



Dipartimento di Architettura,
Disegno, Storia e Progetto
Università degli Studi di Firenze



Fondazione Romualdo Del Bianco®
Life Beyond Tourism®



Collegio degli Ingegneri
della Toscana



International Congress

DOMES IN THE WORLD

With the High Patronage of the President of the Italian Republic

Florence

March 19 - 23, 2012

Auditorium al Duomo
Via de' Cerretani, 54/r

www.domesintheworld.com



The Congress is part of the "90 Days for Intercultural Dialogue" Programme conceived and promoted by Fondazione Romualdo Del Bianco® - Life Beyond Tourism® and included in UNESCO's International Year for Approchement of Cultures Programme



19 -23 Marzo 2012 - March 19th-23rd, 2012

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DOMES IN THE WORLD

The congress is part of a programme of activities promoted by the Fondazione Romualdo Del Bianco®-Life Beyond Tourism® to foster intercultural dialogue through the knowledge, interpretation and communication of different civilisations' cultural heritage and through respect for cultural diversity. Florence, known the world over for Brunelleschi's dome, is the ideal venue for a congress on domes, the materials and methods used in their construction, their symbolism, their conservation, their value in the cityscape and the fact that they form such a significant and emotional element in the identity of so many cityscapes in so many different cultures. Domes have always been, still are and will continue to be a factor for enthusiastic debate also among those peoples who have not adopted them as a roofing system, thus we hope that they, too, will participate extensively in this initiative.

Paolo Del Bianco
President of the
Fondazione Romualdo Del Bianco®-Life Beyond Tourism®

Since its early appearances in Western European funeral buildings of the 6th and 5th millenary B. C., the dome has been widely adopted in architecture primarily for its symbolic reference to the celestial vault. Dome construction was then disseminated initially in the Eastern regions where it acquired civil and religious meanings. Later, as a result of Palladianism, they appeared in the New World and very New World (Australia), where they were built of earth or masonry, wood, steel, concrete or other materials, using a variety of building techniques from the simplest deduced from the imitation of nature, to the extremely sophisticated structural concepts. No other architectural element is so adapt in resuming the building capability achieved by a civilization, stir up deep spatial emotions or, with its peculiar but various shapes, confer special features to a landscape hence attaining a universally intelligible value.

Gennaro Tampone
President of the Steering Committee



Programme

Monday, March 19th

h. 15.00 - 16.45

OPENING CEREMONY

Università degli Studi di Firenze, Aula Magna del Rettorato (Piazza San Marco, 4)

h. 17.00 - 18.30

WELCOME DRINK

Provincia di Firenze, Palazzo Medici Riccardi (Via Cavour, 1)

with the opening of the exhibition

"EARTHEN DOMES OF SYRIA. AN ARCHITECTURAL CULTURE OF UNCERTAINTY"

Tuesday, March 20th

h. 8.15 - 19.00

Auditorium al Duomo, Via de' Cerretani 54r

The participants registration

h. 8.15

Opening of the Slide Center for the presentations uploading (Session 1 & 2)

h. 9.00

Auditorium al Duomo, Anfiteatro Andrzej Tomaszewski

Chairman: **Franco Angotti**

h. 9.40

GENERAL CONGRESS INTRODUCTION

Vinício Serino

h. 10.30

GENERAL SESSION INTRODUCTIONS

Roberto Corazzi, Emma Mandelli, Gennaro Tampone

SESSION 1

CULTURAL IDENTITY AND SYMBOLISM

Chairman: **Carlo Blasi**

Giorgio Croci

Arch, domes and vaults in the history of architecture (Key-note Lecture)

Stella Casiello, Gianluigi de Martino

Domes in Campania; natural and built landscape. Knowledge, restoration and conservation

Nicola Camerlenghi

The Millennial Absence of Dome Construction in Medieval Rome

Alessandro Castagnaro

The dome as a symbol of architecture during the "Ventennio" in Italy between the two world wars

David Asatiani

The United States Capitol as Temple of American Democracy

Anna Agata Wagner

Dome in the sacral architecture - the spatial and symbolic considerations based on the projects for The National Temple of Divine Providence in Warsaw

Laura De Carlo, Emanuela Chiavoni

Geometry and symbols in Sant'Ivo alla Sapienza in Rome

10.30 - 13.30

Coffee / Brunch Station



Andrea Giordano
The "sky" over Berlin: the Reichstag dome

Svitlana Smolenska
Dome symbolism in the architecture of the Soviet avant-garde in the 1920s-1930s

REFEREE PRESENTATION – **Maria Concetta Zoppi**, Referee
Maria Alexeeva: The development of pictorial image in the domes of Russian churches XII – XVI centuries; **Patrizia Falzone**: The dome as distinctive identity element of the landscape of humanity, in formal characteristics, materials, colour and light; **Hoda Jafarian**, **Iraj Shahrouz Tehrani**: Symbolism of dome in pre-Islamic and Islamic architecture of Iran; **Etrat Lalbakhsh**: Dome in Iranian architecture, comparison of Soltaniyeh (1280 A.D.) and Ghadir mosque (1977 A.D.); **Anna Marotta**, **Serena Abello**: Symbolism of Buddhism: Dagobas in Sri Lanka; **Salvatore Perrucci**: Dome and cave; **Nune Petrosyan**, **Armenuhi Gasparyan**, **Ruzan Artashesyan**: Domes Symbolism and Genesis in Armenian Culture; **Anuradha Ranade**: Ancient Buddhist Stupa from Sanchi; **Swapna Hemant Samel**: Cultural Significance of World Largest Stone Dome - A Golden Pagoda Mumbai - A Modern Architectural Miracle; **Mohannad Tarrad**, **Mohammad Matrouk**: The Dome in Islamic Architecture and the Contemporary Orientations to the Design of Mosques' Domes (Case study of the mosques in Jordan); **Mansour Safran**, **Giuseppe Mazzacava**: The colors of domes in the desert; **Ouldouz Zarei**: The effect of dome's shape in making a sacred space

h. 14.00

Auditorium al Duomo, Anfiteatro Andrzej Tomaszewski
SESSION 1
CULTURAL IDENTITY AND SYMBOLISM
Chairman: **Adolfo Natalini**

REFEREE PRESENTATION – **Alberto Bove**, Referee
Alessio Altadonna, **Salvatore La Rosa**, **Mario Manganaro**, **Antonino Nastasi**, **Nicola Siragusa**: Medieval domes in North-Eastern Sicily; **Amir Causevic**, **Aida Idrizbegovic Zgonic**, **Nerman Rustempašić**, **Lana Kudumović**: From Traditional Harmony to Contemporary Disruption; **Tony Fogacci**: The Symbolism of the Dome through the Study of the Coal Millstone (charcoal kiln) in Corsica and its Continuity in the Course of the History; **Sabina Hajiyeva**: Domes in religious monuments of Azerbaijan; **Kemas Ridwan Kurniawan**, **Ratu Arum Kusumawardhani**: The role of the 19th century Dutch colonialization in introducing Middle Eastern domes (kubah) for mosques in Sumatra (Indonesia); **Mohammad Reza Malek**, **Shamsolmoloq Aliabadi**: A Dome Spatial Ontology; **Anna Marotta**, **Olga Derzhavina**: Shapes and meanings of domes in Russian Orthodox temples; **Caterina Mele**: The dome of Como cathedral: design, restauration and symbolic urban value; **Ivana Passamani**: From dome to town: Brescia – Lonato – Montichiari going and coming; **Matteo Pontoglio**: Architecture and culture in the Po Valley: history, tradition and identities in the shadow of the domes in the Brescia territory; **Ori Z. Soltes**: Continuity and Transformation: The Idea of the Dome from Kurgan Graves to the Florentine *Tempio Israelitico*; **Mehmet Uysal**, **Koray Özcan**: Sustainable Conservation of Vernacular Heritage Domed Houses in Karaköy (Sanliurfa, Suruç), Turkey.

Andrzej Kadłuczka
The symbolism of domes in wooden sacred architecture of south-east Poland

Amra Hadžimuhamedovic, **Fehim Hadžimuhamedovic**
Domes in Bosnia

Khosro Behrouzi, **Hamid Reza Eshaghi**
Role of dome in Mazary (Case Study: Mahmud Joshan-Ahmad Abazari Mazary in Yazd)

Gulchohra Mammadova
Development of domical compositions in the round temples of Caucasian Albania-Azerbaijan



Liana Antelava, Anna Kldiashvili
The Dome in the Georgian Christian Architecture (The Artistic Expression and Symbolic Semantics of the Dome of the Holy Cross Church in Mtskheta)

Jolanda Scelfo
The Domes of St. Peter and Paul's church (Casalvecchio Siculo)

REFEREE PRESENTATION – **Marco Bini**, Referee
Shukur Askarov: The Turco-Mongol beginnings of Brunelleschi's dome; **Ibrahim Ataç**: Dome as byzantine contribution to the ottoman turkish architecture; **Masoud Bayat**: Soltanyeh dome: the symbol of the domination of civilization over sword; **Farshad Borjian Borojery**: The Symbolism of Domes in Islamic Architecture of Mosques in Yazd and Kerman; **Richard Carbonnier**: Arctic Symbiosis Sustainability and Better Habitat Design; **Alicia Carrillo**: Muqarnas domes: an interpretation of the "Heavenly Vault"; **Beatrice Maria Fracchia**: Domes of Guarino Guarini in Turin: architectural signs of cultural identity in the XVIIth century; **Ehsan Gholamzadeh**: The Study of Dome Structure in Iran's Architecture; **Antonella Versaci**, **Alessio Cardaci**: The domes of Albania: architectural elements of a cultural heritage to discover and preserve.

h. 16.30

SESSION 2
GEOMETRIC GENESIS, SHAPE, SURVEY, ANALYSIS, DOCUMENTATION
Chairman: **Giacomo Tempesta**

Mario Docci
The cupola of St. Peter's and the work of Donato Bramante, Antonio da Sangallo the Younger, Michelangelo and Giacomo della Porta (Key-note Lecture)

Rosario Ceravolo, **Mario Alberto Chiorino**, **Giuseppa Novello**, **Giuseppe Abbiati**, **Luca Zanotti Fragonara**
Reconciling geometry and dynamics: models for oval domes

Fereshteh Hassani
Semi-domes

Abdel Aziz Salem
The Architectural Styles of Islamic Domes in Morocco

Dirk Huylebrouck
Hyperbolic, chiral and skew domes

Giuseppa Novello, **Paolo Piumatti**
The design of the dome of the Sanctuary of Vicoforte (Piedmont, Italy) among idea, geometry and construction practices: researches on the shape and the size of the largest oval dome in the world

Paola Quattrini, **Emiliano Della Bella**
Marcello Piacentini's dome in the building for the Cripples and Invalids of War in Rome (1925-1928) between classical space permanencies and technological innovations

Paula Fuentes
The geometry of the dome of San Millán in Segovia

Amir Salimi, **Seyedmahmood Moeini**, **Mehdi Damaliamiri**, **Mehrdad Garousi**
Wonders of seven in domes: Islam and Christianity

REFEREE PRESENTATION – **Michela Rossi**, Referee
Nina Almasifar, **Mohammad Reza Bermanian**, **Hasan Ali Pourmand**: To investigate the method of using of congruency in geometrical proportions of Sheikh Lotfolah Mosque Cupola (Isfahan – Iran); **Rayiha Amenzade**: Domes in medieval Azerbaijan architect-



ture; **Simona Arenga, Laura Velatta**: The Chapel in the Park at Pratolino: Survey of the Dome and the Prince's Dreamscape Complex; **Paolo Bertalotti, Mauro Luca De Bernardi, Izabel Alcolea, Maria Chiara Bonora**: The dome as a constituent body of the architectural form; **Gisoo Ghaem**: Baze Hour - the most ancient Fire Temple of Iran; **Jawdat Goussou, Wael Al-Azhari**: Domes Formation in Middle East Islamic Countries; **Ivane Gremelashvili**: Bagrati cross building cathedral - symbol of religious and political unification of Georgia; **Vittorio Gusella, Paolo Belardi, Fabio Bianconi, Marco Armeni, Nicola Cavallagi, Luca Martini**: The domed skyscraper of Galeazzo Alessi. The geometric and structural ambiguities of dome of the Saint Mary of the Angels Basilica; **Elena Ippoliti**: The dome in the churches' projects by architect Gaetano Rapisardi; **Amer Amini Kiasari**: Theoretical Principles of Geometry and Ornaments in the Architecture of Goharshad Mosque; **Cosimo Monteleone**: The revelation of art: the dome of the Guggenheim Museum by Frank Lloyd Wright; **Gihan Mosaad**: Domed roofs of Egypt: past and present; **Alessandra Pagliano**: Light and geometry in the starry sky of L. E. Boulée's Cenotaph.

Wednesday, March 21st

h. 8.15

Auditorium al Duomo, Via de' Cerretani 54r
Opening of the Slide Center for the presentations uploading (Session 2 & 3)

h. 9.00

Auditorium al Duomo, Anfiteatro Andrzej Tomaszewski
SESSION 2
GEOMETRIC GENESIS, SHAPE, SURVEY, ANALYSIS, DOCUMENTATION
Chairman: **Francesco Gurrieri**

Emma Mandelli, Michela Bigagli, Gaia Lavoratti, Valentina Musto, Sandro Parrinello, Piero Salemi, Michelangelo Tiefenthaler, Laura Aiello, Maria Emilia Ciannavei, Stefania Iurilli, Chiara Odolini, Sara D'Amico, Giulia Galeotti, Erica Ganghereti, Francesca Grillotti
Brunelleschi's domes in Florence (Key-note Lecture)

Roberto Corazzi
The Secret of Brunelleschi's Dome (Key-note Lecture)

Domenico Taddei, Antonio Taddei
The "spina-pesce" and the "corda-blanda": Florentine tradition in the (self-supporting) domes rotating

Silvia Bertacchi
The dome of Santa Maria del Fiore in Florence: a virtual Model

Grazia Tucci, Alessia Nobile, Maria Riemma
Laser scanner surveys and the study of the geometry and structure of the dome in the Basilica della Madonna dell'Umiltà in Pistoia

Nora Lombardini, Grazia Tucci, Valentina Bonora, Nadia Guardini, Paolo Focaccia
The survey of the Dome of the Basilica of San Vitale in Ravenna

REFEREE PRESENTATION – **Giuseppina Carla Romby**, Referee
Barbara Aterini: Dome as a solution to the technology problem of ice conservation; **Giuseppe Conti, Roberto Corazzi**: Brunelleschi's Dome and the Mathematics; **Paolo Giandebiaggi, Andrea Ghiretti, Maria Evelina Melley, Daniela Paltrinieri, Michela Rossi, Chiara Vernizzi**: Santa Maria del Quartiere in Parma: Building Survey; **Vincenzo Iannizzaro, Salvatore Barba, Barbara Messina, Pierpaolo D'Agostino, Fausta Fiorillo**: The domes of the Amalfi Coast: survey and digital representation of complex shape; **Seda Kula Say**: A Survey and Forms Catalogue for Dome and Transitional Element Usage in the Early Ottoman Architecture; **Marika Mangosio**: Bernardo Antonio Vittone architect and the technical knowledge transfer in dome construction: tools and methods; **Maria**



10.30 – 13.30
Coffee / Brunch Station

h. 11.15

Ines Pascariello: Painted dome: suspended between reality and illusion; **Mina Sarvari Mehrabad**: Carbandi in Iranian dome; **Alberto Sdegno, Silvia Masserano**: The Domes of the Church of St. Spiridione in Trieste. Geometrical Analysis and Digital Reconstruction; **Natalya N. Tadevosyan**: Medieval domes in Armenia; **Golzar Younesi**: Ridged domes (step-step) in the historical architectural content of humid climate in Iran and its contemporary usage

REFEREE PRESENTATION – **Emanuela Chiavoni**, Referee
Eva Coisson, Daniele Ferretti: The contribution of structural modeling to understand the original shape of a disappeared Parthian dome; **Piero Degl'Innocenti**: Before Brunelleschi: the Dome of the Florentine Baptistery of San Giovanni; **Manuel Fortea, Domingo García Pozuelo**: The Florence dome: a story that still has not been told; **Naser Hadi Dehghani**: Re-reading the form of Chahar-taqy dome in Takht-i Solomon fire temple of Azerbaijan - by the evolution of Sassanid dome; **Mehri Fadaei Haghi, Elham Hattami Golzari, Masoumeh Fadaei Haghi**: Whispering Gallery in domes - An acoustical Analysis of Imam mosque's dome in Esfahan; **Tetyana Kashchenko**: Energytectonic properties of dome structures in architecture; **Joubert José Lancha**: Idea and ideal. Vaults and cupolas in Palladio's Villa Foscari; **Irem Maro Kiris**: The 'Revival' of Dome in Secular Architecture of the Late-Ottoman Early-Republican Turkey; **Eric J. Martin, Brendan O'Keefe**: The Shine Dome, the Australian Academy of Science, Canberra, Australia; **Ali Pourafrahyabi, Hossein Jamasbi, Reza Parvizi**: Dome, Eastern roof without column; **Saverio Mecca, Letizia Dipasquale**: Earthen domes and habitats of Northern Syria; **Adriana Rossi**: The ethos suggested by landscape markers: the tiled dome.

SESSION 3
CONSTRUCTION, IDENTIFICATION, CONSERVATION
Chairman: **Paolo Spinelli**

Paolo Rocchi, Andrea Valerio Canale, Corin Frasca
The History and Problems of Domes: from the 'Grande Cupola' of the Vatican Basilica to the Dome of the Basilica di San Bernardino in L'Aquila (Key-note Lecture)

Pietro Matracchi, Luca Giorgi
The dome of the Duomo of Siena. Construction sites during the thirteenth and fourteenth centuries and additions during later ages

Seyed Masoud Mousavizade, Farnoosh Daneshpanah
Dome surface adornment designing methods in Iranian architecture

Daniel Lefèvre, Carlo Blasi, Eva Coisson
The three domes of the French Panthéon

Elena Stievenan, Francesca da Porto, Claudio Modena, Michele Secco, Gilberto Artioli
Characterization studies on the reinforced concrete dome of the former General Market of Verona, built in 1929

Luigi Fregonese, Cristiana Achille, Laura Taffurelli, Francesco Fassi, Carlo Monti, Ettore Vio
3D database of the knowledge of material data: analysis of the complex structure of the Pentecoste dome in St. Mark's Basilica in Venice

Massimo Corradi
The relationship between form and structure in the dome of the Basilica of San Gaudenzio in Novara

Giacomo Tempesta, Michele Paradiso, Stefano Galassi, Eva Pieroni
Maurice Lévy's original contribution to the analysis of masonry domes



h. 15.00

Federica Ottoni, Eva Coisson

The hexagonal dome of Santa Maria del Quartiere in Parma. Static analysis for conservation and structural consolidation

Luisa Rovero, Ugo Tonietti

Corbelled domes structural behavior

Auditorium al Duomo, Anfiteatro Andrzej Tomaszewski
SESSION 3
CONSTRUCTION, IDENTIFICATION, CONSERVATION
Chairman: **Paolo Rocchi**

Jean-Louis Taupin

Vault to be built without Centerings (Key-note Lecture)

Satprem Maïni

Building optimized domes without formwork

Mina Radahmadi

Dome Transition in the Historic Shrine of Aziran, Iran

Franca Restuccia, Corrado Fianchino, Mariateresa Galizia, Cettina Santagati

The Iblei's stone landscape: the 'muragghi' through

Gennaro Tampone

Rare Domes Simulating Timber Construction in Etruscan Hypogeal Tombs

Yury Yuzhakov

Wooden Domes of Architecture Monuments in Russia

Fereshteh Pashaei Kamali, Behroz Omrani

Wooden domes in the north west of Iran

Ettore Vio

The Domes of St. Mark's Basilica in Venice, similar to each other, but different in structure and shape, in originality, history and building technique

Miquel Àngel Chamorro, Beatriz García, Jordi Salvat

Construction of the tile vault Cap Sa Sal Hotel in Begur, Girona

Hadi Safaeipour, Akbar H.E. Zargar, Sajedeh Goudarzi

Typology of Khashkhashis (stiffeners) in discontinuous double-shell domes

Alberto Lionello, Claudio Menichelli

The unusual dome of the Cappella Emiliana on the Island of San Michele in the Venice Lagoon

Marco Giovanni Brambilla

Construction Techniques of the Dome of the Mausoleum of Uljaytu in Sultaniyya

Mahesh Varma, N.R. Varma, R.S. Jangid, V.G. Achwal

Grand Pagoda: world's largest span masonry dome

REFEREE PRESENTATION – Giuseppe Alberto Centauro, Referee

Gabriel Barbata, Jordi Caminero, Esteve Navarrete: Earth domes in a school building in Santa Eulàlia de Ronçana, Catalonia; **Luca Giorgi, Pietro Matracchi**: Variants and invariants in the brickwork of the Dome of Santa Maria del Fiore in Florence; **Mahmoud Golabchi, Mehdi Khoramirouz**: Ribs in domes and Iranian's historical structures: Integration of architecture and structure; **Jerzy Jasienko, Tomasz Nowak, Anna Ostrychar**



h. 8.15

h. 9.00

10.30 – 13.30

Coffee / Brunch Station

czyk: Hybrid domes made of glulam and steel - a study of the structure; **Renato Morganti, Alessandra Tosone, Stefano Balassone, Danilo Di Donato**: From the rib to the cable: tradition, modernity and the contemporary in the domes to "metal structure" in Italy; **Izís Salvador Pinto**: Lightweight and transparent domes; **Antonio Manuel Reyes, Manuel Fortea**: Common Hispanic Domes and Vaulted Ceilings; **Indranu Suhendro**: On a Unified Geometric Framework for Thin Translation Shells as Optimal Surfaces

Thursday, March 22nd

Auditorium al Duomo, Via de' Cerretani 54r

Opening of the Slide Center for the presentations uploading (Session 3)

Auditorium al Duomo, Anfiteatro Andrzej Tomaszewski
SESSION 3
CONSTRUCTION, IDENTIFICATION, CONSERVATION
Chairman: **Jerzy Jasienko**

Carlo Blasi, Federica Ottoni

New studies on Brunelleschi's Dome in Florence from historical to modern monitoring data analysis. The effect of encircling scaffoldings on cracks evolution (Key-note Lecture)

Olimpia Niglio

A scientific approach to the Dome of St. Peter in Rome. The expertise of three mathematicians of the Dotti's Roman Republic (1742)

Michela Rossi

The Fuller's heritage: organic models and artificial microcosm in XX century domes

Saheb Mohamadianmansoor, Sina Faramarzi, Meysam Akbari, Faeze Hatamimajd
'Karbandi': The ground of applying Dome on different contexts in Iranian architecture

Majid Rassekhi, Arya Ebrahimi

Bazar

Fabio Fratini, Luisa Rovero, Ugo Tonietti

Earthen domes in the Aleppo region (Syria): materials and building techniques

Bianca Gioia Marino

Significances and image of dome in the controversy about the restoration of the Parisian Panthéon between eighteenth and nineteenth century

Manuela Praticò, Irene Caltabiano

The rural African vaulted structures in architecture between preservation and innovation

Giosuè Boscato, Luciano Marchetti, Davide Rocchi, Salvatore Russo

Monitoring of Anime Sante church's dome after earthquake in L'Aquila

Nancy A. Rankin

America's courthouse: the history and restoration of the dome of the old Nassau County courthouse

Filippo Antonello

Reconstruction of the wooden vault of the Synagogue of Reggio Emilia

REFEREE PRESENTATION – Patrizia Falzone, Referee

Jesús Anaya: Digital Domes. Architecture's engineering with geometry of high indetermination degree; **Gianni Bartoli, Michele Betti, Maurizio Orlando**: The Dome of the Siena Cathedral: Monitoring and Structural Analysis; **Jerzy Jasienko, Krzysztof Raszczuk**: Numerical analysis of tensioned, masonry ring of the rotating dome; **Ayşe Gulcin Ku-**



h. 14.00-15.00

cuikkaya, Sazurman Sazak: Conservation of dome mosaics of Hagia Sophia in Istanbul; **Mohammadjavad Mahdavinejad, Soha Matoro, Amene Doroodgar:** Light in Iranian Domes (with an approach to structural matters); **Manuela Praticò, Aldo Benvenuto, Vittorio Ceradini:** As the restoration brings the architect to win the graphic deception; **Roslán Talib, Mohd Zailan Suleiman:** Conserving Concrete Dome in the Tropic; **Giacomo Tempesta, Michele Paradiso, Stefano Galassi, Eva Pieroni:** Structural analysis of polygonal masonry domes. The case of Brunelleschi's dome in Florence; **Reza Vahidzadeh, Behnam Pedram, Mohammad Reza Owlia, Hossein Mosadeghzadeh:** Tile-working on Safavid domes of Isfahan, the four hundred year old tradition of conservation and the contemporary challenges

Auditorium al Duomo, Sala Vasari
POSTER SESSION - Presentations

h. 15.00

Auditorium al Duomo, Anfiteatro Andrzej Tomaszewski
SESSION 3
CONSTRUCTION, IDENTIFICATION, CONSERVATION
Chairman: **Andrea Vignoli**

Jerzy Jasienko, Marta Moczko, Andrzej Moczko, Danuta Wala
Concrete of the Centennial Hall: UNESCO List, Wrocław, Poland (Key-note Lecture)

Davor Uglešić, Miljenko Domijan
Reconstruction of St. James's cathedrals dome in Šibenik

Ana Fernández-Cuartero Paramio, Juan Francisco de la Torre Calvo
Structural Repair of single layer masonry dome in Brihuega (Spain)

Silvia Briccoli Bati, Mario Fagone, Tommaso Rotunno
The dome-behavior analysis of the groin vault in the St. John Hospital in the Old City of Jerusalem

Michele Paradiso, Giacomo Tempesta, Stefano Galassi, Eva Pieroni, Elena Perria
The dome of the cathedral of Santiago de Cuba: degradation and consolidation

Mario Piana
The dome of Santa Maria della Salute in Venice: its construction and restoration

Laura De Lorenzis, Rossana Dimitri, Biancaneve Codacci-Pisanelli, Giorgio Zavarise
An innovative technique for strengthening of masonry edge vaults: experiments and modeling

Francesco Gurrieri
First considerations on the Thracian tombs in Bulgaria

Mario Alberto Chiorino, Carlo Casalegno
Survey and structural modeling for the reliability assessment of the world's largest elliptical dome at Vicoforte (Key-note Lecture)

GENERAL DISCUSSION AND CONCLUSION
Chairman: **Gennaro Tampone**

h. 20.00

FAREWELL COCKTAIL
Comune di Firenze, Palagio Parte Guelfa (Piazza di Parte Guelfa, 2r)

Friday, March 23rd

VISITS AND INDIVIDUAL MEETINGS



Poster Session

PART A
Marjan Amjad, Saeedeh Nejadsatari
Five Gems set in the Ring of Isfahan

Arturo Gallozzi
Construction notes on the lost dome of Montecassino Basilica

Sepideh Khazae
Symbolism in Domes. People and the Sky

Massimo Depaoli
The dome in the tempietto altars: examples of architectural culture in Lombardy

PART B
Posters of the Scuola Nazionale di Dottorato in Scienze della Rappresentazione e del Rilievo and of the Rete Nazionale ICAR 17
Coordinators Emma Mandelli, Lucia Bonanno, Francesca Fatta, Laura De Carlo, Giuseppe Pagnano, Michela Rossi, Francesco De Mattia:

Michela Bigagli, Gaia Lavoratti, Valentina Musto, Sandro Parrinello, Piero Salemi, Michelangelo Tiefenthaler
The umbrella vault of the Pazzi Chapel in Florence

Laura Aiello, Maria Emilia Ciannavei, Stefania Iurilli, Chiara Odolini
Brunelleschi's Dome in Florence

Sara D'Amico, Giulia Galeotti, Erica Ganghereti, Francesca Grilletti
Filippo Brunelleschi's dome in Florence

Francesco Di Paola, Laura Inzerillo, Maria Rita Musso, Mirco Cannella
Domes / Reflection of the sky. Repertoire of Palermo's domes

Arena Marinella, Raffa Paola, Bassetta Manuela, Maimone Tindara, Mazzacava Giuseppe, Orlando Antonella, Riotto Antonella, Romeo Giuseppe
For a variation of the Mediterranean dome

Francesco Borgogni, Michele Calvano, Annika Moscati
The Dome of Saint Yves at La Sapienza in Rome. Digital modeling as method of knowledge

Sara De Felici, Jessica Romor, Wissam Wahbeh
The Dome of Saint Yves at La Sapienza. Hypothesis on Chapel's morphogenesis

Giuseppe Ingaglio
Between illusionism and representation: deceptive domes in Sicily and Malta

Laura Galloni, Giuseppe Amoroso
Interactive Environments in Cultural Heritage

Massimo Lesemi
The pseudo domes of the Apulian dry stone walling

Giorgio Buratti
"Le Quadrature" of the Abbey Church of S. Maria at Vallombrosa – Case History of the central bay vault



Santa Maria del Fiore Cathedral
Piazza San Giovanni
Wednesday, March 21, 2012
h. 21.15
Entrance free with
the congress badge

OPA, Centro Arte
e Cultura
Piazza San Giovanni 7
March 19-23, 2012
9.00 – 18.00
Entrance free



Palazzo
Medici Riccardi
Via Cavour 3
March 17-24, 2012
9.00 – 18.30,
Wednesday closed.
Entrance free with
the congress badge



Caffè Astra al Duomo
Via de' Cerretani 56r
March 19-22, 2012
h. 8.00 – 20.00
Entrance free

Concert

Messa sopra l'Aria di Fiorenza. In Annuntiatione Domini

Ensemble San Felice
Federico Bardazzi director - Martina Stecherova, Davide Fior soli gregoriani

Music by GIROLAMO FRESCOBALDI (1583-1643) and **MARCO DA GAGLIANO** (1582-1643)
The concert is organized by Opera di Santa Maria del Fiore (OPA) as part of the festival "O flos colende". For the participants of the International Congress "Domes in the World" the places are reserved.

Exhibitions

IN THE HEART OF THE CUPOLA

Exhibition curated by Roberto Corazzi
The exhibition presents the dome of Santa Maria del Fiore – its history and investigations which have determined its geometric structure and the composition of the materials Brunelleschi employed in its creation. It describes the procedures used and the most advanced technologies used to investigate the interior of the inner and outer domes which comprise the work. The exhibition is divided into sections focused on the progress of investigations, exposition of various models of machines designed by Brunelleschi, historical and current photographs of the most scenic spots of the Cupola and finally patterns and pictures of other domes. The exhibition is accompanied by audiovisual documentaries.

EARTHEN DOMES OF SYRIA. AN ARCHITECTURAL CULTURE OF UNCERTAINTY

Exhibition curated by Saverio Mecca and Letizia Dipasquale
Photographs by Luca Lupi
The arid climate has dominated the character of northern Syria for millennia, a determining factor for settlement, architecture, building culture, use of land. The different populations inhabiting these regions down the millennia have had to restrict their living and develop strategies to deal with climatic uncertainties, and chiefly with the supply and availability of clean drinking water. The earthen dome habitats express this exceptional fluctuating culture of uncertainty. This exhibition, based on the results of the project "Coupoles et habitats. Une tradition constructive entre Orient et Occident" (funded by the European Union Culture 2000 programme), is proposing an original analysis and documentation of this unique architectural heritage. The photographs of Luca Lupi, official photographer of the project, are an ideal introduction to the world of earthen dome villages in Northern Syria.

DOMES IN THE WORLD

Photographic Exhibition
The exhibition in the Congress Caffè Astra al Duomo presents a selection of the most beautiful photos sent to the organizers by the congress participants and universities students all around the world.



Visits

VISIT TO THE ETRUSCAN TOMB OF "MONTAGNOLA" WITH THOLOS

at Quinto di Sesto Fiorentino (conceived by Gennaro Tampone)
Discovered in 1959 (Chiostrì, Mannini), the Tomb of an Etruscan aristocratic family, called Tomba della Montagnola, is a false hypogeal construction covered by a tumulus built in the Orientalizing Period (VII c. B.C.). The dome, that covers the whole funerary chamber of the complex starting from the very floor, is a tholos (span and height of 5 m c.) shaped as a parabola, built with megaliths (rough slabs of stone of the local alberese formation) without mortar, using the technique of the corbelled domes that doesn't need centres, i.e. with progressively projecting elements. The pillar of limestone voussoirs placed in the middle of the tholos has no structural function. The complex, mainly the vestibule and the tholos, had been the object of a strengthening work (Tampone, 1997). It has been recently restored. Close to this funerary complex, the coeval one called Tomba della Mula, built exactly with the same technique, has a tholos of the outstanding span (the largest in Etruria) of almost 10 m. The typology of the funerary monumental complexes with tholos belongs to the tradition of Etruria proper, systematically started in Populonia in the X – IX c. and continued up to the VII (Tombs of Rasoio lunato, Pissidi cilindriche, Oreficerie, Carri etc.) also including other large funerary complexes as those of Vetulonia (Tomba del Diavolino), Casalmarittimo, Casaglia, Carmignano (Tomba di Montefortini). (GT)

VISIT TO BRUNELLESCHI'S DOME (conceived by Roberto Corazzi)

Brunelleschi's famous Dome is the largest masonry dome ever built: its maximum internal diameter is 45 m., and the external measures 54 m.. Its magnitude prevented traditional building methods which employed a central support system and many theories about its construction technique have been formulated and debated. During the guided tour participants will visit the famous Italian Renaissance architectural monument and, with the help of the experts, they will discover in detail the construction techniques Brunelleschi used. (RC)



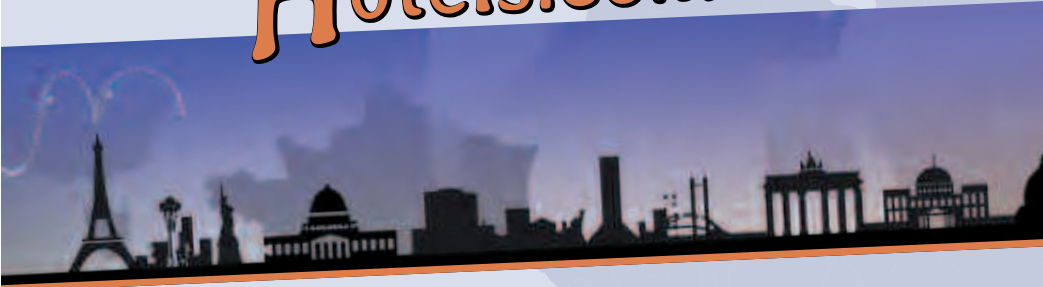
VISIT TO THE PALAZZO MEDICI RICCARDI

Palazzo Medici Riccardi has a particularly fascinating history, rich in art and also in political, cultural and worldly events. The history of this palazzo, one of the finest and most famous in Florence, is an integral part of the history of the city, marking out all the important stages in its development. Built in the mid fifteenth century by Michelozzo on commission from the Medici, the building became the prototype of Renaissance civil architecture. The robust and austere pile of the mansion, originally designed as a sort of cube, was for at least a century the most direct and efficacious symbol of the political and cultural primacy of the Medici in Florence. After a period of neglect, in 1659 the Medici sold it to the Riccardi who extended the building northwards and partially renovated the interior. The modifications of Baroque flavour, particularly intensive in the last two decades of the century, were on the keynote of lavish show and sophisticated erudition. When fortune waned and the sun set on this splendour, in 1814 the Riccardi sold the palazzo to the State. Since 1874 it has belonged to the Provincial Authority, which since the beginning of the last century has adopted a policy aimed at the reclamation and valorisation of the building itself and the works housed within.

Due to the limited spaces all the guided tours (in Italian or English) can be organized for groups of 15-20 persons. For advance booking please contact the organizing secretariat desk at the Auditorium al Duomo.



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