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HAROLD

A . I N N I S

A PLEA FOR TIME

**SESQUICENTENNIAL
LECTURES
1950**

UNIVERSITY OF NEW BRUNSWICK

A Plea for Time

by

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the 150th anniversary of the University*

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I must plead my bias in the title for this paper. Economic historians, and indeed all historians, are compelled to assume a time factor and their assumptions reflect the attitude toward time of the period in which they write. History in the modern sense is about four centuries old but the word has taken on meanings which are apt to check a concern with facts other than those of immediate interest and its content is apt to reflect an interest in immediate facts such as is suggested by the words "all history proves". As a result history tends to repeat itself but in the changing accents of the period in which it is written. Under these circumstances history is threatened on the one hand by its obsession with the present and on the other hand by the charge of antiquarianism. Economic history is in a particularly exposed position as is evident in the tendency to separate it from economics or to regard it as a basis of support for economics.

Perhaps its exposed position may strengthen the urge to discover a solution of the difficulty, particularly as it becomes imperative to attempt to estimate the significance of the attitude towards time in an analysis of economic change. The economic historian must consider the role of time or the attitude toward time in periods which he attempts to study, and he may contribute to an escape from antiquarianism and from present-mindedness. It is impossible for him to avoid the bias of the period in which he writes but he can point to its dangers by attempting to appraise the character of the time concept. It has been pointed out that astronomical time is only one of several concepts. Social time for example has been described as qualitatively differentiated according to the beliefs and customs common to a group and as not continuous but subject to interruptions of actual dates.^[1] It is influenced by language which constrains and fixes prevalent concepts and modes of thought. It has been argued by Garnet that the Chinese are not equipped to note concepts or to present doctrines discursively. The word does not fix a notion with a definite degree of abstraction or generality but evokes an indefinite complex of particular images. It is completely unsuited to formal precision. Neither time nor space are abstractly conceived; time proceeds by cycles and is round; space is square.^[2]

I have attempted to show elsewhere^[3] that in western civilization a stable society is dependent on an appreciation of a proper balance between the concepts of space and time. We are concerned not only with control over vast areas of space but also over vast stretches of time. We must appraise civilization in relation to its territory and in relation to its duration. I have also tried to show that such a state of stability is rarely achieved and that its achievement is dependent on powers of rationalization extremely difficult to sustain. A brief survey of outstanding problems of time will perhaps assist in enabling us to understand more clearly the limitations of our civilization.

The pervasive character of the time concept makes it difficult to appreciate its nature and difficult to suggest its conservative influence. The division of the day into twenty-four hours, of the hour into sixty minutes, and of the minute

into sixty seconds suggests that a sexagesimal system prevailed in which the arrangement was worked out and carries us immediately into Babylonian history.^[4] The influence persists more obviously for example in Great Britain where the monetary system is sexagesimal. The advantages of the system are evident in calculations which permit evasion of the problem of handling fractions and had been exploited effectively by the development of aviation. We are probably carried further into a civilization which was compelled to determine with relative accuracy the seasons of the year. It is probable that this was a religious civilization concerned with the problems of the seasons and of agriculture and registering its concern in the choice of festivals to mark the important dates of the agricultural year—seed time and harvest. Dependence on the moon as a measure of time meant exposure to irregularities and the need for a more reliable measure dependent on the sun. Sumerian priesthoods apparently worked out a system for correcting the year by adjustment of lunar months but it remained for Semitic kings with an interest in the sun to acquire control over the calendar and to make the necessary adjustments over the extended territory under their control. Assuming religious authority the king began the system of reckoning in terms of his own reign much as our present statutes defy *anno domini* and date from the accession of the king in whose reign they are enacted. Control over time by monarchies, with the human limitations of dynastic and military power, was limited by the continuing power of the priesthood and by the effectiveness of an ecclesiastical hierarchy.

In Egyptian civilization a precise knowledge of the year to determine the approximate date of the Nile floods was even more important and it is possible that the absolutism of the dynasties was dependent on the ability of kings to determine the sidereal year in relation to the appearance of the star Sirius. The power of absolute kings over time was reflected in the pyramids which remain as a standing monument to their confidence, in the development of mummification as a tribute to control over eternity, and in the belief in immortality. It is possible also that the absolute monarchy was destroyed by the priesthood which discovered the more reliable solar year. Absolutism passed with control over time into the hands of the priesthood and checked the expansion over space in the Egyptian empire.

In Egypt the power of the monarchy was based on stone used in the making of images and pyramids whereas the power of the priesthood was based on a complex system of writing and the use of papyrus. The power of the priesthood in Babylonia was dependent in part on a mastery of complex cuneiform writing on clay tablets whereas the power of monarchy was dependent on a mastery of sculpture and architecture based on stone and was reflected in images and elaborate capitals. Relative stability was achieved by a compromise between political and religious power over a long period following conquest by the Kassites but in Egypt the power of the priesthood checked possibilities of political development of the monarchy and prevented effective conquest by conquerors such as the Hyksos and later the Assyrians and the Persians. The Assyrians and the Persians were compelled to recognize the power of the Babylonian priesthood and problems of political organization in the Assyrian and the Persian empires became insuperable with the inclusion of Babylonian and Egyptian civilizations in which control over time remained in the hands of the priesthood and in which that control was divided between Babylonia and Egypt.

Monopolies of the knowledge of time under the control of priesthoods in Babylonia and in Egypt limited the success of political organizations in their expansion over space and facilitated the development of marginal organizations such as those of the Jews in Palestine. Periods of expansion and retreat of political organization from Egypt or from Babylonia weakened an emphasis on political organization and strengthened an emphasis on religious organization. The marginal relation to cultures with monopolies of complex systems of writing favoured the development of relatively simple systems of writing such as emerged in the alphabet of the Phoenicians and the Aramaeans. Religious organization emphasized a system of writing in sharp contrast with those of Egypt and Babylonia and in compensation for lack of success in political organization with control over space built up an elaborate ecclesiastical organization with control over time. The latter emphasized the sacred character of writing and drew on the resources of Egyptian and Babylonian civilizations to an extent obvious to students of the Old Testament.

The contributions of the Babylonian priesthood to astrology and astronomy culminated in the introduction of a system of chronology in the era of Nabonassar in 747 B. C. With this system the periodic character of celestial phenomena became evident and led to the domination of fatalism based on scientific knowledge. The apparent certainty of predictions gave Babylonia an enormous influence on religious cults in the Near East.

Contact of barbarians on the north shore of the Mediterranean with older civilizations was followed by the emergence of Greek civilization. An emphasis on problems of space incidental to a concern with conquest of territory was evident in the Homeric poems developed in the oral tradition. Geometry with its bias toward measurement and space imposed restrictions on a concern with time. The spread of a money economy strengthened an interest in numbers

and arithmetic and in turn in mystery religions in conflict with the established Appollonic religion. The flexibility of an oral tradition enabled the Greeks to work out a balance between the demands of concepts of space and time in a city state. In the reforms of Cleisthenes control over time was wrested from religion and placed at the disposal of the state. The results of a balanced society were evident in the defeat of the Persians and the flowering of Greek culture in the fifth century. But such a balance was not long maintained. The spread of writing in the latter part of the century accentuated strains which destroyed Greek civilization.

Following the collapse of Greece and the success of Alexander, the east was divided in the Hellenistic kingdoms. In Alexandria the Ptolemies attempted to offset the influence of the priesthood and of Babylonian science by the encouragement of research in libraries and museums. Aristotelian influence was evident in the concern with science and in developments in astronomy. The names of the planets and constellations remain as testimonials to the interest of antiquity in astronomy. Leap year was introduced in 238 B. C. After the conquest of Egypt by the Romans, Julius Caesar employed an Egyptian astronomer, Sosigenes, to work out an accurate calendar and it is probably suggestive that the new calendar recognized the festivals of Isis and contributed to the spread of Egyptian and other religions in the empire. Exploitation of the irregular measurement of time and the demands of the republic for regularity of time and the power of Julius Caesar in enforcing it led to the adoption of January 1, 46 B. C. or 708 from the date of the foundation of Rome and a year of $365\frac{1}{2}$ days. Alternate odd months were given 31 days and even months 30 days excepting February which had 29 days and 30 days every fourth year. The month following that named for Caesar namely July, was called Augustus and was given the same number of days. A day was taken from February and given to August. September and November were reduced to 30 days and October and December increased to 31 days to avoid three months in succession with 31 days. Control over time exercised by a powerful bureaucracy continued in the empire at Rome and at Constantinople. It recognized a fixed date of reckoning namely that of the foundation of the city and reflected the interest of Rome in the unique character of a single day or hour and the belief that continuity was a sequence of single moments. An emphasis on specific single acts at a unique time contributed to the growth of Roman law notably in contracts. Time is of the essence of the contract.

The break between the east and the west culminating in the crowning of Charlemagne enabled the church to establish a new time base namely the birth of Christ. Significantly Charlemagne was apparently the first secular authority to give the new scheme official recognition. Control of the church was recognized in the reform introduced by Gregory XIII in March 1582 which recognized the inaccuracy of a year based on $365\frac{1}{4}$ days and reckoned the 5th of October as the 15th of October. It was not until 1750 that Great Britain accepted the calendar and under statute ordered the 2nd of September 1752 to be regarded as the 14th of the month, and it was not until the overthrow of the Tsarist regime in Russia that the Julian calendar was abolished in favour of the Gregorian. The Christian system followed Roman religion in giving a fixed year, that of the birth of Christ, a unique and fixed position. Control over time was not only evident in chronology but also in its place in the life of the Middle Ages. Spread of monasticism and the use of bells to mark the periods of the day and the place of religious services introduced regularity in the life of the west. The use of sun dials, limited in the more cloudy skies of the north gave way to water clocks and finally to more effective devices for measuring time with greater precision.^[5] As in Egypt and in Rome control over time was emphasized by architecture notably in the enduring monuments of the Gothic cathedrals.

Regularity of work brought administration, increase in production, trade, and the growth of cities. The spread of mathematics from India to Bagdad and the Moorish universities of Spain implied the gradual substitution of Arabic for Roman numerals and an enormous increase in the efficiency of calculation.^[6] Measurement of time facilitated the use of credit, the rise of exchanges and calculations of the predictable future essential to the spread of insurance. With these developments the church lost control over time to the new nationalist state though its interest in time is evident in its control over feast days. Introduction of paper, and invention of the printing press hastened the decline of Latin and the rise of the vernaculars. The printing press supported the reformation and destroyed the monopoly of the church over time. Science met the demands of navigation, industry, trade and finance by the development of astronomy and refined measurements of time which left little place for myth or religion. The church recognized at an early date the threat of astronomers to the monopoly over time and treated them accordingly.

The struggle between church and state for control over time had centred about the iconoclastic controversy in the Byzantine empire in the east and in a series of measures in the states in the west. In Germany the struggle became acute in the religious wars and in England first in the abolition of the monasteries, and later as the Tudors assumed the mantle of divine right from the papacy and in turn, control over time, in the struggle over monopolies^[7] under Elizabeth and James

I, and in the absolute supremacy of parliament. The control of parliament over time was evident in the statute of limitations, in restrictions on the period for patents and copyright, in the rule against perpetuity in wills, and in abolition of entail. It was not until 1774 that perpetual copyright in common law was destroyed by a decision of the courts following the refusal of Scottish courts to recognize the pretensions of English common law and the London booksellers.

It is beyond the bounds of this paper to enumerate the inventions for the measurement of time or to suggest their implications to the various developments of modern industrialism. I am concerned rather with the change in attitudes toward time which precede the modern obsession with present-mindedness and which suggest the balance between time and space has been seriously disturbed with disastrous consequences to Western civilization. I suggested earlier that the character of the medium of communication tends to create a bias in civilization favourable to an overemphasis on the time concept or on the space concept and that only at rare intervals are the biases offset by the influence of another medium and stability achieved. Dependence on clay in Sumerian civilization was offset by dependence on stone in Babylon and a long period of relative stability followed in the reign of the Kassites. The power of the oral tradition in Greece which checked the bias of a written medium supported a brief period of cultural activity such as has never been equalled. Dependence on the papyrus roll and use of the alphabet in the bureaucracy of the Roman Empire was offset by dependence on parchment codex in the Church and a balance was maintained in the Byzantine Empire until 1453. "Church and army are serving order through the power of discipline and through hierarchical arrangement." (Metternich).^[8] On the other hand in the West the bias of the parchment codex became evident in the absolute dominance of the church and supported a monopoly which invited competition from paper as a new medium. After the introduction of paper and the printing press, religious monopoly was followed by monopolies of vernaculars in modern states. A monopoly of time was followed by a monopoly of space.

A balanced civilization in its concern with the problem of duration or time and of extent or space is faced with several difficulties. Systems of government concerned with problems of duration have been defeated in part by biological considerations in which dynasties fail to provide a continued stream of governing capacity and by technological considerations in which invaders are able to exploit improvements in the technology of warfare at the expense of peoples who have neglected them. Writing as a means of communication provides a system of administration of territory for the conquerors and in religion a system of continuity but in turn tends to develop monopolies of complexity which check an interest in industrial technology and encourages new invaders. "For where there is no fear of god, it must either fall to destruction, or be supported by the reverence shown to a good Prince; which indeed may sustain it for a while, and supply the want of religion in his subjects. But as human life is short, its government must of course sink into decay when its virtue, that upheld and informed it, is extinct." (Machiavelli). A balanced concern with space or extent of territory and duration or time appears to depend on a dual arrangement in which the church is subordinate to the state and ensures that the mobilization of the intellectual resources of the civilization concerned, by religion or by the state, will be at the disposal of both and that they will be used in planning for a calculated future in relation to the government of territory of definite extent. If social stratification is too rigid and social advancement is denied to active individuals as in plutocracies a transpersonal power structure will be threatened with revolt.^[9]

Lack of interest in problems of duration in Western civilization suggests that the bias of paper and printing has persisted in a concern with space. The state has been interested in the enlargement of territories and the imposition of cultural uniformity on its peoples, and losing touch with the problems of time, has been willing to engage in wars to carry out immediate objectives. Printing has emphasized vernaculars and division between states based on language without implying a concern with time. The effects of division have been evident in development of the book, the pamphlet and the newspaper and in the growth of regionalism as new monopolies have been built up. The revolt of the American colonies, division between north and south, and extension westward of the United States have been to an important extent a result of the spread of the printing industry. In the British Empire the growth of autonomy and independence among members of the Commonwealth may be attributed in part to the same development. In Europe division between languages has been accentuated by varying rates of development of the printing industry. Technological change in printing under constitutional protection of freedom of the press in the United States has supported rapid growth of the newspaper industry. Its spread to Anglo-Saxon countries has sharpened the division between English and languages spoken in other areas and in turn contributed to the outbreak of the first world war.^[10] Not only has the press accentuated the importance of the English language in relation to other languages, it has also created divisions between classes within English speaking countries. Emphasis on literacy and compulsory education has invoked concentration on books with general appeal and widened the gap between the artist concerned with improvement of his craft and the writer concerned with the widest market.

Large scale production of newsprint made from wood in the second half of the 19th century supported large scale development of newspaper plants and a demand for effective devices for widening markets for newspapers. The excitement and sensationalism of the South African war in Great Britain and of the Spanish American war in the United States were not unrelated to the demands of large newspapers for markets. Emergence of the comics^[11] coincided with the struggle for circulation between Hearst and Pulitzer in New York. Increased newspaper circulation supported a demand for advertising and for new methods of marketing, notably the department store. The type of news essential to an increase in circulation, to an increase in advertising, and to an increase in the sale of news was necessarily that which catered to excitement. A prevailing interest in orgies and excitement was harnessed to the growth of trade. The necessity for excitement and sensationalism had serious implications for the development of a consistent policy in foreign affairs which became increasingly the source of news. The reports of McGahan, an American newspaper man, on Turkish activities were seized upon by Gladstone and led to the defeat of Disraeli.^[12] The activity of W. T. Stead in the *Pall Mall Gazette* was an important factor in the fiasco of Gordon's expedition to Egypt. While it would be fatal to accept the views of journalists as to their power over events it is perhaps safe to say that Northcliffe played an important role in shifting the interest of Great Britain from Germany to France and in policy leading to the outbreak of war.

Technological advance in the production of newspapers accompanied the development of metropolitan centres. In the period of western expansion "all these interests bring the newspaper; the newspaper starts up politics, and a railroad."^[13] A large number of small centres were gradually dwarfed by the rise of large cities. In turn the opinion of large centres was reflected in their newspapers and in an emphasis on differences. "No," said Mr. Dooley. "They've got to print what's different."^[14] Large centres became sources of news for distribution through press associations and in turn press associations became competitive with an emphasis on types of news which were mutually exclusive. The United Press became competitive with the International News Service (Hearst) and with the Associated Press. The limitations of news as a basis of a steady circulation led to the development of features and in particular the comics and photography. Improvements in the reproduction of photographs coincided with the development of the cinema. News and the cinema complemented each other in the emphasis on instability. As a result of the struggle between various regions or metropolitan centres political stability was difficult to achieve. "It is one of the peculiar weaknesses of our political system that our strongest men cannot be kept very long in Congress."^[15] While Congress was weakened the power of the President was strengthened. Theodore Roosevelt appealed to the mass psychology of the middle class and significantly gave the press a permanent room in the White House.^[16] Oswald Garrison Villard claimed that "Theodore Roosevelt did more to corrupt the press than anyone else."^[17]

The steadying influence of the book as a product of sustained intellectual effort was destroyed by new developments in periodicals and newspapers. As early as 1831 Lamartine would write "Le livre arrive trop tard; le seul livre possible dès aujourd'hui, c'est un journal." The effect of instability on international affairs has been described by Moltke who wrote: "It is no longer the ambition of princes, it is the mood of the people, the discomfort in the face of extreme conditions, the doings of parties, particularly of their leaders, which endanger peace."^[18] The western community was atomized by the pulverizing effects of the application of machine industry to communication. J. G. Bennett is said to have replied to someone charging him with inconsistency in the *New York Herald* "I bring the paper out every day." He was consistent in inconsistency. "Advertisement lives in a one day world."^[19]

Philosophy and religions reflected the general change. "It was the gradually extended use of the printing press that dragged the obscure horrors of political economy into the full light of day: and in the western countries of Europe the new sect became rampant."^[20] Hedonism gained in importance through the work of Bentham. Keynes has described his early belief by stating that he belonged to the first generation to throw hedonism out the window and to escape from the Benthamite tradition. "I do now regard that as the worm which has been gnawing at the insides of modern civilization and is responsible for its present moral decay. We used to regard the Christians as the enemy, because they appeared as the representatives of tradition, convention and hocus-pocus. In truth it was the Benthamite calculus based on an over-calculation of the economic criterion, which was destroying the quality of the popular Ideal."^[21] "This escape from Bentham, joined to the unsurpassable individualism of our philosophy ... served to protect us from the final *reductio ad absurdum* of Benthamism known as Marxism." But Keynes was to conclude "we carried the individualism of our individuals too far" and thus to bear further testimony to the atomization of society. Economists (Physiocrats) "believed in the future progress of society towards a state of happiness through the increase of opulence which would itself depend on the growth of justice and 'liberty' and they insisted on the importance of the increase and diffusion of knowledge."^[22] The monopoly of knowledge which emerged with technological advances in the printing industry and insistence on

freedom of the press checked this development. In religion “the new interest in the future and the progress of the race” unconsciously undermined “the old interest in a life beyond the grave; and it has dissolved the blighting doctrine of the radical corruption of man.”^[23]

The Treaty of Versailles recognized the impact of printing by accepting the principle of the rights of self-determination and destroyed large political organizations such as the Austrian Empire. Communication based on the eye in terms of printing and photography had developed a monopoly which threatened to destroy Western civilization first in war and then in peace. This monopoly emphasized individualism and in turn instability and created illusions in catchwords such as democracy, freedom of the press and freedom of speech.

The disastrous effect of the monopoly of communication based on the eye hastened the development of a competitive type of communication based on the ear. Effectiveness of an appeal to the ear was enhanced by development of the radio and by the linking of sound to the cinema and to television. Printed material gave way in effectiveness to the broadcast and to the loud speaker.^[24] Political leaders were able to appeal directly to constituents and to build up a pressure of public opinion on legislatures. In 1924 Al. Smith appealed directly by radio to the people and secured the passage of legislation threatened by Republican opposition. President F. D. Roosevelt exploited the radio as Theodore Roosevelt had exploited the press. He was concerned to have the opposition of newspapers in order that he might exploit their antagonism. It is scarcely necessary to elaborate on his success with the new medium.

In Europe an appeal to the ear made it possible to destroy the results of the Treaty of Versailles as registered in the political map based on self-determination. The rise of Hitler to power was facilitated by the use of the loud speaker and the radio. By the spoken language he could appeal to minority groups and to minority nations. Germans in Czecho-Slovakia could be reached by radio as could Germans in Austria. Political boundaries in relation to the demands of the printing industry disappeared with the new instrument of communication. The spoken language provided a new base for the exploitation of nationalism and a far more effective device for appealing to larger numbers. Illiteracy was no longer a serious barrier.

The effects of new media of communication evident in the outbreak of the second world war were intensified during the progress of the war. They were used by the armed forces in the immediate prosecution of the war and in propaganda both at home and against the enemy. In Germany the realism^[25] of the war was exploited by taking moving pictures of battles and showing them in theatres almost immediately afterwards. The German people were given an impression of realism such as compelled them to believe in the superiority of German arms and realism became not only most convincing but also with the collapse of the German front most disastrous. In some sense the problem of the German people is the problem of Western civilization. As modern developments in communication have made for greater realism they have made for greater possibilities of delusion. We are under the spell of Whitehead's fallacy of misplaced concreteness. The shell and pea game of the country fair has been magnified and elevated to a universal level.

The printing industry had been characterized by decentralization and regionalism such as had marked the division of the Western world in nationalism and the division and instability incidental to regions within nations. The radio appealed to vast areas, overcame the division between classes in its escape from literacy, and favoured centralization and bureaucracy. A single individual could appeal at one time to vast numbers of people speaking the same languages and indirectly, though with less effect, through interpreters to numbers speaking other languages. Division was drawn along new lines based on language but within language units centralization and coherence became conspicuous. Stability within language units became more evident and instability between language units more dangerous.

The influence of mechanization on the printing industry had been evident in the increasing importance of the ephemeral. Superficiality became essential to meet the various demands of larger numbers of people and was developed as an art by these compelled to meet the demands. The radio accentuated the importance of the ephemeral and of the superficial. In the cinema and the broadcast it became necessary to search for entertainment and amusement. The demands of the new media were imposed on the older media, the newspaper and the book. With these powerful developments time was destroyed and it became increasingly difficult to achieve continuity or to ask for a consideration of the future. An old maxim “sixty diamond minutes set in a golden hour” illustrates the impact of commercialism on time. We would do well to remember the words of George Gissing “Time is money—says the vulgarest saw known to any age or people. Turn it round about, and you get a precious truth—money is time.”^[26]

May I digress at this point on the effects of these trends on universities. William James held that the leadership of

American thought was “passing away from the universities to the ten-cent magazines.”^[27] Today he might have argued that it had passed to the radio and television. But it is still necessary to say with Godkin in the last century “There is probably no way in which we could strike so deadly a blow at the happiness and progress of the United States as by sweeping away, by some process of proscription kept up during a few generations, the graduates of the principal colleges. In no other way could we make so great a drain on the reserved force of character, ambition, and mental culture which constitutes so large a portion of the national vitality.”^[28] By culture he meant “the art of doing easily what you don't like to do. It is the breaking-in of the powers to the service of the will.”^[29]

If we venture to use this definition we are aware immediately of the trends in universities to add courses because people like to do them or because they will be useful to people after they graduate and will enable them to earn more money. In turn courses are given because members of the staff of the universities like to give them, an additional course means a larger department and a larger budget and moreover, enables one to keep up with the subject. These tendencies reflect a concern with information. They are supported by the text book industry and other industries which might be described as information industries. Information is provided in vast quantities in libraries, encyclopedias and books. It is disseminated in universities by the new media of communication including moving pictures, loud speakers, with radio and television in the offing. Staff and students are tested in their ability to disseminate and to receive information. Ingenious devices, questionnaires, intelligence tests are used to tell the student where he belongs and the student thus selected proceeds to apply similar devices to members of the staff. A vast army of research staff and students is concerned with simplifying language and making it easier for others to learn the English language and for more people to read and write what will be written in a simpler language. I have attempted to use the word information consistently though I am aware that the proper word is education. George Gissing has referred to “the host of the half educated, characteristic and peril of our time. Education is a thing of which only the few are capable ... only a small percentage profit by your most zealous energy.”^[30] “To trumpet the triumphs of human knowledge seems to me worse than childishness; now, as of old, we know but one thing—that we know nothing.”^[31]

The relative adaptability of various subjects to mechanical transmission has threatened to destroy the unity of the university. “The University, as distinct from the technological school, has no proper function other than to teach that the flower of vital energy is Thought, and that not Instinct but Intellect is the highest form of a supernatural Will.”^[32] It tends to become a congeries of hardened avid departments obsessed with an interest in funds in which the department which can best prove its superficiality or its usefulness is most successful. Governments have been insensitive to the crucial significance of a balanced unity in universities and have responded to the pleas of specific subjects with the result that an interest in unity has been distorted into that strange inartistic agglomeration of struggling departments called the modern university. The University of Oxford has recognized the threat and has set up a committee on the effects of university grants on balance in university subjects. It will probably be argued that social scientists have lost out in this race for government grants or that they should suffer for views as to the dangers of direct government intervention in the social sciences to the political health of the community. But I am afraid that like other subjects if the federal government should provide grants the social scientist would be on hand with the most beautifully developed projects for research that federal money could buy.

Under these circumstances we can begin to appreciate the remarks of an Oxford don who said after solving a very difficult problem in mathematics “Thank God no one can use that.” There must be few university subjects which can claim immunity or few universities which will refrain from pleading that its courses are useful for some reason or other. The blight of lying and subterfuge in the interests of budgets has fallen over universities, and pleas are made on the grounds that the universities are valuable because they keep the country safe from socialism, they help the farmers and industry, they help in measures of defence. Now of course they do no such thing and when such subjects are mentioned you and I are perfectly able to detect the odour of dead fish. Culture is not concerned with these questions. It is designed to train individuals to decide how much information he needs and how little he needs, to give him a sense of balance and proportion, and to protect him from the fanatic who tells him that Canada will be lost to the Russians unless he knows more geography or more history or more economics or more science. Culture is concerned with the capacity of individuals to appraise problems in terms of space and time and to enable him to take the proper steps at the right time. It is at this point that the tragedy of modern culture has arisen as inventions in commercialism have destroyed a sense of time. “Our spiritual life is disorganized, for the over-organization of our external development leads to the organization of our absence of thought.”^[33]

The limitations of Western culture can perhaps be illustrated by reference to the subject with which I pretend some

acquaintance, namely the social sciences. Enormous compilations of statistics confront the social scientist. He is compelled to interpret them or to discover patterns or trends which will enable him to predict the future. With the use of elaborate calculating machines and the development of refinements in mathematical technique he can develop formulae to be used by industry and business and by governments in the formulation of policy. But elaboration assumes prediction for short periods of time. The difficulty of handling the concept of time in economic theory and of developing a reconciliation between the static and dynamic approaches is a reflection of the neglect of the time factor in Western civilization. It is significant that Keynes should have said that in the long run we are all dead and that we have little other interest than that of living for the immediate future. Planning is a word to be used for short periods—for long periods it is suspect and with it the planner. The dilemma has been aptly described by Polany: “laissez-faire was planned, planning is not.” The results have been evident in the demand for wholesale government activity during periods of intense difficulty. The luxury of the business cycle has been replaced by concerted measures directed toward the welfare state and full employment. Limited experience with the problem has involved expenditures on a large scale on armaments.

The trend towards centralization which has accompanied the development of a new medium of communication in the radio has compelled planning to a limited extent in other directions. Conservation of natural resources, government ownership of railways and hydro-electric power for example in Canada and in T. V. A. in the United States, and flood control are illustrations of a growing concern with the problems of time but in the main are the result of acute emergencies of the present. Concern with the position of Western civilization in the year 2000 is unthinkable. An interest in 1984 is only that of the satirist or the utopian and is not applicable to North America. Attempts have been made to estimate population at late dates or the reserves of power or mineral resources but always with an emphasis on the resources of science and with reservations determined by income tax procedure, financial policy or with other expedients. Obsession with present-mindedness precludes speculation in terms of duration and time. Morley has written of the danger of a “growing tendency to substitute the narrowest political point of view for all the other ways of regarding the course of human affairs and to raise the limitations which practical exigencies may happen to set to the application of general principles, into the very place of the principles themselves. Nor is the process of deteriorating conviction confined to the gusty or noisier transactions of nations.... That process is due to causes which affect the mental temper as a whole, and pour round us an atmosphere that enervates our judgment from end to end, not more in politics than in morality, and not more in morality than in philosophy, in art, and in religion.”^[34]

Concern of the state with the weakening and destruction of monopolies over time has been supported by appeals to science whether in an emphasis on equilibrium suggested by the interest of the United States in a balanced constitution following Newtonian mathematics or in an emphasis on growth, competition and survival of the fittest of Darwin. Attempts to escape from the eye of the state have been met by succession duties, corporation laws and anti-combine legislation. The demands of technology for continuity have been met by rapid expansion of the principle of limited liability and devices such as long term leases guaranteeing duration but these have provided a base for active state intervention in income taxes. Little is known of the extent to which large corporations have blocked out the utilization of future resources other than in matters of general policy. A grasping price policy sacrifices indefinite possibilities of growth. A monopolist seeks an expanding business at a reasonable profit rather than the utmost immediate profit.^[35] Organization of markets and exchanges facilitates the determination of predictions and the working out of calculations which in turn have their effect on immediate production as an attempt to provide continuity and stability, but its limitations progressively increased as evident in business cycles and their destruction of time rigidities. The monopoly of equilibrium was ultimately destroyed in the great depression and gave way to the beginnings of the monopoly of a centralized state. The disappearance of time monopolies facilitated the rapid extension of control by the state and the development of new religions evident in fascism, communism and our way of life.

The general restiveness inherent in an obsession with time has led to various attempts to restore concepts of community such as have appeared in earlier civilizations. The middle ages have appeared attractive to economic historians, guild socialists and philosophers, particularly those interested in St. Thomas Aquinas. “The cultivation of form for its own sake is equally typical of Romanticism and classicism when they are mutually exclusive, the romantic cultivating form in detachment from actuality, the classicist in subservience to tradition.” (Fausset).^[36] It is possible that we have become paralyzed to the extent that an interest in duration is impossible or that only under the pressure of extreme urgency can we be induced to recognize the problem. Reluctance to appraise the Byzantine empire may in part be a result of paralysis reinforced by a distaste for any discussion of possible precursors of Russian government. But the concern of the Byzantine empire in the Greek tradition was with form, with space and time. The sense of community built up by the Greeks assumed a concern with time in continuity and not in “a series of independent instantaneous flashes”

(Keynes) such as appealed to the Romans and western Christianity. “Immediacy of presentiment was an inevitable enemy to construction. The elementary, passionate elements of the soul gave birth to utterances that would tend to be disconnected and uneven as in the rhythm of emotion itself.”^[37] There was a “parallel emergence, in all the arts, of a movement away from a need which whether in ascendant or not, was always felt and honoured, the craving for some sort of continuity in form.”^[38] The effort to achieve continuity in form implies independence from the pressure of schools and fashions and modes of expression. In the words of Cazamian the indefinite duration of productive vitality in art and letters requires that the individual writer or reader be reinstated in the full employment of rights.^[39]

Wyndham Lewis has argued that the fashionable mind is the time denying mind.^[40] The results of developments in communication are reflected in the time philosophy of Bergson, Einstein, Whitehead, Alexander and Russell. In Bergson we have glorification of the life of the moment, with no reference beyond itself and no absolute or universal value.^[41] This contemporary attitude leads to the discouragement of all exercise of the will or the belief in individual power. The sense of power and the instinct for freedom have proved too costly and been replaced by a dummy sham independence of democracy.^[42] The political realization of democracy invariably encourages the hypnotist.^[43] The behaviourist and the psychological tester have their way. In the words of one of them “Great will be our good fortune if the lesson in human engineering which the war has taught us is carried over, directly and effectively, into our civil institutions and activities.” (C. S. Yoakum).^[44] Such tactlessness and offence to our good sense is becoming a professional hazard to psychologists. The essence of living in the moment and for the moment is to banish all individual continuity.^[45] What Spengler has called the Faustian West is a result of living mentally and historically and is in contrast with other important civilizations which are “ahistoric”. The enmity to Greek antiquity arises from the fact that its mind was ahistorical and without perspective.^[46] In art classical man was in love with plastic whereas Faustian man is in love with music.^[47] Sculpture has been sacrificed to music.^[48]

The separation and separate treatment of the senses of sight and touch have produced both subjective disunity and external disunity.^[49] We must somehow escape on the one hand from our obsession with the moment and on the other hand from our obsession with history. In freeing ourselves from time and attempting a balance between the demands of time and space we can develop conditions favourable to an interest in cultural activity.

It is sufficient for the purpose of this paper if attention can be drawn on the occasion of the 150th anniversary of a university on this continent to the role of the university in Western civilization. The university is probably older than Hellenistic civilization and has reflected the characteristics of the civilization in which it flourished, but in its association with religion and political organization it has been concerned with problems of time as well as of space. I can best close this paper by an appeal to Holy Writ. “Without vision the people perish.”

FOOTNOTES:

[1] P. A. Sorokin and R. K. Merton, “Social time: a methodological and functional analysis,” **American Journal of Sociology** (1936-7) Vol. 42.

[2] R. K. Merton, “The Sociology of Knowledge,” **Twentieth Century Sociology**, ed. G. Gurvitch and W. E. Moore. (New York, 1945) 387-8.

[3] **Empire and Communications** (Oxford 1950); also “The Bias of Communication,” **The Canadian Journal of Economics and Political Science**, (November, 1949).

[4] See J. T. Shotwell, “The Discovery of Time,” **The Journal of Philosophy, Psychology, and Scientific Methods** (1915), 198-206, 254-316. It is argued that mathematics made the use of time possible.

[5] A. P. Usher, **A History of Mechanical Invention** (New York, 1929); also Lewis Mumford, **Technics and Civilization** (New York, 1934).

- [6] L. T. Hogben, **From Cave Painting to Comic Strip** (London, 1949) pp. 103ff.; see also Etienne Hajnal, "Le rôle social de l'écriture et l'évolution européenne," **Revue de L'Institut de Sociologie**, (1934).
- [7] C. H. McIlwain, **Constitutionalism, Ancient and Modern** (Ithaca, 1940) p. 124.
- [8] Cited Alfred Vagts, **A History of Militarism** (New York, 1937) p. 16.
- [9] N. S. Timasheff, **An Introduction to the Sociology of Law** (Cambridge, 1939) p. 207.
- [10] H. A. Innis, **The Press—A Neglected Factor in Economic History in the Twentieth Century** (London, 1949).
- [11] Coulton Waugh, **The Comics** (New York, 1947).
- [12] Archibald Forbes, **Souvenirs of Some Continents** (London, 1894).
- [13] Mathew Josephson, **The Robber Barons, the Great American Capitalists, 1867-1901** (New York, 1934), p. 27.
- [14] Cited L. M. Salmon, **The Newspaper and the Historian** (New York, 1923) p. 29.
- [15] Brand Whitlock, **Forty Years of It** (New York, 1925) p. 157.
- [16] Matthew Josephson, **The President Makers, 1896-1919**. (New York, 1940) p. 145.
- [17] Oswald Garrison Villard, **Fighting Years, Memoirs of a Liberal Editor** (New York, 1939) p. 151.
- [18] Alfred Vagts, **A History of Militarism**, p. 173.
- [19] **Ibid.**
- [20] Wyndham Lewis, **Time and Western Man** (London, 1927) p. 28.
- [20] John Maynard Keynes, **Two Memoirs** (London, 1949) pp. 96-7.
- [22] J. B. Bury, **The Idea of Progress, an Inquiry into its Origin and Growth** (London, 1920) p. 175.
- [23] J. B. Bury, **A History of Freedom of Thought** (London, 1928) p. 227.
- [24] William Albright, **Public Opinion** (New York, 1939) p. 220.
- [25] S. Kracauer, **From Caligari to Hitler** (Princeton, 1947) pp. 297-8.
- [26] George Gissing, **The Private Papers of Henry Ryecroft** (London, 1914) p. 287.
- [27] **The Changing Years, Reminiscences of Norman Hapgood** (New York, 1930).
- [28] E. L. Godkin, **Reflections and Comments, 1865-1895** (New York, 1895), p. 157.
- [29] **Ibid.**, p. 202.
- [30] George Gissing, **op. cit.**, p. 70.
- [31] **Ibid.**, p. 178.
- [32] Henry Adams, **The Degradation of the Democratic Dogma** (New York, 1919) p. 206.
- [33] Albert Schweitzer, **The Decay and the Restoration of Civilization** (London, 1932) p.

[34] John Viscount Morley, **On Compromise** (London, 1921) p. 6.

[35] J. M. Clark, **Alternative to Serfdom** (New York, 1948) p. 65.

[36] E. E. Kellett, **Fashion in Literature** (London, 1931) p. 282.

[37] Louis Cazamian, **Criticism in the Making** (New York, 1929) p. 72.

[38] **Ibid.**, p. 64.

[39] The novelists Smollett, Fielding, Sterne and Richardson and the cockney artist Hogarth all had an intimate connection with early journalism, sharing its time sense as a series of discrete movements each without self-possession as well as its notion of the concrete as residing in the particular entity or event sensorily observed.

[40] Milton Klonsky, "Along the Midway of Mass Culture," **Partisan Review**, (April, 1949) p. 35.

[41] **Time and the Western Man** (London, 1927) p. 24.

[42] **Ibid.**, p. 27.

[43] **Ibid.**, p. 316.

[44] **Ibid.**, p. 42.

[45] **Cited ibid.**, p. 342.

[46] **Ibid.**, p. 29.

[47] **Ibid.**, p. 285.

[48] **Ibid.**, p. 299.

[49] **Ibid.**, p. 419.

[End of *A Plea for Time* by Harold A. Innis]