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RESEARCH ARTICLE

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Abstract

The aim of the article is to analyse how functional thinking can be reflected in the activity of a historicizing architect, or how his thoughts could influence his followers' later activity.

In the first decades of the 20th century, architecture was characterized by a special duality: the increasingly vigorous emergence of modernity next to the insistence on the historical forms. While the main characteristic of Samu Pecz's (1854-1922) historicizing architectural style resulted from his adherence to the historical, particularly the mediaeval styles, with their practicality, his works emerged amongst the work of his contemporaries, who also saw to realize principally in his work "to build from inside outwards". This thought is analysed in several of Pecz's buildings, which were designed for the Campus of the Technical University in Lágymányos (a southern district of Buda) in Budapest.

Besides his remarkable oeuvre as an architect, Samu Pecz was also a great scholar and lecturer of the Technical University. As one of his pupils, Béla Rerrich summarized, Samu Pecz "... was a genuine master of structures." It is true that he always emphasised the importance of finding solutions to structural issues. He helped the spread of constructional innovations in Hungary, especially iron and ferroconcrete structures.

Keywords

Samu Pecz · Historicism · functional design · campus of the Technical University

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Architectural oeuvre of Samu Pecz

Functional Thinking in the Architecture

of Samu Pecz and his Followers

Samu Pecz (1854-1922) started his architectural studies in 1871 at the Royal Hungarian Joseph Technical University where he studied for two years in the architectural department. From 1873 on for two years, he attended the Technical University in Stuttgart, and then the Art Academy in Vienna, also for two years. After he returned home, he worked for eighteen months assisting Frigyes Schulek in the reconstruction project of the parish church of Our Lady Mary in Budavár (widely known as Matthias Church), and meanwhile was able to study the structures and forms of Gothic architecture, which had a great effect on his following architectural works. In 1882, he earned his degree from the Hungarian Royal Joseph Technical University as one of the first architects with a Hungarian diploma. [21, pp. 1-2]

Between 1880 and 1882, he worked with the team of Alajos Hauszmann, a professor of the university. From 1882 on, he was appointed an assistant of the departments of *Középítéstan* (in today's meaning Building Construction) and mediaeval architecture. His professors were János Schnédár and Imre Steindl. In 1887, he was promoted to honorary lecturer of antiquity architecture, and the next year, at the age of 34, he was appointed a specialist professor of public projects. From this time forward, he was also the head of the No. 2 Department of *Középítéstan* as its professor. In these capacities, he taught construction to architectural and engineering undergraduates. Samu Pecz was the head of the department for 34 years until his death in 1922. [21, pp. 2-5]

Besides his activities as a professor, Pecz also had a remarkable practice as a designing architect, sharing with and passing on the joy of creation to his students.

The career of Samu Pecz as a designer architect started in the 1880s. The Saint Helen's Catholic Church in Nádasdladány was built, following his concept, in 1884–1885 in a historicizing, Neo-Gothic style, as the Calvinist church in Kossuth Lajos Street, Debrecen in 1885-1888. He formed its facades with unfired brick and plastered surfaces, representing the master's latter unique architectural manner. The church and tenement house of the Unitarian church in Budapest were built in 1889–1890 based on his revised designs. [21, pp. 3-4] Based on his prize-winning designs, the most important ecclesiastic building ever designed by Pecz, the Calvinist church in Szilágyi Dezső Square in Budapest, was built with only minor amendments between 1892 and 1896. One of his most magnificent works, the Central Market Hall of Budapest was constructed between 1894 and 1896, and was described in his memoirs: "I strove with all my endeavour, pairing my architectural art qualification with my plenteous structural knowledge, to set up such a hall building with the adequate harmony in all of its parts, which can be considered completely satisfactory according to the viewpoint of the arrangement and also the economy..." [21, p. 11.]

In 1898, Pecz designed the so-called Gólyavár ("Stork Castle"), which was meant to function as a temporary auditorium until the completion of the new technical university building, but has existed and preserved its original function ever since as a low-budget lecture hall on the campus of the old Technical University with a seating capacity of 600 students. Much like a castle, this turreted building has an irregular octagonal floor plan with structural solutions that were technical bravura back in those days. Pecz covered the auditorium with steel strut grills and wooden beams. In the 1890s, Pecz also designed tenement houses in Budapest: two tenement houses commissioned by the Wirnhardt family at No. 66-68 József Boulevard, and the three-storey tenement house owned by Ármin Pecz (District VIII, Kálvária Square No. 8). In 1900, a state-run major grammar school in Beregszász, and later, in 1902, a minor school in Ungvár were built after designs by Pecz. He was commissioned with the project of the Naval Academy in Fiume after winning the design contest in 1901. Between 1903 and 1905 a new grammar-school building and church were built after his plans in Budapest in the Városligeti Fasor at the request of the Lutheran church. The facades were also designed here with the use of the Gothic architectural forms. [21, pp. 11-18]

After Győző Czigler's death in 1905, Professor Alajos Hauszmann was appointed to continue the construction project and campus design works of the new ensemble of the Technical University in Lágymányos (a southern district of Buda) in Budapest. Hauszmann revised ideas by Czigler producing new designs. He took over responsibility for design of the Central Building, Geodesic Observatory and garden installations for himself. Samu Pecz was appointed to design and manage the construction of the other pavilions, including the Library, the Boiler-House and the Mechanical Engineering Department buildings (the Applied and Agricultural Mechanics Laboratory, the Mechanical Technology Building, the Engines Laboratory). Pecz was awarded the position of Royal Advisor for all buildings of the campus, which were constructed in parallel. The ensemble was completed in 1909. [1] [12] [13] [14, vol. 2. pp. 329-330] [17, pp. 34-40] As all buildings had special functions, Pecz made separate studies, and designed the buildings with different arrangements and masses according to their allocations. [21, pp. 19-27] However, their facade forming was similar: mediaeval stylistic characteristics occur with the harmony of the terracotta colour or unfired brick and plastered surfaces.

In 1905, Pecz was commissioned to design the Calvinist secondary grammar-school in Debrecen, the two-storey building was constructed between 1911 and 1913. However, because of his illness, he only managed to finish his sketches and a preliminary design, leaving the task of working out the details and managing the construction for his associate professor, Károly Nagy. In 1911, Pecz produced the designs of a five-storey house for civil servants on the corner of Üllői Road and Haller Street. [21, pp. 28-29, 38-39]

Pecz designed the first drafts of his last major project, the Hungarian National Archives in 1898. The construction, delayed for a long time, began in 1913 and was only completed in 1926, after the death of the architect, with Károly Nagy's guidance. When working on these designs, Pecz prioritized efficient lighting as well as fire protection. Despite the up-todate structural and functional solutions, he also used mediaeval forms and elements freely. [21, pp. 29-37]

Although Pecz's works are characterized by a thorough knowledge and adaptation of historical, principally mediaeval styles, his works, with their practicality, emerged amongst the works of his contemporaries. When referring to his own buildings in his memoirs, Samu Pecz always emphasised the importance of certain aspects of design, such as practicality and structuring, the costs of construction and the budget savings he achieved as well as issues of fire-protection, whilst he simply failed to mention artistic concerns. His contemporaries also saw to realize, chiefly in his works, "to be material-like" and "to build from the inside outwards": "Pecz's architecture was developed and built from the ground-plan up and from its construction". [19] To design his churches or other public buildings, he always started from the function. Thus, he planned with great ingenuity, the Calvinist church in Szilágyi Dezső Square evolving the floor-plan from a regular pentagon.

As one of his pupils, Béla Rerrich summarized, Samu Pecz "...was a genuine master of structures." [23] It is true that he always emphasised the importance of finding solutions to structural issues, and he prioritized structural principles as opposed to architectonic effects. He helped the spread of constructional innovations – especially iron and ferro-concrete structures – in Hungary. He planned every part of his structures in a "graphostatic manner" (statically calculated). As a professor of building constructions (tectonics) he solved numerous structural-technical tasks by integrating the most modern structures and historicizing exterior forms that were difficult to reconcile.

The architectural problematics of the buildings of the Technical University

The architects of the 19th century tried to find the right balance between the historicizing traditions and the rapidly varying, up-to-date demands. Samu Pecz as the professor of architecture dissolved this contradiction with the latest architectural means. His distinctive concept is perceptible in its most ingenious form in his buildings in the campus of the Technical University. While higher education, this new, earlier, nearly unknown demand appeared as an imaginative functional task, contemporary architectural education also required the architect to design the function, the space and mass forming, and the details of his buildings in a simultaneously exemplary and artistically convincing way.

In the earlier period of the history of architecture – also at the level of middle-class mass-architecture – spaces were designed for several functions. Functionally separate clusters of buildings occurred occasionally, but the equivalent external character remained. Later, a special division between different storeys also developed within the buildings (e. g. behind the typical palatial facades). In the 18-19th centuries, functional spatial connections also originated inside the storeys. The buildings externally stayed historicizing, appearing with façade and mass forming according to autonomous artistic intention. Later, at the end of the 19th century, the demands of the different functions became characteristic. Increased contradiction developed between the external appearance and the internal space. [15, p. 203] This turned into a characteristic phenomenon in case of certain building types such as theatres, libraries, or railway stations.

The same contradiction was also perceptible in educational institutions, which were built for an increasing volume of students. [5] And thus, Samu Pecz encountered the problems of collectively appearing, different space demands in the course of the design of his buildings in the campus of the Technical University. The customary design practice generally used the architectural shaping either the mass masked with a scene or the functions differently emphasized. Pecz applied both. He set out from the additive forming of Romanticism, because this gave the best scope for the shaded separation of different functions. This decision may have originated from his education and personal character.

Pecz designed conscious space compositions. The access to the certain buildings played an important part in the functional arrangement. In the course of the planning and construction of the campus of the Technical University, the relationship between the buildings was altered. While Győző Czigler designed the main accesses of the buildings from the adjacent streets on his site plan published in 1900 (fig. 1) [4], during the construction – according to Hauszmann's and Pecz's plans – everything was reorganized (fig. 2). The Chemistry (Ch) and the Physics (F) Buildings were carried out according to Czigler's plans, but the concept was changed after his death. Hauszmann retained the main appearance and access from the bank of the

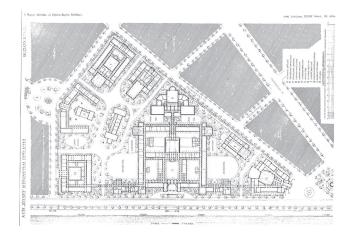


Fig. 1. Győző Czigler's site plan concept on the campus of the Technical University, 1900. (After Czigler [4, t. IX.], [17, pp. 34-35]) A. Central Building. B. Pavilion of Architects. C. Administrators' residences. D. First year students' pavilion. E. Chemistry Pavilion. F. Geodesics Pavilion. G. Library. H. Youth Pavilion. I. Physics Pavilion. K. Machine shop and agricultural machinery studies building. L. Experimental building. M. Engine-house.

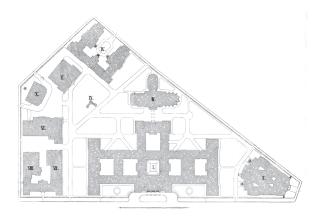


Fig. 2. The site plan of the erected campus of the Technical University, 1909. (After Hauszmann [12, p. 2] [13, pp. 266-267]) I. Központi épület. Central Building (Hauszmann, plans 1905-06, built 1906-09). II. Kémiai épület. Chemistry Building (Czigler, plans 1897, built 1902-04). III. Könyvtárépület. Library Building (Pecz, plans 1905-07, built 1907-09). IV. Fizikai épület. Physics Building (Czigler, plans 1902-04, built 1904-06). V. Géplaboratórium. Engines Laboratory (Pecz, plans 1905-07, built 1907-09). VI. Mechanikai Technológia. Mechanical Technology Building (Pecz, plans 1905-06, built 1907-09). VII-VIII. Műszaki Mechanika és Mezőgazdasági Géplaboratórium. Applied and Agricultural Mechanics Laboratory (Pecz, plans 1905-07, built 1905-07, built 1906-09). IX. Geodéziai obszervatórium. Geodesic Observatory (Hauszmann, 1909). X. Kazánház. Boiler-House (Pecz, plans 1905-06, built 1907-09). [1]

Danube in the new plans of the Central (K) Building [26]. Between Pecz's buildings, the street access was still retained in the Applied and Agricultural Mechanics Laboratory (MM-MG), but the Mechanical Technology (MT) Building was orientated to the inner side, towards the campus. The same modification is perceptible in the case of the Engines Laboratory (L). The most picturesque building, the Library is connected to the Central Building, following Czigler's original concept in its access and arrangement. [12] [13]

Analysing the building of the Applied and Agricultural Mechanics Laboratory (MM-MG Building), its strict symmetrical, palatial façade appears from the Műegyetem Quay, but the dual function evolved only on the two rear wings with their free arrangement. The main access is in the middle axis in theatrical way. The middle-wall structural system resulted in spaces opening from each other, but freely fractional with partition walls. This wing was able to mask behind it the complex, varied mass (fig. 3-4). The programme of the building developed almost during the design process, and this vagueness demanded functional flexibility. The spaciousness of the places was restricted only by the capacity of the site. The long wings served the free arrangement of the technology. In the wing on the quayside, readily flexible, smaller rooms were placed, but in the other wings joined at right angles, a series of rooms according to the varying demands. Supposedly, the U-form arrangement of the Physics Building could have affected the design of the MM-MG Building with its composite functional programme, because Samu Pecz was also awarded the position of Royal Advisor for the F building after Győző Czigler's death. [11]

The Mechanical Technology (MT) Building shows a distinct solution. During the construction, an internal axis developed in the garden of the campus parallel with the Danube. This phenomenon also rearranged the service system of the F Building, opening a new access from the garden according Hauszmann's suggestion. [16] The revaluation of the internal court façades required the aesthetic architectural closing of the "back yard". Thus, the MT Building became "two-faced". The readily divisible, smaller rooms with a fixed layout were built along the two-façade sections, which became important and emphasized. [7] They masked the "hall", with its already great span, which could be so freely equipped (fig. 5-6). It is well known, that the continuously updated mechanical engineering instruments needed informality in their setting and linking, as in the other engine rooms of the period. Pecz strove to mask this oversized technological space demand.

Similarly to the MT Building, the Engines Laboratory also shows the example of a spatial connection between the series of premises, which can be clearly determined functionally, with a freely proportioned place, and between the engine-room, which can give the greatest variability. The main access to the building is from the garden in the symmetry axis. Along a passage, which is perpendicular to the entrance, almost any kind of technological connections could be formed, so resulting in an unquestionably up-to-date and modern solution (fig. 7-8). The single-storey wing was emphasized, reducing the optical effect of the real mass. [8]

This solution was used in the planning of the neighbouring Boiler House, but without particular spatial connections. The arrangement of the rooms was influenced only by the

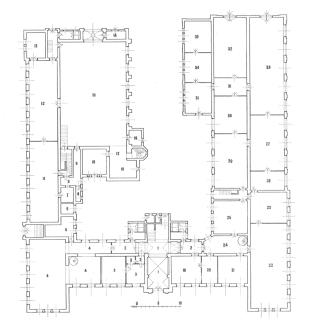


Fig. 3. The first floor plan of the Applied and Agricultural Mechanics Laboratory. (After [6, p. 466] [12, p. 31] [18]) 1. Hall. 2. Passage. 3. Servant's quarters. 4. Laboratory. 5. Small room. 6. Spare room. 7. Dark room. 8. Storage of benzine. 9. Store-room. 10. Coal-cellar. 11. Collections. 12. Mechanical workshops. 13. Tool store. 14. Generation of gas. 15. Room for testing machinery. 16. Lavatory. 17. Passage. 18. Tower. 19. Office. 20. Assistant's room. 21. Adjunct's room. 22. Laboratory for students use . 23. Pounding room. 24. Cloak room. 25. Polishing room. 26. Refrigerating room. 27. Mechanical workshop. 28. Werder machines. 29. Cement laboratory. 30. Damp room. 31. Store room. 32. Concrete store. 33. Furnace. 34. Steam room.



Fig. 4. The wing of the Agricultural Mechanics Laboratory from west in 1900 (After Balogh, R [3] [6, p. 466] . [12, p. 32])

picturesque view of the building's mass given by the smaller and larger spans. The large-scale Boiler House was also able to appear smaller from the direction of the campus similarly to the Engines Laboratory (fig. 9-10). [9]

Pecz regarded the Library Building as the most important. The T-shaped ground plan was still Czigler's concept, but the

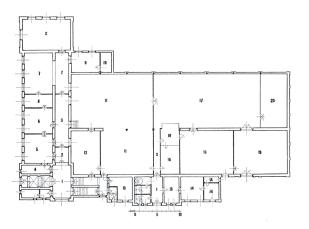


Fig. 5. The first floor plan of the Mechanical Technology Building. (After [6, p. 481] [18]) 1. Hall. 2. Ante room. 3. Passage. 4. Servant's quarters. 5. Room of Professor's assistant. 6. Professor's room. 7. Store room. 8. Metal-testing room. 9. Paper-testing room. 10. Dark room. 11. Spinning room. 12. Calendering-room. 13. Cloak room and lavatory for use of students. 14. Servant's quarters. 15. Storage of tools. 16. Foreman's quarters. 17. Mechanical workshop. 18. Smithy. 19. Foundry. 20. Joiner's workshop.



Fig. 6. The MM-MG and MT buildings from west, 1920s. (After [14, vol. 7. p. 1632] [25, pp. 230-231])

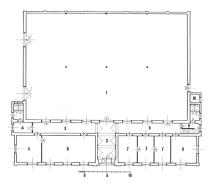


Fig. 7. The first floor plan of the Engines Laboratory. (After [6, p. 482] [12, p. 26] [18]) 1. Engine room. 2. Hall. 3. Passage. 4. Lobby. 5. Weighing room (scales). 6. Lecture room (for demonstrations). 7. Professor. 8. Lavatory and cloak room. 9. Passage. 10. Storage of benzine.



Fig. 8. The Mechanical Technology Building, the Boiler House and the Engines Laboratory from the north from under the "Bridge of Sighs" in 1909. (After [2, p. 995] [3] [12, p. 22] [14, vol. 7. p. 1633])

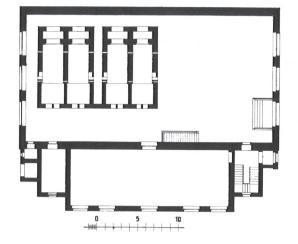


Fig. 9. The first floor plan of the Boiler House. [12, p. 35]



Fig. 10. The Boiler House from the direction of the Engines Laboratory. (Photo by Gy. Balogh, Á.)

executed functional arrangement was Pecz' own solution. [22] Czigler earlier suggested a library freely accessible from a central room, and this was followed by Pecz as well. However, while the earlier version would have resulted in a central mass, Pecz's concept shows an axially arranged building. Pecz gives the building a character parallel with the Danube and the Central Building opposite Czigler's central building appearing as independent mass. The difference of the tripartite function of the library is significantly stressed on Pecz's design (readingroom, repository and administrational wing) (fig. 11-12). [10]

The alteration was caused probably by the required architectural atmosphere of the reading room, and also a reference to the chapels of mediaeval campuses, which may have also influenced the decision. It is interesting that during the design process, the enlarging of the volume of the book repository emerged, but Pecz retained the extant functional proportions - perhaps because of the idea of the space quotation. This is verified in a registration of a contemporary protocol: "For the placing of the library, Alajos Hauszmann and Samu Pecz account that the library is placed the most subserviently, the proportionality of its parts is exactly in the plan, and the building department conflicted with its own self criticizing, that the main rooms are not properly emphasized externally, because just the main reading room and the repository appears on the façades, characteristically with exteriors fitting their functions. Practicality is the main aim of such buildings, the same is also valid for the Applied and Agricultural Mechanics Laboratory yet more so." [20, p. 19]

These listed buildings of the Technical University campus show the special architectural concepts of Samu Pecz. These were such solutions, which represented the problems appearing at the turn of the 19th and 20th century along with the rapidly changing modernity. It may seem evident that the architect emphasized the division of the invariable and variable functions, so that the architectural spaces with invariable functions remained readily organisable according to the traditions of historicism. These smaller, in their extent, determinable rooms, "cells" and series of spaces were built on that side, which became more significant from the aspect of the spectacle, thus enabling a composition according to the principles of historicism on the façades and in the masses. The bigger spaces were connected along linearly developing, long-drawn passages to the forms of historical character. This solution was perfectly realized in the Engines Laboratory. In the case of the other buildings, the arrangement was modified according to the conditions that were given by the surroundings and the inner functions. Samu Pecz suggests that "...the whole genesis of these buildings is different, than that of the first pavilions. New plans were designed here three and indeed four times, which were presented to subject teachers, before accepting them. The Central building must be academic, because some parts must serve different purposes. For the buildings for special purposes,

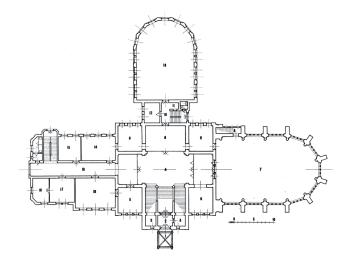


Fig. 11. The first floor plan of the Library Building. (After [6, p. 454] [12, p. 23] [13, p. 284] [18]) 1. Connecting passage. 2. Lobby. 3. Small room. 4. Hall. 5. Professor's study. 5. Cloak room for students. 7. Reading room for students. 8. Stairs leading down to closets. 9. Reference library. 10. Passage. 11. Lift. 12. Classifying room. 13. Book-room. 14. Administration. 15. Reading room for Professor's assistants. 16. Librarian's study. 17. Librarian's reception-room. 18. Reading room for Professors.



Fig. 12. The Library Building from north in 1909. (After Balogh, R. [3] [6, p. 490] [12, p. 20] [25, pp. 232-233]

just the unrest of the ground plan gives their power, because it is visible from this, that their ground-plans designed according to the different, special requests, were formed from inside outwards, and besides also striving to show artistic exterior on the whole." [20, p. 18]

Indeed, an interaction existed between the functional arrangement, the forming of spaces connected with it and the structural solution that enabled it. The internal form was continuously harmonized with the external appearance. The span demands corresponding to the forming of spaces determined the required structural differences, so customary-sized, traditional and large-scale, recent constructions were counted beside each other. All these were realized along the academic severity of the architectural design. We have to mention that Pecz and his architectural partners gained their experience from German speaking areas. In Vienna, the restriction of the "Strenge Historismus" had succeeded for some decades. Among others, Theofil Hansen, designer of the Parliament building in Vienna and Pecz's former master, was a typical representative of this principle. [21, p. 1] However, in the case of the Technical University campus, next to the regular, historicizing use of the façade systems, the architects also followed the rapidly changing functional demands of the era.

Pecz often designed space citations, especially in case of passages or halls: this effect is unequivocal in the hall and reading room of the Library building. He planned new constructions in case of engine-rooms or other workshops, and repositories functionally required for the training of mechanical engineers. Instead of vaults with fixed proportions (the brick vault of the Library) Pecz ranged there standard supports for the sake of flexibility (MM Building, steel construction; MT Building, a structure of reinforced concrete; Engines Laboratory, plan steel construction but executed with reinforced concrete). He had already ensured the variability of the interior space with these larger span structures and with the experimental technology of his era. The innovations appearing in Europe at the turn of the 19th and 20th centuries arrived within a few years to Hungary, with Hungarian innovators also contributing to the development in some cases.

The appearance of these buildings permanently reflected the harmony of Historicism despite their internal modernity. Characteristic of Pecz's mass forming was the additive handling of the functional elements. This opened the way towards the designing freedom required for the new tasks. The possibility of the "coded Romanticism" appeared in this freedom; Pecz perhaps also followed the mediaeval historicism. Thus, the increasing diversity of the functional elements interacted with his choice of the style. In his activity, Historicism adapted specifically to the architectural changes.

In Pecz's architectural detail, cultural marks of the modern form appear side by side as the large extents, the united forms, the schematic openings. On the other hand, he stayed with the historicizing mass forming and detail culture; such elements are for example the projection as the essential component of the eclectic composition, the importance of the effective access (of the axiality), the tower as a stressed shaping device, and the virtuoso use of the structures as an integrated experience gained from the Middle Ages.

The effect of Pecz on his pupils and followers

Besides his remarkable oeuvre as an architect, Samu Pecz was also a great scholar and lecturer of the Technical University and a well-liked professor praised by his students in spite of his rigorousness. His architectural concepts that included the logical planning of the structure; the increasingly fulfilled functional demands; the architectural composition based upon additive and analytic attitude, and the reformist experience that started from tradition, also influenced the professional activities of his pupils. Most of them, however, had already abandoned the frames of Historicism. They composed in the world of the upto-date Turn of the Century and Pre-Modern architecture, but henceforward, they still used the principles learnt in the process of the late Historicism. Pecz's pupils, assistants and colleagues in his offices, who were influenced by him include: Károly Arvé, Leó Bloch, Adorján Gaál, László Kiss, Iván Kotsis, Pál Lipták dr., Elemér Moll, Károly Nagy, Márton Nagy, Mihály Rátkovics, Béla Rerrich, Gyula Sándy, Lajos Schodits, László Takács, Zoltán Tornallyay, Albert Vig. [21, p. 40] Initiated by his students (Béla Rerrich, Gyula Sándy and Leó Bloch), an ornamental fountain was erected in his honour in 1929 next to the church he had designed in Szilágyi Dezső Square; it was designed by architect Béla Rerrich, formerly an assistant of Pecz and sculptor Lajos Berán; it portrays Pecz in the attire typical of medieval master builders. [19]

The most typical influence of Pecz can be detected in the architectural character that shortly appeared (survived) in the developing tendency of structural design in architectural education. Pecz, as the head of the No. 2 Department of Középítéstan, taught within his institute today's subject of "Building constructions". (This department was later transferred to the Faculty of Civil Engineering, becoming the predecessor of the Department of Architectural Engineering.) Here, he was followed as the head of the department by Károly Nagy, who was also his colleague in some of his works. In the same way, Pecz also influenced the No. 1 Department of Középítéstan (institute of János Schnédár) through his pupils. After Gyula Sándy, Károly Arvé, as the head of department, represented the values learnt from his master (this department changed to the Department of Building Constructions in Arvé's time, then László Gábor took over its lead). [14, vol. 8. p. 1774]

Béla Rerrich was one of Pecz's most significant pupils, his former assistant and colleague, who emphasized his intention deriving from Samu Pecz. He wrote in his memoir in German and also in English:

"A fundamental reasonableness in architectural work is in advance a guarantee of its success. A clear, well thought out plan of structure, a good space arrangement, a sure solution to the technical questions and a proper handling of materials will produce a building that is clear, logical and good and must please the modern sense of comprehension. Some years at the Technical High School as assistant to Professor Pecz trained trained my architectural imagination in this direction. – Professor Pecz was a follower of the Gothic, but an apparent contradiction, animated with the most modern ideas. The Gothic was my point of departure. I hold the remembrance of my master in deep gratitude and the erection of a Memorial to his memory was conceded to me." [24, p. XIX]

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References

- Armuth M., Lőrinczi Zs. (eds.), A Budapesti Műszaki és Gazdaságtudományi Egyetem történeti campusa – The Historic Campus of the Budapest University of Technology and Economics,6 Bt, Budapest (2013).
- 2 Balogh R., Az új Műegyetem. (The new Technical University), Vasárnapi Újság, 56/48, 989–995 (1909).
- 3 Balogh R., Fényképek az új műegyetemről. (Photographs about the new Technical University), s. a., s. d. [About 1909]
- 4 Czigler Gy., A királyi József-műegyetem új épülete. (The new building of the Royal Joseph Technical University), Magyar Mérnök- és Építész-Egylet Közlönye, 34, 581–583. t. VIII–IX. (1900).
- 5 Durm J. (ed.), Handbuch der Architektur Unter Mitwirkung von Fachgenossen. Viertel Theil, Entwerfen, Anlage und Einrichtung der Gebäude. 6. Halb-Band: Gebäude für Erziehung, Wissenschaft und Kunst. Heft 2. Hochschulen, zugehörige und Verwandte wissenschaftliche Institute, Verlag von Arnold Bergsträsser, Darmstadt (1888).
- 6 *Építő Ipar*; 52, p. 454., 466., 481., 482., 490 (1909).
- 7 Frey Gy. P., A Mechanikai Technológia épülete. (The Mechanical Technology Building), in 'A Budapesti Műszaki és Gazdaságtudományi Egyetem történeti campusa – The Historic Campus of the Budapest University of Technology and Economics (Armuth M., Lőrinczi Zs. eds.)' 6 Bt, Budapest,182-191 (2013).
- 8 Gy. Balogh Á., A Géplaboratórium épülete The Engines Laboratory, in 'A Budapesti Műszaki és Gazdaságtudományi Egyetem történeti campusa – The Historic Campus of the Budapest University of Technology and Economics (Armuth M., Lőrinczi Zs. eds.)' 6 Bt, Budapest, 204-211 (2013).
- 9 Gy. Balogh Á., A Kazánház és a kémény The Boiler-House and the chimney, in 'A Budapesti Műszaki és Gazdaságtudományi Egyetem történeti campusa – The Historic Campus of the Budapest University of Technology and Economics (Armuth M., Lőrinczi Zs. eds.)' 6 Bt, Budapest, 192-203 (2013).
- 10 Gy. Balogh Á., A Könyvtár épülete The Library Building, in 'A Budapesti Műszaki és Gazdaságtudományi Egyetem történeti campusa – The Historic Campus of the Budapest University of Technology and Economics (Armuth M., Lőrinczi Zs. eds.)' 6 Bt, Budapest, 128-161 (2013).
- 11 Gy. Balogh Á., A Műszaki Mechanika és Mezőgazdasági Géplaboratórium épülete – The Building of the Applied and Agricultural Mechanics Laboratory, in 'A Budapesti Műszaki és Gazdaságtudományi Egyetem történeti campusa – The Historic Campus of the Budapest University of Technology and Economics (Armuth M., Lőrinczi Zs. eds.)' 6 Bt, Budapest, 162-181 (2013).
- 12 Hauszmann A., A magyar királyi József Műegyetem új épületei. (New buildings of the Royal Hungarian Joseph Technical University), Hornyánszky, Budapest (1909).
- 13 Hauszmann A., A királyi József-Műegyetem új otthona. (New home of the Royal Joseph Technical University), Magyar Mérnök- és Építész-Egylet Közlönye, 43, 265–288 (1909).



- 14 Héberger K. (ed.), A Műegyetem története 1782–1967. (History of the Technical University 1782–1967), BME Központi Könyvtár Fotólabor, Budapest, Vol. 1–8 (1979).
- 15 Kalmár M., Az építészet története. Historizmus. Századforduló. (History of the architecture. Historicism, Turn of the century), Nemzeti Tankönyvkiadó, Budapest (2001).
- 16 Kalmár M., A Fizikai épület The Physics Building, in 'A Budapesti Műszaki és Gazdaságtudományi Egyetem történeti campusa – The Historic Campus of the Budapest University of Technology and Economics (Armuth M., Lőrinczi Zs. eds.)' 6 Bt, Budapest, 76-91 (2013).
- Keszei P., A Budapesti Műszaki Egyetem telepítéstörténete az óbudai káptalani háztól a lágymányosi egyetemvárosig, 1782–1871–1971. (The location history of the Technical University of Budapest from the Chapter House in Óbuda to the campus in Lágymányos 1782–1871–1971), BME, Budapest (1971).
- 18 A királyi magyar egyetemek épületei (Buildings of the Royal Hungarian Universities), Magyar királyi tudományegyetemi nyomda és Klösz György és fia műintézete, Budapest (1908).
- 19 Magyar V., Pecz Samu emlékezete, Döbrentei-téri Emlékkútja avatása alkalmából. (Commemoration of Samu Pecz, inauguration of his fountain in his honour in Döbrentei Square), Magyar Mérnök- és Építész-Egylet Közlönye, 63/43-44, 269-270 (1929).
- 20 Műegyetemi építési bizottság VIII-tól XXX-ig írt jegyzőkönyvek, 1902 évtől 1909 évig – A lágymányosi telep építkezései (Protocols of the building committee of the Technical University VIII-XXX. 1902-1909. – The construction of the campus in Lágymányos), Manuscript, Protocol of the XXVIII. session, 17. July 1906. Archives of the Budapest University of Technology and Economics
- 21 Pecz Samu műépítész, műegyetemi tanár életrajzi adatai és munkálkodása saját leírása szerint. (Autobiography of Samu Pecz), Manuscript, Budapest, 1920. Budapest University of Technology and Economics, OMIKK Library
- 22 Pecz S., Az új Műegyetem könyvtárépülete. (The Library building of the new Technical University), Építő Ipar, 52, 493–494 (1909).
- 23 Rerrich B., Pecz Samu. Magyar Mérnök- és Építész-Egylet Közlönye, 56/40-41, 303 (1922).
- 24 Rerrich B., Meine Arbeiten / Rerrich Béla. Genf (1930).
- **25** Zelovich K., A m. kir. József Műegyetem és a hazai technikai felsőoktatás története (The history of the Royal Hungarian Joseph Technical University and the Hungarian technical higher education), Pátria, Budapest (1922).
- 26 Zsembery Á., A Központi épület The Central Building. in 'A Budapesti Műszaki és Gazdaságtudományi Egyetem történeti campusa – The Historic Campus of the Budapest University of Technology and Economics (Armuth M., Lőrinczi Zs. eds.)' 6 Bt, Budapest, 92-127 (2013).

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