During the second half of the nineteenth century, “l’art social,” a campaign to extend aesthetic values throughout French society, found its clearest application in the field of the decorative arts and manufactured goods for the domestic interior. The institutional context of this debate was the Union centrale des arts décoratifs, whose publications and exhibitions presented differing views on the status of the decorative arts and on the standards of design education. The debate engaged many prominent intellectuals and figures in French public life, including Georges Berger, Antonin Proust, Pedro Rioux de Maillou, Charles Henry, Paul Souriau, Sully Prudhomme, Gabriel Tarde, Jean-Marie Guyau, and Eugène Grasset, laying the basis of an approach to both aesthetics and training in the decorative arts based upon geometry that had an impact on design values into the twentieth century.

The ideal of a union between art and industry, in hope of a wider dissemination of aesthetic values in society, was an inspiration to many of the revolutionary artists’ groups in the second half of the nineteenth century. For many critics, philanthropists, and reformers, often from very different ideological positions, it was the arts of decoration and the domestic interior that became the focus of their attempts to realize the much-desired union of the beautiful and the useful. This quest to establish a modern style that could be diffused through all sections of society was, by the end of the nineteenth century, known in France under the broad heading of “l’art social”—social art. By the 1880s this new notion had begun to upset the classical hierarchy in the arts, inducing painters, sculptors, and architects to take an interest in design and decoration and in the production of everyday objects. To take Roger Marx’s statement from his posthumous essay of 1913, “Social art . . . functions in relation to life itself; it blends with it, imbues it, penetrates within it; to an evident pictorial or
plastic beauty is added a more intimate beauty that one could readily describe as the beauty of purpose.” In the same essay, Marx alludes to the fact that the rational and humane use of the machine allowed industry to reduce unit costs and promote the widest possible dissemination of products. The opposite was also true, however; the rational and humane use of the machine also imposed certain demands upon industry. In order to claim membership in the artistic field, a category from which it had previously been excluded, industry must seek to “adorn life with beauty,” not in imitation of the other arts but on its own terms. Alois Riegl’s celebrated concept of the Kunstwollen can be invoked in this regard: the “will to form” in industrial art should be strictly associated with the functionality of the object and made manifest in the disposition of its parts and the rationality of its ornamentation.

The question that engaged many commentators of the period was, what role and place should be given to design and to elements of decoration in works subject to the nonartistic imperatives of production and the marketplace? The responses to this question, in a France that had been slow to industrialize, were multifarious and sometimes contradictory. On an ideological level, the responses ranged from revolutionary idealism to reformist conservatism. From an aesthetic point of view, the critical responses generally advocated the rationalization of formal design procedures in relation to the workings of the machine. Beyond that, such questions were seen to be part of a much broader philosophical debate at the frontiers of sociology and the psychology of perception that culminated at the turn of the twentieth century in the modernity of art nouveau. Each of these topics from within the larger discourse on design and modernity in nineteenth-century France would justify lengthier treatment; the present study could certainly not claim to exhaust them. This initial synthesis of a larger research project examining l’art social is, nevertheless, intended to cast some light on a topic that has as yet been insufficiently studied by historians of design and the decorative arts.

The Union centrale des arts décoratifs: From Revolutionary to Reformist

The modern discourse on the status of the decorative arts in the broader field of l’art social began in the aftermath of the French Revolution, an event of huge significance for the development of aesthetic hierarchies during the nineteenth century. In this debate the writings of two key figures from the early period have been particularly relevant: those of Antoine-Chrysostome Quatremère de Quincy (1755–1849) addressing the “moral purpose” of the arts of design and those of Toussaint-Bernard Émeric-David (1755–1839) on the “Musée olympique.” In seeking to consolidate the status of the visual arts among the ancient “liberal arts” by means of a return to an “ideal beauty,” Quatremère de Quincy emphasized the acknowledged gap between the “arts du luxe” (applied arts) and the “arts du dessin” (painting, sculpture, and architecture). Nevertheless, while concerned with the diffusion of classical rules of beauty, he also contributed to a unifying theory of the arts (both “liberal” and “mechanical” arts), one that made the health of the nation dependent upon the excellence of those
ideal classical conventions. Within the limits of a hierarchy predicated on the “moral purpose” of the work of art, Quatremère de Quincy felt that the transmission of “genius” to the products of industry was not merely a plausible policy but the indispensable condition for the diffusion of a civic-minded message to all levels of society. The historian and revolutionary theorist Émeric-David, for his part, insisted in his book Musée olympique upon the need to demonstrate the relationship between the high ideals of “le Grand Beau” (Ideal Beauty) and the industrial and commercial arts, including within the latter the most varied of products—lace, ceramics, painted papers, dyes, etc.—by raising the industrial and commercial arts to a new level of dignity alongside the other arts.

This theoretical position, which derived ultimately from Enlightenment philosophy and in particular from the views advanced in Denis Diderot’s Encyclopédie, was evident among the artists involved in the radical movements of 1848. Furthermore, it was from the ranks of these quarante-huitards (1848ers) that a series of short-lived associations was created; they, in turn, lay behind the establishment of the Union centrale des beaux-arts appliqués à l’industrie in 1864. As early as November 1852, a “Central Committee” had addressed a petition to Louis-Napoléon (the future Napoléon III) that marked a significant turning point in awareness of the impact of industrialization on the fabrication of arts du luxe among the wider artistic community (fig. 1). This petition appeared four years before the publication of Léon de Laborde’s celebrated report on the Great Exhibition in London, at the precise moment when, according to Pierre Francastel, a schism had begun to appear between “culture” and “work.”
126 signatories to the 1852 petition affirmed the view that “the work of industry should henceforth be regarded as the great driving force in human affairs,” thus making the workers the principal agents responsible for the diffusion of artistic production “among the masses” and “for the benefit of the working classes.”

This very positive outlook, affirming an unwavering confidence in the benefits of technological progress, separated the signers of the petition, and the French movement more generally, from the tendency in the English design reform movement that favored revivalism and a somewhat nostalgic celebration of the Middle Ages. Where the former showed a willingness to inscribe industry and its modes of capitalist production into the creative process, those inclined toward revival, exemplified above all by A. W. N. Pugin and William Morris, generally deplored the brutal and uncontrolled irruptions of the machine into the world of the arts. In this instance, it could be said that the French petition group was closer in spirit to a different element in English design reform: Henry Cole and his colleagues in South Kensington, whose *Journal of Arts and Manufactures* had placed design for industry at the center of their program.

Jules Klagmann (1810–67), the principal author of the petition’s text, put forward solid proposals in terms that were ideologically reassuring. He did not present the traditional hierarchy of the arts as some kind of illusion that could simply be ignored or abandoned. Rather, he viewed it as a pattern of different fields of expertise in which the fruitful partnership of artists and art workers could develop harmoniously across a broad front. His goal was a mutual exchange between the two spheres, contributing “applications spéciales” (special applications) to what he described as “art abstrait” (art in the abstract).

The program that was developed to validate industrial and applied artists had three agendas: the opening of a school of design, the organization of public exhibitions, and the foundation of a museum of decorative arts with a specialized workers’ library. Here again, the program seems to emulate the structure and institutions established in London over the previous decade. In spite of the petition’s favorable reception in France, however, the anticipated progress was not substantial, which may be partly explained by the advent of the Second Empire and the setting aside of any proposals that seemed to have emerged from, or were aligned with, the radical workers’ movements. Nevertheless, in 1863 the Société du progrès de l’art industriel—one part of which amalgamated the following year with the Union centrale des beaux-arts appliqués à l’industrie—signed an appeal to at least speed up the organization of exhibitions. Aware that “consommation” (consumerism)—acquisition of “these thousand nothings necessary to an internal sense of well-being”—was spreading everywhere, the progressive artists in this society declared an end to the era “in which works of art are reserved for privileged residences, which is to say that Art needs Patrons.” Accordingly, the authors of the appeal addressed their colleagues in the worlds of fine and decorative arts, encouraging them to step outside the traditional patronage system and to rely henceforth on their own resources, to find inspiration from within themselves—a somewhat idealistic proposal given the economic imperatives. The third proposal of the petition, the founding of a permanent museum of decorative arts, did not materialize until 1902, when the Pavillon de Marsan in the Louvre opened to the public as
a decorative arts museum, by which time it bore little relation to the utopian thinking of the veterans of 1848.¹⁶

During the 1860s, in contrast to these somewhat grandiose plans, there was sustained enthusiasm for projects more directly concerned with the education of art workers: instruction in design and provision of a library. On the eve of the Franco-Prussian War of 1870, Jules Klagmann and the architect Gabriel Davioud, both founding members of the Union centrale, were still calling for the establishment of a college to provide training in professional skills as well as a more comprehensive introduction to aesthetics.¹⁷ Those who advocated practical artisanal training were, however, clearly divided from those who entertained higher ideals of the “socialization of Beauty,” with the latter group generally in the ascendant. These “idealists” overruled the development of programs in basic design instruction that had been supported by the Union centrale, a policy that was felt particularly in areas where it could have had the greatest influence: in the sections devoted to design education in exhibitions organized by the Union centrale in 1865, 1869, and 1874 (fig. 2).¹⁸ To the high-minded supporters of these declarations, design as a unifying discipline with a base in geometry was thought to be indispensable to any artist who “seeks a logic to what one sees” and who desires to establish an intellectual basis for his or her expertise.¹⁹ Accordingly, it was felt that through geometric design the unity of concept and creation

Fig. 2
View of the room devoted to Gothic artifacts in the 1865 retrospective exhibition of the Union centrale des arts décoratifs. Bibliothèque du Musée des arts décoratifs, Album Maciet.
demanded by the early reformers of the Union centrale could be realized anew.\textsuperscript{20} Achieving unity was certainly not a matter of abolishing the boundaries between the creator and the worker but rather a matter of permitting both to share the same language and the same grammar of forms. As one advocate put it,

\begin{quote}
[w]hen the elementary study of design based on geometry is properly organized everywhere, and the rational instruction of drawing has been generally established in the primary schools, that being the initial education for the artist and the worker, thus creating a common basis, then, thanks to other improvements to be introduced in art education through well-coordinated programs of study and by a judicious selection of models borrowed from the great epochs of art, a revolution in public taste will ensue and, consequently, also a revolution in the production of those industries intimately connected to art.\textsuperscript{21}
\end{quote}

In the face of industrial production that seemed to have lost any standards of taste and propriety, design was being called upon to play the role of aesthetic and moral regulator on condition that it not distance itself from the principle of le Grand Beau as inseparable from “the true” and “the good”:

The unlimited freedom that has entered our manners has thrown a baffling confusion between questions of good and bad into the manufacturing industries, and generated an unbridled competition to find a clientele without standards, with an appetite for the unhealthiest oddities and the coarsest of deceptions.

A remedy exists, and only one: the teaching of design broadly applied to all branches of art. It is through the study of design that the practitioner, formed by the atelier, will rise to the rank of an artist; it is at the School of Design that he can be introduced to the masterpieces that broaden the spirit, and where all forms of instruction will widen the circle of his ideas and reveal new horizons.\textsuperscript{22}

It was mainly through this strong commitment to the reform of design education that the Union centrale manifested its social aspirations. In 1878 a series of reforms were instituted at the École nationale des arts décoratifs, as well as in related institutions, that should have paved the way for artists of all categories to regain something of the dignity that they were felt to have lost through factory production and the division of labor.\textsuperscript{23} Despite solid support for this policy up to the end of the century, however, the Union centrale took a significant divergence along a more conservative path. In part, this was owing to the disruption of 1870–71 caused by the collapse of the Second Empire in the Franco-Prussian War and by the disasters of the Commune; after falling into abeyance the Union centrale had to be reestablished in 1874. Presided over by Édouard Guichard (fig. 3), and in accordance with the values that guided the artistic policy of the Third Republic as a whole, the reconstituted Union set out to integrate decoration into the classical hierarchy of the arts, above all by drawing upon a tradition of French “national” styles. Exhibitions of masterpieces from the past and issues of the formidable Revue des arts décoratifs, established by the Union

\textbf{Fig. 3}
centrale in 1880, made works from the seventeenth and eighteenth centuries the model for a decorative art that was certainly “national” but hardly “commonplace,” “vernacular,” or “social” (fig. 4). Eugène Véron (1825–89), editor of the magazine *L’art* and author of an important book, *L’esthétique* (1878), was the voice for this new impulse. In his *Histoire de l’Union centrale* (1875) the union’s new program was summarized in lapidary style: “a doctrinal principle, the unity of art; a principle of action, an appeal to private initiative.” It would no longer be through the granting of equal dignity to the laborer’s work that the unity of the arts would be accomplished, as had been advocated in the petition of 1852, but through the validation of aesthetic qualities of the finished object, within which the functionality, the ease of mechanical fabrication, and the possibility of a broad distribution would count for very little. Henceforth the unifying factor would be, as Véron specifies, the mark of “genius” imprinted on each work—whatever the means and materials used. This sanctification of the creative act could only have been an obstacle to the acceptance of mechanical production in the field of the arts, serving to further divide the laboring classes involved in the manufacturing trades. By insisting on the individualistic character of creation, Véron brought out a major ambiguity in the Union centrale’s position with regard to industrial modernity, thus putting a brake on the redefinition of the decorative arts in the sense of “for everyone” and “by everyone.” He explains:

Art is essentially human, personal, individual; . . . the work of art necessarily carries the imprimatur of the intelligence that made it; . . . its value is measured by this, and . . . in order to have works of art, artists have first to be made, in the full sense of that word. The processes, the applications of art,
differ according to the circumstances; but the source of art, the artistic core par excellence, is one thing only: the artist himself with his intelligence, his temperament, and his personal abilities.

That is what must be nurtured, developed, and completed. How? By study, by the frequent viewing of works of art, by visits to museums, through appropriate instruction, through exhibitions.\(^\text{27}\)

The tasks of the Union centrale were thus redefined in the decades after the Commune. During this phase, it was a matter of bringing everything to bear on restoring the decorative arts to the bosom of “great art” by following the splendor of the Renaissance, the seventeenth century, and the eighteenth century. While the revolutionary generation of Quatremère de Quincy and Émeric-David approached this goal by placing all the arts under the seal of “moral function,” the Union centrale of the 1880s shifted its emphasis toward making each everyday object a manifestation of the creative genius of the artist, ideally a “universal” artist capable of intellectually mastering all kinds of skills. In this respect, Véron’s opposition to the kind of college for design previously proposed by Klagmann and Davioud is telling. Véron favored a course of instruction closer to an apprenticeship, insisting above all on the development of a student’s imagination as a means of freeing up originality; in other words, he favored the encouragement of future artists rather than skilled collaborators with industry.

If we look to Véron’s writings alone, the transformation of the views of this man, an original signatory to the Central Committee’s petition, can seem quite radical. The shift in his position can be explained in part by changes in the social composition of the Union centrale’s membership: the artisans who in the early days dreamed of trade associations similar to the ancient guilds, prefiguring mutual aid groups or syndicates, had gradually given way to the bosses of small and growing industries. These new entrepreneurs, as their industries developed, increasingly gained commissions from the state, from rich collectors, and from the erudite bourgeoisie. There was no single group in control, and the path toward a coherent Union centrale was far from straight, since very diverse personalities coexisted within the organization—from the Republican opportunist Antonin Proust to the Communard Louvrier de Lajolais, the conservative Republican Georges Berger, and the monarchist Louis Courajod. Véron had underscored the willingness of the Union centrale to operate according to a system of informal networks and leave the institutional frameworks in the background. This liberal option could not fail to meet with the approval of critics hostile to any intervention whatsoever by the state in the world of art. The most pertinent model for understanding the coexistence of social conservatism and modernist aesthetics at the heart of the Union centrale falls under the heading described by Christian Topalov as “nebulous reformism.” Changes in emphasis tended to obey only the laws of pragmatism, to be based on the subtle interweaving of the public and the private, matching the ideals specific to the grand industrial bourgeoisie and the more or less aristocratic stratum that formed the ranks of the Union centrale. We might understand the workings of an institution strongly implicated in the liberal and conservative reforms of the last decades of the nineteenth century if we compare it to the Musée social of Count
Aldebert de Chambrun (1821–99), founded at the beginning of the 1890s and growing out of similar philanthropic aims rooted in the circles of the pioneer sociologist Frédéric Le Play (1806–82).28

The parallel involvement of Georges Berger (1834–1910) in both institutions, the Union centrale and the Musée social, was to some extent emblematic: as a trained engineer he, along with Le Play, had been responsible for planning France’s international exhibitions since 1867, becoming the director in chief of the 1889 exhibition and finally assuming the presidency of the Union centrale from 1891 to 1910. While Édouard Lockroy, the radical minister of commerce and industry, tried to introduce socialists into the union’s social economy section—which prefigured the Musée social—Berger opposed this, refusing to give space to those with views which he felt were overly critical of industrialization. Nevertheless, the very same Berger had presented a project for a “Musée professionnel” in 1878, the novelty of which lay in the resolute attempt to display nature both “universal” and “social.” The museum was intended to glorify labor, in the anthropological sense of the term, rather than to display decorative art. In that sense, it resembled the core of the Musée social, whose exhibits were installed at the Conservatoire des arts et métiers in 1890, more than it did the open halls of the Pavillon de Marsan at the Louvre in 1902, which had been allocated to the Union centrale.29 This was the same Berger who exalted industrial art at a conference in 1884 and who, in 1894, gave a most audacious lecture in the guise of an introduction to the Congrès des arts décoratifs.30 He never ceased pleading for the industrial production of everyday objects for all, and insisted on the industrialist’s responsibility to adopt aesthetic principles favoring the distribution of a rational beauty common to all human production, “from the so-called art object manufactured through industrial processes, to the slightest utensil or piece of modest furniture made entirely for domestic use—through the full range of goods that are kept, more or less, in everyday use.”31

The art of the future that Berger advocated was very much “social” if we understand by this term a category of common objects made with aesthetic aims and destined for all levels of the population. This definition does not imply, however, that Berger had renounced his idealization of classical forms and values, nor that he questioned the liberal economic system that gave rise to the modern division of labor. He wrote:

A good and cheap market is a condition that should always be considered in industry. Also, even though it is difficult, it must not be too exclusive, and must not reject certain relatively crude and secondary materials, the appropriation of which is economical. . . . In thus indicating and following the arrested goal of creating elegance in simplicity, industry would arrive at way to democratize art in a healthy way; it would make art known and loved, while its mission would no longer consist in creating expensive luxuries but would open up, for everyone’s benefit and satisfaction, accessibility to the joys of an immaterial kind brought about by the most lowly and humble of materials, provided that they be worked in all purity. . . . The day will come, to the extent that it is both possible and most appropriate, when the everyday luxury that I’ve just dreamed of with you, that is to say, when art
will leave its imprint generally on the objects of private life, scientifically and decoratively, without canceling out any of its titles of nobility. . . . Art will always remain the venerated ancestor, thanks to which man was able to consecrate his dignity and activity in search of ideal Beauty before the emancipation of labor impeded him in his pursuit of the useful and positive function of things.\textsuperscript{32}

Though sitting in the opposing political camp, closer to radical circles, Antonin Proust (1832–1905) held ideas on industrial and social art that were not dissimilar to those of Georges Berger (fig. 5). Going back to the detailed project for a museum set out in the petition of 1852, Proust insisted repeatedly on the need to create a museum intended primarily for the instruction of workers and consisting only of casts. In fact, he urged the members of the Union centrale to reject the idea of assembling a collection of masterpieces; that, he felt, would be more suitable for “a public of amateurs” than for the serious workers in the decorative arts trades.\textsuperscript{33} Despite being president of the Union centrale from 1882 to 1891, he found no favorable audience for his views within the organization. His proposals would be realized, however, at the Trocadéro in halls requisitioned by Eugène-Emmanuel Viollet-le-Duc...
in 1879, which were subsequently reorganized by Louis Courajod and Franz Marcou in 1882 for a museum of monuments (fig. 6). If the social doctrine upheld by the Union centrale seemed indecisive and ambivalent, the singular aim of upholding the unity of the arts found an official confirmation of sorts in 1881 with the creation of a Ministry of the Arts. It was no coincidence that Proust himself was appointed the government minister in charge; he had previously been secretary to Léon Gambetta, the most powerful figure in French politics at the time. Proust immediately made his mark by launching an investigation into the “situation of workers and the industrial arts” in France and producing a report in which he stressed the urgency of reforms concerning professional development.

This attempt on the part of the young Third Republic at unifying the divided field of the visual arts enjoyed the support of a significant sector of the press, with Véron’s journal L’art taking the lead. However, it also revealed the pervasiveness of a concept advocated both by the Union centrale with its “nebulous reformism” and by the state bodies and drawn in good part from the Gambettist notion of a union of the classes. This union of the classes was also the basis of Solidarisme, a doctrine that considered society a singular “body” to which the
individual belongs, as an organ is a constituent part of the body. In the 1890s this idea, which emerged within the political, social, economic, and artistic fields, represented a conciliatory and positive vision of industrial modernity, capable of integrating the artist as an effective collaborator with the machine. Developed mainly by intellectuals and politicians of the radical party (the progressive left), the principles of Solidarisme fueled a policy of conservative and paternalistic reformism, which was evident in the actions of the Union centrale and its more practical applications: valorization of the decorative arts and the status of the artist-decorator as an actor engaged in a form of social welfare; increased dissemination of art through exhibitions, education, and the establishment of museums; and the creation of a “national” history of styles as a collective expression of the French spirit. From this position, it is easy to understand how these reformers accepted Berger’s vision of modern industry as organic, benevolent, and conciliatory. Even under this guise of conservative reformism, the Union centrale found solid terrain for the valorization of the decorative arts and a confirmation of their status.37

A “Style” for l’Art Social—Rational, Collective, and Machine-Made

Returning to the rallying call of the “union of the arts”—that meeting of the beautiful and the functional, of the fine arts and industry—we can now ask whether the thinking that grew out of the petition of 1852, as advocated by the Union centrale and by French reform circles, succeeded in defining new forms of “l’art social.”

Despite the declared intention to find a new modern style, the art circles linked to political movements at midcentury, whether reformist or revolutionary, hardly went beyond a rather diffuse eclecticism. Neil McWilliam has argued that the rare examples of work by artists linked with the Saint-Simonian or Fourierist groups generally remained inconclusive and, furthermore, hardly registered as work that could be described as innovative aesthetic endeavor.38 A singular example of this failure was given in the proposal for a Palais des Arts et de l’Industrie published by Amédée Couder in 1844, whose architecture, as well as the plethora of statuary that decorated it, testified to an overexploitation of allegory and to didactic strictures that wavered between the neo-Renaissance, the neo-Gothic, and the neo-classical (fig. 7).39

The search for a socially shared aesthetic took a much more fertile direction when it turned toward rational rules of construction dictated by geometry, which was understood to be the generating principle of a harmonious universal system, appropriate for both the creations of humankind and those of nature. The reform of design teaching adopted in 1878 rested on this ambition to bring a grammar of forms to industrial artists that, in drawing directly from the source, made it unnecessary to turn to the past. The idealist matrix of this geometric paradigm was clear, as was the “scientific imaginary” deployed by Viollet-le-Duc to justify it.40 What is important here is that this new geometric ideal was not seen as contradicting the social and material vision of the decorative
arts. According to some of the dominant theories of the period, the styles that imprint their character on the entire field of art—from architecture to object—while representing some sort of decline from an “absolute style,” are nevertheless of value because they are rooted in the geographic and historic identity of a given society. Viollet-le-Duc, in his Dictionnaires and even more so in his didactic texts—L’histoire d’un dessinateur (1879) and L’histoire d’une maison (1873)—developed a “global history” in which he carefully established “laws of causality in the analysis of objects as well as in the study of historical phenomena.”41 “Absolute style,” as well as “styles” in general, according to Viollet-le-Duc, reveal only part of individual creativity, a conception far removed from the idea of “genius” advanced by Véron. Viollet-le-Duc, an architect, promoted the notion of collective expression more than the idea of the demiurgic personality of the artist. Only respect for principles shared spontaneously by an entire community could confer on artistic work its capacity to move; in other words, “however mediocre the individual artist might be, the work as a whole will always have style.”42 As Viollet-le-Duc explained: “When a population of artists and artisans is strongly informed by logical principles through which every form is the consequence of the object’s purpose, style shows up through the handiwork of man, in everything from the most common of vases to a monument, from a household object to the most lavish of furniture. We admire this unity.”43

In L’histoire d’un dessinateur, the lesson dispensed by M. Marjorin to Petit Jean during a visit to the ruins of Pompeii and in the halls of the archaeological museum of Naples encapsulated the concept of an industrial art that would be a standard of measure for the degree of social import of all art—the idea that a truthful mirror of antiquity reflected “a very different kind of stripped-down majesty and a rather false allure, of which classical teachings have given us but an inkling” (fig. 8). This antiquity, “eminently practical” and “logical,” as its humble traces of the everyday vernacular reveal, has not renounced enveloping “everything functional in some form of art, inherent, so to speak, to the object.”44 One could call it an “intrinsic Beauty,” borrowing the Kantian term, which would end up absorbing “independent Beauty,” or beauty without purpose. Viollet-le-Duc dismisses the vocabulary of industrial art that underlies the academic distinction “between a so-called superior and a minor or inferior art.”45 For Viollet-le-Duc, as for Riegl, the “will to art” is present everywhere and does not assert itself in advance of a “modern style.” It is inscribed in the object’s function and material characteristics, giving the ornament a “natural quality and not borrowed adornment.”

In Pompeii, it’s not as if a teacher, when speaking about the curriculum for students, would have taken the view “Above all, advise them not to bring art into this business!” as we have heard uttered by eminent professors at one of our own technical schools. The truth is that, for us, we either want or do not want art in this or that, as we would or would not want a diamond necklace. It is a question of luxury, a superfluity that can seem cumbersome but which is certainly costly and detrimental to practical utility. The most humble of citizens and the smallest of shops in Pompeii did not conceive of it this way, and would have been very surprised if someone had asked for a saucepan and had added: “Above all, no art!”46
In any case, Viollet-le-Duc acquitted himself well in suggesting the use of precise, formal elements in design; and when providing an example of “harmony of form in terms of an object,” he referred to a machine or the wings of a bird as the “correct expression of the function.”

Respect for rational evidence that is universally understood was, for Viollet-le-Duc, the only guarantee of a style’s reception by the largest possible social base; in this context the applied arts—architecture and the arts of everyday use—were seen to be at the forefront.

The huge influence of Viollet-le-Duc’s writings among decorative artists is difficult to demonstrate. It is even less straightforward to establish what subsequent designers owed to considerations of mechanization and modern style, which, without a renunciation of their rationalist heritage in the academic tradition, persisted in France longer than in many other countries. Charles Blanc made himself a highly efficient popularizer of this approach in his two Grammars—Grammaire des arts du dessin (1867) and Grammaire des arts décoratifs (1882). The most effective and striking synthesis of this hybrid current, however, was that promoted by Pedro Rioux de Maillou (1853–1914) in the Union centrale’s journal, Revue des arts décoratifs, in 1895. While remaining solidly attached to ideal concepts of beauty in principle, the author showed himself to be markedly in favor of mechanization and applied all his rhetorical skill toward reconciling propositions that now appear quite paradoxical. The romantic exaltation of individual “genius” and the proclaimed necessity of a collective style are both carefully weighed, as are rationalism, respect for the classical rules of decorum, knowledge of positivist laws, affirmation of the unity of the arts, and validation of the “separate” status of the decorative arts:

Art is simultaneously an individual and a social blossoming, the ideal expression of a particularly gifted individual, but an individual capable of making the pitch of his emotion vibrate in tune with the community—for a small select public, or for the mass enthusiastic crowd—whom it must
address and speak with, since, ultimately, it is a language. One speaks only for one’s self. . . . If art is a language, one can compare it also to a plant and say that there are roots that are plunged into the ground on which it feeds, from which it draws the sap necessary for its existence. Its leaves, in turn, breathe the air around them.

That which is true of all art, no matter what kind, is relevant—indeed, it has special application—to the decorative arts. If art is pure, if left to itself to reach its full extent, it can be compared to a plant or a tree; the decorative arts are like plants on a trellis. The term “decorative” implies a subordination, the necessity of adhering to a given framework, of being oriented in a direction determined by the nature and character of the object, the thing to be decorated.48

These preliminaries give an idea of the eclectic spirit that presides throughout Rioux de Maillou’s text. More original is the spiritualization of the machine that constitutes the core of his analysis and that goes hand in hand with the marked devaluation of manual labor. The end result of this rationalist line of thinking is that, far from demeaning the worker and reducing him to a passive operator, the machine ennobled him because it rendered his task “less manual and more cerebral.”49 The artist would be capable of communicating his thoughts to the instrument, so much so that the machine henceforth would be given the task of cutting a silhouette or applying bright colors. In serving the mind, then, the machine would be capable of implementing the “principle of the rapport between form and function” and facilitating the “ascent toward the best, that is, the ideal,” “beauty being necessarily a category of the ideal.”50 In so doing, production would gain in efficiency and commerce in profitability. For Rioux de Maillou there was no question that any drama would be provoked by the growing separation between individual creativity and mass production.

Aside from the usual references to iron, brick, and polychrome ceramics, one is at pains to find precise indications in Rioux de Maillou’s text of the art that spinning machines, milled cutters, and other mechanisms might be capable of producing. We remain in the register of a sort of Kunstwollen in which the artist is the primary source of design, and the machine the agent. According to Rioux de Maillou, if industrialism eliminates the effort of execution that was the dynamic aspect of creation, it also permits the fashioning of “an abstract beauty through the affirmation . . . of its royally crowned will, having subjected a material to the superbly calm sovereignty of the generating idea, only because it comprises both idea and will.”51 Because architecture is the most abstract of the arts, all mechanical production of decoration should be directed toward architecture while aiming for an “expressive beauty” inscribed in the very lines of construction.

The distance could not be greater between this concept of machine production, heralding the technocratic vision of the 1920s and 1930s, and the thoughts of a William Morris or even the authors of the petition of 1852. Far from positing a critical view of industrialization, Rioux de Maillou placed himself directly in line with the progressivist certitudes of Léon de Laborde,
Jules Michelet, and Pierre-Joseph Proudhon, all of whom, moreover, he cites at length. The belated, biased, and partial influx into France of Morrisian revolutionary ideals with regard to design could be explained by this persistent idealization of the machine, conveyed, among other means, by the priority accorded to geometry in the teaching of design—the heritage of conventional thinking transmitted by Charles Blanc but also by Henry Havard and, much later, by Eugène Grasset. For Rioux de Maillou the association of art with consumerism was a progressive factor, since the industrialist is obliged to enter into competition for the open market. This “struggle of life,” he felt, would even produce a “stimulating” effect on creativity, like the mildew stains magnified by Leonardo da Vinci in his theoretical writings and serving as “springboards for the imagination.” From a utilitarian and materialist position, these views are somewhat surprising. In submitting himself to, and becoming the loyal ally of, the machine, the industrial artist thus becomes an essential gear in modern democratic society: “Machines can do a lot for the decorative arts. . . . Let’s not ever forget that we are in a democracy, that we live in a century of democratic orientation, and that there is no art without a society to enjoy it, to want it, and, through this wanting, to allow [its] production. In a word, briefly, art is social.”

This lengthy article by Rioux de Maillou, in view of its publication in the *Revue des arts décoratifs*, could be considered the most advanced formulation of the doctrine upheld by the Union centrale. Furthermore, Georges Berger made himself the committed spokesperson of this view at the 1894 Congrès des arts décoratifs, albeit in a less systematic manner; his short introductory speech presented the argument with all the usual doubts and contradictions. This discourse remained unresolved in the texts by artists and critics converging amid the social currents of French art nouveau.

The rationalist path opened up by Viollet-le-Duc, while connecting itself with the mechanical and social idealism preached by Rioux de Maillou, nevertheless left the field open to the more expressive conception of form that the decorative arts would successfully put into practice at the turn of the twentieth century. In fact, according to Rioux de Maillou, the machine not only was capable of translating creative thought effortlessly and extremely faithfully but conferred upon manufactured objects an unrestricted power to assault the sensory organs of a very large public, which would henceforth be exposed to a precisely calculated force of influence.

Rioux de Maillou then asks: “How does one arrive at a situation where industrial art can affect the purchaser aesthetically; where it can achieve an educational outcome, give birth, artistically speaking, to a public capable of responding to production, encouraging and motivating them in their appreciation and in the rewards of their purchases; where artists become economic factors in society, as their machines already are mechanically?” He responds to his own question by recalling the new possibilities opened up by mechanization: “cultural extension, dissemination, placing it within reach of the greatest number, a primary education at every moment, through all inroads to an everyday life that has been beautified in the same manner in which
it has been improved, refinement of the eye through the contour of forms corresponding aesthetically to their function down to the slightest of objects, ceaselessly repeating the same teachings, progressive in broadening of achievement, of facts, of objects, as stated in modern pedagogy—that is the field open to the machine.”

The machine or mechanical tool, in summary, was from then on fully legitimized, not only as a vector of artistic volition but also as a physical means of conferring upon the applied arts an unprecedented power and amplitude of social action.

The Beautiful and the Functional as a Test of Sociological Aesthetics

By the middle of the nineteenth century, an important current in the thinking about the applied and industrial arts introduced new ideas from the fields of scientific and sociological aesthetics. The impact was already evident in the writings of the Saint-Simonian Jean-Baptiste-Amédée Couder (1797–1864) who, since midcentury, had regarded the application of the laws of harmony to domestic interiors as the realization of a “dynamic balance,” a metaphor of peace and well-being, and a sure path toward social progress. In a report on the teaching of design in primary schools, published in the Revue générale de l’architecture of 1847, César Daly (1811–94) raised the question of the suggestive impact of linear drawing. After praising one educational reformer, Lecoq de Boisbaudran, for basing his method on the idea of unity in creation—whether human or natural—Daly seized on an emblematic object of industry, the locomotive, to demonstrate that it was possible to communicate the sensation of speed and force through the simple disposition of strokes and without recourse to outdated allegories. It was thus clearly envisaged that the rules of a universal plastic language, endowed with emotional power, could be learned and transmitted to all artists equally well—whether painters, architects, sculptors, or industrial artists.

It was not until 1880, however, that the expressive and suggestive possibilities harbored within ornament and the domestic artifact were systematically taken up as agents of l’art social. At this time, the philosophers Gabriel Tarde, Jean-Marie Guyau, and Émile Hennquin proposed a sociological approach to art, turning the work of art into a catalyzer of collectively shared “pure sensations.” These currents of thought could not fail to have an impact on the debate surrounding the decorative and industrial arts. On the issue of style, the debate intersected both with the rejection of the historicist repertoire and with the assimilation of Viollet-le-Duc’s rationalist vocabulary involving the combination of simple and discrete elements. A system of complex “harmonic” and “dynamogenic” laws was constructed that had a considerable effect on the larger art nouveau movement at the turn of the century. In this way, the new thinking attempted to harness the object and the everyday environment within the creative field in order to bring about an art “for all” and “in everything.”

It is Charles Henry (1864–1926) who deserves the credit for popularizing the theories elaborated by experimental aesthetics within the artistic milieu
of the avant-garde and for accelerating the transition from imitation to the employment of abstract formal elements in both fine and decorative arts.\textsuperscript{52} We can find profound traces of this up to the 1920s—to wit, in the series of articles dedicated to Henry and his experimental psychology laboratory at the Sorbonne in the \textit{Bulletin de la vie artistique} and in \textit{L’esprit nouveau}.\textsuperscript{63}

Beginning in 1885, Henry developed a mode of analysis that was not restricted to painting but included the interpretation of everyday objects. His insights into the perception of the silhouette of a sword hilt, a vase, a chair (fig. 9), or letter forms was based on principles that would be exploited in graphics and ornamental art around 1900:

\begin{quote}
It is often difficult, sometimes impossible, to reconcile practical requirements with aesthetic demands. . . . For a form to present its maximum aesthetic appropriateness it must have the least possible indications of difference, of inhibition or of complication, and it should have the greatest indicators of dynamogenic power, of contrast, acuity, diversity, and variety. . . . When a form is rigorously subjected to certain conditions, it should be difficult to improve upon it absolutely . . . : one cannot help but arrive at the desired result as closely as possible. . . . Industrial art has a very different problem to resolve, given that it must send out signals, demonstrations that attract the eye, while seeking to make decorative work restful on the retina: in the first case, it has to employ non-rhythmic forms, and in the second, rhythmic ones. An intelligent worker will always satisfy the practical requirements more or less completely.
\end{quote}

In every form there are some essential traits. . . . These are the essential contours that should be rigorously calculated by the art worker, because they are the ones that focus the mind’s attention through the multiple details of the retinal image; it is they that direct the movement of our eyes and become the preponderant factor in an aesthetic impression.\textsuperscript{64}
After the very timid formulations proposed in the *Grammars* of Charles Blanc and Henry Havard (figs. 10 and 11), and right up to the innovative considerations of Paul Souriau, who will be discussed below, these ideas culminated at the end of the nineteenth century in a radical reexamination of the very notions of “decorative” and “ornamental” that became the paradigmatic categories of a socially shared aesthetic totality. In *L’esthétique*, Véron continued to regard decorative art as a “combination of lines and colors” that the eye of an essentially “sympathetic” animal (i.e., humankind) could enjoy without this purely sensual perception being disturbed by ideas or feelings. Some years later, the poet-philosopher Sully Prudhomme (R. F. A. Prudhomme, 1839–1907) overturned this judgment, claiming that all art is expressive insofar as it can solicit feelings through sense perceptions. In his view, decoration could be placed under the same heading as music or architecture. Artisans, like their fellow artists, exploit the sensible qualities of materials to move the spectator/user, and they do so without having to resort to imitation:

In the purely decorative arts, such as goldsmithing or luxury ceramics, expression is above all subjective. The pleasant quality of perceptual impressions that a work of this type provokes in us suggests ideas of grace and elegance that concern the soul to some degree. . . . Grace and elegance of line somehow lend a smile, and that smile has moral significance: it expresses ease, a sweet joy, fine and benevolent. A beautiful piece of jewelry or a beautiful vase certainly cannot be composed by a coarse mind.

Sully Prudhomme illustrated his conception of the unity of artistic creation with a synoptic table or diagram in which each sensory perception is linked to a psychological state. He went on to state that the work of art reaches its “plastic truth” when it manages to combine utility and beauty and resolve “any antagonism between aesthetics and economy.”
Socialization of the Beautiful and Valorization of the Useful

Fig. 11
Henry Havard, L’art dans la maison (Grammaire de l’ameublement), Paris, 1887, illustration on p. 259. Author’s collection.
In that sense, Sully Prudhomme leveled the academic hierarchy on the basis of an overall symbolist aesthetic that integrated the decorative arts alongside the other visual arts. This move was decisive and did not escape the attention of the director of the *Revue des arts décoratifs*, Victor Champier, who credited Sully Prudhomme for having radically reformed the prevailing views on decoration. This contributed in an indirect but substantial way to the activities of the Union centrale during the 1890s and beyond.\(^6\)

These contributions notwithstanding, the most original attempt to rely on scientific and sociological aesthetics to overcome the ever-recurring cleavage between “beauty” and “utility” belongs to Paul Souriau, who, in 1904, put forward his most advanced thinking in the book *La beauté rationnelle*. In this foundational work for the functionalists of the twentieth century, the philosopher from Nancy regarded the applied arts and architecture as two facets of equal value within a “purposeful beauty” (*beauté de finalité*). His primary task was to remove those creative activities from the rather patronizing sphere of the “agreeable” (*agréable*), but also from that questionable category the “subjectivity of taste,” to which they had been confined by the sensualist branch of experimental aesthetics. Nevertheless, in a notable first publication dedicated to the aesthetics of movement (1889), Souriau employed scientific observation to demonstrate the psychological effects of lines drawn in space by bodies in motion, making the arabesque of art nouveau a plastic and fully significant element.\(^6\)

If in *La beauté rationnelle* Souriau set out to legitimize the applied arts, he did so on the basis of a revitalized Cartesian rationalism. He was immersed in the recognized currents of sociological thought at the time, of which the principal actors in France were Tarde, Guyau, and Hennequin. Even so, though largely inspired by this body of thought, Souriau arrived at very different conclusions regarding the evaluation of the artistic potential pertaining to industrial production. In effect, he distanced himself from his predecessors, who, he felt, had not questioned the traditional artistic hierarchies and who may have ended up adopting certain views from the evolutionist Herbert Spencer, but who were equally drawn to the ideas of the spiritualist Théodore Jouffroy or the idealist Charles Levêque.

To understand Souriau on this, we first have to go back to Gabriel Tarde (1843–1904). It was in *La logique sociale* (1895) that Tarde argued most persuasively that art has a goal or purpose external to itself and that it is “a branch of social teleology, a means of attaining a social end.”\(^7\) He did this while also suppressing or ignoring the distance that seemingly separated art and industry. If the pleasure derived from the first point (that art has a purpose external to itself) is destined to be shared and is therefore social, this is not the case with the second (social teleology), where the purpose is to meet a need that disappears once that material need has been satisfied: “One can say . . . that the difference between pain and pleasure is the basis for the distance between industry and art. A manufactured object that satisfies the simple desire to suppress a pain or malaise is an industrial thing; once it conveys pleasure, it becomes a luxury, which is a kind of art.”\(^7\)

While industry produces goods that are fully compliant with the needs arising from the familiar mechanisms of consumption, works of art generate aesthetic
pleasure, and do so independently and unpredictably. In other words, consumption of industrial goods preexists the manufacturing of objects in order to identify demand, but aesthetic enjoyment “depends upon the object itself for its culmination.”72 Furthermore, consumption or use of an industrially produced item exhausts the need that caused its manufacture, whereas aesthetic experience itself creates a type of desire that is constantly renewed. By making beauty the “phantom spirit of function,” Tarde took up one of Herbert Spencer’s more advanced arguments: it is only after the former (utilitarian) function has disappeared and the work is no longer related to the prime reason that determined its creation that it can be reassociated with art, which alone is capable of arousing “love.”73 The object, then, becomes the physical site of a “cult” out of which “social beauty” could radiate.74 This relative devaluation of function was accompanied in Tarde’s scheme by lucid assessments of the disastrous effects that industrial processes had had on labor; “desirable work” (in the Fourierist concept) and mechanization had therefore been deprived of aesthetic appeal, provoking a definitive break between art and industry. Furthermore, art itself was seen as charged with the “pacifying” task of helping the worker resign himself to his “arid labor.”75

The machine always retained an ambiguous quality for Tarde. Insofar as it contributed to material progress, it could be a unifying factor in society. In addition, as a form of “human and spiritual activity,” machine work could contribute to the intellectualization of manual labor, which was thereby ennobled.76 In fact, this argument follows a train of thought that we have already observed in Rioux de Maillou, whose article on machines and the decorative arts was published the same year as Tarde’s La logique sociale.77 This nuance is important, but it did not lead Tarde to a revision of the classical hierarchies in the arts. Tarde retained a certain academic outlook with regard to design and machine production; it was incumbent upon “drama” and “grand décor”—and certainly not the responsibility of the industrial and applied arts—to carry on the mission of creating a “powerful communion of souls in one great memory and one great shared dream.”78

Jean-Marie Guyau (1854–88) enlarged the breach opened by Tarde in the reconsideration of “function,” and prepared the terrain that was subsequently plowed deeply by Souriau. He defined “function” as “that which is necessary to life” and which sharpens man’s desire and pushes him into action. The “pleasant [agréable] sensation” that results from achieving a goal is understood not merely as a base satisfaction of the senses but as the realization of a harmony and an order. This is how one approaches beauty (le beau) and consequently truth and goodness, with which it has traditionally been associated. The gap between “function” and “beauty” is further reduced by the inherent beauty of machines. Indeed, in his Problèmes de l’esthétique contemporaine, in a chapter devoted to the “antagonism of modern art and industry,” Guyau attributes to machines “the highest degree of poetic beauty, sometimes a veritable sublimity.”79 Contrary to the arbiter par excellence John Ruskin, and in the same vein as Sully Prudhomme, Guyau judged the form or appearance of a machine to be perfect when it expressed the purpose and the power that enabled fabrication; these, Guyau felt, imbued machinery with the appearance of energy and therefore of life. Telegraph poles or ships, for example, assume a form that corresponds to their purpose (energy transmitted as electricity or forward
motion). In other words, they find their aesthetic raison d’être in their capacity to embody “unifying social forces, disciplined, directed by an invisible power.”

No distance, then, according to Guyau, separates the scientific spirit from the imagination; the enemy of art is not democracy or science but utilitarianism, the commercial pursuit of a purely material comfort. These remarks do not anticipate the relative rejection of “function” as an aesthetic category by Guyau a few years later, when, in L’art au point de vue sociologique, he established stricter boundaries between the beautiful and the agreeable:

The agreeable and the beautiful can subsist independently from the functional, just as pleasure and happiness are separate from commercial gain, which is but a calculation by intermediary means. . . . Far from us is the thought that, in order to be admired, everything that is beautiful should demonstrate a practical use, and that one should, for example, know “the purpose of an antique vase” before finding it to be beautiful. Likewise . . . we would not hesitate between the dubious beauty, and, in any case, a very elementary one, of a gas burner emanating its rays of light in the shape of a butterfly—a beauty associated with unpleasant elements, with angular and rigid lines—and the immortal grace of a luminous statue raising its torch, a type of living Lucifer. As in architecture, one can arrive at beauty through function; but when the aesthetician already has beauty, there is no need to go looking for function, except as an addition and through a kind of luxury in reverse. . . . Unfortunately, the more an object is designed for a specific function, the more it tends to be for that alone, and becomes useless, unpleasant, or even frankly ugly under all other conditions. . . . Hence, a contradiction emerges between the very restrained beauty of function and all of the other broader kinds of free beauty. . . . The more the functional aspect of a thing is augmented, the more restricted in general is its potential beauty. . . . In conclusion, the functional alone is not beautiful except through the intellectual element of perceived application and through the impression of satisfaction experienced in advance; it is an anticipation of pleasure through the perception of all the well-ordered means for this goal; it satisfies the intellect and the will, and from now on it can also satisfy the sensibility; when this triple result is produced, when function transports us in advance of its terms and purpose, the result is beauty.81

Function, however precisely circumscribed, retains its social dimension in Guyau’s system, and it is through this dimension that “it acquires a certain degree of elementary beauty, because we sympathize with everything that has a social and human end, with everything that is organized with human life in sight—above all, collective life.”82

The attempts by Tarde and Guyau to redefine the possible contribution of industry in the broader distribution of beauty did not really open a path toward the conciliation of the worlds of industry and art. It was up to Souriau, and his La beauté rationnelle, to radicalize the thinking of his predecessors and to establish an equivalence between rational aesthetics and social aesthetics, making architecture and the applied arts the major agents of a “sympathetic” relationship, the foundation of which rested on harmony and a shared order. Comprehensive
rationalism is what Souriau claimed as the bulwark against two dangers. The first of these was the antisocial subjectivism of the “agreeable,” understood here as simple, individual pleasure (“decadent” dandyism was particularly targeted). The second danger was the experimental aesthetics promoted by Charles Henry, which tended gradually toward the mystical and whose most convinced apostles believed in a form of universal harmony conveyed through number theory and the golden section. These two temptations, though at odds with one another, left the way open for a relativist aesthetic—“impressionist,” as Souriau defined it—based, in the first case, on the fleeting sensations of the “self” and, in the second, on a blind faith in supposedly scientific formulas intended to provoke “effects” in the nervous system. Ruling out any aesthetic relativism, Souriau thought that there may well exist a “perfect beauty,” realized when a predetermined end result is accomplished in accordance with the laws dictated by the orderly disposition of the elements and the harmony of the whole. Far from being inferior, this type of beauty was equal and complementary to the beauty of “expression” or “sentiment,” both of which guaranteed the widespread reception of a work. The “endless purpose” of Kantian aesthetic pleasure was decidedly rejected by Souriau: beauty cannot help but be “adherent,” to engage with the human mind, because art is not just an empty play on the senses. On the other hand, he believed it was impossible to establish, as Ruskin does, where construction in architecture gives way to art, since the specificity of architecture resides precisely in its status as an applied art.

All works of art, according to Souriau, entail a purpose to varying degrees, and that itself is one of the aspects of beauty. Conversely, every work of human endeavor contains an element of beauty to the extent that it achieves a purpose. Even hygiene implies some beauty, and Souriau praises those artists who have understood the contribution of hygiene to domestic interiors and decoration. If there is any antagonism, it is not between beauty and function, or between beauty and what is pleasant, but between purposes that deserve—or do not deserve—to be taken into account owing to their beneficial effect on society.

It would be a grave misunderstanding to think that Souriau’s concept of “rational beauty” somehow led to the modernist and purist suppression of decoration under the pretense of efficiency. On the contrary, Souriau considered decoration to be an “homage that we pay to things,” and that the “agreeable” characteristics of objects are the precondition and the privileged vehicle for establishing a sympathetic link among consumers. For Souriau, the paradigm of this artificial orderly arrangement is the garden, eminently satisfying to both the intellect and the senses. On the other hand, the “beauty of perfection” is necessarily shared by a community of people and cannot be placed at the same level as pure, timeless abstractions. Socially rooted in shared collective values, beauty should therefore be embodied in a “style” that is determined by a specific time and place (or country). But what was this “style”? Souriau did not concern himself with this issue. In his view, forms could not be determined a priori, because they varied constantly according to the objects themselves and the functions to which they must respond. The philosopher, however, urged the artist-designer to provide a sense of pleasure that was “communicable, expansive.” The “sympathetic association” that should bind the work of art to the spectator is created out of
the employment of certain plastic elements—forms and colors—the effects of which had been mastered and understood thanks to the methods of experimental psychology. The preference that Souriau accorded to “geometric beauty,” including abstract decoration, flowed from the acknowledgment that it pleases the intelligence more easily through its faculty of being apprehensible:

To sort out the chaos of our perceptual impressions, to assess the form of objects, is one of the first exercises of our mind. Everything which tends to facilitate this task should please us. Since regular forms present us with the work already accomplished, as it were . . . we enjoy this ease. . . . The regularity of forms renders objects easier to understand, more intelligible; and that is sufficient not only to explain the sense of intellectual satisfaction with which we contemplate these objects but to justify it as well. . . . We don’t judge the beauty of forms through simple impressions, but also through reason. . . . In human artistic production [the most significant manifestations being decoration and construction] regularity triumphs. . . . In the decorative arts, the artist almost always applies himself to register the natural form of objects into a simplified mold; not feeling enslaved to literal imitation, free of how things actually look, it gives him pleasure to stylize vegetable and animal forms, expressing them through the simplest and most regular delineations possible, recalled through truly geometric symbols. . . . In abstract decoration, the impression is conveyed through simple lines combined with regular and symmetrical figures. It is interesting and significant to see pure geometric figures serve as adornment to an object, giving it as much charm as would the freshest colors.

This predilection for geometric beauty did not lead to the surrender of craft and skill, which, according to Souriau, remained the manifestation of vital energy—an irrepressible life force essential for accomplishing any muscular effort, of which dance would be the perfect expression. This validation of “making,” and the appreciation of technique linked to the purely physical manipulation of a tool, is fully in accord with the “moral” concept of art:

It is essential that the artist should be a worker. No matter what kind of art he has devoted himself to, before producing anything he needs a serious and extensive apprenticeship that would furnish him with all the resources of that art. It would be unpardonable not to have this knowledge as the basis for his work. In the course of execution, his work should draw on all these skills completely. All of his faculties should tend toward achieving this goal. How much patience, energy, and tenacity are required to bring any work of importance to fruition?

For Souriau, the utopian thinking associated with artistic work remained vibrant and could well be placed within the continuity proclaimed and defended by the signatory artists of the petition of 1852 or even in a lineage with the Morrisian reevaluation of craft. Industrialization was not rejected out of hand but, on the contrary, called upon to contribute to social harmony through the artist’s intervention with the material. If industrial artists after 1848 imagined themselves being able to innovate by tapping into a common past
Autres Polygones et parmi eux surtout l'Hexagone (7), l'Octogone (8), le Pentagone (9), etc.

Nous avons de plus : le Cercle (10), la Courbe simple (11), qui peut être aussi une portion du Cercle, la Courbe en S (12) et la Courbe en volute ou Spirale (13). A cette liste nous ajoutons les volumes de formes élémentaires suivants :

les Pyramides régulières (14 à 16), le Cube (17), les Prismes réguliers (18 à 21), les Cylindres (22 et 23), les Cônes (24 et 25) et la Sphère (26).

À l'opposé de la géométrie, nous considérons les lignes qui entourent les figures planes comme ayant une largeur matérielle, quand ces figures n'existent que par leurs contours; car autrement nous les voyons...
for Souriau innovation was a matter of organizing simple geometric elements so that everyday objects would be appreciated by the broadest possible public. Scientific aesthetics could then consider which lines, colors, and rules would make ornament a sympathetic bond between individuals in a divided society. In _La beauté rationnelle_ it is the applied arts that enjoy this “perfect beauty,” the purpose of which is essential in the industrial epoch in particular.

Here we find in outline the theoretical basis of the “return to order,” geometric and architectural, that dominated the 1920s and 1930s and whose value was spread through the writings of, among others, Alain (Émile Chartier) and Paul Valéry. But it is not necessary to go beyond the chronological limits set at the beginning of this essay to demonstrate the originality and impact of Souriau’s argument. _Méthode de composition ornementale_ (1905) by Eugène Grasset, perhaps its most faithful translation into concrete terms, was used extensively as a standard text for teaching industrial artists and designers in the years following its publication. While incorporating a very French traditional outlook, Grasset’s book looks toward the geometric abstraction of the twentieth century by reconciling idealism and rationalism in the systematic analysis of simple geometric elements—point, line, and plane (fig. 12). It could thus be claimed that French classical rationalism joined European artistic modernity, the principal fruit of which was the language of art deco ornament.

Rossella Froissart

Rossella Froissart is professor in the history of art at Aix-Marseille Université I.

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1 Roger Marx, _L’art social_ (Paris: Fasquelle, 1913), 4.
3 A research group directed by Neil McWilliam, Catherine Méneux, and Julie Ramos, of which the author is a member, has so far produced two publications: _L’art social en France, de la Révolution à la Grande Guerre_ (Rennes: Presses Universitaires de Rennes, 2014) and _L’art social de la Révolution à la Grande Guerre: Anthologie de sources primaires, Collections électroniques de l’INHA_ [Institut national d’histoire de l’art], available online in 2014 at inha.revues.org. The author’s contribution has focused on the “moral purpose and social values of the applied arts at the dawn of industrialization.” The present article is a product of this study, which initially addressed the first half of the nineteenth century.
5 Antoine Quatremère de Quincy, _Considérations morales sur la destination des ouvrages de l’art, ou de l’influence de leur emploi sur le génie et le goût de ceux qui les produisent ou qui les jugent, et sur le sentiment de ceux qui en jouissent et en reçoivent des impressions_ (Paris: Fayard, 1989), 18 (new edition
of Impr. Du Crapelet, 1815), 17, 22. It should be remembered that the academic and classicist stance of Quatremère de Quincy stiffened during the years of the Restoration and the July Monarchy. While permanent secretary of the Academy of Fine Arts, from 1816 to 1839, he was a fierce opponent of romanticism.


8 Comité central des artistes et des artistes industriels: Placet et mémoires relatifs à la question des beaux-arts appliqués à l’industrie, présentés le 25 novembre 1852 à S.A.I. Monseigneur le Prince Louis-Napoléon, président de la République française, par le Comité central des artistes, au nom de la section des artistes-industriels (Paris: Librairie Scientifique et Industrielle de Mme Vve Mathias, 1852).


10 Comité central, 2–3.

11 See Elizabeth Bonython and Anthony Burton, The Great Exhibitor: The Life and Work of Henry Cole (London: Victoria and Albert Museum, 2003). The Journal of Design and Manufactures was published in six volumes between 1849 and 1852 by Chapman and Hall, London. The extent to which the French reformers were aware of Cole’s initiatives remains unclear, although the interest in British design institutions generated by the Great Exhibition of 1851 could not have been overlooked.

12 Comité central, 3.


14 The principal institutions of design reform in Britain were the Government Schools of Design, established in various British cities between 1837 and 1845; The Great Exhibition of the Works of Industry of All Nations, held in London in 1851; and the Museum of Manufactures, located in Marlborough House in 1852, which subsequently became the South Kensington Museum (1857) and later the Victoria and Albert Museum (1899). The Museum of Manufactures incorporated a library with public access, which was later subsumed under the National Art Library. See Elizabeth James, ed., The Victoria and Albert Museum: A Bibliography and Exhibition Chronology, 1852–1996 (London: Fitzroy Dearborn, 1998), xiii–xv. In an article on “Le Salon des arts décoratifs,” Dumas’ Art Annual of 1882 gave an anecdotal account of discussions between Léon G., Eugène Véron, and M.G. (Guichard?) in August 1876 regarding the “urgent necessity for founding in France a South Kensington Museum.” See Dumas’ Art Annual: An Illustrated Record of the Exhibitions of the World, 1st year (London: Chatto & Windus, 1882 [tr. from Annuaire illustré des beaux-arts]), 247.


16 In 1898 a government decree allocated the Pavillon de Marsan of the Palais du Louvre, on the rue de Rivoli, to the Union centrale for a period of fifteen years following the date of its opening. Though intended to coincide with the 1900 Exposition universelle, the new galleries devoted to the decorative arts did not open until 1902. They were formally inaugurated as the Musée des arts décoratifs by the president of France, Émile Loubet, in 1905.

17 Projet de Collège des beaux-arts appliqués à l’industrie: Rapport de la Commission consultative de l’Union centrale des arts appliqués à l’industrie (Paris: Sérée Frères, 1867)—a Roneo copy of the
manuscript conserved in the archive of the Union centrale des arts décoratifs. This project had to compete with the other, more classically defined project, supported by Edward Guichard, president of the Union centrale from 1864 to 1875. The war prevented its realization.

The Union centrale reserved parts of the exhibitions of 1865, 1869, and 1874 for the teaching of drawing and for exhibiting drawings by students from different schools who followed the Union’s approved method—i.e., the method of Eugène Guillaume, which was introduced in 1866.


It is worth pointing out here that these proposals are entirely consistent with the program of education developed at the Government School of Design in London during the 1840s and 1850s. Owen Jones’s *Grammar of Ornament* (1856) was a product of this policy. On the emphasis on drawing and geometric patterns at South Kensington, see David Brett, “The Interpretation of Ornament,” *Journal of Design History* 1, no. 2 (1988): 103–11. Whether the program of the Union centrale was inspired by the British example remains to be ascertained.


22 Ibid.

23 See Pezone, “École Nationale des Arts Décoratifs.”


29 Georges Berger, *Fondation d’un musée professionnel* (Paris: 1878), n.p. (Archives de la Bibliothèque des arts décoratifs). The Conservatoire des arts et métiers was founded by decree of the National Convention in 1794 under the direction of the Abbé Henri Grégoire. Initially concerned with exhibitions open to the public, after 1819 it offered courses of training in fields bearing on industry: engineering, chemistry, and economics. Its museum, opened in 1802, holds the principal French national collections of material related to innovations in science and engineering.


32 Ibid., 10–12.


34 This is one phase of the Musée des monuments français, founded in 1795 but reestablished as the Musée de la sculpture comparée at the Palais du Trocadéro in 1882.


Ibid., 496.


Ibid.

Ibid., 224–25.


Ibid., second article (April 1895): 268.

Ibid., first article (February 1895): 231 (rapport); second article (April 1895): 267 (ascent).

Ibid., second article (April 1895): 270.


Rioux de Maillou, “Les arts décoratifs et les machines,” first article (February 1895): 226.

Ibid., second article (April 1895): 273.

The 1894 congress, run by the Union centrale, brought together government representatives, artist-craftsmen, critics, and museum curators to consider new policies toward the decorative arts. See Silverman, *Art Nouveau*, 137.


Ibid.

According to Jean Colrat, scientific or experimental aesthetics is “a continent of ideas that appeared and developed in France and Europe after 1870. . . . This is a varied corpus, but the
rejection of any metaphysics of art in favor of an evolutionary and positivist approach and aesthetic and artistic facts gives it its unity. For its scientific appeal, one must take into account a body of new knowledge: with regard to biology, physiology (Helmholtz, Fechner), experimental psychology (Bain, Ribot, Janet), evolutionism (Spencer). At the hands of Tarde, Guyau, and Hennequin this idea led to the recognition of the social purpose of art. Jean Colrat, “Un moment sociologique dans la pensée esthétique française (1870–1890),” in McWilliam, Méneux, and Ramos, L'art social. See also Olivier Lahbib, “Sur l’esthétique positiviste,” Revue de métaphysique et de morale (Paris) 2, no. 62 (2009): 227–45.


63 Articles published in Bulletin de la vie artistique include Guillaume Janneau, “L’art et l’enseignement: Un programme expérimental” (July 1, 1922): 291–93; “Le cinéma, maître à dessiner” (July 13, 1922); “La peinture qui s’éteint” (September 1, 1922); “Enquête sur l’origine de l’art—V” (September 15, 1922); “Petites chapelles” (March 1, 1925). The proceedings of La lumière, la couleur et la forme, a conference held at the Sorbonne, September 7, 1920, were published in the journal set up by Le Corbusier and Amédée Ozenfant, L'esprit nouveau 6 (March 1921): 605–23; 7 (April 1921): 728–36; 8 (May 1921): 946–58; and 9 (June 1921): 1068–75.


67 Ibid., 204.


70 Gabriel Tarde, La logique sociale (Paris: Félix Alcan, 1895), 402.

71 Ibid., 403.

72 Ibid., 418.

73 Ibid., 421.

74 Ibid., 406–7.

75 Ibid., 425.

76 Ibid., 424.


78 Ibid., 455.


80 Ibid., 121–22.


82 Ibid., 13.

83 These ideas had a long currency in French art theory, notably among such artists of the cubist movement as the Duchamp brothers and the Section d’Or group. For many in this circle, the aesthetic experience of the viewer was derived from the geometric partition of the pictorial surface based on the golden section. See Cécile Debray and Françoise Lucbert, eds., La section d’or 1912–1920–1925 (Paris: Éditions Cercle d’Art, 2000).

86 Ibid., 355–60.
87 Ibid., 486.