

PROF. PETER SALCHER - LESS KNOWN ATTITUDES TOWARDS HEALTH TOPICS

PROF. PETER SALCHER – MANJE ZNANI STAVOVI
O ZDRAVLJU

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SUMMARY

Prof. Peter Salcher, the professor of physics and mechanics at the R&I Naval Academy in Fiume (Rijeka) was certainly the person that signed the city life during the last decades of the XIX century. His major scientific achievement was taking photographs of fast movements (flying bullets), made in Fiume on Ernst Mach request, by that he is still included into history of physics and photography. Locally, he is the best known by making the first photographs with the Röntgen rays just 3 weeks after Röntgen held lecture on the same subject in Würzburg, that led by purchasing the set-up in 1897, to two years later given to the Municipal hospital.

Three of the lectures he held in the Club for natural sciences in Fiume (Rijeka) dealt with the medical topics: Prevention of health and natural ways of healing in which he pointed out the importance of water, air, light and moving in prevention of health. On the other hand, these factors are not sufficient for healing, and therefore he is propagating the use of medicines. In the lecture on Moral education of youth his positions are that moral education should be separated from religion, should be included into other subjects and the family should have an important role in it.

Key-words: Peter Salcher, history of medicine, health prevention, moral education

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INTRODUCTION

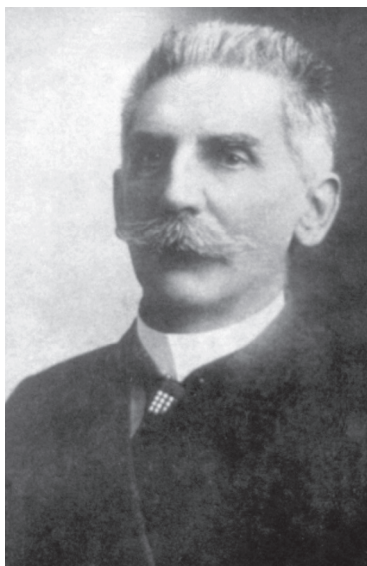
Prof Peter Salcher was a member of the I&R Naval Academy in Fiume (nowadays Rijeka, Croatia) teaching staff. Without any doubt, he was one of the most prominent intellectuals the town ever had, whose traces can be found nowadays not only in physics and mechanics, but also in the field of medicine and photography, either technical or artistic.

At the time of its activity, the city of Fiume (Rijeka) had a peculiar political position. Subsequent to Croatian-Hungarian agreement achieved in 1867, based on its long time autonomy, the city formed an independent state within Austrian-Hungarian Empire, directly submitted to Budapest. The peculiarity of the political and economic conditions attracted investors from abroad to realise their projects in Fiume, so that at the end of XIX century, the city was one of the most prosperous places in the world, with its harbour activities placed at the tenth position. The economic wealth enabled the growth of the city and its welfare. Thus, at that time, a new water supply and sewage system were built (1896), electric tram was introduced into public transport (1899), new theatre building was constructed with electrical illumination introduced (1885), many schools and kindergardens were founded [1], as well as the State laboratory for chemical analyses (1900) [2].

The I&R Naval Academy was one of the towns prominent educational institutions. Originally founded in Venice in 1802 and transferred to Trieste in 1848, the Academy finally moved to Fiume (Rijeka) in 1857. For this purpose a new building was erected (presently hosting the Clinical hospital), and since 1866 a high quality teaching staff was provided, with new well equipped cabinets established. The first professor of physics at then Academy in Fiume was Emil Stahlberger [3]. His successor was Prof. Peter Salcher.

PETER SALCHER

Prof. Peter Salcher was born on August 10th 1848 at Kreuzin-Ebene, close to Peternion in Kaernten (Austria). He graduated with excellence and took PhD degree at the Faculty of Philosophy in Graz (Austria). He took his traineeship at Grammar school in Graz. His first position was as the professor of mathematics and physics at the State high school in Trieste. On Aug 18th 1875 he was appointed as professor of physics and mechanics at the I. & R. Academy in Naval Fiume (Rijeka). He held this position for 35 years, until his retirement on Sept.1st 1909 [1]. Besides



Prof. Peter Salcher (1848.–1928.)

teaching physics and mechanics, he was also head of the Physical laboratory and he performed meteorological observations. He published 3 text books on physics and a chapter on meteorology in the text book dedicated to oceanography. His most important papers were in the field of scientific photography. From 1910 to 1914 he lived in Trieste, and subsequent he returned to Sušak, where he spent the rest of his life. He died on Oct 4th, 1928 [1]. He was buried in the family tomb at the Kozala graveyard (Rijeka).

For his rich and successful work he gained the title of I. & R. Court councillor. He also received several medals. He was corresponding member of the I. & R. Academy in Vienna and member of the French Physical Society in Paris. For his contribution in physics he was awarded medal at the Millenium exhibition in Budapest [1].

He was one among the founders of the Club for natural sciences in Fiume (Rijeka), one of the prominent associations founded on Nov 28th 1883, whose members were teachers from the Academy and municipal schools, physicians, merchants, owner, fabricants but also diplomats on duty in Fiume (Rijeka). Prof. Salcher was the first secretary of the Club from its foundation at the end of 1883 until 1887. In the period 1888-1893 he was elected the vice-president, while from 1984 to 1897 he hold the

BOLLETTINO DEL CLUB DI SCIENZE NATURALI IN FIUME

MITTHEILUNGEN
DES
NATURWISSENSCHAFTLICHEN CLUBS
IN
FIUME.

HERAUSGEGEBEN VOM AUSSCHUSS

1896.



FIUME
Stabilimento Tipo-Litografico di Emidio Mohovich
1896.

Cover page of the Bulletin of the Club for Natural Sciences in Fiume (Rijeka)
from 1896

Naslovnica Glasnika Kluba prirodnih znanosti u Rijeci iz 1896.

position of the president. Between 1898 and 1902 he was the member of the steering committee. The scope of the Club was the promotion of natural sciences via holding lectures in the Club but also providing scientific journals and books. In 1896 the Club published the first issue of the Bulletin of the Club for natural sciences in Fiume (Rijeka), a bilingual publication (German/Italian) giving not only short reports on lectures held in the Club, but also some scientific papers. Prof Salcher was the editor of the German part of the Bulletin. These publications give insight into the Prof. Salcher attitude towards different topics, since he held lectures not only on physics and techniques, but also photography, arts, ethics and health care [4].

His major scientific achievement was taking photograph of the fast movements, i.e. flying bullet, realized with the help of the school teacher Alessandro Riegler on Ernst Mach request [5,6]. This work is still a milestone, reported in history of physics and aeronautics, but also photography.

On the local level, Peter Salcher can be considered as founder of the radiology department of the municipal hospital. He held a lecture on Röntgen rays in the Club within three weeks since the Röntgen gave himself the lecture in Würzburg. In this respect, the city of Fiume (Rijeka) can be compared to London, where the same experiments were done at the same time frame [7]. On his suggestion, the Röntgen committee was founded within the Club, in order to purchase the apparatus that would have been used in medical diagnosis. The project was realized in 1897, with first radiographs for medical diagnosis taken at the end of June. The apparatus was ceased to the Municipal hospital by the end of 1899, and this could be considered the year of the foundation of the radiological department [4].

ATTITUDES ON SOME MEDICAL ISSUES

Besides these major achievements, the reports published in the Bulletin gave insight of his point of view on various topics. Two of them are dealing with the medical issues.

On April 12th 1892 he gave a lecture “On moral education of youth” (*Die Moralische Erzählung der Jungen*). The motive for the lecture was the general opinion about lack of the “real morality” among the university students, in spite of the fact that every religion preaches on morality. Prof. Salcher opinion was that ethics should be thought separately from religi-

on, since the religion often demands for complete obedience that is unacceptable for teaching morality. Therefore, teacher should be secular. A reflection on morality should be included in lectures from other subjects thought. Finally, the role of family was also found crucial for education on ethics. Additional ways in moral education should be respecting and observing the nature, traveling, and above all work, since it exalts and makes man moral [8].

In 1895 (Oct 11th and Nov 28th) he held the lecture entitled “Promotion of health and natural ways of healing” (*Gesundsheitspflege und Naturheilverfahren*). In the first part he pointed out that life depends on exchange of matter (metabolism), that is, on the other hand, water, air, light, movement and nutrition dependent. Water is essential for the cure of skin and to firm body, but also for drinking. He pointed also that water from the new water supply system is sanitary correct, and boiling and filtration are unnecessary since air and some minerals are removed from.

Air and light were named as second important factors, but for air he stated: “... not in our principal street Corsia Deak (today's Trpimirova and Kresimirova St). The children there are screaming while walking, so that dust is inhaled through throat down to the lungs, it penetrates eyes and ears, mechanically irritating the mucus where germs of different diseases are collected. Because of low humidity (slightly over 20%) and low temperature, high frequency of soared throat should not be surprising.” Though it is hard to know weather this was his or general opinion on harmful effects of aerosols on respiratory system, it is basically correct, and (re)gained its importance only in the late seventies. At the time of well-known London smog episode the harmful effect of solid particles was completely neglected.

The importance of light Prof Salcher illustrated with the sentence: “The physician enters, where no light is penetrating”. He pointed out the advantage of Fiume (Rijeka), as the town with higher number of sunny days comparative to continental cities. Physical activity, either active as any kind of sport, or passive as massage, were cited as the third factor of health. The role of the fourth factor-nutrition was demonstrated with the 100-year-old persons living in Italy who mostly ate vegetables [9]. (The increased amount of vegetables is also recommended in nowadays-healthy diet.) All the four numbered factors are considered presently as indispensable for health promotion.

In the second part he showed the importance of the same factors for healing (e.g. water dissolves toxic matters so that can be eliminated from

the body, air, light and massage are used in some therapies, as well as proper nutrition). But he also pointed negative side of this way of natural healing, i.e. the refusal to take medicines and vaccination, considered as foreign matters. Vaccination was a new way of treatment and he explained its principles and advantages. He also pointed out on the sanitary conditions in the city: the lack of huge open-air areas, the threat from the urbanization of the nearby hills that would make a barrier to air circulation [9].

These two examples of his attitude towards medical issues proved that Prof. Salcher was a very open minded person. The reports from the lectures held in the Club for Natural Sciences in Fiume (Rijeka) are practically the only sources to indicate it.

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SAŽETAK

Dr. Peter Salcher, dugogodišnji profesor fizike i mehanike na Pomorskoj vojnoj akademiji u Rijeci, svakako spada u osobe koje su obilježile razvoj Rijeke u drugoj polovici XIX. stoljeća. Njegovo uspješno snimanje metka u letu, koje je za potrebe Ernsta Macha napravio u Rijeci, te njihov zajednički rad na tom području, svrstava ga i danas u svjetsku povijest fizike i fotografije. Na lokalnoj je razini važan jer je među prvima u svijetu obavio snimanje rendgenskim zrakama nakon Röntgenova izlaganja u Würzburgu, što je u konačnici dovelo do nabave prvoga rendgenskog aparata u Rijeci već 1897., koji je dvije godine poslije prepušten gradskoj bolnici. Među mnogim predavanjima koje je održao u Klubu za prirodne znanosti u Rijeci, tri se odnose na zdravstveni odgoj: O očuvanju zdravlja i prirodnim načinima ozdravljenja, u kojima ističe važnost vode, zraka, svjetla i kretanja za očuvanje zdravlja, dok s druge strane ti čimbenici nisu dovoljni da bi oboljeli organizam ozdravio, te se zalaže za primjenu lijekova. U predavanju O moralnom odgoju mladeži zalaže se da se moralni odgoj u nastavi odvoji od religijskog, da se etika uključi i u druge nastavne predmete te ističe važnost obitelji u tome.

Ključne riječi: Peter Salcher, povijest medicine, prevencija zdravlja, moralni odgoj