth. Le Goff has been an astonishingly creative writer for more than four decades, precisely because he connects new insights to established historical tradition.

The laureate

Jacques Le Goff was born in Toulon, France, on 1 January 1924. The son of a teacher - his father was a resolute anti-papist and his mother a strict, socially aware Catholic - Le Goff knew at the age of twelve that he wanted to be a medievalist. He joined the French Resistance during the Second World War and travelled to Prague, Oxford and Rome after it ended. In 1950 he was certified as a history teacher and became a teaching assistant in Lille, where he quickly succumbed to an insatiable desire to conduct research. He joined the École des Hautes Études en Sciences Sociales (EHESS) in Paris in the early sixties, serving as the director of studies from 1972 and teaching classes until he turned seventy. During this period, he succeeded his mentor Fernand Braudel both at the EHESS and as the editor-in-chief of the highly influential journal Annales.

Le Goff's renown extends beyond his particular field of study. His many books are accessible to a broad group of readers and have won several awards, including the Prix Maurice Pérouse from the La Fondation de France (for popularising scholarship), and the Prix Gobert of l'Académie Française for Saint Louis. He is also a member of the Académie Universelle des Cultures, founded by Elie Wiesel, and the president of the Comité Scientifique de la Recherche Universitaire. Le Goff, an agnostic and confirmed European, often takes part in topical debates (for example on the conflict between West and East), acts as a consultant (he advised the producers of the film In the Name of the Rose on monastic tonsures and the methods used to heat refectories) and displays his enthusiasm for his discipline on television. He is described as an excellent raconteur and epicurean, and is without doubt the most influential French historian alive today.

Key publications

Le Goff, J. 2004. Héros du Moyen Âge: le saint et le roi, Gallimard.

Le Goff, J., Truong, N. 2003. Une histoire du corps au Moyen Âge, Liana Levi.

Le Goff, J. 2003. L'Europe est-elle née au Moyen Âge?, Le Seuil.

Le Goff, J. 1999. Saint François d'Assise, Gallimard. Le Goff, J. 1996. L'Europe racontée aux jeunes, Seuil. Le Goff, J. 1996. Saint Louis, Gallimard.

Le Goff, J. 1994. La vieille Europe et la nôtre, Le Seuil.

Le Goff, J. 1982. La naissance du Purgatoire, Gallimard.

Le Goff, J. 1977. Pour un autre Moyen Âge, Gallimard.

Le Goff, J. 1965. L'imaginaire médiéval. Essai, Gallimard.

Le Goff, J. 1964. La Civilisation de l'Occident médiéval, Arthaud

Le Goff, J. 1957. Les Intellectuels au Moyen Âge, Seuil.

Presentation address for the Dr A.H. Heineken Prize for History

Professor Willem Th. M. Frijoff

Delivered on the occasion of the presentation of the 2004 Heineken Prizes on October 1, 2004

You have been awarded the 2004 Dr A.H. Heineken Prize for History because, by transforming our view of the Middle Ages, you have changed the way we deal with history. You have a way of writing about history that combines a profound knowledge of the past with a keen eye for the needs of the present, which is seen as history in the making. Beyond your field of study, which continues to be medieval society and the men and women who fashioned it, you have developed a theoretical critique of the way in which the historian's creative work is accomplished as well as a sharp awareness of the bonds that link medieval society to the Europe of today and tomorrow. Through your academic work, your editorship of the influential journal Annales and your teaching, not to mention your untiring presence in the media and public debate, you have returned history to the forefront of the present. It is precisely your commitment to a better understood and better founded Europe which has made you an eminently deserving recipient of the Heineken Prize. By tirelessly disseminating a new image of the Middle Ages, you have made us understand the relevance of those Middle Ages to the Europe of today.

This is because your Middle Ages are not the dark and backward period which is portrayed in the stereotypical view. Quite the contrary, the Middle Ages were the birthplace of our institutions and values, our shared mentality and our entire culture. It was those Middle Ages that invented our view of time and our way of using it. They prepared the groundwork for the way we manage our money and make it grow. They created the modern merchant and the production methods that brought about the economic take-off of the West. Through the Church and its strategies of persuasion, they subdued the savage violence of ancient society and imposed social order. They started the conquest of the earth's space. Finally, they invented the intellectual, his concern to reshape society and his conviction that human beings are capable of creating their own future. All this you have clearly shown in a long series of books and articles, appearances in the media and audiovisual productions which have contributed to fundamentally changing our view of the past. And, fortunately, you have gained a following.

Mr Le Goff, your works have won many prizes. Your great work La Civilisation de l'Occident médiéval (1964) is an undisputed classic, but so are your academic works, the essence of which is distilled in the collection of articles entitled Pour un autre Moyen Âge (1977) and in the volumes devoted to defining a new history, Nouvelle histoire (1974, 1978). Your talents are many and varied. You are in no way a cloistered academic, locked up in an ivory tower. On the contrary, anyone who has had the privilege of meeting you will say how inspired they have been by your insatiable curiosity, which constantly opens up new horizons, new processes and new methods. Haven't you been affectionately dubbed 'the gourmand historian'? You are an exceptional historian, through your prolific writings, the breadth of your vision and the meticulous way you approach your subject. Your argument that the concept of Purgatory was used for social, cultural and indeed political purposes was a sensation in 1982 and your biography of Saint Louis (1996) revived the genre. More recently still, you tackled the history of the human body in the Middle Ages. Instead of focusing solidly on a single topic, you reveal a subject by examining it for the riches it can provide and finally anchoring it in an overall view of an age or a community. You continue to set the agenda for history with a remarkable shrewdness and a sustained presence in the public domain. And you have no fear of debate. You are also an European intellectual in the best sense of the term, engaged in the construction of a new European consciousness both based on your professional knowledge and as a clear-thinking citizen.

In your preface to Faire de l'histoire (Vol. I, 1974, p. xiii) you define the task of today's historian as follows: 'the essential thing...is to be able to write the history that today needs. As the science of the mastery of the past and awareness of time, history must also be defined as the science of change and transformation'. Your work therefore involves the historian's social responsibility. It is for this reason that the jury recognizes you as one of the great European historians of our time. The profound resonances that your works continue to find across the intellectual world are brilliant proof of this.

From Heaven to Earth:

The Shift in Values between the 12th and the 13th Century in the Christian West

Dr A.H. Heineken Prize for History 2004

Jacques Le Goff

Professor Jacques Le Goff received the Dr A.H. Heineken Prize for History 2004 for fundamentally changing our view of the Middle Ages.



This article was published in a longer version in Odysseus. Man in History-Anthropology-History Today, Moscow, 1991, p. 25-47, and included in Jacques Le Goff, Héros du Moyen Âge, le Saint et le Roi, Paris, Gallimard, Quarto, 2004, p. 1263-1287.

A new historical methodology is being constructed now, at the turn of the 21st century. The positivist history of the late 19th century which handed down to us methods of text criticism which are still valid, finally exhausted its subject matter with no outcome on the horizon. Perverted by the dogmatism of 'real socialism,' Marxist history is collapsing, even though we could wish that, once rid of this compromising legacy, Marx would remain a source of inspiration for students of history and the social sciences. Quantitative history, which is useful at a basic level, has shown its limitations. Attempts to return to a discredited history, i.e. narrative history or a history of events, have backfired. The history of the 'Annales' movement, partly a victim of its own success, although it easily refutes mild accusations of compartmentalisation and fragmentariness, is at a turning point, seeking new alliances with the humanities and social sciences and laying the foundations for a specialist comparative history and a general – rather than universal – history as already outlined by Marc Bloch.

From the history of ideas to the history of values

Alongside a new political history, a history of power, which incorporates the history of the symbolic and the imaginary, a totally renewed historical methodology is being constructed on the ruins of the history of ideas now incapable of keeping pace with the progress of the issues dealt with by history.

Consistent with its heritage and that of the history of the 'Annales' we can discern three orientations: an intellectual history which is the history of thought as put into practice in society, a history of mentalities which is the history of the automatic and the collective in terms of mental activity, a history of values which is the history of the re-evaluated nuclei of thought and mentalities.

A society cannot live without aims or dreams. The history of these dreams is the history of the imaginary. The history of these aims is the history of values, including the qualitative aspects of the history of individuals and societies.

The notion of values is replacing the notion of idées-forces as elaborated by late 19th century philosophy, which is too closely linked to the science of the time, to a conception of physical force now considered outdated. The notion of value preserves the concern to introduce a dynamic into history, incorporating into it desire or fear and restoring to the societies of the past their ethics. Drawing its inspiration mainly from the history of representations, it assists in the construction of a history that measures the impact of both economic and philosophical, cultural and political trends on the development of societies, according to values such as a liking or contempt for profit, the attraction of the rational or the irrational, the quest for beauty or utility, the sense of order and hierarchy or of equality. It brings these historical value systems to life by recourse to a history of sensibility, of which Lucien Febvre, after Johan Huizinga and alongside Marc Bloch, was the great initiator in modern historiography.

Historical shifts and time in history

As the historian's main function is to identify, define and explain change, it is essential that he should analyse periods of major shifts in values. I believe these shifts are the essential characteristics of any periodisation of history.

The historian's command of history depends on his ability to construct relevant and convincing periodisation systems and to organise various subperiodisations within more general periodisations of a longer range. Whatever the services rendered by the grid proposed by Fernand Braudel in which historical time is read according to three clocks: the long time of structures, the medium time of economies and the short time of events, the historian's tools must be multiplied (but not excessively) and refined in terms of chronology and duration. We must return to the lesson taught by Marc Bloch: 'Human time will always rebel against both the implacable uniformity and the rigid selection of clock time. It calls for measurements that accord with the variability of its rhythm and which, accept as a limitation, often because reality requires it to be so, that it will only recognise marginal areas. It is only at the expense of this plasticity that history can hope to adapt, as Bergson said, its classifications to the 'very lines of reality': which is actually the final purpose of all science.'

It is both from the notion of value and from a flexible conception of periodisation spreading the genesis of the phenomenon over an approximate century which does not start and finish at the beginning of an arithmetical century that I would like to propose the creation of one of those 'intersections' in historical development referred to by Marc Bloch.

I think I can trace a profound shift in a key set of values in western Christian society between the middle of the 12th century and the middle of the 13th century (dating very approximate). This key turning point was, it seems to me, the result of the realisation by a large number of the men and women of this period that Christianity had seen a massive expansion, particularly since about the year 1000, which would continue, more or less depending on the regions of Christianity, until around the middle of the 13th century. This expansion having manifested itself varying in its intensity and its timing depending on location and environment in all the domains that go to make up the life of societies, i.e. technological, economic, social, intellectual, artistic, religious and political, these values concern all of these domains which I believe constitute a structured historical system but one that must be analysed outside of any sterilising grid of infrastructure and superstructure. In a complex interaction, a particular domain may play a more important part as an accelerator during this common shift. Sometimes it will be urban growth, sometimes the agricultural revolution, sometimes rapid population growth, sometimes the appearance of scholasticism and mendicant orders, sometimes the birth of the State, sometimes changes in the peasantry and sometimes the appearance of new categories of urban society, interacting all the while.

This turning point takes place within a wider periodisation and secondary periodisations which can be read according to different chronological grids: Middle Ages beginning between the 2nd and 4th centuries, or in the 7th-8th century and ending, as I would tend to believe, not in the 15th century but at the turn of the 18th and 19th centuries with the French Revolution and the industrial revolution, with, in the meantime, rapid expansion in the 10th-13th centuries, the Renaissance in the 12th century, etc., etc.

I define this period of realisation of the great expansion in the Central Middle Ages and shifts in values as the time when values descended from heaven to earth.

The thesis is that, among the possible cultural solutions in response to the challenge that the great expansion since about the year 1000 represented for the traditional values of the High Middle Ages, Latin Christianity chose conversion to the earthly world within the limits compatible with the Christian faith but without entirely eliminating the doctrine of contempt for the world (contemptus mundi) which would survive for a long time.

The aspects and component parts of the great expansion of the 10th-13th centuries are well known. It was demographic growth that would increase the population of the Christian world from about 27 million around 700 to about 42 million towards the year 1000 and 73 million in 1300. It was economic growth, both in the rural world with the increased clearing of land and what Georges Duby referred to as the 'agricultural revolution' and in the urban world, the development of which, creating a new type of town very different from towns of antiquity, was extraordinary, with progress in crafts and even in industry (textile and construction sectors) due to the appearance of the machine: the mill and its applications. The commercial revolution added the rebirth of long-range commerce to the network of local and regional markets, with the spread of the monetary economy. It was the rapid expansion of politics with the communal movement and the genesis of the modern State. It was the new wave of Christianisation, with the conversion of new peoples, the Gregorian Reform, the crusades and the founding of the mendicant orders. It was the blossoming of art with productions of Roman art and then Gothic art. It was the blossoming of the intellect, with the appearance of schools in cities, the progress of literacy and the vernacular languages, the founding of universities and the development of scholasticism.

One of the first signs of the shift in values was the fact that 'novelty', until then suspect and condemned, became positive and established its worth as shown, for example, by the Life of Saint Dominic. It glorifies Dominic as the new man and his order, the Preachers, as a new order. Now it seems to me that there is a common denominator in all these 'novelties' which is at the same time the grand overall result of these changes.

While it is true that people in the High Middle Ages worked and struggled for earthly life and earthly power, the values in whose name they lived and fought were supernatural values (God, the City of God, Paradise, eternity, contempt for the world, conversion and the example of Job, the man humbled before the will of God). Men's cultural, ideological and existential horizon was heaven.

Certainly, not everything would change during the approximate hundred year period around 1200. People remained Christians who were profoundly anxious about their salvation. But from now on this salvation would be obtained by making a double investment, both on earth and in heaven. At the same time legitimate and salvatory earthly values were emerging such as the transformation of work from a negative value of penitence to a positive value of collaboration in God's creative work, marking the descent of values from heaven to earth. The idea that any new thing must be proscribed because it is inspired by the devil was in decline. Innovation and technical and intellectual progress were no longer synonymous with sin. A start could be made on creating the joy and beauty of paradise on earth as man,

who it will be remembered is made in God's image, can not only create negative conditions on earth but positive conditions for salvation and let us not forget that Adam and Eve were saved from Hell by Jesus during his descent into Limbo. History was no longer a decline towards the end of the world but an ascent towards the end of time.

This conversion to the world that I am advancing as a hypothesis to state the essential fact that history was evolving at the turn of the 12th and 13th centuries is difficult to back up and it poses the historian major problems as regards method.

This history in which mental, ideological and imaginary concepts, which are related but not equivalent, play a major part, at once creates the difficulties inherent in a non-material, non-events-based history.

It is also a history which often does not express itself directly, as it requires a specific critique of the documents. It is a history of the implicit.

There are no specific sources to enable us to look for its signs or follow its development. The historian of values, like the historian of mentalities and sensibilities, has to conduct very diffuse investigations in a large number of domains, through a large number of documents of different kinds covering a very extended period of time. It is a history of the diffuse, a history with an extended chronology.

I conducted this study of a convergent shift in values around three lines of investigation: firstly cultural and mental tools with the appearance of ideas (and practices) involving growth and accounting, the encroachments of human beings into the domain reserved for God and the transformations of intellectual tools, secondly attitudes towards earthly things, in particular life, the human body, the earth and history and finally value and representation systems, creating the distinction between clerical and lay, spiritual and temporal, sacred and profane.

Let us not forget that this shift in values required ideological obstacles to be overcome. I will indicate some of them. I would again stress the importance of the justification of novelty and the limitation of the domination by the 'authorities' (auctoritates) in the religious, intellectual and artistic domain. I would also draw attention to the belief in the High Middle Ages, inherited from primitive Christianity, that the world is old, that it has entered its phase of decrepitude, the sixth age of human life and the life of the created world, that this ageing process is irreversible and that the world is surviving rather than living (mundus senescit).

The struggle between the old and the new values often ended in compromise. For example, as far as the authorities are concerned, Bernard of Chartres, chancellor of the cathedral school of Chartres, one of the great centres of the 12th century Renaissance, declared that 'We are like dwarfs sitting on the shoulders of giants. We see more, and things that are more distant, than they did, not because our sight is superior or because we are taller than they, but because they raise us up, and by their great stature add to ours...'. The humility of the new intellectuals balances the affirmation of the superiority of their knowledge over that of the ancient authorities, notably the Fathers of the Church.

Or else the ancient intellectual authorities were supplemented by new ones, those of the new masters (magistri) of universities. The authentica were therefore side by side with the magistralia.



Growth and accounting

The idea of an ageing world even engendered the belief, contrary to all experience, that people were getting smaller. This was in keeping with, but not the consequence of, the characteristics of the economy of the High Middle Ages, an economy of stagnation whose sole ambition was to save people from famine and which did not even achieve that and with the characteristics of the intellectual work attaching to tasks such as saving, copying and Christianising the authors of antiquity or explaining Holy Scripture and the Fathers.

In the area of economics, the need to feed and equip more people because of the rapid population growth, prompted a proliferation of mills, the intensification of their use and the development of their applications (iron, water, brewery, fulling, oil, tanning, etc., mills), the replacement of the vertical loom by the horizontal loom and the invention of the camshaft system in the 13th century, which converted continuous motion to alternating motion. All these novelties gave rise to a new value: productivity. In the area of agriculture, the 'agricultural revolution' and in particular the gradual substitution - land, climate and agricultural organisation permitting – of three-year rotation with two-year rotation, increasing the area of land under cultivation by about a sixth and allowing seasonal diversification of crops (spring cereals and autumn cereals, 'hidden' crops, etc.) was accompanied by an improvement in the image of rural work following the realisation of the value of growth. The calculation of agricultural productivity was rationalised. The notion of yield appeared (in old French it was called the 'réponse des blés' (response of the crops), the yield in relation to the seeds sown). The idea of improvement (melioratio) was increasingly expressed in rural contracts and in the new agricultural treaties, which resumed a practice which had disappeared since Antiquity in the 13th and early 14th centuries in England, Flanders and Northern Italy, regions at the forefront of agriculture and with high population densities: it was Fleta who described a model estate, the 'manuel de Housebondrie' by Walter of Henley, the Ruralium commodorum opus by Pietro di Crescenzi which King Charles V of France was to have translated into French in the middle of the 14th century. We should not exaggerate these shifts but they are a sign of conversion to the world.

In the area of commerce I need hardly stress the development of the notion of profit (lucrum) which would involve quite an amount of religious casuistry to legitimise a series of transactions which would lead to capitalism and which the Church condemned as 'shameful profit'. It is well known. This change in value and mentality was accompanied by the creation of technical tools of which the Book of the Abacus (Liber Abaci) by the Pisan Leonardo Fibonacci (1202) is the most important example.

Accounting became a means of administration and even government. A pioneer in the subject, William of Normandy had a full inventory of the crown's estates drawn up in 1085, shortly after his conquest of England. This enterprise amazed everyone so much that it was given the name of the Domesday Book, which is an indication of the shifting of mindsets. In 1187, the Count of Flanders had a fully worked-out estimate of his revenues prepared, known as the 'Gros Brief' of Flanders. In France, Philippe Auguste (1185-1223) ordered a regular statement of the receipts from his royal estate and the fragment that remains to us for 1202-1203 has been called, incorrectly but significantly, the first budget of the French monarchy.

As Alexander Murray ably demonstrated, people in the West were seized by a real 'mania for arithmetic' around the year 1200. With everyone having the same need to count and to estimate, the notion of purgatory entered the Christian consciousness. The sinner would purge his sins in a place situated between Heaven and Hell for a period commensurate with the seriousness of the wrong done. Moreover, it would be possible to shorten this period through a system of indulgences, by giving generously to the Church or to the poor or by celebrating masses. For example, negotiations would be held with the hereafter on the basis of the most realistic arithmetic and the concept of proportionality. At this time, a great deal of interest was being shown in this notion of proportionality, a statement of which can be found in Euclid's Elements, a work which was then available in several Latin translations. Jacques Chiffoleau put it nicely and pertinently when he called this 'accounting of the hereafter'.

Encroachments on God's domain: time, science and the hereafter

The changes that occurred in the notion of time were also a sign of a profound shift in contemporary consciousness. Until then people had thought that 'Time is a gift of God'. Consequently, it could not be the subject of commerce. This belief had resulted in the condemnation of lending at interest, a prohibition that commercial expansion and, in particular, the use of the bill of exchange, would of necessity demolish. Unable to maintain this prohibition, the Church looked for a justification of the interest added by the passage of time. It found this justification in the notion of the risk that attaches to any commercial enterprise and also by recognising that the trader is carrying on a specific activity and that his work, although different in nature, is comparable with the work of the artisan and the farmer. Likewise, the modern notion of time made its appearance in literature in the middle of the 12th century with the courtly novel, where time forms the plot of the story with multiple episodes and developments. The development of education would for its part bring about a change in mentality with regard to science. It was the time when education, which until then had been monopolised by monastic schools, was taken over by lay people and enabled some of them to make their living from it. We can judge from Saint Bernard's diatribes against the venditores verborum, the 'sellers of words' the scandal caused to traditional souls by the idea of paying for science, a gift of God and consequently, according to them, not convertible into money. This shift would produce the universities in the 13th century.

The constitution of some merchants and academics into corporations (universitus means corporation) shows that the ideological obstacles erected against these new professions had been overcome. And in the same way in both cases. The merchant and the school-master were excused, justified by the fact that they did not enrich themselves passively (however, in the case of usury or lending at interest, the merchant was even earning while asleep as his money was working for him, which continued to cause a scandal) but they worked. Here we can appreciate the key part played in this great value shift by the reversal of values with regard to work.

At the end of the 12th and during the 13th century, it was another domain, apart from those of time and knowledge in which man was encroaching on God's prerogatives: the hereafter.

Although situated after death, Purgatory was not a matter for God. In fact, as the time that souls could spend there between their individual death and the last judgement could be shortened either through acts of piety by the living that the Church oversaw (prayers, masses, alms) or through the indulgences granted by the Church, the latter had a right to look at the men and women residing in Purgatory. Previously, people were accountable to the temporal jurisdiction of the Church during their life on earth and solely to divine jurisdiction after their death. Henceforth, souls in Purgatory would be accountable to the joint jurisdiction of the Church on earth and God.

In all these areas, the value shift, whether in terms of economic activity, the universities or the hereafter, was essentially controlled, managed and supervised both in theory and in practice by the mendicant orders, religious operators in medieval modernity.

Transformations of intellectual and psychological tool: numbers, knowledge and writing

As we have seen, according to Alexander Murray, an 'arithmetical mentality' established itself, prompted by the increasing use of Indian numerals, referred to as Arabic, and the introduction of the zero. The instrument of a symbolic revolution, it became neutral, a simple instrument for counting. There were still theological obstacles to be overcome in this regard as, according to the official doctrine which in this case was inspired by the Old Testament (in 2 Samuel, 24, irritated by the census of the Jewish people carried out by David, Yahweh sends a plague that decimates the people and destroys the results of the census), God was the only one who knew the exact number of his works and of things. Hence the long sustained hostility to census operations undertaken by the princes and the cities of the time. Inspired by a bourgeois value system, the 13th century collection of Florentine tales, the Novellino, echoed this curse on censuses. At the end of the 13th century, the application of 'scientific' calculation to the measurement of time would bring about the advent of the mechanical clock which immediately gained widespread distribution, in spite of its technical imperfections. The time indicated by the mechanical clock is a constant unit that lends itself to arithmetical calculations. This rationalisation of the measurement of time removed the people of the Middle Ages from the monopoly of the bells which proclaimed God's time and Church time and submitted them to the mechanical and measurable time of the merchants and the emerging State. David Landes was right when he spoke of a 'Revolution in time'.

All of this was evolving towards earthly values as, significantly, ratio means logical reasoning, reason and calculation.

Going beyond calculation, the turn of the 12th and 13th centuries was the time when literacy and knowledge triumphed. Cities provided lay people with basic instruction in reading, writing and counting. In the first issue of the Annales d'Histoire économique et sociale in 1929, the great Belgian historian Henri Pirenne showed the importance of the instruction



given to merchants in the Middle Ages, taking as an example the urban schools created in Ghent at the end of the 12th century. This movement mainly affected regions with a burgeoning middle class such as Flanders and Northern Italy but Pierre Desportes has shown, on the basis of sound figures, that most children in Rheims in the 13th century attended school.

In higher education we see a more technical conception of knowledge gaining ground. As Père Chenu has shown, in the universities of the 13th century theology was moving away from simple biblical exegesis or lectio divina (this also became more technical because of the progress made in producing commentaries). University education was turning away from learning sepientic or wisdom, the basic values of which are in heaven, and towards a knowledge produced by man, studium or scientia. Herbert Grundmann studied the establishment of a system of dominant values, of power on earth, which rested on three pillars: Sacerdotium - Regnum - Studium - (Priesthood - Royalty - Knowledge). And he successfully shows what he rightly calls 'the appreciation of science in the 13th century' (Wertung der Wissenschaft im 13. Jahrhundert).

The progress made in writing is a particular highlight in the advent of the new values and new practices. The word remained an essential value. The gesture or oath of a person endowed with social or moral authority remained superior to any piece of writing. But the power of writing eroded the power of the word. Clanchy successfully showed this in the case of England in the 12th and 13th centuries. With university course notes and manuscripts and commercial book-keeping, writing became desanctified. Previously, writing essentially consisted of the Holy Scriptures, but henceforth writing was to become faster and faster, in the form of cursive script, which could use numerous abbreviations and ligatures, made possible by the substitution of the goose quill for the reed. It was a form of writing that was no longer made for God or for heaven, but for the earth. In the universities the pecia system which was used to make copies of manuscripts supplied a document business run by specialist merchants in bookshops known as stationarii. The statutes of the University of Padua in 1264 state that 'Without copies, there would be no university.'

There is no doubt that this shift culminated in the emergence of the individual, a matter rightly stressed by Aaron Gurevitch. The advent of surnames meant that the risk of getting individuals mixed up was much reduced. The belief in Purgatory led to an improvement in the status of death and the judgement of the individual immediately after death to the detriment of the collective last judgement, which became a sort of decorative final tableau without a decisive function. The birth in the 13th century of a style of reading that was 'silent, individual and in a low voice' enlarged the domain of the individual.

Above all, the end of the 13th century saw the appearance of the portrait, a triumph of the earthly appearances of the individual. As detected, remarkably, by Michel Zink, the use of the first person made its appearance in literature. Literary subjectivity triumphed in the 13th century.

And finally the belief in the imminence of the end of the world declined and the threat of the last judgement was removed to the portals of cathedrals. Earth did not imitate heaven but it was the reverse that became true. Progress in royal justice was transferred to God and the celestial world. And, as Saint Louis himself admitted, life down here is definitely worth living. It was the great conversion of Christian society to the earthly world. The road ahead was clear to gain initial access to modernity'.

In conclusion, I would like to add two remarks to this outline. Reference to a history of values is not a thinly veiled resurgence of notions of Weltanschauung and Zeitgeist ('world view' and 'spirit of the age') which figured in German thought and historiography at the end of the 19th century. There is nothing mysterious about the notion of value, as it is defined within a precise and rational methodology for dealing with history. The only thing it has in common with these illusory and outdated concepts is the aim of totality, but a structured totality.

A study of the shifts in values in the history of the West appears to be dominated by an ideology concerning the direction of history. Although I believe there has been a long 'trend' in this history from the 10th to the 19th century, encapsulated in notions of growth and then progress, taking the form of a gradual conversion to the earthly world, the crisis of progress in the 20th century pointed out by Georges Friedmann as long ago as the 1930s would be sufficient to put paid to the idea of the linear progression of history, even if confined to Western history. The history of values is a road marked by advances and setbacks, diversity and movements. It assumes that despite the weight of the historical structures and the tyrannies of the event, man, both as an individual and as a member of a society, can, with the aid of the values he has defined in a sudden awareness, influence the course of history and his destiny. With the history of values, intellectual history and the history of mentalities may lead to engagement with history and to action.

The longer version of this text contains sections on the shift in attitudes with regard to the human body, the earth and history, on the appearance of lay value systems, e.g. courtesy and probity, on the growing distinction between the profane and the sacred in the imagination and a brief bibliography. I would point out the recent publication of joint studies by Emmanuelle Baumgartner and Laurence Harf-Lancner, Progrès, réaction, décadence dans l'Occident médiéval, Paris, Geneva, Droz-Champion, 2003.

Heineken Lecture Program 2004

The Heineken Lectures were presented on 28 September and 30 September 2004.

Simon Levin

laureate of the Dr A.H. Heineken Prize for Environmental Sciences 2004 Heineken Lecture The Ecology of Complexity, and the Complexity of Ecology Royal Tropical Institute, Amsterdam

Daan van Golden

laureate of the Dr A.H. Heineken Prize for Art 2004 Heineken Lecture Red Or Blue, Some Words Of Artful Wisdom De Ateliers, Amsterdam

Jacques Le Goff

laureate of the Dr A.H. Heineken Prize for History 2004 Symposium The Other Middle Ages De Balie. Amsterdam

Andrew Fire

laureate of the Dr H.P. Heineken Prize for Biochemistry and Biophysics 2004 Heineken Lecture How Cells Respond to Genetic Change Utrecht University, Utrecht

Elizabeth Blackburn

laureate of the Dr A.H. Heineken Prize for Medicine 2004 Heineken Lecture Telomeres and Telomerase in Health and Disease Utrecht University, Utrecht

Audience and publicity for the Heineken Lectures in 2004

The Heineken Lectures are intended for a broad audience. Students, scientists, Academy members, but also laymen who are interested in the field of study or the research associated with one or more of the Heineken Prizes can attend the Heineken Lectures free of charge.

In previous years, the laureates gave their Heineken Lectures during the course of a single Academy session at the Trippenhuis Building in Amsterdam, the headquarters of the Royal Netherlands Academy of Arts and Sciences. Starting in 2002, the Heineken Lectures were given at different locations throughout the Netherlands in order to reach a broader audience. In 2004, the Heineken Lectures were not only delivered at different locations, but also on different dates, drawing more people than ever before. More than seven hundred people attended one or more of the Heineken Lectures.

The large number of attendees is partly the result of a major campaign launched in 2004 to generate more publicity for the Heineken Prizes, and in particular for the Heineken Lectures. The campaign, run by the Royal Netherlands Academy of Arts and Sciences and Heineken International, consisted of leaflets, announcement posters, free tickets, the website Heinekenprizes.org, a special issue of the Academy's quarterly magazine Akademie Nieuws, and a booklet with more information about the Heineken Prizes and the laureates in 2004.

Between April and October of 2004, the Heineken Prizes website of the Royal Netherlands Academy of Arts and Sciences, www.knaw.nl/heinekenprizes, provided updated information on the 2004 Heineken Prizes. The site now offers a detailed review of the event, with information on the background and organization of the prizes, the nomination procedure, and the laureates, as well as press information (including photos and documentation).

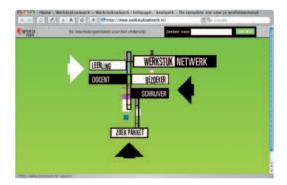
Secondary School Project about the Heineken laureates

In 2004, the Royal Netherlands Academy of Arts and Sciences initiated a secondary school project on the 2004 Heineken Prizes on Kennisnet, the Internet organization for primary, secondary and vocational education in the Netherlands.

The Royal Academy hired a professional teaching organization to develop five kits that help secondary school students write papers on the work and research of the five laureates of the 2004 Heineken Prizes. The kits cover the fields of Biochemistry and Biophysics (RNA-interference), Medicine (telomerase), Environmental Sciences (ecological systems) and History (the way an average person in the Middle Ages looks upon the world around him). The fifth kit is about the life and work of Dutch artist Daan van Golden. The information provided in the kits was written by Dutch university students enrolled in a variety of different programs.

By offering secondary school students kits like these, the Royal Academy is helping to acquaint them with top scientists and top scientific research. The hope is that they will then have a better idea of what they would like to study after graduation. From October to December 2004, almost three thousand students, teachers and other people inspected the Academy's kits.

The five kits can be found on the website www.werkstuknetwerk.nl.



General information

The Heineken Prizes: five prizes for outstanding contributions to the arts and sciences

Every two years the Dr H.P. Heineken Foundation and the Alfred Heineken Fondsen Foundation award four prizes -a cash gift of 150.000 USD and a crystal symbol - to scientists in the disciplines of Biochemistry and Biophysics, Medicine, Environmental Sciences and History for outstanding contributions to their field of study and one prize for the performing arts to a Dutch artist (50.000 EUR).

The selection of the winners for the Heineken Prizes has been entrusted to the Royal Netherlands Academy of Arts and Sciences. The Academy's Arts and Sciences Divisions have appointed special committees to carry out this task. The jury of the Dr A.H. Heineken Prize for Art consists of three members of the Academy complemented by experts in the particular artistic field.

The Academy also organized the 2004 Heineken Lectures. Four laureates were asked to lecture on their work to a broad audience at different locations. Unfortunately Jacques Le Goff was unable to travel to the Netherlands to give his Heineken Lecture, and his health did not permit him to come to Amsterdam for the Awards Ceremony. Instead, the Academy organized a symposium about Le Goff's scholarly work. Mr Le Goff did, however, contribute a text about his recent work as an historian, which appears in this publication.

List of Heineken laureates

Dr H.P. Heineken Prize for Biochemistry and Biophysics

- 1964 Erwin Chargaff
- 1967 Iean L.A. Brachet
- 1970 Britton Chance
- 1973 Christian de Duve
- 1976 Laurens L.M. van Deenen
- 1979 Aaron Klug
- 1982 Charles Weissmann
- 1985 Bela Julesz/Werner E. Reichardt
- 1988 Thomas R. Cech
- 1990 Philip Leder
- 1992 Piet Borst
- 1994 Michael J. Berridge
- 1996 Paul M. Nurse
- 1998 Tony J. Pawson
- 2000 James E. Rothman
- 2002 Roger Y. Tsien
- 2004 Andrew Z. Fire

Dr A.H. Heineken Prize for Art

- 1988 Toon Verhoef
- 1990 Marrie Bot
- 1992 Carel Visser
- 1994 Matthijs Röling
- 1996 Karel Martens
- 1998 Ian van de Pavert
- 2000 Guido Geelen
- 2002 Aernout Mik
- 2004 Daan van Golden

Dr A.H. Heineken Prize for Medicine

- 1989 Paul C. Lauterbur
- 1990 Johannes I. van Rood
- 1992 Salvador Moncada
- 1994 Luc Montagnier
- 1996 David de Wied
- 1998 Barry J. Marshall
- 2000 Eric R. Kandel
- 2002 Dennis J. Selkoe
- 2004 Elizabeth H. Blackburn

Dr A.H. Heineken Prize for History

- 1990 Peter Gay
- 1992 Herman van der Wee
- 1994 Peter R.L. Brown
- 1996 Heiko A. Oberman
- 1998 Mona Ozouf
- 2000 Jan de Vries
- 2002 Heinz Schilling
- 2004 Jacques Le Goff

Dr A.H. Heineken Prize for Environmental Sciences

- 1990 James E. Lovelock
- 1992 Marko Branica
- 1994 BirdLife International (Colin J. Bibby)
- 1996 Herman E. Daly
- 1998 Paul R. Ehrlich
- 2000 Poul Harremoës
- 2002 Lonnie G. Thompson
- 2004 Simon A. Levin

Colophon

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The Heineken Prizes website, www.knaw.nl/heinekenprizes, has more information on the background and organization of the Heineken Prizes, the nomination procedure, the laureates and their research.

The site also provides press information (including photos and documentation).

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