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# Beginning of Time, End of Time

John Zerzan

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1983, Summer

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## Contents

To the Murderous Idolatry of the Future . . . . .	6
From Totemism to Religion . . . . .	9
Time Controlled by a Powerful Elite . . . . .	11
Time and the Domestication of Nature . . . . .	12
Official Time—A Barrier to Communication . . . . .	16
A Museum of Bygone Evils . . . . .	19
The Anti-Time Spirit Was Essentially Suppressed . . . . .	20
The Beginning of Time As An Alien “Thing” . . . . .	21
“To Know Time Is To Fear It” . . . . .	23
Related . . . . .	25

project of annulling time and history will have to be developed as the only hope of human liberation.

Of course, there is no dearth of the wise who continue to assert that consciousness itself is impossible without time and its spatialization, overlooking somehow an overwhelmingly massive period of humanity's existence. Some concluding words from William Morris's *News From Nowhere* are a fitting hope in reply to such sages of domination: "In spite of all the infallible maxims of your day there is yet a time of rest in store for the world, when mastery has changed into fellowship."

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Since Marcuse wrote of “the alliance between time and the order of repression,” and Norman O. Brown on the sense of time or history as a function of repression, the vividness of the connection has powerfully grown.

Christopher Lasch, in the late ‘70s, noticed that “A profound shift in our sense of time has transformed work habits, values, and the definition of success.” And if work is being refused as a key component of time, it is also becoming obvious how consumption gobbles up time alive. Today’s perfect spatial symbol of the latter is the Pac-Man video game figure, which literally eats up space to kill time.

As with Aldous Huxley’s Mr. Propter, millions have come to find time a “thing intrinsically nightmarish.” A fixation with age and the pro-longevity movement, as discussed by Lasch and others, are two signs of its torments. Adorno once said, “As the subjects live less, death grows more precipitous, more terrifying.” There seems to be a new generation among the young virtually every three or four years, as time, growing more palpable, has accelerated since the 60s. Science has provided a popular reflection of time resistance in at least two phenomena: the widespread appeal of anti-time concepts more or less loosely derived from physical theory, such as black holes, time warps, space-time singularities and the like, and the comforting appeal of the “deep time” of the so-called geological romances, such as John McPhee’s *Basin and Range* (1981).

When Benjamin assayed that “The concept of historical progress of mankind cannot be sundered from the concept of its progression through a homogenous time,” he called for a critique of both, little realizing how resonant this call might someday become. Still less, of course, could Goethe’s dictum that “No man can judge history but one who has himself experienced history” could have been foreseen to apply in such a wholesale way as it does now, with time the most real and onerous dimension. The

Just as today’s most obsessive notion is that of the material reality of time, self-existent time was the first lie of social life. As with nature, time did not exist before the individual became separate from it. Reification of this magnitude—the beginning of time—constitutes the Fall: the initiation of alienation, of history.

Spengler observed that one culture is differentiated from another by the intuitive meanings assigned to time, Canetti that the regulation of time is the primary, attribute of all government. But the very movement from community to civilization is also predicated there. It is the fundamental language of technology and the spirit of domination.

Today the feverish acceleration of time, as well as the failure of the “solution” of spatializing it, is exposing it as an artificial, oppressive force along with its corollaries, progress and Becoming. More concretely, technology and work are being revealed by the palpable thrall of time. Either way, the pressure to dissolve history and the rule of time hasn’t been so strong since the Middle Ages, before that, since the Neolithic revolution establishing agriculture.

When the humanization of technology and work appear as dubious propositions, the humanization of time itself is also called into question. The questions forming are, how can basic oppressions be effectively controlled or reformed? Why not abolished?

Quoting Hegel approvingly, Debord wrote, “Man, ‘the negative being who is only to the extent that he suppresses Being,’ is identical to time.” This equation is being refused, a situation perhaps best illumined by looking at the origins, evolution and present status of time.

If “all reification is a forgetting,” in Horkheimer and Adorno’s pregnant phrase, it seems equally true that all “forgetting”—in the sense of loss of contact with our time-less beginnings, of constantly “falling into time”—is a reification. All the other reifications, in fact, follow from this one.

## To the Murderous Idolatry of the Future

It may be due to the huge implications involved that no one has satisfactorily defined the objectification called time and its course. From time, into history, through progress, and to the murderous idolatry of the future, which now kills species, languages, cultures, and possibly the entire natural world. This essay should go no further without declaring an intent and strategy: technological society can only be dissolved (and prevented from recycling) by annulling time and history.

“History is eternal becoming and therefore eternal future; nature is become and eternally past,” as Spengler put it. This movement is also well captured by Marcuse’s “History is the negation of Nature,” the increasing speed of which has-carried man quite outside of himself. At the heart of the process is the reigning concept of temporality itself, which was unknown to early humans.

Levy-Bruhl provides an introduction: “Our idea of time seems to be a natural attribute of the human mind. But that is a delusion. Such an idea scarcely exists where primitive mentality is concerned...” The Frankforts concluded that primeval thought “does not know time as uniform duration or as a succession of qualitatively indifferent moments.” Rather, early individuals “lived in a stream of inner and outer experience which brought along a different cluster of coexisting events at every moment, and thus constantly changed, quantitatively and qualitatively.”

Meditating on the skull of a plains hunter-gatherer woman, Jacquetta Hawks could imagine the “eternal present in which all days, all the seasons of the plain stood in an enduring unity.” In fact, life was lived in a continuous present, underlying the point that historical time is not inherent in reality but an imposition on it. The concept of time itself as an abstract, continuing “thread,” unraveling in an endless progression that links all events together while remaining independent of them was completely unknown.

## “To Know Time Is To Fear It”

In Beckett’s play, *Waiting for Godot*, the two main characters receive a visitor, after which one of them sighs, “Well, at least it helped to pass the time.” The other replies, “Nonsense, time would have passed anyway.” In this prosaic exchange the basic horror of modern life is plumbed. The meta-presence of time is by this time felt as a heavily oppressive force, standing over its subjects autonomously. Very apropos is this summing up by George Morgan: “A fretful busyness to ‘kill time’ and restless movement from novelty to novelty bury an ever-present sense of futility and viciousness. In the midst of his endless achievements, modern man is losing the substance of human life.”

Loren Eisely once described “a feeling of inexplicable terror,” as if he and his companion, who were examining a skull, were in the path of “a torrent that was sweeping everything to destruction.” Understanding Eisely’s sensation completely, his friend paraphrased as saying, “to know time is to fear it, and to know civilized time is to be terror stricken.” Given the history of time and our present plight in it, it would be hard to imagine a more prescient bit of communication.

In the 1960s Robert Lowell gave succinct expression to the extremity of the alienation of time:

I am learning to live in history.

What is history? What you cannot touch.

Fortunately, also in the ‘60s, many others were beginning the unlearning of how to live in history, as evidenced by the shedding of wristwatches, the use of psychedelic drugs, and, paradoxically perhaps, by the popular single-word slogan of the French insurrectionaries of May 1968—“Quick!” The element of time refusal in the revolt of the ‘60s was strong and there are signs—such as the revolt against work—that it continues to deepen even as it contends with extreme new spatializations of time.

Children, of course, live in a now and want their gratification now, if we are looking for subjects for the idea that only the present can be total. Alienation in time, the beginning of time as an alien “thing”, begins in early infancy, as early as the maternity ward, though Joost Meerloo is correct that “With every trauma in life, every new separation, the awareness of time grows.”

Raoul Vaneigem supplied the conscious element, outlining perfectly the function of schooling: “The child’s days escape adult time; their time is swollen by subjectivity, passion, dreams haunted by reality. Outside, the educators look on, waiting, watch in hand, till the child joins and fits the cycle of the hours.” The levels of conditioning reflect, of course, the dimensions of a world so emptied, so exquisitely alienated that time has completely robbed us of the present. “Every passing second drags me from the moment that was to the moment that will be. Every second spirits me away from myself; now never exists,” Vaneigem insists.

Consider Jacques Ellul, *The Technological System* (New York, 1980), as to whether it is time or technology that “comes first.” All of the basic, society-dominating traits he attributes to technology are, more basically, those of time. Perhaps a tell-tale sign that he is still one remove away from the most fundamental level is the spatial character of his conclusion that “technology is the only place where form and being are identical.”

The repetitious, routine nature of industrial life is the obvious product of time and technology. An important aspect of time-less hunter-gatherer life was the unique, sporadic quality of its activities, rather than the repetitive; numbers and time apply to the quantitative, not the qualitative. In this regard, Richard Schlegel judged that if events were always novel, not only would order and routine be impossible, but so would notions of time itself.

Henri-Charles Puesch’s term “articulated atemporality” is a useful one, which reflects the fact that awareness of intervals, for instance, existed with the absence of an explicit sense of time. The relationship of subject to object was radically different, clearly, before temporal distance intruded into the psyche. Perception was not the detached act we know now, involving the distance that allows an externalization and domination of nature.

Of course, we can see the reflections of this original condition in surviving tribal peoples, in varying degrees. Wax said of the nineteenth century Pawnee Indians, “Life had a rhythm but not a progression.” The Hopi language employs no references to past, present or future. Further in the direction of history, time is explicit in their thought and speech, but is not a category of it, just as another African group, the Nuer, have no concept of time as a separate idea. The fall into time is a gradual one; just as the early Egyptians kept two clocks, measuring everyday cycles and uniform “objective” time, the Balinese calendar “doesn’t tell what time it is, but rather what kind of time it is.”

In terms of the original hunter-gatherer humanity generally referred to above, a few words may be in order, especially inasmuch as there has been a “nearly complete reversal in anthropological orthodoxy” concerning it since the end of the 1960s. Life prior to the earliest agricultural societies of about 10,000 years ago had been seen as nasty, short and brutish, but the research of Marshall Sahlins, Richard Lee and others has changed this view very drastically. Foraging now represents the original affluent society in that it provided life and cultural pleasures with a minimum of effort; work was regarded strictly as a social cost and the spirit of the gift predominated.

This, then, was the basis of no-time, bringing to mind Whitrow’s remark that “Primitives live only in a now, as we all do when we are having fun,” and Nietzsche’s that “All pleasure desires eternity—deep, deep eternity.”

The idea of an original state of pleasure and perfection is very old and virtually universal. The memory of a “Lost Paradise”—and often an accompanying eschatology that demands the destruction of subsequent existence—is seen in the Taoist idea of a Golden Age, the Cronia and Saturnalia of Rome, the Greeks’ Elysium, and the Christian Garden of Eden and the Fall (probably deriving from the Sumerian laments for lost happiness in lordless society), to name but a few. The loss of a paradisaical situation with the dawn of time, reveals time as the curse of the Fall, history seen as the consequence of Original Sin. Norman O. Brown felt that “Separateness, then, is the Fall—the fall into division, the original lie,” Walter Benjamin that “the origin of abstraction...is to be sought in the Fall.” Conversely, Eliade discerned in the shamanic experience a “nostalgia for paradise,” in exploring the belief that “what the shaman can do today in ecstasy” could, prior to the hegemony of time, “be done by all human beings in concrete.” Small wonder that Loren Eisely saw in aboriginal people “remarkably effective efforts to erase or ignore all that is not involved with the transcendent search for timelessness, the happy land of no change,” or that Levi-Strauss found primitive societies determined to “resist desperately any modification in their structure that would enable history to burst into their midst.”

If all this seems a bit too heady for such a sober topic as time, a few modern clichés may give pause as to where an absence of wisdom really lies. John G. Gunnell tells us that “Time is a form for ordering experience,” an exact parallel to the equally fallacious assertion of the neutrality of technology. Even more extreme in its fealty to time is Clark and Piggott’s bizarre claim that “human societies differ from animal ones, in the final resort, through their consciousness of history.” Erich Kahler has it that “Since primitive peoples have scarcely any feeling for individuality, they have no individual property,” a notion as totally wrong as Leslie Paul’s “In stepping out of nature, man makes himself free of the dimension of time.” Kahler, it might be added, is on vastly firmer ground in

In the 1920s, Heidegger emphasized time as the central concept for contemporary metaphysics and as forming the essential structure of subjectivity. But the devastating impact of the war had deeply altered the sense of possibilities within social reality. Being and Time (1927), in fact, far from questioning time, surrendered to it completely as the only vantage that allows understanding of being. Related, in the parallel provided by Adorno, is “the trick of military command, which dresses up imperative in the guise of a predicative sentence...Heidegger, too, cracks the whip when he italicizes the auxiliary verb in the sentence, ‘Death is.’”

Indeed, for almost fifty years after World War I the anti-time spirit was essentially suppressed. By the 1930s one could still find signs of it in, say, the Surrealist movement, or novels of Aldous Huxley, but predominant was the renewed rush of technology and domination, as reflected by Katayev’s Five-Year-Plan novel *Time, Forward!* or the bestial deformation expressed in the literally millenarian symbol, the Thousand Year Reich.

## **The Beginning of Time As An Alien “Thing”**

Nearer to our contemporary situation, a restive awareness of time began to re-emerge as a new round of contestation neared. In the mid-1950s the scientist N.J. Berrill interrupted a fairly dispassionate book to comment on the predominant desire in society “to get from nowhere to nowhere in nothing flat,” observing, “And still a minute can embrace eternity and a month be empty of meaning.” Still more startling, he cried out that “For a long time I have felt trapped in time, like a prisoner searching desperately for some avenue of escape.” Perhaps an unlikely quarter from which to hear such an articulation, but another man of science made a similar statement forty years before, just as World War I was about to quell insurgence for decades; Wittgenstein noted, “Only a man who lives not in time but in the present is happy.”



That the years immediately preceding World War I expressed a rising radical challenge requiring the fearful carnage of the war to divert and destroy it is a thesis I have argued elsewhere. \* The depth of this challenge can best be plumbed in terms of the refusal of time. The contemporary tension between the domains of being and of time was first elucidated by Bergson in the pre-war period in his protest against the fragmentary and repressive character of mechanistic time. With his distrust of science, Bergson argued that a qualitative sense of time, of lived experience or *duree*, requires a resistance to formalized, spatialized time. Though limited, his outlook announced the renewal of a developing opposition to a tyranny that had come to inform so many elements of subjugation.

## The Anti-Time Spirit Was Essentially Suppressed

Most of this century's anti-time impulse was rather fully articulated in the quickening movement just prior to the war. Cubism's urgent re-examination of appearances belongs here, of course; by smashing visual perspective, which had prevailed since the early Renaissance, the Cubists sought to apprehend reality as it was, not as it looked at a moment in time. It is this which enabled John Berger to judge that "the Cubist formula presupposed...for the first time in history, man living unalienated from nature."

Einstein and Minkowski also bespoke the time revolt context with the well-known scrapping of the Newtonian universe based on absolute time and space. In music, Arnold Schonberg liberated dissonance from the prevailing false positivity's restraints, and Stravinsky explicitly attacked temporal limitations in a variety of new ways, as did Proust, Joyce, and others in literature. All modes of expression, according to Donald Lowe, "rejected the linear perspective of visuality and Archimedean reason, in that crucial decade of 1905–1915"

noting that the early individual's "primitive participation with his universe and with his community begins to disintegrate" with the acquiring of time. Seidenberg also detected this loss, in which our ancestor "found himself diverging ever farther from his instinctual harmony along a precarious path of unstable synthesis. And that path is history."

## From Totemism to Religion

Coming back to the mythic dimension, as in the generalized ancient memory of an original Eden—the reality of which was hunter-gatherer life—we confront the magical practices found in all races and early societies. What is seen here, as opposed to the time-bound mode of technology, is an atemporal intervention aimed at the "reinstatement of the usual uniformities of nature." It is this primary human interest in the regularity, not the supersession, of the processes of nature that bears emphasizing. Related to magic is totemism, in which the kinship of all living things is paramount; with magic and its totemic context, participation with nature underlies all.

"In pure totemism," says Frazer, "...the totem [ancestor, patron] is never a god and is never worshipped." The step from participation to religion, from communion with the world to externalized deities for worship, is a part of the alienation process of emerging time. Ratschow held the rise of historical consciousness responsible for the collapse of magic and its replacement by religion, an essential connection. In much the same sense, then, did Durkheim consider time to be "a product of religious thought." Eliade saw this gathering separation and related it to social life: "the more extravagant myths and rituals, Gods and Goddesses of the most various kinds, the Ancestors, masks and secret societies, temples, priest-hoods, and so on—all this is found in cultures that have passed beyond the stage of gathering and small-game hunting..."

Elman Service found the band societies of the hunter-gatherer stage to have been “surprisingly” egalitarian ‘and marked by the absence not only of authoritarian chiefs, but of specialists, intermediaries Of any kind, division of labor, and classes. Civilization, as Freud repeatedly pointed out, with alienation at its core, had to break the early hold of timeless and nonproductive gratification.

In that long, original epoch, alienation first began to appear in the shape of time, although many tens of thousands of years’ resistance stayed its definitive victory, its conversion into history. Spatialization, which is the motor of technology, can be traced back to the earliest sad experience of deprivation through time, back to the beginning efforts to offset the passage of time by extension in space. The injunction of Genesis to “Be fruitful and multiply was seen by Cioran as “criminal.” Possibly he could see in it the first spatialization—that of humans themselves—for division of labor and the other ensuing separations may be said to stem from the large growth of human numbers, with the progressive breakdown of hunter-gatherer life. The bourgeois way of stating this is the cliché that domination (rulers, cities, the state, etc.) was the natural outcome of “population pressures.”

In the movement from the hunter-gatherer to the nomad we see spatialization in the form, at about 1200 B.C., of the war chariot (and the centaur figure). The intoxication with space and speed, as compensation for uncontrolled time, is obviously with us yet. It is a kind of sublimation; the anxiety energy of the sense of time is converted toward domination spatially, most simply.

With the end of a nomadic existence, the social order is created on a basis of fixed property, a further spatialization. Here enters Euclid, whose geometry reflects the needs of the early agricultural systems and which established science on the wrong track by taking space as the primary concept.

## A Museum of Bygone Evils

Samuel Butler’s utopian Erewhon portrayed workers who destroyed their machines lest their machines destroy them. Its opening theme derives from the incident of wearing a watch, and later a visitor’s watch is rather forcibly retired to a museum of bygone evils. Very much in this spirit, and from the same era, are these lines of Robert Louis Stevenson:

You may daily as long as you like by the roadside. It is almost as if the millennium were arrived, when we shall throw our clocks and watches over the housetop, and remember time and seasons no more. Not to keep hours for a lifetime is, I was going to say, to live forever. You have no idea, unless you have tried it, how endlessly long is a summer’s day, that you measure out only by hunger, and bring to an end only when you are drowsy.

Referring to such phenomena as huge political rallies, Benjamin’s “The Work of Art in the Age of Mechanical Reproduction” made the point that “Mass reproduction is aided especially by the reproduction of masses...” But one could go much further and say simply that mass reproduction is the reproduction of masses, or the mass-man. Mass production itself with its standardized, interchangeable parts and wage-labor to match constitutes a fascism of everyday life long predating the fascist rallies Benjamin had in mind. And, as described above, it was time, several hundred years before that, which provided the categorical paradigm to mass production, in the form of uniform but discrete quanta ordering life.

Stewart Ewen held that during the 19<sup>th</sup> and early 20<sup>th</sup> centuries, “the industrial definition of social time and space stood at the core of social unrest,” and this is certainly true; however, the breadth of the time and space “issue” requires a rather broad historical perspective to allow for a comprehension of modernity’s unfolding mass age.

widely-known “Time, Work-Discipline, and Industrial Capitalism” described the industrializing of time, but, more fundamentally, it was time that did the industrializing, the great daily life struggles of the late 18<sup>th</sup> and early 19<sup>th</sup> centuries notwithstanding.

In terms of the modern era, again one can discern in social revolts the definite aspect of time refusal, however inchoate. In the very late 18<sup>th</sup> century, for instance, the context of two revolutions, one must judge, helped Kant see that space and time are not part of the empirical world but part of our acquired intersubjective faculties. It is a non-revolutionary twist that a new, though short-lived, calendar was introduced by the French revolution—not resistance to time, but its renewal under new management! Walter Benjamin wrote of actual time refusal vis-a-vis the July Revolution of 1830, noting the fact that in early fighting “the clocks in towers were being fired on simultaneously and independently from several places in Europe.” He quoted an eyewitness the following verse:

Who would have believed! We are told that new Joshuas at the foot of every tower, as though irritated with time itself, fired at the dials in order to stop the day.

Not that moments of insurgence are the only occasions of sensitivity to time’s tyranny. According to Poulet, no one felt more grievously the metamorphosis of time into something quite infernal than did Baudelaire, who wrote of the malcontents “who have refused redemption by work,” who wanted “to possess immediately, on this very earth, a Paradise”; these he termed “Slaves martyred by Time,” a notion echoed by Rimbaud’s denunciation of the scandal of an existence in time. These two poets suffered in the long, dark night of capital’s mid- and late-19<sup>th</sup> century ascendancy, though it could be argued that their awareness of time was made clearest via their active participation, respectively, in the 1848 revolution and the Commune of 1871.

## Time Controlled by a Powerful Elite

In attempting a typology of the egalitarian society, Morton Fried declared that it had no regular division of labor (and thus no political power accrued therefrom) and that “Almost all of these societies are founded upon hunting and gathering and lack significant harvest periods when large reserves of food are stored.” Agricultural civilization changed all of this, introducing production via the development of surplus and specialization. Supported by surplus, the priest measured time, traced celestial movement, and predicted future events. Time, controlled by a powerful elite, was used directly to control the lives of great numbers of men and women. The masters of the early calendars and their attendant lore “became a separate priestly caste,” according to Lawrence Wright. A prime example was the very time-obsessed Mayans; G.J. Whitrow tells us that “of all ancient peoples, the Mayan priests developed the most elaborate and accurate astronomical calendar, and thereby gained enormous influence over the masses.”

Generally speaking, Henry Elmer Barnes is quite correct that formal time concepts came with the development of agriculture. One is reminded here of the famous Old Testament curse on agriculture (Genesis 3: 17–18) at the expulsion from Paradise, which announces work and domination. With the advance of farming culture the idea of time became more defined and conceptual, and differences in the interpretation of time constituted a demarcation line between a state of nature and one of civilization, between the educated classes and the masses. It is recognized as a defining mode of the new Neolithic phenomena, as expressed by Nilsson’s comment that “ancient civilized peoples appear in history with a full-developed system of time-reckoning,” and by Thompson’s that “the form of the calendar is basic to the form of a civilization.”

## Time and the Domestication of Nature

The Babylonians gave the day 12 hours, the Hebrews gave the week 7 days, and the early notion of cyclical time, with its partial claim to a return to the beginnings, gradually succumbed to time as a linear progression. Time and the domestication of nature advanced, at a price unrivaled. “The discovery of agriculture,” as Eliade claimed, “provoked upheavals and spiritual breakdowns whose magnitude the modern mind finds it well-nigh impossible to conceive.” A world fell before this virulent partnership, but not without a vast struggle. So with Jacob Burkhardt we must approach history “as it were as a pathologist”; with Holderlin we still seek to know “How did it begin? Who brought the curse?”

Resuming the narrative, even up to Greek civilization did resistance flourish. In fact, even with Socrates and Plato and the primacy of systematic philosophy, was time at least held at bay, precisely because “forgetting” timeless beginnings was still regarded as the chief obstacle to wisdom or salvation. J.B. Bury’s classic *The Idea of Progress* pointed out the “widely-spread belief” in Greece that the human race had decidedly degenerated from an initial “golden age of simplicity”—a long-standing bar to the progress of the idea of progress. Christianson found the anti-progress attitude later yet: “The Romans, no less than the Greeks and Babylonians, also clung to various notions of cyclical recurrence in time...”

With Judaism and Christianity, however, time very clearly sharpened itself into a linear progression. Here was a radical departure, as the urgency of time seized upon humanity. Its standard features were outlined by Augustine, not coincidentally at one of the most catastrophic moments of world history—the collapse of the ancient world and the fall of Rome. Augustine definitively attacked cyclical time, portraying a unitary mankind that advances irreversibly through time; appearing about 400 A.D., it is the first notable theory of history.

As of this time, it unmistakably imposed a new distance on human relations and restraint on emotional responses. A Renaissance hallmark, the search for rare manuscripts and classical antiquities, is one form of a longing to withstand this powerful time. But the battle had been decided, and abstract time had become the milieu, the new framework of existence. When Ellul opined that “the whole structure of being” was now permeated by “mechanical abstraction and rigidity,” he referred most centrally to the time dimension.

All this bloomed in the 1600s, from Bacon who first proclaimed modernity’s domination of nature and Descartes’s formulation regarding the *maitres et possesseurs de la nature*, which “predicted the imperialistic control of nature which characterizes modern science,” including Galileo and the whole ensemble of the century’s scientific revolution. Life and nature became mere quantity, the unique lost its strength, and soon the Newtonian image of the world as a clock-like mechanism prevailed. Equivalence—with uniform time as its real model—came to rule, in a development that made “the dissimilar comparable by reducing it to abstract quantities.”

The poet *Ciro di Pers* understood that the clock made time scarce and life short. To him, it

“Speeds on the course of the fleeing century.

“And to make it open up, Knocks every hour at the tomb.”

Later in the 17<sup>th</sup> century, Milton’s *Paradise Lost* sides with victorious time, to the point of denigrating the timeless, paradisaic state:

“with labour I must earn

“My bread; what harm?

“Idleness had been worse.”

Well before the beginnings of industrial capitalism, then, had time substantially subdued and synchronized life. Advancing technology can be said to have been borne by the earlier breakthroughs of time. “It was the beginning of modern time that made the speed of technology possible,” concluded Octavio Paz. E.P. Thompson’s

servation concerning the early 15<sup>th</sup> century, that “the first virtue of the humanist is a sense of time.”

How else could modernity be achieved but by the new dimensions reached by time and technology together, their distinctive and perfected mating? Lilley noted that “the most complex machines produced by the Middle Ages were mechanical clocks,” just as Mumford saw that “the clock, not the steam-engine, is the key machine of the modern industrial age.” Marx too found here the first basis of machine industry: “The clock is the first automatic machine applied to practical purposes, and the whole theory of production of regular motion was developed on it.” Another telling congruence is the fact that, in the mid-15<sup>th</sup> century, the first document known to have been printed on Gutenberg’s press was a calendar (not a bible). And it is noteworthy that the end of millenarian revolt, such as that of the Taborites of Bohemia in the 15<sup>th</sup> century and the Anabaptists of Munster in the early 16<sup>th</sup> century, coincided with the perfection and spread of the mechanical clock. In Peter Breughel’s *The Triumph of Time* (1574), the many objects and ideas of the painting are dominated by the figure of the modern clock.

## **Official Time—A Barrier to Communication**

This triumph, as noted above, awakened a great spatial urge by way of compensation: circumnavigating the globe and the discovery, suddenly, of vast new lands, for example. But just as certain is its relationship to “the progressive disrealization of the world,” in the words of Charles Newman, which began at this time. Extension, in the form of domination, obviously accentuated alienation from the world: a totally fitting accompaniment to the dawning of modern history.

Official time had become a barrier both palpable and all-pervasive, filtering and distorting what people said to each other.

As if to emphasize the Christian stamp on triumphant linear time, one soon finds, in feudal Europe, the first instance of daily life ruled by a strict time-table: the monastery. Run like a clock, organized and absolute, the monastery confined the individual in time just as its walls confined him in space. The Church was the first power to conjoin the measurement of time and a temporally ordered mode of life, a project it pursued vigorously. The invention of the striking and wheeled clock by Pope Sylvester II, in the year 1000, is thus quite fitting. The Benedictine order, in particular, has been seen by Coulton, Sombart, Mumford and others as perhaps the original founder of modern capitalism. The Benedictines, who ruled 40,000 monasteries at their height, helped crucially to yoke, human endeavor to the regular, collective beat and rhythm of the machine, reminding us that the clock is not merely a means of keeping track of the hours, but of synchronizing human action.

In the Middle Ages, specifically the 14<sup>th</sup> century, the march of time met a resistance unequalled in scope, quite possibly, since the Neolithic revolution of agriculture. This claim can be assessed by a comparison of very basic developments of time and social revolt, which seems to indicate a definite and profound collision of the two.

With the 1300s quantified, official time stakes its claim to the colonization of modern life, time then became fully abstracted into a uniform series of units, points and sections. The technology of the verge escapement early in the century produced the first modern mechanical clock, symbol of a qualitatively new era of confinement now dawning as temporal associations became completely separate from nature. Public clocks appear, and around 1345 the division of hours into sixty minutes and of minutes into sixty seconds became common, among other new conventions and usages across Europe. The new exactitude carried a tighter synchronization forward, essential to a new level of domestication. Glasser remarked on the “loss of poetry and immediacy in personal experience” caused by time’s new power, and reflected that this manifes-

tation of time replaced the movement and radiance of the day by its utilization as a temporal unit. Days, hours, and minutes became interchangeable like the standardized parts and work processes they prefigured.

These decisive and oppressive changes must have been at the heart of the great social revolts that coincided with them. Textile workers, peasants, and city poor shook the norms and barriers of society to the point of dissolution, in risings such as that of Flanders between 1323 and 1328, the Jacquerie of France in 1358, and the English revolt of 1381, to name only the three most prominent. The millennial character of revolutionary insurgence at this time, which in Bohemia and Germany existed even into the early 16<sup>th</sup> century, underlines the unmistakable time element and recalls earlier examples of longing for an original, unmediated condition. The mystical anarchism of the Free Spirit in England sought the state of nature, for example, as did the famous proverb stressed by the rebel John Ball: "When Adam delved and Eve span, Who then was a gentleman?" Very instructive is a meditation of the radical mystic Suso, of Cologne, at about 1330:

'Whence have you come?' The image (appearing to Suso) answers: 'I come from nowhere.' Tell me, what are you?' I am not.' 'What do you wish?' I do not wish.' This is a miracle! Tell me, what is your name?' 'I am called Nameless Wildness.' Where does your insight lead to?' 'To untrammelled freedom.' Tell me, what do you call untrammelled freedom?' When a man lives according to all his caprices without distinguishing between God and himself, and without looking before or after..'

The desire "to hold all things in common," to abolish rank and hierarchy, and, even more so, Suso's explicitly anti-time utterance, reveal the most extreme desires of 14<sup>th</sup> century social revolt and demonstrate its element of time refusal.

The celebration of the Feast of Fools, which reached its height in Europe at this time, was a mocking of religious authority. It involved a grotesquely costumed figure representing the higher

clergy, led into church seated backwards on an ass with garments inside out, and dancing or reversing the order of the liturgy.

Also, it is not inconceivable that the Black Plague, which decimated Europe from 1348 to 1350, was in a sense a massive, visceral reaction to the attack of modern time.

This watershed in the late medieval period can also be understood via art, where the measured space of perspective followed the measured time of the clocks. Before the 14<sup>th</sup> century there was no attempt at perspective because the painter attempted to record things as they are, not as they look. After the 14<sup>th</sup> century, an acute time sense informs art; "Not so much a place as a moment is fixed for us, and a fleeting moment: a point of view in time more than in space," as Bronowski described it. Similarly, Yi-Fu Tuan pointed out that the landscape picture, which appeared only with the 15<sup>th</sup> century, represented a major reordering of time as well as space with its perspective.

Motion is stressed by perspective's transformation of the simultaneity of space into a happening in time which, returning to the theme of spatialization, shows us in another way that a "quantum leap" in time had occurred. Movement again became a source of values following the defeat of the 14<sup>th</sup> century resistance to time; a new level of spatialization was involved, as seen most clearly in the emergence of the modern map, in the 15<sup>th</sup> century, and the ensuing age of the great voyages. Braudel's phrase, modern civilization's "war against empty space," is best understood in this light.

"The new valuation of Time, which then broke to the surface, actually became one of the most powerful agencies by which Western thought, at the end of the Middle Ages, was transformed..." was Kantorowicz's way of expressing the new, strengthened hegemony of time. If in this objective temporal order of official, legal, factual time only the spatial found the possibility of real expression, all thinking would be necessarily shifted, and also brought to heel. A good deal of this reorientation can be found in Le Goff's simple ob-