

SEFI
Fellowship
awardee 2017



Prof. Antonia Moropoulou
National Technical University of Athens
President of the General Assembly of the
Technical Chamber of Greece

- **Vice-President** of the Administrative Council of the European Society for Engineering Education **SEFI** (2013-2016)
- **NTUA Vice Rector** of Academic Affairs of the National Technical University of Athens (2010-2014) and was appointed as **NTUA Deputy Rector** (2013-2014)
- **Director** of the **Laboratory of Materials Science and Engineering** at the NTUA School of Chemical Engineering (2016 -)
- **Studies Director** of Direction “Materials and Conservation Interventions” of the NTUA Interdisciplinary interdepartmental **Postgraduate Program “Protection of Monuments”** (1997-)
- She has been elected as **Contracted Professor** (Professoressa a’ Contratto) in the **University IUAV of Venice** (School of Architecture, 1993) and **Visiting Professor at Princeton University** (School of Civil Engineering and Operations Research, 1995-1996).
- She participates by invitation in the ‘**Professional Women’s Advisory Board of New York**’ since 2008. In 2012 she was **awarded the ‘YPATIA’ Award** by the ‘**Association of Hellenic Women Scientists**’

SEFI DEBATES

In the past few years, we have witnessed a vibrant discussion about the skills that engineering graduates should possess to face their future as engineers of the 21st century.

This discussion takes place all over Europe and varies from country to country depending on its tradition, educational system, industrial environment and a series of others factors.

**Under the initiative
of Prof. Antonia Moropoulou, as SEFI Vice-President,
SEFI has started organizing “SEFI Debates”**

1ST SEFI DEBATE 2014

To address this issue, SEFI has initiated a series of debates and discussions, notably in Brussels.

The **inaugural SEFI debate** on **7 April 2014** was on “**Engineering education facing the challenge of the crisis in Europe**”, with a focus on the actual skills gap in engineering.

It was hosted by the Permanent Representation of Greece to the EU, under the auspices of the Hellenic Presidency of the Council of the European Union, with the introductory speech from Mrs Androulla Vassiliou, then EU Commissioner for Education, Culture, Multilingualism and Youth



Prof. K. Hawwash, President SEFI
Mrs. A. Vassiliou, EU Commissioner for Education, Culture,
Multilingualism & Youth
Prof. A. Moropoulou, Vice President SEFI



**Permanent
Representation of Greece
to the E.U.**

2ND SEFI DEBATE 2016

SEFI issued a position paper on “Developing Graduate Engineering Skills” in September 2015.

To address this issue, SEFI organized its **Second SEFI Debate** on March 3rd 2016 with the title “**Labour Market Needs and Engineering**”

The event was hosted by Mr. Nikos Androulakis, member of the European Parliament, and Mr Dimitrios Papadimoulis, Vice President of the European Parliament, on the premises of the European Parliament in Brussels.

PROPOSED SEFI DEBATE 2018

- Since 2015-2016 will be a year of implementation of the “New Skills Agenda for Europe”,
- It is proposed to plan a 2018 SEFI Debate with a possible title of **“New Skills for New Jobs: New skills strategy for Higher Engineering Education and a great coalition with Industry for new jobs”**.
- This proposed 2018 SEFI Debate could be co-organized in Brussels with the European Parliament, following 2016 SEFI Debate’s paradigm, and the European Commission that is issuing the “New Skills Agenda for Europe”.

PROPOSED SEFI DEBATE 2018

- Since the French Minister of Education will be hosting in 2018 the next European Bologna Policy Forum (BPF),
- It is proposed to organize a SEFI DEBATE as a pre-BPF debate, with a possible title of “**New trends unifying Higher Engineering Education Area, complying with Labour market changes**”, as a sequence of both 2016 and proposed 2017 SEFI Debates, to imply amendments to the BPF.
- This proposed 2018 SEFI Debate could be held in paris, co-organised with the Organisation for Economic Co-operation and Development (OECD-LEED Program), Dassault Systemes and the French Government.

SEFI OECD WORKSHOP 2014

SEFI is debating on the issues of innovation, entrepreneurship and creativity:



SEFI Workshop with OECD, Municipality of Athens, NTUA-ECS, Technical Chamber of Greece. Athens, December 2014

BOLOGNA PROCESS REVISION

- The **Bologna Declaration** (1999) was decided and succeeded to promote mobility and employability through EHEA, adapting a system of equivalent and transferrable credit units (ECTS).
- Tonia Moropoulou has contributed in amendments of the Bologna Declaration at the **Fourth Bologna Policy Forum in Yerevan in May 2015**, on her own initiative and accepted unanimously, ensuring Higher Engineering Education quality and the skills for appropriate profession exercise, representating SEFI. (Representative of Greek Minister of Education Em. Prof. A. Baltas).




GRADATION OF TECHNICAL RESPONSIBILITIES LEGISLATION

Tonia Moropoulou has recently succeeded in the recognition of **integrated and uninterrupted 5 years Studies Program** leading to Diplomas in Greece as equivalent to Master degree. (Law 4485/2017 of Greek Minister of Education Em. Prof. K. Gabroglou).

In addition, she has recently contributed and succeeded in the acceptance process of a new **Presidential Decree** recognizing the general and specialized **professional rights of Engineers in Greece**, thus achieving an integrated framework concluding efforts of the Technical Chamber of Greece of more than five decades.



She is **world class expert in building materials and the preservation of monuments** that comprise the World's Cultural Heritage



Since 1994, under her initiative, she developed a joint research initiative through a **Memorandum of Understanding for the Earthquake Protection of Historical Monuments in Istanbul** between **Princeton University** (Structural Analysis), **Bogazici University** (Geophysical Studies, Earthquake Engineering) and the **National Technical University of Athens** (Construction Materials).

This initiative is still active today through co-operation projects, and within its framework the **Greek contribution to the conservation of Hagia Sophia** has been implemented

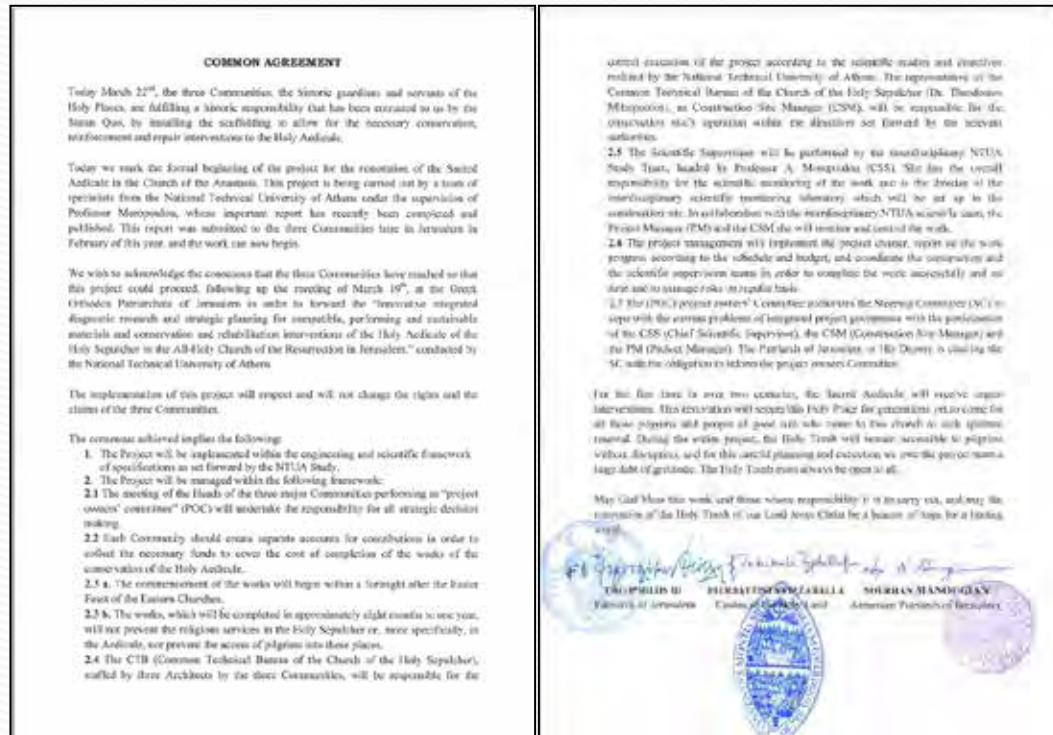
She is the **Chief Scientific Supervisor** of the project for the

*“Conservation, reinforcement and repair interventions for the **rehabilitation of the Holy Aedicule of the Holy Sepulchre in the All-Holy Church of Resurrection in Jerusalem**”,*

which was recently implemented in the framework of the common agreement of the Status Quo Christian Communities, following invitation by the Greek-Orthodox Patriarch of Jerusalem

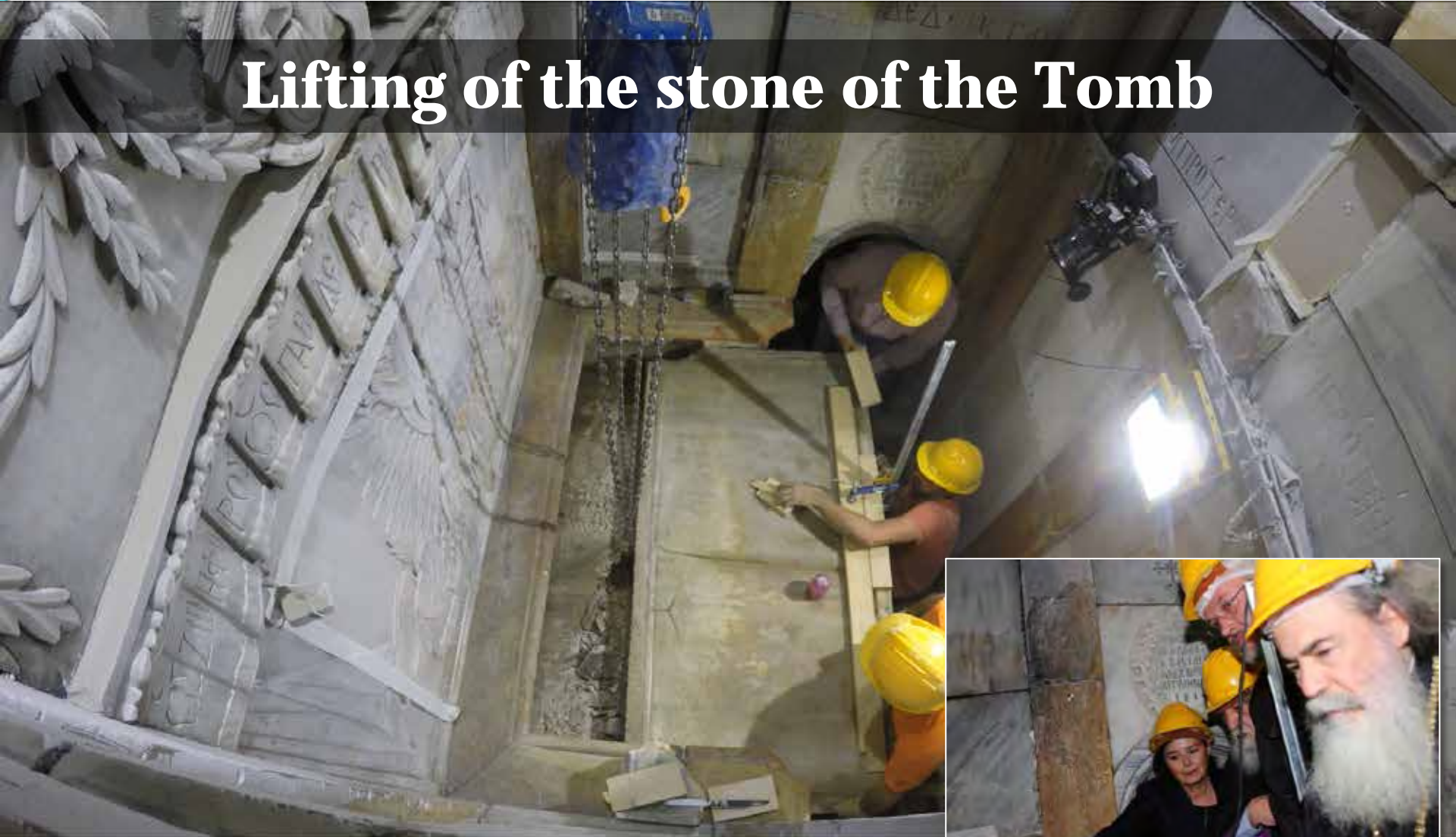
Historic agreement between the three Christian Communities

The Common Agreement of the Status Quo provides him with the authority, in constant collaboration with the Leaders of the Christian Communities, the historic Guardians of the Holy Sepulchre, consisting of the Greek-Orthodox Patriarch of Jerusalem, Theophilos III, the Custos of the Holy Land of the Franciscan Order, Pierbattista Pizzaballa (until May 2016), today the Apostolic Administrator of the Latin Patriarchate of Jerusalem, and Francesco Patton (from June 2016), as well as the Armenian Patriarch in Jerusalem, Archbishop Nourhan Manougian, to **coordinate** all scientific, technical and administrative aspects of the project.



Revealing the burial monument

Lifting of the stone of the Tomb





NATIONAL TECHNICAL UNIVERSITY OF ATHENS

Interdisciplinary Research Group for the Monuments Protection

PRESENTATION UPON COMPLETION OF THE HOLY AEDICULE REHABILITATION

Jerusalem, 22 March 2017

National Technical University of Athens
Chief Scientific Supervisor
Prof. Antonia Moropoulou

NTUA Interdisciplinary Team

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Program Agreement between Jerusalem Patriarchate and NTUA, 623455/2016

The Holy Aedicule Before & After Rehabilitation Interventions

Before Rehabilitation Interventions



Panoramic View



After Rehabilitation Interventions



East Side



The Holy Aedicule Before & After Rehabilitation Interventions

Before Rehabilitation Interventions



South Side View

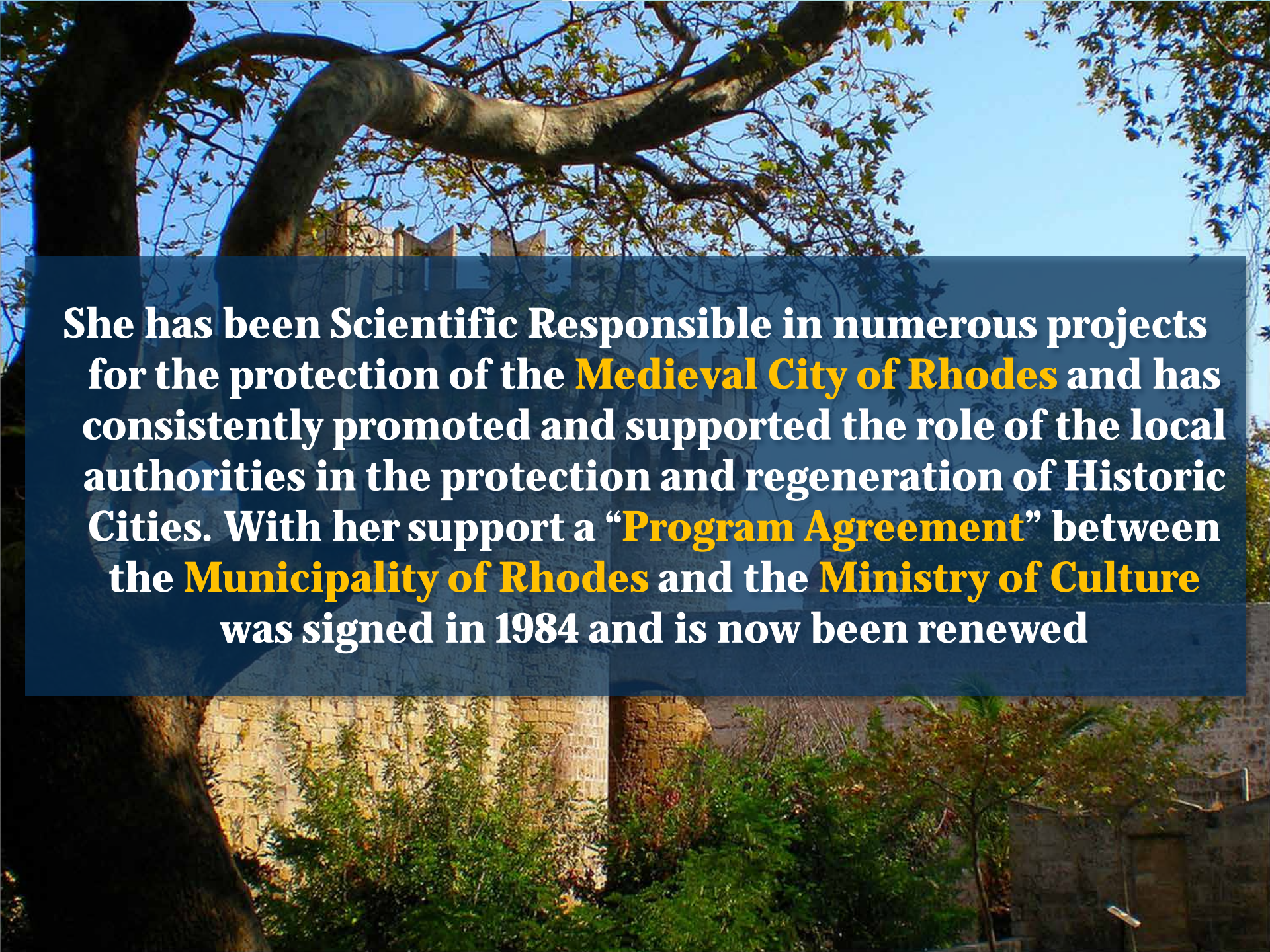


After Rehabilitation Interventions



North Side View





She has been Scientific Responsible in numerous projects for the protection of the **Medieval City of Rhodes** and has consistently promoted and supported the role of the local authorities in the protection and regeneration of Historic Cities. With her support a “**Program Agreement**” between the **Municipality of Rhodes** and the **Ministry of Culture** was signed in 1984 and is now been renewed

She has also worked on restoration projects for the rehabilitation of historic cities, i.e. the **Venetian Fortresses and Historic Cities of Rethymnon, Herakleion and Corfu**, the **Demeter Temple of Eleusis**, Fortresses, architectural monuments of **Venice** and **Magna Grecia**, the **Temple of Luxor** in Egypt, Byzantine and Post-Byzantine **Monasteries in Mount Athos and Creta**, Byzantine Monasteries in **Serbia and Kosovo**, Temples and **Monuments in the Mediterranean** (France, Italy, Spain, Portugal, Malta, Turkey, Israel, Lebanon, Syria, Palestine, Tynisia, Egypt) and recently in the European project “**INCEPTION** - Inclusive Cultural Heritage in Europe through 3D semantic modelling”