

PREFACE TO THE SPECIAL ISSUE OF ACTA POLYTECHNICA “HISTORY OF SCIENCE AND TECHNOLOGY”

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The conference organized by the *Historical Laboratory of (Electro)technology* at FEE CTU in Prague, titled *Intermittent Self-Sufficiency in Historical Perspectives*, served as the foundation for the current issue of *Acta Polytechnica*. This scientific gathering focused on the contemporary understanding of self-sufficiency as a direct phenomenon contributing to the perceived well-being of society from temporal, technical, social, material, and energetic perspectives, including today's communicative and informational aspects. The conference intensified the examination of historical trends, political and social decisions of specific periods, and the intellectual evaluation of the issue within historical societies. A deeper study of these repetitive themes from long-term historical, technical, and social perspectives can provide a substantial background for analysing contemporary problems.

The contributions were based on three fundamental elements in examining the aforementioned issues: time, space, and events, particularly during the 19th and 20th centuries. Time has always been and continues to be one of the most fundamental and universal aspects of human life. Its significance for society is multifaceted and deepens in various contexts:

Organization and structure Time is a fundamental element for organizing human activities. Without time frameworks, coordinating tasks, social events, or even international agreements would be challenging. An example is the use of time in political decisions during the French Revolution, where a specific calendar based on the decimalization of republican time was created. Although this impractical form of timekeeping did not survive the revolution, it reflected the formation of civil society (article by M. Dudzik). Time also needed to be considered later in the organization and institutionalization of Czechoslovak military authorities between the wars (article by D. Kyselka).

Economy and productivity Time is also a crucial factor in the economy. Efficient use of time is essential for achieving technical and economic growth and productivity. Loss of time can mean a loss of opportunities and resources. An example is the 1920s when Czech locomotives from Škoda, due to their technical modernity, travelled to Latin America and contributed to the economic development of Czechoslovakia (article by J. Rodriguez). Conversely, time during communism evoked a complex path of research, often inventive and practical, comparable to global developments, yet its proponents – such as Otto Wichterle (article by M. Efmertová) or Emanuel Šlechta (article by J. Sedláček) – faced insurmountable ideological, political, and economic barriers.

History and identity Time plays a role in shaping the identity and historical development of society. Events are dated and placed in a temporal context, helping people understand the past, maintain traditions and values, form collective memory, and track the intellectual evolution of society. Time thus defined the education and application of technical intelligence for the benefit of building Czechoslovakia between the wars through the activities of the first technical academy, the Masaryk Academy of Labour (article by V. Holeček). Time also shaped the educational opportunities of foreign experts in Czechoslovakia after World War II, who, upon returning home, helped their countries, freed from colonialism, in economic development (article by A. Mansouri).

Culture and rituals Time holds symbolic significance in culture and religion. Different cultures have their own ways of measuring and perceiving time. Rituals and celebrations are often associated with specific moments in time, including major events as well as regular birthdays or social festivals. Methods of measuring time using devices and clock mechanisms in the Czech lands from the 14th to the 19th century demonstrate not only the cultural sophistication of Czech society but also the associated rituals (article by D. Knespl). Before World War II, Czechoslovakia informed its citizens about critical moments through the postal service and established an air defence signalling system for their protection (article by M. D. Hrtus).

Temporal changes Time is an inevitable element of human life, influencing our physiological, psychological, and social processes. An example is the company Elektročas, a technical innovation of interwar Czechoslovakia (article by D. Hamr), which made timekeeping and orientation accessible to ordinary citizens.

Overall, it can be stated that time and its tracking are crucial elements of human existence and society. Proper understanding and efficient utilization of time are key to the functioning of individuals and entire communities.

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