







BOOK OF ABSTRACTS



Antica Fornace Agresti—Impruneta (Florence) 21st -24th November 2017









INTERNATIONAL CONFERENCE ART AND SCIENCE









21/11/2017 Session I

The stone inlay: the evolution of the execution techniques

Angela Sorrentino

Restorer, Marble Craftswoman, Naples (Italy)

The present study focuses on the evolution of the execution techniques of the stone inlays, taking as an example a work realized by Angela Sorrentino who belongs to an old family of Neapolitan marble craftsmen, specialized in stone inlay works for three generations.

The inlay is a decoration technique composed of shaped flat elements according to a project design and fixed to a support of slate or marble.

The processing of stone and marble has not undergone many variations from antiquity to the Industrial revolution and, regarding to the artistic production, it still maintains the ancient tradition. The composition of figures with marbles or stones cut and matched has ancient origins but to find in our artistic tradition the first inlayed stone work, must be traced back to the end of the sixteenth century.

The perfection of this type of work begins with a complicated process that starts from the pictorial project, already defined in the colors, then conclude with the realization of the stone work by the use of the infinite variety of lithotypes available. The artistic quality of the inlayed stone work depends both on the skill of the performers and the choice of the type of decoration to be realized. The latter task, in general, is entrusted to an artist who prepares the model in scale 1:1. The model for the parts to be realized is usually a water colored drawing.

The choice of the stone shades suitable for the individual sections is an important phase for the success of the inlay: chromatically the paper models provide general indications that don't consider the stone palette.

Practically the process for making an inlayed stone work is as follows. The individual paper sections, after cutting, are fixed on the slices of stone, meticulously chosen and cut, with a thickness varying from 2 to 4 millimeters; every single section is cut and then shaped. To speed up the work we use a water crafted machinery, characterized by a double axis of revolving transmission: one of the two ends is placed a disc of copper toothed and surrounded along all the perimeter from diamond dust used to cut the individual stone sections and to the excision of surplus material. At the other end there is an emery disc which has the function of shaving and then shaping the stone sections.

Cut out the contours of each element, composed the pictorial and controlled figuration the perfect adherence of the individual parts, you put the inlay on an non-deformable plane with the part, destined to stand in view, turned and glued on a slab of comfortable that at the end will be removed. Subsequently the back part is plated with large grain abrasives and water. The back of the inlay is washed with water and dried so that it can proceed with the gluing of the

stone sections. The glue is made by beeswax, rosin and powdered inerts; it is poured hot on the back of the inlay while on the other side is placed a slab of blackboard. It is allowed to cool down, the comfortable plate is detached and then the exposed part is cleaned by the use of abrasives of different grain size.

At the end the inlayed stone work is polished and waxed.













Pictorial Project

The inlayed stone work

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Prehistoric ritual ceramics from Bulgarian lands

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Intense archaeological and interdisciplinary research of prehistoric sites in Bulgaria and the neighboring countries over the past decades provides an opportunity for the construction of well-reasoned images for the late prehistory in the region (from the end of the 7th to the end of the 5th millennium BC). There has been significant growth in the size of the data about ancient agricultural rituality, including new of their kind ritual structures and objects.

The report presents ceramic ritual vessels and other objects of rite from the late prehistory (Neolithic and Chalcolithic periods) across what's today Bulgarian lands. Those have been found in layers of prehistoric settlements, necropolises or ritual structures in pit sanctuaries. The vessels and the other objects are distinguished by their form, decoration and/or their discovery in a ritual context. Their interpretation in the context of the early agricultural religious and mythological system is not always indisputable, but the report will outline several possible interpretations. A large number of the vessels included in the presentation originate from archaeological excavations from the past few years as the actions of preservation and restoration have been carried out by the author.

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The artificial stones in the liberty architecture of Florence: from characterization to restoration

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In the second half of the XIXth century the diffusion of the new hydraulic binders made it possible to produce artefacts of particular hardness and durability in imitation of natural stone. The use of these artefacts, known as artificial stones, spread throughout Europe with a maximum use at the beginning of the XXth century. These materials fulfilled the demand for ornamental architectural elements making it possible to achieve a remarkable speed in the realization of decorations and simplifying their installation with a significant economic benefit. In Florence, between the XIXth and XXth centuries, the presence of decorative elements made of artificial stone in imitation of Pietra Serena, Pietra Bigia and Pietraforte is quite diffused in the Liberty style buildings.

The artificial stones consisted of a mixture of binder (usually Roman Cement, Portland Cement or White Cement) and aggregate (sand, pebbles, ground stone), often admixed with pigments; the mixtures were generally lean.

Artificial stone artefacts were produced in particular "ateliers" by artisan-craftsmen under the guidance of masters who developed recipes of different mixtures according to the requirements of the buyer. The artisan products were made in moulds or directly "on site" thanks to the use of mouldings (galvanized sheet profiles) in order to produce objects of different shapes and sizes. Once made and after sufficient seasoning, the artificial stones were later worked and finished with the tools of masonry and sculptors.

The recipes for the realization of fake stone are often unknown because they are kept in craft shops and handed down only orally. Scientific research on these materials is therefore of great importance especially for the purpose of conservation and restoration of the liberty monuments.

In this work we have characterized the artificial stones used in some Liberty Florentine buildings: Casa Carnielo Gallery, Vichi Gallery House, Villino Uzielli, and monumental cemeteries (Trespiano, Rifredi). Petrographic, mineralogical and chemical investigations were carried out in order to highlight some of the fundamental characteristics of these materials such as binding/aggregate ratio, binder nature, choice and selection of the aggregate, presence of soluble salts etc. These data, together with those on the technology of realization (mould or directly on site) have been taken into account both to identify the production techniques of the various "ateliers" and to understand the decay phenomena.

As a matter of fact, the known durability of this material, mostly made with Roman Cement, which provided greater preservation with respect to the artefacts made with Portland, are compromised in the decorative elements where metal frameworks have been utilized which in many cases need adequate restoration work and appropriate maintenance programs.

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Symbols, reflections about it's meaning today

Lina Yevtushenko

Mosaic artist

I've been asking myself what is art today? Someone says it is a big confusion, deception. It is made to deviate spectator from the reality.

Someone says that there is no way to understand art today. But I'm not completely agree with that. f one doesn't live the present moment, the contemporary spirit, can hardly understand what's going on in art. One who is still attached to the aesthetic of the past centuries, will not be able to percept the artistic expressions of a nowadays. As the great Malevich said: We can't wear the cloth of the 17th century, living in the 20th century.

Artists today have an infinity of facilities, materials, spaces to create art. A piece of art became a surrounding of the spectator. We even don't have to develop our perception to be able to "see" a piece of art. We are inside of it. It is pressing on us. It is dictating the conditions. The huge dimensions of the installations, enormous compositions. The installations with the involving of environment: loans, lakes, streets, spacious interiors, do not leave us one indifferent. Psychologically it is quiet disturbing. Finally we are getting use of being a part, an element of the opera even without being conscious of it. As we can assume to be an element of the opera as the opera can become a part of us. This is a reciprocal interacting between Anima and animated piece of art. Today this interaction is achieved by using exaggerated ways of expression. By using huge dimension, too disturbing or too switched on colors, the surfaces, which can make us feel nausea.

In my opinion art is a unique, survival mechanism for every culture. This is a mechanism to understand the reality. I even don't want to question myself about what reality is. It is mind be a very personal question. One constructs his reality by himself. But I wouldn't exclude the fact that the surrounding influences enormously on our perception. The television, for example, is a very potential manipulator of the reality. We are all aware about it.

I've noticed how the culture, the traditions, the symbols became a sort of a game, entertainment, a trend, vogue nowadays. It has nothing to do with living and believing in the traditional popular culture. I do not say to turn back in time but to insert harmoniously the centuries of the traditions passed down with the contemporary spirit. But to unite both into a symbol, to make a sort of according between the history and the real moment.

My target is to unite the eternity with the present moment. I would like to teach the spectator to live the moment of the contemplation of the symbol. I would compare this activity with the ritual, with the magic act. Symbols are potential. Using of materials and colors makes of the symbol an individual dimension of a person. Symbol is a sign of the according between two nations, two people, between the human and the Universe, between two opposites. Symbol encloses the experience and the traditions as I've sad.

I've started my artistic research from the graphics. This technique is of a minimal using of materials. There is only the line to "speak". The eloquence and conviction of the line is such penetrating that I have decided to find the way to express my inspiration only with it.

The color is also the measure of art mostly impressive. Uniting two potential languages in one symbol is a synthesis of the magic way to express my perception of the reality.

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22/11/2017

Session II

"Restoration and renovation of the exterior and interior of the St. Nicholas Church (1780), Makarovo, Moscow"

Irina Mojar

Professional artist-monumentalist

This text reports the restoration of the exterior and interior of the St. Nicholas Church built in 1870 in the village Makarovo outside Moscow and describes in detail the technological process of the rare technology "al fresco".

As for the restoration of the St. Nicholas Church itself, it was decided to begin with an overall examination of the foundations and walls. According to the data obtained after the examination it was found out that the brickwork of the walls of the temple allows to paint the interior in the unique and rare technology "al fresco", which allows to obtain a durable result. The technique implies writing on raw plaster using only mineral pigments. I have made sketches and drawings of all elements of the interior in strict accordance with the church canon. The ancient tradition of temples building meant the simultaneous design of external and internal decoration for the observance of a single image of the church.

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The revival and subsequent development of technology of Russian frescoes

Maximov Eugeny Nikolayevich.

Academician of the Russian Academy of arts (Department of painting, 2001), member of the Presidium. Academician-Secretary of the painting Department of the Academy of ARTS (2001), head of the creative workshop of monumental painting of the Academy of ARTS (since 2001), Vice-President of the Academy of ARTS (2017)

The revival of Russian frescos started in the «Svyato-Vvedensky» monastery of OptinaPustyn. The wall-painting was created in 1995-1997, technique *«affresco»*. Work was done on wet plaster, natural pigments, with subsequent application of azurite adhesive. Optina Pustyn in those years was one of the most interesting and useful places for muralists. During that period the artists experimented, discovered and developed different techniques of wall paintings. In Soviet times, such kind of work was not provided. Later the results of these experiments were very useful in the decoration of the temple of Christ the Savior in Moscow.

In contrast to usual oil painting technique, I developed technology directly on the gesso, technique based on painting of masters of Renaissance. According to the task of good preservation, of the painting layer, the brigade of artists, whom I leaded, used the method of the optical mixing of colors, which was used by the Italian masters in classical painting.







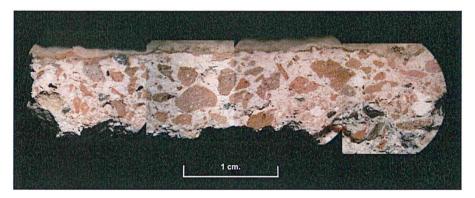


Archaeometry of ceramic and bricks-crushed in lime Roman mortars. Distribution and grading

Pablo Guerra Garcia

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Twenty samples of lime Roman mortar were analyzed using a macroscopic check-method named in Spanish language M.N.I.A.R (Non Intrusive Macroscopy of High Resolution). This method achieve sections in samples from outside to inside in each building layers of mortars. Sections provides different distribution and grading of ceramic and brick-crushed depending on the constructive layer. Sizes, distribution and the order of the aggregates changes according to the type of structure. Sequence of layers use to respect as indicated in Vitruvius Book of Architecture. Different layers of *opus signinum* with *cocciopesto* are interspersed with layers mixed with ashes and coals. Samples were taken from Roman settlements of Henares Valley and from industrial structures related to bulk liquids products. Tanks, pools and cisterns of oil and wine production in this geographical area shows a similar distribution of aggregates, and most noteworthy the decaying marshes or buckets of clay. External diameter of ceramic aggregates range from 0.2 mm to 10 mm with distinct distribution of grains depending of layer. This is in line with a well-done building in a way that allows an hydraulic capacity.



Cross section of lime Roman mortar with cocciopesto showed in abundance.

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Conservation project of the historical Portal in the botanical garden in Palermo

Gaetano Scancarello, Giuseppe Inguì

Imprea Edile "Scancarello", Palermo

The restoration involved both the pylons and the two statues at the top of the pylons. The statues were in a very precarious conservation state both from the static/structural point of view and from the aesthetic point of view.

The causes of degradation are varied; first of all, the statues are in a very humid environment and because they are very close to the sea, they are pervaded by sea aerosol which has caused not only problems of decoction of the constitutive habit, but also consistent deposits and incrustations of various nature. In fact the formation of more or less gaps has resulted in the loss of some of the most important elements of both the cortical part of marble finishing and the constituent parts of the statues such as arms, feet etc.

The pylons also lay in a very precarious conservation state at the structural level.

The structures of the statues are made of mortar with fragments of limestone, while the finishing is made of lime and marble powder as it was in use between the sixteenth and seventeenth centuries in Palermo.

The restoration mainly aimed to reconstruct the statues' constitutive structure and then to give them aesthetic reading, and to maintain those finishing parts that still had a valid mechanical physical strength, so they returned to the statues the vitality lost over the time.

The finishing integrations were carried out after numerous samples of seasoned putty lime and marble powder with addition of NHL 3.5.

Once the restoration was carried out, the surfaces were protected with microcrystalline wax to give protection by the atmospheric agents. It was found that after two years the statues did not show any kind of degradation in progress.









Session III

The Royal project in Al-Aqsa Mosque and the Dome of the Rock, Jerusalem: Training and restoration mosaics

Abu Aysheh Moh'd

Restorer, Madaba, Jordan

The Royal project managed by the Ministry of Awqaf of the Jordan Government, funded by Reconstruction Fund Hashemi and directed by those who write, the work began in 2010 progress all over now. This project offered the job during these years to 20 Italian restorers and training for local employers.

The mosaics of the Al-Aqsa mosque and the Dome of the Rock in Jerusalem, is the most important Islamic mosaic decoration originally dating from the beginning of the eighth century AD.

1500 square meters of mosaics decorate many area inside the two mosques, executed with tesserae of glassy materials with some stone materials; All mosaic decoration representing plant and geometrical elements.

The main objectives of the actual project are two: the first is to produce a wide photographic and graphic documentation (paper and digital) for all mosaic surface that has never been done in the history of the mosques, and to realize conservation interventions necessary (dry cleaning, conservation status mapping, consolidation of the folder for the tiles with metallic leaves, consolidation in depth, chemical and mechanical cleaning).

The second objective is to offer professional training (theory and practice) for the employers of the Ministry Jordanian Awqaf regards the materials used for the realization of the mosaics, the application techniques and ethics of the mosaic restoration, so that in the future they are able to carry out the operation of conservation.

In addition, the restoration project, revealed the different phases of working mosaic decoration starting from the beginning of the VIII century to the 80s of the last century.

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Injection mortars for mosaic restoration

Giuseppe Inguì

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The problem of a correct and efficacious conservation is an ever-present theme. The professionals working in the restoration sector find always solutions that are compatible, resolutive and especially lasting over time. I would like to focus on a problem that is very common for restorers that, like me, usually carry out restoration interventions on wall and floor mosaics, and that is the problem of structural and cortical consolidations of surfaces that can be mosaics or frescoes using specific injection mortars, which are more or less made in site or premixed products, that we find on the market.

Several case studies regarding the restoration yards of Palatine Chapel in Palermo, Cefalù Cathedral, Piazza Armerina and the Basilica of the Nativity in Bethlehem will be shown and discussed. In particular the advantages and disadvantages of both mortars made in situ and premixed mortars will be highlighted.

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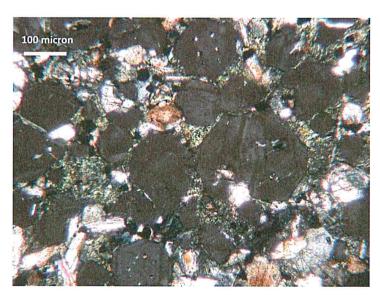
Florentia, tessellated and bichrome mosaics from 1^{st} century BC- 1^{st} – 2^{nd} and 3^{rd} century AD in the National Archaeological Museum of Florence: archaeometry and restoration"

Orestina Francioni⁽¹⁾, Rossano Fontanelli⁽²⁾, Simona Rindi⁽³⁾

The technical-scientific bibliography about the ancient stone-stone building materials is rich, but still today very little is known about the petrographic characterization of the aforesaid materials used for making mosaics. Specifically about mosaics, we should also mention the lack of studies concerning the lure mortars, starting from the chemical-physical notions of components, to the differences between the granulometry and the notions on the manual preparation, which is very important for greater mechanical strength. This properly collected data enabled us to make the best possible solution of natural lime mortar for any integration of musive gaps. Thus, black and white lithotypes have been identified by making use of mineral-petrographic analyzes in thin sections of archaeological mosaic tiles. Moreover, such diagnostic data enabled us to settle the technical-scientific classification of lithology, the genesis and the geographical origin of these stone artefacts.

In conclusion, this archaeometric study facilitated the restoration, with the application of natural, completely natural lime mortars, used as an integral part of the gaps. Mortar also suggested the implementation of a retention conservation intervention.

The latter was made by placing black and white tiles over the lacunae. The tiles were made of organic pigments and natural lime colored mortar. By that way the ancient original mosaic warp returned and the final optical effect is a complete mosaic for a correct reading of the original design.



Picture no. 1 - + N - Black Mosaic Tissue (leucitite)

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From Venetian Mosaic's revival at the end of 1800 to the study case about the Visconti di Modrone Mausoleum mosaic in Cassago Brianza"

Alice Figini

Accademia di Belle Arti Aldo Galli Como - IED

The presentation will deal with 3 topics:

-Antonio Salviati (1816-1890) was a key figure in the Renaissance of Venetian Mosaic Art between the middle and the late Nineteenth century. The mosaic art was deeply decayed after the end of the Venetian Republic (1797). Thanks to the passion of Salviati the mosaic technique returned to be appreciated and desired on the art market, especially thanks to his rediscovery of the old artisan techniques and the introduction of new semi-industrial methods and equipment for the glass tiles production. He involved many artists, created training schools and a large industrial production area. He gained international fame thanks to the production of a lot of very high quality masterpieces. In 1859, he left his lawyer business to open his first glass company. But the real success came later on in 1866, when he founded and managed the "Salviati & C." in collaboration with the archaeologist and British diplomat Austen Henry Layard, and with the English historian and antiquarian Sir William Drake. In 1872 the company changed its name into "Compagnia Venezia Murano pei Vetri e Musaici". -The modern technique to produce colored glazes, and especially to create gold tiles. The company, where I bought the new glass tiles to restore the mosaics, believes to be the successor of the Salviati innovation and of another famous mosaicist called Giandomenico Facchina (1826-1904), who invented in 1870 the indirect mosaic technique. It was a real revolution! The mosaics were no longer made in place, but preassembled first in a lab and then applied where required. This still to be the most used technique for mosaic application and allows to work with more precision and easiness.

-The Project, I worked on, is the restoration of the Visconti di Modrone Mausoleum located in Cassago Brianza, near Milan. The entry portal of this cultural heritage is a little architectural gem in Lombardia. The mosaic covered 8 square meters of surface, ably assembled by the "CompagniaVenezia Murano pei Vetri e Musaici" in 1885, using only polychrome and golden glass tiles. The mosaics composed by small sections, it was created with the indirect method. The decorative complexity and the materials richness of the mosaic it's amazing: there are more than 34 different colors of glass tiles mounted both into vertical or horizontal way, golden tiles with different base layer colors and there are also polychrome "murrine" and very thin glass chopsticks.

The slow and progressive mosaics degradation is caused by a human error during the realization, but also caused from the outdoor exposure. At the end, It's mentioned the restoration proposal.



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23/11/2017

Session IV

A detached mosaic from Chiusi. Restoration and relocation on new support

Alessandro Fonti (1)*, Sabrina Gualtieri (2), Anna Patera (3), Luca Rocchi (3), Francesca Toso (3)

The present contribution concerns a mosaic with "Dionysus on panther" from Chiusi (Siena), object of a complex restoration work carried out between 2016 and 2017 at the Mosaic restoration laboratory of *Opificio delle Pietre Dure* in Florence.

His detaching in 1969 has triggered a serious process of degradation over the years on the mosaic. The work began from here with a twofold purpose: on one hand, investigating the constitutive materials to formulate alternative hypotheses to traditional restoration, and on the other hand designing an appropriate conservative intervention, that can stop the degradation and secure the fifteen sections of the detached mosaic.

Our first objective was met by the collaboration with Dr. Elena Soragni and Dr. Michele Macchiarola from the CNR-ISTEC, which have lent their professionalisms to the application of a study and research path on geopolymeric materials and historic mortars. The second is going to be reached in these days: this challenging conservative work, started with a thesis by a student of the Scuola di Alta Formazione¹, is going to be completed with the restoration, which has foreseen relocation on a new support, surface cleaning and integration of lacunas.

Is under study a temporary exhibition that should bring back the mosaic to Chiusi and return it to public enjoyment, at least temporarily.

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1: View of the mosaic before the reintegration, made with engraved mortar and watercolors.

⁽¹⁾ Firenze (Italy). Restauratore dei Beni Culturali, laureato presso l'Opificio nel 2016.

⁽²⁾ CNR-Institute of Science and Technology for Ceramics, Faenza (Italy).

⁽³⁾ Opificio delle Pietre Dure, Firenze; Settore Mosaico e commesso di pietre dure.

¹ Is a five-year high education course for future restorers, active at Opificio, equated to a master degree.









Temporary operations of conservation on mosaic fragments

Luigia Melillo⁽¹⁾, Roberta Monina⁽²⁾, Manlio Titomanlio⁽³⁾.

(1) National Archaeological Museum of Naples/Naples / Italy;

When we work on small fragments of mosaics completely decontextualized and conditions of museulization in times when the surveys were performed in a summary manner, the preliminary study phases and especially the final choices are often strongly influenced by the difficulty of managing a fragmented situation with conservative degrees extremely differentiated. The paper presented here, therefore, proposes some technical solutions to improve the preservation of Tessellatum fragments placed on stone supports and waiting to be the subject of total restoration work. Specifically, the individual fragments, which are the subject of the interventions, are part of a series of ancient pavements, then placed between the XVIII and XIX centuries, by a "mosaic stucco", on plain slabs having consistent thicknesses. The fragments currently stored in the National Archaeological Museum of Naples are the subjects of a recent study that necessarily needs to re-evaluate the relevance and relationship between the individual parts. However, before proceeding with the studies and in order to evaluate a possible final re-composition, a series of interventions with a conservative approach and a decisively temporary nature have been necessary. In particular, the main problem was caused by a considerable irregularity in the heights of the individual pieces and the presence of gaps with partial or total losses. The solution was then found using magnetic adhesion to achieve high reversibility of the interventions adopted both for the application of some heights regulators and tessellate cloak integrations carried out mainly for the substrate's protective purpose. In practice, solutions that will allow for proper preservation of the individual fragments but at the same time, thanks to a simple and economical reversibility of the interventions, also an easy review of the choices taken in view of the acquisition of new data and / or presentations overall in a museum environment.

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Russian "smalt", in the context of large-scale reconstruction of the Exhibition of Achievements of the National Economy (VDNH) in Moscow. New artistic and technological searching and conclusions

Elena Kuznetsova, Vlad Chintsov

"New Byzantium studio"

In the spring of 2014, the Moscow Government launched a large-scale project to revive VDNH, in honor of the 75th Anniversary of the Country's Main Exhibition (it was opened on 1 August 1939). The territory of VDNH is home to many masterpieces of architecture, large and small park constructions, including unique fountains, with 49 objects of the Exhibition being recognized as monuments of cultural heritage. Most fountains, facades of the pavilions, sculptures on the top of the buildings, covered with "smalts" and golden "smalts". The summer of 2017 gave the start of the final stage of this reconstruction: mosaics works. I am leading on the project of the reconstruction of mosaic covering on the 16 meters high fountain "Zolotoy kolos" now. We also involved in providing of "smalts" to another huge pavilion: "Cosmos" and our colored "smalts" were represented on the "Ukraine" pavilion, in the decoration of clothes of golden statues.

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Development of new materials for the production of mosaic tesserae

Blaž Šeme^{(1)*}, Violeta Bokan Bosiljkov⁽²⁾, Aleksander Mikuš⁽³⁾, Gregor Kokalj⁽¹⁾, Mateja Vidrajz⁽¹⁾, Čila Berden⁽¹⁾, Maja Cingerle⁽¹⁾, Ana Marie Duboković⁽¹⁾, Ana Hekič⁽²⁾, Egzona Kabashi⁽²⁾, Urška Lončar⁽¹⁾, Anja Novak⁽¹⁾, Mia Paller⁽¹⁾, Monika Zobec⁽¹⁾

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(3) Samson Kamnik, d.o.o., Kamnik, Slovenia

The idea of the project originates from the need for good quality and affordable mosaic tesserae, which art students can make by themselves for practical studio work. However, the project team focused on materials that will also be suitable for atelier-made tesserae for a wider field of artistic creation. copying and in limited cases for the needs of conservation-restoration of mosaics. For the purpose of the project, two groups of students tested two different basic binders: ceramic-based mineral binder (Kremenit) and epoxy resin-based synthetic organic binder (products: Epox 210, Viwood, Kristal PS, Aquares, Crystalres). After the addition of various pigments and additives and the manufacture of molds for test samples, we performed two types of tests: workability tests of materials in the studio (consistency, setting times, shrinkage, cutting and adherence) and tests of the physical properties of the tesserae in the laboratory (compressive, bending and splitting strength tests and frost resistance tests). The products, from both types of binders, have some preconditioned advantages, drawbacks and limitations in terms of workability, palette of useful pigments, drying time, cutting ability, final color intensity, stability, durability etc. Within these properties and limitations we produced the tesserae with as optimal as possible properties by applying appropriate proportions and additives. Besides, additional tests for the production of tesserae with special effect pigments and with light fillers were made. The result of the project work are also boxes designed for storage of homemade mosaic tesserae and the mosaic artworks made by students.



Development of new materials for mosaic tesserae.

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The street of tiles

Donatella Nicolardi

Mosaic Artist, Lecce, ITALY

My passion for mosaic art has deep roots that are lost in childhood memories, when I watched my father create mosaics. I come from a Salentina family of mosaic artists who, together with the Peluso Brothers, enriched and embellished the churches and villas of Lecce and the province. It is from my family that I have inherited the love for mosaic and for materials used to make it.

During University, while attending the lessons of professor Dario Del Buffalo and studying ancient marbles, I discovered the technique of marble imitation. In ancient Rome, buyers who did not have large economic resources hired craftsmen to imitate coloured marbles. This was done mostly with tempera or fresco-painting. For me it has been love at first sight because human creativity is exceptional when it comes to overcoming obstacles. In the years following my university studies, my research has been conditioned by this thought: to create a kind of material that could imitate but also replace traditional tiles without losing their beauty. My many experiments and researches were characterized by the desire to create tiles that imitate the marble but were more economical and versatile. After several years I have achieved a result that has satisfied me with the aesthetic, compositional and economic aspect.

So The Street of Tiles was born. My tiles have the same solidity as limestone stones of sedimentary origin and have excellent resistance to weather, tested outdoors for more than 10 years, they have not shown any change in colour or structure. They also have a great adherence to the porous surfaces so that they can be pasted vertically with a basic glue. Once I reached a composition that would guarantee that strength and hardness I wanted, I started working on aesthetics and I started using the La Via delle Tessere material for my mosaics and realized the enormous potential they possess. Upon arriving at this point I decided to patent them and I filed the Patent. My tiles have a very large colour range with a rectangular face of 13 x 10 mm and having a thickness ranging from 3,5 to 4 mm. But I want to make them suitable for walking on and therefore I will change shape and thickness.

They currently have a weight of 0.078 to 0.081 grams each. To make 1 square meter with mosaic it is necessary about 9-10 kg at a price that is cheaper if compared with the materials currently on the market. One kilo of material, in fact, has a price ranging between 11.00 - 14.00 € depending on the series it belongs to. The tiles of the Tesserae series can also be laid out reverse then be well washed and even polished. The various series are treated with water-repellent, while the Tesserae series does not need this treatment since it can be honed and treated with water-repellent after sanding.

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