

September 20, 2023

Day1	Session	Session chair	Presenting author	Title
9:00 - 9:20	Opening Session	Abuku Masaru		Welcome talk
9:20 - 10:10	Keynote Lecture		Michael Steiger	Soluble salts in building materials: From sampling to interpretation
10:10 - 10:30	Coffee Break			
10:30 - 11:30	Laboratory investigations and experimental techniques	Chiaki Oguchi	Amelie Stahlbuhk	Investigations on the damage potential of salts precipit. from mixed electrolytes
			Sebastian Godts	Expect the unexpected: when increasing relative humidity causes non-hydrating salts to crystallize from a mixture
			Davide Gulotta	The new RILEM TC 271-ASC recommendation for the durability assessment of porous building materials against salt crystallization
11:30 - 12:50	Lunch Break			
12:50 - 13:50	Laboratory investigations and experimental techniques	Michael Steiger	Fuzhi Wang	Water and salt migration models and salt crystallization erosion mechanisms for stony artefacts in microclimates
			Wenhua Zhao	Accurate identification of common soluble salts in cultural relics based on modern analytical techniques
			Antonio Maria D'Altri	On the development of a micromechanics-based relationship between salt crystallization pressure, pore filling, and damage in porous building materials
13:50 - 14:10	Coffee Break			
14:10 - 15:30	Studies for conservation issues	Hongjie Luo	Xiaogu Zhang	Conservation approaches of the heritage buildings inside the palace muse-um: against salt damages of the floor bricks by environmental improvement
			Etsuko Mizutani	Effects of interior and exterior environments on salt mixture precipitation in brick masonry with wall paintings
			Chiaki T. Oguchi	Effectiveness of water repellent coating on salt weathering of Japanese tuffs with various rock properties
			Ryanne H.S. Tang	Challenges and intervention strategy in managing salt damage for the brick walls hidden in the sub-floor of the 135-year-old colonial heritage hotel in Singapore
15:30 - 15:50	Coffee Break			
15:50 - 17:10	Environmental conditions and salt decay	Takeshi Ishizaki	C.W. Wong	Characterisation of salt distribution using a combination of non-destructive testing and material analysis for a 140 year-old conservation shophouse in Singapore
			Taiki Iwashima	Measurement of salinity in indoor air and estimation of salt sources in aquariums in coastal areas
			Tadateru Nishiura	Degradation of ancient wall paintings by salt recrystallization: the case of the underground burial chambers in Saqqara, Egypt
			Julie Bartholdy	Desalination of porous materials with hydrogels

September 21, 2023

Day2	Session	Session chair	Presenting author	Title
9:30 - 10:00	Poster presentation	Masaru Abuku	Nurit Shtober-Zisu	Cavernous weathering along a climatic gradient: from karst solution to salt crystallization (preliminary results)
			Xiaotong Huo	Sandstone pore characteristics and distribution of salt crystals in Cave No.4 of the Yungang Grottoes
			Masato Sato	Three-dimensional modelling of coastal tafoni: a case study investigating application of LiDAR-SLAM technology to weathering features
			Sayuri Fujii	Optimizing exhibition methods for the remains in the Ichijodani Asakura Family Site Museum, Fukui Prefecture, Japan
			Yunxia Shen	Salt weathering mechanism of ancient earthen material in arid area of northwest China: a case study of Na ₂ SO ₄ -NaCl salt mixtures
			ZhiYan Du	Study and evaluation of efflorescence in Cave4 of the Yungang Grottoes
			Nobumitsu Takatori	Comparison of damage by various hydration processes of thenardite: water absorption and moisture adsorption
			Masaru Abuku	Fundamental study on desalination methods for brick chimneys, Part 2 Dif-fusion versus convection
			Xiao Huang	A perspective view of salt crystallization from solution in porous media: morphology, mechanism, and salt efflorescence
			Wei Liu	Research on salt deterioration mechanism of brick masonry base of the Xi'an Bell Tower and the conservation suggestion
			Tomoko Uno	Identification of crystallised deposit on Otsu walls and its deterioration mechanism
10:00 - 10:40	Poster Time			
10:40 - 12:00	Lunch Break			
12:00 - 18:00	Excursion			
18:00 - 20:00	Banquet at half time(葉風泰夢)			

September 22, 2023

Day3	Session	Session chair	Presenting author	Title
9:00 - 9:50	Keynote lecture	Masaru Abuku	Hongjie Luo	The migration and crystallization behavior of salt solution in traditional inorganic porous materials
9:50 - 10:10	Short Break			
10:10 - 11:30	Laboratory investigations and experimental techniques	Daisuke Ogura	Lei Huo	The effect of salt content on the isothermal hygroscopic properties of Chinese blue bricks
			Fan Wu	Experimental study on the capillary absorption of Chinese blue bricks to different concentrations of NaCl solutions
			Zixin Yang	Experimental study on moisture diffusivity of sintered bricks with different sodium chloride content
			Daniel Frenzel	Quantification of moisture in masonry via AI-evaluated broadband radar reflectometry
11:30 - 12:50	Lunch Break			
12:50 - 14:10	Mitigation and desalination treatments	Sebastian Godts	Vincent Crevals	Desalination of brick masonry by means of a traditional lime plaster
			Kotaro Sakai	Measuring the amount of accumulated salt on the surface of porous materials using X-ray fluorescence
			Wanja Wedekind	Desalination of the balustrade of Goslar townhall using directed moisture flow
			Junyan Liang	Insight on zwitterionic polymer-terminated calcium carbonate oligomer as salt-resistant materials for sandstone heritage
14:10 - 14:30	Coffee Break			
14:30 - 15:30	Environmental conditions and salt decay	Shuichi Hokoi	Julie Desarnaud	Salt analyses and thermodynamic modelling to preserve built heritage: the case of Cordouan lighthouse
			Steffen Laue	Monitoring as a basic tool for understanding salt crystallization processes on monuments – case study of the baroque tomb in St. Marien in Frankfurt/Oder
			Hailing Chen	Long-term monitoring of microenvironment and wall paintings influenced by soluble salts at Mogao Grottoes, China
15:30 - 15:40	Closing Session			