#### INTRODUCTION.

# CIRCULAR TIME, RECTILINEAR TIME

Writing history, in the humblest sense of the word, is above all a process of dating events, inscribing them in a chronology. Yet this framework, empty and elementary though it may appear, possesses nonetheless properties of its own, somewhat as real extension, the domain of orientation and weight, differs from pure geometrical space. Concrete time, too, has certain qualities, qualities which are not necessarily everywhere the same, and which take their configuration from the conception of the world particular to each civilization. These local cosmologies remain implicit for the most part, even though they frequently give rise to doctrines which can be highly complex. Philosophers and theologians have framed such constructions, basing them to a certain extent on the body of astronomical knowledge which they found at their disposal. But these scholarly interpretations do not limit themselves to a mere translation of the factual data that an observation of the stars could provide. The astronomical data serve as simple points of orientation for the elaboration of

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vast graphs, on whose empty expanses the vicissitudes of history would trace their paths. These constructions are like niches erected in advance, awaiting the events to come, an immutable order of vintages to which the individual is so thoroughly accustomed that he finds it impossible even to conceive of a different disposition.

The events of the future, like those of the past, inexorably take their places in a systematic progression which fixes their dates in advance. It is at this point that Eastern and Western conceptions diverge. In the West, the succession of occurrences is conceived of as rectilinear. Events are ranged on either side of the privileged one among them which serves as the unique guiding point for the counting of years, those which preceded it as well as those which follow. In this way, the chronology is established by reference to the founding of Rome, the birth of Jesus Christ or the flight of Mohammed from Mecca to Medina. Events can likewise be situated in relation to an important ceremony which is repeated at fixed intervals: the celebration of the Olympic Games, for example. But in either case, the order adopted is linear and extends in both directions if not to infinity, at least from the creation of the world to its termination.

The Eastern conception of time is, on the contrary, circular. It can be regarded as a transposition of the recurrence of the seasons to the scale of the duration of the world. In this framework, the existence of the world appears as a chain of identical cycles composed of homologous years which succeed one another in an unchanging and endlessly reenacted series, just as summer inevitably follows spring and autumn precedes winter. It follows that events are affected by the position which they occupy in the cycle, in the same way as the lives of plants and animals are determined by the succession of months and seasons. All beasts are not born nor do they all mate in the same month. All flowers do not bloom, not all fruits ripen at the same time. The critical hour is in each case the determining factor, and is contingent upon the calendar.

History is then but a vaster calendar.

The Chinese cycle, or at least its popular version, brings into play two series of years: one corresponding to the Five

Elements (wood, fire, earth, water, metal), the other to the Twelve Animals (rat, ox, tiger, hare, dragon, serpent, etc.). The system operates in such a way that every sixty years the cycle is reinaugurated as it was before: at this moment the two series arrive simultaneously at their original points of departure, and the new year, dependent upon the same two eponymous signs, undergoes the same influences as its counterpart which, sixty years ago, benefited or suffered from the conjunction of the same Element of Animal. This astrologically inspired conception of time tends to entail an eternal, although not absolutely identical, recurrence of the same events. In the same way, each springtime does not witness the same events repeated in their smallest details; yet, in the last analysis, this season is undeniably the epoch of sowing and not of reaping, the period in which buds open and not that in which leaves fall. Each of the sixty years of the cycle governs in the same way the essential of that which should come to pass, in particular the character, the destiny, the marriage of the children born within its compass. Still, for the moment it is merely a question of astrological repercussions which affect above all individuals.

Such a conception is not unknown in Western philosophy. Western thought has even, on occasion, rendered it more rigid and applied it to history in its totality. Thus Plato, in the Timaeus (39, d), delineates a Great Year which recommences every time that the unequal revolution of the eight planets return them to their original positions relative to each other. The duration of this Great Year is obviously determined by the smallest common multiple of the numbers of ordinary years which measure the respective revolutions of the eight luminaries. This number is considerable: according to Tacitus (Dialogus de oratoribus, 16), Cicero, in his lost treatise, Hortensius, evaluates it at 12,954 years. It is to such a periodical repetition of the events of history that the Jam redit et Virgo... of Virgil's Fourth Eclogue alludes. Numerous presocratics, the Pythagoreans, the Stoics and even Aristotle 1 similarly conceived of time as circular and recurrent.

<sup>&</sup>lt;sup>1</sup> Cf. P. Duhem, Le système du monde, I (Paris 1913), pp. 65-85, 159-169, 275-296.

Curiously enough, the rationalistic and systematic spirit of Greek thought radicalized this conception. According to certain Greek thinkers, and not the least worthy, the world not only recommences at regular intervals but repeats its previous existence in its minutest details as well. Chrysippus, cited by Aulus Gellius (Noctes Atticae, IV, II), thus defends a total and periodical determinism. Plutarch, who elsewhere combats this doctrine, reviews its astrological support and exposes with precision its ultimate consequences (De fato, I):

Let us take an example which concerns us. That I am writing you these lines at this moment, or that you are doing what you happen to be doing now, let us admit that this is determined by the celestial bodies, viewed at the causes of all things; now the same cause will recur, identical to that which it was and operating in the same fashion, in such a way that we too will become the same again and that we will perform once more the same actions. It will be the same for all men; the return of the same causes will determine anew the production of the same things and the carrying out of the same works. The whole of the Universe will thus be reproduced at the end of each of these total periods. Evidently, as we have said, Destiny, although infinite in a certain manner, is not infinite [in reality], and it is, so to speak, circular.

It is apparent that these positions involve a theoretical hypothesis, almost a paradox, which the learned dispute with subtlety on an exclusively intellectual plane, that is without practical implication. With the advent of Christianity the polemic becomes more impassioned. Perhaps Saint Augustine would admit willingly that pagan events are subject to infinite repetition. Thus he envisages the periodical reappearance of the city of Athens and of the philosopher Plato dispensing, in each new cycle, in the same Academy, the same instruction in the same sentences to the same disciples (*De civitate Dei*, XII, XIII). But he rebels at the idea of finding himself, in consequence, obliged to imagine

<sup>&</sup>lt;sup>2</sup> In a recent article, P. Vidal-Naquet emphasizes that Greek inscriptions, historians, politicians and orators and even poets and tragedians recognize only rectilinear time. "Temps des dieux et Temps des hommes. Essai sur quelques aspects de l'expérience temporelle chez les Grecs," Revue de l'Histoire des Religions, CLVII, 1960, pp. 55-80.

a past and a future punctuated by innumerable and identical births and torments of Christ.

Origen also balks at the idea that an irresistible mechanism constrains history to a pattern of eternal recommencement. He evokes Adam and Eve in the garden of Eden reenacting their disobedience with inflexible regularity, and the thousands and thousands of deluges, crossings of the Red Sea and betrayals of Judas which have taken place and will be reproduced endlessly. He demonstrates with ease that such a theory is incompatible with the concept of free will and, consequently, with Christianity. For even if each actor had been free in the first world, he could not remain so in a second which must duplicate the first.<sup>3</sup>

The opposition advanced by nascent Christianity could only have fortified itself with time had this been necessary. But the doctrine of cyclical time reappears only as a sort of curiosity. Only rarely, in the course of the Middle Ages and the Renaissance, does the tradition of a Great Year or an Eternal Recurrence crop up. And these occasional formulations are confined to erudite works or scholastic controversies carried on in tightly circumscribed circles of theologians or of philosophers enamoured of the ideas of Antiquity.

I will cite for the purpose of recollection one of the last incarnations of the doctrine: it is still to be found at the beginning of the 17th century, in the 60 dialogues of Giulio Cesare Vanini, published in Paris in 1616 as De admirandis naturae reginae deaeque mortalium arcanis, and dedicated to the maréchal de Bassompierre. In its new formulation, the thesis is entirely divorced from the cosmological, if not astrological, context which had previously provided its justification. Practically, its content remains unchanged. But it is presented in a singularly abstract form, an exclusively arithmetical conception in which the influences of the planets no longer play a part. In the dialogue LII (De oraculis) the author explains that, since the world

<sup>&</sup>lt;sup>3</sup> Origen, *Peri Archon*, II, III, 4, 5. Cited in P. Duhem, *Le système du monde*, v. II (Paris, 1914), p. 449. Cf. *ibid.*, pp. 452-453. One can always reply to the theologian of Alexandria that then the second world would no longer be identical to the first since the actors are free in one case and determined in the other. But this only proves that they were necessarily already determined in the first.

is eternal, all that exists within it is necessarily regenerated: all things which exist now have existed hundreds of millions of times and will be reproduced as many times as they have been destroyed. In short, nothing is produced nor will be produced which has not been and nothing will come to pass which has not already occurred. In effect, Vanini argues, if the causes of events are infinite, chance could easily regroup them into a pattern which they have already taken. On te other hand, if they are finite, it is inevitable that the events which have occurred should come to light again in exactly the same form as before.

But in 1619, at the age of thirty-four, Vanini was ceremoniously burned alive. The solemn execution was not, of course, the consequence of this heresy alone. But the fact remains that the theory of the Eternal Recurrence shocked the Christian conscience still more than it did that of antiquity. This doctrine had always been, if not marginal and aberrant, at least learned and discussed solely among relatively professional dialecticians. Henceforth it found itself further condemned by its formal contradiction with the established religion, a religion which treated heretics with severity.

To complete this survey, I will point out that although, at a later date, Friedrich Nietzsche laid great emphasis on the Eternal Recurrence, it is not in the slightest an a priori framework of historical perception that he invokes. On the contrary, it represents a supreme test of an exclusively ethical character: the Superman of whom he dreams must be able to meet and to vanquish this trial in order to prove his immovable resolution. It is demanded of him that he be able to sustain his will to act, knowing that his action is attenuated in advance by the eternal and vain repetition, throughout the infinite series of centuries, to which it is subject.

Moral touchstone or existless labyrinth of metaphysical spe-

<sup>4 &</sup>quot;Eade causa qui nunc sunt in usu ritus, centies millies fuerunt, totiesque renascentur quoties occiderunt, nihilque est quod similis non fuerit et cui simile non erit aliquando: denique nihil est, aut erit, quod non fuit, nihil fuit quod non erit."

<sup>&</sup>lt;sup>5</sup> "Ita enim necessarium est earum discursu et circumvolutione saepe eadem evenire et emergere in lucem quae evenerant." Vanini, op. cit., (Paris, 1616), ch. LII, p. 388.

culation constructed around the fact that the number of possible combinations of a finite number of atoms is itself finite, the concept of cyclical time figures in Western thought only in a purely doctrinal form which leaves the general sensibility completely untouched. In none of its formulations does it encroach upon the solidly anchored, unquestioned conception of a linear, irreversable flow of historical time, where the possibility of bathing twice in the same river is excluded<sup>6</sup> and events are never repeated identically, since, in any case, the memory and the effects of the first occurrence cannot enrich or alter the second.

The speculations of the Etruscans can but barely be advanced as an example of a Western conception of cyclical time commonly accepted and of institutional scope. According to a text, and moreover a late text, of Suidas, the Etruscans assigned to the universe a total duration of twelve millennia, each corresponding to a specific sign of the Zodiac. The existence of each city, each people, each empire, like that of each individual, is strictly delimited and circumscribed within the boundaries of a birth and a death. This existence extends over a predetermined number of centuries. The Gods accorded ten to the Etruscan nation and twelve to Rome. The length of a century is measured by that of the longest human life within the generation in question. The Gods announce the death of the last survivor of the generation and the end of the century by prodigies, apparitions of comets or fanfares of celestial trumpets.

Even if it falls short of a strictly circular conception of chronology, this enclosed and catastrophic vision of history, and it alone, deviates from the Western tradition to such a degree that it presents an exception which cannot be passed over in silence. In fact, modern historians have accounted for it by postulating Asiatic influences and have even invoked it as substantiation for the theory that the Etruscans were themselves of

<sup>&</sup>lt;sup>6</sup> It is significant that this was the formula retained from the instruction of Heraclitus and not that which ordains that the bather finds himself in the same river, in the same place, at the same moment every 18,000 years, the figure which was, for Heraclitus, the measure of the Great Year. The context of time considered as circular prohibits only that one bathe twice in the same river within the same cycle. Thus Plotinus: "All is alike between two periods; nothing is alike within the same period." *Enn.* V, vii, 2.

Eastern origin.<sup>7</sup> Censorinus (*De die natali*, 18, 6, 7) informs us that the Chaldaean Great Year, the *dodecaeteris*, also comprised twelve millennia, and Berose that, at the end of this term, the world is annihilated (and renovated) alternately by a deluge at the solstice of the Great Winter, when the seven planets are ranged in the sign of Cancer, then by a cosmic fire when the encounter takes place in the sign of Capricorn in the summer solstice of the Great Year.

The Orphic Great Year, at the end of which the world returns to its point of departure in like fashion, contains one hundred and twenty of these millennia. A Pahlevi text of the Sassanid epoch, translated by H. S. Nyberg, assigns to the world a duration of 12,000 years from its creation to its termination, when the Evil Spirit will be reduced to impotence and "limited time will dissolve into the limitless."

Taking into account these points of correspondence and the fact that, unlike those of pagan antiquity, the Etruscan is a revealed religion, it is reasonable to identify these Tuscan doctrines as a lost island of the Eastern conception of time, floating in a milieu where reigned a totally different conception, an aberration soon adulterated, then obliterated by the norm.

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That the flow of time be considered linear or circular is not without significance. A cyclical conception of history, and more particularly a scheme in which events are held to be a function of the reiterated positioning of the stars, tends to exclude the very notion of progress, since all that comes to pass is repeated indefinitely at fixed intervals. In such a framework it is conjuncture, the moment in which each event occurs, that counts. This instant largely determines the occurrence, at least in all aspects that transcend the fortuitous: its fortune, its scope, its character, auspicious or inauspicious, its sterility or fertility. The Greeks called this cosmic timeliness kairos, but they reserved this ap-

<sup>&</sup>lt;sup>7</sup> A. Piganiol, "Les Etrusques, peuple d'Orient," in Cahiers d'histoire mondiale, I, II, oct. 1953, p. 345.

<sup>8</sup> Journal asiatique, v. CCXIV, 1929, p. 214.

pellation for privileged occasions when destiny seemed to intervene.

In the East it is all of history, and even the *ordo rerum* as a whole, not isolated points of time which appear to have been viewed in this way. The chronology is systematized in such a way that it is viewed not as an undefined (determined or contingent) and unforeseeable succession, but as a delimited totality which is repeated at regular intervals. The Eastern cycle follows an immutable order in which *moments* with fixed properties succeed one another. In this it resembles the seasons and months of the year, with their predictable course of temperatures, humidities, storms and sunshine, not to mention the effects on the lives of plants and animals which are their impertubable concommitant.

A system of correspondences links, in addition, the various aspects of the whole: cardinal points, colors, virtues, notes of the scale, duties, even rewards and punishments. Personalities themselves recur. Heroes, tyrants, beneficent or sinister monarchs reappear as, in the poem, the Thirteenth which is still the First and always the Only. Marcel Granet, who lays emphasis upon the cyclical system of the most ancient Chinese chronicles, notes that all the good sovereigns perform analagous actions and all the bad carry out certain others, diametrically different in character and no less anticipated. The virtuous Emperors construct canals, thus accommodating the nature of water, which is to flow, while the corrupt Emperors construct dams, which thwart the nature of water and are therefore destined to fatal demolition. In the same way, the good monarchs order their orchestras to play propitious or beneficent tunes while the bad ones command baneful airs.

This systematic conception of duration is combined with an annalistical approach, that is a recording of history in the form of a year by year accumulation of characteristic annecdotes. Surprisingly enough, the *Annals* of Ssu-ma Ch'ien bear less resemblance to the works of Herodotus or Thucydides than to those of Tacitus, precisely because of the importance which the Roman accords to the annecdote as the particular which reveals the nature of a reign. In the latter case, it is true, the detail is selected above all for its moral significance. But the disparity is

perhaps less considerable than it may appear. In effect, the Chinese annalists were charged not only to register events, but to assess them as well, by confronting them with authoritative models derived from the past. The mere recording of occurrences thus invests history with an almost metaphysical character of judgement. The prima novo principatu mors at the beginning of the 13th book of Tacitus' Annales has no less augural value than a sinister prodigy mentioned, for example, with regard to the advent of T'sin Che Hoang-ti. The alarming meteor or the dreaded flock of cranes have, for their part, a moral significance equal to that of the Neronian assassination, an affair in which, moreover, Nero played no part, but which nonetheless inaugurated his reign. In both instances the culpability of the sovereigns and the difficult times to come are signaled with the same clarity. Later, with the triumph of Confucian moralism, the judgement of history will appear as the supreme moral sanction. It then becomes the instrument of a veritable spiritual power, entailing the gravest responsibilities. The disapprobation of a Sovereign's act has weight only if it is followed by the suicide of the Annalist. But, this condition fulfilled, it is dreaded by the most authoritarian of monarchs.

The problem presents itself differently in India, where reigned a more strictly cosmic vision of the world. Nothing is of importance except the deliverance of the soul, the return to the absolute. All that takes place in the chronology is mere variation of surface appearances, according to the expression of Parmenides. Historical events occur only to vanish immediately after, vain effervescences of illusory phenomena, diluted and lost in outscaled cycles. This is true to such an extent that the chronology of Indian history has had to be reconstructed on the basis of indications furnished by the accounts of outsiders.

The life of Brahma extends over a period of one hundred Brahmic years, or 311 billions of human years. Each day of the Brahmic year is a *kalpa*, a period which represents the duration of a world from its creation to its dissolution. Each *kalpa* contains, in turn, a thousand "great ages," each of 12,000 divine years, later 4,320,000 human years. Each "great age" is composed of four principal periods whose symbolic figures correspond to the possible throws of the dice: the age of gold, when justice,

happiness and fertility reign; the age of silver, when work, suffering and death make their appearance; the age of copper, in which the vices are born and prosper; finally, the age of iron, when the seasons and the savors are inverted, when disorder becomes general, when famine and drought rage. Here one encounters again the distinctions of Hesiod. My purpose in citing these dizzying figures was simply to demonstrate the passage from the immensity of the cosmic cycles, by way of a series of subdivisions, to the miserable duration of a human life, an infinitesimal speck divested of all sense in so outscaled a conception of time.

In Jainism the *kalpas* recommence indefinitely. Time is a Wheel whose revolutions generate the succession of the six ascending and the six descending phases. The middle periods, in which neither prosperity nor misery is extreme, are considered the most favorable for the deliverance of the soul. The present epoch is situated in the 5th descending age, which began in 523 B.C. and will last 21,000 years (of which about 2,400 have already elapsed). The system employed for the dating of day to day events is based on cycles of sixty years, analagous to the Chinese computation. The web of time is constructed of meshes too fine or too coarse to permit the passage of history in the Western sense of the word.

In contrast with this cyclical conception of time, history has been viewed by Western thinkers, from Herodotus to Hegel by way of Bossuet, as rectilinear, a continuous development from an unfathomable past toward an undefined future. No recommencement is possible within this scheme, for history is a process of addition, prolongation and accumulation in which all that takes place leaves traces and seeds, nourishes the present and makes fertile the future. Each event is unique, fixed, eternal in its place. The task of history is then to date the occurrence with precision and to attempt to recreate it in its original and incontestable authenticity. It is produced once and only once, by the play of defined and explicable circumstances which will never be duplicated.

It is only with Spengler, then Toynbee that the framework

of a unique, rectilinear unfolding is confronted by another scheme, deriving from an awakening awareness of the multiplicity of cultures. The historian, or more exactly the philosopher of history, struck by the autonomy and the relative independence of the various civilizations, is led to speculate somewhat as did the Etruscans, in terms of a birth, a period of maturity, and a death. Yet the Western mentality never disengaged itself completely from this conception, and a cyclical penchant lurks even in the most strictly linear schemes of history. Almost unconsciously and despite himself the historian, as soon as he undertakes to consider long periods of time, pictures civilizations as passing through three periods: an epoch of gestation, primitive or heroic times, characterized by barbarian ruggedness and vigor and reputedly deriving its strength from a healthy simplicity; then the flowering or classical age, period of plenitude and equilibrium; finally the hour of decadence, of debilitation and morbity, of excessive raffination and corruption.

It is difficult to judge the proportion of truth which these creations of the spirit can claim, but it cannot be doubted that it is essentially a question of creations of the spirit: varieties of spontaneous frameworks, of "categories" of historical understanding. The history of the Greek is thus viewed as a progression from the Homeric period to the century of Pericles and finally the suspect graces of Alexandrianism; the history of the Roman world, the robust and rustic origins, the century of Augustus, the luxury and the vices of the late-Empire; the history of Western Christianity, the brutal Middle Ages, the radiant golden centuries, and, in the modern epoch, this obscure and significant need, which the elite of many countries manifests simultaneously, to denounce itself as decadent and to invoke some unidentified Barbarian eruption which, in a two-fold operation of salvation and destruction, will inaugurate once again the origin-maturitydecrepitude cycle. The temptation is decidedly tenacious.

Certainly, conscientious historians avoid and rightly distrust these prefabricated sequences. They know that their role consists in situating each event with precision, in endeavoring to reconstruct it as accurately as possible, to render it comprehensible, to determine conclusively its tendencies and results. Nevertheless, it is an insidious, unconscious passage from historical research to philosophy of history, from the presentation of events to their interpretation and classification. The development of history then slips once more into the closed form of the circuits familiar to the East. When the fabric of history is held to the light, the cyclical fascination appears in filigree, as if the human spirit, in all meridians, were equally sensible to it.

The latent fraternity of East and West does not, however, exclude the possibility of differences, nor even contrasts. In the East the cycles are conceived of as determined by factors exterior to history, by the stars or the cosmic laws. In the context of Western thought they are simply the series of purely internal causes and effects which translates and constitutes the historical movement itself. Thus the progression of the various phases, even if considered fatal and inevitable, remains exclusively human. In the last analysis, the responsibility for all that occurs, be it success or catastrophy, lies with the actors, who knew or ignored how to respond satisfactorily to the challenge of their milieu and their time. I wonder if it is not here that the real difference lies, and if the opposition of cyclical and linear time, which seemed to be at its origin, is not in the end a simple projection of the fundamental contrast.

For ultimately, in the writings of the pagans Empedocles, Aristotle and Plutarch as in those of the Christians Saint Augustine and Origen, the invincible repugnance for the idea of a circular duration derives its force from a continuous awareness of decisive human responsibility. Hesiod is not certain that the victory of Zeus over Cronos is inevitable and Miltiades, exhorting Callimachus, doubts the issue of the battle of Marathon.<sup>9</sup>

But enough of generalities. It is best to leave the field to concrete studies, which can demonstrate in detail the characteristics of the representation of time and of history in a given culture. With them alone rests the possibility of revealing a glimpse of the practical implications of a different conception of historical progression to the individual who has grown so accustomed to the image of time accepted around him that he cannot even imagine that another vision could seem equally natural and self-evident to another individual.

<sup>&</sup>lt;sup>9</sup> Cf. P. Vidal-Naquet, art. cit., pp. 30 et 68.