Human scale and the technological sublime. An iconology of the “crisis of civilization” in the 1930s

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Compared with the technophile enthusiasm that generally characterized the 1920s, the visual culture of the 1930s was marked by imagery of civilizational decline nourished by allegorical images, the rhetoric of which I propose to analyze here. The key hypothesis of this survey is that technological anxiety finds its visual formulae through scale relationships. In the 1930s, the humanist ideal of man understood as “the measure of all things” was countered by an image of man threatened by his own technical achievements. Of course, this type of representation was not dominant in mass culture as a whole. In the midst of the crisis, the illustrated press continued to glorify technological progress achieved by Western countries, while a new consumer culture was developing: one that embraced technical modernity (automobiles, aviation, the radio, and promises of television). Photographically-illustrated magazines—the principal mass medium of the era—fully participated in this modernist culture while offering, though not without paradox, increasingly sharp criticism of industrial civilization and the dangers of technology.

In March 1933, the illustrated weekly Vu published a special issue devoted to the social consequences of machinisme (the French term for mechanization) and the threats it represented to civilization.¹ Published at the heart of the economic crisis, which affected France a few years after the United States, the magazine echoes a debate that had been stirring the French intellectual world since the late 1920s and that Georges Duhamel referred to as the querelle du machinisme.² A photomontage by Marcel Ichac provides the cover: a dystopian image of a civilization doomed by over-mechanization (fig. 1). This motif of a man trapped between colossal gears, the meaning of which is explained by the title of the issue, “End of a Civilization,” is part of a long series of similar images; a famous sequence from Charlie Chaplin’s film Modern Times (1936) is a memorable example.

The common media trope of civilizational decline that developed around 1930 can be summed up by three recurring elements: First, the image of gears as a metonym to designate either industrial work or work in general, or a phenomenon of autonomous and

¹ Vu no. 259 (March 1, 1933).
uncontrollable movement; second, a depersonalization of the human figure reduced to a silhouette whose identity is difficult to distinguish; and third, the disproportion between man and machine, a contrast maximized by the rupture of scale.³

Figure 1. *Vu*, no. 259 (March 1, 1933), cover. Photomontage by Marcel Ichac. © Musée Nicéphore-Niépce, ville de Chalon-sur-Saône, France.

Should we consider these images of the “crisis of progress” as political allegories? Indeed, it is tempting to understand them as the visual equivalent of the “rhetoric of decline,” very much praised by the pamphleteers of the far right.⁴ However, the political use of these images betrays diverse and sometimes antithetical ideological positions. The ideal of a return to the rural, which has its visual counterpart in the revalorization of landscape, does not reflect a left-right political split.⁵ Hence, my aim here will be to read mass media images in their relation to contemporary debates regarding nature, man and...

³ We assume that the reduction of the human figure to a silhouette epitomizes humanity as a whole, not just the industrial worker. In some cases, the reference to the assembly line is more explicit; the image would refer to anonymity and alienation as effects of the scientific rationalization of work on the individual.


technology inasmuch as they betray common rhetorical devices. I propose to identify a body of both visual and verbal images, characterized by the use of the same stylistic tropes. But images also possess specifically visual rhetorical means, typically used for communication or propaganda purposes. These rhetorical devices are the object of “political iconography,” a current of art history concerned with the political relevance of Aby Warburg’s and Erwin Panofsky’s iconological method. Thus, political iconography is concerned not only with how images represent relations of power but also how images actively contribute to shaping political forms. In that sense, it calls for close iconographical analysis, since the relation between visual elements is considered an allegory and/or a prefiguration of political organization. But considering that the images studied here were all published in the mass media, the notion of narrative imagery, put forward by André Gunthert, could also be relevant for understanding the dynamics of imitation and appropriation typical of the functioning of cultural industries: “To the question: what do images do? we can answer: they produce other images. This characteristic productivity makes it possible to distinguish between iconography, a group of images isolated from any criterion, and imagery defined by its public success, which presents internal coherence traits, but also an evolutionary dynamic.”

Critics of mechanization in France and Europe

The cover of Vu cannot be understood outside the ideological context of France circa 1930, marked by harsh debate over the merits and dangers of machinisme. The intensity of the polemic increased after 1931, when the effects of the economic crisis were first felt, even though the condemnation of “the Machine” is a literary topos whose roots go back to Romanticism. The critics of mechanization, emanating both from the intellectual world and from workers’ resistance, had until then been rather measured in the French context, compared, at least, to the situation in Britain. After the ravages of the First World War, the enthusiasm for technical progress was already strongly altered: it was

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now clear that “the Machine” could prove to be destructive and that industrial war could take on horrifically inhuman forms. This memory of the First World War weighed heavily on the authors, whom, in the interwar period, placed themselves on the side of critics of machinisme.

Georges Duhamel, one of the main protagonists in this debate, stressed the importance of his first-hand experience of war as he raised awareness about the potentially destructive nature of technology. In 1930, Duhamel published a pamphlet entitled Scènes de la vie future, which was met with considerable success. In this account of the writer’s journey to the United States at the end of 1929, he criticizes the supposed materialism of American civilization, which he detects in industrial production and increasingly mechanized daily life as well as cultural production (cinema and recorded music). In what Duhamel considers an excess of rationalism, he targets both the transformation of work due to mechanization, which he opposes to qualified manual work, and the transformation of culture, which has become a mass culture; in particular cinema, whose unbridled rhythm he believes is not conducive to reflection. Scènes de la vie future was commented on profusely by critics at the time and gave rise to a vivid debate in the press around 1930. Many works contemporary to Duhamel’s pamphlet multiply arguments against mechanization by further developing this rhetoric of excessiveness.

For Georges Duhamel, as for most of the French authors who took part in the quarrel, the United States constituted the emblem of the modern machinist civilization characterized by excessiveness. The skyscraper is but one of the symbols of its technological excess. Jean-Louis Cohen has shown to what extent this association has marked, often in the negative, the French architectural imagination. In this notion of excessiveness, political and aesthetic stakes are tightly knotted, as the negative image of the United States (but also of its Eastern mirror, the USSR) represents for these authors a threat to a “spirit of measure” considered specifically French. For Duhamel, America and gigantism are inseparable, if only by the very scale of the American territory:


Its inhuman cities, the American people have set them up on a ground that never invites moderation. Lakes, valleys, rivers, forests, plains, everything is oversized, nothing seems to be done to incline man towards a thought of harmony. Everything there is too big. Everything discourages Apollo and Minerva.15

Contrary to criticisms of mechanization developed since the nineteenth century, which focused essentially on the nature of industrial work and sometimes on its environmental consequences, the discourse of decline around 1930 goes so far as to anticipate the destruction of humanity itself. In later decades, science fiction would make its own the narrative of the uprising of machines: a result of the original Promethean sin.16 In Germany, philosopher Oswald Spengler pursued a similar idea in a markedly more tragic tone than Duhamel’s Voltairean satires. Spengler’s reception in France was, nonetheless, very limited. This is not surprising given the explicitly Francophobic character of his Decline of the West (1918–1922).17 Technology had an ambivalent status in Spengler’s view: considered as the epitome of Western civilization in its Faustian relationship to nature, the exponential development it had recently experienced testified, according to him, to a harmful domination of materialism; a symptom of the civilizational decline he condemned.18 Above all, it was with Spengler that the idea of a technological excess—both fascinating and terrifying—was most explicitly formulated, in terms that betray his taste for the aesthetics of the sublime. Modern technology would indeed testify to an impetus “towards faraway places without limits”19.


18 “The creature is rising up against its creator. As once the microcosm Man against Nature, so now the microcosm Machine is revolting against Nordic Man. The lord of the World is becoming the slave of the Machine, which is forcing him—forcing us all, whether we are aware of it or not—to follow its course. The victor, crushed, is dragged to death by the team.” Oswald Spengler, Man and Technics: A Contribution to the Philosophy of Life [1931], trans. C.F. Atkinson (New York: Alfred Knopf, 1932), 46. See also Eric Michaud, “Figures nazies de Prométhée, de l’’homme faustien’ de Spengler, au ‘Travailleur’ de Jünger” in Communications, no.78 (2005), 163–173.

That is why the word spoken is sent instantly beyond the seas; that is why we witness this ambition for records and dimensions, giant hangars for giant machines, frightening ships and bridges, skyscraper constructions; fabulous forces that obey, in a hurried point, the hand of a child; factories of steel and glass that reel, tremble, groan, and in which the tiny homunculus circulates as absolute master and finally feels nature below him.  

Lucien Febvre rightly noticed how Spengler’s theory of History was fed by the fears of Germany in the 1920s and how the rhetoric of civilizational decline nourished an unhealthy joy (Schadenfreude) that consisted in anticipating one’s own ruin:

Spengler had, in the 1920s, some of the most coveted commodities, say, a certain pathos, a resolute anti-intellectualism, the heroic notion of destiny, anti-aesthetics, the thrill of the human creature before the majesty, the ample majesty of History.  

In France, some authors described as “non-conformists,” most of whom shared a rejection of democracy and liberalism, agree with certain Spenglerian theses concerning the role of technology in the “decline” of civilization, considered as a harmful victory of materialism over “the Spirit.” It would be inaccurate, however, to attribute these criticisms of modernity solely to a reactionary line of thinking, not only because dictatorships have often put forward a façade of reconciliation between the Blut und  

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20 “C’est pour cela que le mot prononcé est envoyé instantanément au-delà des mers; c’est pour cela qu’on assiste à cette ambition des records et des dimensions, géants hangars pour des machines géantes, bateaux et ponts effrayants, constructions de gratte-ciel; forces fabuleuses qui obéissent, en un point pressé, à la main d’un enfant; usines d’acier et de verre qui tanguent, tremblent, gémissent, et dans lesquelles le minuscule homunculus circule en maître absolu et sent finalement la nature au-dessous de lui.” Spengler, Le déclin de l’Occident, 463.


22 Jean-Louis Loubet del Bayle, Les non-conformistes des années 30: une tentative de renouvellement de la pensée politique française (Paris: Seuil, 1987). Olivier Dard, Le rendez-vous manqué des relèves des années trente (Paris: Presses universitaires de France, 2002). In fact, since the 1920s, mechanization has been associated with a kind of unnatural perversion by conservative writers: “The machine is an automaton artisan by which the man, lured and exhausted by the very effort of this birth, pretends to be replaced. But he is betrayed. He grieves himself and spoils himself in his vain machinations as in the substitutions of sexual life. […] Because there can be no question of repudiating it, […] it is necessary to ward off the deviation, the inversion.” Pierre Drieu La Rochelle, Mesure de la France (Paris: Grasset, 1922), 112, author’s translation. (“La machine est un artisan automate par quoi l’homme, leurré et épuisé par l’effort même de cet enfantement, pretende se faire remplacer. Mais il est trahi. Il se chagrine et s’abîme dans de vaines machinations comme dans les substitutions de la vie sexuelle. […] Car il ne peut être question de la répudier, […] il faut conjurer la deviation, l’inversion.”)
Boden tradition and Promethean technology, but also because anarchist and socialist currents also warned—for other purposes—against the possible dangers of technological development (with positions that helped to form the modern concept of political ecology or ecological society).  

From the crucified worker to the worker-monument

The cover of Vu calls for another genealogy, one that highlights the presence of mythological Nachlaben in twentieth century political iconography. Indeed, Marcel Ichac’s photomontage makes visual references that evoke the negative connotations of the iconography of torture (the breaking wheel), the representation of the underworld (with the flames in the background) and, more specifically, the figure of Ixion. This association between mechanized work and torture instruments was already very present within militant iconography, especially in anarchist imagery. In 1906, the painter František Kupka published a lithograph showing a worker crucified on a cogwheel in the anarchist newspaper Les Temps nouveaux (fig. 2).

This iconographic type works as a visual analogy between work and torture. Possibly, this visual formula could have developed in reference to the supposed etymology of the word travail (work), purportedly derived from the Roman word tripalium, a torture device used in ancient Rome to punish rebel slaves. Although this etymology has been questioned by linguists, it is likely that it fed the analogies observed in the political imagery of that time. The visual metaphor was used in the 1930s in connection with criticism of the “scientific” organization of work known as Taylorism. For example, in 1934 the American communist illustrator Hugo Gellert published a pictorial interpretation of Karl Marx’s Capital (fig. 3), in which workers are shown tortured on huge gears. The metaphor works on two levels: the worker is reduced to a simple cog in the industrial machine, but he is also sacrificed (like the crucified Christ) on the altar of capitalist profit.

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As a counterpoint to this negative imagery of industrial labor under a capitalist regime, the affirmative visual strategies of communist propaganda tended to reverse the relation of scale between man and machine. From the crucified worker, dominated by the mechanical element, one passes then to the worker-monument, now overhanging the means of production of which he has become master. A photomontage by John Heartfield for the cover of the German communist magazine *Arbeiter Illustrierte Zeitung* could be defined as a visual hyperbole, the meaning of which is oriented by scale relationships (fig. 4). The face of a Soviet worker occupies two thirds of the image, surmounting industrial buildings. These cover the man’s arms, turning him into a man-machine hybrid, as suggested by the caption “A new man—Master of a New World.”

Communism, in fact, is characterized by an emancipatory vision of technology, insofar as it places power in the hands of the workers and not the capitalists. We know, for example, the enthusiasm with which Taylorist principles were welcomed in Lenin’s Russia. At the time of the French *querelle du machinisme*, the Communists of course took part in the debate, but only to denounce the reactionary “bourgeois” character of
these critics of mechanization. The position of the French Communist Party in this regard is summed up by sociologist Georges Friedmann in the communist magazine Regards:

> Line work, in itself, facilitates production, makes it faster, often easier. But for this to happen (as Marx still says about the tool) man must use it and not serve it. This control of the machine is only possible in a socialist regime where the instruments of production are actually exploited for the benefit of the community, as we see in the USSR.  

In this respect, one should stress the importance of the magazine *L'URSS en Construction* (USSR in Construction), a propaganda magazine illustrated with photographs and designed by artists, most of whom were protagonists of Constructivism. This magazine contributed crucially to the dissemination of the Soviet ideal of technological progress in Western Europe, magnified by the magazine’s large format (30 by 41 centimeters) and the quality of its photographic reproductions.

From the visual point of view, one of the recurring elements of communist propaganda consists in formulating an analogy between the gigantism of the machine and the gigantism of the worker himself (these “heroic” figures are mostly masculine). This is the case, for example, with the cover of a book by Paul Vaillant-Couturier published by the French Communist Party (fig. 5). The blue lettering of the title, “The Industrial Giants,” is superimposed on a photograph by Max Alpert showing two workers from below, which accentuates the effect of monumentality. Photomontage lends itself particularly well to these antinaturalistic scale games, insofar as it is based on the assembly of photographic fragments, sometimes heterogeneous in size, without necessarily relying on the rules of linear perspective. In this regard, one can speak of meaningful perspective or perspective of importance to characterize an image in which objects are represented not according to their spatial situation but according to their symbolic importance, as is often the case in medieval art. In the photomontages of the 1920s and 1930s, there are also occurrences of inverted perspective (the vanishing lines do not meet in the background of the image, but in front of it). For art historian Devin Fore, this reversal of perspective testifies to a desire to undermine the anthropocentric

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28 “Le travail à la chaîne, en lui-même, facilite la production, la rend plus rapide, souvent plus aisée. Mais il faut pour cela (comme dit encore à propos de l’outil, Marx) que l’homme s’en serve et non pas qu’il le serve. Ce contrôle de la machine n’est possible qu’en régime socialiste où les instruments de production sont réellement exploités au bénéfice de la collectivité, comme nous le voyons en URSS,” Georges Friedmann, “Machinisme” in *Regards sur le monde du travail*, no. 16 (April 1933), n.p., author’s translation.

humanist paradigm, particularly within the constructivist avant-garde which celebrated the new culture of the machine.  

Technological Sublime

In the United States in the 1930s, representations of industry in the illustrated press were often imbued with the aesthetics of the sublime, in continuation with what David Nye

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described as the “American technological sublime.” Intended to counter the very idea of alienation and technological risk by placing modern industry within a horizon of mastery over the earth and crossing of borders (the frontier), the aesthetics of the technological sublime is inseparable from a political project. That is, it maintains the ferment of national unity in times of crisis, by reestablishing a transcendence, formerly associated with the wilderness and now with the works of man himself. David Nye also underlines the fact that the sublime is inseparable from a feeling of terror mixed with admiration. Associated in principle with the unlimited powers of nature, the sublime generated by human creations (Nye gives as examples bridges, dams, and towers) can induce the idea of a threat to man himself, overwhelmed by the scale of his own achievements.

The first cover of *Life* magazine, a weekly founded by Henry Luce in 1936, shows Fort Peck Dam photographed by Margaret Bourke-White (fig. 6), a photographer well known for her images of factories and industrial objects. Bourke-White had already done much to spread a positive image of great American industry, particularly through her collaboration with *Fortune* magazine, an illustrated weekly dedicated to trade and

![Figure 6. Life, no.1 (November 23, 1936), cover. Photograph by Margaret Bourke-White. © Bibliothèque La Contemporaine, Nanterre, France.](image)

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industry, also founded by Henry Luce in 1930. The dam, the construction of which was part of the policy of major works conducted as part of the New Deal, is staged here in such a way as to highlight its gigantic scale. The technical feat represented is in contrast with the minuteness of the human figure, which lends scale to the image. The enormous mass of the cliff-like dam evokes the geological formations of canyons and such emblematic national sites as Yosemite. Inscribed in the image, therefore, is the imagination of the conquest of the West and the aesthetic of the sublime by which the American landscape had been characterized since the nineteenth century.32

For Terry Smith, the industrial sublime is part of a political and cultural strategy that consists in naturalizing technology and nationalizing the idea of modernity (hitherto rather associated with European culture, especially in the artistic field).33 James S. Miller also shows how Fortune contributed to the invention of an “industrial folklore” legitimizing industrial capitalism as the result of an authentically American vernacular and equally shared entrepreneurial spirit between the people and the elites.34 While the glorification of modern industry seemed to contradict the regionalist artistic currents then very popular in the United States, Fortune’s case demonstrates that the valorization of the American vernacular and “primitive” traits serves to formulate a reconciliation between the past and the present, and to inscribe modern technological development in a long-term tradition.

Following a reading of history in terms of civilizations (rather than nations or social classes, for example), the photographs of the Fort Peck Dam elevate it to the status of a monument, an equivalent to the colossal buildings built by ancient civilizations: a monument of the machinist civilization. This articulation between modernism and primitivism is also found among American precisionist painters such as Charles Sheeler or Charles Demuth, who entitled one of his paintings of silos My Egypt (1927).

France, the “country of balance”

From the French point of view, American technological excess aroused both fear and fascination. In a special issue of Vu (May 30, 1936) devoted to the theses of economist Jacques Duboin, we find a photograph of the Hoover Dam reproduced on a double-page spread (fig. 7).35 The intervention of graphic designers Marc Réal and Alexandre


35 Jacques Duboin defended a distributive economy based on an acceleration of mechanization and a reduction in working time. The issue of Vu was published shortly after the victory of the Popular Front in the 1936 legislative elections.
Liberman consisted in underlining the microscopic size of man confronted with the titanic mass of the dam. The graph on the right emphasizes the exponential increase in industrial production since the 1920s, while repeating, in legend, the haunting fear of a loss of control over machines: “Will the machine get its revenge? Will man lose control of his work?”

Faced with the two technological giants that were the United States and the USSR, journalists and politicians have constantly presented France in the 1930s as the “country of balance.” “La France, pays de la mesure” was indeed the title given to a special issue of *Vu* (fig. 8) dedicated to the consequences of the economic crisis in France. This ideal also pervades one of the most widely distributed collections of photographs in the 1930s: *La France travaille* (France at Work) by François Kollar, published in several issues from 1931 to 1934. If some of Kollar’s images perpetuate certain codes of industrial photography in which the workers pose next to gigantic machines, the photographer generally refused the rhetoric of excessiveness. Most of his images show the workers in close-up, emphasizing their manual skill and control over their work tools (fig. 7). In short, Kollar’s work exemplifies the so-called “humanist” photographic style, in the sense

**Figure 7.** *Vu*, special issue (May 30, 1936). Photographer unknown, graphic design by Alexander Liberman and Marc Réal. © Musée Nicéphore-Niépce, ville de Chalon-sur-Saône, France.

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36 *Vu*, no. 220 (June 1, 1932).
that it opposes the depersonalization and disproportion that I identify as iconic figures of the “crisis of civilization.”

Three years after *Scènes de la vie future*, Georges Duhamel published a lecture entitled *L’Humaniste et l’automate*, illustrated by photographer Jean Roubier. Against the excesses of technical rationalization, Duhamel defended the transmission of manual knowledge and the intuitive knowledge that a practitioner can have of his working tool, which demands long-time learning. The “humanist” ideal of technique that characterizes Kollar’s collection thus crossed the visual and verbal formulations of the man-machine relationship in France before becoming a leitmotif in the propaganda of the Popular Front.

The International Exhibition of “Arts and Techniques Applied to Modern Life,” which took place in Paris in 1937, could be globally interpreted as an attempt, on the part of the organizers, to present France as the country of measure, faced with totalitarian countries’ demonstrations of power. As Shanny Peer has shown, the image of the nation conveyed by the exhibition was that of a balanced economy, in which industry would not

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overtake agriculture. Unlike some retrospective readings that would like to see it as a precedent for the “return to the soil” ideology put forward by the State of Vichy under Nazi rule, the 1937 Exhibition must be understood as an effort on the part of the government to display the image of measured modernization, a position of balance between communist productivism and the haunting fear of excessive mechanization.39

François Kollar’s images are ubiquitous in the exhibition. One of his photographs is used in a monumental photomontage entitled Travailler, made by Fernand Léger for the Pavillon des Temps Nouveaux. Conceived as a showcase for the CIAM (International Congress of Modern Architecture), the Pavilion deploys a didactic approach in favor of modern urban planning, whose philosophical foundations rely on faith in the virtues of mastered technology in the service of human progress. From this point of view, Fernand Léger’s photomontage works as an emblem of a harmonious relationship with technology, associating the Promethean dimension of the modern project with a concern for “humanistic” human scale. According to Romy Golan, “The motif reads like an actualization of Leonardo’s Vitruvian Man, who continues to stand, imperturbably, at the epicenter of the mechanical world and remains, as such, the measure of all things.”40

Conclusion

This case study of an iconographical motif omnipresent in 1930s visual culture has shown how certain images and rhetorical devices cross discourses and pictures, drawing the contours of a coherent political mythology. “The Machine” (in the singular, according to a recurrent hypostasis in the discourse), and more specifically the cogwheel, function as visual allegories of the uncontrolled movement of History, the fatal outcome of which is then announced. To the verbal topoi of excessiveness correspond as many images in which proportion ratios function as signifying elements.

Faced with the predicted collapse of modern civilization, the iconography of decline must be analyzed for its prospective and mobilizing value. Operating on the register of anticipation, readily hyperbolic, the rhetoric of these images is intended to strike the imagination and possibly trigger action. Following the inventory of political iconography initiated by Martin Warnke, the motif of the man and the wheel can be considered one of those visual formulae loaded with historical references and ready to be


used for (sometimes antithetical) political purposes. Coming from socialist and anarchist iconography, the motif of the machine as torture wheel has been gradually abandoned in favor of a new Promethean vision of technology, put forward by both the USSR and the United States. In the context of France in the 1930s, these two countries were seen as countermodels for their supposed technological gigantism; hence the elaboration of a “humanist” iconography that aimed to reconcile man, machine and land.

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41 Fleckner et al., Handbuch der politischen Ikonographie.