

IAEE Initiative
"Masters" Program
Meet / Greet 2020

Theodossios P. TASSIOS
(Greece)

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Books are the best foundation

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Forty years ago, I was a student of Prof. T.P.Tassios at the Nat. Tech. University of Athens (NTUA). He is an inspired and inspiring teacher. He insisted on analyzing R.C. behaviour under cyclic imposed deformations and, in doing so, he included in his courses several sub-mechanisms such as cyclic concrete compression, cyclic steel-to-concrete bond behavior, cyclic dowel actions etc.

Based on such a fundamental philosophy, a research group worked with Tassios since 1970, including Greek as well as some Chinese and Italian students.

Early enough, one of the research topics of Tassios' Group was the rational re-dimensioning of structural elements after repair and seismic strengthening - a subject that was not perhaps being studied as intensively, internationally, as the non-linear analysis of existing structures.

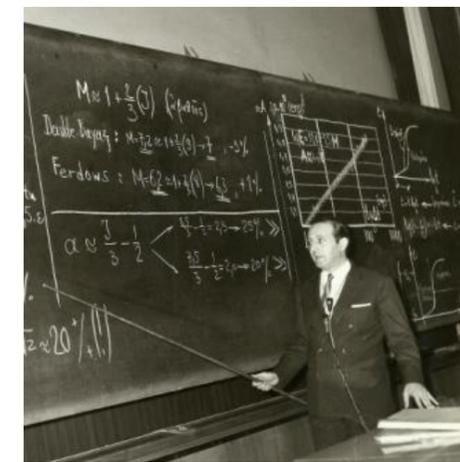
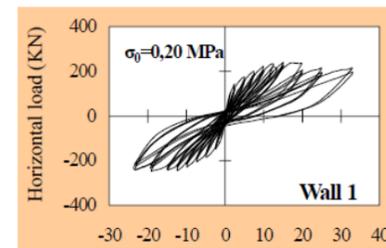
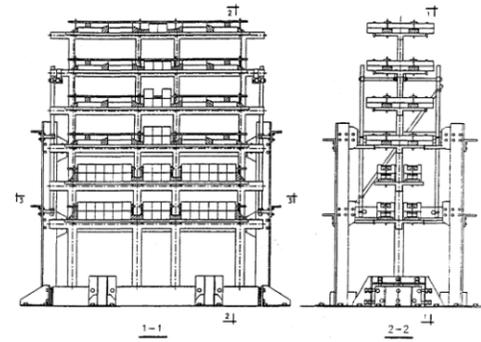
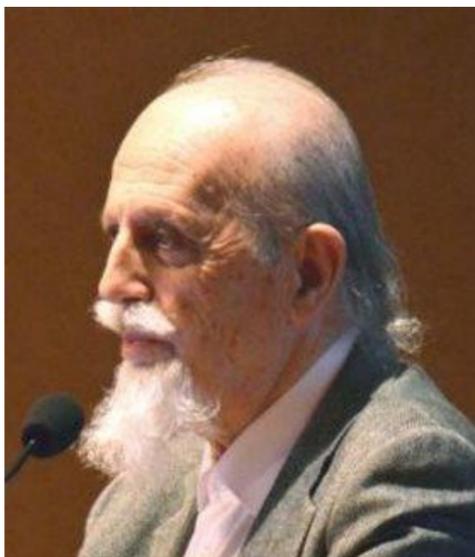
Tassios and several members of his group served on various international professional associations (CEB, FIP, European Union), in drafting State-of-the-Art reports and Code-texts on seismic behaviour and design of structures.

In his own country, he drafted (in collaboration with his student G. Gazetas) and proposed the first modern Seismic Design Code of Greece (1978). And, as a Chairman of a National Committee (since 2001), he edited one of the first, internationally, design Codes on Seismic Repair and Strengthening,.

Seismic behaviour of masonry structures was another research field of Tassios. Hence his long-lasting activities related to the seismic resistance of monuments: European Union mission regarding colonial churches (Popayan, Colombia, 1991), the "1st Ambraseys Lecture" (14 ECEE, 2010), etc.

Of his non-engineering activities, I only wish to mention Tassios' honorary Presidentship of the Hellenic Society of Philosophy, as well as his role as founder and President of the Society for the Investigation of Ancient Greek and Byzantine Technology (EDAByT)

Dr. Eng. Elizabeth VINTZILEOU, Professor NTUA



Tassios reporting on Dasht-Bayaz (Iran) earthquake, 1966

“Early Reconnaissance Earthquake Missions” were served by Tassios as early as 1963 (Skopje) and 1966 (Iran), in collaboration with N. Ambraseys. He also participated in the UNIDO regional earthquake mitigation project in the Balkan Countries (1982-1983)

International Codes for Aseismic Design was a field of intensive participation for Tassios, e.g.:

- CEB Aseismic Design Model Code (1980)
- European Code for Aseismic Design (1980-1996)
- South-American Model Code for Aseismic Design



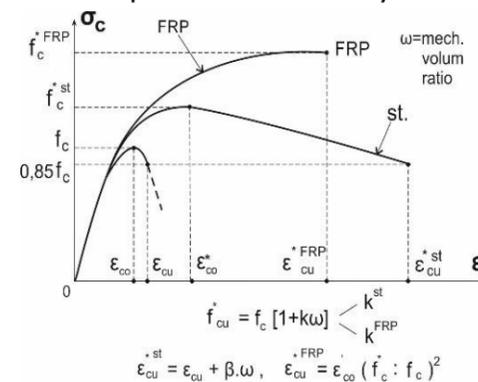
A group photo, after NTUA Chinese students' PhD examination

His teaching activities include 30 years of courses at NTUA (i.a. “Theory of Redesign of Structural Interventions”). He also taught as visiting Professor:

- “Soil Dynamics”, Bagdad Univ. 1979
- “Earthquake Engineering”, Tongji Univ., Shanghai 1982
- “R.C. Aseismic Design”, Pavia Univ., 1986
- As Consultant Engineer, he was engaged with seismic design and expert reports related to bridges, tunnels and earth-dams.

Tassios founded (1969) the Laboratory of R.C. and Masonry Structures at the NTUA, specialized in seismic behaviour of structural elements.

The main analytical research topic of Tassios' Group concerned modeling of structural elements' behavior under imposed cyclic post-yield deformations, based only on first principles. Thus, i.a., rational expressions for ductility offered by confinement were produced as early as 1980.



Dimensioning of repaired or strengthened elements is based on resistances mobilized by allowable cyclic slips between existing and added materials.

A methodology was developed for practical seismic assessment and strengthening of R.C. structures, based on simplified (but rationally calculated) ductility factors, before and after structural intervention. To this end, each structural element is modified (repaired or strengthened) if needed, according to the locally required displacement ductility factors dictated by the targeted overall behaviour factor (or according to the locally needed chord angles).

Seismic resistance of, and structural interventions to monuments is another research field of Tassios' Group. Engineering analytical models predicting strengths were developed for several types of traditional masonries.

Educations:

- 1948-1953 MSc.Eng. Nat. Tech. University, Athens (NTUA)
- 1953-1954 Centre d' Etudes Supérieures, IBTP, Paris
- 1955-1958 PhD, Nat. Tech. University, Athens

Work Experiences:

- 1958 Assistant
- 1964 Professor, Structural Mechanics
- 1969 Professor, R.C. Structures
- 1995 Emeritus Professor

Professional Services:

- 1958-1963 Bridge Design Office
- 1963-1967 Director Gen., "Geotechnical Eng. Co.,
- 1974-2004 Consultant (UNESCO, UNIDO, Eur. Union)
- 1978-2014 International and National Code-drafting

Professional International Associations:

- 1972-1974 President, Perm. Conf. Eng. Assoc. S.E. Europe
- 1973-1978 President, RILEM
- 1983-1987 President, Euro-Intern. Concrete Assoc. (CEB)

Awards:

- 1985 Hon. Dr, S.E. University, Nanjing (China)
- 1986 Hon. Dr., Liege University (Belgium)
- 1986 Fellow, American Concrete Institute (USA)
- 1986 Medal of the City of Paris (Paris)
- 1999 Hon. Member, Tech. Chamber (Cyprus)
- 2001 Hon. Dr., Democritus University (Greece)
- 2003 Hon. President, Hellenic Soc. of Philosophy
- 2004 Member, Academy of Sciences, Torino (Italy)
- 2010 Hon. Dr., Aristotle Univ. of Thessaloniki (Greece)
- 2010 1st Ambraseys Lecture, 14th ECEE, EAEE
- 2011 Hon. Dr., University of Cyprus
- 2013 Intern. Merit Award in Struct. Eng. IABSE (C.H.)
- 2014 Hon. Dr., Nat. Kap. Univ. of Athens (Greece)
- 2016 Hon. Dr., Panteion Univ. Athens (Greece)