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5TH INTERNATIONAL CONGRESS ON CONSTRUCTION HISTORY
JUNE 3-7, 2015
PALMER HOUSE HILTON HOTEL

WEDNESDAY, JUNE 3

REGISTRATION DESK OPEN: 10:00 am

CONGRESS OPENS / WELCOME: 12:30 – 1:00 pm

Room: Adams, 6th floor

KEYNOTE: 1:00 – 2:00 pm

Tom Leslie: Construction History in Chicago: Why We're Here

Room: Adams, 6th floor

BREAK: 2:00 – 2:30 pm

SESSION Wednesday_A: 2:30 – 4:00 pm

W_A_001: Skyscrapers

Chair: Lee E. Gray, University of North Carolina Charlotte, NC

Room: Monroe, 6th floor

____ **Mary B. Brush**, Brush Architects, LLC, Chicago, IL
LESSONS FROM THE RESTORATION OF CHICAGO'S SKYSCRAPERS

____ **John Zils**, Skidmore, Owings & Merrill LLP, Chicago, IL
CONSTRUCTION OF WILLIS (SEARS) TOWER

____ **Camilo Villate** and **Brando Tamayo**, Universidad de Los Andes. Bogota, Colombia
TECHNICAL INNOVATIONS IN BOGOTA'S MODERN TIMES – THE PAN AMERICAN LIFE INSURANCE BUILDING (1966) CASE STUDY

____ **Gabriel Pardo Redondo**, Old Structures Engineering PC, and **Berta de Miguel Alcalá**, Vertical Access LLC, New York NY
PERCEPTION OF THE TOWER BUILDING - NEW YORK 1889

____ **Tyler S. Sprague**, University of Washington, Seattle WA
THE RISE OF THE EXTERIOR BEARING WALL, OR "TUBE", SKYSCRAPER: AN ALTERNATIVE PERSPECTIVE FROM SEATTLE

W_A_002: Gothic Vaulting

Chair: Herman Schlimme, Max Planck Institute for Art History, Rome, Italy

Room: Water Tower, 6th floor

____ **Rocio Maira Vidal**, Universidad Politécnica, Madrid, Spain
THE CONSTRUCTION OF SEXPARTITE VAULTS IN EUROPE

____ **Richard A. Etlin**, University of Maryland, MD
THE "STRENGTH OF VAULTS"

____ **Ana López-Mozo**, **Rosa Senent-Domínguez**, **Miguel Ángel Alonso-Rodríguez**, Technical University of Madrid, Spain, **José Calvo-López** and **Pau Natividad-Vivó**, Technical University of Cartagena, Spain
ASYMMETRICAL VAULTS IN LATE EUROPEAN GOTHIC: BASEL AND BEBENHAUSEN AS CASE STUDIES

____ **J.C. Palacios Gonzalo** and **F. Tellia**, ETSAM, Madrid, Spain
INCLINED KEYSTONES IN SPANISH LATE GOTHIC

____ **P. Fuentes** and **S. Huerta**, Polytechnic University of Madrid, Spain
CROSSED-ARCH VAULTS IN LATE-GOTHIC AND EARLY RENAISSANCE VAULTING: A PROBLEM IN BUILDING TECHNOLOGY TRANSFER

W_A_003: History of Contracting

Chair: Brian Bowen, Georgia Institute of Technology, Atlanta, GA

Room: Hancock, 6th floor

____ **Marvin J. Levine**, Levine Companies, Winnetka, IL
GETTING PAID: HOW U.S. BUILDERS AND GENERAL CONTRACTORS FOUGHT TO GET PAID WHEN DISPUTES AROSE ON THEIR PROJECTS, 1890-1990

____ **Naoto Tanaka**, Kumamoto University Center for Policy Studies, Japan
STUDY ON HISTORY OF COMMUNITY DEVELOPMENT BASED WATER USE IN MINAMIASO, KUMAMOTO

____ **Liane A. Hancock**, Louisiana Tech University, Ruston, LA
TURNER CITY

____ **Kiomars Nassiri K**, University of Illinois at Urbana-Champaign, IL, **Pouya Foulad** and **Mohammad Mehdi Mortaheb**, Sharif University of Technology, Tehran, Iran
A SURVEY INTO THE EVOLUTION OF CONSTRUCTION CONTRACTS IN IRAN: TWO 19TH CENTURY CONTRACTS

____ **Elizabeth Cook**, College of William and Mary, Williamsburg, VA
LABOR DISPUTES, PRICE GOUGING, AND ORNAMENTAL ARCHES: NEGOTIATING A NEW BUILDING CULTURE AT THE VIRGINIA STATE PENITENTIARY

W_A_004: Midcentury Modernism

Chair: Bernard Espion, Université Libre de Bruxelles, Belgium

Room: Spire, 6th floor

____ **Wiepke van Aaken** and **Andreas W. Putz**, Institute of Historic Building Research and Conservation, Zurich, Switzerland
"NOT THE FAULT OF THE MATERIAL, BUT OF OUR ATTITUDE" – INSULATION MATERIALS IN SWITZERLAND FROM 1950 TO 1970

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_____**David Miranowski** and **Brandon Clifford**, Massachusetts Institute of Technology, Cambridge, MA
RE-LEARNING SIGURD LEWERENTZ: AN APPLIED HISTORY OF THE CHURCH OF ST. PETER'S IN KLIPPAN, SWEDEN

_____**L. Ciccarelli**, Università di Roma, Italy
ARCHITECTURE AS CONSTRUCTION IN THE BEGINNINGS OF RENZO PIANO. FIVE PATENTS FOR CONSTRUCTION SYSTEMS AND "PIECES" OF BUILDINGS (1965-1969)

_____**R. Devos**, Université Libre de Bruxelles and **M. Mollaert**, Vrije Universiteit Brussels, Belgium
A QUEST FOR EARLY TENSILE STRUCTURES AT EXPO 58

_____**Renata Maria Vieira Caldas** and **Fernando Diniz Moreira**, Universidad Federal de Pernambuco, Brazil
JOINTS REVEALING THE ESSENCE: THE BOMBRIL FACTORY IN BRAZIL

W_A_005: Masonry Innovations

Chair: James W. P. Campbell
University of Cambridge, UK
Room: Salon 2, 3rd floor

_____**Beatriz del Cueto**, Pantel, del Cueto & Associates, Guaynabo, Puerto Rico
PORTLAND CEMENTS IN THE SPANISH CARIBBEAN AS AGENTS OF CHANGE: HYDRAULIC MOSAICS AND CONCRETE BLOCKS

_____**Y. Govaerts, A. Verdonck, W. Meulebroeck** Vrije Universiteit Brussels and **M. de Bouw**, Belgian Building Research Institute, Limelette, Belgium
DEVELOPMENT OF ARTIFICIAL STONE IMITATIONS AT THE TURN OF THE 20TH CENTURY THROUGH PATENT ANALYSIS IN A BELGIAN CONTEXT

_____**Maria Luisa Barelli**, Politecnico di Torino, Italy
STOP AND GO. PATHWAYS OF EXPERIMENTATION WITH ARTIFICIAL STONE IN THE WORK OF SERGIO JARETTI AND ELIO LUZI (1955-59)

W_A_006: 19th C Bridges

Chair: Tom F. Peters, Lehigh University, Bethlehem, PA
Room: Adams, 6th floor

_____**Dario A. Gasparini**, Case Western Reserve University, Cleveland, Ohio
WHISTLER, HOWE AND STONE: THE DESIGN AND CONSTRUCTION OF THE WESTERN RAILROAD'S BRIDGE OVER THE CONNECTICUT RIVER 1840-1841

_____**Chiara Tardini**, Politecnico di Milano, Italy
BRENNER RAILWAY BRIDGES: THE DIFFUSION OF HOWE TYPOLOGY IN AUSTRIAN EMPIRE

_____**Kanokwan Trakulyingcharoen**, University of Innsbruck, Austria
ALFREDO COTTRAU AND IRON LATTICE BRIDGE CONSTRUCTION IN ITALY 1860-1887

_____**Andreas Kahlow**, University of Applied Sciences, Potsdam, Germany
BÜTZOW'S WROUGHT IRON LATTICE TRUSS BRIDGE ACROSS THE NEBEL RIVER, 1848: DESIGN, HISTORY, AND RECONSTRUCTION

BREAK: 4:00 – 4:30 pm

SESSION Wednesday_B: 4:30 – 6:00 pm

W_B_007: Anti-Seismic Construction

Chair: Marci Uihlein, University of Illinois at Urbana-Champaign, IL
Room: Salon 2, 3rd floor

_____**C.F Carocci**, University of Catania, Siracusa, Italy and **C. Tocci**, University of Rome La Sapienza, Italy
LEARNING FROM THE PAST. ANTI-SEISMIC TECHNIQUES IN THE L'AQUILA POST-1703 RECONSTRUCTION

_____**Edoardo Currà, Domenico Liberatore, Cesira Paolini, Elena Pizzoli** and **Alessandro D'Amico**, University of Rome Sapienza, Italy
HISTORY, DEVELOPMENT AND APPLICATION OF ANTI-SEISMIC TECHNIQUES: THE POST-EARTHQUAKE RECONSTRUCTION OF THE "PIO MONTE DELLA MISERICORDIA" IN ISCHIA
_____**R. Morganti, A. Tosone, S. Cocco**, and **D. Di Donato**, University of L'Aquila, Italy
PATENTS OF ANTI-SEISMIC STRUCTURES IN IRON AND STEEL. 1908, MESSINA EARTHQUAKE – 1957, INTERNATIONAL CLASSIFICATION OF EUROPE COUNCIL

W_B_008: Spatial Structures

Chair: Denis Zastavni, Université Catholique de Louvain, Belgium
Room: Spire, 6th floor

_____**Ekaterina Nozhova**, Institute of Historic Building Research and Conservation, Zürich, Switzerland
ASSEMBLED WITHOUT SCAFFOLDING: THE CONSTRUCTION OF SCHUKHOV'S TIMBER LATTICE HYPERBOLOIDS

_____**Jacob Paskins**, University of Cambridge, UK

CONSTRUCTING THE HOVERPORT: BUILDING HOPE, RAISING FEAR

_____**Rafael García García**, Universidad Politecnica de Madrid, Spain
SPATIAL STRUCTURES IN SPAIN 1950 – 1970, FIRST EXPERIENCES BEFORE THE STANDARDIZED SYSTEMS

_____**Roland Fuhrmann**, BTU Cottbus-Senftenberg, Cottbus, Germany
THE EVOLUTION OF STREAMLINED AIRSHIP HANGARS

W_B_009: Timber Trusses

Chair: Philip Caston, Neubrandenburg University of Applied Sciences, Germany
Room: Adams, 6th floor

_____**Daniel R. Gleave, John A. Ochsendorf**, Massachusetts Institute of Technology, Cambridge, MA and **Emory Kemp**, West Virginia University, WV
HISTORY AND TECHNOLOGY OF THE TIMBER STRUCTURES OF LEMUEL CHENOWETH

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_____**Anna Serafini** and **Cristina González-Longo**, University of Strathclyde, Glasgow, Scotland

THE DESIGN AND CONSTRUCTION TECHNIQUES OF EIGHTEENTH CENTURY TIMBER ROOFS IN SCOTLAND: GLASGOW TRADES HALL AND TWEEDDALE HOUSE IN EDINBURGH

_____**Emanuele Zamperini**, University of Pavia, Italy

TIMBER TRUSSES IN ITALY: THE PROGRESSIVE PREVAILING OF OPEN-JOINT OVER CLOSED-JOINT TRUSSES

_____**Stefano Lamborghini**, **Giovanni Mochi**, **Luca Venturi**, and **Luca Guardigli**, University of Bologna, Bologna, Italy

HISTORIC TIMBER TRUSSES IN EUROPE. THE CASE OF ST. PETER IN BOLOGNA

W_B_010: Theories of Construction

Chair: Robert Carvais, Université Paris Ouest, Nanterre La Defense, France

Room: Hancock, 6th floor

_____**Dirk Bühler**, Deutsches Museum, Munich, Germany

HISTORICAL MODELS OF CIVIL ENGINEERING IN COLLECTIONS IN AUGSBURG AND MUNICH

_____**Paola Barbera**, Università degli Studi di Catania, Siracusa, Italy

CONSTRUCTION HISTORY: A NEW POINT OF VIEW IN ITALIAN HISTORIOGRAPHY IN THE FIRST HALF OF THE 20TH CENTURY

_____**Elke Katharina Wittich**, Hochschule Fresenius, Hamburg, Germany.

"ARCHITECTURE IS CONSTRUCTION" – TERM AND DEFINITION IN GERMAN ARCHITECTURAL WRITING IN THE EARLY 19TH CENTURY

_____**Christiane Weber**, Leopold-Franzens-Universität Innsbruck, Austria

THE LAST WITNESSES – PHYSICAL MODELS IN ARCHITECTURE AND STRUCTURAL DESIGN, TAKING THE TECHNICAL UNIVERSITY IN STUTTGART AS AN EXAMPLE

W_B_011: Lighting

Chair: Thomas Leslie, Iowa State University, Ames IA

Room: Water Tower, 6th floor

_____**Giulio Sampaoli** Università della Svizzera italiana (USI – AAM), Mendrisio, Switzerland
ELECTRIC LIGHTING IN THE ARCHITECTURE OF LE CORBUSIER. TOWARDS A HISTORY OF TECHNICAL INSTALLATIONS

_____**Nathalie Simonnot**, Graduate School of Architecture of Versailles, France
ARCHITECTURE AND CONSTRUCTION IN ARTIFICIAL LIGHTING US AND FRENCH JOURNALS (1928-1939)

_____**Niklas W. Vigener**, **Nicholas T. Floyd**, and **James Jamieson**, Simpson Gumpertz & Heger Inc., Waltham, MA
A FLOOD OF LIGHT – THE CASE FOR DAYLIGHT IN AMERICAN PUBLIC ARCHITECTURE

_____**Fausto Barbolini** and **Luca Guardigli**, University of Bologna, Italy
A BRIEF HISTORY OF ACTIVE SYSTEMS IN SOLAR ARCHITECTURE

_____**Eric Monin**, LACTH, École Nationale Supérieure d'Architecture et de Paysage de Lille, Villeneuve, France
THE DISCREET EFFICIENCY OF "IN-BILT" PRISMATIC GLASS LIGHTING SYSTEMS

W_B_012: Masonry Construction

Chair: Martin Bachmann, Deutsches Archäologisches Institut, Istanbul, Turkey

Room: Monroe, 6th floor

_____**R. Martín Talaverano**, Universidad Politécnica de Madrid, Spain

KNOWLEDGE EXCHANGE FOR THE DESIGN AND CONSTRUCTION OF SURBASED RIBBED VAULTS

_____**C. Jäger-Klein**, Vienna University of Technology, **G. Radinger**, Danube University, Krems, **W. Stumpf**, FH Burgenland – University of Applied Sciences and **G. Styhler-Aydin**, Vienna University of Technology, Austria

THE INTERRELATION OF STRUCTURE, NATURAL VENTILATION AND DAYLIGHT INPUT IN THE HISTORIC ARCHITECTURE OF JEDDAH, SAUDI-ARABIA

_____**Caterina F. Carocci**, Università degli Studi di Catania, Siracusa, Italy
CONSTRUCTION HISTORY OF THE SYRACUSE'S LYRICAL THEATRE. REMARKS ON THE MASONRY WORK IN A SECOND HALF OF NINETEEN-CENTURY SITE.

_____**Funda Solmaz Şakar**, Istanbul Technical University, Turkey and **Neriman Şahin Güçhan**, Middle East Technical University, Ankara, Turkey
TRADITIONAL STRUCTURAL ELEMENTS IN ÜRGÜP: WALLS AND VAULTS

EVENT

WELCOME RECEPTION: 6:00– 7:30 pm

Sixth Floor foyer outside Adams / Monroe rooms

DINE AROUNDS: 7:30 pm

Please sign up at the Registration Desk to join a group table at a local restaurant

THURSDAY, JUNE 4

ANNOUNCEMENTS: 8:30 – 9:00 am

KEYNOTE: 9:00 – 10:00 am

Stella Nair: Master Masons of the High Andes: Tracing Inca and Tiahuanaco Stone Carving Traditions
Room: Adams, 6th floor

BREAK: 10:00 – 10:30 am

SESSION Thursday_A: 10:30 am – 12:00 pm

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Th_A_013: Roman Vaulting

Chair: Santiago Huerta, Polytechnic University of Madrid, Spain

Room: Salon 2, 3rd floor

_____**Stefano Camporeale**, University of Trento, Italy

CONCRETE BARREL VAULTS REINFORCED WITH STONE VOUSOIRS ARCHES IN THE WESTERN PROVINCES OF THE ROMAN EMPIRE (MAURETANIA TINGITANA AND BAETICA)

_____**C.M. Amici**, Università del Salento, Italy

HIDDEN IRON: HIGH TECH DEVICES IN ROMAN IMPERIAL ARCHITECTURE

_____**Lynne C. Lancaster**, Ohio University, Athens, OH

"ARMCHAIR" VOUSOIR VAULTS IN BATH BUILDINGS OF THE WESTERN ROMAN EMPIRE

_____**Alejandra Albuerno** and **Martin S. Williams**, University of Oxford, UK

STRUCTURAL ENGINEERING IN THE HISTORIC STUDY OF ARCHITECTURAL REMAINS. THE BASILICA OF MAXENTIUS: A CASE STUDY

_____**C. Hof**, Berlin Institute of Technology (TUB), Germany

BUILDING CONVERSION AS DEMANDING TASK IN LATE ROMAN CONSTRUCTION – ADDING VAULTS TO THE TOWERS OF THE SIXTH CENTURY CITY WALL OF RESAFA, SYRIA

Th_A_014: Building the 19th Century

Chair: Robert Carvais, Université Paris Ouest, Nanterre La Defense, France

Room: Spire, 6th floor

_____**Martin Bachmann**, Deutsches Archäologisches Institut - Alman Arkeoloji Enstitüsü, Istanbul, Turkey

THE FINAL ACT IN OTTOMAN TIMBER CONSTRUCTION

_____**Barbara Shapiro Comte**, New York University, Paris, France

KING'S FEET TO REPUBLICAN METRES: THE EVOLUTION OF CONSTRUCTION DRAWINGS, PARIS, 1782-1876

_____**Emmanuelle Gallo**, Ecole Nationale Supérieure d'Architecture de Paris-Belleville, Paris, France

PARISIAN SWIMMING POOLS OF THE NINETEENTH AND EARLY TWENTIETH CENTURIES, EXAMPLES OF "SUSTAINABLE DEVELOPMENT" AND SAVINGS

_____**Yegan Kahya Sayar**, **Işıl Polat Pekmezci**, Istanbul Technical University, Turkey and **Aysegül Özer**, Aristotle University of Thessaloniki, Greece

CONSTRUCTION TECHNIQUES AND BUILDING MATERIALS OF A 19TH CENTURY OFFICIAL STRUCTURE IN ISTANBUL: ADJACENT OFFICES OF OTTOMAN BANK AND THE REGIE COMPANY

Th_A_015: Equipment and Elevation

Chair: Marvin Levine, Levine Companies, Winnetka IL

Room: Water Tower, 6th floor

_____**Michael Tutton**, Independent researcher, London, UK

A BRIEF INTRODUCTION TO TREAD AND HAND WHEEL CRANES AND HOISTS IN CONSTRUCTION AS DEPICTED IN WESTERN ART

_____**Ilaria Giannetti**, University of Rome Tor Vergata, Italy

THE ITALIAN STORY OF FERDINANDO INNOCENTI'S TUBULAR SCAFFOLDING (1934-64)

_____**Jørgen G. Cleemann**, Independent scholar, Brooklyn, NY

EARLY HISTORY OF THE CONCRETE TRANSIT MIXER, 1900-1930

_____**Lee E. Gray**, University of North Carolina, Charlotte, NC

LIFT VERSUS ELEVATOR

Th_A_016: Building in Earth and Stone

Chair: Benjamin Ibarra-Sevilla, University of Texas at Austin

Room: Hancock, 6th floor

_____**John Barber**, University of Edinburgh, Scotland

CONSTRUCTING DRYSTONE BUILT IRON AGE BROCH TOWERS IN SCOTLAND: INITIATING A CONSTRUCTION HISTORY

_____**Mahdi Motamedmanesh**, and **Klaus Rückert**, TU Berlin, Institute for Architecture, Germany

FORM FOLLOWS CONSTRUCTION: A TECHNICAL ANALYSIS OF THE ARCH OF CTESIPHON, THE WIDEST EVER BUILT ADOBE VAULT

_____**Umut Almac** and **Zeynep Ahunbay** Istanbul Technical University, Turkey

STRUCTURAL ASPECTS OF A 16th CENTURY OTTOMAN MASONRY BUILDING: SIYAVUSH PASHA MADRASA

_____**Ignacio-Javier Gil-Crespo**, Polytechnic University of Madrid, Spain

LATE MEDIEVAL RAMMED EARTH TECHNIQUE IN THE FORTIFICATIONS OF CASTILE, SPAIN

_____**Kemal Reha Kavas**, Akdeniz University, Antalya, Turkey

STRUCTURAL PATTERNS IN THE HISTORY OF ANATOLIAN COMPOSITE MASONRY

Th_A_017: Geometry and Bridges

Chair: Stephen Buonopane, Bucknell University

Room: Monroe, 6th floor

_____**Liu Yan**, Technical University of Munich, Germany

THE INVENTION OF DA VINCI'S WOVEN STRUCTURES

_____**Philip S. C. Caston**, Neubrandenburg University of Applied Sciences, Germany

THE AMAZING MATHEMATICAL BRIDGE

_____**Tom F. Peters**, Lehigh University, Bethlehem, PA

RELIGIOUS AFFILIATION AND WOODEN TRUSS CONSTRUCTION IN THE GERMAN-SPEAKING WORLD

_____**Yasuhiro Honda**, Daiichi Institute of Technology, Kirishimashi, Japan and **Ichiro**

Kobayashi, Kumamoto University, Kumamotoshi, Japan

COMPARATIVE STUDY ON THE ARCH STRUCTURE OF THE KINTAIKYO BRIDGE AND

OCCIDENTAL TIMBER ARCH BRIDGES

Th_A_018: Brick History

Chair: James W. P. Campbell, Queens College, University of Cambridge, UK

Room: Adams, 6th floor

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_____**Changxue Shu**, Polytechnic of Milan, Italy
FROM THE BLUE TO THE RED: CHANGING TECHNOLOGY IN THE BRICK INDUSTRY OF MODERN SHANGHAI

_____**Max Johann Beiersdorf**, BTU Cottbus, Germany
UNDULATING MUD BRICK WALLS IN ANCIENT PHARAONIC EGYPT

_____**Julia Mathias Manglitz** and **K. Vance Kelley**, Treanor Architects, Kansas City and Topeka, Kansas

CLEVERLY CONCEALED: THE TRUTH BEHIND VICTORIAN ERA BUTTER JOINT RUNNING BOND

_____**Sabine Kühnast**, HafenCity University, Hamburg, Germany
THE DEVELOPMENT OF NEW BUILDING MATERIALS IN GERMANY FROM 1919 ONWARDS AND THEIR STANDARDIZATION USING THE EXAMPLE OF HOLLOW AND PERFORATED CLAY BRICKS

LUNCH: 12:00 – 1:00 pm

Consult map of nearby lunch spots for suggestions!

SESSION: Thursday_B: 1:00 – 2:30 pm

Th_B_019: Health and Comfort in Buildings

Chair: Thomas Leslie, Iowa State University, Ames IA

Room: Salon 2, 3rd floor

_____**Andrew Cruse**, Ohio State University, Columbus OH
ARE YOU COMFORTABLE NOW? THREE AMERICAN THERMAL COMFORT MODELS

_____**Magdalena Daniel**, ETH Zürich Institut für Denkmalpflege und Bauforschung, Zurich, Switzerland

CONSTRUCTING HEALTH – THE PURSUIT OF ENGINEERING A “HEALTH-PROMOTING INTERIOR CLIMATE” DURING THE 1830s AND 1840s

_____**Stephanie Van de Voorde**, Vrije Universiteit Brussels, Belgium
THERMAL INSULATION IN BELGIUM BEFORE THE FIRST OIL CRISIS (1945-1975). A QUESTION OF ECONOMY AND COMFORT?

_____**Anke Fritzschn**, BTU Cottbus-Senftenberg, Cottbus, Germany
INNOVATION AND RECEPTION: HISTORIC HEATING SYSTEMS IN EUROPEAN MUSEUM ARCHITECTURE OF THE 1ST HALF OF THE 19TH CENTURY

Th_B_020: Geometry and Construction

Chair: Enrique Rabasa – Diaz, Universidad Politécnica de Madrid, Spain

Room: Spire, 6th floor

_____**Ralph Ghoche**, Barnard College, New York, NY
TOWARDS A PARABOLIC ARCHITECTURE: THE PARABOLA AS POLEMIC IN MID-NINETEENTH-CENTURY FRENCH ARCHITECTURE

_____**Javier Giron**, Polytechnic University of Madrid, Spain

THE “PARALLEL” AND THE COMPARATIVE METHOD IN JEAN RONDELET TRAITÉ THÉORIQUE ET PRATIQUE DE L’ART DE BÂTIR

_____**E. Bellin**, The University of Pennsylvania, PA
THE CONSTRUCTIVE TURN: ON THE EVOLUTION OF DETAIL AS A DISCIPLINARY CONCEPT, 1755-1800

_____**Patricia Radelet-de Grave**, Université de Louvain, Louvain-la-Neuve, Belgium
THE CATENARY AS INSPIRATION

Th_B_021: Timber Innovations

Chair: Philip Caston, Neubrandenburg University of Applied Sciences, Germany

Room: Hancock, 6th floor

_____**David Bueche**, Hoover Treated Wood Products, Thomson, GA and **Brian Bowen**, Georgia Institute of Technology, Atlanta, GA
TRESTLE: A PECULIARLY AMERICAN STRUCTURE

_____**Paul W.R. Bell**, Jampel Davison & Bell, London, UK
19th CENTURY LAMINATED TIMBER ROOFS IN ENGLAND

_____**Fritz-Ulrich Buchmann**, University of Applied Sciences, Stuttgart, Germany
CARL TUCHSCHERER: 1911-1934 AN INNOVATIVE GERMAN TIMBER CONSTRUCTION COMPANY

_____**Mario Rinke**, ETH Zurich, Zürich, Switzerland
TERNER & CHOPARD AND THE NEW TIMBER – EARLY DEVELOPMENT AND APPLICATION OF LAMINATED TIMBER IN SWITZERLAND

_____**Ronald W. Anthony**, Anthony & Associates, Inc., Fort Collins, CO and **Kent S. Diebolt**, Vertical Access LLC, Ithaca, NY
INVESTIGATION AND RECONSTRUCTION OF A NINETEENTH CENTURY WOODEN FLUME SUSPENDED ON A CLIFF

Th_B_022: 20th C Architecture and Construction

Chair: Lee E. Gray, University of North Carolina Charlotte, NC

Room Monroe, 6th floor

_____**Franz Graf**, Ecole Polytechnique Fédérale de Lausanne and Università della Svizzera Italiana, Lausanne, Switzerland
THE DUVAL FACTORY AT SAINT-DIÉ – PURISM IN TRANSITION (1948-1950). NOTES TOWARDS A CONSTRUCTION MONOGRAPH

_____**Ana Rodríguez García**, Universidad de Alcalá, Madrid, Spain
THINKING WITH THE EYE, THINKING WITH THE HAND; LOOKING FOR A MODERN CONSTRUCTION BETWEEN INDUSTRY AND CRAFTSMANSHIP: THE UPPER LAWN PAVILION BY ALISON AND PETER SMITHSON 1959-1962

_____**Ana Tostões**, Instituto Superior Tecnico, Lisbon University, Portugal
LEARNING FROM AN OUTSTANDING PROCESS. THE GULBENKIAN FOUNDATION BUILDINGS (1959-1969)

_____**Marisa C. Gomez**, University of Wisconsin-Madison, WI
DEFINING MODERN IN POSTWAR AMARILLO: THE SCHELL MUNDAY CO. AND THE 1947

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PERMA-STONE PROTEST

_____ **Marieke Jaenen**, Universiteit Antwerpen and Vrije Universiteit Brussels, **Michael de Bouw**, Universiteit Antwerpen & Belgian Building Research Institute (BBRI), **Ann Verdonck**, Vrije Universiteit Brussels and **Maria Leus**, Universiteit Antwerpen, Belgium
CONSTRUCTING THE ANTWERP INTERWAR INTERIOR: THE SIGNIFICANT CONTRIBUTION OF FIRMS

Th_B_023: Iron Structures

Chair: Valérie Nègre, Ecole Nationale Supérieure d'Architecture de Paris La Villette
Room: Adams, 6th floor

_____ **Esperanza González-Redondo**, University of Alcalá, Madrid, Spain
FIRST IRON STRUCTURES IN BUILDINGS: A FIREPROOF TRANSITION CASE STUDY IN MADRID

_____ **Elizabeth Shotton**, University College Dublin, Ireland
THE EVOLUTION OF THE IRON TRUSS IN THE WORK OF JOHN RENNIE

_____ **Sergej G. Fedorov**, Brandenburgische Technische Universität (BTU) Cottbus, Germany
EARLY PREFABRICATED IRON-RIBBED DOMES: ST. ISAAC'S CATHEDRAL IN ST. PETERSBURG, RUSSIA, 1838 –1841

_____ **Werner Lorenz**, and **Bernhard Heres**, BTU Cottbus-Senftenberg, Cottbus, Germany
THE DEMIDOV IRONWORKS IN NEVYANSK (URAL MOUNTAINS) –IRON STRUCTURES IN BUILDING FROM THE FIRST HALF OF THE 18TH CENTURY

Th_B_024: Civil Engineering History

Chair: John Ochsendorf, Massachusetts Institute of Technology, Cambridge MA
Room: Water Tower, 6th floor

_____ **Marci S. Uihlein**, University of Illinois at Urbana-Champaign, IL
AMERICAN INSTITUTE OF CONSULTING ENGINEERS AND THE PROFESSIONALIZATION OF THE AMERICAN ENGINEER

_____ **Michael Mark Chrimes**, Institution of Civil Engineers, UK
ARCHITECT OR ENGINEER? PROFESSIONAL IDENTITY IN PUBLIC WORKS IN BRITISH INDIA 1800-1910

_____ **Jonathan Clarke**, University of Cambridge, UK
AMERICAN-TRAINED STRUCTURAL ENGINEERS AND CONTRACTORS IN LONDON, 1895-1910

_____ **Gregory K. Dreicer**, Museum of Vancouver, BC, Canada
HISTORY OF ENGINEERING, REVERSE-ENGINEERED

BREAK: 2:30 – 3:00 pm

SESSION Thursday_C: 3:00 – 4:30 pm

Th_C_025: Military Construction

Chair: Marvin Levine, Levine Companies, Winnetka IL

Room: Hancock, 6th floor

_____ **Michiko Maejima**, École Nationale Supérieure d'Architecture de Paris, France
A STUDY OF MILITARY FACILITY PLANNING FROM THE VIEWPOINT OF TECHNOLOGICAL TRANSFER FROM FRANCE TO JAPAN 1868-1930

_____ **André Guillerme**, Conservatoire National des Arts et Métiers, Paris, France
FIRST TREATY ON THE INDUSTRIALISATION OF BARRACKS (1804-1811)

_____ **Jeffrey L. Beard**, Drexel University, Philadelphia, PA
CONSTRUCTION OF AMERICAN SLIPWAYS AND DRY DOCKS – FAR-REACHING INFLUENCE OF US NAVAL PROCUREMENT FROM GOSPORT #1 (NORFOLK, VA) TO THE SPEARIN DOCTRINE (BROOKLYN, NY)

_____ **Karey L. Draper**, University of Cambridge, UK
BUILDING FOR WAR: EXAMPLES OF TEMPORARY STRUCTURES DESIGNED FOR WARTIME USE IN BRITAIN (1939-1945)

Th_C_026: Metal and Steel

Chair: Bernard Espion, Université Libre de Bruxelles, Brussels, Belgium
Room: Water Tower, 6th floor

_____ **Eberhard Pelke**, Hessen Mobil, Roads & Traffic Management, Wiesbaden, Germany and **Karl-Eugen Kurrer**, Ernst & Sohn, Berlin, Germany
ON THE EVOLUTION OF STEEL-CONCRETE COMPOSITE CONSTRUCTION

_____ **Stéphane Sire**, University of Brest, France, and **Jean-François Douroux**, RATP, Département Gestion des Infrastructures, Fontenay-sous-Bois, France
THE ELECTRIC ARC WELDING REINFORCEMENT OF STEEL BRIDGES FROM THE PARIS METRO IN THE 1930S: THE CASE OF THE AUSTERLITZ VIADUCT OVER THE SEINE

_____ **R. Morganti**, **A. Tosone**, **D. Franchi** and **D. Di Donato**, University of L'Aquila, Italy
STEEL CONSTRUCTION FOR A NEW PUBLIC COMPANY. THE RAI EXECUTIVE OFFICES

Th_C_027: Industrial Buildings

Chair: TBA
Room: Adams, 6th floor

_____ **Barbara Berger**, Institute for History of Science and Technology, Munich, Germany
THE GASHOLDER – SHAPED BY ITS FUNCTION. THE ITALIAN EXAMPLE

_____ **Christine Roels**, La Cambre Horta de l'Université Libre de Bruxelles, Belgium
LITERATURE REVIEW ON RURAL ARCHITECTURE IN BELGIUM: IDEAS TO MODERNIZE FARMSTEADS IN ARCHITECTURAL PUBLICATIONS FROM 1847-1884

_____ **Sage M. Roberts** and **Brian Bowen**, Georgia Institute of Technology, Atlanta, GA
THE AMUNDSEN-SCOTT SOUTH POLE STATION: CONSTRUCTION AT THE END OF THE WORLD

_____ **Laura Balboni** and **Paolo Corradini**, Politecnico di Milano, Italy
THE CONSTRUCTION OF THE ICE HOUSES IN THE ARISTOCRATIC RESIDENCES IN THE EMILIA COUNTRYSIDE

Th_C_028: Early Americas

9/4/19

Chair: Ivan Myjer, Building and Monument Conservation, Arlington, MA

Room: Salon 2, 3rd floor

____ **Luis A. Torres-Garibay** and **Eugenia M. Azevedo-Salomao**, Universidad Michoacana de San Nicolás de Hidalgo, Morelia, México

PURÉPECHA WORK ORGANIZATION IN TRADITIONAL ARCHITECTURE PRODUCTION

____ **E. Ricaud**, Sunmetron Architects, Paris, France

PRE-COLUMBIAN AND EARLY COLONIAL ADOBE BRICKS IN THE UNITED STATES: A TOOL IN THE SERVICE OF DATING HISTORIC BUILDINGS

____ **Leah McCurdy**, The University of Texas at San Antonio, Texas

MAYA CONSTRUCTION HISTORY: EXPLORATIONS THROUGH BUILDINGS ARCHAEOLOGY AND CONSERVATION

Th_C_029: Concrete Shells

Chair: Stephen Buonopane, Bucknell University, Lewisburg, PA

Room: Monroe, 6th floor

____ **Carlo Dusi**, Università della Svizzera, Switzerland

"ROAM HOME TO A DOME", FROM METAPHOR TO THE CONSTRUCTION: DANTE BINI'S PNEUMATIC FORMWORK THINSHELLED REINFORCED CONCRETE DOMES

____ **Rob Whitehead**, Iowa State University, IA

FORMATIVE EXPERIENCES: SAARINEN'S SHELLS AND THE EVOLUTIONARY IMPACT OF CONSTRUCTION CHALLENGES

____ **Roland May**, BTU, Cottbus, Germany

SHELL SELLERS. THE INTERNATIONAL DISSEMINATION OF THE ZEISS-DYWIDAG SYSTEM, 1923-1939

Th_C_030: Material Fabrication

Chair: Valérie Nègre, Ecole Nationale Supérieure d'Architecture de Paris La Villette

Room: Spire, 6th floor

____ **Jennifer Cappeto**, Cappeto Conservation LLC, Denver, CO

BEST SUPPORTING ACTOR: THE HISTORY OF METAL LATH IN AMERICA

____ **Rachel L. Will** and **Edward A. Gerns**, Wiss, Janney Elstner Associates; Chicago, IL

DETAILING IN TRANSITION: HYBRID WALLS AND THE EVOLUTION OF TERRA COTTA DETAILING

____ **Wendy Andrews**, University of Cambridge, UK

INNOVATIONS IN ENGLISH WALLPAPER MATERIALS AND MANUFACTURE FROM 1824 TO 1938: EVIDENCE FROM THE COWTAN ORDER BOOKS

EVENT

Construction History Society of America Meeting: 4:30 – 6:00 pm

This event is open to members of CHSA and those wishing to join CHSA

Room: Salon 2, 3rd floor

DINE AROUNDS: 7:30 pm

Please sign up at the Registration Desk to join a group table at a local restaurant

Friday, June 5 - Tours

TOUR #1 - WALK THE LOOP WITH TOM LESLIE

9:00 am – 12:00 pm

8:45 am - MEET THE **GROUP** at Palmer House Street Level Lobby - Monroe Street side (near Freshii)

TOUR #2 - FRANK LLOYD WRIGHT AND OAK PARK

8:00 am – 4:30 pm

7:45 am - MEET THE **BUS** on the street - Wabash Avenue outside Palmer House

TOUR #3 – FERMILAB - THIS TOUR HAS BEEN CANCELLED

TOUR #4 – MIES, IIT AND THE FARNSWORTH HOUSE

9:00 am – 5:00 pm

8:45 am - MEET THE **BUS** on the street - Wabash Avenue outside Palmer House

TOUR #5 – CHICAGO RIVER BRIDGES WITH PATRICK MCBRIARTY

9:00 am – 4:30 pm

8:30 am - MEET THE **BOAT** at TRUMP TOWER DOCK ON THE RIVER

North side of the river (lower level) at the intersection of Kinzie and Rush Streets, just west of the Wrigley Building

(15 min walk from Palmer House or take cab to Kinzie and Rush St)

TOUR #6 – 150 N. RIVERSIDE CONSTRUCTION TOUR with CHRIS PHARES

9:00 am – 11:00 am

8:45 am - MEET THE **GROUP** at Palmer House Street Level Lobby - Monroe Street side (near Freshii)

TOUR #7 – EXPLORING INDUSTRIAL CHICAGO: THE CALUMET REGION

NOTE: THIS TOUR IS BEING CONDUCTED THROUGH THE VERNACULAR ARCHITECTURE FOUNDATION CONFERENCE

PLEASE VISIT VAF WEBSITE TO REGISTER

<http://www.vernaculararchitectureforum.org/event911354/Registration>

TOUR #8 – RESTORING CHICAGO'S TERRA COTTA SKYSCRAPERS WITH RACHEL WILL AND MARK KUBERSKI

9/4/19

1:00 – 4:00 pm

12:45 pm - MEET THE **GROUP** at the Palmer House Street Level Lobby - Monroe Street side (near Freshii)

EVENT

We Built Chicago: 5:00 – 8:00 pm

Ballroom at the School of the Art Institute of Chicago
112 S. Michigan Avenue, Chicago IL 60603

Welcome: Dan McLaughlin, Executive Director, The Builder's Association of Chicago

General Comments: Dave Pepper, Chairman and CEO, The Pepper Companies. (1927)

_____ **Marvin J. Levine**, Levine Companies, Winnetka, IL
BUILDING IN CHICAGO: THE STORY OF BUILDERS AND CONTRACTORS OVER THE LAST 100 YEARS

Panel Discussion: Moderated by Mary Brush, Brush Architects

Fred Berglund, President, Berglund Construction (1911)

Martin Ozinga IV, Ozinga Concrete Company (1928)

Bruce Lake, James McHugh Construction Company (1897)

Phil Stupp, Stupp Brothers Inc (1856)

Summary: Dave Pepper, Chairman and CEO, The Pepper Companies. (1927)

This event is free and open to the public.

SICCH would like to thank the Builders Association of Chicago for sponsoring the event and the School of the Art Institute's Historic Preservation Program for donating space

Saturday, June 6

ANNOUNCEMENTS: 8:00 – 8:30 am

KEYNOTE: 8:30 – 9:30 am

James W. P. Campbell: Bricks, Books, Cathedrals, Staircases and Libraries

Room: Adams, 6th floor

BREAK: 9:30 – 10:00 am

SESSION Saturday_A: 10:00 – 11:30 am

Sa_A_031: Building the Americas

Chair: Benjamin Ibarra-Sevilla, University of Texas at Austin, Austin, TX

Room: Salon 2, 3rd floor

_____ **Roberto Reyes Pérez, Lucía Tello Peón and Pablo A. Chico Ponce de León**, Universidad Autónoma de Yucatán, México

THE YUCATECAN HACIENDA: RELATIONS BETWEEN PRODUCTION SYSTEMS, CONSTRUCTION PROCESSES, MATERIALS, AND SETTLEMENTS MORPHOLOGY

_____ **Neal A. Vogel**, Restoric, LLC, Chicago, IL

THE HISTORY AND CONSERVATION OF LEAD SILHOUETTES IN AMERICA

_____ **Ivan Myjer**, Building and Monument Conservation, Arlington, MA
A COMPARISON OF THE CONSTRUCTION TECHNOLOGY OF THREE 18TH CENTURY SPANISH COLONIAL MISSION CHURCHES IN SAN ANTONIO, TEXAS

_____ **Elizabeth Cook**, College of William and Mary, Williamsburg, Virginia
FROM SUSQUEHANNA PINE TO NORTH CAROLINA CYPRESS: REGIONAL LUMBER SUPPLIES IN ANTEBELLUM RICHMOND, VIRGINIA

Sa_A_032: Codes and Documentation

Chair: Jeffrey Beard, Drexel University, Philadelphia, PA

Room: Water Tower, 6th floor

_____ **Sean Weiss**, The City College of New York, NY

FROZEN ASSETS: PHOTOGRAPHY, TIME, AND LABOR ON THE CONSTRUCTION SITE

_____ **Nigel Isaacs**, Victoria University of Wellington, New Zealand

WHAT'S HOLDING THE ROOF UP? USING CENSUS DATA TO EXPLORE DWELLING CONSTRUCTION AND STRUCTURE CHANGES

_____ **J.J. Smallwood**, Nelson Mandela Metropolitan University, Port Elizabeth, South Africa
A HISTORICAL REVIEW OF CONSTRUCTION HEALTH AND SAFETY

_____ **Robert A. Svez**, Syracuse University, NY
ATRIUM (W)HOLES IN THE CODE

Sa_A_033: Medieval Construction

Chair: Javier Giron, Polytechnic University of Madrid, Spain

Room: Monroe, 6th floor

_____ **Michael Tutton**, Independent Researcher, London, UK

STAIRCASES IN EARLY EASTERN KEEPS IN ENGLAND c1067 TO c1190 WITH PARTICULAR REFERENCE TO ROCHESTER

_____ **Marina Anna Laura Mengali**, University of Rome La Sapienza, Rome, Italy

THE CONSTRUCTION OF THE FIRST CURTAIN WALL OF VITERBO IN 1095 A. D.: A MODERN EXAMPLE OF STANDARDIZATION AND ORGANIZATION OF A COMPLEX FORTIFICATION WORK

_____ **Klaus Tragbar**, University of Innsbruck, Austria

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CONSTRUCTING A CATHEDRAL. NOTES ON THE CONSTRUCTION MANAGEMENT OF SIENA CATHEDRAL

_____**José Calvo-López**, Universidad Politécnica de Cartagena, **Miguel Á. Alonso-Rodríguez**, **Enrique Rabasa-Díaz**, **Ana López-Mozo**, **Carmen Pérez-Ríos**, Universidad Politécnica de Madrid and **Pau Natividad-Vivó**, Universidad Politécnica de Cartagena, Spain

GEOMETRY AND CAPRICIOUSNESS IN 11TH-CENTURY ARMENIAN ARCHITECTURE. THE SCRIPTORIUM OF THE MONASTERY OF SANAHIN

_____**S. Conan**, University Charles de Gaulle, Domaine Universitaire du Pont de Bois and University of Leuven, Leuven, Belgium

FLATS ARCHES WITH JOGGLE JOINTS: THEIR USE IN TWELFTH AND THIRTEENTH CENTURY CISTERCIAN ABBEYS

Sa_A_034: Midcentury Construction

Chair: Sergej Fedorov, Brandenburgische Technische Universität (BTU) Cottbus, Germany

Room: Spire, 6th floor

_____**Sarah Melsens** and **Inge Bertels**, Vrije Universiteit Brussels, Belgium

SHAPING INDIA'S CITIES: THE CHANGING ROLE OF STAKEHOLDERS IN CONSTRUCTION SINCE INDEPENDENCE (1947)

_____**Gabriela Campagnol** and **Stephen Caffey**, Texas A&M University, College Station, TX
CONSTRUCTION OF THE MUSEU DE ARTE DE SÃO PAULO

_____**Michael Abrahamson**, University of Michigan, Ann Arbor, MI
'DECENT AND SUITABLE' MODULES: THE POLITICS OF CONSTRUCTION RESEARCH IN HUD'S OPERATION BREAKTHROUGH, 1969-1974

_____**Tiziana Basirico**, University of Enna, Kore, Italy
EXPERIMENTAL TECHNOLOGICAL SOLUTIONS IN MIXED STRUCTURE BUILDINGS OF THE '50s IN SICILY

_____**Francesca Albani**, Politecnico di Milano Department of Architecture and Urban Studies, Italy

PREFABRICATION IN ITALY AFTER WORLD WAR II: ZANUSO VERSUS CAMUS

Sa_A_035: Construction Professionals

Chair: Brian Bowen, Georgia Institute of Technology, Atlanta, GA

Room: Hancock, 6th floor

_____**Tiziana Campisi** and **Manfredi Saeli**, Polytechnic School, University of Palermo, Italy
ARISTOCRATIC PALACES IN THE XVIII CENTURY IN PALERMO THE CONSTRUCTION SITE OF MERENDINO COSTANTINO PALACE

_____**Alexandrina Buchanan**, University of Liverpool, UK
CONSTRUCTION IN THE WORK OF ROBERT WILLIS

_____**R. Carvais**, Université Paris Ouest Nanterre La Défense and **V. Nègre**, Ecole Nationale Supérieure d'architecture, Paris, France

PARISIAN SURVEYORS (1690-1792): FOUNDING AN EXPERT CORPS

_____**Hentie Louw**, Newcastle University, Newcastle upon Tyne, UK

A QUESTION OF IDENTITY: EVOLVING RELATIONS BETWEEN THE ENGLISH CARPENTERS AND JOINERS FROM THE MID-SIXTEENTH TO THE EARLY-TWENTIETH CENTURY

LUNCH: 11:30 – 1:00 pm

Consult map of nearby lunch spots for suggestions!

SCIENTIFIC COMMITTEE LUNCH: 11:30 am – 1:00 pm

(by invitation)

Room: Adams, 6th floor

SESSION Saturday_B: 1:00 – 2:30 pm

Sa_B_036: Infrastructure and Water

Chair: TBA

Room: Water Tower, 6th floor

_____**Daijiro Kitagawa**, Ministry of Education, Culture, Sports, Science and Technology, Tokyo, Japan

MODERNIZATION OF JAPANESE NATIONAL ROUTE 1 IN 1920'S AND 1930'S

_____**Agustin Castillo Martinez**, Universidad de Granada, Spain

THE TRANSPYRENEAN RAILWAY VIA CANFRANC

_____**Elizabeth Shotton**, University College Dublin, Ireland

THE DIVERGENCE OF THE PROFESSIONS: JAMES GANDON, JOHN RENNIE AND THE BUILDING OF THE REVENUE DOCKS

_____**Hermann Schlimme**, Max Planck Institute for Art History, Rome, Italy

WESTERN STYLE SPRING FOUNTAINS, PLAYS OF WATER AND HYDRAULIC CONSTRUCTION IN THE YUANMINGYUAN IN BEIJING AND THEIR EUROPEAN MODELS

Sa_B_037: Construction Organization

Chair: Brian Bowen, Georgia Institute of Technology, Atlanta, GA

Room: Hancock, 6th floor

_____**Gemma Domènech Casadevall**, Catalan Institute of Cultural Heritage Research (ICRPC), Girona, Spain

PROTECTIONISM, CORPORATISM AND ENDOGAMY IN THE BUILDING GUILDS OF CATALAN COASTAL CITIES DURING THE MODERN

_____**Maria do Carmo Ribeiro** and **Arnaldo Sousa Melo**, University of Minho, Braga, Portugal

ORGANIZATION OF CONSTRUCTION ACTIVITY IN MEDIEVAL PORTUGAL: A COMPARATIVE APPROACH

_____**M.A. Chamorro Trenado**, **R. Ripoll Masferrer**, Polytechnic School, University of Girona

and **J. Salvat Comas**, Technical Architect, Girona, Spain
PUBLIC WORKS AND THE HISTORICAL CITY IN 19TH-CENTURY SPAIN: THE ISABEL II BRIDGE OF GIRONA

_____ **Marco Di Nallo**, Independent scholar, Milan, Italy
'CONSTRUIRE MIEUX, PLUS VITE ET MOINS CHER' – SWISS INDUSTRIALISED SCHOOL BUILDING SYSTEMS

Sa_B_038: Stadium and Pavilions

Chair: Denis Zastavni, Université Catholique de Louvain, Louvain-la-Neuve, Belgium
 Room: Spire, 6th floor

_____ **Eberhard Möller**, Karlsruhe University of Applied Sciences, Karlsruhe, Germany
INVENTION AND INNOVATION IN STRUCTURAL DESIGN AND CONSTRUCTION – FREI OTTO AND THE MUNICH OLYMPIC STADIUM 1972 – A HISTORICAL CASE STUDY

_____ **A. Graciani**, University of Sevilla, Spain
BUILDING THE PAVILIONS OF THE UNITED STATES OF AMERICA IN THE IBERIAN-AMERICAN EXPOSITION (SEVILLE, 1929)

_____ **William E. Reifsteck II**, Design-Build Institute of America, Costa Mesa, CA
TWO MILLION BRICKS IN 160 DAYS: THE CONSTRUCTION OF NOTRE DAME STADIUM IN 1930

_____ **Alicia L. Svenson**, Building Conservation Associates, Inc., Newton Centre, MA
BUILDING HARVARD STADIUM: EARLY CONCRETE DESIGN AND CONSTRUCTION

Sa_B_039: 20th C Structural Engineering

Chair: Thomas Leslie, Iowa State University, Ames IA
 Room: Salon 2, 3rd floor

_____ **T. Iori**, and **S. Poretti**, Università degli Studi di Roma Tor Vergata, Rome, Italy
THE LANGUAGE OF STRUCTURES. THE ITALIAN SCHOOL OF ENGINEERING

_____ **Manfred Curbach**, **Thomas Hänseroth**, **Falk Hensel**, **Silke Scheerer** and **Oliver Steinbock**, Technische Universität Dresden, Germany
GENIUS AND NAZI? WILLY GEHLER (1876–1953) – A GERMAN CIVIL ENGINEER AND PROFESSOR BETWEEN TECHNICAL EXCELLENCE AND POLITICAL ENTANGLEMENTS IN THE 20TH CENTURY

_____ **Lukas Ingold** and **Mario Rinke**, ETH Zürich, Switzerland
SERGIO MUSMECI'S SEARCH FOR NEW FORMS OF CONCRETE STRUCTURES

_____ **A. Como** and **L. Smeragliuolo Perrotta**, University of Salerno, Italy
IS ARCHITECTURE MOVING TOWARD IMMUTABLE FORMS AND CHARACTERS? AN INVESTIGATION AT THE THEORETICAL LEVEL OF THE THOUGHT OF THE ITALIAN ENGINEER PIER LUIGI NERVI THROUGH TEXTS AND IMAGES

Sa_B_040: Concrete Shells

Chair: Marci Uihlein, University of Illinois at Urbana-Champaign, IL
 Room: Monroe, 6th floor

_____ **Hernando Vargas Caicedo**, Universidad de los Andes, Bogotá and **Jorge Galindo Díaz**, Universidad Nacional de Colombia, Manizales, Colombia

THE CONSTRUCTION OF THIN CONCRETE SHELL ROOFS IN COLOMBIA DURING THE FIRST HALF OF THE 20TH CENTURY: THE WORKS OF THE GUILLERMO GONZÁLEZ ZULETA (1916-1995)

_____ **Stephen Buonopane**, and **Mikhail Osanov**, Bucknell University, Lewisburg, PA
EVALUATION OF AUGUST KOMENDANT'S STRUCTURAL DESIGN OF THE SHELLS OF THE KIMBELL ART MUSEUM

_____ **J. William Plunkett** and **Caitlin T. Mueller**, Massachusetts Institute of Technology, Cambridge, MA

THIN CONCRETE SHELLS AT MIT: KRESGE AUDITORIUM AND THE 1954 CONFERENCE

_____ **Tyler S. Sprague**, University of Washington, Seattle, WA
SCULPTURE ON A GRAND SCALE: THE STRUCTURAL GEOMETRY OF JACK CHRISTIANSEN'S THIN SHELLS

Sa_B_041: Residential Construction

Chair: Jeffrey Beard, Drexel University, Philadelphia, PA
 Room: Salon 2, 3rd floor

_____ **Jane Murphy**, Ohio State University, Columbus, OH
NORMAN CHERNER AND DIY AFTER WORLD WAR II

_____ **Beverly K. Grindstaff**, San José State University, San Jose CA
DEMOBILIZATION, CONSTRUCTION, CONVERSION: AMERICAN VETERANS HOUSING IN THE IMMEDIATE POST-WAR ERA

_____ **Anna V. Andrzejewski**, University of Wisconsin-Madison, Madison, WI
EDUCATING THE POSTWAR BUILDER: COLLEGE PROGRAMS FOR ASPIRING MERCHANT BUILDERS IN THE UNITED STATES, 1945-1965

_____ **Jane Murphy**, Ohio State University, Columbus, OH
FEDERALLY FUNDED RESEARCH AND THE SMALL HOMES COUNCIL

BREAK: 2:30 – 3:00 pm

SESSION Saturday_C: 3:00 – 4:30 pm

Sa_C_042: Guastavino Vaulting

Chair: Santiago Huerta, Massachusetts Institute of Technology, Cambridge MA
 Room: Monroe, 6th floor

_____ **Mónica Silva-Contreras**, Universidad Iberoamericana, Ciudad de Mexico, Mexico
THE GUASTAVINO SYSTEM IN MEXICO: RESCUING THE UNKNOWN WORK OF A MODERN BUILDER

_____ **Jonathan Calman Ellowitz** and **John A. Ochsendorf**, Massachusetts Institute of Technology, Cambridge, MA
CONSTRUCTION AND DEMOLITION HISTORY OF GUASTAVINO VAULTING AT THE

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METROPOLITAN MUSEUM OF ART

_____ **Benjamin Ibarra-Sevilla**, University of Texas at Austin, TX
UNUSUAL CONDITIONS = NOVEL SOLUTIONS: GUASTAVINO'S STRATEGIES AND UNDERLYING GEOMETRY FOR THE VAULTS OF IRREGULAR PLAN IN NEW YORK MUNICIPAL BUILDING

_____ **Laura N. Buchner**, Building Conservation Associates, Inc., New York, NY
R. GUASTAVINO CO: FIVE DECADES OF CONSTRUCTION AT THE CATHEDRAL CHURCH OF SAINT JOHN THE DIVINE

_____ **Benjamin Hays**, University of Virginia, Charlottesville VA
THE MANY LIVES OF THOMAS JEFFERSON'S ROTUNDA

Sa_C_043: Early Concrete

Chair: Don Friedman, Old Structures Engineering, PC, New York, NY

Room: Water Tower, 3rd floor

_____ **G. Predari, G. Mochi**, and **R. Gulli**, University of Bologna, Italy
HISTORICAL CONSTRUCTION IN THE 30'S: THE CASE STUDY OF THE FACULTY OF ENGINEERING IN BOLOGNA, ITALY

_____ **A. Bellicoso**, Università degli Studi dell'Aquila, Italy
THE CASA DEL BALILLA IN L'AQUILA (1929-1931). MOVING TOWARDS AN INDEPENDENT SKELETON IN REINFORCED CONCRETE STRUCTURES

_____ **Knut Stegmann**, State Conservation Office of Westphalia Lippe, Muenster, Germany
EXPERIMENTAL CULTURES IN EARLY CONCRETE CONSTRUCTION

_____ **Sabine Kuban**, BTU Cottbus, Germany,
INNOVATION AND STANDSTILL - EARLY APPLICATION AND DEVELOPMENT OF THE "MONIER SYSTEM" IN BERLIN

_____ **K. Watanabe** and **W. Abhichartvorapan** Tokai University, Kanagawa, Japan
MIKISHI ABE: JAPANESE PIONEER ENGINEER-ARCHITECT OF REINFORCED COCRETE IN THE EARLY 20TH CENTURY

Sa_C_044: 20th C Bridges

Chair: Stephen Buonopane, Bucknell University, Lewisburg, PA

Room: Spire, 6th floor

_____ **D. Zastavni**, Université Catholique de Louvain, Belgium and **C. Fivet**, Massachusetts Institute of Technology, Cambridge, MA
PURELY GEOMETRICAL CONSIDERATIONS DURING THE DESIGN OF BRIDGES IN THE EARLY 20TH CENTURY – THE CASE OF R. MAILLART

_____ **Bernard Espion**, Université Libre de Bruxelles, Belgium
THE FOUNDING EVENTS OF PRESTRESSED CONCRETE IN BELGIUM SEEN THROUGH THE BLATON ARCHIVES

_____ **Hilal Tuğba Ormecioglu**, Akdeniz University, Antalya, **Bilge Kucukdogan**, Inanna Engineering & Consultancy Ziyabey Cad. and **Aslı Er Akan**, Ministry of Science, Industry and Technology, Ankara, Turkey
BRIDGING THE GOLDEN HORN: A CHALLENGE OF ENGINEERING, ARCHITECTURE, AND TECHNOLOGY AT THE TURN OF THE CENTURY

_____ **Robert M. Frame III**, Mead & Hunt Engineers, Minneapolis MN
PRESTRESSED SUBURBIA: A NEW MATERIAL IN POSTWAR CONSTRUCTION

_____ **Robert J. Dermody**, Roger Williams University, Bristol, RI
DAVID B. STEINMAN - DESIGN AND CONSTRUCTION OF THE MACKINAC BRIDGE

Sat_C_045: Iron Construction

Chair: Werner Lorenz, BTU Cottbus-Senftenberg, Cottbus, Germany

Room: Salon 2, 3rd floor

_____ **Quentin Collette** and **Ine Wouters**, Vrije Universiteit Brussels, Belgium
UNRAVELING THE DESIGN OF END-OF-THE-19TH-CENTURY RIVETED CONNECTIONS IN BELGIUM

_____ **Christoph Hölz**, University of Innsbruck, Austria
ART AND INDUSTRY AROUND 1850. THE CIVIL ENGINEER FRANZ JAKOB KREUTER

_____ **Abe Yillah Roman Alvarado**, Universidad Autonoma Metropolitana- Azcapotzalco (UAM-A), Coyoacan, Mexico
HISTORICAL AND CONSTRUCTIVE ASPECTS OF THE IRON MUNICIPAL PALACE AT ORIZABA IN THE NINETEENTH-CENTURY

Sa_C_046: Cascaras Hispaniolas

Chair: Javier Giron, Polytechnic University of Madrid, Spain

Room: Hancock, 6th floor

_____ **J. Antuña**, Technical University of Madrid, Spain
GANDÍA CHURCH ROOF SHELL: A SLENDER FOLDED ROOF SHELL BY EDUARDO 3

_____ **Mónica Morales-Segura**, Universidad de Alcalá, Madrid, Spain
ANALYSIS ON THE ROOF OF THE SANCTUARY OF OUR LADY OF GUADALUPE, IN MADRID (SPAIN). CLARIFICATIONS ON THE PARTICIPATION OF FELIX CANDELA IN THE PROJECT

_____ **J. García Muñoz**, and **F. Magdalena Layos**, Universidad Politécnica de Madrid, Spain
EQUILIBRIUM AND PREFABRICATION. PREFABRICATED BRICK VAULTS IN LATIN AMERICA

BREAK: 4:30 – 5:00 pm

KEYNOTE: 5:00 – 6:00 pm

William F. Baker: Frank Lloyd Wright and the Mile High Tower

Room: Adams, 6th floor

WALK TO RECEPTION: 6:00 – 6:30 pm

SICCH RECEPTION: 6:30 – 8:30 pm

Skidmore, Owings & Merrill

224 S. Michigan Avenue, Suite 1000, Chicago IL 60604

9/4/19

Sunday, June 7

ANNOUNCEMENTS: 8:45 – 9:00 am

KEYNOTE: 9:00 – 10:00 am

Santiago Huerta: Construction History: The Building of a Discipline
Room: Adams, 6th floor

BREAK: 10:00 – 10:30 am

SESSION Sunday_A: 10:30 am – 12:00 pm

Su_A_047: Building the Gothic

Chair: Benjamin Ibarra-Sevilla, University of Texas at Austin, TX
Room: Adams, 6th floor

_____**Thomas Coomans**, University of Leuven, Belgium and **Yitao Xu**, Peking University, Beijing, China

GOthic CHURCHES IN EARLY 20TH-CENTURY CHINA: ADAPTING WESTERN BUILDING TECHNIQUES TO CHINESE CONSTRUCTION TRADITION

_____**Rosa Senent-Domínguez**, **Ana López-Mozo**, **Rafael Martín-Talaverano**, **Carmen Pérez-de-los-Ríos** and **Enrique Rabasa-Díaz**, Technical University of Madrid, Spain

LATE GOTHIC RIBBED VAULTS. BASIS FOR CATALOGING

_____**Marina Šimunić Buršić**, University of Zagreb, Croatia

PROBLEMS OF VAULTING THE EASTERN PART OF THE GOTHIC CATHEDRAL OF ZAGREB (CROATIA)

_____**Fabián S. López Ulloa**, Universidad Politécnica de Madrid, Spain

THE ARCHAEOLOGICAL DRAWINGS OF G. E. STREET, A RESOURCE FOR UNDERSTANDING SPANISH GOTHIC ARCHITECTURE

Su_A_048: 19th C Iron Construction

Chair: Werner Lorenz, BTU Cottbus-Senftenberg, Germany
Room: Spire, 3rd floor

_____**I. Wouters** and **I. Bertels** Vrije Universiteit Brussels, Belgium
BUILDING WITH BOOKCASES: AN ARCHIVE DEPOT IN IRON (ANTWERP, 1851)

_____**Rachel. B. Cruise**, University of Sheffield, UK
THE 300 METRE TOWER

_____**C. Fivet**, Massachusetts Institute of Technology, Cambridge MA; **D. Zastavni**, Université Catholique de Louvain, Belgium and **J. A. Ochsendorf**, Massachusetts Institute of Technology, Cambridge, MA

WHAT MAURICE KOEHLIN'S SCIENTIFIC CONTRIBUTION TELLS ABOUT HIS LIFE (1856-1946)

_____**Stephen J. Kelley**, BVH Architects, Chicago, IL, **Alan O'Bright**, National Park Service, St. Louis, MO and **Dan M. Worth**, BVH Architects, Lincoln, NE

THE OLD COURTHOUSE REVEALS THE ROLE OF ST LOUIS AT THE FOREFRONT OF ARCHITECTURAL CAST IRON IN THE UNITED STATES

S_A_049: Teaching Construction

Chair: Valérie Nègre, Ecole Nationale Supérieure d'Architecture de Paris La Villette,
Room: Hancock, 6th floor

_____**Rafael Hernando de la Cuerda**, Universidad de Alcalá, Madrid, Spain

THE EXHIBITION AND INFORMATION CENTRES IN MADRID AND BARCELONA, THE DRIVING FORCE BEHIND MODERN CONSTRUCTION IN SPAIN

_____**Wido J. Quist**, Delft University of Technology, The Netherlands

J.A. VAN DER KLOES (1845-1935). A PROFESSIONAL BIOGRAPHY OF THE FIRST DUTCH PROFESSOR IN BUILDING MATERIALS

_____**Antonio Brucculeri**, Ecole Nationale Supérieure d'Architecture Paris-Val de Seine, Paris, France

BALANCING ART AND SCIENCE: EMMANUEL BRUNE AND THE TEACHING OF BUILDING CONSTRUCTION AT THE ÉCOLE DES BEAUX-ARTS IN THE EARLY THIRD REPUBLIC

_____**Inge Bertels** and **Jelena Dobbels**, Vrije Universiteit Brussel, Brussels, Belgium

CATALOGING CONTRACTORS KNOW-HOW. AN ANALYSIS OF LATE NINETEENTH- AND EARLY TWENTIETH-CENTURY LIBRARY CATALOGUES OF BELGIAN INDUSTRIAL SCHOOLS

Su_A_050: Building Archaeology

Chair: Javier Giron, Polytechnic University of Madrid, Spain
Room: Water Tower, 6th floor

_____**Michele Chiuni**, Ball State University, Muncie, IN

THE CONSTRUCTION OF THE CHICAGO STOCK EXCHANGE BY ADLER AND SULLIVAN: STRUCTURAL SYSTEM AND TYPOLOGICAL INNOVATION

_____**Petra Urbanova**, and **Pierre Guibert**, Université de Bordeaux Montaigne, Pessac, France

NEW INSIGHTS INTO THE DATING OF ROMAN AND MEDIEVAL MORTARS BY OPTICALLY STIMULATED LUMINESCENCE [OSL]: COMPARISON OF CASE STUDIES

_____**Donald Friedman**, Old Structures Engineering, PC, New York, NY
ABOVE-GROUND ARCHAEOLOGY OF DEMOLISHED BUILDINGS

_____**Ana Teresa Cirigliano Villela** and **Regina Andrade Tirello**, UNICAMP, Campinas-São Paulo, Brazil

ARCHAEOLOGY OF ARCHITECTURE: CONTRIBUTIONS TO THE HISTORY OF BRAZILIAN CONSTRUCTION - REFLECTIONS ON THE APPLICABILITY OF "HARRIS MATRIX"

_____**Anthony Caldwell**, University of California, Los Angeles, CA

PHAROS LIGHTHOUSE: AN EXPERIMENTAL ARCHAEOLOGICAL DIGITAL RECONSTRUCTION

Su_A_051: Structural Theory and Construction

Chair: John Ochsendorf, Massachusetts Institute of Technology, Cambridge MA

Room: Monroe, 6th floor

_____**Thierry Ciblac**, Ecole Nationale Supérieure d'Architecture de Paris La Vilette and
Mathias Fantin, Ecole Nationale Supérieure d'Architecture de Paris Malaquais, Paris, France
*REDISCOVERING DURAND-CLAYE'S METHOD USING FORCE NETWORK METHOD
IMPLEMENTED FOR CONSTRUCTION HISTORY*

_____**Christoph Rauhut**, ETH Zurich, Switzerland
*BAUPLATZSTATIK – HOW STRUCTURAL THEORY ALTERED AVERAGE BUILDING PROCESSES
AND HOW DAILY ROUTINE INFLUENCED STRUCTURAL ANALYSIS*

_____**Isabel Tarrío**, Polytechnic University of Madrid, Spain
THE BUTTRESSING SYSTEM IN POL ABRAHAM'S CRITICISM OF VIOLLET-LE-DUC'S THEORIES

_____**François Fleury** and **Bernard Duprat**, National School of Architecture, Lyon, France
*ANALYSIS OF AN UNPUBLISHED TREATISE OF AN 18TH CENTURY ENGINEER, ANTOINE
D'ALLEMAN (1679-1760)*

Su_A_052: Stereotomy and Geometry

Chair: Richard Etlin, University of Maryland, College Park, MD

Room: Salon 2, 3rd floor

_____**Ricardo García Baño** and **José Calvo López**, Universidad Politécnica de Cartagena,
Spain
*ABOUT AN EARLY 16TH-CENTURY STONECUTTING MANUSCRIPT IN THE NATIONAL LIBRARY
OF SPAIN AND THE ORIGINS OF MODERN STEREOTOMY*

_____**Claudia Calabria**, Polytechnic University of Bari, Italy
*GEOMETRIC AND CONSTRUCTIVE RATIONALIZATION IN THE MULTIRIBBED VAULT: THE
"NODE" AS A CRITICAL ISSUE*

_____**M. R. Nobile** and **E. Garofalo**, Università degli Studi di Palermo, Italy
*STEREOTOMY OF THE LATE-MEDIEVAL MEDITERRANEAN. CROSSROADS OF EXPERIMENTAL
DESIGN*

CONGRESS WRAP UP: 12:00 – 12:30 pm

Room: Adams, 6th floor

CONGRESS CONCLUDES: 1:00 pm