

Limits of Influence: Gottfried Semper and Poland¹

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A short note in the weekly magazine "Wędrowiec," in the issue dated 22 April 1879, informed that "Gottfried Semper, an excellent architect, died in Rome."² It was in all probability the only mention of the architect's death in the Polish press. Such a state of affairs may seem surprising, but it very well illustrates the limited role that Semper played in the Polish theory of architecture and the building practice of the second half of the 19th century and at the turn of the century.

No research has so far been carried out on the reception in Poland of what the author of *Der Stil* designed and wrote. This is not a result of some particular dislike towards Semper, but of the fact that Polish history of 19th century architecture focuses mainly on materials analyses. We have, therefore, monographs on several eminent architects (such as Stefan Szyller or Jan Zawiejski), synthetic discussions of the history of construction in major cities (the whole of Poznań is covered, as are parts of Cracow, Warsaw and Łódź), as well as dissertations on chosen areas of architecture (such as sacred architecture of the end of the 19th and the beginning of the 20th century, school buildings, neogothic manor houses). The research on the theory of architecture is also mostly material in character: for example, numerous monographs by Andrzej Majdowski on the subsequent revivals and on national style are in fact catalogues of quotations from 19th century sources. Only the role of Jean-Nicolas-Louis Durand has been thoroughly discussed in a book by Andrzej Rottermund.³ There is a lack of studies on the relationship between Polish theory of architecture and other European trends, and there is no synthetic, holistic discussion of Polish architectural thinking of the historicist period. Little is known also about the foreign studies of Polish architects. The extensive dissertation of Małgorzata Omilanowska on this topic is yet in preparation. Jacek Purchla⁴ has devoted an article to the Polish architects who studied at the Viennese Polytechnic, but nothing has been written on the Polish students at Dresden or Paris. Neither has an adequate study been devoted to Semper. The old stereotypes about him as a pre-

cursor of modernism and functionalism are still around, as are the stereotypes of his dramatic inner struggle between the "progressive" theory and the "conservative" architectural practice. This state of affairs can be well illustrated with a quotation from the book by Zbigniew Beiersdorf and Jacek Purchla about the former headquarters of the Cracow Chamber of Commerce and Industry. This building, designed by Tadeusz Stryjeński and Franciszek Mączyński, was erected in the years 1904–1906. Analyzing its unstuccoed elevations, the authors say that "The prominence given to brickwork may also be interpreted as the influence of the Gottfried Semper school's tradition and as an example of the justice to material (*Materialgerechtigkeit*) principle, fashionable at the time . . . This was not the only case of Gottfried Semper's influence on the Chamber's architecture. Semper, under whom Stryjeński studied in Zurich, was not only one of the leading architects of the historicist period, but at the same time a great theorist of architecture; he is sometimes considered the forerunner of functionalism. His regrettably unfinished, monumental multi-volume work entitled *Der Stil in den technischen und tektonischen Künste oder praktische Aesthetik*, as well as the other publications became a bible for his generation of architects. Semper's theoretical postulates – which he himself was often unable to put into practice, because his work was still too deeply embedded in historicism – affected various centers where modernist architecture was forming at the turn of the century."⁵

In this context the statements offered in my paper cannot be an attempt at summarizing the current state of knowledge on the reception of Semper in Poland. Rather, I would like to draw attention to the manifestations of Semper's influence on Polish architecture and architectural theory, and to try to identify the reasons for the lack of popularity of the creator of the Dresden Hoftheater in the Polish lands.

The first reason for the poor familiarity with Semper's achievements and with his theory among Poles was the almost complete lack of Polish students at the Building

School (Bauschule) of the Dresden Academy of Fine Arts and at the Zurich Higher Technical School (Eidgenössische Technische Hochschule, or ETH) throughout the course of the 19th century, which means also at the time when our architect taught there.

The limited popularity of the Dresden Academy among Poles in the first half of the 19th century may seem surprising, considering that the capital of Saxony belonged to the cities well frequented by Poles in those days, especially after the failure, in 1831, of the November Uprising in the Congress Kingdom of Poland (that is, in the part of Polish lands under Russian rule, which at the Congress of Vienna was turned into a state connected to Russia through a personal union; it is against Russian hegemony that the Poles fought in the years 1830–1831). After the November Uprising, the region saw what was known as “Wielka Emigracja” (the Great Emigration) and many people permanently settled in Saxony.⁶ However, the routes of young people going abroad to study led in those days either to Karlsruhe, Munich, Berlin or Petersburg. In the period before the November Uprising great popularity was enjoyed by the Parisian École Polytechnique; consequently, its main representative, Jean-Nicolas-Louis Durand, was in 1818 chosen as an honorary member of the Vilnius University, since, as it was said in the justification, “he allows our travellers a most generous access to himself.”⁷

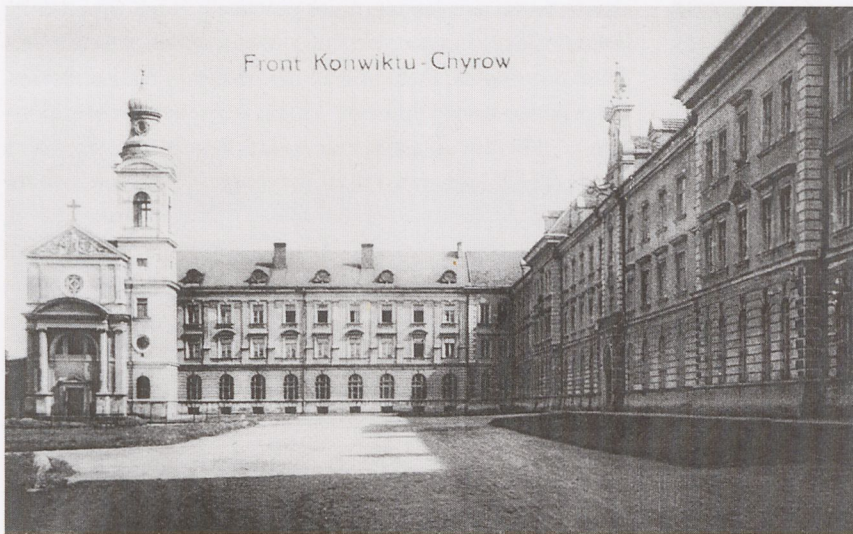
Dresden was, at the most, merely one of the stops on the educational journeys of Polish students. Unfortunately, there are no available published accounts of students from the period during which Semper lectured in Saxony. What will have to suffice is an account by Jan Kanty Stróżecki, graduate of the Cracow Technical Institute, who had received a scholarship from the Ledóchowska Foundation to continue architectural studies abroad. His journey took place in the years 1853–1855, which was already after Semper’s emigration; it can nevertheless serve as a representative example of a Polish architectural student’s *tournée*, since it follows in its main points the itineraries of other architects travelling in the 20s, 30s, and the 50s. The report informs us that Stróżecki went first to Wrocław and then to Berlin, where he participated in lectures at the Bauakademie. After a short sojourn in Potsdam he went to Dresden, where he stayed for several weeks. His attention was drawn to buildings designed by Semper: “Here I encountered Semper’s buildings. His style—rather Florentine in character—has originated reform on the way, which, in removal of the master, and in his followers taking the wrong direction, has regressed the concept of taste by 30 years, which can be observed in all the newly erected edifices.”⁸ What he wrote about his studies at the Academy is also noteworthy: “At the

Academy of Fine Arts (on the Brühl terrace) I met Professor Arnold, who, having just returned from Paris, aided me with much news, and the aesthetics professor, Nicolai, recommended me to Mr. la Brouste [sic], he being the best mentor [sic] of architecture in Paris.”⁹ After his departure from Dresden, and after sojourns in Bamberg, Nuremberg (where he stayed longer, having letters of recommendation to Carl Alexander Heideloff), Munich and Karlsruhe, he travelled to the capital of France. There he was an apprentice for almost a year in the atelier of Jean-Baptiste Lassus.¹⁰ Stróżecki’s final destination, therefore, was Paris. Similarly, it was to Paris that Feliks Radwański, Jr., travelled in the years 1826–1827 (later he went on to Italy and Vienna), while Feliks Książarski studied in Munich (1837–1838), Karlsruhe (1828–1839) and Metz (1842), before eventually taking up vocational practice in Paris (1844–1848).¹¹

At the time when Semper taught in Zurich, Polish students who undertook study abroad went mainly to Berlin, Vienna and Petersburg. Berlin was first of all a frequent destination for the subjects of the Prussian king, which meant also for Poles from the Grand Duchy of Poznań, but the city was also popular among the Cracovians. The inhabitants of the Congress Kingdom of Poland went to Petersburg, while the Vienna Polytechnic (and, to a lesser extent, the Academy of Fine Arts) was the usual choice of the inhabitants of Galicia, which belonged to Austria. From 1877 onwards, it was also possible to study architecture in the Polish lands, since a school of architecture was opened at the Lvov Polytechnic (Lemberger Technische Hochschule) and run by Julian Zachariewicz. Until then, only secondary schools had been in existence, as, for example, the Technical Institute in Cracow, and ephemeral schools of architecture at the universities in Vilnius, Warsaw and Cracow.¹²

The register of Semper’s students prepared by Martin Fröhlich reveals seven names of people who had arrived from the Polish lands. These were: Stanisław Bellina (1865/66–1875), Szymon Dobyca (1867/68–1868), Karol Heidenbruch (1867/68–1868/69), Edgar Kováts (1870–1872), Samuel Lilien (1862/63–1864), Jerzy Struve (1862/63–1865) and Tadeusz Stryjeński (1868/69–1872). Among them, only Kováts and Stryjeński obtained degrees in architecture in Zurich (receiving their diplomas on the same day, 8 August 1872, which was already after Semper had moved to Vienna¹³). However—contrary to a belief widely held in the literature—Tomasz Pryliński was not a student of Semper’s. In the years 1866–1869 Pryliński did study at ETH; however, not at the Bauschule, but at the Mechanisch-technische Schule. Moreover, he never graduated with a diploma.¹⁴

There is no doubt as to Tadeusz Stryjeński having been a student at ETH. Son of a Polish officer and post-Novem-



1 Jesuits' school. Chyrów. Built 1882–1889 by Antoni Łuszczkiewicz. Extended 1904–1906 by Edgar Kováts. Historical postcard.

ber Uprising émigré, he was born in Carouge near Geneva. It seemed the most obvious thing for him to do, after graduating from the Batignolles Gymnasium and the Higher Polish School in Paris, to return to study in Switzerland.¹⁵ As far as Edgar Kováts is concerned, this Bukowina-born son of a Hungarian economist and politician undertook technical studies at his father's request and without much conviction. He first studied for a year in Lvov, and subsequently at the Viennese Polytechnic, which he abandoned in favour of the Academy of Fine Arts, where he intended to study painting. The dissatisfied father made him enroll at ETH. There Kováts finally found his architectural calling, and he referred to the Bauschule as "a first-rate school of art."¹⁶ Nevertheless it must be noted that Edgar's choice of the Swiss Polytechnic was not an independent, mature choice, which confirms the limited role the school played in the Polish architectural circles.

It must be said, however, that it was Edgar Kováts who established the closest relationship with Semper. Stryjeński worked in Vienna and Budapest after his graduation, then moved to Peru and—via Paris (where in 1877 he completed his studies at the *École des Beaux-Arts*)—to Cracow, where he settled down in 1878. Kováts, on the other hand, was in 1872 still among the associates of Semper and Hasenauer in Vienna. They cooperated in the construction of the Art History Museum and the Natural History Museum, the Hofburg Theatre and the *Hermesvilla*, and later, in the years 1889–1894, Kováts was employed at the *Michaelertrakt* in Hofburg, which was being finished by Ferdinand Kirschner. Semper wrote him a very good letter of recommendation at the end of their cooperation.¹⁷

After a prolonged stay in Vienna, in 1895, Kováts returned to Galicia and took up the position of the director

of the Vocational School of Timber Industry in Zakopane. From 1901 onwards he was connected with Lvov, where he held the position of professor of architecture and architectural forms at the local Polytechnic School.¹⁸

One of Kováts's buildings in particular displays a clearly discernible influence of Semper. In the years 1904–1906, Kováts was working on an extension of the Jesuits' school in Chyrów (Fig. 1).¹⁹ In the outer elevations of the new school building he employed rustication at the ground floor level and introduced semi-circular enclosed rectangular windows. The higher storeys were subdivided by pilasters of the colossal order supported on socles. What we find here is the scheme known from the side wings of the Viennese Hofburg (Fig. 2) and from Semper's designs for the Viennese Stock Exchange (1869). The semi-circular enclosed windows, on the other hand, resemble the windows of the ground floor in the edifices of the Viennese museums, at the building of which—as we have noted above—Kováts had been employed.

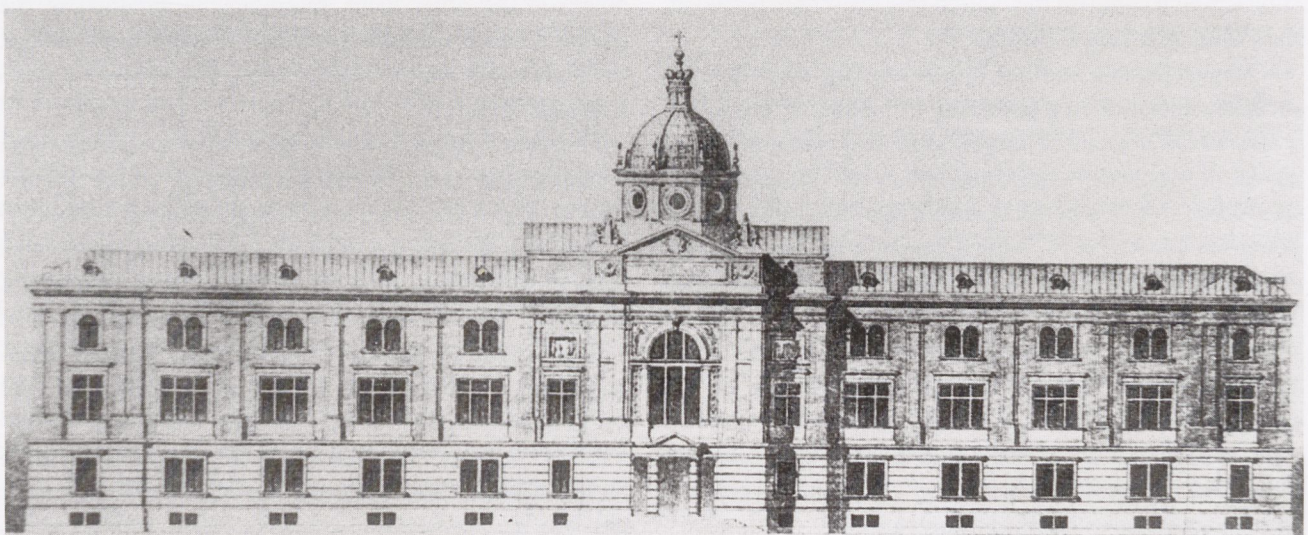
Tadeusz Stryjeński was an architect who did not relish designing façades and therefore he willingly passed this task over to other architects, with whom he entered into numerous, usually short-lived partnerships.²⁰ Instead, he devoted himself to the planning of the plans of the buildings. Stryjeński's practical attitude towards architecture originated already in Zurich, where he attended, in the summer semester of 1871, a non-obligatory lecture on "Die Aufforderungen der Gesundheitspflege bei Errichtung menschlicher Wohnstaeetter."²¹ However, according to Władysław Ekielski, one of Stryjeński's associates in Cracow, his ability to design plans well was the result of the education at the Paris *École des Beaux-Arts*: "In Paris, they excelled in teaching the making of horizontal projections, that is plans; for the better buildings,



2 Hofburg Palace. Vienna. Since 1869. Gottfried Semper and Carl von Hasenauer. Photo: Wojciech Bałus.

always on an axis layout, quite practically, each time taking into consideration the particular needs, which were investigated thoroughly, including all the smallest practical details. That is the background of Tadeusz Stryjeński's composition . . . He used to claim that an excellent plan, even with a façade which is merely good, always gives a prerogative for the main award in a competition."²² On the other hand, Ekielski completely marginalizes the importance of Stryjeński's studies in Zurich. Indeed, Stryjeński's work – when he happened to be working on his own – abounds in French elements, showing a strong preference for classicistic forms and the French Renaissance. Also, the open attitude towards new building materials and new technologies (especially the use of ferro-concrete, applied for the first time in the edifice of Stary Teatr in Cracow, which Stryjeński rebuilt in 1903–1906 together with Franciszek Mączyński²³) reflected the approving attitude of Viollet-le-Duc toward iron structures.²⁴ It is worth noting that Stryjeński was an owner and reader of *Entretiens sur l'architecture*.²⁵

Semper's influence, however, can be noticed in only few of the student's works. The orphanage for boys of the Prince Aleksander Lubomirski Foundation in Cracow, erected in the years 1891–1893 together with Władysław Ekielski, was based on a rectangular, elongated plan with a central domed projection (Fig. 3). It echoes the scheme employed by Semper first in the Art Gallery in Dresden (Fig. 4), and then in the Viennese museums.²⁶ What attracts



3 Tadeusz Stryjeński and Władysław Ekielski. Design for the Boys' Orphanage of the Prince Aleksander Lubomirski Foundation. Cracow, 1888. From *Wiener Bauindustrie Zeitung* 1888.



4 Art Gallery. Dresden. 1839-1855. Gottfried Semper. Photo: Wojciech Bałus.

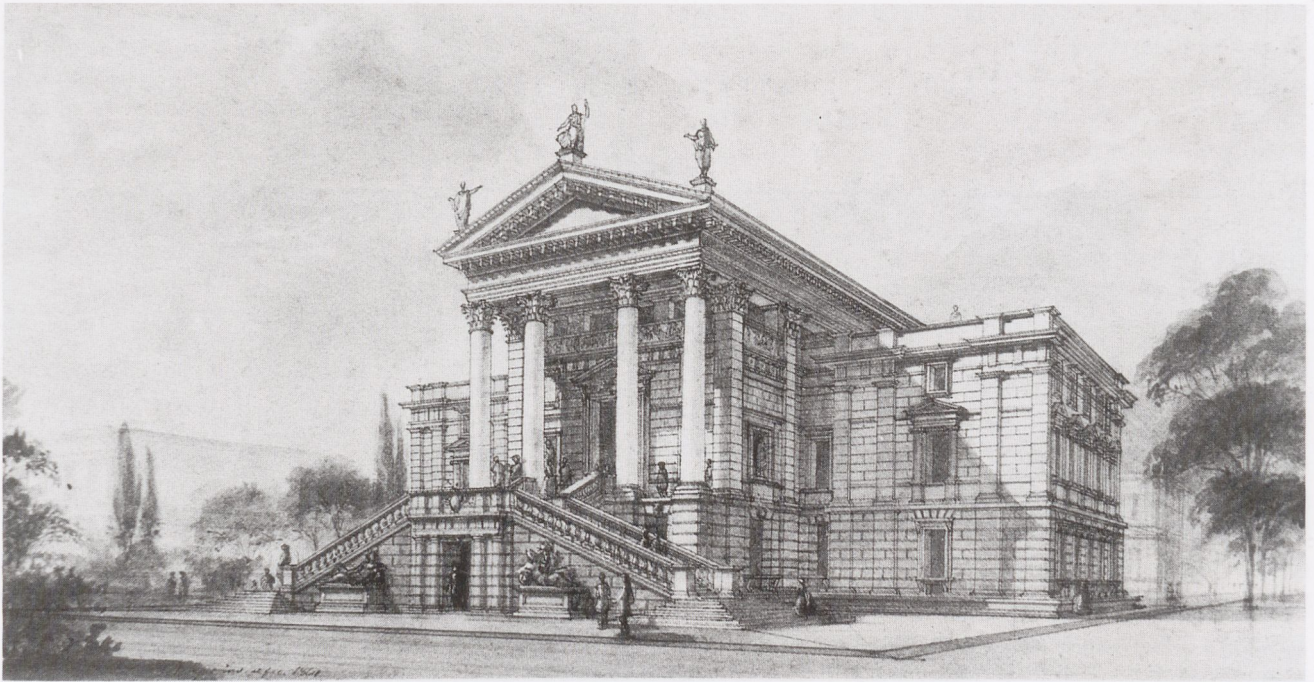


5 Pavilion of the Emeryk Hutten Czapski Museum. Cracow. 1895-1897. Tadeusz Stryjeński and Józef Pokutyński. Photo: Adam Rzepecki.

attention is the pavilion of the museum which houses the collection of Emeryk Hutten-Czapski. This pavilion, attached to the small Neo-Renaissance palace in Piłsudskiego Street in Cracow, was designed by Stryjeński together with Józef Pokutyński in 1895.²⁷ The elevation of the building (Fig. 5) has a rusticated ground floor while the first floor is partitioned with flat Tuscan pilasters. Both the rustication and the flat pilaster divisions are reminiscent of Semper's buildings, namely of the side parts of the main facade of the Town Hall in Winterthur (1864-1870 - Fig. 6) and of the first design for the Segesser palace in Luzern (1865).²⁸ The massive portal of the entrance loggia, on the

other hand, recalls the graphic forms often employed by Semper in ground storeys of large edifices, such as the second Hoftheater in Dresden (Fig. 7).

One more building ought to also be mentioned, however his author was not a Semper pupil. In 1894 was organized a National Exhibition for Galicia in Lvov. Franciszek Skowron designed a pavilion for the exhibition of the Polish art (Fig. 8).²⁹ This Palace of Art followed the general scheme of Semper's Art Gallery in Dresden (Fig. 4), with the central projection composed as a triumphal arch. The elevations of the building were similar to the ground floor levels of the Viennese museums.



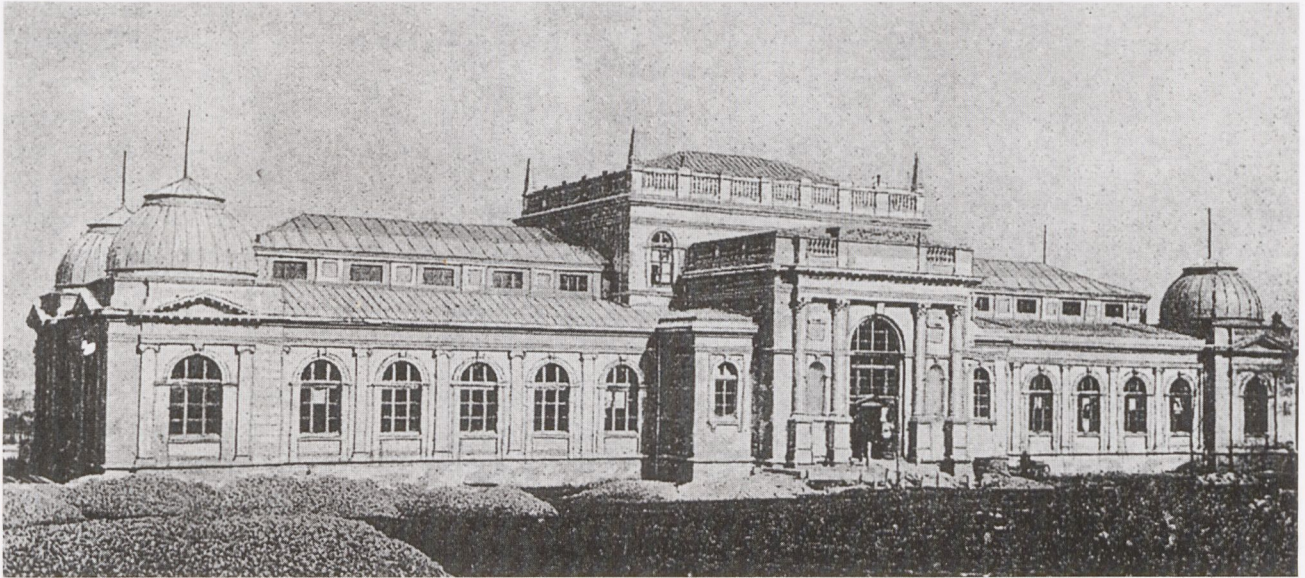
6 Town Hall, Winterthur. 1864-1870. Gottfried Semper. From H. F. Mallgrove. *Gottfried Semper*



7 The Second Hoftheater, Dresden. 1870-1878. Gottfried Semper. Photo: Wojciech Bańus.

It is difficult to imagine that Semper's name would not be mentioned in the context of theatre buildings. Indeed, in 1882 an architect from Warsaw, Jan Hinz, noted the Semper's contribution to the shaping and reforming of modern theatre buildings. Hinz made a detailed description of three enterprises: the old and the new Hoftheater in Dresden and the Wagnerian theatre in Bayreuth (which he treated as a work of Semper's).³⁰ "The old Dresden the-

atre"—wrote Hinz—"embodied in its day a certain epoch in the history of theatre building, forming—in aesthetic and practical terms alike – a whole, satisfying both the requirements of the progress in theatre arts, and the needs of the public, in respect to both the general layout of the plans and the details. A complete novelty, which earned the masterpiece much fame, was the clarity of the layout of the individual parts of the building . . . organically connected to one

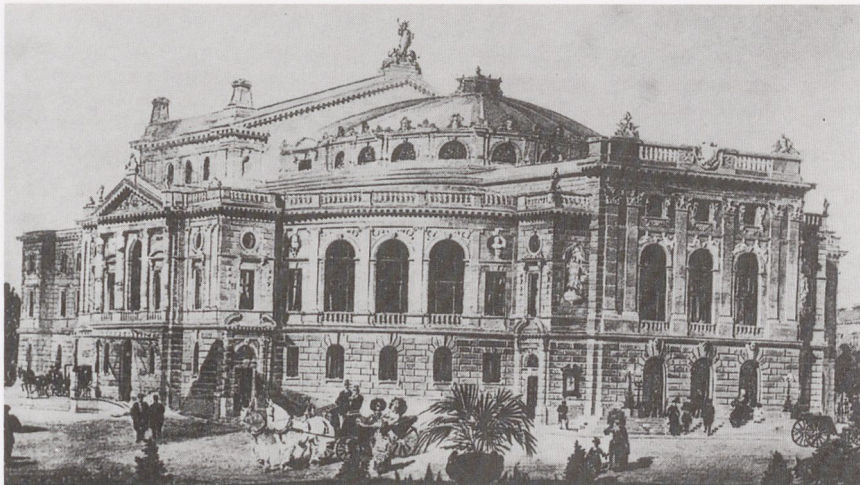


8 The Palace of Art for the National Exhibition. Lvov. 1894. Franciszek Skowron. Photo: *Powszechna Wystawa krajowa 1894 r. i sily produkcyjne kraju*. I, Lvov 1897.

another.” Another advantage of the building was the form which communicated its purpose, as well as “the beauty and truth in the details. The new theatre”—continued Hinz—“somewhat resembles its predecessor, in terms of the general layout of the plan, with small corrections, which have been to the building’s advantage”. The corrections were dictated by the wish to improve the functional aspects of the building, as well as by the need to take into consideration the more stringent fire safety regulations. The final effect, in Hinz’s opinion, “shows a master familiar with his art’s most intricate secrets.”³¹ On the other hand, “a completely new type is represented by the theatre in Bayreuth, erected according to the instructions of Wagner.” Its amphitheatrical character, as well as the “removal of balconies and corridors” resembles “the layout of the theatres of antiquity.” Hinz deems it worthy of emphasis that the design of the theatre dispensed with “monumentality, striving only for practicality of the layout.”³²

In practice, however, the influence of the Semper model of a theatre building was limited in the Polish lands. Semper was requested by the building committee to be a consultant for Stanisław Hebanowski’s project for the Teatr Polski (Polish Theatre) in Poznań (1872), and two years later, when a competition was announced for the Teatr Miejski (Municipal Theatre, also called Teatr Niemiecki—German Theatre) in Poznań, he was one of the jury members.³³ The edifice of the Teatr Polski does not follow the Semperian scheme, as it is based on a rectangular plan. However, the influence of the German architect is visible in the method of dealing with the

facade. As Zofia Ostrowska-Kęłowska puts it, “a complete lack of decoration and the use of divisions that are strictly architectural, and which in the side parts are reduced to severe, graphic rustications and deep niches, as well as the disciplined forms, between which appear strong—as if mannerist—tensions, and the numerous details, all confirm the strong . . . influence of Semper on the *oeuvre* of Hebanowski.”³⁴ The international competition for the design for the Municipal Theatre in Cracow (announced in 1888, and closed in 1889)—the greatest architectural competition for a theatre building in the Polish lands in the 19th century—did not bring forth projects of the Semperian type. An exception which proves the rule was the work submitted by Emil Förster (Fig. 9), with the auditorium cut out of the solid and surrounded with semicircular corridors, a vestibule with three entrances (one on the main axis and two on the diagonal axis), and a considerably raised stage.³⁵ Förster, however, was from Vienna, and as such he was an outsider, not belonging to any of the Polish architectural milieux. His project was awarded only an honorary prize. The building, constructed by Jan Zawiejski (1891–1893), echoes the scheme set down in the Paris Opera by Charles Garnier (1861–1875).³⁶ The Municipal Theatre in Lvov, the competition for which was won by Zygmunt Gorgolewski (1895–1900),³⁷ is not Semperian in character either: its monolithic shape is capped above the stage with a monumental dome roof, the effect of a clearly visible influence of the model for theatre buildings created by the partnership Fellner and Helmer.³⁸ In central and eastern Europe, the Semperian type of a theatre building never



9 Emil Förster. Competition design for the Municipal Theatre in Cracow. 1888. Photo: Stadttheater für Krakau, *Sammelmappe hervorragender Konkurrenz-Entwürfe* xxv (1893).

became the dominant form. It was used alongside the influential model of the Viennese Opera building by Eduard van der Nüll and August von Siccardsburg (1861–1869), and later of Garnier's Opera as well as the works of Fellner and Helmer.³⁹

Semper's influence on the Polish theory of architecture in the 19th century was similarly limited. Surprisingly early (considering the circumstances in Poland) the architect's opinion was noted in the controversy over polychromy in ancient architecture. Three years after the publication of *Vorläufige Bemerkungen über bemalte Architektur und Plastik bei den Alten* the brochure of Feliks Radwański, Jr., professor of the Technical Institute in Cracow, entitled *O polichromii architektury starożytnej to jest zdobieniu jej kolorami* (On the Antique Architectural Polychromy, that is, on Embellishing It with Colour) appeared. The author presents different views on the issue, which in those days was extensively disputed by architects and aestheticians, stating that it was Semper who conclusively proved the multicoloured character of ancient temples, as his considerations "leave one in no doubt as to the fact that the Greeks displayed a great liking for ornamenting their architecture with vivid hues."⁴⁰

Yet the next reference to the architect's views did not occur until the end of the 19th century. First to be noted were Semper's achievements in reviving sgraffito. In 1880 Jan Kasper Wdowiszewski published an article on this topic, in which he pointed to the architect's ground-breaking role in the revival of the sgraffito technique "after a period of neglect in the baroque and rococo times." According to the author, it was the result of Semper's great appreciation of the forms of Italian Renaissance as well as the architect's interest in the polychroming of facades. In the next part of his article, Wdowiszewski enumerates those projects in which the sgraffito technique was used by the architect, among them the

Hoftheater in Dresden, the ETH building and the astronomical observatory in Zurich. The Polish author also gives Semper's recommendations concerning the composition of sgraffito ornamentation, the methods of applying it, and, most interestingly, he gives the ingredients of the ground Semper used for applying sgraffito. Apart from Semper's contribution, Wdowiszewski notes also the role of the Berlin and Viennese circles (Ferstel) in the sgraffito revival in 19th century architecture.⁴¹ It is these two latter sources that were responsible for importing this manner of decorating facades into the realm of Polish architecture.⁴²

Most often, however, Semper was quoted at the end of the 19th and the beginning of the 20th century as the scholar who contributed greatly to the emergence of the scientific theory of architecture. His achievements were nonetheless not clearly specified. As an example, we may give a statement by Adam Wolman (which indeed deserves the name of "Solomonic wisdom"), saying that Semper "dealt vigorously with the theoretical laws and rules of tectonics and architecture, disclosing a great many universal rules, full of profound truths."⁴³

Semper is referred to several times as the author of the best definition of style. Such was the opinion of Edgar Kováts expressed in his 1901 inaugural lecture at the Lvov Polytechnic School. This lecture was in fact a critical commentary on Otto Wagner's *Moderne Architektur*. Writing about the new architectural style which was then coming into existence, Kováts notes that the Viennese architect fails to define it. On the other hand, he claims that "to us, the definition of style given [by] Gottfried Semper has not yet lost its significance: 'Style is the correspondence of a work of art with the history of its becoming'."⁴⁴

This relevance of Semper's definition of style, mentioned by Kováts, was confirmed a year later by Władysław Ekielski

during the discussion on the nature of the Zakopane style. The Zakopane style was one of the attempts at creating a Polish national style, based on the motifs of folk art and architecture from the Tatra mountains region.⁴⁵ The theoretical views on the issue were divided. The first approach, championed by Stanisław Witkiewicz, author of the whole concept of the Zakopane style, absolutized the art of the Podhale region, seeing it as the repository of the primary features of Slavic art, which had been preserved intact, being isolated for centuries from the main centers of Polish culture. The completeness and originality of this art and architecture was precisely what made it possible to treat it as a style. According to the second approach, the art of the Zakopane region lacked monumental projects. The extant monuments belonged either to timber architecture, or to applied arts. Therefore, there was no justification for talking about a “Zakopane style”, rather, the name should be the “Zakopane mode.” The author of this latter approach was Edgar Kováts, already mentioned several times in this article; the approach was also defended by Ekielski. The latter wrote: “It was only Semper, as far as we know, who established for the first time the precise concept of style as the sum of construction moments and the closely connected with them formal moments; therefore, in order to formulate a style, both the structural aspect and the aesthetic one are needed. According to this definition, the whole history of western culture falls into two styles: the style of the ancient world, that is the column style, and the medieval style, the style of the elevated vaulted ceiling; in other words, the Greek style and the Gothic style; both being the ultimate expression of their basic structure and its inherent formal moments . . . Such an elevated concept of style in architecture is inseparably connected with the eternally lasting material – stone, with its nature, with the technique stemming from it and with its external manifestation, sculpture. All periods in the development of architecture belong to these two styles.”⁴⁶

Semper’s definition excluded, according to Ekielski, the possibility of creating a “Zakopane style,” since the lack of buildings in the “eternally lasting” material, that is in stone, meant that there was no type of structure unique to the Zakopane buildings. The notion of the leading role of stone as building material could indeed have originated in Semper’s beliefs, since Semper did teach his students in Zurich that “the proper monumental material is ashlar.”⁴⁷ What is more important, however, is how the Cracovian architect distorted another of Semper’s definitions of style. The well-known formula:

$$U = C(x, y, z, t, v, w \dots)$$

where “U”, the work of art embodying style, is defined as a mathematical function, the destination “C” refers to this

functional operation, and “x, y, z, t, v, w” refer to the variables affecting style,⁴⁸ was reduced by him to two elements: structure and form. Such an approach to the issue of style in architecture, which originates in Karl Bötticher’s “Kunstform” being treated as tantamount to the aesthetic element of architecture, and “Kernform” as equivalent to structure (contrary to the intentions of the author),⁴⁹ and stems directly from the statement by Viollet-le-Duc that “la construction commande la forme,”⁵⁰ was nothing extraordinary at the turn of the century. It is sufficient to quote *Populäre Aesthetik* by Carl Lemcke, a textbook which, instead of discovering new pathways in aesthetics, summed up the most common ideas. There we read that “Style will emerge when idea and form, structure and shape, correspond to one another.”⁵¹ Similar arguments were put forward in *Moderne Architektur* by Otto Wagner: “The architect always has to develop the art-form out of the construction.”⁵² The Viennese architect interpreted Semper’s beliefs in this vein, noting that he “lacked the courage to complete his theories from above and below and had to make do with a symbolism of construction, instead of naming construction itself as the primitive cell of architecture.”⁵³ Wagner was closely followed by Kováts in the lecture quoted above: “Each building shape came from construction and only with time became an art form; new, different constructions must give rise to new art forms. Because modern building arts introduce many new, hitherto unused structures, they must in consequence produce new, hitherto unknown forms, and the change in forms is accompanied by a change in style. The difference of views between modern and older architecture can be summed up in that, formerly, a symbolic marking of structure was required, while today the structure itself must be displayed.”⁵⁴

Ekielski did not therefore directly use texts of Semper, who had commented on Viollet-le-Duc’s formula, quoted above, in the following way: “The construction dominates the form ever more tyrannically.”⁵⁵ It makes more sense to assume that Ekielski automatically linked the name of the Dresden architect to a view on the role of building material in the creation of style that was based on the—prevalent at the turn of the century—“materialistic” interpretation of the beliefs of the author of *Der Stil*.⁵⁶ It must be added, to Ekielski’s disadvantage, that the second of Semper’s definitions of style was known in the Polish lands, as testified to by the 1908 lecture of Eligiusz Niewiadomski, in which the author says that style is “a complex function of building material, climate, and social relationships of a given country and period.”⁵⁷

The common definition of style was linked by Ekielski with the belief – rather unusual for the time of around 1900—that in European architecture there existed only two

true styles: the Greek and the Gothic. Such a view was a reflection of the understanding of style typical for the first half of the 19th century, when the classical tradition was juxtaposed to the North-European one, which culminated in Gothic art. As two contrasting tectonic systems (that is, structural systems, originating from two radically different ways of covering a building with a roof), the Greek and the old German styles were seen by Carl Bötticher in his speech in the honor of Schinkel, given in the year 1846.⁵⁸ Such a way of thinking was not, however, unique in Cracow and Lvov at the end of the 19th century, since simultaneously with Ekielski this concept was used by Teodor Talowski in the inaugural lecture at the Lvov Polytechnic School. This lecture also contains a reference to Semper, namely, a statement—taken from *Der Stil*—that a Gothic structure is displayed on the outside of a building like an armor-clad crab's skeleton.⁵⁹

Already in the Middle Ages it was said that “authorities have a nose of wax,”⁶⁰ meaning that it can be twisted in all directions. Thus Ekielski used Semper to justify the thesis on the structural—formal nature of style, at the same time promoting the Gothic, which in fact had been deprecated by the Dresden architect (in theoretical considerations, not in building practice).⁶¹ At the same time, Wagner saw in Semper a forerunner of the modern; Hendrik Petrus Berlage (who was closest to the intentions of Semper himself) saw in a work of architecture the likeness to a piece of furniture, and a Prague architect Antonin Balšánek—similarly to Edgar Kováts⁶²—wanted to connect these progressive tendencies with the inherited respect “for climate, earth, place, and, finally, material” (a statement which clearly echoes the Semperian definition of style).⁶³ Such was the fate, however, of the writings of the author of *Der Stil* that, beginning with Manfred Semper through Alois Riegel, and ending with the architects of the classical modernity, they were used in a way contrary to their spirit and content.⁶⁴

It does not seem surprising, therefore, that Semper's views were also been used by a theoretician who derived the majority of his beliefs from Hegelian aesthetics. Jan Sas Zubrzycki belonged to the most radical idealists in Polish art theory.⁶⁵ The Hegelian-idealistic trend in the Polish theory of architecture emerged in the 1860s as a reaction to the utilitarian reductionism of Durand and stayed around for a long time.⁶⁶ Zubrzycki, who began to write in the 90s, accepted the view that works of art are born from inspiration and from an elevated idea which steers the artist's imagination. At the same time, in relation to architecture, he emphasized the role of the constructive-rational element. His definition of beauty closely resembles the notion of style used by Ekielski. This is hardly surprising, given the old,

normative aspect of the term “style,” which pervaded 19th century beliefs. Such an approach treated style as the highest achievement of architecture, its perfection, the “absolute style” (*le style absolut*) of Viollet-le-Duc, different from both the “relative style” (*le style relatif*, that is, the *modus suitable* for a given building) and from “historical styles” (that is, technical terms from art history, defining the repertoire of architectural forms typical for a certain period, which did not necessarily have to reach the “absolute” level).⁶⁷ As Zubrzycki wrote: “Beauty in architecture is based on the equilibrium between the technique and the shape, so that the technique is contained in the shape, and the shape in the technique.”⁶⁸ The references to Semper do not, however, pertain to the technical aspect of architecture. Zubrzycki says that the formal perfection of a work of architecture is ensured by symmetry, proportion and eurhythmia. These categories have been present in architectural theory since ancient times. What is important, however, is the way in which Zubrzycki describes and defines them. In his opinion, symmetry refers to “linear” systems and to the arrangement of the elements of a building around one axis or one central point. Proportion orders everything along two axes, determining the size relationships between the various parts of the work, while eurhythmia, as “architectural syntax,” is responsible for the spatial expression of the whole edifice.⁶⁹ In Semper's concept of formal beauty (*Formell-Schöne*), explicated most fully in the introduction to *Der Stil*, there appear three “authorities,” namely the eurhythmic-symmetrical, proportional, and directional authorities, subordinate to the idea of the “higher order” (social order), that is, to the “unity of purpose” (*Zweckseinheit*).⁷⁰ Although in Zubrzycki's writing the accents fall in more traditional places, the concept of three axes, on which the particular components of beauty are “suspended,” as well as the inclusion, among the characteristic features of eurhythmia, of “turn,” treated—similarly to Semper's directional authority—as a spatial element, clearly points to the German author's work as a source of inspiration.

In 1904 the Cracow monthly *Architekt* began printing the Polish translation of Semper's dissertation *The Four Elements of Architecture*.⁷¹ So far it is the only full translation of the architect's text (not counting a short excerpt from the introduction to *Der Stil*, included 70 years later by Jan Białościcki in an anthology of source texts on the history of art theory⁷²). This publication did not meet with any response whatsoever; neither was it accompanied by a commentary by the editors. A question arises, therefore, why this particular work of Semper's was chosen for translation? It is not easy to provide an answer to this query. Taking into consideration the fact that, at the same time, the *Architekt* was pub-

lishing *Seven Lamps of Architecture* by John Ruskin and the lecture of Heinrich von Ferstel *Style and Fashion*,⁷³ it can be conjectured that the aim had been to provide the Polish reader with access to works which dealt with the broadly understood issue of “truth” in architecture (the correct use of building materials, resistance to temporary fashions, suitable application of ornamentation and polychromy), and—first of all—with the relationship between architecture and applied art, which was an issue very relevant in the Polish architecture of the day and in the theoretical considerations on this branch of art. In this way it is possible to interpret the five postulates made by Semper in the sixth part of the dissertation, where there is discussion of the relationship between wall decoration and carpet weaving, between climate and local customs and the choice of color schemes, and of the adjustment of painted decoration to the building’s designated use, as well as of the suitability of decoration to the structure used.⁷⁴ An indirect proof for this theory is provided also by the fact that already in 1890 the Cracovian periodical *Czasopismo Techniczne* admiringly referred to Semper’s belief, expressed in his London lecture *Über das Verhältnis der dekorativen Künste zur Architektur*, that “the primary ground for architecture are artisan crafts, which is why building arts will be revived only when modern architects devote more time to the present state of the art industry . . . , from which architecture can derive the inspiration for such a fortunate transformation.”⁷⁵

The importance of Gottfried Semper for Polish architecture and architectural theory in the 19th century was limited. There are undoubtedly many reasons for such a state of affairs. The above survey shows that one of the reasons was the lack of developed contacts with Dresden and Zurich. As far as Vienna is concerned, whose monumental buildings designed by Semper were most likely to have made an impact, it needs to be said that the creators most important to Poles were: Friedrich von Schmidt as a gothicist and Heinrich von Ferstel as, on the one hand, the tutor of the largest number of Polish architects, and on the other hand, the embodiment of an ideal propagator of the Neo-Renaissance.⁷⁶

A Polish theory of architecture was not very developed in the 19th century. After the “longue durée” of Durand came the fashion for Hegelianism and the theory of architectural styles. When architectural education and stronger architectural milieux began to form, Semper began to be perceived either through the prism of the new art, as it was the case with Kováts’s views, or in a very un-specific way (Ekielski), which confirms the thesis of the weakness of theoretical thinking, still visible even around the year 1900. Summing up, it should be stated that the persona, thinking

and achievements of Semper did not exert any major influence on the architecture or on the theoretical tenets of architects in the Polish lands.

TRANSLATED BY JUSTYNA LEŚNIEWSKA

Notes

1. It would not have been possible to write this article without help from my students. Ms. Urszula Bęczkowska MA composed a list of publications which contain references to Semper, while Ms. Joanna Wolańska MA carried out research at the ETH Archive in Zurich. I would like to thank them both for their help.
2. Obituary. *Wędrovec*. V. no. 125. 335.
3. Andrzej Rottermund. *Jean-Nicolas-Louis Durand a polska architektura I połowy XIX wieku* (Jean-Nicolas-Louis Durand and Polish architecture of the first half of the 19th century). Wrocław. 1990.
4. Jacek Purchla. “Krakauer Architekten an der Wiener Technischen Hochschule im 19. Jahrhundert,” *Studia Austro-Polonica*. IV. 1989. 217-230.
5. Zbigniew Biersdorf and Jacek Purchla. *Dom pod Globusem dawna siedziba krakowskiej Izby Handlowej i Przemysłowej* (The Globe House, the former headquarters of the Cracow Chamber of Commerce and Industry). Cracow. 1997. 132-133.
6. Piotr Roguski. “Sterben in Dresden. Polnische Gräber auf dem katholischen Friedhof in Dresden-Friedrichstadt.” *Mit Wort und Tat. Deutsch-Polonischer Kultur- und Wissenschaftsdialog seit dem 18. Jahrhundert* (ed. D. Scholze and E. Tomicka-Krumrey). Leipzig. 2001. 89-90.
7. Rottermund, work cited in note 3 above. 52.
8. Reports of Jan Stróżecki are quoted by Jan Zbigniew Białkiewicz. *Przemiany architektury krakowskiej w połowie XIX wieku* (Mid-nineteenth century changes in Cracovian architecture). Cracow. 1994. 95.
9. *Ibid.* 95.
10. *Ibid.* 97.
11. *Ibid.* 111, 103.
12. Purchla. “Krakau um die Jahrhundertwende und sein kreatives Milieu,” *Kreatives Milieu Wien um 1900. Ergebnisse eines Forschungsgesprächs der Arbeitsgemeinschaft Wien um 1900* (ed. E. Brix and A. Janik). Munich. 1993. 72-73; Roman Lypka. “Die Lemberger Architekturschule: Ihre Rolle und Entwicklungsperioden,” *Baukunst in Galizien. Ausgewählte Materialien des internationalen Symposiums vom 24.-27. Mai 1994, gewidmet dem 150-jährigen Bestehen der Staatsuniversität ‘Lvivska Politechnika’* (ed. B. Tscherskes, M. Kuvbelik and E. Hofer). Lviv. 1996. 108.
13. Martin Fröhlich. *Gottfried Semper als Entwerfer und Entwurfslehrer. Materialien zur Entwurfslehre im 19. Jahrhundert aus dem Zürcher Semper-Archiv* (Ph. D. Diss.) Zurich. 1974. 183-233. Registers of students’ names are also included in the *Programm der eidgen polytechnischen Schule*, published every semester.
14. Matrikelarchiv der Eidgenössischen Technischen Hochschule Zürich (Thomas Pryliński).
15. Michał Kostanecki. *Twórczość architektoniczna Tadeusza Stryjeńskiego na tle epoki* (Architectural creativity of Tadeusz Stryjeński against the background of his era). Cracow and Warsaw. 1937. 15; Fröhlich, dissertation cited in note 13. 233.
16. Aneta Gluzińska. *Zakład OO. Jezuitów pod wezwaniem Św. Józefa w Bąkowicach pod Chyrowem oraz twórcy jego architektury* (The Jesuit School of St. Joseph’s in Bąkowice near Chyrow and the designers of its architecture) (MA thesis). Cracow. 1998. 68-69.
17. *Ibid.* 69-70; Fröhlich, dissertation cited in note 13. 210.

18. Gluzińska, thesis cited in note 16. 71-72.
19. Gluzińska. "Zakład wychowawczy OO. Jezuitów i kaplica p.w. Św. Józefa w Chyrowie" (The School of the Jesuits and St. Joseph's Chapel in Chyrów). *Kościół i klasztor rzymskokatolickie dawnego województwa ruskiego*. I. pt.5. 1997. From the series *Materiały do dziejów sztuki sakralnej na ziemiach wschodnich dawnej Rzeczypospolitej* (ed. J.K. Ostrowski). I. pts. 1-8. Cracow. 1993-2000. 43-44.
20. Karol. Estreicher. "Wspomnienia dwóch krakowian (Wspomnienie Władysława Ekielskiego)" (Recollections of two Cracovians [Recollections of Władysław Ekielski]), *Rocznik Krakowski*. XLVI. 1975. 131 (hereafter Estreicher/Ekielski); Lechosław Lameński. "Z dziejów środowiska architektonicznego Krakowa w latach 1879-1932. Tadeusz Stryjeński i jego współpracownicy" (From the history of the architectural milieu of Cracow in the years 1879-1932. Tadeusz Stryjeński and his collaborators), *Architektura XIX i początku XX wieku* (ed. T. Grygiel). Wrocław. 1991. 23f.
21. Matrikelarchiv der Eidgenössischen Technischen Hochschule Zürich (Thadée Louis Stryjeński).
22. Estreicher/Ekielski, article cited in note 20. 131.
23. Purchla. "Cracow and its architecture at the turn of the century," *Art around 1900 in Central Europe. Art Centres and Provinces* (ed. P. Krakowski and J. Purchla). Cracow. 1999. 88.
24. Wolfgang Herrmann. "Semper's Position on Iron as a Building Material," in his *Gottfried Semper. In Search of Architecture*. Cambridge, Mass and London. 1984. 182; Donald Drew Egbert. *The Beaux-Arts Tradition in French Architecture*. Princeton. 1980. 61f. It is worth adding that the interest of Otto Wagner in iron construction was also a result of French influence: Peter Haiko. "Otto Wagner - Von der 'Renaissance der Renaissance' über die 'moderne Architektur' zur 'Baukunst unserer Zeit'," *Neorenaissance - Ansprüche an einen Stil. Zweites Historismus-Symposium Bad Muskau* (ed. W. Krause, H. Laudel and W. Nerdinger). Dresden. 2001. 234-235.
25. Eugène-Emmanuel Viollet-le-Duc. *Entretiens sur l'architecture*. I. Paris. 1863. II. 1872. This copy, together with other items from the collection, can be found in the Library of the Institute of Art History of the Jagiellonian University in Cracow. There are also some preserved copies of Semper's works in the architect's collection. In the Library of the Polish Academy of Sciences in Cracow there are several brochures bearing the stamp 'T.L.STRYJENSKI/ARCHITECTE/LIMA'.
26. Purchla. "Schronisko Fundacji Księcia Aleksandra Lubomirskiego przy ulicy Rakowickiej w Krakowie" (The Orphanage of the Prince Alexander Lubomirski Foundation in Rakowicka Street in Cracow), *Folia Historiae Artium*. XIX. 1983. 148.
27. Lameński, article cited in note 20. 28.
28. For Winterthur see Fröhlich. *Gottfried Semper*. Zurich and Munich. 1981. 84-87; Harry Francis Mallgrave. *Gottfried Semper: Architect of the Nineteenth Century*. New Haven and London. 1996. 246-251. For Luzern see *Gottfried Semper 1803-1879*. Dresden. 1979 (exhibition catalogue). no. 490; Gisela Moeller. "Semper und Raffael," *Neorenaissance*, work cited in note 24 above. 99-101.
29. Wojciech Bałus. "Die Architektur der allgemeinen Landesausstellung in Lemberg 1894" (being printed).
30. For the relationship between the Bayreuth Theater and Semper's project for the Festspielhaus in Munich see Mallgrave, work cited in note 28 above. 265-267.
31. Jan Hinz. "O budowie teatrów" (On the construction of theaters). *Przegląd Techniczny*. XV. 1882. 54-55.
32. Ibid. 126-127.
33. Zofia Ostrowska-Kęmbłowska. *Architektura i budownictwo w Poznaniu w latach 1780-1880* (Architecture and building in Poznan in the years 1780-1880). Warsaw and Poznan. 1982. 258.
34. Ibid. 442.
35. Purchla. *Teatre i jego architekt/Das Theater und sein Architekt*. Cracow. 1993. 41-45; Lachosław Lameński. "Dzieje dwóch konkursów na projekt nowego teatru w Krakowie" (The history of the two competitions for the design of a new theater in Cracow), *Kwartalnik Architektury i Urbanistyki*. XXIV. 1979. 267-297. The plans were published in "Stattheater für Krakau," *Sammelmappe hervorragender Konkurrenz-Entwürfe*. XXV. 1893. pl.11.
36. Purchla, work cited in note 35. 65.
37. Jurij Birjulov. "Der Wind der Veränderung. Neue Tendenzen in der Architektur Lembergs 1890-1914," *Architektura Lwowa XIX wieku Die Architektur Lembergs im 19. Jahrhundert*. Cracow. 1997. 63.
38. Ákos Moravánsky. *Die Architektur der Donaumonarchie*. Berlin. 1988. 53.
39. Ibid. 51-54.
40. Feliks Radwański, Jr. "O polichromii architektury starożytnej to jest zdobieniu jej kolorami" (On the antique architectural polychromy, that is, on embellishing it with color), *Programma popisów rocznych w Instytucie Technicznym*. 1837. 3.
41. Jan Wdowiwszewki. "Sgraffito pod względem historycznym, technicznym i artystycznym" (The historical, technical and artistic aspects of sgraffito), *Czasopismo Techniczne* (Krakowskie). I. 1880. 16, 32, 43-45, 51-52, 62-65; Piotr Krakowski. "Fasada dziewiętnastowieczna. Ze studiów nad architekturą wieku XIX" (19th century facades. From studies on the architecture of the 19th century), *Prace z Historii Sztuki*. XVI. 1981. 68-69; Monika Bogdanowska. "Sgraffita Krakowa" (Sgraffitos in Cracow), *Teki Krakowskie*. XIII. 2001. 15-46.
42. Krakowski, article cited in note 41. 69.
43. Adam Wolman. "Mowa i działanie linii" (Parlance and impact of lines), *Przegląd Techniczny*. LI. 1913. 169-170.
44. Edgar Kováts. "O zasadach nowoczesnej architektury" (On the principles of modern architecture), *Architekt*. III. 1902. col. 44. Also in *Czasopismo Techniczne* (Lwowskie). XIX. 1901. 303-305.
45. Moravánsky, work cited in note 38 above. 150-153; David Crowley. *National Style and National-State. Design in Poland from the Vernacular Revival to the International Style*. Manchester and New York. 1992. 16-25; Małgorzata Omilanowska. "Searching for a national style in Polish Architecture at the end of the 19th and the beginning of the 20th century," *Art and the National Dream. The Search for Vernacular Expression in Turn-of-the-Century Design*. (ed. N. Gordon Bowe). Dublin. 1993. 102-104.
46. Ekielski. "Spór o zakopiańszczyznę i styl polski" (The controversy on the Zakopane style and the Polish style), *Architekt*. III. 1902. cols. 60-61, 81.
47. Herrmann, article cited in note 24. 183.
48. Gottfried Semper. "The Attributes of Formal Beauty," Herrmann, article cited in note 24. 241; Mallgrave, work cited in note 28. 217-218.
49. Werner Oechslin. *Stilbüse und Kern. Otto Wagner, Adolf Loos und der evolutionäre Weg zur modernen Architektur*. Zurich and Berlin. 1994. 61.
50. Viollet-le-Duc. *Dictionnaire raisonné de l'architecture française du XIe au XVIe siècle*. I. Paris. 1854. 146.
51. Carl Lemcke. *Populäre Aesthetik*. Leipzig. 1867. 320-321. The various ways of connecting the notions of "Kernform" and "Kunstform" in architectural theory at the turn of the century are analyzed by Oechslin, work cited in note 48. 70f.
52. Otto Wagner. *Moderne Architektur. Seinen Schülern ein Führer auf diesem Kunstgebiete*. Vienna. 1895. 58: quoted after Mallgrave, work cited in note 28. 369.
53. Wagner, work cited in note 52. 58; quoted after Mallgrave, work cited in note 28. 369.
54. Kováts work cited in note 44, col. 45.
55. Quoted after Herrmann, article cited in note 24. 138.

56. Mallgrave, work cited in note 28. 355f.; Oechslin, work cited in note 49. 82-85.
57. Quoted after the summary of the lecture: Edw E., "Ruch budowlany i rozmaitości. Odczyt o źródłach i dążeniach stylu współczesnego 'modern' w architekturze" (Progress in building and miscellaneous issues. A lecture on the sources and directions of the contemporary 'modern' style in architecture), *Przegląd Techniczny*. XI. VI. 1908. 210.
58. Carl Gottlieb Wilhelm Boetticher. "Das Prinzip der Hellenischen und Germanischen Bauweise hinsichtlich der Übertragung in die Bauweise unserer Tage," *Festreden Schinkels zu Ehren 1846-1980. Ausgewählt und eingeleitet* . . . (ed. J. Posener). Berlin. n.d. 12-32.
59. Teodor Talowski. "Style u narodów czynnych" (Styles of active nations), *Czasopismo Techniczne* (Lwowskie). XX. 1902. 278-280; Semper. *Der Styl in den technischen und tektonischen Künsten, oder praktische Aesthetik*. I. Munich. 1878. 299.
60. Jacques Le Goff. *La civilisation d'Occident médiéval*. Paris. 1964. 573.
61. Herrmann, article cited in note 24. 124-138; Dieter Dolgner. "Gottfried Sempers Verhältnis zur Gotik und Neogotik," *Wissenschaftliche Zeitschrift der Hochschule für Architektur und Bauwesen Weimar*. XXVII. 1980. 223-231; Heidrun Laudel. *Gottfried Semper. Architektur und Stil*. Dresden. 1991. 131-138.
62. Kováts, article cited in note 44. col. 46.
63. Hanno-Walter Kruft. *A History of Architectural Theory from Vitruvius to the Present*. New York. 1994. 320-322; Mallgrave, work cited in note 28. 368-370; Pieter Singelenberg. *H.P. Berlage Idea and Style. The Quest for Modern Architecture*. Utrecht. 1971. 17-20; Jindřich Vybíral. "Modernism or the National Movement in Prague," *Art around 1900*, work cited in note 23 above, 207-208; Alena Janatková. *Barockrezeption zwischen Historismus und Moderne. Die Architekturdiskussion in Prag 1890-1914*. Zurich and Berlin. 2000. 64-65. 172.
64. Mallgrave, work cited in note 28 above. 355f.; Oechslin, work cited in note 49 above. 82-85.
65. Wojciech Bałus. *Teoria sztuki Jana Sasa Zubrzyckiego. Studium z pogranicza historii sztuki i historii idei* (The theory of art of Jan Sas Zubrzycki. A study on the borderline between art history and the history of ideas) (Ph. D. diss.). Cracow. 1989. On the connection between Zubrzycki and Semper, see Bałus. "W poszukiwaniu utraconej jedności" (In search of lost unity), *Sztuka a technika*. Warsaw. 1991. 153-161.
66. Rottermund, work cited in note 3. 88f.
67. Viollet-le-Duc. "Style," work cited in note 50. VIII. Paris. n.d. 477-478; Bałus. "Zjawisko historyzmu w architekturze wieku XIX. Próba opisu" (The phenomena of historicism in 19th century architecture. An attempt at a description), *Dziela i Interpretacje*. III. 1995. 74.
68. Zubrzycki. *Filozofia architektury. Jej teoria i estetyka* (Philosophy of architecture. Its theory and aesthetics). Cracow. 1894. 205.
69. Ibid. 227-245; Idem. *Utwór kształtu* (Creation of shape). I-III. Cracow. 1912-1916.
70. Semper, work cited in note 59. I. xxxvii-xlii; Idem. *Über die formelle Gesetzmässigkeit des Schmuckes und dessen Bedeutung als Kunstsymbol*. Zurich. 1856. 19-20. On the categories of 'formal beauty' see Heinz Quitsch. *Gottfried Semper - Praktische Ästhetik und politischer Kampf*. Braunschweig and Wiesbaden. 1981. 64-65; Lauden, work cited in note 61. 168-169; Mallgrave, work cited in note 28. 276.
71. "Cztery pierwastki sztuki budowlanej. Przyczynek do porównawczej umiejętności budowniczej przez Gottfrieda Sempera, byłego dyrektora szkoły budowlanej w Dreźnie" (The four elements of architecture. A contribution to comparative construction skills by Gottfried Semper, former Director of the Building School in Dresden). *Architekt*. V. 1904. cols. 65-72, 81-90, 97-102, 113-116. 129-136, 145-152, 161-174, 177-186; VI. cols. 1-12, 17-24.
72. Semper. "Styl w sztukach technicznych i tektonicznych, czyli estetyka praktyczna" (Style in technical and tectonic arts, or practical aesthetics), *Teoretycy, artyści i krytycy o sztuce 1700-1870* (ed. E. Grabska and M. Poprzęcka). Warsaw. 1974. 492-495.
73. John Ruskin. "Siedem lamp architektury" (Seven lamps of architecture), *Architekt*. III. 1902. cols. 137-146 153-156; IV. 1903. cols. 1-10. 17-22, 29-34, 41-48, 53-56, 61-64, 69-70; Henryk Ferstel. "Styl i moda" (Style and fashion), *Architekt*. IV. 1903. cols. 99-108, 113-116, 123-130.
74. Semper. *Die vier Elemente der Baukunst. Ein Beitrag zur vergleichenden Baukunde*. Braunschweig. 1851. 100-101. In the Polish translation: *Architekt*. VI. 1905. cols. 22-24.
75. "Studiowanie form natury" (The study of the forms of nature), *Czasopismo Techniczne* (Krakowskie). IV. 1890. 111-113.
76. Piotr Krakowski. "Architektura neogotyca w Krakowie" (Neogothic architecture in Cracow), *Folia Historiae Artium*. XX. 1984. 142; Purchla, article cited in note 4, 222f.