GYŐZŐ MIHAILICH

1877—1966

Born a century ago, Professor Dr. Győző Mihailich, member of the Hungarian Academy of Sciences, Kossuth Prize winner, retired two decades ago, after 58 years spent working on reinforced concrete construction. For 37 years he was head of the Department of Bridge Construction II at the Technical University, Budapest.

His multifaceted, outstanding personality comes to light when we look at his list of achievements in educational and scientific activity, engineering works, participation in public life. His eminent engineering abilities, unique sense of creation are seen by the excellent design, at the age of 30, of the Liget-street bridge in Temesvár — Podul Traian in Timisoara — the world's largest reinforced concrete beam bridge at that time with its 38.42 m middle span. (Originality of the construction is seen e.g. by the book of Academician G. P. Peredery, published in Moscow, 1951, referring to this bridge not as a monument to construction history but as a practical example.) The versatility of Győző Mihailich is proven by the fact that soon after this world-wide acclaimed work of reinforced concrete, he is seen engaged in the design of steel trusses for the road bridge over the Tisza River at Szolnok.

His unmatched inventiveness made him responsible for a score of engineering structures. At the same time it can be stated that his life was spent in forwarding education and research in the field of reinforced concrete, and his name is credited with the introduction and development of this subject at the University. His lectures united knowledge of materials, their properties, the theory of structures, and construction. His books, textbooks and lectures reflect the principles of complex education.

He soon recognized education and construction to be doomed to failure without research. This is why he strived to create the first research station for reinforced concrete construction in Hungary, i.e. the Laboratory of Concrete and Reinforced Concrete Construction of this University, directed and encouraged by him from 1931 to 1957. Another of his ideas is of no less actuality, namely that engineering education must not end with the university curriculum. Since the mid-thirties he urged to establish the Institute of Post-Graduate Engineering Education, becoming its first director. Later he himself was responsible for further developing the institute.

Because of his rich experience in public life and attractive human qualities, he held several high positions at the University and in scientific life. His human qualities and helpfulness urged him, after World War II, to utilize his high positions in creating conditions for a new life, in realizing the material and intellectual reconstruction.

Several generations of students have grown up under his direction. To hundreds of engineers he showed an example of devotion to one's profession, to the service of engineering and social progress. Those who were students at the Faculty of Civil Engineering of this University during the first six decades of this century, are proud of having been his pupils. The Hungarian community of engineers and many abroad have preserved the memory of his personality. We still remember his respect-commanding appearance, his deep voice, his characteristic writing, his cheerful humour and his friendly severity.

We, the lucky few to have been his co-workers, not only his students, are especially bound by the memory of the Nestor of Hungarian reinforced concrete construction, education and research. His followers, staffs of the actual Departments of Reinforced Concrete Structures and of Building Materials, must strive to follow his example to clearly tell apart correct from faulty in engineering, to recognize what is new, in advance of its time, to develop those learned from him, and to employ all this to forward technical and social progress according to his instruction.

This is the most worthy way to bow our head before the statue commemorating Professor Győző Mihailich.

Prof. Dr. Géza Tassi
Department of
Reinforced Concrete
Structures

MAIN DATA OF CURRICULUM VITAE, ASSIGNMENTS AND AWARDS OF GY. MIHAILICH

1877. Born at Temesrékás (Recas).
1899. Graduated as Civil Engineer from the Royal József Technical University, Budapest.
1899. Assistant to Professor A. Kherndl.
1903. Senior Assistant.
1906. Doctor's Degree in Civil Engineering, Royal József Technical University, Budapest.
1906. Lecturer on "Reinforced Concrete Structures" and on "Steel and Reinforced Concrete Structures" (Faculty of Civil Engineering and Architecture) and on "Graphostatics and Steel Structures" (Department of Mechanical Engineering).
1909. Privatdocent, Lecturer on "Concrete Structures Reinforced by Steel Skeleton".
1916. Associate Professor, Lecturer on "Bridge Construction I".
1920. Full Professor and Head of the Department of Bridge Construction II.
1922. Golden Award of the Hungarian Association of Civil Engineers and Architects.
1928—30. Dean of the Faculty of Civil Engineering and Architecture, Royal József Technical University, Budapest.
1931. Corresponding Member of the Hungarian Academy of Sciences.
1931. Head of Commission for Formulation of the Hungarian Reinforced Concrete Codes.

1931. Silver Award of the Hungarian Association of Civil Engineers and Architects.
1938. Chairman of the Commission for Reinforced Concrete of the Hungarian Association of Civil Engineers and Architects.
1941. Deputy President of the National Council of Natural Sciences.
1941. Director of the Institute of Post-Graduate Engineering Education.
1942—43. Rector of the Royal Palatine József Technical and Economic University.
1945. Expert at the Commission for Reconstruction of the Danube Bridges.
1947. Holder of Secondary Cross of the Order of Republic of Hungary.
1948. Golden Degree of Kossuth Prize.
1948. Ordinary Member of the Hungarian Academy of Sciences.
1948. Honorary Doctor of the Technical University, Budapest.
1948. Chairman of the Hungarian Group of the International Association for Bridge and Structural Engineering.
1949—50. Rector of the Technical University, Budapest.
1949. Chairman of the Main Commission for Construction Science of the Hungarian Academy of Sciences.
1949—53. President of the Section of Technical Sciences of the Hungarian Academy of Sciences.
1950. Awarded the Order of the People's Republic, IIIrd Degree.
1953—57. Honorary President of the Section of Technical Sciences of the Hungarian Academy of Sciences.
1954. Honorary Doctor of the Technical University, Dresden.
1957. Holder of the Red Flag Order of Labour.
1957. Retired (at the age of eighty).
1959. Awarded the Diamond Diploma of the Technical University of Building and Transport Engineering, Budapest.
1965. Awarded the Iron Diploma of the Technical University of Building and Transport Engineering, Budapest.
1966. Died in Budapest.

MAJOR DESIGNS BY GY. MIHAILICH

1. The Liget-street bridge in Temesvár (Timişoara), 1908—1909.
2. Steel structure and reinforced concrete roadway structure of the Tisza-bridge at Szolnok, 1910—11.
3. Reinforced concrete bridge across the Sebes-Körös at Berekböszörmény, 1910—1911.
4. Steel and reinforced concrete structures of the water tower in Újpest, 1911—12.
5. Reinforced concrete bridge across the Fekete-Körös at Tamáshida (Tamasda), 1912—1913.
6. Reinforced concrete hall of the Szolnok box factory, 1925.
7. Reinforced concrete structures of the coal-milling building of the Budapest Gas Works, 1925.
8. Reinforced concrete granary of 35,000 tons capacity in Csepel, 1927—1929.
9. Strengthening and widening of the Margit-bridge in Budapest, 1929—35.
10. Reinforced concrete main hall of the Zugló bus garage in Budapest, 1929—1930.
11. Steel structure of the Tisza-bridge at Polgár (heading), 1947—48.
12. Structures of the Tisza-bridge in Szeged, 1948.

MAIN PUBLICATIONS BY GY. MIHAILICH

(Books in bold types)

1. Mihailich, Gy.: A csomópontok merev kötése okozta mellékfeszültségek grafikus meghatározása. (Graphical determination of secondary stresses in rigid joints.) Doctor's Thesis, Budapest, 1906.
2. Mihailich, Gy.: Rácsos tartók rugalmas elhajlásának meghatározása. (Determination of elastic deformations of trussed beams.) Magyar Mérnök- és Építészegylet Közlönye, 1906.
3. Mihailich, Gy.: Masszív hidak építése Németországban. (Construction of concrete and stone masonry bridges in Germany.) Magyar Mérnök- és Építészegylet Heti értesítője, 1908.
4. Mihailich, Gy.: Újabb kő- és vasbetonhidak építése. (Construction of recent stone masonry

and reinforced concrete bridges.) Magyar Mérnök- és Építészegylet Heti Értesítője, 1909.
5. Mihailich, Gy.: A vasbeton tartók grafikus méretezése. (Graphical design of reinforced concrete beams.) Magyar Mérnök- és Építészegylet Heti Értesítője, 1909.
6. Mihailich, Gy.: Die Parkgassenbrücke in Temesvár. Beton und Eisen, 1909.
7. Mihailich, Gy.: Konzolos vasbetonhidak építése Magyarországon. (The construction of reinforced concrete cantilever bridges in Hungary.) Magyar Mérnök- és Építészegylet Heti Értesítője, 1910.
8. Mihailich, Gy.: A szolnoki közúti Tisza-híd vasszerkezete. (The iron structure of the highway bridge across the Tisza at Szolnok.) Magyar Mérnök- és Építészegylet Közlönye, 1912.
9. Mihailich, Gy.: Újpest vízművének víztornyáról. (On the water tower of the waterworks of Újpest.) Magyar Mérnök- és Építészegylet Közlönye, 1913.
10. Mihailich, Gy.: **Vasbetonszerkezetek.** (Reinforced concrete structures.) Németh J., Budapest, 1922.
11. Mihailich, Gy.: **Kő-, beton- és fahidak. Ábragyűjtemény.** (Stone, concrete and timber bridges. Collection of projects.) Budapest, 1922.
12. Mihailich, Gy.: Kherndl Antal emlékezete. (In memoriam Antal Kherndl.) Műegyetemi beszédek, 1924.
13. Mihailich, Gy.: Der Getreidespeicher im Freihafen von Budapest. Beton und Eisen, 1929.
14. Mihailich, Gy.: Die Halle der Autobusgarage in der J. Szabó Strasse in Budapest. Die Bautechnik, 1931.
15. Mihailich, Gy.: Essais comparatifs avec poutre de béton à section en T avec armatures en acier siliceux et réduction des sections des armatures contre le cisaillement. AIPC I^{er} Congrès, Paris, 1932.
16. Mihailich, Gy.: Az adalékanyag nedvességtartalma változásának és minőségének befolyása a betonra. (Effect of the variation of the water content and quality of aggregate on concrete.) Magyarország Útügyi Évkönyve, 1934.
17. Mihailich, Gy.: Összehasonlító kísérletek folytvasas és acélbetétes, továbbá portlandcementtel és bauxitcementtel készült T keresztmetszetű gerendákkal. (Comparative experiments on T-beams reinforced with mild steel and high tensile steel using portland and alumina cement.) Anyagvizsgálók Közlönye, 1934. 7—8.
18. Mihailich, Gy.: A meleg befolyása a bauxit cement beton szilárdságára. (The influence of temperature on the strength of alumina cement concrete.) (Inaugural address at the Academy.) Matematikai és Természettudományi Értesítő, 1936.
19. Mihailich, Gy.—Schwertner, A.—Gyengő, T.: **Vasbetonszerkezetek elmélete és számítása.** (Theory and dimensioning of reinforced concrete structures.) Németh J. Budapest 1946.
20. Mihailich, Gy.: **A beton- és vasbetonépítés újabb fejlődése.** (Recent development of concrete and reinforced concrete construction.) Mérnöki Továbbképző Intézet, 1947.
21. Mihailich, Gy.: A vasbetonépítés újabb fejlődése. Előrefeszített és héjszerkezetek. (Recent development of reinforced concrete construction. Prestressed and shell structures.) A vasbeton, Magyar Építőmesterek Egyesülete, 1947.
22. Mihailich, Gy.: Korszerű építési szerkezetek és eljárások. (Up-to-date building structures and methods.) MTA Műsz. Osztály Közl., 1951.
23. Mihailich, Gy.: Untersuchung ungarischer Zemente in bezug auf Schwinden, Wirkung der Dampfbehandlung sowie in bezug auf die Oberflächen-Verbindung zwischen dem Beton und im denselben eingebetteten Stahldrähten. Acta Techn. Hung., 1952.
24. Mihailich, Gy. (after lectures by) — Tassi, G.—Telekes, Gy.—Szalai, K.—Juhász, B.: **Vasbetonépítéstan 1. rész.** (Reinforced concrete construction, Part 1.) Felsőokt. Jegyzetellátó V. 1955.
25. Mihailich, Gy. (after lectures by)—Tassi, G.—Szerémi, L.—Szalai, K.: **Vasbetonépítéstan 2. rész.** (Reinforced concrete construction Part 2.) — Felsőokt. Jegyzetellátó V. 1956.
26. Mihailich, Gy.—Szalai K.: **Vasbetonépítéstan I. rész.** (Reinforced concrete construction, Part I.) Felsőokt. Jegyzetellátó V. 1957.
27. Mihailich, Gy.: **A XIX. és XX. századbeli magyar hídépítés története.** (History of the Hungarian bridge construction in the 19th and 20th centuries.) Akadémiai Kiadó, Budapest 1961.
28. Mihailich, Gy.—Palotás L.: **Vasbetonépítéstan. A vasbeton szilárdságtana.** (Reinforced concrete construction. The theory of reinforced concrete.) Tankönyvkiadó, Budapest 1964.
29. Mihailich, Gy.—Haviár Gy.: **A vasbetonépítés kezdete és első létesítményei Magyarországon.** (The beginnings and first structures of reinforced concrete construction in Hungary.) Akadémiai Kiadó, Budapest 1966.