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How Lewis Mumford saw science, and art, and himself

In the early 1970s Russell McCormmach prepared for Daedalus an overview of the standing of natural science in German culture during the quarter-century before World War I. What McCormmach found there in Wilhelmian Germany seemed to parallel closely the situation of science in American culture at the time of his writing. In both eras criticism of science, scathing, condemnatory criticism, particularly of physical science, found ready audiences, resonating especially strongly in the self-consciously rebellious youth cultures that were a salient feature of early 20th-century German society as also of late 1960s and early 1970s American society. And in both eras the charges were much the same:1

Scientists are accomplices in legal criminality, and uncritical of their patrons—big industry, the military, and government—powers that perpetuate Western imperialism, racism, and economic injustice, and despoil the planet. They abnegate their moral responsibility to make the world better, which it is in their power to do through political action and responsible research. Their rational, quantitative view of the world excludes as nonobjective, and thus nonexistent, all that is spiritual, magic, and poetic, distorting man’s consciousness, alienating him.

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The bibliography at the end of this paper contains full citations of the sources referred to in the notes. Where no author is named, Mumford is the author.
from himself, society, and nature, and abetting the antihuman forces of the world.
By their overspecialization, they bury us in facts, contributing nothing to our
yearning to know the interconnectedness of things.

With Daedalus’ readership in mind, McCormmach saw no need to cite specific sources
for this “well known” litany of grievances lodged in recent years against science “by
students, political activists, cultural analysts.” Yet although McCormmach could have
documented each of the charges in this indictment from several different sources, he
could also have drawn them all from just one book: Lewis Mumford’s Vietnam-
era diatribe, The pentagon of power, published late in 1970. A condensation had
been serialized in The New Yorker, and upon its appearance the book received
broad distribution as a selection of the Book-of-the-Month Club. “This success,”
said Mumford’s friend Gerald Holton in his long, unfriendly, lead review in The
New York Times, “together with what it implies for the relation between science,
technology, and the citizen, seems to me in many ways the most significant—and
disturbing—aspect of the book.” Conceding “Mumford’s laudable goals,” Holton
foresaw that, “what the book can do immediately is to invite a new kind of two-
culture split . . . at precisely the time when thinkers of all styles should close ranks
against the common anti-intellectual wave.”

Mumford, whose intellectual formation dated back to, and had much in common
with, the pre-1914 German youth movement, had been drumming most of the theses
in his romantic, lebensphilosophisch critique of science ever since the 1920s. With
his seventh book, The culture of cities (1938), Mumford appeared on the cover of
Time, and his many distinctions over the following quarter century were capped
in 1964 by the Presidential Medal of Freedom. Not until the late 1960s, however,
did Mumford acquire an enthusiastic popular, and especially youthful following.
Mumford must be placed with Herbert Marcuse as a major influence on the insur-
gents of the late 1960s and early 1970s. But Mumford’s influence was much the
wider in appealing also to those opting in, and not merely to those opting out.

2. I have broken off McCormmach’s recitation of that indictment at the point where,
significantly, it departs from Mumford’s theses. Thus, “Science should close shop; its vigor
is spent, its problems exhausted.”
4. Molesworth, “Inner and outer” (1990), is the only writer on Mumford whom I’ve
encountered who recognized that lebensphilosophisch is the proper label for his metaphysics
and rhetoric.
5. Miller, Mumford (1989), 353, et passim. Miller’s is the official biography and a
considerable achievement, though having many deficiencies, some of them quite careless
(such as its inadequate chronology). Re the Presidential Medal of Freedom: http://www.
medaloffreedom.com/LewisMumford.htm, accessed Apr 2006, which also contains the
best readily available chronology of Mumford’s life.
6. This is what most worried Hobsbawn, whose review of The pentagon of power appeared
in The New York review of books. Hobsbawm understood what very few of Mumford’s
American readers did: how very largely Mumford’s outlook and critique were rooted in
It is not surprising, then, that those in the unaccustomed and unwelcome position of having to defend science against the charges listed by McCormmach failed to find much comfort in, or even to appreciate at all, just how little sympathy Mumford himself felt for the then-current anti-scientific perversion—and perverters—of his own, long-standing critique. Mumford, no matter how severely he chastised science and scientists, was fundamentally on their side. He was definitely not on the side of the hedonistic, discipline-deprecating 1960s counter-culture. Adapting and extending in *The pentagon of power* what he had written 40 years earlier regarding Melville’s demonic Captain Ahab in pursuit of Moby-Dick, Mumford observed that:

In Ahab’s throwing away the compass and sextant at the height of the chase, Melville even anticipated the casting out of the orderly instruments of intelligence, so characteristic of the counter-culture and anti-life happenings of today.

Moreover, for Mumford, as for all his readers at that date, 1970, the compass and sextant were still symbols of science, as they had been through the preceding two centuries; were not yet, as we would be inclined to regard them today, merely products and components of technologies.

The high regard in which Mumford held science and scientists—physicists preeminently—is affirmed repeatedly in *The pentagon of power*. More indicative still the 19th century British tradition of romantic critiques of machine civilization. Although one may agree with Hobsbawm’s conclusion that the likely worst effect of the book was that it “will be read with admiration and reverence, as the great Victorian prophets—such as Carlyle and Ruskin—were read by the top-hatted ancestors of modern intelligent technocrats,” it should also be recognized that underneath Hobsbawm’s lack of sympathy with Mumford’s analysis was Hobsbawm’s lack of sympathy with Mumford’s admiration and respect for science. Hobsbawm made that obvious in this review—more obvious than he probably knew—and it was perhaps just that to which the editors sought to draw attention by publishing his review under the title “Is science evil?”

7. Mendelsohn, “Prophet of our discontent” (1990), 357, referred to a May 1971 commencement address in which “Jerome Wiesner, speaking from the citadel of scientific power, M.I.T., linked Mumford to others”—namely to Marcuse and Mendelsohn himself—“whom he saw as threatening the sciences.”

8. Mendelsohn, ibid., 357, implied that Mumford and Theodore Roszak, whose books celebrated the counter-culture as bringing an end to the wasteland of modern civilization, were intellectual allies. Likewise, Hughes *American genesis* (1989), 12, 445, 468, 469. Tschachler (1994), 5, drew attention both to the fulsomeness of Roszak’s acknowledgement of Mumford’s influence upon him and to the absence of any reciprocation on Mumford’s part. Likewise, Miller, *Mumford*, 517–518. See the appendix to this paper.


11. So, for instance, *Pentagon* (1970), 30, 55, 73, 120–21. This Miller, *Mumford*, 536, conceded and dismissed, writing: “It is true that he does not attack science itself, his heroes being scientists such as Charles Darwin, Claude Bernard, Clerk Maxwell, Lawrence J.
is Mumford’s response to Holton’s review. Writing to the editor of *The New York Times book review*, Mumford justified breaking his “lifelong practice of never answering book reviews” by his concern that “Professor Holton’s scientific colleagues” will be misled by Holton’s disapproving review. Indeed, Mumford’s desire to be read by *scientists* informs the entire letter, informs it so fully that Mumford did not see the need to state explicitly why that was: that he regarded the scientists as central and indispensable to any escape from “the technocratic prison.” This is, however, the implicit presupposition of Mumford’s letter, as is evident in its optimistic conclusion:

Fortunately, those who may become the scientific leaders of the future have already anticipated much of my criticism and have shown themselves ready to take the necessary measures.

For the compass and sextant were not merely symbols of science, they were also metaphors for the relation of science to technology: science and scientists were indispensable to technological progress; only they could show the way and keep the ship from going astray. More generally, it was axiomatic for Mumford that the character of a society’s technology was determined by that of the science at its foundations—and, again, no less so circa 1970 than 50 years earlier when he first began to appear in journals of highbrow opinion. Moreover, although Holton and most others representing the interests of institutionalized science found it difficult to remember just then, their establishment had over the previous three decades repeatedly honored Mumford’s high valuation of the ethos and creativity of science.

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12. “To the editor” (1971). Mendelsohn, “Prophet of our discontent,” 357, discussed Holton’s review and Mumford’s response, but overlooked Mumford’s concern to be heard by scientists. So also Miller, *Mumford*, 534–536. As one should expect, the claimed absence of precedent was not completely truthful, but it testifies to the importance Mumford placed on a readership of scientists. One such precedent, doubly revealing through both the circumstances and the content of the critique provoking Mumford to respond, was Elbert Peets’ letter to *The new republic*, Mumford’s stamping ground, protesting Matthew Josephson’s uncritically laudatory review there of *The brown decades*. Peets (for whom see http://rmc.library.cornell.edu/EAD/htmldocs/RMM02772.html) was incensed over Mumford’s scholarship, and his “vice of pressing allegory on history”: “To the editor,” 30 Dec 1931.


Notable among those distinctions were election to the American Philosophical Society, in 1941, and the American Academy of Arts and Sciences, in 1947.\(^\text{15}\)

**Mumford’s theme**

It is both understandable and excusable that scientists, physical scientists especially, facing a drastic loss of public support for their long-standing commitment to reckless knowledge, should have failed to recognize that, fundamentally, Mumford was on their side. Not excusable, as it seems to me, is that historical scholars siding in one way or another with Mumford have been unwilling to see the high value that he placed upon science, and, still less, to acknowledge that Mumford conceived of himself as a scientist.\(^\text{16}\)

Those scholars viewing Mumford as humanistic social critic tend only to underscore accusations such as the ones paraphrased by McCormmach. Though they are right about the main subject of Mumford’s larger books—the disastrous fate of modern civilization—they misrepresent the man Mumford even as they ignore the essentiality of science to his conception of the human and cultural ideal whose pursuit was the only alternative to the deplorable course upon which modern civilization is set. Those scholars who approach Mumford from the side of art, or architecture, or American Studies in its older aesthetic orientation (i.e., before art-and-literature were displaced by race-and-gender) cannot point to any of Mumford’s big books. Generally they limit their attention to the few short books written by Mumford in the 1920s that are regarded as foundational for American Studies. Yet they come closer to understanding the man. Imaginative literature, visual arts, the aesthetic response, were enormously important to Mumford. Until his late middle age, this was the most deeply felt side to Mumford’s personality. Nonetheless, no scholar approaching Mumford from the aesthetic side has appreciated the importance and value that he placed upon science. Such scholars being, as

\(^{15}\) By no means all of the scientific establishment wished that Mumford would shut up: he had spoken at the annual meeting of the American Association for the Advancement of Science in 1969, and what he had to say was so well received that he was invited again in 1970, and again in 1971—in 1971 by physicist Gaylord Harnwell, president of the University of Pennsylvania and personally acquainted with Mumford. Dates of election: http://members.amphilsoc.org/searchPublic.php, accessed Sep 2006; http://www.amacad.org/publications/BookofMembers/ChapterM.pdf, accessed Sep 2006.

\(^{16}\) See ref. 20. Typical for the Mumford scholarship of the past 25 years is the presence of “science” in the displayed quotations of Mumford, but its absence from the author’s own text. For example, Jordan, *Machine-age ideology* (1994), 14, 182–192, 228, 247–251; similarly, Blake, *Beloved community* (1990), 222, 329 n.61. One might think that the historians of technology, respecting Mumford so highly as forefather of their field, would be prepared to see the importance Mumford gave to science. Yet just the opposite is the case: the discipline of the history of technology is founded upon a policy of ignoring science. Forman, “Primacy,” 53–56.
a rule, themselves even more unable to conceive a favorable view of science than those seeing only the social critic, ignore not only Mumford’s high estimation of science as cultural achievement, but ignore also the large importance that Mumford gave to science in his conception of himself.

For Mumford, modern that he was, the scientific signified all that modernity presupposed to be the result of, or to be associated with, this highest form of disciplined thought. And in modernity all the realm of fact, all technology, all society’s productive institutions and implements and the material products of their operation were regarded not only as subordinate to science, but presumed to be derivative from science.17 Mumford, romantic that he was, opposed to the scientific the artistic—where the artistic comprised not only the aesthetic, as manifested in the fine arts and literature, but also, more generally, all the subjective-affective capacities and experiences of the individual and all the humanistic disciplines concerned with those manifestations, capacities, and experiences. Thus for Mumford the overriding demand of the day—of every day of his 50-year writing career, from the wake of the First World War to the wake of the Vietnam war—was to “embrace the values of science and humanism,” to make “a genuine marriage of science with the humanities,” to make “the inner and the outer, the subjective and the objective, the world known to personal intuition and that described by science . . . aspects of a single experience,” to heal “the old breach between the subjective and the objective, the inner and the outer, the vital and the mechanical,” “to find a common ground where ‘the subjective and the objective, the artistic and the scientific . . . meet and exchange their gifts.’”18 This, said Mumford, projecting upon the world his own

17. For example, Steinman, Science, technology, and American modernist poets (1987), 2–3, 170, explained that: “Here . . . the terms science and technology are used interchangeably in part because the writings examined tend to lump the two together.” But “lump” is not the right word, since, as she says, “technology is seen [by her poets] as applied science or as the actual tools and products resulting from the application of scientific discoveries, with tools and products including not only machines but structures such as skyscrapers.”

18. The quotations are, in order, to Van Wyck Brooks (1925), in Brooks-Mumford letters (1970), 30; “Nescience” (1923); “A modern synthesis” (1930), 1029; Pentagon (1970), caption to plate 32, facing p. 341; autobiographical fragment, 1980, as quoted by Miller, Mumford, 71. Conflated here, as by Mumford everywhere, are the axes inner-outer, art-science, humanities-science. Yet the art-science axis, standing between the other two, embraced them both. Moreover, it had the best romantic credentials as attested by the epigraph to Richards, The romantic conception of life. Science and philosophy in the age of Goethe (2002), vii, taken from Friedrich Schlegel: “All art should become science and all science art.” Höpfner, Goethes Farbenlehre (1990), 61–62: “Principally, Novalis [Friedrich von Hardenberg] was convinced—and in this we see a further important point of agreement with Goethe—that the highest forms of knowledge [Erkenntnisse] emerge out of contact between the seemingly antagonistic spheres of science and art: art and science form an aboriginal unity, their separation [Entzweiung] is to be conceived solely as the product of a degenerated late period of history.” So also Gode-von Aesch, Natural Science in German Romanticism (1941), 30.
never-to-be-resolved inner conflict, is the answer, the only answer, to the ongoing, ever deepening crisis of Western culture and society.

That avoidance of disaster hinges upon a full and thorough integration of science and art, of science and literature, of science and “idealism,” of the scientific and the humanistic, is the fundamental theme of Mumford’s ambitious works. Although as theme it is highly unoriginal, a commonplace where Mumford was coming from, that theme has remained unemphasized, if not wholly unapprehended, by nearly all those whose writings about Mumford I have seen. Even Van Wyck Brooks, Mumford’s closest literary friend—who thought he knew Mumford so well and admired him so greatly that he begged to write Mumford’s biography—showed himself upon reading The conduct of life (1951) to have little understanding that, and still less why, Mumford placed a high value on science and conceived his own

Mumford was far from alone in his generation in seeing the world this way, nor by any means the only one to devote his life to healing this breach: “This age of ours, which is so often called—wrongly—the ‘scientific age’ is far from perfect,” George Sarton wrote in 1930, “but the main source of its imperfection is the fact that the elite is divided into two hostile groups, the ‘humanistic’ and the scientific. Our crying need is the bridging of the widening gap which separates them. . . . All of my life and energy are devoted to bringing about that reconciliation, that new synthesis” (concluding paragraph). The discussion of Walter Pagel by Mayer, “Setting up a discipline,” 43, 46, 47, 52–54, 64, shows that Pagel too turned to the history of science out of an urgent need to “reunite” science and the humanities.

19. In 1920 Mumford cried out to his Jovian father-surrogate Patrick Geddes, Mumford-Geddes corresp. (1995), 81–82: “What am I? A journalist? A novelist? A literary critic? An art critic? A scholar? A sociologist? An artist? By native capacities, an emotional, by equipment, an intellectual. MUST I TAKE A DEFINITIVE LINE?” And almost three decades later, looking back along the line he had taken, Mumford, My works and days (1978), 430, said essentially the same, not with anguish, but with regret: in “the conflict between the pragmatic scientist-intellectual and the artist-philosopher . . . the latter side, which at times I had slighted, was really my major one.” Cf. ref. 142.

20. “In all his fields of cultural criticism, Mumford’s goal was synthesis: between past and present, between the heroic artist and the humble vernacular, between the city and nature, and between humanity and its machines.” (I refrain from naming the scholar penning this exemplary travesty.) Lawson, Failure (1971), is a partial exception to the refusal to see science as essential to the synthesis Mumford sought. Pells, Radical visions (1973), 30–31, noticed Mumford’s high valuation of science. Bender, New York intellect (1987), 235, recognized in touching briefly on Mumford that he sought “to fuse humanism and science, becoming a sort of literary sociologist in the 1920s.” Smith, diss. (2000), 185, noticed Lawson and noticed Mumford’s theme, but did not emphasize it. Likewise Wojtowicz, diss. (1990), 102. Molesworth, “Inner and outer” (1990), 241–255, 414, acknowledged Mumford’s theme. Cotton, “The eutopitect” (1997), a description and analysis of The story of utopias that does recognize the importance Mumford there placed upon the “dissociation” of art and science as cause of dehumanization. However, Cotton does not generalize about Mumford beyond the covers of that book. These are the only exceptions known to me, and none makes much of Mumford’s theme. Cf. refs 35 and 121.
work as scientific. Mumford “rubbed [his] eyes,” reread Brooks’ letter, and replied that The conduct of life, like his three previous books in that series which began with Technics and civilization (1934), is of: 21

a species represented by Moby-Dick and by William James’s Psychology, in which the imaginative and subjective part is counter-balanced by an equal interest in the objective, the external, the scientifically apprehended. . . . What lies behind the new method is the conviction that personal experience and personal intuitions, however sound, do not carry full weight until every effort has been made to square them with what William James called “hard, irreducible facts,” meaning by that, results that have proved valid for all sorts of different observers, in consequence of the application of the scientific method.

Although Brooks and scholars since him have been unwilling to see Mumford as he was, they have not failed to grasp that there was a high degree of “consistency” in Mumford’s message: “Lewis was one of the few men who have not ideas but an idea, and he was to spend his life working this out,” said Brooks in his memoirs. 22 Brooks was so quoted by Mumford’s biographer, Donald L. Miller, in representing “that dominating idea and theme” as “the rise of the machine and the mechanistic outlook in the Western world.” 23 Miller—and his is the common view—thus mistook “the rise of the machine” for root cause, whereas for Mumford it was merely a derivative consequence of the divorce between science and art, which divorce permitted a misguided scientific metaphysics to arise and flourish, which misguided scientific metaphysics produced the mechanistic outlook, which mechanistic outlook resulted in the machine and permitted its triumph.

What distinguished Mumford among those whose life and work were on the “art and idealism” side of the two-cultures divide was not so much the size, as the positivity of the role that he ascribed to science. Apart from his exceptionally strong affirmation of science and the scientist, Mumford’s ideologies through the 1930s were largely typical for partisans of “art and idealism.” Such advocates of elevation—and they were legion—took art as a mode, even the only mode, of access to the transcendent, and took the artist as the medium for communication with that realm of truth. This “sacralization of Art” originated in the romantic revolt at the turn of

22. Brooks, Days . . . I remember (1957), 154. Brooks prudently refrained from stating what that idea was.
23. Miller, Mumford, 163, Miller continued: “here also he [Mumford] developed a closely related theme that runs through all his later work—the idea of the creative artist as prophet and revolutionary.” But even allowing this formulation for the quasi-magical powers that Mumford’s romantic idealism allowed him to impute to the artist in his early and middle phases, Miller was wrong about Mumford’s later work, where, importantly, Mumford largely abandoned this conception of the artist.
the 19th century, and was sustained by, and helped sustain, the romantic tradition in Western culture right through the early 20th century.24 In Britain and America, where Ruskin, overwhelmingly, was read and reverenced, a social conception of great art as the (optimally anonymous) expression of the goodness, truth, and beauty of the life of an organic, integrated culture was the predominant form of that sacralization of art. “The scholar-spokesmen at the center of Progressivism,” Roger Stein pointed out forty years ago, “often came to their political vision from a Ruskinian aesthetic.”25 Mumford was such a one, belatedly but emphatically.

In Germany and from Germany, meanwhile, the conception of the great artist as a reality remaking superhuman was widely spread through Schopenhauer’s and Nietzsche’s stress upon the artistic will as abolishing the schism between the subjective and the objective.26 In the early decades of the 20th century, this conception of the work of art and of the artist—at once both transcendental-absolutist and personalist—combined then with the messianic form of the social conception of art to form the ideology of the avant garde. The most advanced went so far as to anticipate the “end of art” in the complete “aestheticization of reality” through their own, magically reality-remaking, artistic activity.27 Mumford too, though

24. Schaeffer, *Art of the modern age* (2000), 274–284. McCormach (1974), 165, drew attention to Julius Langbehn, *Rembrandt als Erzieher* (1890), maintaining “that the vocation of science was to ‘submerge itself in art,’ and he looked to an age or art to succeed that of science.”


26. Schaeffer, *Art of the modern age*, 277–279. Schaeffer, pointing particularly to Mondrian, underscored “the Nietzschean legacy in . . . the omnipresence of the expression: ‘We will . . . ’ [in] the avant-garde manifestos of the period” following World War I. “This almost obsessive voluntarism is connected with the idea that the avant-garde artist is the ‘new man’.”

27. Ibid., 278–279. One indication of the commonality within the avant garde of this self-conception as reshaper of men’s minds, and hence of their societies, and of reality, is that six of the ten essays in Herbert, *Modern artists on art* (1964), include such a claim, even though the editor sought only “a representative expression of the different modern attitudes toward art” (vii): 6, 18 (Gleizes and Metzinger); 35 (Kandinski); 60, 67, 73 (Le Corbusier and Ozefant); 75, 86 (Klee); 100–102 (Malevich); 105, 113 (Gabo, who reads almost exactly like Mumford, whose close friend he would later become, see ref. 155). See, likewise, ref. 47.

The postmodern artist, without fully abandoning this self-conception, maintains some ironic distance from it. Thus Dark, “Mr Mondo . . . records the story of his life” (2006), 22: “Harris, 54, is filming his own script,” in which the protagonist is “Arnold, an institutionalized writer crazy enough to believe art can change the world.” No such ironic distance is to be found in the postmodernized sociologist of religion: Wuthnow, *Creative spirituality* (2001), 10, having himself turned away from the modern ideal of a science of sociology and renounced his earlier scientific separation from his subjects, finds that “for all these reasons . . . many Americans are now turning to artists for spiritual guidance.” (Being liberated from the strait-jacket of modernity, sociologist Wuthnow could brush aside the fact that “public opinion polls give little indication of this turning.”)
rooted fundamentally in the Ruskinian social aesthetic, but drawn especially to its messianic version, espoused at times—but always ambivalently—elements of the avant garde’s ideology of artistic voluntarism, even while strongly disliking the departures from Ruskinian truth to nature that the avant garde warranted through it.

In Mumford’s first book, *The story of utopias* (1922), the artist is put forward as savior. This occurs toward its end, following an extended development of the romantic thesis that Mumford had made his thesis—viz., that the widening fissure between science and art is at the base of all our ills, social, cultural, spiritual:28

> If we are to build up genuine utopias . . . we are forced to consider the place of science and art in our social life, and to discuss what must be done in order to make them bear more concretely upon “the improvement of man’s estate.”

There was a time when the world of knowledge and the world of dreams were not separated; when the artist and the scientist, for all practical purposes, saw the “outside world” through the same kind of spectacles…and while the humanistic ideal was intact both literature and science were regarded as coeval phases of man’s intellectual activity.

As science progressed . . . a conflict grew up between literature and science, between the humanities and natural philosophy29 . . . Unfortunately, the men who gathered together to form the Royal Society were specialists in physical science; and in the lapse of the humanist tradition through the religious acerbities of the time, they had lost some of their desire for a complete life. As a result, the original charter of the society confined its work to the physical sciences.30

Insignificant as it now appears in the annals of science, this decision seems to me to mark a definite turning point in human thought. Henceforth the scientist was one sort of person and the artist another; henceforth the idolum of science and the idolum of art were not to be cemented together in a single personality; henceforth, in fact, the dehumanization of art and science begins.31

28. The book opens with a charming “Introduction” by Hendrik Willem Van Loon. Mumford’s book proposal had been accepted by Horace Liveright (then running the Boni and Liveright publishing firm) and the title chosen in order to ride on the coattails of Van Loon’s *The story of mankind*, which the firm had published the previous year to wholly unanticipated acclaim: van Minnen, *Van Loon*, 77–79. I have reordered Mumford’s telling of his story to place it in logical sequence: Mumford had advanced these ideas piecewise over the previous five years, but then wrote the book with breakneck speed in the early months of a marriage that seemed unlikely to hold together. In fact, it lasted almost 70 years, until Mumford’s death in 1990. By the early 1940s it had become a very close, collaborative relationship.


30. Ibid., 284. That was not the case, but the allegation, echoing the stock opposition between mechanism and organicism, provided Mumford with a springboard.

31. Ibid. Mumford has “idolum” from Bacon. He means by it something like worldview, taking it in this first book as self-explanatory and using it heavily. Mumford then largely dropped the term for twenty years—it appears in *Technics and civilization* (1934) but only incidentally—reviving it and defining it in *The condition of man* (1944), 424, which is in several respects closer to *The story of utopias* than any of Mumford’s other books, including, notably, in the remission there of Mumford’s “Life” rhetoric.
It seems to me, then, that in the cultivation of the sciences a definite hierarchy of values must be established which shall have some relation to the essential needs of the community. . . . When science is not touched by a sense of values it works—as it fairly consistently has worked during the past century—towards a complete dehumanization of the social order.\textsuperscript{32} Yet it should be obvious that if the inspiration for the good life is to come from anywhere, it must come from no other people than the great artists. . . . It is out of the vivid patterns of the artist’s ecstasy that he draws men together and gives them the vision to shape their lives and the destiny of their community anew.\textsuperscript{33}

Apart from the salvific role of the artist—in which after the late 1930s Mumford was no longer able to believe—this is the story that Mumford would stick to for his entire writing career.\textsuperscript{34}

In his third book, \textit{The golden day} (1926), Mumford elaborated this grand narrative of degeneration as resulting from the separation of art and science to include the equally long-familiar and widely-advanced romantic thesis that the scientific method created by Descartes, Galileo, and their successors, succeeded because it limited reality to the measurable and the impersonal. Denying the real existence, and consequently the value, of the greater part of human experience—above all aesthetic experience—modern science admitted only the objective, the abstract, the quantitative as really real. Furthermore, Mumford charged, the success of this

\textsuperscript{32} Sarton, “The new humanism,” wrote at about the same time: “Investigations [in science] carried on along very special lines without reference to the work of one’s fellowmen must produce in the end a sort of scientific Pharisaism, a worthless and stupid idolatry of facts, a system of meaningless conventions and unconscious prejudices. . . . Science is our greatest treasure but it must needs be humanized or it will do more harm than good.”

\textsuperscript{33} At the end of March 1922 Mumford sent his “Dear Master” an outline of the book on which he was then intensively at work: Mumford-Geddes corresp. (1995), 123–26. Its last chapter is titled in that outline, “The foundations of Eutopia,” and its section heads are “The world as it is: Science,” “The world as it might be: Art,” “The application of art and science in a particular region: Eutopia.” In explanation of what he had in mind, Mumford wrote: “When entirely cut loose from social life art becomes irrelevant to the point of becoming in the end little more than the phantasy of the lunatic, whilst science, similarly unharnessed, contributes to the scarcely less private world of the specialist. In the humanist tradition art and science, while pursued independently for their own sakes, are also carried over into the life of the community. This juncture of art and science, which has only recently become possible, is the pledge of Eutopia in a world which has hitherto been at the mercy of ignorance and the undisciplined expression of primitive wishes.”

\textsuperscript{34} Miller, \textit{Mumford}, 163, though missing its underlying thesis, still regarded \textit{The story of utopias} as “perhaps the single most important book for understanding Lewis Mumford’s career and achievement.” Likewise nearly all other writers on Mumford as social critic. The first, so far as I know, to take \textit{The story of utopias} as foundational was Lawson (1971), but apart from Smith, diss. (2000), I have not seen his work cited by later writers.
method of modern science—both its success in describing natural processes and its success in originating new technologies—had persuaded nearly everyone that this mechanical world picture was the one and only truth about the world. Worse still, the consequence of seeing the world in such inhumanly mechanical terms is that men refashion themselves as mechanisms, as insensible automatons.  

It is this rejection of the method and ontology of modern science that nearly all who are inclined to write about Mumford bring with them to the reading of him, and so are pleased to take away from the reading of him. They thus fail to grasp that in Mumford’s mind his critique was propaedeutic for the creation—by scientists, necessarily—of a more complete science that he could affirm completely.

Though Mumford’s message and Mumford’s paradise-lost/paradise-to-be-regained emplotment remained largely unaltered, there were important differences in emphasis, and even in axiom, that distinguish what I here call Mumford’s early, middle, and late phases. As it is the principal purpose of this paper to explicate

35. *The golden day* (1926, 1968), 22–23, 7–8. This first chapter, “The origins of the American mind,” is reprinted as the first selection in *Interpretations and forecasts* (1973), where the passage appears again on pp. 7–8. This thesis had recently been developed much more fully in Burtt’s *Metaphysical foundations of modern physical science* (1925), to which Mumford did not refer, neither then nor at any time prior to 1970, so far as I have seen. Mumford’s silence should not, however, be taken as indicative of the reception of that book, nor of the acceptability of its thesis. Neither should Daston’s (1991), 529, “underscor[ing] that Burtt’s own contemporaries apparently received this book. . . with something akin to indifference. I have been able to locate only one review of the first edition, which reported Burtt’s theses so laconically and uninvitingly. . . . that readers can hardly have stampeded the bookstores.” A glance at *The book review digest* (1926), 111, shows that Burtt got long and laudatory reviews in the upper-middle-brow press. Nor was his book written “in an elegiac mode,” as Daston characterized its spirit in titling her paper. Rather, as those reviews suggest, and Lovejoy, *Revolt against dualism* (1930), 1–2, testified: “From many sides may now be heard the rallying-cries of groups inspired by highly diverse motives to attack the common enemy—and there are not wanting resounding proclamations that the enemy has in fact been already overthrown. ‘The history of modern philosophy,’ observes a recent writer, ‘is a history of the development of Cartesianism in its dual aspect of idealism and mechanism. Only within recent years has that triumphant progress been checked. The manifold errors of the system have always been obvious and freely criticized. But only now have we begun to realize how totally wrong are its very first assumptions; only now have we begun to see in this simple and direct philosophy the source of all the great intellectual sophisms of our age.’ [Footnote cites leading article in the *London Times Literary Supplement*, Sept. 9, 1926.] . . . So Professor Whitehead has found in the characteristic theses or rather preconceptions of the 17th century the *fons et origo malorum*—the artificial and ‘quite unbelievable’ set of ‘scientific abstractions’ by which ‘modern philosophy has been ruined.’ Professor Burtt likewise . . .” Thus Mumford did not lack for an audience for his world-historical thesis, and that to a large extent because, as the *Book review digest* quoted the *Saturday review of literature* saying re Burtt, his thinking was “not startlingly original.” Cf. refs. 18, 32, and 121.
what science signified for Mumford, the differences in that regard between those three phases is the steadiest concern in what follows. But the most forceful factor in altering Mumford’s view of science, and determining the place that he gave science in his persona, was neither the alterations nor the applications of science itself, however great those were over the course of his adult life. Rather, the roles that science had in the successive phases of Mumford’s self-conception were determined chiefly by changes in Mumford’s conception of art, and of himself in relation to art—or, better, Mumford’s conception of art in relation to himself. It is not unimportant that those changes in what Mumford thought art could be and do, and of its role in his own being and doing, were closely associated with changes in the form of Mumford’s life, that is, in the circumstances and social integrations within and through which he conducted his life and wrote his writings. Indeed, the distinct forms of Mumford’s life in his early, middle, and late phases were generally consistent with Mumford’s conception of himself in relation to art in each of those phases, and thus also with the differences in his affinity for science in each of those phases. But it would be wrong, I think, to take the alterations of

36. Mumford’s biographers, Miller and Wojtowicz, did not attempt a periodization of Mumford’s outlook beyond emphasizing that after the World War II Mumford was much more pessimistic than he had been earlier. Lasch, *Salmagundi* (1980), saw Mumford’s development from *The story of utopias* to *The myth of the machine* as monotonic and progressive, namely first to disillusionment with utopias and science and technology, then to disgust with utopias and science and technology. There is a small element of truth in this view. Hughes and Hughes, in their introduction to *Lewis Mumford* (1990), 4–6, identified three “attitudinal phases” in the adult Mumford, namely an affirmative view of technology until the late stages of the writing of *Technics and civilization* (1934), doubts about technology from then to the end of World War II, and despair about technology after it. The scheme is not essentially different from Lasch’s progress into pessimism, but, as “the distinguishing characteristics of each” phase relate only to Mumford’s attitude toward technology, it misses what was of primary importance to Mumford, and as regards Mumford’s attitude to technology it misses the most important fact: Mumford did not start from an affirmative view of technology.

Novak, *The autobiographical . . . Mumford* (1988), 17–23, vastly overrating the importance for Mumford of his work on Melville, 1928/9, made that the great divide in Mumford’s life. Though Novak is only inflating what Mumford himself claimed in *My works and days* (ref. 4), chapt. 15, the significance of *Melville* for Mumford relates mainly to parts of his persona most closely involved in his entrance in 1929 upon a period of extra-marital sexual liaisons, and that book had no great importance for the content or style of his subsequent writings. Dow, “Mumford’s passage to India” (1977), has the great break in 1931, identifying it with Mumford’s conversion from merely a critic of the arts in America (the subject of Dow’s University of Pennsylvania doctoral dissertation of 1965) to universal intellect, taking in all aspects of culture and civilization “in relation to *life anywhere on the planet.*” Again, notwithstanding that Mumford himself gave Dow the allusion in the title—writing in a letter to Dow “my Passage to India, in fact!”—this periodization is even less sustainable than the preceding: Mumford’s Americana phase was an anomaly, a long excursion from the direction and scope of his interest from late adolescence to his late twenties, and it was to that more genuine interest that he returned ca. 1931.
the form of Mumford’s life as the cause of the changes in his self-conception and his message. Primary was Mumford’s view of art, art in relation to society, art in relation to himself.

The early phase

Mumford belonged to a generation of American artists and intellectuals in revolt against Victorian mammonism, philistinism, and social-political conservatism. Born in October 1895 in New York City, he was raised there, as fatherless only-child, in a family speaking both good German and good English and maintaining a bourgeois life-style despite finances insufficient to support it. In elementary schools he was always first in his class and skipped grades. Completing high school in three-and-a-half years, with not such good grades, Mumford, not yet 17, began attending City College of New York’s evening sessions in 1912. At the end of 1914 he dropped out. Although in the following years he would make a couple of attempts to resume work for a college degree, fundamentally from that time forward Mumford shouldered the heavy burden of “self-fashioning.” The persona that he had in view in that young adult phase was a fusion of the scientific with the artistic, to be himself scientist as well as artist. The fantasy that accompanied this self-conception was of being a Leonardo da Vinci.

Even though the romantic/aesthetic was the more strongly experienced side of Mumford’s self, and even though his idealistic/romantic metaphysics and ideology placed the highest value on the work and the person of the artist—“the artistic travail of giving a shape and a form to ultimate values”—in that early phase Mumford gave primacy to the principles and to the practice of science. More than in either of his later phases—and the contrast is greatest with his middle phase—Mumford as a young adult identified himself primarily with science. This primacy of science is most evident in his discipleship-at-a-distance to biologist-turned-social-reformer Patrick Geddes. Mumford conceived and pursued this discipleship to Geddes after leaving college, at the start of his young-adult phase, and renounced it—or, more softly, transformed it—some 10 years later, coincident with his adoption of the man-of-letters persona of his middle phase.

38. Miller, Mumford, and Wojtowicz, Mumford, provide the biographic facts for this paragraph. Miller, pp. 66, 299, 420, drew attention to Mumford’s equaling himself to Leonardo, Socrates, Aristotle, Bacon, etc. An affectionate essay on the theme is West, “Mumford as archego” (1980).
40. Mumford first encountered Geddes’ writings in 1914, initially Geddes’ biological writings, and then Geddes’ Cities in evolution (1915). This led Mumford to invent a master-disciple relationship, which lasted almost ten years, coming to an end after Mumford’s first encounter with Geddes in person, in summer 1923. Mumford’s Sketches from life...
Early in that early phase Mumford labeled himself a pragmatist. He would not go so far as to label himself a positivist, but it was Comte’s conception of sociology as the integrative science at the apex of the pyramid of positive knowledge that inspired Mumford’s master, Geddes, and inspired Mumford himself in this young-adult phase. For Mumford, as for Comte and Geddes, an exalted conception of sociology was fully compatible with holding physical science in the highest regard as exemplar of the method and the power of science. Early in 1921, looking as he forever would “towards a humanist synthesis,” Mumford made it clear that his sympathies were not with “the mossy archaicism of those who advocated humane studies at the expense of the newer scientific disciplines.”

early years (1982) is largely about his Geddesian phase. The fullest expositions of the early Mumford as Geddesian are Wojtowicz, Mumford; Blake, Beloved community; and Novak, “Introduction: Master and disciple,” who accomplished the difficult feat of ignoring while editing that correspondence for publication the ample evidence of the centrality of science in Mumford’s intellectual outlook.

41. Under the influence of his philosophy instructor at City College, John Pickett Turner: Miller, Mumford, 51. “Since I was brought up, so to speak, on pragmatism”: to Brooks, 1925, Brooks-Mumford letters (1970), 37. “Roughly speaking, most of my generation began as pragmatists. I studied Pragmatism and A Pluralistic Universe before I had read a word of Plato … and the very first biographic note appended to an article of mine in 1914 proudly stated that I was a pragmatist”: “The pragmatic acquiescence. A reply” (1927). Regarding this reply to Dewey’s response to Mumford’s representation of pragmatism in The golden day, and Mumford’s relation to Dewey more generally: Westbrook (1990).

42. Geddes, “Civics” (1906), 104: “Why then should not Comte’s famous aphorism—‘Voir pour prévoir, prévoir pour pourvoir’—become applicable in our civic studies no less than in the general social and political fields to which he applied it?” Meller, Geddes, 43: “Geddes’ early interest became confirmed into discipleship and he avowed a life-long debt to Comte.” Mumford, “Sociology” (1920). Mumford to Geddes, 25 Mar 1923, Mumford-Geddes corresp. (1995), 174: “and before you come I shall go back to Comte, to refresh my mind—although I had a pretty thorough bout with him three years ago, and emerged from it full of admiration and respect.” All through the correspondence Mumford refers to historical periods using Comte’s vocabulary—so, for example, ref. 120, below. Even in his middle phase Mumford continued to regard Comte’s as one of the grandest and most genial conceptions of human history, to be placed alongside Spengler’s.

43. Geddes lauded Veblen as “the first of American humorists,” who proceeded “with direct physicist-like argument.” Geddes, Cities in evolution (1915; ref. 40), 117–118. Taken with energeticism, Geddes valued physics for presenting a critique of the paleotechnic economy: “for the physicist there is no wealth save in realized and conserved energies and materials.” In parallel with but following upon that motto, Geddes set Ruskin’s “there is no Wealth but Life” (pp. 109–110). Geddes, Bose (1920), vi, explained his undertaking a biography of a (vitalistic) physicist: “Though primarily of biological interests and trainings, I felt in student days the wonder and call of the physical sciences.”

44. Mumford, “Towards a humanist synthesis,” The freeman, 2 (2 Mar 1921), 583–585. Zuckerman (1990), 363, in an especially weak representation of Mumford’s intellectual development (and not merely because accepting uncritically Mumford’s own) quotes...
Beneath the ostensible buildings, subways, telephone lines, and sewers of the modern industrial city lies the immaterial foundation of Western physical science, laid down stone by stone in remote, painstaking researches of Leibniz, Lavoisier, Boyle, and the rest of that glorious crew.

So also:

When the scientist becomes passionately interested in human life, the social sciences will lie beneath the foundations of the New Jerusalem precisely in the fashion that the physical sciences now underlie the stony exterior of New York.

Similarly, although as Mumford approached the conclusion of *The story of utopias* (1922), he had the artist supplying the vision and inspiration for new conceptions of communal life, it is otherwise throughout the body of the book, where the predominant values are scientific. There Mumford even goes so far as to say that “literature and art” are to blame for the highly defective conceptions of the good life, individual and collective, directing the transformations of European and American society over the previous three centuries. Consequently—here comes Dewey—it is high time that the scientific method come to hold sway:

[While science has given us the means of making over the world, the ends to which the world has been made over have had, essentially, nothing to do with science. ... So far, science has not been used by people who regarded man and his institutions scientifically. The application of the scientific method to man and his institutions has hardly been attempted ... Hence there is a great gap between the more external part of the world which has been affected by science, and that part, nearer to man and man’s institutions, which has yet for the greater part to be conquered ... so that every activity and condition may be described, measured, and grasped in scientific terms.

Mumford’s annotation to Morris R. Cohen’s *Reason and nature* (1931) in the bibliography to *Pentagon of power* (1970), 444: “I began as a pragmatist and positivist.” That, however, is Mumford’s rhetorical exaggeration of the difference in his metaphysical commitments between his youth and his old age: “positivist” was not a label that Mumford ever sported, although Molella (1989) rightly has draw attention to Mumford’s reading of positivist authors in his teens and early twenties, and of their importance in his intellectual development.

45. *Utopias* (1922), 272. And on the following page: “The nearer the investigator gets to man, the more easily he is overwhelmed with the complexity of his subject; and the more tempted he is to adopt the swift and easy partisan methods of the novelist, the poet, the prophet.” Similarly, “Towards a humanist synthesis” (1921): “The conflict between literature and science... would probably cease to exist if literature would pay its respects to the scientific method, whilst science acknowledged the importance of the interests to which the disciples of the humanities devote themselves.”

46. *Utopias* (1922), 272–273, without invocation of Dewey, although the debt is more than evident. But such acknowledgement appears on p. 298. Throughout the book Mumford is very tolerant of the great emphasis that the classical utopists placed upon “reason,” and their low valuation of art and emotion.
The effective primacy of science for the early-phase Mumford is clear. “Effective” is to be emphasized: in principle, art held primacy, and not only because Mumford’s more deeply felt identification was with the artist. The romantic conception of the artist as social savior, “giving a shape and a form to ultimate values,” providing men “the inspiration for the good life” and “the vision to shape their lives and the destiny of their community anew” was certainly more serviceable to the megalomaniac in Mumford than were the conceptions of the scientist then available. Yet in this romantic conception of the artist there is an inherent ambiguity, not to say contradiction, between a social aesthetic and an absolutist-personalist aesthetic: is an artist great because his works have reshaped society, and therefore his greatness is to be judged by that criterion, even by that intention, or is the reshaping of society an inevitable, but incidental, consequence of absolutely great art, i.e., of that which great artists create out of their own person? The tension between these two versions of the romantic conception of the artist—between what Mumford himself labeled “the civi-centric and ego-centric motives in art”—runs through Mumford’s early phase and his middle phase as well. It disappears at the end of the 1930s, at the start of Mumford’s late phase, because, in his mind, contemporary artists were discredited as creators of values.

In Mumford’s early phase, when his identification of himself as scientist was strongest, so also was his affirmation of a social aesthetic. Although he wrote in The story of utopias that, “like the pursuit of truth, the pursuit of esthetic values is a good in itself apart from any values that may be realized in the community,” the argument of the book was a denial of that proposition—both as regards science (“truth”) and as regards art (“esthetic values”). Rather, Mumford advocated there,
and more generally in both his early, Geddesian-phase writing about art, and in his subsequent man-of-letters phase, an essentially pragmatic criterion of art: great art is that which provides “the inspiration for the good life.” But Mumford could also, occasionally, assert the reverse of that proposition: beauty is something that must “arise naturally out of the good life.”

Where early-phase Mumford was coming from, aesthetically speaking, is clearest in “The marriage of museums,” an essay of 1918. In it he argued for a proposed connection across Central Park between the American Museum of Natural History and the Metropolitan Museum of Art. He called (as he would again in The story of utopias) for the imposition of a “social orientation” equally upon science and upon art. “Given a common social basis, collection and presentation” the two museums “will have a common social end.” However, in 1918 Mumford thought that the art museum required the greater corrective: “It is the scientific, environmental presentation” of the natural history museum’s mural paintings and dioramas “that meets all the demands of art.” The hero, therefore, of “The marriage of museums” is “the artist-scientist” Charles R. Knight, whose paintings and sculptures portray as they were supposed to have appeared in life and in their natural habitats creatures known only from fossil remains. Mumford, with his life-long theme already well in mind, lauded Knight for having “effaced by the synthesis urged the need for “a deliberate act of dissociation.” Cf. Wojtowicz, “Introduction” (2007), 9–10. On the crosscurrents in aesthetic theory at this time, and in particular the idealism of Mumford’s older friend and patron, Joel Spingarn: Gerald Graff, Professing literature. An institutional history (Chicago, 1987), 126–127, et passim.

50. Utopias (1922), 290. Blake, Beloved community, 215, bending over backwards to make a hard-thinking social philosopher of Mumford, closed his eyes to the quoted exaltations of art and the artist where they appear in The story of utopias (1922) in order to find it in Sticks and stones (1924) and The golden day (1926), thus affecting to see “Mumford working his way out of the dead end of idealist thought by reconceiving its goal of a fully conscious subject as an aesthetic project. . . . Since aesthetic experience mediated all of human existence, the creation of new social myths had to start in the medium of artistic form, rather than in the utopian milieu of abstract ideas.”


52. There Mumford refers to Ruskin and William Morris, but more specifically credits Geddes, “the eminent botanist, and art critic likewise” for urging the inseparability of science and art: Findings and keepings (1975), 33. Wojtowicz, diss. (ref. 4), 55–67, emphasized this and several other debts this essay owed to Geddes; likewise Wojtowicz, “Introduction” (2007), 2.


54. Ibid., 32.
of his own personality the ill-conceived antagonism between science and art that was handed down from an earlier age.”

He [Knight] places his art at the service of science, and he uses his science as a frame for his art: and he has thus to no little extent given back to the artist the opportunity for public service which disappeared with the decline of the Middle Ages.

For all that Mumford, then age 23, continued in this passage to show himself as a social radical, deploring “the usurpation by the leisure classes of the artist’s talent,” he also placed himself quite firmly on the side of “the classicists in art”:

Here is also at last a place for those academics and scholiasts who in the teaching of art insist upon truth values, those of anatomical perfection and fidelity to exterior form, as the salvation from slackness, laziness, meretriciousness and the like. Losing their foothold inch by inch in the art galleries, they may at least find refuge without compromise in our museums of natural history.

“Anatomical perfection and fidelity to exterior form” had lost a lot more ground in the art galleries of New York by the winter of 1921/2 when Mumford sat down to write The story of utopias.

Though he made there a pro-forma gesture toward the avant garde’s absolutist-personalist aesthetic, Mumford’s feelings were emphatically against it:

In the good life, the purely esthetic element has a prominent place; but unless the artist is capable of moving men to the good life, the esthetic element is bound to be driven farther and farther away from the common realities, until the world of the artist will scarcely be distinguishable from the phantasia of dementia praecox. Already, the symptoms of this corrosive futility have appeared in literature and painting in Western Europe and America; and such light as comes forth from this art is but the phosphorescence of decay. If the arts are not to disintegrate utterly, must they not focus more and more upon eutopia?

55. Ibid., 33. Knight’s murals remain the most celebrated representations of dinosaurs, and have been of wide influence on fantasy artists and simulators: http://www.charlesrknight.com, accessed 2006 Mar 10.
56. Ibid., 33. Mumford here again shows himself most affected by the fate of art and the artist, even as he is giving effective primacy to science.
57. Ibid., 34. Mumford found in Anders Zorn’s natural nudes support for his hope “that art is moving biologically onto firmer ground”: Freeman (17 Nov 1920). Hughes, American genesis, especially chapt. 7, “The second discovery of America,” showing no awareness of Mumford’s aesthetic conservatism, represented him as with the artistic avant-garde. That misrepresentation is abetted by von Moos, “Mumford and the European avant-garde” (1990); likewise by Steinman, Science, technology, and American modernist poets (1987), 39.
A striking instance of Mumford’s placing social above aesthetic criteria is his rejection of the skyscraper, “New York’s greatest enemy.” Declaring that “it is an architecture, not for men, but for angels and aviators!” Mumford refused to grant the skyscraper any grace as viewed from the ground. Not even from Brooklyn Heights across the East River, the very best of vantage points to admire the dramatically rising Manhattan skyline, for it was there that Mumford was living in the early twenties and from there began his relentless attacks upon those monuments of modern technology. The skyscraper represented “the last state of mechanical

59. Sticks and stones (1924/1955), 80–81; Miller, Mumford, 174–175, 486. Mallgrave, Modern architectural theory, 294–295, noted that in regard to the architecture of New York City in the early 1920s Mumford “has a love-hate relationship mostly tending toward hate” and that the animosity was directed mainly against the engineer. Samson, diss., 373, 381–382, pointed out that in opposing the skyscraper categorically Mumford was in the early 1920s among a not large, but well-placed and vocal minority. A further example: Siegfried Kracauer, writing in the Frankfurter Zeitung in 1924, deplored the “tower-like monsters that owe their existence to the rampant quest for power of predatory entrepreneurs.” Quotation, in English translation, by Christian Maryška in Grewe, ed., From Manhattan to Mainhatta (2006), 177.
perfection and human insignificance”;

60 it was an expression of “crazy romanticism,” “inane romanticism,” of “the painfully childish romanticism of our modern financial leaders.”

61 Unwilling to look at that rising Manhattan skyline before him, and disdainful of those like Hugh Ferris who, though romanticizing it, were reimagining it, Mumford entirely overlooked the aesthetic consequence of New York’s 1916 zoning law—that, as Ferris presciently put it, “Architects will cease to be decorators and will become sculptors.”

Mumford’s revulsion at the artistic modernism all about him in post–World War I New York was consistent with the primacy that he then gave to science. Manifold are the consonances between Mumford’s aesthetic conservatism, and more especially his social aesthetic, and his scientific self-conception and outlook. Despite his railing against the intellectual narrowness of those adhering to the scientific and scholarly disciplines, Mumford esteemed as virtues those qualities of personality conventionally ascribed to the scientist. In particular, the then hegemonic ideology of disciplinary science emphasized the impersonality of the scientific personality. To be a scientist meant practicing a rigorous abnegation of

60. “The metropolitan milieu” (1934), 50–51.
61. The new republic (18 Mar 1931), 121; ibid. (12 Feb 1930), 332, where, 333, he charged that “In his actual creations, Le Corbusier is as romantic as the worst builder of Norman turrets.” So certain was Mumford—whose architectural ideal was always the medieval village—that the epithet ‘romantic’ did not apply to himself! Spengler, by 1932 out of Mumford’s favor, “So far from being a great scholar and historian he is really the last of the German romantic poets”: “The decline of Spengler.” In 1928, at the outset of his brief philotechnic phase, Mumford had softened his opposition to the skyscraper: “American architecture today.” But in The new republic (12 Feb 1930), apropos Ferris, he delivered the most unrestrained deprecation of the skyscraper.

62. Mallgrave, Modern architectural theory, 282. Mallgrave, 294–295, observed that the garden city, for which Mumford’s model was the New England town as a reproduction of the medieval village, was “the touchstone for Mumford against which all other American architectural developments would later fail to measure up.” This was where Mumford was most Ruskinian. As he wrote to Geddes in December 1925, Mumford-Geddes corresp. (1995), 234: “architecture...—as I always present it—not as an isolated esthetic phenomenon but as a capital social art, whose successful practice depends upon the well-being of the community.” From there it was but a short step to insistence that all architectures be decided by those responsible for “the well-being of the community.” See, for instance, ref. 109.

63. McCormmach, Night thoughts of a classical physicist, 35–36, has Viktor Jakob, his composite of experiences and attitudes of the older generation of German physicists, contrasting the painting of Adolf Menzel, “with its pleasing proportion, with its truth,” where “each nail must be in its place, each scratch,” with “the naïve daubs of the Expressionists” and with “paintings in the so-called Youth Style, with their undisciplined images of natural fecundity.” Only upon the valuation of “natural fecundity” did Jakob, the aging physicist, and Mumford, the young artist-scientist, diverge.
the self in order to advance the collective cognitive effort; one’s own personality subserved “‘hard, irreducible facts’” and objective natural laws. Similarly, if the mission and meaning of art is social, it is necessary that the symbols employed by the painter, even more than those employed by the scientist, be clear, evident, unambiguous, accessible to every viewer. But abstraction, expressionism, and, later, especially surrealism, all flouted this constraint. To Mumford’s mind they were the very antithesis of the scientist’s sacrifice of self. They were forms of rampant subjectivism, assertive manifestations of the artist’s internal state, and as such capable neither of presenting an inter-subjective reality nor of creating values for the community at large.

Instead of seeking to convey an aesthetic emotion the modernist is satisfied to contain it, and this gratification of his private self has been the ruin of his ability to achieve adequate expression.

An antipathy to abstraction is very nearly constant in Mumford’s writings; it was one of the most fundamental, and fundamentally inalterable, features of his mental makeup. All his life, he rejected vehemently the label “romantic,” applying it opprobriously to others and adducing the scientific side of his persona as proof that he could not be so regarded. Antipathy to abstraction is a litmus test: it places

64. To Brooks, 1952, Brooks-Mumford letters (1970), 369. Mumford stated that self-abnegatory ideology in 1930 in “A modern synthesis,” 1028: science presents a “long roster of saintly personalities who have learnt to displace their own wishes and prejudices and biases when they confronted actuality. The co-operative research, the collective testing of ideas.” Upon this conviction Mumford expatiated in Technics and civilization (1934), 361: “the technique of creating a neutral world of fact as distinguished from the raw data of immediate experience was the great general contribution of modern analytic science. This contribution was possibly second only to the development of our original language concepts. . . . Behind this. . . . stands a special collective morality. . . . The collective process. . . . gave a higher degree of certainty than the most forthright and subjectively satisfactory individual judgment. The concept of a neutral world, untouched by man’s efforts, indifferent to his activities, obdurate to his wish and supplication, is one of the great triumphs of man’s imagination, and in itself represents a fresh human value.”

65. “Standards old and new” (1920), 89–90. This Freeman piece opens with Mumford declaring that “The canons of criticism in the arts, especially painting, have all but disappeared.” Similarly, but less strong, [Untitled] (26 Jan 1921); [Untitled] (31 Aug 1921). Mumford’s close friend and fellow Freeman contributor Walter Pach was emphatically an advocate of modern art—he had been one of the organizers of the 1913 Armory show—but Mumford emphatically not. Wojtowicz, diss., 86, aptly noted that “Mumford’s repeated attempts to come to terms with modern painting would preoccupy him throughout his life. While he accepted modern forms, he believed that modern art in general, and abstraction and surrealism in particular, had little to communicate to the viewer.”
Mumford unquestionably among the romantics, and more particularly among the *lebensphilosophisch* romantics.\(^{66}\)

Constantly present though this *lebensphilosophisch* strain was in Mumford’s outlook, the predominance of the scientific ideal in Mumford’s early adult persona enforced a relatively restrained “life” rhetoric. Up through *The story of utopias* (1922) it is not capital-L “Life” but “the pattern of our lives” that is Mumford’s frame of reference.\(^{67}\) Similarly, although “mechanical” appears in that book as a pejorative, only in the mid-1920s did Mumford capitalize “Machine” and assign to it the role of comprehensive antipathetic—the role that, following Carlyle, it had long enjoyed in the romantic tradition.\(^{68}\) Although all the axiologic key words of Mumford’s later, luxuriantly *lebensphilosophisch*, phases can be found in his writings in this early phase—life versus death, organic versus mechanical, concrete versus abstract, subjective versus objective, personal versus impersonal, imaginative or inspirational or visionary versus analytic, whole or synthesized or integrated versus separated or specialized or isolated—none of these terms was yet given great salience.\(^{69}\) Moreover, the more labile of these oppositions (subjective versus objective, personal versus impersonal) generally bore in this early phase a valence opposite to that which they predominantly carried in Mumford’s artistic-*lebensphilosophisch* middle phase.

**The middle phase**

Early phase Mumford felt acutely the conflict between his scientific and artistic selves. That conflict was aggravated by the anomalousness of his artist-*cum*-scientist self-conception—“The result of this attitude is, of course, that I am an Ishmael in

\(^{66}\) Lawson (1971), 202, is the only writer I’ve encountered who has recognized that “abstract” and “abstraction” were comprehensive pejoratives for Mumford. Those writing about Mumford’s aesthetic views have noticed his distaste for abstract art, but since, as a rule, they seek to minimize what they perceive as a failing, they are the less ready to see that antipathy to abstraction was not limited to the aesthetic realm, but was a general feature of Mumford’s outlook.

\(^{67}\) *Utopias* (1922), 268. There were, earlier, some *lebensphilosophisch* outbursts: Miller, *Mumford*, 71, quoted from a 1917 play, “The Gorgon’s head,” where Leonardo da Vinci (i.e., Lewis Mumford) as protagonist declared in Bergsonian terms (they would later be Spenglerian) “‘To know a thing by its parts is Science . . . to feel it as a whole is Art. The first is the method of death, of my dissecting table; the second is the way of life, of my canvases.’” Wojtowicz, diss. (ref. 4), 43–45, has a fuller account of this play.

\(^{68}\) For the modern age as mechanistic: Carlyle, “Signs of the times” (1829); Sussman, *Victorians and the machine* (1968), but bear in mind that Sussman is himself almost as much the romantic ideologist as are his subjects.

\(^{69}\) The fact that “causality” was never an important issue for Mumford, but was for Bergson as well as the German *Lebensphilosophen*, argues for the British romantics as formative influences. For “causality” as non-issue for the British in the early 20th century, see Forman (1979). Cf. refs. 86 and 121.
both camps.”

—and made unendurable by the absence of a culturally recognized and institutionally supported career path. As college student, Mumford had intended to become a college professor. Withdrawal from college foreclosed an academic career, while “scientist” and “scholar” remained an important part of the persona that Mumford fashioned for himself after 1914. His difficulty, poignantly exposed in one of Mumford’s many brief essays in The freeman in the early 1920s, was that “at present, the main possibilities for the younger intellectual lie between journalism and a university career,” and those alternatives lie frustratingly far apart. Obviously thinking of himself, Mumford proposed the endowment of positions of “scholar-librarian” at public libraries in the United States, for:

[a] passionate man who has himself traveled along the road of literature and science—who would in fact still be engaged in this work on his own account for a deal of the time—could probably give a more vivid sense of the scholarly vocations to an eager youth than could any of the same youth’s professors at college.

Until the autumn of 1923 Mumford continued this struggle to maintain his self-fashioned self-conception “as a young scholar who publishes his notes and lectures instead of speaking to a class.” Then, toward the end of his third decade, Mumford molted. In the summer of 1926 he could say, “Last year, for the first time, I felt emotionally and physically mature.”

Bringing about this transformation was not only Mumford’s renunciation of his discipleship to Geddes, and not only the birth in July 1925 of his first child (named for Geddes), but also the fact that Mumford had joined the camp of the artists. By the time he was 30, Mumford was in a position to assume, and largely had assumed, the ready-made identity of man of letters—albeit a man of letters who was distinguished by knowing how to value science. The ambition of this middle-phase Mumford was to create works of true imagination and, along the way, in a

70. Private notes, Aug 1921, in Findings and keepings (1975), 69–70.
71. “Values in utopia,” typescript, 2 pp. (Mumford papers, fldr 8133), on which Mumford at some time in the 1920s had scrawled in thick red pencil, “Good God!”
72. “Miscellany” (15 June 1921).
74. Wojtowicz, Mumford, 40, noted that “At about the time The story of utopias was published, Mumford’s contacts with the world of American letters had already begun to take precedence over his connections with Patrick Geddes, Branford, and the other members of the Sociological Society.” Miller, Mumford, 212, 253–254, has highly pertinent but not entirely consistent observations on the establishment of the man-of-letters identity. For the formation in 1920s America of “a distinctly anti-academic class of literary journalists”: Graff, Professing literature, 147; Biel, Independent intellectuals; Jacoby, The last intellectuals.
more workmanlike way, texts of literary merit, felicitous and stimulating, containing aesthetic and social criticism. No part of this self-conception as man of letters was altogether new in Mumford. New was that Mumford no longer saw himself as scientist primarily. The transition was not abrupt: here and there in Mumford’s opinion pieces from 1921 onward are signs of an incipient distancing from science. By the autumn of 1923 his sympathies are clearly on the side of literature.75

The difference in style and stance between The story of utopias (1922) and The golden day (1926) signals Mumford’s altered identity and outlook. In the earlier book he was still the scholar-scientist. Literary distinction was not his primary aim.76 His writing was expository and advocative—advocating, inter alia, the Geddesian multi-science Regional Survey as the desired “synthesis of all the specialist ‘knowledges.’”77 Thus in The story of utopias Mumford did not rely exclusively upon his own voice and the quoted voices of his historical subjects, as a work of literary art must, and as he would in writing The golden day. Rather, Mumford repeatedly inserted into The story of utopias quotations of his authoritative contemporaries to present and support his argument, as we scholars do. The alteration in frame and aim of his literary labor that supervened between those two books,

75. E.g., “Mechanics and literature” (7 Nov 1923), versus “Via vitae” (19 Oct 1921) and “The birth of nescience” (27 June 1923). In Jan 1922 Mumford wrote Geddes, Mumford-Geddes corresp. (1995), 117, “I have written no plays since I was 22,” i.e., in the past five years (cf. ref. 67), as evidence of his sobering up; but in May 1925 he described to Geddes, ibid., 224, his intoxicated absorption in work on a play. Mumford’s autobiographic prose poem, “The little testament of Bernard Martin, aet. 30,” written in 1926, shows him experimenting with literary modernism. Mumford was very proud of his very few pieces of imaginative writing and reprinted this one both in Findings and keepings (1975), 107–149, and in My works and days (1978), 119–161. He conceived it as paired with a never-written “Great testament of James McMaster”—i.e., Patrick Geddes: Novak, “Introduction” to Mumford-Geddes corresp. (1995).

76. Trachtenberg, “Mumford in the twenties. The historian as artist” (1980), would have found it harder to regard Mumford’s historical books of the twenties as literary art had he included The story of utopias among them. Although science is referred to affirmatively by Mumford in a quotation Trachtenberg included there (p. 40), Trachtenberg himself never penned the word, but brought in Johan Huizinga, visiting America in 1926, to deplore for him “Behaviorist psychology and a general mechanization of thought.” Trachtenberg would have found it harder to ignore Mumford’s high valuation of science had he included Herman Melville (1929) in his interpretation of “Mumford in the twenties.” See refs. 118 and 119.

77. Utopias (1922), 279. Writing to Van Wyck Brooks in 1952, Brooks-Mumford letters (1970), 370, Mumford defended himself against the charge of “reading scientific books too exclusively”: “the only period when I was immersed in scientific writers (as a result of my interchanges with old Geddes) was back in the early twenties, when my style, because of my more simple and superficial methods, was much closer to the moralists whom you advise me to imitate!”
and is represented by them, Mumford himself expressed in his retrospective valuations: *The story of utopias*, “which I wouldn’t recommend to anybody,” versus *The golden day*, “stylistically, that was my high point.”

Similarly, it is only with this transition to his middle phase that Mumford adopted the rhetoric and metaphysics of “Life” with capital “L” as source and ground of the good—along with the Machine, similarly capitalized, as its antithesis. First appearing in *The golden day* (1926), that rhetorical mystique with its empty emphases (“Life, Life purposive, Life formative, Life expressive, is more than living”) became the hallmark of Mumford’s writings over the following five decades.

From where did Mumford take this rhetorical metaphysics of “Life”? Writers on Mumford have generally pointed to Emerson. But the sage of Concord had been only recently appropriated by Mumford when he appeared in *The golden day* as its heroic figure. Dropping Geddes as “master”—though complimentary references to Geddes continued to abound—Mumford took Emerson as “guide and mentor,” still regarding him so 50 years later. Mumford’s favorite Emerson quotation, “things are in the saddle and ride mankind,” effectively captures in one ironic image much of Mumford’s plaint and program. But the very pithiness of Emerson’s metaphors shows that, however prominent “life” was in his writings, Mumford could not have derived his overblown, abstract Lebensphilosophie from Emerson.

78. In 1972, on receiving the National Medal for Literature (awarded by The National Book Awards, an entity created by the trade associations of the book trade), Mumford, noted that it was the 50th anniversary of the publication of “My first book, *The Story of Utopias,*’ (which I wouldn’t recommend to anybody!”): *My works and days* (1978), 527. For his estimation of *The golden day*: Mumford to David Liebovitz, Feb 1960, Mumford-Liebovitz letters (1983), 121. Five months earlier Mumford had written Liebovitz (p. 117): “I have never, in any later book, reached the pitch of clarity and brevity and pithiness as I did in The Golden Day.” All the more significant, therefore, is Mumford’s appeal to the authority of A.N. Whitehead in the concluding paragraph of *The golden day*. See ref. 120.

79. *The golden day* (1926), concluding paragraph.

80. Herman Melville (1929), 189–190. The rhetoric remained no less empty when Mumford undertook to explain that “to achieve organic unity…in living itself…one approaches each event with an intuition of its wholeness”: “What I believe” (1930), 322. Mumford’s fullest exposition of what he meant by “Orientation to life” is the so-titled chapter in *The conduct of life* (1951), but what it shows is how largely Mumford had by that time come once again to base himself upon science. (See ref. 152.) The only critique of Mumford’s lebensphilosophisch claptrap that I have seen cited is Meyer Shapiro’s, “Looking forward to looking backward” (1938). Nominally a review of *The culture of cities* (prompted by annoyance at the enthusiastic acclaim with which that book was being received by reviewers), it is neither careful nor comprehensive; directed mainly at Mumford’s approach to social-political problems, it is only incidentally a critique of his metaphysics of “Life.” What Shapiro could have done especially well—critiquing Mumford’s aesthetics and ideology of the artist—he did not do at all.

81. In 1970 Mumford referred to Emerson as “my old guide and mentor” (*My works and days* [ref. 4], 526), and indeed, from 1926 onward cited Emerson far more often than any other writer. In his autobiography, *Sketches from life* (1982), 125, 135, 358, Mumford gave
Bergson is a better fit to Mumford’s middle- and late-phase *lebensphilosophisch* rhetoric.\(^8^2\) In his early adult phase Mumford did not show much evidence of such indebtedness, but must have swallowed a bucketful of Bergson’s vitalistic holism and anti-rational intuitionism in the years before the Great War. Not only was the rage for Bergson huge in the prewar decade, especially in America, but both of Mumford’s mentors on the scientific side, Geddes and Edwin Slosson, regarded Bergson sympathetically.\(^8^3\) Mumford mentioned Bergson often in his middle phase, yet always without giving Bergson much credit for his own outlook.\(^8^4\) Intriguing is the possibility that middle-phase Mumford may have owed his rhetorical metaphysics of “life,” so similar to what was then current in Germany, to Oswald Spengler.\(^8^5\) Mumford was deeply inspired by *The decline of the West*, the first

conflicting accounts of his appropriation of Emerson, here asserting an early acquaintance and there implying that it came about only in the period 1922–1924. Mumford had a definite recollection of carrying Emerson’s essays in his sailor’s blouse while in the navy, 1918/9. Miller, *Mumford*, 64, accepted Mumford’s assertion of early acquaintance as ground for his own assertion of an early formative influence. In any case, it is quite clear that in the early 1920s, when Emerson was being cited frequently in the pages of the journals to which Mumford was contributing, *The freeman* in particular, he did not himself refer to Emerson. Something happened around 1924 to turn Mumford into a paladin of the Emerson revival. 82. The Bergson work from which Mumford could, and presumably did, draw most of his *lebensphilosophisch* metaphysic and rhetoric is *L’Evolution créatrice* (1907), translated in 1911. Livingston (1994), 331–341, offers a free-floating-ideas analysis of Mumford’s relation to Bergson.  


84. So, e.g., writing to Van Wyck Brooks in 1935, *Brooks-Mumford letters* (1970), 117–118. In Mumford’s “Chronology” (ref. 52), Bergson is not among the writers read; in Mumford’s autobiography, *Sketches from life* (1982), 144, he is included in a list of eleven writers in competition with Geddes for Mumford’s attention late in 1914. In his late phase Mumford mentioned Bergson as often with disapprobation of his coinage of *homo faber* as with approbation of his anti-mechanism.  

volume of which he read and reviewed in June 1926, in the midst of reworking his first draft of *The golden day*. Perhaps his reading of Spengler, whose debt to Bergson was substantial though unacknowledged, activated the Bergsonian romantic *Lebensphilosophie* to which Mumford had earlier been exposed, but whose source he too was not disposed to acknowledge.

Leaving this interesting question of Spengler’s influence upon Mumford to further investigation, it is important here to recognize how largely *Lebensphilosophie* was the ordinary ideology of the artist, and consequently suited to Mumford as man of letters identifying himself, in this middle phase, with artists. I know of no scholarly studies directed to this question, but much miscellaneous evidence suggests that *lebensphilosophisch* postulates and postures were more than common—were a matter of course—in the literary and artistic circles in which Mumford moved from the early 1920s to the late 1930s. A most interesting case in point is the *Lebensphilosophie* of F.R. Leavis, the passionate believer in literature über Alles who attacked C.P. Snow with furious contempt following publication of *The two cultures and the scientific revolution*. Guy Ortolano has recently drawn attention to the fact that “The central concept in Leavis’s thought was “life” . . . the concept through which Leavis evaluated everything from Sunday newspapers to

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86. To Liebovitz, 4 Jul 1926, *Mumford-Liebovitz letters* (1983), 22. “Downfall or renewal?” (12 May 1926). In *Utopias* (1922), 268, Mumford had opined that “Unless we can weave a new pattern for our lives the out look for our civilization is almost as dismal as Herr Spengler finds it in Der Untergang des Abendlandes.” But though Mumford would have been able to read Spengler in the original German, his response in 1926 to the translation suggests that this earlier reference was based on hearsay. Mumford resonated strongly on several levels with Spengler—his ambition, his “method,” his disdain of the disciplines and independence from the academy. Mumford even managed to draw from Spengler an optimism about the future of technological civilization to which Geddes had failed to persuade him: *Mumford-Geddes corresp.* (1995), 278, 319. Miller, *Mumford* and “*The myth of the machine,*” recognized the importance of Spengler’s world-historical schema for Mumford’s later conceptions, but not an early influence or the general concordance of their ‘life’ rhetoric. Wojtowicz, diss. (1990), 284, 302–303, 383, 417, to his greater credit, recognized that Spengler was important for Mumford from an *early* date, observing that Mumford “was profoundly affected by the German author’s views on technology and architecture.” So also Wojtowicz, *Mumford* (1996), 99. Among the contributors to Hughes and Hughes, eds., *Mumford* (1990), only Leo Marx, apart from Miller, even mentions Spengler.

human history.” The Leavis case suggests, moreover, that the lack of scholarly expositions of the pervasiveness of romantic Lebensphilosophie as artistic and literary ideology is explicable as a consequence of the relevant scholars seeing it as unproblematic, taking it as self-evident ground for every form of valuation.

In assuming this man-of-letters persona around 1924, Mumford reacted strongly against his earlier identity as scholar. During the mid- and late-1920s, the years before he recommitted himself to highly learned historical projects, Mumford took—indeed, he quite gratuitously made—every possible opportunity to deplore and ridicule disciplinary scholarship. “Mole-like” was Mumford’s repeatedly reused simile for the work of “professional” scholars, that “gang of diligent spades” proceeding “with its strict delimitations and its stock of well-founded judgments.”

Equally strong and of longer duration were Mumford’s expressions of distaste for the role and character of “college professor.” This defensive rejection of the inaccessible university career began to seat itself in 1915, right at the start of Mumford’s early adult phase, and maintained itself well into Mumford’s late phase.

88. Ortolano, “F.R. Leavis,” (2005), 165–166. The parallel extends farther: when American physicist R.A. Millikan published a collection of his essays and addresses, Science and the new civilization, containing Snow-like passages accusing the visual and literary artists of being agents of degeneration in Western civilization, Mumford was savage in his contempt: “Science on the loose” (1930). Not surprisingly, Mumford saw himself as a notable but unnoticed bridger of Snow’s divide: “I never accepted C.P. Snow’s division of the ‘two cultures’,” Mumford wrote in a private note, 1967, “though I find it ironic that even American critics who discuss this thesis never refer to various contemporaries like myself who had already dissolved that false dichotomy in practice”: My works and days (1978), 117. In that same thematic issue of History of science containing Ortolano’s paper, White, 116–119, gives a reinterpretation of the Huxley-Arnold “opposition” that, in effect, shows how much more fully in their progressive-conservative tradition Mumford was than Leavis was.

89. So, e.g., my comments on Herbert Sussman (ref. 68), and Alan Trachtenberg (ref. 76), and D.A. Barnstone (ref. 87). The closest parallel to Mumford in interests and theses is Sigfried Giedion, who shared almost every one of Mumford’s presuppositions and perspectives—what one would have expected Mumfordologist Molella (2002) to have emphasized in his analysis of Giedion, but he did not.

90. “Like the mole” and “mole-like”: “Nescience” (1923); “The little testament” (1926), stanza 48; Review of Vossler, Dante (1929); Technics and civilization (1934), 448, 470, where the “mole” simile hangs on within Mumford’s high tribute to Sombart (likened to an eagle and to the Mississippi). “Spades”: The new republic (11 May 1927). “Professional” as pejorative: “Ex libris” (2 May 1923).

91. Mumford is an outstanding example of a type: the uncredentialed scholar whose rampant personal insecurity stokes their megalomaniac illusions and their equally enormous productivity. When, by 1926, Mumford was coming to be sought out for his expertise notwithstanding his lack of any academic degree he responded to Geddes’s offer to help him to a British doctorate: “My lack of degree has become a valuable distinction in America. The Ph.D. is such an inevitable sign of mediocrity here.” Mumford included this extract from his letter in both of his collections of autobiographical analects: Findings (1975), 162; My works (1978), 107. In The pentagon of power (1970), plate 25, Mumford included, under
Though affecting to despise the title “professor,” Mumford in fact applied it to others only as his highest honorific.92

Another retrogradation concomitant with the assumption of the man-of-letters persona was the strengthening of the animosity toward technology typical for the artist and idealist in the romantic tradition. Though by 1922 Mumford was beginning to find fault with Dewey, in *The story of utopias* he remained still very much the Deweyan. Early on there, Mumford brought in Dewey in order to contrast two responses to the situation of being at a distance from desired friends: one can “imagine” being in their presence—an imaginary, futile satisfaction—or one can “see what conditions must be met in order to cement distant friends, and invent the telephone.”93 Mumford adduced the same example four years later in *The golden day*, but being then in his middle phase, he rejected with disdain both Dewey and the idea of a technologic fix for an affective predicament:94

He [Dewey] has even written as if the telephone did away with the necessity for imaginative reverie—as if the imagination itself were just a weak and ineffectual substitute of the more tangible results of invention!

Similarly, in August 1921 Mumford had published a brief essay on “Machinery and the modern style” arguing that “Of its kind every article in the modern lunchroom is excellent, and its excellence is due to the fact that it is made by a machine.”95 But that

the title “The academic establishment,” a reproduction of that portion of Orozco’s mural in the basement of the Dartmouth College’s Baker Library depicting *alma mater* being delivered of her academic offspring, with all participants and onlookers pictured as ghastly skeletons. But Mumford was consistent: he rejected all of the many offers of honorary doctorates from U.S. universities, accepting them from foreign universities only.

92. “It is worse than useless to talk to them of Dr. Dewey or Professor Geddes”: *The freeman* (9 Feb 1921). Mumford regularly referred to “Professor Geddes,” sometimes even in the indices to his books. Writing to Van Wyck Brooks in 1936, Mumford referred, with enthusiasm and respect, to his recent visit with “the great Professor Whitehead.” *Brooks-Mumford letters* (1970), 139.

93. *Utopias* (1922), 17–18. Mumford used the same example in his unsigned “In inventions we trust” (24 Aug 1921), which contains various ideas developed in his book, but also shows Mumford already distancing himself from Dewey. As Mumford there refers to Dewey’s “latest book on philosophy,” he presumably had in mind the reference to the telephone in Chapter 5 of *Reconstruction in philosophy* (1920): *Dewey, The middle works* (1982), 12, 148–149.


95. “Machinery” (3 Aug 1921). At the time of, or shortly before, the writing of that brief essay Mumford had said something similar in his essay on “The city” in *Civilization in the United States* (1922), 11–12. Mumford reprinted “Machinery and the modern style” in *Roots of contemporary American architecture* (1952) and pointed to it in his preface to the 1955 edition of *Sticks and stones* in order to prove that he really knew better than to omit praise of recent functionalist architecture as he had in fact failed to do in the first edition. Mumford later identified “the modern lunchroom” of which he was then writing as the Childs Restaurant chain: *The New Yorker* (19 Mar 1932), 71; (17 Feb 1934), 36. For Childs, see: http://www.nyc.gov/html/lpc/downloads/pdf/reports/childs.pdf, accessed Apr 2006.
advance in the direction of a machine aesthetic and technology-affirming modernism remained almost unique, both in Mumford’s science-friendly young-adult-phase and, still more, at the outset of his initially technology-unfriendly man-of-letters phase. Characteristic, rather, is the disliking Mumford had displayed the previous year for a civilization “that embalms its soda-water fountains in drug-stores and patterns its popular restaurants after hospital-wards. This mechanical civilization puts a premium on sterility.” Not until 1927/8, when Mumford underwent an incomplete and temporary conversion to aesthetic modernism, did he reaffirm and extend the stance taken in that 1921 essay.

Even in his early, largely Geddesian, phase, Mumford did not by any means carry over to technology his partiality toward science. Although writers on Mumford generally assert that Mumford followed his mentor Geddes in hailing an emergent “neotechnic” civilization, based on electricity and other hygienic forms of technology, he did not. Notwithstanding that the term and concept were central to Geddes’ Cities in evolution (1915), his most important work—most important for the young Mumford too—the disciple’s disliking of technology, electrical technology included, was simply too great to allow him to follow his master there. Geddes’ pejorative “paleotechnic” is prominent in Mumford’s early-phase books, The story of utopias (1922) and Sticks and stones (1924), and continues to appear in his writings in the following years. But Geddes’ affirmative “neotechnic” appears

96. The freeman, 2 (17 Nov 1920), 234. For critical discussion of “Machinery and the modern style” (1921), and for evidence that refusal to see the results of engineering functionalism as aesthetic remained Mumford’s predominant attitude until about 1928: Samson, diss., 372, 384–389, 407–408; Samson, “Unser Newyorker Mitarbeiter,” 134; Wojtowicz, diss., 293–301.

97. Hughes, American genesis, 297, 300, 446, alleging that “Mumford was among the most articulate and influential of those envisioning a new industrial era based on new forms of electrical and political power,” implied that such was the case throughout the 1920s. Blake, Beloved community, 201, alleged that “The early Mumford was in almost every way a Geddesian. Like his master, he believed that social science, biology, and romantic cultural criticism aimed at a common goal of fashioning a neotechnic organic community out of the chaos of paleotechnic industrialism.” And again in his article “Mumford, Lewis,” in A companion to American thought, 474–476, “Geddes . . . convinced Mumford that a new postindustrial civilization was emerging.” Similarly, Samson, “Unser Newyorker Mitarbeiter” (1996) freely used “neotechnic” as characterizing Mumford’s outlook in the 1920s when Mumford would have little of it.

98. Hughes, American genesis (1989), 447, and Hughes and Hughes, “General introduction” (1990), 15, and Molella, (1990), 28, 41–42, wrongly allege that Mumford “never lost his youthful fascination with technical things,” and that he shared “the fascination for machines widespread in America then.” On this misrepresentation of Mumford as technophile see, further, my critique of Hughes in ref. 36 and Forman, “Primacy of science in modernity,” 54.
only once and only equivocally in each of those two books, and not even once in *The golden day* (1926).\(^9\)

Mumford could not accept the promise of a post-paleotechnic neotechnic civilization until, in the late 1920s, he found his own way to conceive it in aesthetic terms through modern, functional architecture, and “the art of engineering”—that is, to conceive it as a healing of the disastrous breach between art and science. Nor did Mumford immediately connect Geddes with this affirmation. Though in 1928 Mumford could say that “engineering shares with music the supremacy in the arts during the last hundred and fifty years,” and express optimism about a humane civilization resulting from the advance of science-based technology, he did not then yet invoke either Geddes or ‘neotechnic.’ The enthusiasm for the neotechnic which Mumford showed in *Technics and civilization* (1934) was brief; it was only beginning to awaken in 1931; it barely survived in *The culture of cities* (1938).\(^10\)

That modern-movement Mumford was slow to emerge is understandable. It required a substantial repression of his deep-seated romantic prejudices against “the Machine,” on the one side, and, on the other, against abstraction and every other form of misrepresentational art. But, when, circa 1928, after years of resisting and disparaging those who would ascribe aesthetic values to engineering objects, Mumford finally gave way, it was in a big way:\(^11\)

99. *Utopias* (1922), 220: “Up to a certain point, industrialism is good, especially in its modern, neotechnic, electrical phase.” *Sticks and stones* (1924, 1955), 214, 102: “Professor Patrick Geddes has characterized the transition from steam to electricity as one from the paleotechnic to the neotechnic order; and intuitive technological geniuses, like Mr. Henry Ford, have been quick to see the possibilities of little factories set in the midst of the countryside.” Early in 1922 Mumford had written Geddes, *Mumford-Geddes corresp.* (1995), 115, that “Mr. Henry Ford . . . has offered to take over the government’s nitrate plant at Muscle Shoals, Alabama. . . . Here is a first-rate neotechnic project.” But this enthusiastic reference was for the Master’s eyes only.

100. “The arts” (1928), 303, 305, 312, for “modern engineering, as an art.” In spring 1931 Mumford was still on the fence re “neotechnic”: his lover Catherine Bauer wrote him, “Mortgage your property. Borrow money. Make Sophie get a job. Tell all of us temporarily to go to hell. (Why not get a Guggenheim?) And discipline yourself to undisciplined exploration. The result might be poetry. . . . might be the book that will give the neotechnic age its real start.” Quoted, with ellipses, in Overlander and Newbrun, *Catherine Bauer*, 87.

In his concluding “Summary” of *The brown decades* (1931), Mumford stated that when “the Brown Decades . . . came to an end . . . the neotechnic period dawned.” But late in 1932, when imagining what the political-economic and technological condition of the world would be in 1982, Mumford made no reference to “neotechnic,” though he did refer to “paleotechnic”: “In our stars. The world fifty years from now.”

101. “The sky line” (27 Feb 1932). Mumford had already said as much in his contribution to *Whither mankind?* (1928), 307: “like the Gothic of the thirteenth century, it perhaps witnesses a common impulse towards synthesis throughout Western civilization.” In “Machines for living” (Feb 1933), Mumford is all for Corbusier, with not a word about organismism.
Through modern architecture, certain common desires and methods have clarified themselves and have taken concrete form throughout Western civilization. . . . Nothing like this fundamental unity has existed since the Middle Ages.

How did Mumford’s conversion to a technology-affirming modernism come about? Robert Wojtowicz has pointed to Mumford’s joining the artists and intellectuals orbiting Alfred Stieglitz, pioneering art photographer, gallery owner, and powerful personality, who had been a principal promoter of modernism in America since the first decade of the century. M.D. Samson has addressed the question from a different direction, arguing for the influence of energetic, left-leaning Walter Curt Behrendt, Prussian architectural administrator, planner, critic, and editor of the Werkbund’s journal, Die Form: “Mumford led Americans toward the Modernist machine aesthetic because he believed that it was, as Behrendt presented it to him, a way to counteract the machine.”

There is a place, even a need, for both

102. Wojtowicz, diss. (1990), 528–530, 549, 561; “Introduction” (2007), 7–9, 12–15, 31–32. That Mumford had met Stieglitz early in 1921, at an exhibition of Stieglitz’s photographs, is well established (Lynes, O’Keeffe, Stieglitz, 120, 264–266) but the earliest evidence of a connection between them is correspondence beginning in spring 1925, with Stieglitz in a mentor role. The very special position that Stieglitz, and the painters he showed, would come to occupy in Mumford’s reconciliation to modernism is evident in Mumford, The brown decades (1931), 105–106, 110–111. In The golden day (1926/1968), 263/135, Mumford had made not Stieglitz’s artists, but Raymond Duchamp-Villon and Man Ray the subjects of such favorable comment on modern art as he was then prepared to make. Yet when, late 1926, Mumford was enthusiastic about O’Keeffe’s painting in an exhibition review, he saw it not as abstract but as containing manifestly erotic symbolism. Mumford, and other late adulators of Stieglitz, would eventually make the (groundless) claim that Stieglitz had resolved the conflict between art and science. Admittedly, Stieglitz was recorded as stating, late in 1926, that “he had always claimed for himself that he was more scientist than artist” and “that at heart he was a scientist”: Seligmann, Alfred Stieglitz. Scientist (1991).

103. Samson, “Unser Newyorker Mitarbeiter,” 127; Morrison, “Behrendt.” In his preface to the 1971 reset edition of The brown decades, vi–vii, Mumford sided with Samson: “I was influenced in my own definition of the modern by German ideas and German examples.” I drew attention to the anti-technological origins of the Bauhaus in “Weimar culture” (1971), 22–23. (The original German of the quotations translated there is available in von Meyenn, ed., Quantenmechanik, 82). Subsequent scholarship confirms this. Campbell, The German Werkbund (1978), 105, 122, 157–158, 172–179, 289 provides ample evidence that the basic problem as understood by the Werkbund was “to find ways for man to master the machine.” What Hughes, American genesis (1989), 447, did not allow one to see is how fully this was also Mumford’s motivation, and that of most of those few in “literary and bohemian New York”—and they were few, not by any means the majority, as Hughes implied—whom he misleadingly described as “tinged with an enthusiasm for discovering and defining technological culture.” Hughes seems to have relied heavily on Wilson, et al., The machine age in America, 1918–1941 (1986), the publication accompanying the
influences, gaining access to Mumford’s mind, as they did, from opposite directions. Finding aesthetic merit in the machine, its products, and its associated functional architectural styles, was most readily rationalized through Mumford’s long-standing social aesthetic. Finding aesthetic merit in the works of contemporary abstracting artists required an affirmation of the avant-garde’s absolutist-personalist aesthetic, and some such affirmation would have been required for inclusion in the circle of artists and writers around Stieglitz.

In this middle phase, Mumford’s vacillation between “the civi-centric and ego-centric motives in art” was most evident. The assumption of the man-of-letters persona around 1924 had liberated Mumford to indulge his inclination toward the artist’s megalomaniac ideology of romantic voluntarism, “making circumstances conform to the aims and necessities he himself freely imposes.” Valuing “the ability to think creatively with the artist who says ‘I will’ rather than causally with the scientist who says ‘It must’,” Mumford would “alter the centre of gravity from the external Newtonian world to that completer world which the human personality dominates and transmutes.” Yet, for all that the fantasy of the artist as world-making will flattered his ego, Mumford did not, could not, greatly

so-titled exhibition originating at the Brooklyn Museum. And judging from this impressive publication, that exhibition, as so many of the best exhibitions, aimed not to present the complexities and ironies of history, but to create and impose a way of seeing. So, to take the example of Stieglitz once again, that pioneer modernist who touted the skyscraper as symbol of America, and who could even describe himself as a scientist, “often noted that he felt out of place in the age of science and technology”: Abrahams, The lyrical left, 150.

104. Writing for the Encyclopedia of the social sciences (1930), 1, 175, Mumford concluded that “Modern architecture, in sum, has developed around the conception of function, as opposed to the architectural stylism introduced in the Renaissance” and that “the individual building becomes a unit in the community design.” Samson, diss., 413–414, observed that “functionalism” and “functionalist” began to appear in American architectural writing around 1930. Re “functional” as neologism: Banham, Theory and design in the first machine age (1960), 320. “Functionalism” fitted well not only with Mumford’s social conception of art, but equally with his conservative aesthetics of “truth values.”

105. The golden day (1926, 1968), 281, 143.

106. “The pragmatic acquiescence. A reply” (1927). The assertion of the primacy of the will had appeared in The golden day in the less Nietzschean form, “Unfortunately, since the breakup of medieval culture, with such interludes as humanism and romanticism have supplied, men have subordinated the imagination to their interest in practical arrangements and expediencies. . . . Their external determinism is only a reflection of their internal impotence: their ‘it must’ can be translated ‘we can’t.’” But Mumford had also said there that “with the introduction of the scientific method, men began to think consciously as whole human beings.” The golden day (1926, 1968), 266–267, 259, 137, 132.

107. “Drama of the machines” (1930), 239. “A modern synthesis” (1930), 1029: “Personality provides not merely our original nucleus of experience: it is also the summit of our social achievement: and the apex of every culture is accordingly . . . the highest personality: a Confucius, a Plato, a Dante, a Goethe, an Emerson.”
alter his aesthetic center of gravity. Rather, Mumford’s bottom line remained the indispensability of a pragmatic-social orientation in the production of art: “Art in its many forms is a union of imaginative desire, desire sublimated and socialized, with actuality: without this union desires become idiotic, and actualities perhaps even a little more so.”

Mumford’s socialism was neither democratic nor liberal. That is where he differed significantly from Dewey. For all his instinctive anti-authoritarianism, Mumford had no difficulty accepting the authoritarian implications of a social aesthetic: “The new house has a firm outline, determined by the nature of things; it cannot, in our day, represent the feeble wishes and imitative ambitions of either the house-dweller or the architect.” Perhaps because Mumford was with surprising regularity on what we judge to be the correct side of the major political questions of his day, scholars have commonly complimented him and his views by badging them “democratic.” In fact, from adolescence to old age Mumford had as little faith in procedural democracy, and as little liking for the chaos of liberalism, as the 19th century British romantic cultural elitists from whom he descended intellectually.

108. *The golden day* (1926, 1968), 281, 143. See also ref. 144. Although the writing of this book was supposed by Mumford to exorcise his early-phase pragmatism, it did not succeed with his aesthetics any more than with his other perspectives. He thought that he had found the secret of this exorcism in the recognition that pragmatism had no place for art: Mumford to Victor Branford, 3 Mar 1926, as quoted by Blake, *Beloved community*, 330n. In fact, however, Mumford’s social aesthetic—and it was the basis of the best of his architectural criticism in his middle phase—was fundamentally pragmatic. Westbrook (1990), 304–305, seized upon Mumford’s affirmations of art as a good in itself and ignored his assertions of a social aesthetic in order to ascribe to both Mumford and Dewey a non-instrumental view of art.

109. “Housing.” (1932), 179. See also refs. 62 and 104. Mumford disempowered only the average architect. The great architect remained empowered by the aesthetic authoritarianism concomitant with Mumford’s commitment to artistic genius as the uplifter of humanity. “[Louis] Sullivan saw that the business of the architect was to organize the forces of modern society, discipline them for humane ends, express them in the plastic-utilitarian form of building”: *The brown decades* (1931), 74. Samson, diss. (1988), 415–417, recognized that Mumford’s views at this time read like “praise of an architecture of social control,” but sought to refute that reading by appealing to the Geddes in Mumford and Mumford’s “defense of ‘personality’.”

110. Almost all those writing on Mumford as social critic represent him as a democrat—so, Blake, Casillo, Conner, Hughes, Lasch, Samson, T.G. Smith, Trachtenberg, Winner. However, Marx, “Prophet of organicism” (1990), saw Mumford’s lack of faith in democracy very clearly. Blake saw the light between 1990 and his 1995 article on Mumford in the Blackwell *Companion to American thought*, emphasizing there how “technocratic” and “undemocratic” Mumford’s political ideas were. Tschachler (2000), 103, pointed out Mumford’s authoritarian political attitudes as manifested in the period 1931–1941. If those writing about Mumford’s politics have, for the most part, seen not him, but only their own values projected onto him, it is perhaps not surprising that such has also been the case with Mumford’s views of science (or technology).
Although both the absolutist-personalist and the social conceptions of art are rooted in romanticism, the social had far stronger affinities than did the personalist with the scientific-disciplinary side of Mumford’s personality. We should therefore expect that because the social aesthetic necessarily underlay Mumford’s affirmation of functional architecture and the clean machine, virtually to the exclusion of the aesthetic voluntarism of the avant-garde artist, that new affirmation of technology would be accompanied by a reaffirmation of science. And indeed it was. For Mumford there never was, there never could be, a question of choosing technology in lieu of science. His elevation of technology served only to elevate still higher his valuation of science. Contributing the chapter on “The arts” to Charles Beard’s *Whither mankind? A panorama of modern civilization* (1928)—where he ranked engineering with music as the highest of modern art forms—Mumford had science as the main protagonist throughout, for developments in painting as in engineering. Similarly, during the few years that he was high on technology, an insistence on the virtues of science and of being scientific runs through Mumford’s discussions of the arts of architecture and city planning:

The need for architecture today [1930] is to begin again from the point at which [Frank Lloyd] Wright began, and to find a collective scientifically grounded solution for those problems.

The error with regard to these new forms of building is the attempt to universalize the mere process of form, instead of attempting to universalize the scientific spirit in which they have been conceived.

[In approaching the problem of housing] the virtues of our present age are different virtues: we value the positive results of science, disciplined thinking, coherent organization, collective enterprise, and that happy impersonality which is one of the highest fruits of personal development.

This work [a housing project] has both imaginative rigor and scientific accuracy.

The weakness of the Russell Sage planners [1932 plan for the city of New York] . . . is . . . the lack of a sociological concept of the city . . . [and] of an organic geographical concept of the region: it means a failure to approach the problem scientifically. . . . Lacking an adequate technical and scientific method, a good part of the Russell Sage investigation was futile.

111. In “A modern synthesis” (1930), 1028, Mumford is enthusiastic not only about personality, but also about “the ethical contribution of science,” especially “the working habit of humility . . . in short, the whole morale of science has a value which is slowly taking possession of other departments of thought and action”—this after having first set up the straw man of “the New Mechanism.”
113. “Form and personality,” MS of 1930, as quoted by Wojtowicz, diss., 268.
As is evident from these quotations, middle-phase Mumford did not abandon his earlier ideal of the artist-scientist uniting artistic vision with the discipline of science. In the late 1920s, just at the time that he was revaluing technology while reconceiving it as a reunion of science and art, Mumford was working intensively on a biography of Herman Melville, in which he contended that Melville embodied the fusion of artist and scientist:

In Moby-Dick Melville achieved the deep integrity of that double vision which sees with both eyes—the scientific eye of actuality, and the illuminated eye of imagination and dream.

Much as Melville was enriched by the Elizabethan writers, there is that in Moby-Dick which separates him completely from the poets of that day—and if one wants a word to describe the element that makes the difference, one must call it briefly science.

Moby-Dick, then, is one of the first great mythologies to be created in the modern world, created, that is, out of the stuff of that world, its science, its exploration, its terrestrial daring, its concentration upon power and dominion over nature.

Moby-Dick thus brings together the two dissevered halves of the modern world and the modern self—its positive, practical, scientific, externalized self, bent on conquest and knowledge, and its imaginative, ideal half, bent on the transposition of conflict into art, and power into humanity.

Leading up to this argument for Melville as scientist-artist, Mumford restated his conviction that the evil effects of science are mere accidents, and he defended the scientific imagination, both by contrasting it with the artist’s infantile illusion of omnipotence and by calling in a mathematician-turned-philosopher as authority on the romantic poets:

Science did not, as has been foolishly believed, destroy the myth-making power of man, or reduce all his inner strivings to bleak impotence: this has been the accidental, temporary effect of a one-sided science, serving, consciously or not, a limited number of practical activities. What the scientific spirit has actually done has been to exercise the imagination in finer ways than the autistic wish—the wish of the infant possessed of the illusion of power and domination—was able to express. Faraday’s ability to conceive the lines of force in a magnetic field was quite as great a triumph as the ability to conceive fairies dancing in a ring: and, as Mr. A.N. Whitehead has shown, the poets who sympathized with this new sort of imagination, poets like Shelley, Wordsworth, Whitman, Melville, did not feel themselves robbed of their specific powers, but rather found them enlarged and refreshed.

118. *Herman Melville* (1929), 194, 192, 193, 193.
119. Ibid., 191. Mumford affirmed that his Melville was a self-projection in *My works and days* (1978), 288–302, where, however, he stressed the projection of his own psycho-sexual conflicts. Both Miller, *Mumford*, and Novak, *The autobiographical*. . . *Mumford*, followed and extended Mumford’s admission of personal identification, but neither acknowledged science as being a significant part of that projection.
That man-of-letters Mumford should invoke a contemporary as authority, and that on a matter so distant from Whitehead’s special competence, reflects the special importance that the author of *Science and the modern world* (1925) held for him.  

Not only did Whitehead see the problem of modern culture and modern man to a large extent as Mumford did—that in itself was not at all unusual in the Anglo intellectual world of that time—but Whitehead’s proposals for the reconstruction of physics upon a metaphysics of “unbifurcated” experience provided sorely needed support for Mumford’s faith that the split between science and humanism could be healed if only *scientists* would make that effort.

With his advocacy for modern architecture and his joining the circle of admirers around Stieglitz, Mumford came in the early 1930s into the midst of the modern movement. Taking over *The New Yorker*’s regular columns on architecture and interior design (“The skyline”) and on painting and sculpture (“The art galleries”), Mumford took on an obligation to be as sympathetic as he could toward the avant garde. As in Mumford’s mind—as in the mind of nearly every artist of his time—the machine was identified with abstraction, accepting the machine, albeit only conditionally, meant at least keeping an open mind toward abstraction. Mumford tried, but he was unable to persuade himself that abstract art was *really* art. In 1936, in one great final effort, Mumford brought himself to write highly sympathetic pieces.

120. Few are Mumford’s references to contemporary writers in this man-of-letters phase, and, among those few, references to Whitehead appear more often than to any other except Geddes. There is a reference to Whitehead in the concluding paragraph of *The golden day*; the index to *Technics and civilization* lists five pages referring to Whitehead, as does that to *The pentagon of power* (1970). The indices to *The culture of cities* (1938), *The condition of man* (1944), and *The conduct of life* (1951) each have one page reference to Whitehead. Mumford probably recognized the positive importance that Whitehead attributed to abstraction in science and in the modern world, but he chose to ignore it. Writing to Geddes, 9 Jul 1926, *Mumford-Geddes corresp.* (1995), 249, Mumford described *The golden day* as a restatement of “Comte’s abstractional stage” and “following Whitehead, the persistence of abstractional ideas as part of the framework of 17th, 18th, and 19th century science.” But this characterization was for Geddes only; nothing of the sort appears in the book itself.

121. “A scientific realism, based on mechanism, is conjoined with an unwavering belief in the world of men…as being composed of self-determining organisms. This radical inconsistency at the basis of modern thought accounts for much that is half-hearted and wavering in our civilization.” Whitehead, *Science and the modern world* (1925), chapt. 5 § 2. As pointed out in ref. 35, above, this was not an extreme position. To Burtt, *Metaphysical foundations* (1925), 14, 315–330, Whitehead’s metaphysics was a weak attempt to patch up the naturalists’ deplorable dualism. Weaker still would Burtt have found “Eddington, J.S. Haldane, and L.J. Henderson,” to whom Mumford pointed in writing Geddes in Aug 1929 that “most of my reading this summer has been an attempt to catch up with recent science”: *Mumford-Geddes corresp.* (1995), 289.

122. In *Technics and civilization* (1934), 335–336, Mumford had high praise for the cubist and constructivist sculpture of “Grabo” [Naum Gabo] and Moholy-Nagy, for “they created in form the semblance of the mathematical equations and physical formulae that produced our
about abstraction and about surrealism for The New Yorker.\textsuperscript{123} The first of these, “The course of abstraction” reads as a desperate attempt at self-persuasion:

The abstractions of the present generation of painters offer no essentially new elements in art. To begin with, all painting and sculpture is abstract. . . . The truth is that almost all that we call culture is based upon a system of abstractions. . . . The man in the street has been looking at abstract art all his life without realizing it.

The second of these, “Surrealism and civilization,” reads rather more as a debate that Mumford had decided to allow surrealism to win: “the surrealists are restoring the autonomy of the imagination” is his concluding clause. Two years later, elsewhere, Mumford expressed his repressed opinion: “the scabrous fantasies of the surrealists are in essence signs of thwarted imaginations. . . . It is as if they were forced to open up the cesspool because the swimming pool was closed.”\textsuperscript{124}

The late phase

The late-phase Mumford, the Mumford taking shape in the late 1930s and early 1940s, was, once again, a quite different person from his previous phases.

\textsuperscript{123} “The course of abstraction,” The New Yorker (21 Mar 1936), as reprinted in My works and days (1978), 233–236, on 233; and “Surrealism and civilization,” The New Yorker (19 Dec 1936), as reprinted ibid., 237–240. In putting together that collection and also Findings and keepings (1975), Mumford included his affirmative appraisals of modern art and excluded his hostile writings. (Mumford was so desirous of recognition that in retrospect he often boasted of works that by no means represented him fully or accurately if they seemed to express advanced or prescient views.) Perhaps most revealing of the irrationality of Mumford’s underlying feelings about abstract art is a recollection he reported in his autobiographical essay “Ta-ra-ra-boom-de-ay,” published in The New Yorker, 1934, as reprinted in Wojtowicz, Sidewalk critic, 35: “At the age of four, I got my first lesson in the efficacy of abstract art at Woodlawn [cemetery], for nothing that I had previously encountered in life struck such a deep note of horror in my soul as the draped urns on a pedestal that sometimes marked a grave. There was one near our family plot and I learned never to look in that direction.” Remarkably, the object of dread in this recollection exemplifies not abstraction, but its antithesis: representational art relying upon wholly conventional symbols. A similarly curious inversion is presented by plate VIII of The condition of man (1944), facing p. 247. The four paintings reproduced are all highly particularized, realistic portrayals of household vessels, including one or two suggestive of funeral urns. The plate is titled “Abstraction of the object.” Yet ‘abstraction’ appears nowhere in that plate’s 400-word caption.

\textsuperscript{124} “Reflections on modern architecture” (1939), 138.
And, again, what was most distinctive of this phase was Mumford’s relation to art: the role of the aesthetic emotion within him, his view of the art around him, and, largely in consequence of what he saw and felt, the social function that he ascribed to art. The molting that carried Mumford from his early to his middle phase occurred relatively quickly and was accompanied by a change in both the content and the style of his rhetoric. The reconstruction of self and outlook that produced the late-phase Mumford was more protracted, extending over half a dozen years. It too was accompanied by a significant change in the content of Mumford’s message and also by a marked change in Mumford’s rhetoric. Unchanged, however, was the contentless _lebensphilosophisch_ claptrap of praise and reproof.\(^\text{125}\)

As regards rhetorical style, Mumford’s friends and critics recognized in the mid-1940s that he had begun to express himself in the spirit and with the vehemence “of an angry Old Testament prophet, or rather a prophet without honor,”\(^\text{126}\) a likeness that he eventually embraced. “The man in front of you,” Mumford said in accepting the 1972 National Medal for Literature, “his name is Jonah . . . I . . . identify my own life with Jonah’s.”\(^\text{127}\) As herald of a new synthesis of that which pertains to science and that which pertains to art, Mumford had been actively practicing prophesy in both his prior phases.\(^\text{128}\) In his late phase, however, the weight of the

125. By 1959 it seemed to Mumford that “the whole outlook and tone” of _Technics and civilization_ was out of date: “It is not so much in its philosophy as in its cheerful expectations and confident hopes that it now seems something of a museum piece”: “An appraisal” (1959), 534. In his early phase Mumford had the highest admiration for his older contemporary A.E.—not Albert Einstein, with whom we historians of physics associate those signature initials, but George Russell, Irish painter, writer, social activist, and close friend of W.B. Yeats. The young Mumford found A.E. exemplary “of what the artist might be”: _Utopias_ (1922), 260, 293–294. In his middle and late phases Mumford cited A.E. over and over, not as exemplary but as admonitory, always and only for the aphorism, “A man becomes the image of the thing he hates.” E.g., _Utopias_ (1922), 72; _Herman Melville_ (1929), 186; _Men must act_ (1939), 170; [“What I believe,” ten years later, 1939]; _Pentagon of power_ (1970), 361; _My works and days_ (1978), 379. Although Mumford never suggested the applicability of this aphorism to himself, surely behind these repeated quotations lies an inkling that his own rhetoric, with its shallow self-certainty, repetitiveness, and predictability (leaving entirely aside its conceptual vacuity) had become the very image of the mechanism he so hated.

126. Miller, _Mumford_, 421–422, describing the unfavorable critical reactions to _The condition of man_ (1944).

127. “Call Me Jonah!” (1972), 528–529. Mumford’s title echoed the opening line of _Moby-Dick_, “Call me Ishmael.” Cf. note 54 above. Miller, _Mumford_, 458, found that the role worked well for Mumford _viva voce_: “The supremely self-assured tone that left so many of his readers flat could be impressive on the podium. . . . He took hold of a class or public audience and established complete control.”

128. More than that, Mumford was so convinced of his supernatural prophetic powers, including as seer into the future, that he upbraided himself for not having anticipated the advent of nuclear weapons: “An appraisal” (1959), 532.
persona shifted from seer to the more strictly Biblical sense of censorious judge of the conduct of his contemporaries—and angry predictor of dire consequences of persisting in that conduct. This change in tone and style had first appeared in the late 1930s when Mumford began demanding forceful action against fascist states, thus setting himself squarely against the deep disinclination to take any such action, especially any military action, that ran across the political spectrum in the United States in those years. Mumford found himself in vehement disagreement not only with the other members of the editorial board of *The new republic*, the journal with which he had the longest and closest association, but also with most of those he most admired and respected as thinkers and artists. At Frank Lloyd Wright he shouted, “Be silent!”

After the death of Mumford’s son on the Italian front and after the appearance of nuclear weapons and their adoption as the principal determinant of relations between states, a deep pessimism joined with Mumford’s righteous indignation. He deplored Jacques Ellul’s technological fatalism—he was silent about Heidegger’s, so far as I have seen—yet his position was essentially the same as theirs: only a religious conversion could save mankind. But while both Ellul and Heidegger had begun as believers, never before had Mumford placed faith in religious faith, and never was he able to find it in himself.

“Prophet” was the salient characteristic of late-phase Mumford, but “scholar” was once again the center of his identity. This understanding of himself was a return of Mumford’s early adult phase—when, with an academic career out of the question, he invented for himself non-academic scholarly identities, such as the Geddesian regional surveyor and the scholar-librarian. That revival of the sense of himself as scholar and hence scientist began with the preparation of *Technics and civilization* (1934), the first of his half-dozen lengthy, learned, annotated-bibliography books. Deeply into the writing, Mumford admitted to his lover, Catherine Bauer, that “When at last one knows anything well one realizes how vastly one is ignorant and how ‘life is not long enough to know antimony,’” quoting Robert Boyle *The skeptical chymist*. Late in 1938, after the publication of the second of his big-bibliography books, *The culture of cities*, and after the ending a year earlier of the last of his extra-marital love affairs, Mumford described himself as “the scholar and the prudent man.”

And thirty years later, towards the end of his writing life, Mumford could even admit publicly to the “simmer of excitement” of bibliographical work, finding it,\textsuperscript{133}

like that produced by any minor work of art. In some cases, this pleasure is intensified by the environment: the hours I have spent in the catalog room of The New York Public Library on Fifth Avenue searching out new titles, or checking up on those used, I would put among the rewarding moments of my life.

In his middle period, Mumford’s slurs on scholars notwithstanding, he had considerable concourse with the academic world, and he derived essential stimulation for most of his book projects from lecture courses that he delivered under academic auspices.\textsuperscript{134} But this was casual labor, and no significant incorporation

\begin{itemize}
  \item \textsuperscript{133} “Introduction” to \textit{Mumford. A bibliography} (1971).
  \item \textsuperscript{134} \textit{Sticks and stones} (1924) originated in lectures at The New School for Social Research; \textit{The golden day} (1926) in a short course at the University of Geneva; \textit{The brown decades} (1931) in a short course at Dartmouth College; \textit{Technics and civilization} (1934) in a Columbia University extension course, “The Machine Age in America” that Mumford taught annually from 1930 to 1935 or 1936.
\end{itemize}
into academic life resulted from it. In the spring of 1938 Mumford was hoping very much for a professorial appointment at Harvard and was disappointed that none was offered. In the spring of 1942, when a professorial post was again in the offing—at Stanford—Mumford was looking enthusiastically forward to being “a full-fledged professor.” Charged to develop a humanities program and advise the university’s president—“It is a great challenge and I leap to it with Joy”—Mumford did not last two years at Stanford. As at age 19, he found the demands of academic life more than he could manage. That unhappy experience, the difficulty of admitting his own limitations, and, then, the academics’ unfavorable reviews of The condition of man (1944), revived Mumford’s private expressions of dislike and disrespect for the academy. But from the late 1940s to the mid-1960s he was

135. The course at Dartmouth led to a visiting professorship through the early 1930s that Mumford fulfilled in one-week visits once a month. The connection with Hanover continued important in Mumford’s life: he escaped there early in 1945 and remained until summer 1948 with a loose affiliation with Dartmouth.


137. So, e.g., Brooks-Mumford letters (1970), 227–228, 254, 257: insights “that all the pack-donkeys of scholarship would never, with all their diligence, even get a smell of,” “academic stupidity,” “the blind bats in the universities”; Mumford-Osborne letters (1972), 69, 83; to Christiana Morgan (1944), in My works and days (1978), 181.
content to be an academic fellow-traveler. He spent at least a semester in almost every year as visiting professor at a research university, beginning with four years of association with North Carolina State College, seven years with the University of Pennsylvania, four years with MIT, and shorter periods at Brandeis, Berkeley, Wesleyan, and Harvard.  

In 1954, at Penn, Mumford began his still more scholarly rewrite of *The culture of cities* (1938), published in 1961 as *The city in history*. This, with its 55-page annotated bibliography, was and would remain Mumford's thickest and most fact-filled volume. In autumn 1959, within sight of its completion, Mumford wrote his friend F.J. Osborne:

> When I was young . . . I never was bothered by any deficiency of knowledge: I either jumped over the open spaces or filled them up with fabrications of the imagination. . . . Now I find myself writing as if I were the very creature I had sworn all my life not to be: a specialist, writing with the circumspectness of one courting the good opinion of rival specialists, and nothing could be more fatal to literary felicity.

A year later, close to completion of that book, Mumford described it to poet Babette Deutsch as “*a masterpiece!*” to be placed alongside “William James’s ‘Psychology.’ The same combination of scholarly thoroughness, scientific insight, and palpable human experience.” About its literary merits he said not one word.

Incompatibility between the demands of scholarship—of disciplinary scholarship, scholarship concerned primarily with “the good opinion of rival specialists”—and the intent to achieve an aesthetic effect, is fundamental and irreconcilable. Most thoroughly and obviously so in the natural sciences, that incompatibility obtains in all disciplinary knowledge-production enterprises. (If we feel that less acutely today, it is because in postmodernity disciplinarity has so largely broken down in all knowledge-production enterprises.) In this irreconcilable conflict between the needs of the romantic artist and the obligations of the disciplinary scientist, Mumford changed sides once again. Now, as in his early phase, his “center of gravity” lay once again quite definitely on the disciplinary-scientific side.

To be sure, even in the construction of his later annotated-bibliography books Mumford, “as always,” as his biographer observed, “worked more like an artist than a historian.” The point, however, is that Mumford then saw himself working

138. The listing is based on Wojtowicz, *Mumford*, and on the entry for Mumford in Devine, *Thinkers* (1983), 406-408, with gleanings from Miller, *Mumford*, which is only intermittently specific about specifics. Miller, *Mumford*, 453, thought that those appointments “had a far greater influence upon his [Mumford’s] intellectual development than he would ever admit.”

139. To F.J. Osborne, 2 Sep 1959, in *Mumford-Osborne letters* (1972), 289, which did not, however, prevent Mumford from drafting 200,000 words in fourteen weeks that spring. Cf. ref. 30.

140. *My works and days* (1978), 177.
not “as always” but differently. Differently, but not unambivalently. Just as Mumford had sided ambivalently with science in his early phase, so did he also now in this late phase in turning back to science retain some of that ambivalence. Never was he willing to abandon his belief that in “the conflict between the pragmatic scientist-intellectual and the artist-philosopher . . . the latter side, which at times I had slighted, was really my major one.” Yet the very formulation that Mumford gave this regretful thought, following a Rorschach test in 1947, indicates how largely and fundamentally he conceived himself as scientist too, and in practice, primarily.

Certainly the external circumstances of Mumford’s later life, integrating him so much more fully with the academy, were a factor in effecting the revival of his conception of himself as scientist-intellectual-scholar. More dispositive, however, in effecting this change in self-conception was Mumford’s changed personal relation to art: diminishment of his aesthetic urge and his aesthetic response, disengagement from the contemporary art world, renunciation of efforts to force himself to an appreciation of abstraction and surrealism, and, most important, failure of belief in the capacity of the artist to create genuinely new, reality-altering values. This last loss was the most consequential because with Mumford’s loss of belief in the artist as savior there arose the necessity of disengaging his conception of himself from his conception of the artist.

In the mid-1930s Mumford still possessed, and was possessed by, an overpowering aesthetic response—“freezes the heart, rips out the gizzard, and curdles the backbone”—and by his all-important belief in the saving power of art and the

141. Miller, in Hughes and Hughes, eds, Lewis Mumford (1990), 155, referring to Mumford’s work on volume one of *The myth of the machine* (1967). Yet Mumford himself, in a letter to David Liebovitz, 1966, *Mumford-Liebovitz letters* (1983), 201, contrasted his work on that book with his writing in *Technics and civilization* (1934) “when I paid no attention to all the traps and pitfalls other scholars would lay for me whereas now I pick my way, as an old man walks with a stick on a crumpled pavement.” Especially to be noted is Mumford’s reference to “other scholars,” i.e., his identification of himself as scholar. Similarly, writing to Liebovitz in 1964, ibid., 188, while in early stages of drafting that first volume of *The myth of the machine*, Mumford reported that he had come to feel that “the tone was wrong: it was as if I was trying to court a hostile academic audience, and that is the last thing I should think of doing at this particular stage of my career”—but, obviously, what to a great extent he was doing. Further indications of Mumford’s self-identification with scholarship—disciplinary scholarship, even—are his fury, ibid., 150–151 at finding his three-decades-old Melville biography ignored by Melville scholars in the 1960s, and his indignation in the late 1940s at an award to Charles A. Beard, who had “betrayed his trust as scholar . . . when he allowed his bias in politics to undermine his scholarship...he forfeited completely all respect in his chosen vocation.” *Brooks-Mumford letters* (1970), 320, 273, 323–326, 333–336. See, also, *My works and days* (1978), 117.

142. *My works and days* (1978), 430. Cf. ref. 19. Even in his mid-60s Mumford was still clinging to the idea that he might yet become a truly imaginative writer: Miller, *Mumford*, 452–453.

143. “The sky line” (9 Nov 1935).
artist.\textsuperscript{144} In that midst-of-the-modern-movement phase, Mumford had been obliged to repress the antipathy that he felt toward minimalist architecture, abstraction, and surrealism. He gave up his role as \textit{The New Yorker}’s art critic in 1937, perhaps because the effort of maintaining aesthetic correctness became too great.\textsuperscript{145}

By the early 1940s, at work on \textit{The condition of man} (1944), Mumford’s aesthetic response was beginning to weaken.\textsuperscript{146} More important, his belief in the artist as source of new values was already lost. In the middle of his long section on Spengler, Mumford placed a plate—titled “Drama of disintegration”—reproducing four paintings by Picasso, each in a distinct style, beginning with a highly sentimental mother and child from Picasso’s blue period and ending with a grotesque female head characteristic of Picasso’s painting circa 1937. While acknowledging Picasso as “perhaps the outstanding painter of our time,” Mumford approved only the Picasso of the blue period. After 1905 it was all downhill, a drama of disintegration.\textsuperscript{147} Less striking, but more significant: in this book illustrated by elaborately captioned reproductions of some fifty great paintings, visual art is treated solely

\textsuperscript{144} “The social significance of contemporary art” (1935), 78: The “true social task” of the artist “is the creation of new symbols, leading to new attitudes and new expressions of life.” See, likewise, ref. 108.

\textsuperscript{145} Mumford gave up his role as \textit{The New Yorker}’s art critic in 1937 but continued on as architecture critic until 1963—it was his one really steady source of income. By then he had been telling friends for some while that he was no longer interested in architecture: Miller, \textit{Mumford}, 486–487. Wojtowicz, \textit{Sidewalk critic} (1998), 11, judged Mumford “the most important architectural critic produced by the United States in the twentieth century,” and that judgment is affirmed by Mallgrave (2005), 293. One must allow that in that long-sustained but wholly unsystematic activity Mumford made his most thoroughly respectable contribution to American cultural life.

\textsuperscript{146} The register of the Mumford papers, University of Pennsylvania, prepared by Ellen Slack and Robert Wojtowicz, states that “Lewis Mumford’s output as a visual artist ran somewhat parallel to his work in creative writing. In both cases, he was most productive as a young man, and the work dwindled to almost nothing in his later years.” \texttt{http://www.library.upenn.edu/collections/rbm/regs/mumford/mumford_m25.html}, accessed 2006 Apr 8.

Writing to Van Wyck Brooks, 25 Jul 1944, \textit{Brooks-Mumford letters} (1970), 251, Mumford exclaimed “Lord! how I have been sketching the last year,” but his further comments suggest the absence of an aesthetic drive: “I have found it was the only tolerable way of resting from my morning’s work on my book. . . . My object is simply the very old fashioned one of being able to put down what I see; for I haven’t more than a vestige of the true artist’s imagination.” DiMattio and Stunkel’s catalog of the collection donated by Mumford’s widow to Monmouth University, lists nothing later than 1961. However, the website of that institution includes among reproductions of a score of Mumford’s sketches one of his daughter Alison, apparently pregnant, dated 1965/6: \texttt{http://library.monmouth.edu/spcol/mumford/gallery/alison1.htm}. This color crayon drawing is the more interesting as being done in an abstract style.

\textsuperscript{147} Mumford, \textit{The condition of man} (1944), plate XIV facing p. 375. Writing in \textit{The New Yorker} (16 May 1936), 51–53, just two months after affirming there “The course of abstraction,” Mumford described Picasso’s work after 1905 as “colossal but sterile experiments.”
as illustrative, expressive, symptomatic of the social conditions and spirit of the age.\textsuperscript{148} Notwithstanding that this book harks back in several ways to the early-phase Mumford—notably, with its long section on Geddes, titled “Alternative to dissolution,” and its heavy borrowing from \textit{The story of utopias} (without citing it)—wholly absent from it is the romantic faith in the salvific power of art and of the artist that had been essential to the early-phase Mumford.\textsuperscript{149}

The disenchantment with the artist as inspirer of the good life was of utmost importance for Mumford’s view of himself and of science. If art can no longer be regarded as the originative source, the binding power, of the loveable and beloved community, of social and cultural progress toward the good, if the artist and his art are incapable of being more or other than an expression of the actual state, healthy or diseased, of the society and culture that produces them, then Mumford the seer, the prophet, \textit{must} distance himself from art, \textit{must} cast the artist out from the central place in his self-conception. In previous decades the romantic-idealistic ideology of the artist as possessed of quasi-magical powers to transcend his time and place, “to draw forth from human experience new values and to embody those values in forms to which the artist has given an independent and self-sustaining life,”\textsuperscript{150} allowed the younger Mumford to conceive himself—as it allowed his artist contemporaries to conceive themselves—as transforming reality by the force of his personality projected through his writings into the world. But if “in so far . . . as the creative artist responds to the realities of his age, he is by that very fact condemned to death,” and if, as Mumford was now convinced, this fatal condition had become the fact in all the arts over the previous century, then in order to save his confidence in himself as prophet, Mumford had to break free from his earlier identification with the artist.\textsuperscript{151}

\begin{itemize}
\item 148. Thus Mumford has a lengthy discussion of Thomas Mann’s \textit{The magic mountain} toward the end of \textit{The condition of man}, 378–380, under the heading “The lure of decay.” By spring 1932 when he met Mann in Munich, Mumford had read through the novel several times and considered that “it towers above everything else this last ten years for me”: to V.W. Brooks, 30 Apr 1932, \textit{Brooks-Mumford letters} (1970), 80. But its meaning for Mumford darkened in the following decade. Part of the novel’s fascination for Mumford arose, I suppose, from his seeing so much of his despised and rejected self in the invalid engineer, Hans Castorp.
\item 149. It is, however, true that a suggestion of that earlier faith in salvation by art survives in Mumford’s discussion of Van Gogh and is hinted at in his few words about “the deep humanity” of Picasso’s blue period paintings: \textit{The condition of man} (1944), caption to plate XIV, facing p. 375; caption to plate XV, facing p. 406.
\item 150. Mumford, \textit{The role of the creative arts} (1958), 2.
\item 151. Ibid., 20. The quotation is Mumford’s paraphrase of Ruskin, who “with astonishing insight and prescience, pointed this fact out in literature a century ago.” Mumford began this lecture by stating that today “the creative arts . . . instead of nourishing and replenishing man, leave him still emptier, for they have become mere auxiliaries to mechanical organization.” Artists of previous centuries fulfilled the true mission of art, viz. a culture-creating “revolt against the machine,” fighting “a long, rear-guard action against the encroachments of
Mumford’s detachment from art, already present in *The condition of man* (1944), is fully evident in *Art and technics*, lectures delivered at Columbia University in 1951. Here we find Mumford expressing not an aesthetic sensibility, but rather offering perspectives from the sciences of psychology and anthropology—as he did at this time also in *The conduct of life* (1951) in attempting to explain what he meant by an “Orientation to life,” and as he had already in 1942 in contemplating “The nature of man” as the first of his lecture courses as professor of humanities at Stanford. Strong emotion Mumford did express in *Art and technics* when turning his attention directly to the canvases being produced and exhibited around him, but that emotion was not aesthetic. Gone was that tolerance of surrealism, gone that forced appreciation of abstraction, to which middle-phase Mumford, still holding art high, had persuaded himself. Although he now still allowed that contemporary artists may have “exquisite perception,” it was not perception of higher values; it was perception of the execrable essence of their era. Now once again the underlying antipathies of the inalterably Ruskinian Mumford found free expression in passionate denunciations of contemporary art:

> The maimed fantasies, the organized frustrations, that we see in every comprehensive exhibition of modern painting today. . . . Violence and nihilism: the death of human personality. This is the message that modern art brings to us in its freest and purest moments.

Those denunciations only deepened in following years as the merely deplorable abstract expressionism was followed by the heretical anti-art of pop and op, “this madhouse ‘art’.”

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152. *Art and technics* (1951), chapt. 1.
153. *The conduct of life* (1951), chapt. 2; to V.W. Brooks, 26 May 1942, Brooks-Mumford letters (1970), 212: “One’s temptation is to treat the contents of [the course] scientifically, to give a second hand report about what the biologist and the anthropologist and the sociologist and the psychologist have said about man’s constitution. But . . .”
154. *Art and technics* (1952), 9, 7; for artist as reflection of era, 23, 31, 162. Miller, *Mumford*, 457, missed this essential point about Mumford’s late phase. Writing of *Art and technics*, Miller had Mumford contending that “the arts take a central place in life. On this theme he had already said a good deal in his writings of the 1920s, and he would have more to say in work to come.” But on the contrary, Mumford, for the reason given, had relatively little to say about art in his subsequent writings, and so too did Miller in his remaining 100 pages. Cf. ref. 23.
155. Mumford, *The pentagon of power* (1970), 366, 363. One of the few, and one of the greatest, late-phase exceptions to the rule that Mumford always places a minus sign before ‘abstraction’ occurs in the caption to the next-to-last illustration in *Pentagon of power*, facing p. 341, where Mumford, invoking discipline as well, saw in an abstract sculpture a fulfillment of his life-long science/art-divorce/remarriage program: “In this constructivist
a whole series of assaults on historic culture, even in its most beneficent and vital forms, which began with Dadaism and has sunk into an ultimate pit of vacuous imbecility in Pop Art.

Even as he was imprecating contemporary art, late-phase Mumford was greatly relaxing the requirement of art’s social orientation. At first sight contradictory, the lifting of that obligation appears on closer consideration a logical consequence of stripping art of its capability of creating values and community: If art does not, after all, have the power to save society, holding art to any social requirement is otiose at best, nefarious at worst. Even architecture, the art that most naturally invites a social aesthetic, and upon which Mumford so consistently and forcefully imposed such an aesthetic in his prior phases, now largely escaped that demand. The chapter on architecture in *Art and technics* contains, to be sure, a passing appeal to “social responsibility,” but its thrust is that the work of the architect is to be judged by aesthetic criteria, chiefly, as an especially complex form of sculpture.

If not to art, where could Mumford and mankind look? Religion, to be sure, had an important role to play in preserving man from his innate destructiveness. But, in Mumford’s metaphysics, religion was not per se an originative source or arbiter of saving values. Every system of religious beliefs was itself to be judged by Mumford’s meta-criterion: to what extent was it an “ideology that did justice to all the dimensions of life.” Of “my own philosophy,” said Mumford over and

form by Gabo, the 17th-century world picture becomes completely de-materialized; and the old breach between the subjective and the objective, the inner and the outer, the vital and the mechanical, is resolved in a unified image which restores and re-creates the organic realities that were eliminated in the classic conceptions of mechanics and physics. Here, one of the highest functions of mind, the capacity for abstraction realizes in the act of carrying further its own discipline, the perfect symbol of etherialization, released from mechanistic constrictions.” But Gabo was a special case, an artist who sought to do what Mumford too sought all his life to do: “As much as any twentieth-century artist, Gabo straddled the divide between the ‘two cultures’ of art and science” (Hammer and Lodder, 379). Gabo had a large library of writings by scientists: “I get all the Smithsonian reports and many mathematical journals.” In London in the 1930s he had many contacts with radical scientists—J.D. Bernal was an enthusiast for Gabo’s sculpture—and in America, 1946–1954, Mumford was Gabo’s “closest confidante,” their families visiting often (p. 343).

The equally logical alternative is that loss of belief in the saving power of art would have made Mumford more, rather than less, sympathetic with what contemporary artists were doing with their aesthetic freedom. But Mumford’s taste remained as it had always been, even after its ideological rationale was lifted. See ref. 123.

156. *Art and technics* (1952), 120, 124.
over, from start to finish of this late phase, “the ... deepest postulate is the sacredness of life.” More: “nothing is sacred but human life.”

And then there was science, science proving its indubitable creativity over and over, every day, as genuinely originative source, not of novel values, but certainly of staggering novelties, conceptual as well as material. Although Mumford had never before ranted so heavily and lengthily against the miscarriages of modern science as he did in *The pentagon of power*, at no earlier period of his life had he ascribed to science such a high rank among cultural activities. In his young adult phase, although placing himself on the side of science, the aesthetic appealed to him so much more strongly, and in the artist he then believed more deeply. Now, however, with the aesthetic emotion within him so much weaker in middle age and afterwards, and with the expressionistic artists about him seeming the essence of indiscipline, Mumford found the habitus of the scientist so much more congenial. He had long regarded “the cooperative activities of science” as exemplary of “intellectual maturity.”

But now, with artists incapable of doing more than forcefully reflecting “disintegration” and “organized frustration,” science remained as the only genuinely creative component of culture.

This circumstance—being left, first of all, with science, and second, with religion—Mumford put forward dramatically in his 1972 “Call me Jonah!” address: “For what is the lesson of science? What is the lesson of religion? Whenever Truth commands us, we must obey it.” Regarding science, Mumford unquestionably meant what he said there; regarding religion, the declaration was surely largely rhetorical. More significant still is the absence here of art as mode in which Truth reveals itself; and all the more significant since with this declaration Mumford was accepting the National Medal of Literature.

The late Mumford’s upward revaluation of science is evident in many places. As is well known, he turned in this period against the machine aesthetic and “modern architecture.” When, exceptionally, a hypermodern postwar structure pleased Mumford, he sought an explanation of its merit elsewhere. Enthusiastic about

160. *Art and technics* (1952), 10. *The condition of man* (1944), 247: “Now, every new quantum of accurate knowledge was precious: that fact must be emphasized before one proceeds to criticize science’s self-imposed limitations. Accurate, repeatable, verifiable knowledge, based on a standardized technique and capable of creating universally valid results.” See also refs. 64 and 111.
161. “Call me Jonah!” (1972/1978), 530. Mendelsohn, “Prophet of our discontent,” 346, 427, gives the quotation as it first appeared in the account of that event in *Publisher’s weekly* (1 Jan 1973): “If the truth calls us—this is the lesson of both science and religion—we must obey.”
162. “The case against ‘modern architecture’.” There is nothing new in this often-cited essay, nor, consequently, is there anything specific to the period in which it appeared.
Skidmore Owings and Merrill’s glass-walled Manufacturers Hanover Trust bank building (1954), Mumford wrote:

This architecture is a formal expression of the culture that has explored the innermost recesses of the atom, that knows that visible boundaries and solid objects are only figments of the intellect, that looks with the aid of x-rays and radioactive isotopes at the innerness of any sort of object, from armor plate to human bodies.

But is it not an established fact that Mumford deplored “the culture that has explored the innermost recesses of the atom”? Was not Mumford’s immediate reaction to the atomic bomb, “Gentlemen, you are mad!” It is, indeed, commonly supposed that the ungentle men to whom Mumford ironically referred were the scientists who conceived and created the atomic bomb. In fact, among all those connected in any way with that winning weapon, it was just they, and only they, whom Mumford excepted from his ironic address: The atomic scientists are “the only people who show a normal awareness of danger.” More than that: They, with their culture, were the only group in modern society possessing the values that could save civilization.

164. “Gentlemen, you are mad!” (2 Mar 1946), 5–7. Mendelsohn, “Prophet of our discontent” (1990), 343, 354–355, and Mendelsohn, “The politics of pessimism” (1994), 165–166, half asserts and half implies that Mumford addresses himself with this title to the scientists creating the atomic bomb. Although Mendelsohn characterized “Prophet of our discontent” as focusing on an “important element that emerged early in Mumford’s response to atomic weapons, and then grew in dimension and intensity: his attack on science and technology—practitioners and institutions” (p. 345), what he pointed out repeatedly, and more correctly, is that “Mumford showed a sense of having been betrayed by the very science which at an earlier stage he seemed to give so much credence and credibility” (p. 347); that “It is almost as though he had been ‘let down’ by a favored friend” (p. 355); that he “expressed a disappointment at being let down or abandoned by science and scientists. He expected more, he professed” (p. 360). This ought to have brought Mendelsohn to accept, from the outset, Mumford’s claim “that his work is not an attack on science,”—what Gerald Holton’s review of *The pentagon of power* (1970) had alleged it to be—“but an attack on the power complex’s threat to undermine all human values and purposes, including those of science itself” (p. 358). Likewise, Hughes, *American genesis* (1989), 448, implied that Mumford blamed the physicists. Boyer, *By the bomb’s early light* (1985; 1994), 60, recognized that Mumford regarded them rather as “the Awakened Ones.”
165. “Gentlemen, you are mad!” For *My works and days* (1978), 436, Mumford wrote an introductory note to the chapter on nuclear weapons and Vietnam, which begins: “Only a handful of people, mainly scientists, reacted adequately to the situation produced by the explosion of the first atomic bomb. Among them the names of Leo Szilard, Harold Urey, Norbert Wiener, Linus Pauling, and Max Born deserve to be specially remembered.”
Let the awakened ones [the atomic scientists] be ungagged, and let one of them be placed at the elbow of every man holding high public office, as the priest was once at the elbow of the king, to whisper the words “Humanity” and “One World” into the leader’s ear, when he slips into the dead language of tribal isolation.

Although in the following years Mumford was unable to maintain this high degree of confidence in the atomic scientists as a unanimous body, still, to the end of his working life, three decades later, theirs was the culture he found most stimulating and promising—as well, of course, as most determinative of the technological character of Western and world civilization of his time, and of the future. Of this there could hardly be clearer evidence than Mumford’s essay “Prologue to our time,” which he published in 1975 in *The New Yorker* and as the last chapter of the first autobiographical collection of his writings, *Findings and keepings* (1975), and again as the first chapter of the second autobiographical collection, *My works and days* (1978). In his sardonic opening paragraphs, Mumford has the world as it is—more for ill than for good—wholly the product of the discoveries of physicists at and since the turn of the 20th century. But in his closing paragraphs Mumford is in an altogether different mood, quite exhilarated by the discussion of black holes “at a lively luncheon of astrophysicists which I attended at M.I.T. . . . The astrophysicists are daringly open-minded fellows.” With their ideas stimulating his, “my own faith blithely flourishes. Let the curtain rise on the twenty-first century—*and After!*”

166. “Prologue to our time,” *Findings and keepings* (1975), 367–389; *My works and days* (1978), 3–24. Indeed, Mumford’s imagination often ran on geometrical lines: “suppose we were all equilateral triangles.” Ibid., 191.
Appendix: Mumford’s “discipline”

Noted at several points in this paper as indicative of the continuing strength of the romantic artist in Mumford’s mental makeup is his nearly invariably pejorative use of “abstract” and “abstraction.” Like abstraction, discipline too is an anti-romantic value weighing heavily on Mumford’s mind and appearing often in his writings. In contrast, however, to the monotonously pejorative “abstraction,” “discipline” was bivalent in Mumford’s usage. By assigning positive valence to “discipline” where used in the form, or conceived in the sense, of “self-discipline” or “collective discipline,” while giving the word negative valence when the discipline in question was regarded as externally imposed, Mumford managed to integrate that inherently anti-romantic value with his romantic self.

Whether any particular discipline is externally imposed or internally generated was decided by Mumford, from place to place and time to time, on the basis of his thesis and his disposition at that moment. So, for example, in 1930 Mumford charged the culturally conservative proponents of the New Humanism—Irving Babbitt and those others whose motto was “the will to refrain”—with a lack of “collective discipline.” But the Mumford who emerged after the Second World War admitted that, to his own surprise, he had come over to their side.

167. See refs. 65, 66, 102, 120, 123, 146, 147, 155, 172.
168. Among all the values that have been drowned in the flood tide of postmodernity, discipline is perhaps the only one that was common to nearly all pre-postmodern cultures—traditional, non-Western cultures as well as Western culture, ancient, medieval, and modern. Thus J.R. Oppenheimer, still only 27, in a letter to his brother, age 19—to which my attention was drawn by S.S. Schweber—agreed with his brother’s affirmation of the value of “the virtue of discipline,” but sought to put that value in perspective: “I think that one can give only a metaphysical ground for this evaluation; but the variety of metaphysics which gave an [affirmative] answer to your question has been very great, [notwithstanding that] the metaphysics themselves [were] very disparate: the bhagavad gita, Ecclesiastes, the Stoa, the beginning of the Laws, Hugo of St Victor, St Thomas, John of the Cross, Spinoza. This very great disparity suggests that the fact that discipline is good for the soul is more fundamental than any of the grounds given for its goodness”: Smith and Weiner, Oppenheimer, 155.
169. Mumford’s romanticism never went so far as to permit him to use “undisciplined,” or any other expression of the absence of discipline, in other than a negative sense. So, for example, “the way to efface what is gross or undisciplined in the sexual relation,” he said in reviewing Havelock Ellis, “is by giving the opportunity for the roots of passion to find their way into every part of our being”: “The art of love” (1922). Similarly, ref. 33.
170. So, in reporting to Liebovitz, Mumford-Liebovitz letters (1983), 188, that pausing in his work on volume one of The myth of the machine “broke the almost compulsive discipline under which I had been working and gave me a great sense of release,” Mumford is implicitly treating his “almost compulsive discipline” as external.
Similarly, in that period of utopian optimism around 1930, the period in which he began his series of extra-marital sexual relationships, Mumford looked forward to a future of “communal and personal discipline, erotic and marital experiment, a whole series of new initiatives in the culture of the personality itself.” But in retrospect, from late in his late phase, Mumford regarded those sexual relationships as manifestations of the circumstance that “all my post-adolescent defenses and disciplines were breaking down.”

Although “discipline” was not associated exclusively with either side of Mumford’s men, its affinity was mainly with the “scientist-intellectual.” Mumford consistently regarded the discipline of science as a healthy discipline, being both self-imposed and collective. More importantly, the periodization of Mumford’s self-conception and outlook developed in this paper is supported by the pattern of his assignments of valences to “discipline”: In his early and in his late phases, “discipline” was given a positive valence in almost every usage, without regard to the specific practice to which it was applied. However, in Mumford’s middle

172. “In our stars” (1932), 342. (In this essay Mumford used “abstract” as repeated pejorative: “abstract moneymaking,” “abstract efficiency,” “the abstract, cockney habit of mind,” “thin, abstract level.”) Mumford expatiated on the desirability of libidinal liberation in his contribution to the festschrift for Stieglitz (1934), 54–58. There Mumford also deplored “those who seek order in automatons because they lack the discipline and courage to seek order in themselves” (p. 47). The late-phase viewpoint: Mumford, My works and days (1978), 301. Miller, Mumford, 20–21, 91–93, stressed Mumford’s great self-discipline, his list and schedule making, and observed that when a young adult, his literary friends saw him as exceptional in this regard. In 1914 Mumford wrote, and published, a short story in which “the reign of discipline”—and that of “the Disciplines”—is satirized: “Fruit. A story.” Even though Mumford saw fit to reprint it in Findings and keepings (1975), 12–15, it is an anomaly, to be classed and dismissed as among Mumford’s juvenalia. Typical of the adult is, rather, Mumford writing in 1926 an only slightly fictionalized, free-associating autobiographical memoir, “The little testament,” in which, in stanza 50, “McMaster” [Patrick Geddes] charged the 27-year-old Mumford with lack of discipline. Similarly, in 1931, as quoted above (ref. 100), Mumford’s lover admonished him—in what was doubtless a teasing reference to his ambivalence about, and inconsistent application of, “discipline”—“discipline yourself to undisciplined exploration.”

173. E.g., The culture of cities (1938), 384: “it is only when science becomes an integral part of daily experience, not a mere coating of superficial habit over a deep layer of uncriticized authority, that the foundations for a common collective discipline can be laid.” Van Leer, “American renaissance,” 308–309, points out that discipline was a prime Emersonian value, associated by him with science, especially, and quotes: “‘‘The state of mind which nature makes indispensable to all such as inquire of her secrets is the best discipline.’” By contrast, “Hawthorne never rises above his suspicions of a discipline that subordinates the individual to the universal.”

174. A full-text electronic search of Utopias (1922) for “discipline” at Questia (http://www.questia.com/PM.qst?a=o&d=54729028, accessed 14 Sep 2006), yields 15 appearances of the word, only two of which carry negative connotations: “compulsory education to discipline the younger generation to the machine” (215); “the isolated discipline which
phase, his romantic artist phase, a large proportion of the references to discipline were unfavorable—and, being unfavorable, were often connected in some way with his bête noire, mechanism. Thus, a full-text electronic search of Technics and civilization (1934) turns up 46 usages of “discipline” and other forms of the word. In early chapters, where Mumford is describing beneficently eotechnic medieval Christendom, “discipline” almost always carries a positive valence. The valences turn negative when Mumford describes early modern paleotechnic civilization—here are the only “discipline” entries in the index, viz., “Industrial discipline” and “Starvation, discipline of.” Discipline’s valences then revert to necessarily remains the heritage of the specialist” (281). In Mumford’s letters to Geddes, Mumford-Geddes corresp. (1995), 117, 125, 133, 191, “discipline” appeared several times in the early 1920s—always implicitly affirmatively—but from 1925 until Geddes death in 1932, Mumford found no occasion to use the word.

175. Or, inversely: “Instead of leading toward surrealist disintegration, the discipline of the Bauhaus school led in just the other direction—to the conquest of the machine” (31 Dec 1938), 40. Progress from resistance to “the discipline of the machine” to an acceptance of the importance of that discipline is the theme of a perceptive essay by West (1967), which discusses Mumford and half-a-dozen other interwar American writers. But as Mumford appears there as representative of the latter position, West does not grapple with Mumford’s ambivalences or his temporal development.

Lasch, Salmagundi (1980), is the only other writer on Mumford whom I have encountered who underscored the importance that Mumford gave to discipline. By the late 1970s discipline had become, and would remain, a key positive value for Lasch, then in his ‘Tory radical’ phase: The culture of narcissism (1978), concluding lines; The true and only heaven (1991), chapt. 9. Indeed, Lasch’s and Mumford’s common understanding of and emphasis upon discipline is indicative of the conservative radicalism that made those two culture critics so similar. Just as the high value placed on discipline was a main reason for Mumford’s spurning his counter-cultural admirers, so was it where Lasch himself departed from the students shaped by the 1960s who were attracted to him. Strongly antipathetic to most of the values of the counter-culture, the ideology of the New Left, the concept of the welfare state, the liberal “therapeutic ethic of moral nonaccountability” (Salmagundi [1980], 14), and the idea of technological progress, Lasch had little to hold onto beyond “respect for the character-forming discipline of daily life” (ibid., 27). (“Discipline for daily life” is the title of the antepenultimate subsection of the final chapter of Mumford, The conduct of life [New York, 1951].) Lasch thus highlighted Mumford’s attack, beginning in the late 1930s, on “the ‘sleek progressive mind’” that “cannot grasp the need for a form-giving discipline of the personality” (p. 15). Not that Lasch held every form of discipline for good; his distinction between good and bad discipline was nearly congruent with Mumfords.’ Lasch was all for “the discipline gained through manual labor” (Salmagundi [1980], 16), but “labor discipline” (ibid., 24) remained something else. Although generally dismissive of Mumford’s lebensphilosophisch holism (e.g., ibid., 11, 15), Lasch affirmed it strongly where it appeared to him as part of an attack on “the modern scientific enterprise of emancipating mankind from the controlling forces of nature—a project that ‘met so fully the id’s infantile wish for unrestrained power’” (ibid., 18–19).

positive when Mumford dwells on contemporary neotechnic civilization and his hopeful expectations for its future. Similarly, negatively connoted “discipline” runs through a lecture, with the same title as the book, that Mumford gave in Honolulu in June 1938. Only at its end, where he presents the anti-fascist alternative, does positively connoted discipline appear.

Similarly supportive of the periodization proposed in this paper is the circumstance that in *The condition of man* (1944) Mumford reversed the negative valence that in *Technics and civilization* (1934) he had attached to discipline in the context of cultural and industrial practices from the 16th to the 19th century. In this, the first of his late-phase books, Mumford has a uniformly favorable regard for discipline: “The artist shared with the gentleman the discipline of an all-round development” (208); Loyola “sought to save the medieval Christian synthesis by giving it the tools and weapons of the modern mind: the discipline of the new scientist, the imagination of the new artist . . . the new mechanical discipline of the army” (222); “Christian discipline had . . . been carried over into science as monastic regularity had been carried over into capitalism” (252); for “romantic man . . . everything that savored of discipline, purposive order, sharp outlines, was tabu” (279); “What sort of personality must we now seek to foster and nourish? What kind of common life? What traits and disciplines are needed?” (425). The very purpose of *The condition of man*, Mumford told Van Wyck Brooks in the midst of writing it, was “that of giving the young the vision and discipline they will need to lift themselves out of the muck and the chaos that their easy-going elders have created.”

Middle-phase Mumford, deploring Americans’ inhibited eroticism, could agree with Freud that modern man was oppressively disciplined by his super-ego. In *The condition of man* (1944) late-phase Mumford took the opposite view: Not the ego, but the super-ego of contemporary man required to be strengthened to hold its own against his indisciplinate ego (363). Captioning reproductions of paintings by Vermeer and Chardin (facing p. 247), Mumford urged: “Having by strenuous self-elimination achieved objectivity with respect to the external world, man must now by an equally rigorous discipline achieve a complimentary subjectivity, by a renewed command of the inner world.” Similarly, in *Art and technics* (1952): “we need to develop habits of inhibition on which we too glibly have bestowed, in the recent past, the epithet puritanic.”

Little wonder then that Mumford, who retained this view to the end, was unsympathetic to Roszak and what he represented.

177. Mumford, “Technics and civilization,” lecture, Honolulu, 20 June 1938, typescript, 38 pp. (Mumford papers, fldr 7192). Nazi Germany represented “the most unrestrained reaction against humane discipline”: *The condition of man* (1944), 375.
179. Mumford, *Art and technics* (1952), 110. Here Mumford damned contemporary art in the strongest terms, but forced himself in concluding, p. 162, to express the hope that “our dreams will again become benign and open to rational discipline; our arts will recover form, structure and meaning.”
180. See ref. 8.
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This bibliography is in two sections: 1. *Writings by Mumford* (chronologic); 2. *Writings by others* (alphabetic).

1. *Writings by Mumford.* Every student of Mumford must be grateful to Robert Wojtowicz, Mumford’s literary executor, for his revision and updatings of the bibliography of Mumford’s more than one thousand publications, originally compiled by E.S. Newman: http://www.library.upenn.edu/collections/rbm/mumford/index.html. Wojtowicz also participated in the organization and cataloging of the Mumford papers (including some drawings) deposited at the University of Pennsylvania’s Annenberg Rare Book and Manuscript Library: http://www.library.upenn.edu/collections/rbm/regis/mumford/mumford.html. A larger collection of Mumford’s drawings and watercolors was donated by Mumford’s widow to Monmouth University, Monmouth N.J., of which a catalog was prepared by DiMattio and Stunkel (see below), and of which a small fraction are reproduced at http://library.monmouth.edu/spcol/mumford/gallery/alison1.html. The following published writings by Mumford are referred to in this paper:

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How Lewis Mumford saw science, and art, and himself

ABSTRACT

Mumford saw himself as a scientist of a sort, a fact ignored by nearly every scholar writing about him in the past 30 years. Those viewing Mumford as humanistic social critic have seen him only as inveighing against the limitations and consequences of modern science; they have refused to recognize his very high valuation of science even in its imperfect past and present states. Mumford’s estimation of science, of physics especially, was far higher and far more constant than was his estimation of technology, which only during a short period in the late 1920s and early 1930s did he regarded as embodying affrmable values. Where all periodizers of Mumford’s writing life have seen only progress into pessimism about science following World War II (so C. Lasch and T.P. Hughes), in fact Mumford’s valuation of science as an element of culture, and of scientists as agents of social progress, rose in the postwar decades. This was a result of Mumford’s rejection of contemporary art, for after the mid-1930s Mumford could no longer suppress the distaste he felt for abstract art, and could no longer sustain his earlier belief—a common faith in the late 19th and early 20th centuries—that art and the artist were the agents by which new, socially salvific values were created. Taking the role of art in Mumford’s persona as chief differentiator, three phases are identified in Mumford’s writings, with reorientations about 1924 and in the late 1930s. The changing valance Mumford assigned “discipline” confirms that periodization. Attention is drawn to Mumford’s romantic, Lebensphilosophisch anti-mechanism as common ideology of artistic and literary types in the early 20th century, and to his conception of the reunion of the inner and the outer, the artistic and the scientific, as ideology of intellectual types in the same period.

KEY WORDS: abstract, “avant garde,” discipline, dualism, Lebensphilosophie, neotechnic, romanticism, Whitehead