

GLOBAL STONE CONGRESS 2018
EXTENDED ABSTRACTS APPROVED

A NEW SCIENTIFIC APPROACH TO DETERMINE THE STONE WORKABILITY - Authors: Lorena Zichella, Rossana Bellopede, Fiorenza Baudana, Paola Marini (Politecnico di Torino)

APPLICATION OF CASTOR OIL POLYURETHANE RESIN IN THE DIMENSION STONE BLOCK INFUSION REINFORCEMENT PROCESS – Authors: Leonardo Luiz Lyrio da Silveira (Centre for Mineral Technology - CETEM); Bruna dos Santos Cezar Ferreira (Federal Institute of Espirito Santo State); Phillipe Fernandes de Almeida (University of Sao Paulo)

APPROACHING EARLY MEDIEVAL HISPANIC QUARRIES (8th-10th c. AD). GEOLOGY AND ARCHAEOLOGY IN ACTION - Authors: Enrique Álvarez Areces (IGME); María de los Ángeles Utrero Agudo (EEA-CSIC); José Manuel Baltuille Martín (IGME)

BEHAVIOUR OF MULTI-TEXTURAL ORNAMENTAL ROCKS UNDER BRAZILIAN TEST CONDITIONS - Authors: Javier Martínez-Martínez, Enrique Álvarez Areces, José Manuel Baltuille Martín, Jorge Fernández Suárez (Geological Survey of Spain - IGME)

BIODETERIORATION OF THE LIOZ OF THE OF THE FACADE OF THE REAL GABINETE PORTUGUÊS DE LEITURA - Authors: Bárbara Santana Tasca (Centre for Mineral Technology – CETEM); Maria Inês Sarquis (Fundação Oswaldo Cruz); Roberto Carlos Ribeiro (Centre for Mineral Technology – CETEM)

CHARACTERIZATION OF SLATE WASTE POWDER – Authors: Luciana Boaventura Palhares (Centro Federal de Educação Tecnológica de Minas Gerais – CEFET); Claudio Gouvêa dos Santos (Federal University of Ouro Preto), Tim N. Hunter (University of Leeds)

CHARACTERIZATION OF THE PORTUGUESE ROCKS OF COPACABANA BOARDWALK - Authors: Roberto Carlos Ribeiro (Centre for Mineral Technology – CETEM); Rosana Coppedê Silva (autônoma); Gabriela Lacerda, Daniel Silva Barbutti, Patrícia Figueiredo (Centre for Mineral Technology – CETEM)

CHEMICAL MOBILITY OF MAJOR ELEMENTS DURING LIXIVIATION EXPERIMENTS, IN MAGMATIC ORNAMENTAL STONES FROM PORTUGAL - Authors: Joaquim Simão, Nuno Leal, Carlos Galhano (University Nova de Lisboa)

COMPARISON BETWEEN CUTTING TECHNOLOGIES FOR ORNAMENTAL STONES: DIAMOND WIRE AND WATER JET - Authors: Rita de Cássia Pedrosa Santos, Victor Hugo Ataíde Borges (Federal University of Goiás); Walter Albergaria Junior (Plural Treinamentos e Soluções); Flávio Augusto Santos e Sousa (Federal University of Goiás)

CONCRETE PRODUCTION USING SLATE WASTES - Authors: Luciana Boaventura Palhares, Paulo Renato Perdigão de Paiva, Mateus Araújo Dutra Rodrigues, Victor Canesso Gonçalves, Sthéfany Batista Pires da Silva (Centro Federal de Educação Tecnológica de Minas Gerais - CEFET)

DIAMOND WIRE CUTTING TEST IN NORDIC WINTER TIME - Author: Seppo Leinonen (Geological Survey of Finland)

ECOLOGICAL FICKERTS USED IN THE POLISHING OF DIMENSION STONES - Authors: Wana Favero Gaburo Dorigo (Federal Institute of Espirito Santo State); Leonardo Luiz Lyrio da Silveira (Centre for Mineral Technology - CETEM); Phillipe Fernandes de Almeida (University of São Paulo)

ENVIRONMENTAL IMPACT OF NEW SANDWICH-STRUCTURED STONE COMPOSITE - Authors: Rodrigo Sequeira, Joel Pinheiro, José Silvestre, Pedro Amaral (Instituto Superior Técnico, Universidade de Lisboa)

FLEXURAL FATIGUE BEHAVIOR OF TWO DIFFERENT LIMESTONE SANDWICH COMPOSITES - Authors: Ilaria Andreazza, Madalena Garcia (IST/Universidade de Lisboa); Vera Pires (Frontwave); Virgínia Infante, Pedro Miguel Amaral (IST/Universidade de Lisboa)

GEOCHEMISTRY AND MINERALOGY TO INDUSTRY: FROM STONE DEGRADATION TO BIM - Authors: José Mirão, Luís Dias, Inês Cardoso, Pedro Barrulas, Patricia Moita, António Candeias (University of Évora)

HARDNESS AND ABRASIVENESS PROPERTIES AT DIFFERENT TEMPERATURES OF MARMARA MARBLE - Authors: Murat Ylmaz

HEALTH AND SAFETY OVERVIEW RELATED TO DIMENSION STONE SECTOR: ITALIAN CONTEXT - Authors: Graziella Marras (University of Cagliari); Augusto Bortolussi (National Research Council of Italy); Nicola Careddu (University of Cagliari)

HISTORIC NATURAL STONE: A NEW MARKET OPPORTUNITY IN THE FIELD OF HERITAGE RESTORATION AND NEW CONSTRUCTION - Authors: Jorge Fernández Suárez, José Manuel Baltuille Martín, Enrique Álvarez Areces, Javier Martínez-Martínez (IGME)

HOW CAN DIMENSION STONE INDUSTRY MEET THE FUNDAMENTAL VALUES OF GEOETHICS? - Authors: Nicola Careddu (University of Cagliari); Giuseppe Di Capua (Istituto Nazionale di Geofisica e Vulcanologia); Giampaolo Siotto (Mediterranea Progetti e Finanza)

HOW LONG CAN SALT LAST HOSTED IN A ROCK? - Authors: Zenaide Carvalho Gonçalves Silva, Carlos Galhano (GeoBioTec/ Universidade Nova de Lisboa)

IMAGE ANALYSIS FOR STONE DURABILITY: TWO DIFFERENT TECHNIQUES - Authors: Rossana Bellopede, Fiorenza Baudana, Lorena Zichella, Paola Marini (Politecnico di Torino)

IMPERIAL BLUE QUARTZITE CHARACTERIZATION PURPOSING THE REMOVAL OF STAINS IN NATURA - Authors: Juliano Tessinari Zaqôto, Rogério Danieletto Teixeira, Bruno do Vale Miotto (Federal Institute of Espírito Santo); Bárbara Gonçalves Rocha (Federal University of Vale do Jequitinhonha e Mucuri); Heloíse Saick de Paula (Federal Institute of Espírito Santo)

IMPORTANCE OF THE REGIONAL GEOLOGICAL SURVEY IN THE DISCOVERY OF NATURAL STONES RESERVES - Author: Vanildo Almeida Mendes

INDUSTRY 4.0 BENEFITS TO THE STONE SECTOR - Authors: Agostinho da Silva, Andreia Dionísio, Luís Coelho (Universidade de Évora)

INNOVATIVE OPTIMIZATION IN THE DIAMOND WIRE CUTTING PROCESS IN QUARRIES - Authors: Jorge Miguel Lopes Frazão, Fábio Ribeiro André, Inês Paulo Frazão (Frazivel)

INSERTION OF SILICON CARBIDE AS CUTTING ELEMENT IN ECOLOGICAL FICKERTS FOR DIMENSION STONE POLISHING - Authors: Phillipe Fernandes de Almeida (University of São Paulo); Victor Moza Ponciano (Federal Institute of Espírito Santo State); Leonardo Luiz Lyrio da Silveira (Centre for Mineral Technology - CETEM); Eduvaldo Paulo Sichieri (University of São Paulo)

INVESTIGATION OF STRUCTURAL CONSOLIDATION OF THE CANDELÁRIA CHURCH IN RIO DE JANEIRO, BRAZIL - Authors: Roberto Carlos da Conceição Ribeiro, [Patrícia Marques Ferreira de Figueiredo](#), Daniel Silva Barbutti (Centre for Mineral Technology - CETEM); Sônia Santos (Architect)

LESSINIA STONE (ITALY): A CANDIDATE FOR "GLOBAL HERITAGE STONE RESOURCE" DESIGNATION
Author: [Piero Primavori](#) (PSC- Primavori Stone Consulting)

LIFE CYCLE INVENTORY OF BRAZILIAN NATURAL STONES - Authors: [Monica Castoldi Borlini Gadioli](#), Nuria Fernández Castro, Carlos Eduardo Ribeiro Wandermurem (Centre for Mineral Technology – CETEM)

LIFE CYCLE INVENTORY OF DIMENSION STONE SUPPLY CHAIN TECHNOLOGIES - Authors: Isabella Bianco; Gian Andrea Blengini (Politecnico di Torino)

LITHOLOGICAL AND COMMERCIAL DIVERSITY OF THE NATURAL STONES OF THE STATE OF ESPÍRITO SANTO (BRAZIL) – Authors: [Hieres Vettorazzi da Silva](#); Nuria Fernández Castro (Centre for Mineral Technology)

MAP OF NATURAL STONES FROM SARDINIA - Authors: [Nicola Careddu](#) ([University of Cagliari](#)); [Massimo Scanu](#) ([Minieredisardegna](#)); [Paolo Desogus](#) ([Environmental Engineer](#))

MARBLE MUSEUM OF VILA VIÇOSA, PORTUGAL A MIRROR OF GEOLOGICAL AND MINING HERITAGE
- Authors: [Ruben Varela Martins](#), Joaquim Luís Lopes (University of Évora); Luís Brito da Luz (MARBRITO); David Germano (CIBIO); José Patrício (Mechanical Engineer)

MECHANICAL BEHAVIOUR OF ASYMMETRIC SANDWICH COMPOSITE STRUCTURES MADE OF NATURAL STONE AND CORK AGGLOMERATE - Authors: João Ribeiro, Madalena Garcia, Joel Pinheiro, Virgínia Infante, [Pedro Amaral](#) (IST/Universidade de Lisboa)

NATIONAL INVENTORY OF HISTORICAL QUARRIES ASSOCIATED WITH THE CONSTRUCTION OF THE SPANISH ARCHITECTURAL HERITAGE - Authors: [Enrique Álvarez Areces](#), José Manuel Baltuille Martín, Jorge Fernández Suárez, Javier Martínez-Martínez (IGME)

NATURAL STONE SLABS FOR BUILDING FAÇADES: PULL OUT STRENGTH AT ANCHORING POINT - Authors: [Sergio Trajano Franco Moreiras](#) (Maringa State University); Antenor Braga Paraguassú, Phillipe Fernandes de Almeida (University of São Paulo)

NATURE CONSERVATION, LAND USE PLANNING AND EXPLOITATION OF ORNAMENTAL STONES - Authors: [Jorge M. F. Carvalho](#) (Laboratório Nacional de Energia e Geologia); João Meira (Visa Consultores); Célia Marques (ASSIMAGRA - Assoc. Portug. dos Industriais de Mármore Granito e Ramos Afins); Susana Machado (Laboratório Nacional de Energia e Geologia); Lia M. Mergulhão (Instituto da Conservação da Natureza e das Florestas); Jorge Cancela (Biodesign - Arquitetura Paisagista, Planeamento e Consultadoria Ambiental)

PHYSICAL AND PETROGRAPHICAL CHARACTERISTICS OF ROOFING SLATE LITHO TYPES - Author: [Víctor Cárdenes Van den Eynde](#) (University of Oviedo)

PORTUGAL MINERAL RESOURCES CLUSTER COLLECTIVE STRATEGY FOR SECTORIAL RECOGNITION AND SUSTAINABLE DEVELOPMENT - Authors: [Marta Peres](#) (ACPMR – Associação Cluster Portugal Mineral Resources); Luís Lopes (Universidade de Évora); Miguel Goulão (ASSIMAGRA – Mineral Resources Association of Portugal); Luís Martins (ACPMR – Associação Cluster Portugal Mineral Resources)

PORTUGUESE MARBLES IN THE HISTORY OF ARCHITECTURE: NEW PERSPECTIVES - Authors: Carlos Filipe; Armando Quintas (University of Évora)

REDUCTION OF MARBLE WASTE LANDFILLS THROUGH THE ENHANCEMENT OF CaCO₃ - Authors: Graziella Marras, Nicola Careddu (University of Cagliari); Giampaolo Siotto (MPF - Mediterranea Progetti e Finanza); Roberto Peretti, Augusto Bortolussi (National Research Council of Italy); Marco Surracco; Maria Caterina Tilocca (University of Cagliari); Orietta Masala (National Research Council of Italy)

STEREOTOMIC DESIGN: THE USE OF STONE IN CONTEMPORARY ARCHITECTURE - Authors: Andréa Silva Régis, Carla Daniela Papariello Marzo (Federal University of Pernambuco)

STONE EFFICIENCY THROUGH THE INDUSTRY 4.0 - Authors: Agostinho da Silva, Andreia Dionísio, Luís Coelho (Universidade de Évora)

STONE MATERIALS AND OLD BUILDINGS: HOW OBSERVATIONS CAN HELP TO PRESERVE THE PAST FOR THE FUTURE - Authors: Antônio Gilberto Costa (Federal University of Minas Gerais)

StonePT – CERTIFICATION TRUST AND QUALITY EXCELLENCE OF PORTUGUESE DIMENSION STONES - Authors: Luís Lopes (Universidade de Évora); Célia Marques, Miguel Goulão (ASSIMAGRA – Associação Portuguesa dos Industriais dos Mármore, Granitos e Ramos Afins); Marta Peres (ACPMR – Associação Cluster Portugal Mineral Resources); Nelson Cristo (ASSIMAGRA – Associação Portuguesa dos Industriais dos Mármore, Granitos e Ramos Afins)

STONE WASTE AS ECOFILLER FOR SELF COMPACTING CONCRETE – Authors: Nuria Fernández Castro, Leonardo Cattabriga, Fábio Conrado de Queiróz (Centre for Mineral Technology), Rubens Curti, Rubens Monge (Brazilian Portland Cement Association), Paolo Marone (Italy Marble Institute)

STUDIES RELATED TO THE DETERIORATIONS IN STONES OF MESTRE VALENTIM'S FOUNTAIN - Authors: Roberto Carlos da Conceição Ribeiro; Patrícia Marques Ferreira de Figueiredo; Daniel Silva Barbutti (Centre for Mineral Technology - CETEM)

TECHNOLOGICAL CHARACTERIZATION AND MINERAL COMPOSITION CORRELATION OF SILICA ORNAMENTAL ROCKS - Authors: Rômulo Furtado Faria; Bruno do Vale Miotto; Viviane Viana Coelho; Juliano Tessinari Zagôto; Cyntia Laurete Caldeira e Roberta Vidotto Rocon (Federal Institute of Espírito Santo)

TECHNOLOGICAL CHARACTERIZATION OF GRANITES FROM ESPÍRITO SANTO - A DIMENSION STONES POLE IN BRAZIL - Authors: Leonardo Monjardim Amarante (Federal University of Espírito Santo); Paulo Arcângelo, Flávio Faucão (Pitágoras College); Bruno Lempe Veiga (TAFE Queensland Brisbane); Filipe dos Santos Machado, José Ignácio Zambrano Giraldo (Pitágoras College)

TESTING METHOD FOR CHARACTERIZING ADHESIVE SYSTEMS USED TO PRODUCE MULTI-LAYERED COMPOSITES MADE OF NATURAL STONE - Authors: Madalena Barata Garcia (IST/Universidade de Lisboa); Vera Pires (Frontwave - Stone Technology); Virgínia Infante, Pedro Amaral (IST/Universidade de Lisboa)

THE EVOLUTION OF THE STONE CLUSTER - Authors: Inês Paulo Frazão, Rui Moreira de Carvalho, Joana Paulo Frazão, José Paulo Afonso Esperança (ISCTE-IUL - Instituto Universitário de Lisboa)

THE EVOLUTION OF THE STONE WORKFORCE - Authors: Joana Paulo Frazão, Rui Moreira de Carvalho, Inês Paulo Frazão, José Paulo Afonso Esperança (ISCTE-IUL - Instituto Universitário de Lisboa)

THE FUNDAMENTAL RESONANCE FREQUENCY MEASUREMENT: CRITICAL EVALUATION OF TEST METHOD ON NATURAL STONE - Authors: Fiorenza Baudana, Rossana Bellopede, Silvia Forbino Lorena Zichella, Paola Marini (Politecnico di Torino)

THE PADUA NATURAL STONE: FROM THE CORRALS TO THE OLYMPIC BOULEVARD - Authors: Carlos Cesar Peiter (Centre for Mineral Technology - CETEM); Maria Marta de M. Gameiro (Departamento de Recursos Minerais do Estado do Rio de Janeiro)

THERMAL AND ULTRASONIC PROPERTIES OF ESTREMOZ MARBLES, PORTUGAL - Authors: Tiago Alves (Universidade de Évora); Johanna Menningen (University Göttingen); Ruben Martins, Luís Lopes, António Correia (Universidade de Évora); Siegfried Siegesmund (University Göttingen)