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# **Gottfried Semper**

## **In Search of Architecture**

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*The Great Exhibition of 1851 as Inspiration for Der Stil*

During his years of exile, 1849–1855, Semper never gave up hope of working again as architect. Although the work at the Department of Practical Art interested him, he still longed for the day when he could build and put into practice what he had written and taught for so many years. When he finally accepted Zurich's offer, he believed that the moment had arrived; he was confident that he would reestablish his reputation as a leading German architect and that his name would emerge from oblivion. In this he was right—commissions for buildings, some of them quite substantial, indeed followed. Within ten years of his arrival in Zurich, he had designed three major buildings that were either completed or nearly finished: the Polytechnicum or Eidgenössische Technische Hochschule, an imposing building in a prominent position high above the picturesque old quarters of Zurich (1858–1864), the nearby Sternwarte (Observatory) (1861–1864); and the Town Hall at Winterthur, a skilfully planned building with the dominant classical feature of a pediment carried by four freestanding columns (1863–1869).<sup>1</sup> He also worked, mostly in competition with others, on large building projects that for one reason or other did not materialize: a theater in Rio de Janeiro (1858), the railway station in Zurich (1860), a casino in Baden (1866), and—the most promising and interesting of all—the Festspielhaus in Munich planned by order of Ludwig II of Bavaria for the performance of Wagner's operas.<sup>2</sup> Thus he was fully engaged in his profession, glad that the frustrating years of his exile were over. He may well have been unaware that it was only through his long stay in London that he had produced the work which, more than anything he ever built, secured his fame and keeps his name alive. This was his book *Der Stil*, published in two volumes in 1860 and 1863.

The Great Exhibition of 1851 was the decisive influence on Semper. As has been shown, he did not take part in its organization or in the

selection of the exhibits but, charged with the arrangement of four stands, worked for many weeks in the exhibition hall. He made full use of the opportunity and went around the stands daily, watching the arrival of the exhibits from all quarters of the world, with ample time to scrutinize them. In this way the effect of the exhibition went much deeper than if he had visited it as a foreign tourist or sightseer. What he saw confirmed his critical assessment of modern artistic production.

Like many architects of his time, he was conscious of the serious decline in artistic taste and of the lack of a unifying coherence among the various branches of the arts. He was also alarmed by the detrimental influence of the machine and its concomitant, speculation, on the quality of modern industrial art. But walking through the exhibition hall he came across displays of objects that were strikingly different from the pretentious and tasteless machine-produced exhibits of the great nations. He admired the assurance with which half-civilized savages—the Lapps, American Indians, Tibetans—arranged the colors and patterns of their textiles or molded the forms of their ceramic wares, and he frankly admitted that India, New Zealand, and many African tribes had demonstrated their superiority in the technical arts over anything Europe had produced. He realized that these primitive people had achieved this high standard by instinctively following their innate sense of color and form, a faculty that the modern nations had lost: “None of the technical, mechanical, and economic means that we have invented and by which we have the advantage over the past” would help us improve our industrial art.<sup>3</sup> In order to equal these people artistically, we should consciously do what they do instinctively, namely study and respect “the properties of the material and the requirements of the task.”<sup>4</sup> In this way we would attain beauty of form and color. However, we would forgo this worthwhile though modest achievement if, heedless of the basic conditions imposed by material and function, we strove precipitously for the highest artistic end.

Semper found that the significance of these artifacts went even farther. Like many writers of his time he had always been interested in the age-old question of the origin of architecture. He rejected the purely fictional assumption of the cave or primitive hut as the prime model from which architecture had evolved, and he distrusted the belief, held by many writers, that building had been man’s first artistic activity, followed by all minor branches of the arts. He became aware that the fine products he had seen and admired were, in a way, witnesses to societies in which man, emerging into history, gave

expression to his artistic impulse long before architecture or even building activity existed. Prehistoric man had done the same that primitive people of modern times did now: they adorned their bodies, molded clay, wove mats, fences, and carpets, made their tools, implements, and weapons from stone and metal and their fittings from pieces of timber. "The arts," he wrote later, "were far advanced in their application to adornment, weapons, implements, and vessels thousands of years before monuments were built."<sup>5</sup> By fashioning and adorning these objects, man instinctively applied order, rhythm, pattern, and proportion. Thus the basic aesthetic laws were first developed in the practical arts and from there carried forward, as it were, into architecture. "The industrial arts are therefore the key to understanding architectural as well as artistic form and rule in general."<sup>6</sup> These thoughts were the response to everything he had seen in the exhibition, the good and the bad; they grew within the next few years into a plan for a comprehensive book, which would start not with the principles and laws governing architecture but with a detailed scrutiny of those principles that had instinctively been observed by artisans of the five branches of industrial art—textiles, ceramics, carpentry, masonry, and metalwork. The immediate object of the book was to give guidance to contemporary industrial art and to assist it in regaining the quality it lacked most: style. Adopting the method of ancient artisans, Semper restricted his task to the consideration of three factors: the properties of the material used, the technical process applied, and the function the object was to perform. He called this novel approach "practical aesthetics."

*Der Stil* is a thought-provoking book that deals with a host of subjects. It contains a detailed classification of industrial products from a formal point of view, as well as their historical modifications, ranging from China, the ancient Middle East, Egypt, Greece, and Rome to the Middle Ages and the Renaissance. It gives an exposition of his most original ideas—about color in architecture and the important role that cladding played in architecture throughout the centuries; about *Stoffwechsel*, the transference of functionally conditioned motifs from one material to another whereby they assume symbolical significance; and about the influence of new inventions and new materials on the quality and style of products. It contains a long chapter on the architectural orders and in each of the five sections, critical remarks about modern products. His study of industrial art was so extensive that by the time he finished with the last applied art, metalwork, the book had grown into two volumes. They were to form the basis for a concluding part that was to deal with architecture. When the second volume appeared

in 1863, *Der Stil* was well received; it was generally believed to be the most important book in the field. A second edition was published soon after Semper's death in 1879.

It is in a way an optimistic book, a fact that certainly contributed to its success.<sup>7</sup> Although it was the low standard of the industrialized objects at the Great Exhibition that made him put down on paper the conclusions he drew from this deplorable state of affairs, and although he criticized as strongly as many others the devastating influence of modern production processes, the division of labor, and speculation, he did not despair. He did not hate machines as Ruskin did; did not, like Ruskin, turn his back on modern times in disgust, or believe that salvation lay in a return to the medieval artisan's way of making things. It would be wrong, he wrote in *Der Stil*—and this sounds directed against Ruskin—“to ignore with haughty gentility the present and its inventions and offer the perfect accomplishments of the past as the one and only model.”<sup>8</sup> At times he even pleaded for what he called “a very liberal stylistic code” that made allowance for the new conditions created by new manufacturing processes.<sup>9</sup> He expected taste and aesthetic sensitivity to improve, provided the new means were mastered. If that happened and “the machine learned to be subordinate to the natural properties of the material, then it will have a beneficial effect on the arts.”<sup>10</sup> How receptive he was to new inventions and how willing to judge them without prejudice are shown by his remarkable chapters on a new material, vulcanized rubber. His description of its properties, applications, future possibilities, and stylistic characteristics is exemplary.<sup>11</sup> It has rightly been called “an apotheosis of synthetic material a hundred years in advance of his time.”<sup>12</sup> Confident of inevitable progress, he exclaimed at the close of the Great Exhibition: “May the inventions, the machines, and the speculators stir up things with all their might; they will thus prepare the mixture out of which constructive science will mold the new form.”<sup>13</sup> The book he was going to write would, when complete, serve as guide toward this new form. Little did he know when he first conceived it the pain, disappointment, vexation, and misunderstandings that would result.