

## Stjepan Horvat (1895-1985)

### 110 years since day of birth and 20 years since day of death

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This year we commemorate 110 years since the day of birth and 20 years since the day of death of Stjepan Horvat. He was a patriot, a scientist and a professor, dean of the Technical Faculty in Zagreb, head of the Croatian University, editor of the periodicals *Geodetski list* and *Hrvatska državna izmjera*, manager of the Department for State Survey in the Croatian Headquarters for Public Affairs, a member of the State Land Consolidation Commission, a member of examination boards, colonel in the time of the Independent State of Croatia (NDH), adviser at the Military-Geography Institute in Argentina for forty years. His main interests include geodesy, especially the application of mathematics in geodesy and cartography, geodetic astronomy and geophysics, but he also wrote poems, composed and conducted ...

In commemoration of Stjepan Horvat we will use the news from the other part of the world, from Argentina.

22nd Conference of Geophysicists and Geodesists was held in Buenos Aires from 6th till 11th of September, 2004. More about the conference along with other information can be found at the internet address of *Argentinian Association of Geophysicists and Geodesists* (Asociación Argentina de Geofísicos y Geodestas) <http://www.aagg.org.ar>. Conference was held in Argentinian Military-Geography Institute. Around 100 scientific and professional papers were presented, 30 of those from the field of geodesy. A two day workshop which gathered persons assigned to all 15 permanent GPS stations in Argentina was also held.

During the conference the memorial plate to Stjepan (Esteban) Horvat was revealed in the entrance space of the Military-Geography Institute. Presentation about that happening can be found in Spanish at the internet address of the *Argentinian Association of Geophysicists and Geodesists* in the column *Ecos de la XXII Reunion Científica* (Echoes from the 22nd Conference).

Here is that presentation translated to English.

#### ***In memory to Ing. Stjepan (Esteban) Horvat***

***Croatian ambassador in Argentina – Rikard Rossetti – and daughter of a person to who honour is being given – Ljubica Horvat – revealed memorial plate in the center of Military-Geography Institute***

As it is custom on conferences of the *Argentinian Association of Geophysicists and Geodesists* we recall of a person (\*) whose contribution to geodesy or geophysics was extraordinary, especially in the frame of the host organisation of the conference, or for the city or region in which conference is being held. In this opportunity honour is given to engineer Stjepan (Esteban) Horvat, who came to Argentina from Croatia and who did his main activities in Military-Geography Institute (Instituto Geográfico Militar – IGM).

Ing. Stjepan (Esteban) Horvat, scientific advisor in Military-Geography Institute developed his extraordinary professional character as an advisor as well as a researcher in the field of geodesy. He was born in Croatia in 1895, came to the University in Zagreb where he finished his studies in the field of geodesy in 1917. He participated in works of his profession, and successes in professional work brought him to the chair where he became an instructor, then was appointed to the post of an associate professor, and in 1941 became full professor. During 1944-1945 he was the rector of the Croatian University. The Second World War disrupted his activities.

He came to Argentina in 1948 and since that time dates his well known activity in Military-Geography Institute. His scientific papers – more than 50 of them – were published by IGM, *Argentinian Association of Geophysicists and Geodesists*, *Pan-American Institute for Geography and History* and *Direction for Geodesy of the Province of Buenos Aires*. He published many other papers in his mother country (\*\*).

His main activities refer to the adjustment computation of geodetic nets, ellipsoid geometry, general and geodetic cartography, and development of practical methods for automatic computations. It should be pointed out that Ing. Horvat was one of the first who used hyperbolic functions not only to find exact relations, but to ease and simplify problems in numerical calculations in the field of geodetic cartography. Nevertheless, not only exact sciences attracted his attention. In youth, he tried to enroll musical conservatory, but he soon gave up that idea. However, later in his life he returned to the musical staves and wrote *Ave Maria*, *Adoration of the Lord*, *Ode to the Death* and other compositions. In Argentina he founded choir *Jadran* which performed his pieces. His exceptional sensibility

## Stjepan Horvat (1895-1985)

### 110 godina od rođenja i 20 godina od smrti

Ove godine navršava se 110 godina od rođenja i 20 godina od smrti Stjepana Horvata, rodoljuba, znanstvenika i profesora, dekana Tehničkog fakulteta, rektora Hrvatskoga sveučilišta, urednika časopisa *Geodetski list* i *Hrvatska državna izmjera*, voditelja Odsjeka za državnu izmjeru u Glavnom ravnateljstvu za javne radove, člana Zemaljskog komasacionog povjerenstva, člana ispitnih povjerenstava, časnika hrvatske vojske i savjetnika argentinskoga Vojnogeografskog instituta. Bavio se geodezijom, posebno primjenom matematike u geodeziji i kartografiji, geodetskom astronomijom i geofizikom, pisao je pjesme, skladao, dirigirao ...



Kao što je običaj na znanstvenim skupovima *Argentinskoga društva geofizičara i geodeta* podsjećamo se na osobu (\*) koja je izuzetna po svojem doprinosu geodeziji ili geofizici, posebno u okviru organizacije domaćina konferencije ili za grad ili područje u kojem se skup održava. U ovoj prilici počast se odaje inženjeru Stjepanu (Estebanu) Horvatu koji je u Argentinu došao iz Hrvatske i koji je svoje glavne stručne aktivnosti obavljao u Vojnogeografskom institutu (Instituto Geográfico Militar – IGM).

Ing. Stjepan (Esteban) Horvat, znanstveni savjetnik u Vojnogeografskom institutu razvio je svoj izvanredni stručni karakter kao savjetnik i kao istraživač na polju geodezije. Rođen je u Hrvatskoj, 1895. god., došao je na Sveučilište u Zagreb gdje je 1917. završio studij geodezije. Sudjelovao je u radovima svoje struke, a uspjesi u stručnom radu doveli su ga na katedru gdje je bio ugovorni nastavnik, zatim izvanredni profesor i 1941. redoviti profesor. U razdoblju 1944-1945 rektor je Hrvatskoga sveučilišta. Drugi svjetski rat prekinuo je njegove aktivnosti.

Dolazi u Argentinu 1948. i od tada datira njegova dobro poznata aktivnost u Vojnogeografskom institutu. Njegove znanstvene radove – kojih je više od 50 – objavili su *IGM*, *Argentinsko društvo geofizičara i geodeta*, *Pan-Američki institut za geografiju i povijest* i *Direkcija za geodeziju Provincije Buenos Aires*. Mnogo drugih radova objavio je u svojoj domovini (\*\*).

Njegove glavne aktivnosti odnose se na račun izjednačenja geodetskih mreža, elipsoidnu geometriju, opću i geodetsku kartografiju, i razvoj praktičnih metoda za automatizirana računanja. Treba naglasiti da je na području geodetske kartografije ing. Horvat bio među prvima koji su upotrijebili hiperboličke funkcije ne samo da nađu egzaktnu relaciju, nego također da olakšaju i pojednostavne probleme pri numeričkom računanju.

No, nisu samo egzaktni znanosti privlačile njegovu pozornost. U mladosti se pokušao upisati na muzički konzervatorij, ali od te je namjere uskoro odustao. Međutim, u kasnijoj dobi vratio se muzičkom crtovlju i napisao *Ave Mariju*, *Odanost Gospodinu*, *Odu smrti* i

Za obilježavanje tih obljetnica poslužimo se vijestima s drugog kraja svijeta, iz Argentine.

22. znanstveni skup geofizičara i geodeta održan je u Buenos Airesu od 6. do 11. rujna 2004. Više o konferenciji uz ostale informacije može se naći na internetskoj adresi *Argentinskoga društva geofizičara i geodeta* (Asociación Argentina de Geofísicos y Geodestas) <http://www.aagg.org.ar>. Konferencija je održana u argentinskom Vojnogeografskom institutu. Na njoj je izloženo oko 100 znanstvenih i stručnih radova, od toga 30 iz područja geodezije. Održana je i dvodnevna radionica koja je okupila osobe zadužene za svih 15 permanentnih GPS-stanica u Argentini.

Za vrijeme održavanja konferencije otkrivena je u ulaznom prostoru Vojnogeografskog instituta spomen ploča Stjepanu (Estebanu) Horvatu. I o tom događaju može se naći prikaz na španjolskom jeziku na internetskim stranicama *Argentinskoga društva geofizičara i geodeta* u rubrici *Ecos de la XXII Reunion Científica* (Odjeci s 22. znanstvenog skupa).

Evo tog prikaza u prijevodu na hrvatski jezik.

#### **U spomen Ing. Stjepanu (Estebanu) Horvatu**

**Hrvatski veleposlanik u Argentini – Rikard Rossetti – i kći osobe kojoj se odaje počast – Ljubica Horvat – otkrili su spomen ploču u sjedištu Vojnogeografskog instituta**



*In front of the memorial plate revealed in memory to Stjepan Horvat (from left to the right: Rikard Rossetti, the ambassador of Croatia in Argentina, Miss Violeta Horvat, the daughter of Stjepan Horvat, Colonel Alfredo Stahlschmidt, the director of the Argentinian Military-Geography Institute, Dr. Cristina Pacino, President of the Argentinian Association of Geophysicists and Geodesists, Ing. Federico Mayer, Past President of the Argentinian Association of Geophysicists and Geodesists)*

*Ispred spomen ploče Stjepanu Horvatu (s lijeva na desno: Rikard Rossetti, veleposlanik Hrvatske u Argentini, gospođa Ljubica Horvat, kći Stjepana Horvata, pukovnik Alfredo Stahlschmidt, ravnatelj Vojnogeografskog instituta, dr. Cristina Pacino, predsjednica Argentinskog društva geofizičara*

combines scientific and philosophic gift in deep spiritual love to society.

He died on March 12th 1985, and *Argentinian Association of Geophysicists and Geodesists* proclaimed him honorary member in 1979.

(\*) List of honorary members of former conferences can be found on the pages about history of the *Argentinian association of geophysicists and geodets* <http://www.aagg.org.ar>

(\*\*) List of all published papers of Stjepan Horvat from the field of geodesy can be found in: Lapaine, M.: Stjepan (Esteban) Horvat, in: *Ugledni hrvatski znanstvenici u svijetu, Distinguished Croatian Scientists in the World*, editor J. Herak, Croatian-American Society, Zagreb, 2002, 29-71. List of the papers that are published in Argentina are in the paper of Rakovac-Nevistić: *El Ingeniero Esteban Horvat, ex Rector de la Universidad de Zagreb – Octogenario*, *Studia Croatica*, year XIV, vol. 58-59, Buenos Aires, 1975, 155-162.

I would like to thank for notice and sent photographs to Mrs Ljubica and Vjera, daughters of Stjepan Horvat, and Mr Rubén Rodríguez, his associate.

*Miljenko Lapaine*

## *Croatia in the International Cartographic Association*

### *10th anniversary*

ICA was founded on June 9, 1959, in Bern, Switzerland. Preparatory conferences during which its foundation was discussed were held from 1956-1959: the Esselte conference, Stockholm 1956, the Rand McNally conference, Chicago 1957 and the DGfK conference, Mainz (Germany) 1958. The first General Assembly (I) was held in Paris in 1961, that is also when the statutes were accepted. Later conferences were held in:

1 Frankfurt am Main (1962)

2 London/Edinburgh (1964)\* II

3 Amsterdam (1967)

4 Delhi (1968)\* III

5 Stresa, Italy (1970)

6 Ottawa (1972)\* IV

7 Madrid (1974)

8 Moscow (1976)\* V

9 College Park MD, USA (1978)

10 Tokyo (1980)\* VI

11 Warszawa, Poland (1982)

12 Perth (1984)\* VII

13 Morelia, Mexico (1987)\* VIII



druge kompozicije. U Argentini je osnovao zbor *Jadran* koji je izvodio njegova djela. Njegova izvrsna osjetljivost spaja dar znanstvenika i filozofa u dubokoj duhovnoj ljubavi prema društvu.

Umro je 12. ožujka 1985., a *Argentinsko društvo geofizičara i geodeta* proglasilo ga je počasnim članom 1979. god.

(\*) Popis počasnih članova s prethodnih skupova nalazi se na stranicama povijesti *Argentinskoga društva geofizičara i geodeta* <http://www.aagg.org.ar>

(\*\*) Popis svih objavljenih radova Stjepana Horvata iz područja geodezije može se naći u: Lapaine, M.: Stjepan (Esteban) Horvat, u: Ugladni hrvatski znanstvenici u svijetu, Distinguished Croatian Scientists in the World, urednik J. Herak, Hrvatsko-američko društvo, Zagreb, 2002, 29-71. Popis onih radova koji su objavljeni u Argentini nalazi se u članku Rakovac-Nevistić: El Ingeniero Esteban Horvat, ex Rector de la Universidad de Zagreb – Octogenario, *Studia Croatica*, godina XIV, vol. 58-59, Buenos Aires, 1975, 155-162.

Zahvaljujem na obavijesti i poslanim fotografijama gospođama Ljubici i Vjeri, kćerima Stjepana Horvata, te gospodinu Rubénu Rodríguezu, njegovu suradniku.

Miljenko Lapaine



*Revealing of the memorial plate to Stjepan Horvat (from left to the right: Ing. Federico Mayer, Past President of the Argentinian Association of Geophysicists and Geodesists, Miss Violeta Horvat, the daughter of Stjepan Horvat, Rikard Rossetti, the ambassador of Croatia in Argentina)*

*Otkrivanje spomen-ploče Stjepanu Horvatu (s lijeva na desno: ing. Federico Mayer, prethodni predsjednik Argentinskog društva geofizičara i geodeta, gospođa Ljubica Horvat kći Stjepana Horvata, Rikard Rossetti, veleposlanik Hrvatske u Argentini)*

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## *Hrvatska u Međunarodnom kartografskom društvu*

### **10. obljetnica**

Međunarodno kartografsko društvo (International Cartographic Association – ICA) osnovano je u Bernu 9. lipnja 1959. godine. Pripremne konferencije na kojima se raspravljalo o njegovom osnutku održavane su od 1956. do 1959. godine: Konferencija Esselte u Stockholmu 1956., Konferencija Rand McNally u Chicagu 1957. i Konferencija DGfK u Mainzu 1958. Prva Generalna skupština (I), na kojoj je usvojen statut, održana je u Parizu 1961. godine. Kasnije konferencije bile su u:

1. Frankfurt na Majni (1962.)
2. London/Edinburgh (1964)\* II
3. Amsterdam (1967)

4. Delhi (1968)\* III
5. Stresa, Italija (1970)
6. Ottawa (1972)\* IV
7. Madrid (1974)
8. Moskva (1976)\* V
9. College Park MD, SAD (1978)
10. Tokyo (1980)\* VI
11. Varšava (1982)
12. Perth (1984)\* VII

