Deliverable D8.4 - Monthly newsletter

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http://www.mingei-project.eu/

Executive summary

As task leader of Task 8.1: Public Engagement and Outreach, Waag coordinates the creation of the newsletters. The strategy regarding the newsletter is established in D8.2 Publicity & Dissemination Plan. This document, D8.4, includes all newsletters that are distributed in M1-M12. Because the website articles written by partners make up a large part of the newsletter content, all articles are included completely in Chapter 3.

The newsletters are made to create awareness around Mingei and establish an in-depth understanding among target audiences of all the elements that are part of the Mingei project. In addition to the website, the newsletter is an informative and professional basis for communication.

The newsletter includes news updates and promotion of events and activities that are part of Mingei. Starting in July 2019, each newsletter includes two in-depth website articles about Mingei. All partners are contributing by regularly writing articles about their activities, the background of crafts, the bigger picture of the Mingei project or European craft communities. These articles are published on the project website, after which they are included in the newsletter.

Until June 2019, the newsletters included an introduction of the consortium partners. After all consortium partners had been introduced, this category was replaced by the “In the Spotlight” category, which promotes European craft communities in order to inspire the audience. Other categories of content may evolve in the future, along with the different phases of the project (see the revision of D8.2 Publicity & Dissemination Plan).

The first two newsletters have been created by FORTH, after which Waag has continued the task. The newsletters are created with Mailchimp[1] and based on the Mingei visual identity. Mailchimp automatically keeps track of newsletter subscribers in compliance with the GDPR. The link to subscribe to the newsletter is promoted on the website and other communication outlets of Mingei.

Keywords

Newsletter, website, articles, communication, dissemination

[1] Mailchimp. Rocket Science Group. https://www.mailchimp.com/

Document History

Date	Version	Author/Editor	Affiliation	Comment
01.10.2019	0.1	Meike Schipper	WAAG	Initial draft, consolidation of newsletters
01.11.2019	0.2	Pam de Sterke	WAAG	Revised draft
26/11/2019	0.4	Meike Schipper	Waag	Included the introduction
27/05/2020	2	Meike Schipper	Waag	Revision

Table of Contents

1. Introduction

The Mingei project aims to digitize and transfer knowledge about both the tangible and intangible aspects of crafts. This covers the preservation, representation, and accessibility of craft as cultural heritage. Crafts include tangible artefacts, materials, and tools, as well as intangible dimensions, such as dexterity, skill, and the relationship between master and apprentice. These dimensions involve traditional and culturally identifying elements of the communities of practice, innovation, and artistic creation. At the same time, they are part of the history and economy of the areas and societies in which they flourish.

Because of the interdisciplinary nature of the Mingei project, the multimedia character of newsletters and website articles is beneficial to communicate and disseminate the scope of our research. The newsletters are made to create awareness around Mingei and establish an in-depth understanding among target audiences of all the elements that are part of the Mingei project. In addition to the website, the newsletter is an informative and professional basis for communication.

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[2] Mailchimp. Rocket Science Group. https://www.mailchimp.com/

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2. Mingei Newsletters

2.1. Newsletter #1 December 2018

MINGEI NEWSLETTER Nº 1

Mingei

Representation and Preservation of Heritage Crafts

31 December 2018

PILOTS

Mingei Project Started!

On the 1st of December 2018, the Mingei project has officially started! The full title of the project is **"Representation and Preservation of Heritage Crafts"**.

Project Mission

Mingei explores the possibilities of representing and making accessible both tangible and intangible aspects of craft as Cultural Heritage. **Heritage Crafts** involve craft artefacts, materials, and tools and encompass craftsmanship as a form of Intangible **Cultural Heritage**. Intangible Heritage Crafts dimensions include dexterity, know-how, and skilled use of tools, as well as tradition and identity of the communities in which they are, or were, practiced. Heritage Crafts are part of the history and have impact upon the economy of the areas in which they flourish. The significance and urgency of the preservation of Heritage Crafts is underscored, as several are threatened with extinction.

Despite their **cultural significance** efforts for Heritage Crafts representation and preservation are scattered geographically and thematically. Mingei will provide means to establish representations based on digital assets, semantics, existing literature and repositories, as well as mature digitisation and representation technologies. These representations will capture and preserve **tangible** and **intangible** dimensions of Heritage Crafts.

Central to craftsmanship is **skill** and its **transmission** from master to apprentice. Mingei will capture the motion and tool usage of Heritage Crafts practitioners, from **Living Human Treasures** and archive documentaries, in order to preserve and illustrate skill and tool manipulation.

The represented knowledge will be availed through compelling **experiential presentations**, using storytelling and educational applications and based on AR and MR and the Internet.

Engaging cultural experiences have positive impact on **interest growth** and **tourism**, which support Heritage Crafts **communities** and **institutions** and foster their sustainability and preservation.

The consortium brings together complementary expertise and content. **Pilot themes** exhibit richness in **tangible** and **intangible** dimensions and are directly related to **European history**.

Project Partners

The project has a 3-year duration and has received funding from the **European Union's Horizon 2020 research and innovation programme**. The consortium consists of 9 distinguished members from 6 countries **(Greece, France, Italy, Switzerland, Netherlands, Germany),** bringing together the multifaceted necessary expertise required for the project, complementing each another, representing the stakeholders in the world of innovative science, and reflecting the geographical, cultural and socioeconomic diversity of Europe.

Glass

Silk (image, courtesy of Haus der Seidenkultur)

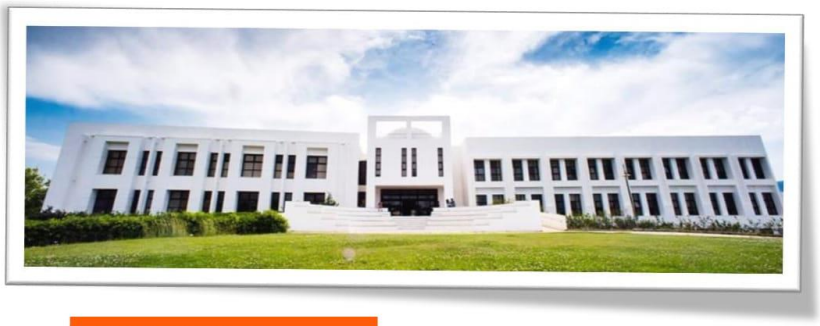
Mastic (image, courtesy of Piraeus Bank Group Cultural Foundation)

Kick-off meeting

The Mingei project kick-off meeting (11-13 Dec 2018) was hosted by the **Foundation for Research and Technology Hellas** in **Heraklion, Crete**.

During the first two days, the scientific and technical objectives of the project were presented together with partners and WPs presentations.

On the third day a **CO-CREATION** workshop was conducted in order to establish the values of the consortium and together start designing innovative craft experiences.



CO-CREATION WORKSHOP

THE MINGEI TEAM

Visit at the village of Anogia

At the village of **Anogia** textile art is the epitome of women's creation and the main occupation of women at home, until today. In this village, textile art constitutes the connecting link between tangible Cultural Heritage (designs, and its immaterial forms) and intangible Cultural Heritage, expressed through inherited traditions and practices that accompany it.

Through a **visit** at Anogia, Mingei partners had the opportunity to discuss with the Municipality of Anogia culture advisor Mrs. Rita Soultatou, about the texture and the looms that are in operation in the village, as well as to watch demonstrations of weavers on their work.

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2.2. Newsletter #2 January 2019

MINGEI NEWSLETTER N° 2



Mingei

Representation and Preservation of Heritage Crafts

31 January 2019

FORTH INSTITUTE OF COMPUTER SCIENCE · MINES ParisTech · PSL · ISTI ISTITUTO DI SCIENZA E TECNOLOGIE DELL'INFORMAZIONE "A. FAEDO"

MIRALab SARL · waag technology & society · PIRAEUS BANK GROUP CULTURAL FOUNDATION

imaginary · le cnam · HAUS DER SEIDENKULTUR KREFELD

Mingei Project Started! What's next?

The next MINGEI meeting and CO-CREATION workshop planned for April at **Haus der Seidenkultur (HdS)**.

Meet the museum

Haus der Seidenkultur (HdS) is an industrial monument which is run as a museum in Luisenstraße 15 in Krefeld. From 1908 to 1992 fabrics were woven from Italian and Chinese silk thread for the Catholic Church in the former Hubert Gotzes parament weaving factory. The items produced, primarily vestments for the clergy, were given the Latin designation "parament" which when translated means "adorn the table of the Lord".

The heart of the museum is the preserved weaving hall at the authentic site which houses the Jacquard hand-looms where long-established textile craftsmanship is demonstrated on the eight wooden hand-looms dating from the 19th century. This weaving hall is unique in Europe.

Warming our engines

Mingei has officially started and the entire consortium is working always serving the **VALUES** that bind us together with the mission of harnessing our **AMBITIONS** towards a European Cultural Identity.

Start-up

The project has established the appropriate channels for organisation and collaboration.

- Website launched
- Internal website and mailing lists launched
- Social media presence stablished
- WPs initiated
- Visual identity is beeing formulated

OUR VALUES

Honesty
Pleasure / Fun
Critical Thinking
Commitment
Empathy
Positive Emotions
Collective Wellbeing / Health
Collaboration
Understanding
Trust
Learning
Innovation
International Exchange (Europe)
Family
Respect
Diversity

Next steps

Step 1: Knowledge acquisition

The project will perform the first step of the craft digitisation process incuding:

Identifying digital and human assets: the **involvement** of **guilds** and **communities** will provide an invaluable contribution towards exploring not yet fully explored faces of Heritage Crafts. This step includes a **strong co-creation** component on **knowledge definition**, which runs through the life-cycle of the project.

Identify information types: use the tangible and intangible dimensions of Heritage Crafts as a point of departure, complemented by the co-creation process. Indicatively, information on **tangible** dimensions regards craft *materials*, craft *artefacts* and *tools*. **Intangible** information regards the *way of making artefacts*, the *skills* required, the *teaching* process, possible *personal creativity*, artefact *repair* and *conservation*. Intangible information would furthermore answer questions such about *religious* or *political* dimensions, the *role of guilds*, and the *impact* of the HC on the *local communities and society*. As Heritage Crafts have an *economic face*, such information should provide answers to questions about the *origin of materials*, the *cost* the products and the *way* or *occasions sold, trade and export of products*, and *impact* in the economy, culture, and the lives of people.

Step 2: Scientific protocol

The project will initiate the definition of a scientific protocol for craft digitization: Multiple information types, people, and disciplines are required to acquire knowledge and create a Heritage Crafts representation, as well as instructions, guidelines, and best practice guides. A representation protocol will provide a blueprint for this collaborative effort. This protocol will define the format, order, and interdependence of steps for achieving a representation, such as the acquisition of digital assets, the acquisition of contextual information, as well as the semantic annotation and linking of digital assets. The goal is to represent knowledge about a Heritage Craft in a meaningful, preservable, and usable fashion for stakeholders.

Step 3: Design of experiences

CO-CREATION workshops will be conducted to **design Heritage Craft experiences**:

- **Storytelling applications** that provide multifaceted presentations of HCs
- **Educational applications** utilising instruction and motion-driven narratives will target skill-learning, and introductory experiences to Heritage Crafts.
- **Informational output**. Heritage Crafts representation and narratives availed through the Mingei Online Platform providing access to general and scientific audiences.

MINGEI ON SOCIAL MEDIA

MINGEI ON THE WEB

http://www.mingei-project.eu

Our Ambitions

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 822336. http://www.mingei-project.eu/

2.3. Newsletter #3 February 2019

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update February 2019

Presentation: Mingei visual identity.

As a kick-start of the Mingei project we present the official visual identity. The style has been developed around the idea of capturing craft, while representing the pilots and the technological ambitions of the project. The letter M in the logo is inspired by an unfolded folding measure. Additional key elements in the visual identity are the silhouettes that symbolize the different pilots and technical components within the project. The visual identity of Mingei was realised by project partner Waag.

Co-creation kick-off
Haus der Seidenkultur @Krefeld, Germany
20 - 21 March, 2019

This is the first co-creation session that project partner Waag will facilitate at Haus der Seidenkultur. Project partners, with expertise in the applied technologies and craft, experts affiliated with the museum and external experts will work together to set a baseline on what we include in this specific craft of silk weaving with jacquard looms. We will explore the needs of the museum and the experts for digitisation of the craft.

Questions that will be addressed during this session include: *What is the cultural significance of the craft? What are unique aspects of the craft that need to be preserved? How is knowledge being transferred? Who are the craftspeople? What is the future perspective of the craft?'*

Meet the Mingei project partners:

About Haus der Seidenkultur

Haus der Seidenkultur is a museum dedicated to Krefeld's silk industry, located in a former silk factory that specialised in producing liturgical vestments. The museum has a rich archive and collection of objects related to silk and jacquard weaving, some of its looms are still in operation thanks to a group of volunteers, who

had careers in the city's silk weaving industry. The Haus der Seidenkultur provides the case of a craft at risk of becoming extinct.

About Waag

Waag explores emerging technologies, and assigns art and culture a central role in the design of new applications and innovation in science and technology. In Mingei Waag is involved as expert partner in the field of co-creation. Through co-creation sessions the participants will explore new and inclusive ways to connect with their environment and audiences.

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2.4. Newsletter #4 March 2019

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update March 2019

Mingei

Co-creation and crafts at the Haus der Seidenkultur museum.

In March project partner Waag travelled to Krefeld, together with Dutch weaving and educational expert Erma. The main objective of this visit was to get a better sense of the craft of silk weaving with jacquard looms and the context of the Haus der Seidenkultur museum by doing co-creation activities with the local craftsmen and experts. Read more about his co-creation session here.

Mingei consortium meeting
Haus der Seidenkultur @Krefeld, Germany

2 - 4 April, 2019

All project partners of Mingei will meet in Germany at the beginning of April at the Haus der Seidenkultur. Here the rich archive, collection and craft of silk and jacquard weaving will be explored while discussing the progress and next steps of the Mingei project. Waag will host another co-creation workshop. Simultaneously partners ARMINES and FORTH will run digitisation activities with the silk and jacquard weaving experts.

Meet the Mingei project partners:

FORTH
INSTITUTE OF COMPUTER SCIENCE

About Foundation for Research and Technology (FORTH)

FORTH is one of the top research centres in Europe based in Hellas, Greece. The partners participating in Mingei are from the Institute of Compute Science (ICS) of FORTH which has a long tradition in conducting basic and applied research as well as developing applications and products. FORTH is project coordinator of Mingei.

MINES ParisTech | PSL

About ARMINES

ARMINES is a research and technological organisation based in France. Within Mingei ARMINES is amongst others responsible for the use of motion capture technology and digitisation actions of the Mingei pilots to capture the motor skills of experts.

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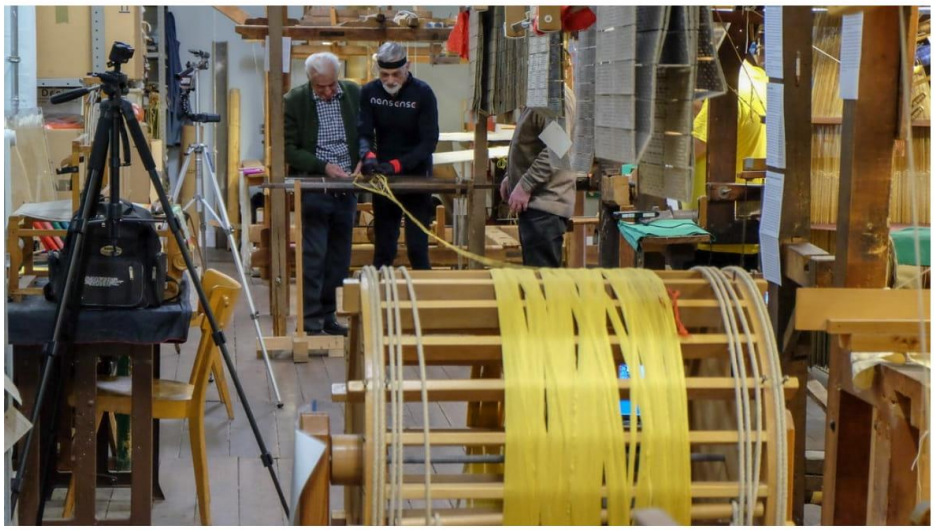
2.5. Newsletter #5 April 2019

View this email in your browser Mingei update #5

Mingei



Digitising craft at the Haus der Seidenkultur

Krefeld, Germany

The Mingei consortium gathered this month in Germany at the Haus der Seidenkultur. Here the only functioning wooden Jacquard handlooms in Europe are preserved in their authentic setting. During the meeting a digitization activity took place, in parallel. The Jacquard silk weaving was described and demonstrated by weaving experts, museum curators, and volunteers. Motion capture and tracking technologies were employed to digitise the expert weaver's motion, step by step, during the demonstrations. Museum historical and photographic records, artefacts, machines, tools, and catalogues were digitized to create a digital representation of Jacquard silk weaving.

Mentions in the German press

The Mingei meeting in Krefeld was featured in 2 local newspapers. Find the German articles in the Westdeutsche Zeitung and RP online.

Have a look at the photo album of the digitisation and co-creation session here.

Mingei's glass and mastic pilots

In the coming months the project partners will gather to take next steps in digitisation activities and host co-creation sessions with craft experts and local stakeholders to capture the craft of the other Mingei pilots. In September 2019 we will meet in Chios, Greece to focus on the mastic pilot. Mastic is a product from the mastic tree which exclusively grows in the south-west of Chios. In December 2019 we will meet in Paris, France to focus on the glass pilot.

Meet the Mingei project partners:

About Imaginary

Imaginary is one of the oldest European serious games companies based in Milan and leader in the application of enabling technologies such as virtual reality, serious games and gamification. The technologies developed by the multidisciplinary team of Imaginary will provide interactive applications of crafts captured in Mingei.

About MIRALab

MIRALab is a Geneva-based R&D company specialised in the scientific areas of computer graphics, virtual reality, computer vision, affective computing and artificial intelligence that will develop a 3D virtual character for demonstration, teaching and to act as a museum storyteller.

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2.6. Newsletter #6 May 2019

View this email in your browser Mingei update #5

Mingei

Introduction of Mingei's glass pilot

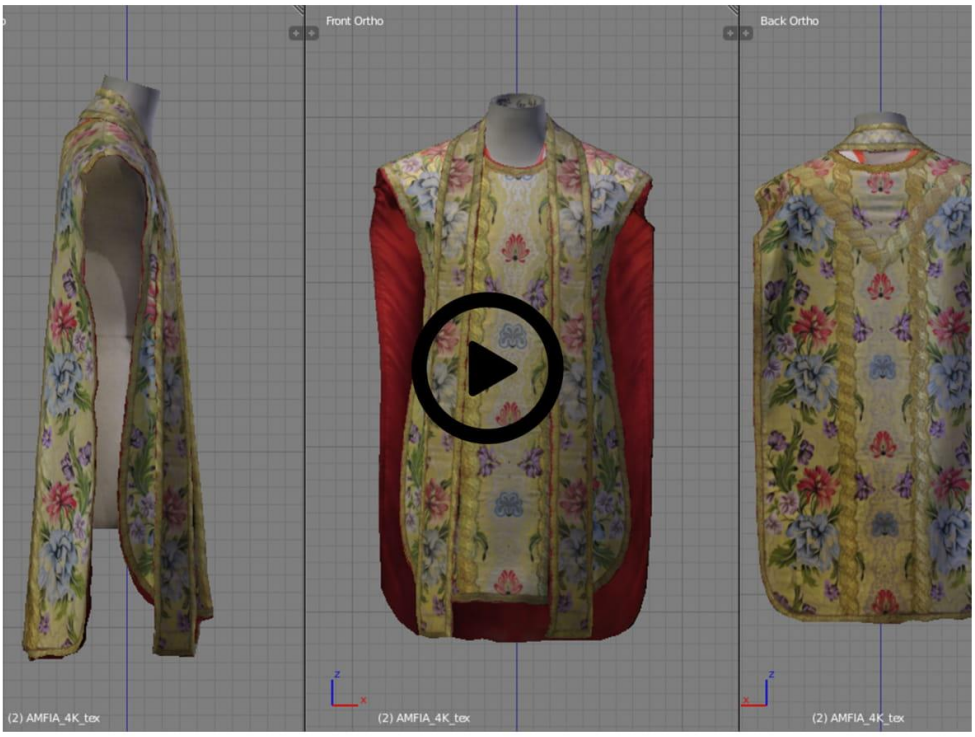
Paris, France

Project partner Conservatoire national des arts et métiers (CNAM) exhibits around 2.500 artefacts in the permanent display of the Musée des Arts et Métiers. Among these, glass and the glassmaking exhibition of the permanently exhibited “Materials Collection” is considered to be one of the most important.

Glassmaking brings together artistic skill with a thorough technical and sensory understanding of the material. With a set of simple tools and processes, glassblowers are able to produce an almost endless variation of objects. Glassmaking and glassblowing exhibit a range of expressions from handicraft to industrial, while it has been globally practiced for centuries.

This pilot offers an excellent opportunity to produce and test meaningful tools for capturing the gestures of the contemporary creators of glass objects and on investigating “reverse engineering” techniques for “re-inventing the gestures” of the creators of rare classical objects. These techniques can then be integrated into motion-driven narratives for visitors.

More about Mingei's glass pilot



During the consortium meeting at the Hause der Seidenkultur first digitisation activities took place. Artefacts, machines, tools and catalogues were digitised to create a digital representation of Jacquard silk weaving. Have a look at the video of the digitisation results here.

Mingei's mastic pilot

Next month we will introduce the Mastic pilot that is located on the island Chios, Greece. The mastic craft is particular to this location and is deeply ingrained in the local history, traditions and economy. Find an UNESCO documentary on the Know-how of cultivating mastic here.

Meet the Mingei project partners:

le cnam

About CNAM

Founded in 1794, the Conservatoire National des Arts et Métiers (CNAM) in Paris, is a Higher Education Institution, and home to the Musée des arts et métiers, a museum of technological innovation, traditional and industrial arts and crafts. CNAM is one of the oldest technical and industrial academic institutions and university museums in the world located in Paris.

Highlight from the heritage and craft community:

Museumcamp, 2019

13 - 16 juni, @Muiderslot, the Netherlands

MuseumCamp is setting up its tents again this year, this time in a national museum in the Netherlands, the medieval Muiderslot! MuseumCamp is a three-day program in which museum and heritage professionals together explore the boundaries of the profession and challenge each other. Project partner Waag will host several creative sessions. More information here.

2.7. Newsletter #7 June 2019

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Mingei update

Introduction of Mingei's mastic pilot

Chios, Greece

Mastíha, or mastic, is a product from the mastic tree which exclusively grows on the south-west of the Greek island of Chios. The craft is unique to this particular location. The Chios Mastic Museum is one of a series of craft-related museums across Greece that are part of the Mingei project partner Piraeus Bank Group Cultural Foundation (PIOP).

This craft related to mastic is part of the fabric of local life. The production of mastíha, an ancestral practice, unaltered over time, is a family occupation that requires laborious care throughout the year, and in which men and women of all ages participate on equal terms. The craft and local life still witness age-old traditions related to the production of mastíha, even if the cultivation and application of mastíha are constantly subject to innovation.

More about Mingei's mastic pilot

The glass master's gestures

Reproducing a carafe from 1842

The Musée des Arts et Métiers is making a copy of a carafe dated 1842, made by the crystal factory of Choisy-le-Roi, France. The recording of the glass master's gestures using a sensor suit is done by Armines Research Center, in partnership with the École des Mines, Paris. Last month the process of reproduction started by taking measurements of the carafe. Read more about the first steps taken to reproduce the body of the carafe, the recording of the glass master's gestures using sensors and the upcoming work here.

Meet the Mingei project partners:

ISTITUTO DI SCIENZA E TECNOLOGIE DELL'INFORMAZIONE "A. FAEDO"

About CNR

The Consiglio Nazionale delle Ricerche (CNR) is the main Italian public research infrastructure. It will take part in the Mingei project with the Istituto di Scienza e Tecnologie dell'Informazione (ISTI-CNR) based in Pisa. The main research interests of the Digital Libraries Group of ISTI involved in the Mingei project are the knowledge representation using the Semantic Web technologies and the development of software applications to manage and access the data.



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2.8. Newsletter #8 July 2019

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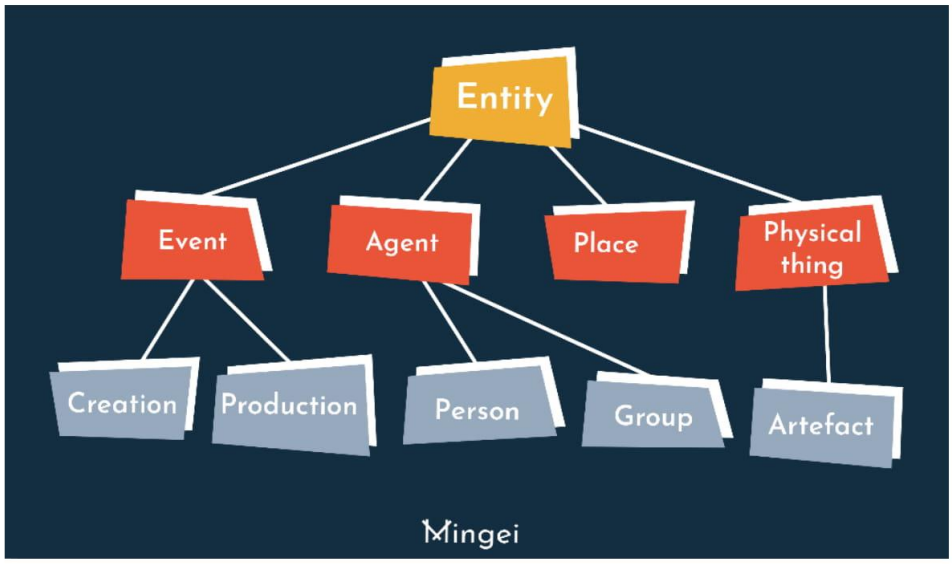
Update July 2019



Mingei Crafts Ontology by CNR

CNR is developing the Mingei Crafts Ontology (CrO) and plans to use it to build stories that share the knowledge and artefacts of crafts. When we talk about knowledge representation, we need to rely on an ontology that would help us to describe the heritage crafts and tell the stories about them. In this context, we define 'ontology' as a vocabulary that provides mathematical definitions of all terms that are used within the domain of heritage crafts; for example events, tools or locations.

Read all about the Mingei Crafts Ontology

"The Countless Aspects of Beauty" at the Chios Mastic Museum

Man is constantly striving to seek beauty and incorporate it into his everyday life. Beauty is represented in works of art, ornaments and implements of daily use. This ongoing search for beauty is on show at "The Countless Aspects of Beauty" as of Wednesday June 18, 2019 at the Chios Mastic Museum in Greece, which will be the last stop of this touring exhibition.

Read more

Day trip to Paris

Early July, Meia from Waag went to Paris to visit the Musée des Arts et Métiers. Her main objective; to get to know the context and scope of their research and design questions in the Mingei project, so that Waag can find the best way to support them in their process. Meia got to see the set-up of the museum, and the way a variety of crafts were already displayed. This helped her understand the possibilities and limitations the museum had to deal with.

All these things are important to know when setting up a co-creation process. The more aware you are of your 'limiting' factors and scope, the better you are

able to find the space for experimentation. It was a fruitful visit, both for Meia, representing Waag, and for the museum – since we both have a better understanding of what we might be able to achieve in the project.

Meet the Mingei project partners

PIRAEUS BANK GROUP CULTURAL FOUNDATION

Introducing PIOP

The Piraeus Bank Group Cultural Foundation (PIOP) is a voluntary non-profit foundation, which supports the preservation and showcasing of Greece's cultural heritage with an emphasis on its artisanal and industrial technology and promotes the connection of culture with the environment. The Foundation's work is carried out through its Thematic Museum Network in the Greek provinces, its Historical Archives, its Library, research work, publications, educational programmes, cultural and academic events.


Mingei
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2.9. Newsletter #9 August 2019

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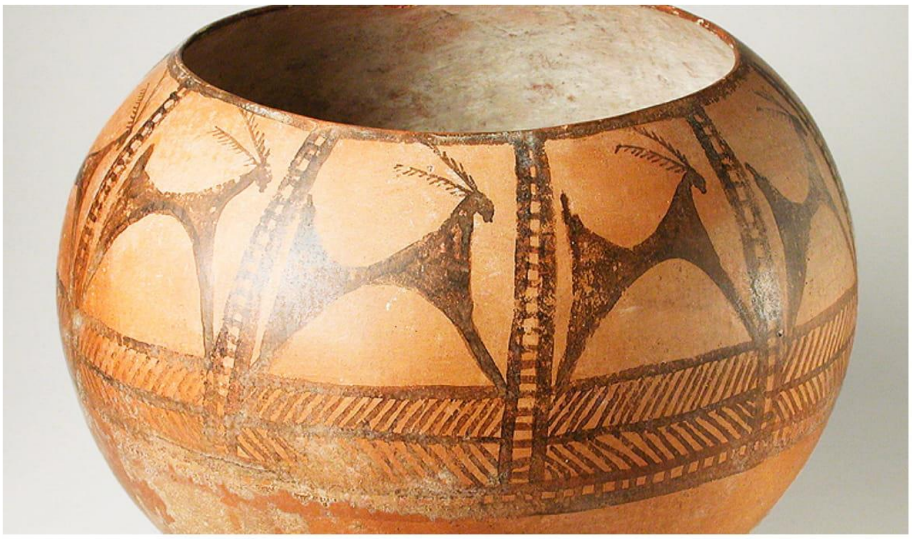
Update July 2019

Mingei



On the origin of mingei

Where does the term mingei come from, and why are we using it as our project name? Xenophon Zabulis (FORTH) explains that it originates as the name of an art movement developed in the late 1920s in Japan by Yanagi Sōetsu (1889–1961). It refers to "peasant or folk arts" or "arts of the people". The term was coined by Yanagi to refer to "hand-crafted art of ordinary people" and the beauty found in inexpensive, utilitarian objects created by nameless and unknown craftsmen, for the people by the people.

Read more

The creation of virtual avatars

Part of Mingei's digitization process is the creation of virtual avatars that represent the craftsmen and the intangible elements of heritage crafts. Virtual humans can help with immersing the users in the virtual environments where the craft is presented, as it makes the craft procedures more interesting for them. For Mingei, MIRALab Sarl works on face and body reconstruction of real crafters, in order to create a natural-looking 3D virtual character identical to them.

Learn more

TextileLab Amsterdam

Each month, Mingei will put a spotlight on a European craft community. From innovative to traditional crafts, we will explore the exciting field of expert communities. First up: Waag's TextileLab!

TextileLab Amsterdam is a lab for fashion, textile and material designers; researchers, artists, and engineers; and creatives interested in exploring the future of the textile and clothing industry. There is room to experiment with craftsmanship, heritage, technology, digital fabrication and biology.

The TextileLab offers a place to explore the possibilities of creating and using open source tools and machines for the textile and clothing industry. Existing machines and tools for weaving and knitting will be hacked, and new work processes explored. Part of the TextileLab is the Textile Academy, where students explore how digital fabrication combined with old craftsmanship and heritage in the field of textile and clothing can influence traditional work processes.

Open Call for European craft communities

We are looking for inspiring crafters, innovative communities and experts of traditional crafts all over Europe. Do you know a local craft community that deserves to be in the spotlight next month? Get in contact to nominate your favourite crafters and inspire others!

Mingei

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2.10. Newsletter #10 September 2019

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Update October 2019

Hello <<First Name>>,

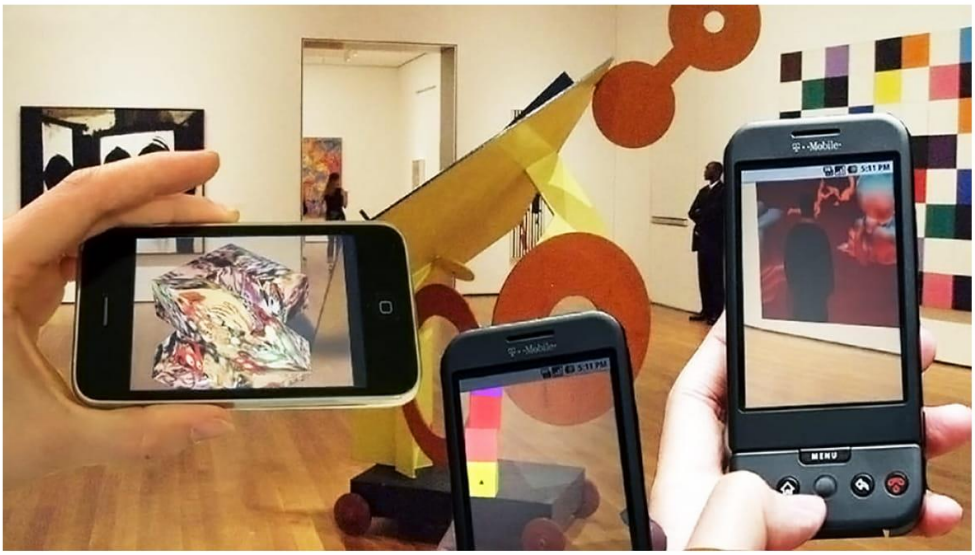
Enjoy this months' newsletter, including the Consortium Meeting report and updates by Imaginary and ARMINES. Cannot get enough of Mingei? Make sure to follow us on Facebook, Instagram and Twitter!

Mingei's consortium meeting & activities on Chios, Greece

From 9 to 13 September 2019, PIOP welcomed all partners to the Mingei Consortium Meeting on Chios, Greece, where the Mingei pilot on mastic is deployed. With coordinated efforts, the valuable help of the Mastic Museum staff and PIOP's excellent

relations with the local community of Chios, we were able to organize a fruitful meeting.

Read all about it



New richness at the museum: AR & VR apps

Museums are increasingly leveraging on technologies such as smartphones and tablets. Within the context of the Mingei project, imaginary is developing a collection of mobile apps to preserve those Intangible Heritage Crafts that are part of the history and economic life of the areas and communities in which they flourished. Visitors will be accompanied in distant worlds experiencing customs and traditions to make them meet European crafts.

Learn more

Digitizing crafters' motions by ARMINES

Within the Mingei project, state of the art technology is used to preserve and represent traditional crafts. By digitizing processes, we can preserve the expertise of artisans, and simplify the transmission of craft skills and knowledge from generation to generation by using new innovative technologies such as virtual reality, which is a technology already under use for educating complex techniques and skills. ARMINES explains the possibilities and challenges of capturing crafters' motions.

Read the article

Three Snails Culture

Each month, Mingei puts a spotlight on a European craft community. From innovative to traditional crafts, we will explore the exciting field of expert communities. This month: The inspiring story of handicrafts platform Three Snails!

Three Snails is founded by the Ukrainian Elena Vechkanova. While traveling, Elena noticed the unpopular and incorrect image people had of Ukraine. After she realized the liveliness of Ukrainian traditional handicrafts and its potential as a positive national brand image, she founded Three Snails in 2015.

The Ukrainian crafting skills are kept alive throughout centuries and create strong connections between generations. Unfortunately, most of the craftspeople couldn't make a living out of their skill due to the economic circumstances of Ukraine. Three Snails reveals and fosters unique craft and manufacturing traditions by empowering local producers. They support the crafters with sales management, logistics, advertising and client support, while pursuing gender equality and sustainability. Ever since 2015, their platform has expanded and now collaborates with over 1500 artisans from all over the world. The Three Snails Instagram account is also a great way to discover new crafts!

Curious for more? Take a look at https://three-snails.com/ or follow them on Facebook and Instagram.

Mingei

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 822336

2.11. Newsletter #11 October 2019

View this email in your browser

Update November 2019

Hello <<First Name>>,

Enjoy this months' newsletter about the process of replicating a glass carafe at CNAM and the exhibition Tradition meets Trend at the Silk Museum. Cannot get enough of Mingei? Make sure to follow us on Facebook, Instagram and Twitter!

Multidisciplinary collaboration in reproducing a glass carafe

As part of the Mingei project, the Musée des Arts et Métiers is making a copy of a carafe dated 1842. Digitising this crafting process is a multidisciplinary effort of the glass masters at CNAM, engineers from FORTH and members of the Armines laboratory. How does this multidisciplinary collaboration achieve a most accurate and realistic digital reproduction? Anthropologist Arnaud Dubois studies the process and reflects on his observations.

Read the story

"Tradition Meets Trend" at the Silk Museum

From 20 September until 20 October 2019, the Piraeus Bank Group Cultural Foundation (PIOP) and the China National Silk Museum presented the exhibition "Tradition Meets Trend" at the Foundation's Silk Museum in Soufli, Greece. Chinese silk has a history of five thousand years. The unique techniques used, the vivid colours and its fascinating history have all contributed to the fact that silk occupies a very significant chapter in the history of Chinese – but also global – culture.

Learn more


Mingei
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 822336
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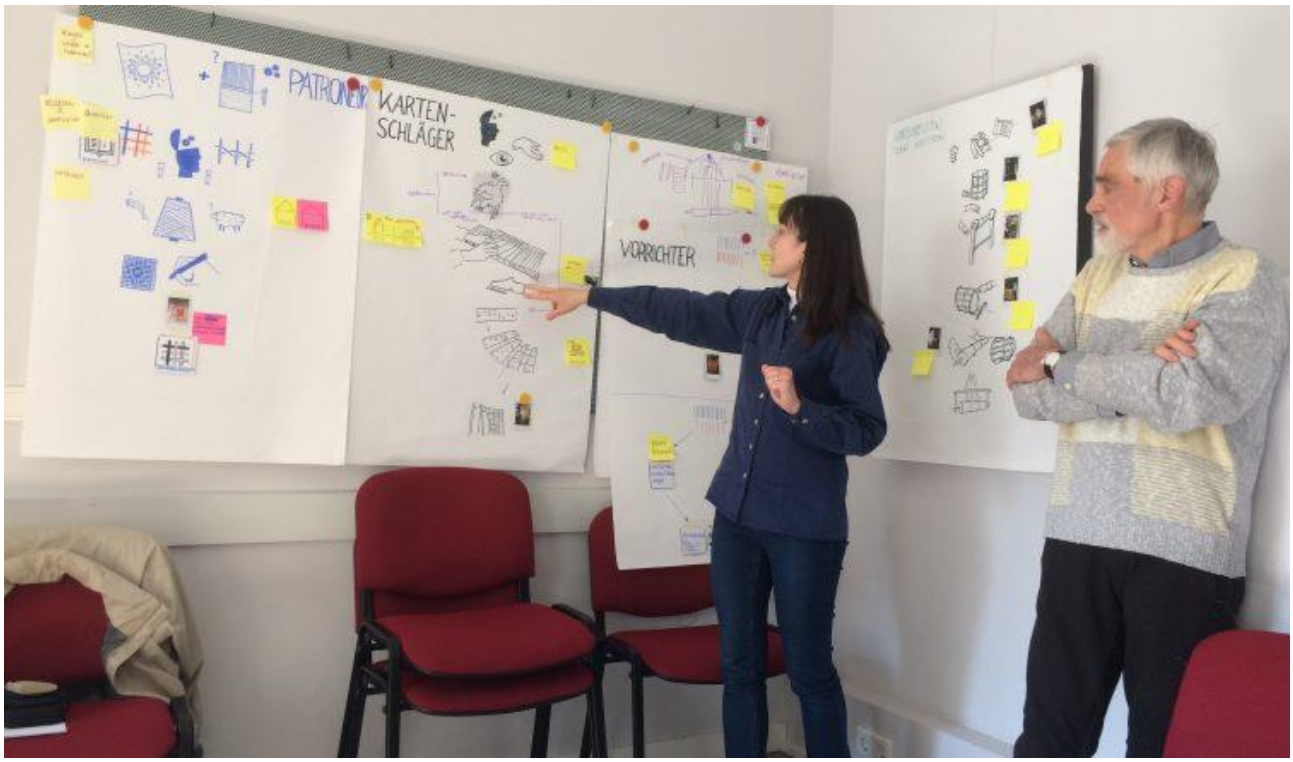
3. Mingei Articles

Mingei newsletters are linking to articles published each month on the website. These articles, contain the full description of the news item that is summarised in the newsletter. Thus, for completeness, in this section, we provide also the content of the online articles implemented in collaboration with the entire Mingei consortium and were used as the source material for preparing the monthly newsletters.

3.1. Co-creation and crafts in Krefeld

March 28, 2019



In March 2018 Dick, Meia and Isabella from project partner Waag travelled to Krefeld, together with Dutch weaving and educational expert Erma. The main objective of this visit was to get a better sense of the craft of *silk weaving with jacquard looms* and the context of the Haus der Seidenkultur museum by doing co-creation activities with the local craftsmen and experts. This first interaction would inform the next steps in both knowledge extraction, and the approach for co-creation throughout the Mingei project.

The activities were split up into two half-day sessions. To try and get a good overview of what the craft entails, we identified five different areas:

1. Technique: what are the associated actions, techniques and tools?
2. Product: what (type of) products are the result of the craft?

3. Art: what are the artistic elements of the craft?
4. Tradition: what is the role of tradition and (local) heritage?
5. Instruction: how is knowledge transferred?

During the co-creation sessions, the participants first visualized the technical process of their craft using icons, drawings and post-it notes on a big canvas. Once these general technical process descriptions were in place, the canvasses could be enriched by adding the elements related to products, art, tradition and instruction. This proved to be an effective approach as the participants felt valued in their expertise and were able to share a lot of latent knowledge. And it gave us some great leads to explore further in the project.

In the upcoming months Waag will support the three pilot partners in Krefeld, Paris and Chios to further explore each of their crafts and possibilities with new technology by using co-creation.

3.2. Reproducing a carafe from 1842: the glass master's gestures

June 20, 2019

Image courtesy of A. Dubois for the Musée des Arts et Métiers

The Conservatoire national des arts et métiers (CNAM) is a French higher education institution dedicated to vocational training throughout life. Founded in 1794, it now offers training courses in the fields of exact, technical and tertiary sciences and delivers more than 13,000 diplomas per year. The Musée des Arts et Métiers, a component of the CNAM, retains an exceptional collection of more than 80,000 pieces and 15,000 drawings that reflect the evolution of science and technology.

As part of the Mingei project, the Musée des Arts et Métiers makes a copy of a carafe dated 1842, made by the crystal factory of Choisy-le-Roi (France). This work is in parallel documented by a researcher anthropologist of the Laboratory "Histoire des Techno-Sciences en Société" (HT2S) of CNAM. The recording of the glass master's gestures using a sensor suit is done by ARMINES Research Centre, in partnership with the École des MINES ParisTech, Paris.

Image courtesy Arnaud Dubois for the Musée des Arts et Métiers.

Last May, the Centre Européen de Recherches et de Formation aux Arts Verriers (CERFAV) began the process of reproduction by taking

measurements of the carafe and making a drawing of its profile. The first step was to reproduce the body of the carafe. The master glassmaker donned the capture suit and made a first test to better assess the shaping process. After calibration of the suit, seven recordings were made: for, the picking up of the molten glass in the oven with the blowpipe, the blowing of the gather, and the shaping of the bubble with jacks.

The next step, scheduled for September, will be a longer working session in CERFAV's workshops to replicate the whole carafe. The engineers of ARMINES will also be present for the capture the glass master's gestures. This information will be used to explore ways to preserve intangible heritage (know-how and skilful use of tools) by digitizing gestures for Virtual Reality rendering.

3.3. "The Countless Aspects of Beauty" at the Chios Mastic Museum

July 23, 2019

"The Countless Aspects of Beauty" at the Chios Mastic Museum

Man is constantly striving to seek beauty and incorporate it into his everyday life. Beauty is represented in works of art, ornaments and implements of daily use. This ongoing search for beauty is on show at "The Countless Aspects of Beauty" as of Wednesday June 18, 2019 at the Chios Mastic Museum in Greece, which will be the last stop of this touring exhibition.
Visitors will have the opportunity to admire fifty antiquities from the collections of the National Archaeological Museum, dating from prehistoric times to the Roman era. Several items, referring to some of the aspects of Beauty, are being exhibited for the first time.

A separate section, which however is not unrelated to the collection of antiquities, highlights the beauty of the women of Chios as seen through the eyes of travellers (16th-19th century), with exhibits and photographic material derived from the Historical and Ethnological Society of Greece / National Historical Museum and the Travelogues section of the Aikaterini Laskaridis Foundation, respectively. Also on display are the multiple properties and uses of the unique product mastic, which is one of Mingei's pilots.

Exhibition on tour

The major exhibition "The Countless Aspects of Beauty" of the National Archaeological Museum (NAM), was designed in collaboration with the Piraeus Bank Group Cultural Foundation (PIOP) to tour its thematic museums. It has been presented since May 2018 in the venues of the National Archaeological Museum's touring exhibitions, a smaller version with the same title, presenting antiquities from the top museum of the country. The exhibition was presented successively at the Museum of the Olive and Olive-Oil in Sparta, the Silversmithing Museum in Ioannina, and the Museum of Marble Crafts in Tinos; it was visited by approx. 46,000 people.

The selection of the ancient artefacts was based on the themes of the PIOP museums to which they travelled. Thus, in the Museum of the Olive and Olive-Oil the focus was on body-care items such as oils and perfumes, in the Silversmithing Museum on fine jewellery, and in the Museum of Marble Crafts on marble figurines representative of the Cycladic culture.

The touring exhibition "The Countless Aspects of Beauty" is part of the policy of the National Archaeological Museum to create, in Greece and beyond, parallel versions, linked thematically to its central touring exhibitions. The ultimate aim of the collaboration between the two entities is that these exhibitions will function as satellites of the top museum in Greece in the various regions of the country, offering to local communities the opportunity to examine at first hand fine artefacts of great historical value derived from the unique collections of the National Archaeological Museum. Another aim of this two-year collaboration (2018-2019) is to link the cultural imprint of modern times with that of the past, showcasing the vitality of Greek culture in all of its expressions across time.

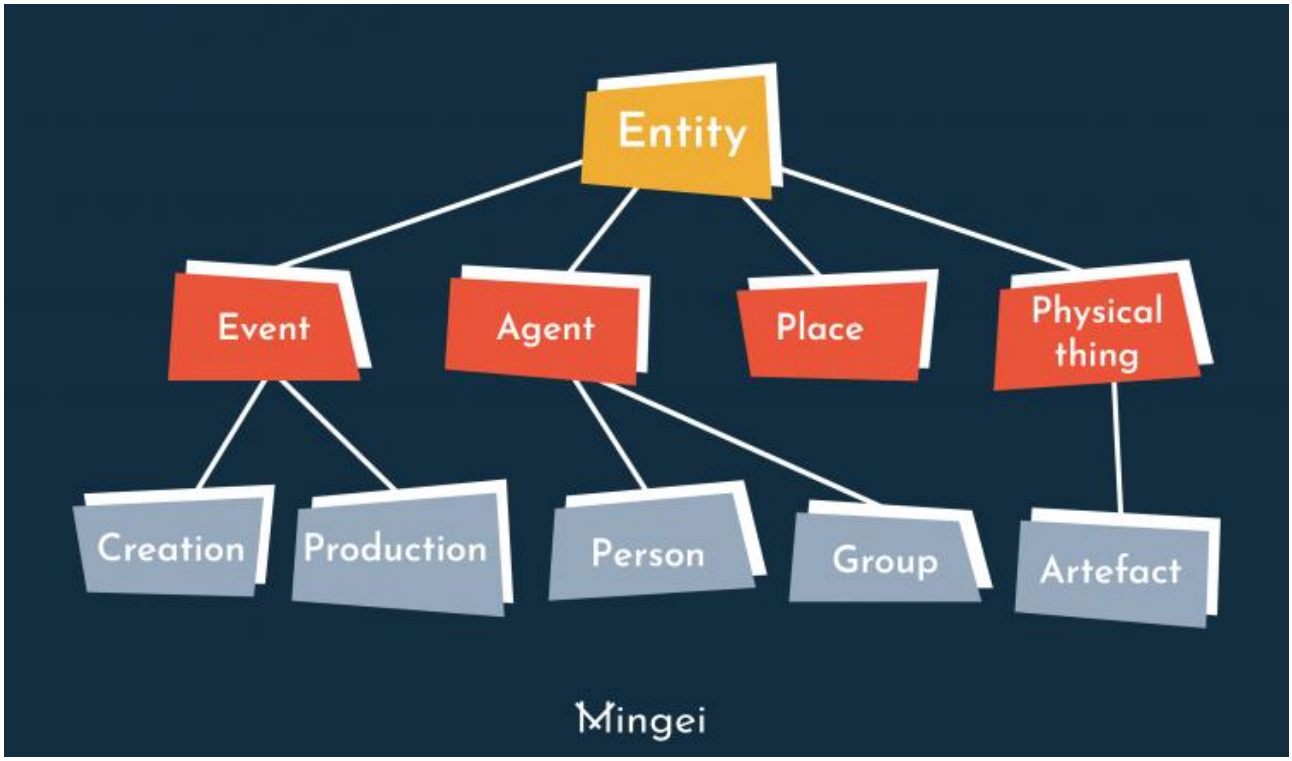
The exhibition runs from June 19 to September 8, 2019 at the Chios Mastic Museum, Rachi site (Tepeki), Chios 821 02.
Opening hours: Daily except Tuesdays, 10:00-18:00
Closed on July 22 (local fair) and August 15

With the kind support of the Chios Gum Mastic Growers Association.

Written by PIOP

3.4. Mingei Crafts Ontology by CNR

July 26, 2019



The Mingei project aims to digitise and represent knowledge about the (in)tangible aspects of heritage crafts (HC). When we talk about knowledge representation, we need to rely on an ontology that helps us to describe the heritage crafts and tell the stories about them. In this context, we define 'ontology' as a vocabulary that provides mathematical definitions of all terms that are used within the domain of heritage crafts; for example events, tools or locations.

Mingei Crafts Ontology

CNR is developing the Mingei Crafts Ontology (CrO) and plans to use it to build stories that share the knowledge and artefacts of these crafts. You may think of this process as a timeline composed of events related to each other through temporal, causal and inclusion relations. Each event is also linked to its components such as tools, methods, people or locations.
To create this Crafts Ontology, luckily we don't need to start from scratch. We are able to follow in the footsteps of Europeana, which already described cultural heritage artefacts in the European Data Model* (EDM). The EDM is defined with the scientific contribution of CNR, among others.
In addition to the EDM, CNR previously developed an ontology for representing narratives (as an extension of the CIDOC Cultural Reference Model**), which is the vocabulary used to describe events related to cultural heritage artefacts. Both these ontologies will be taken as reference for CNR's attempt to define the Mingei Crafts Ontology, and they will be enriched with all the knowledge collected in the Mingei project.

Mingei Online Platform

CNR is also involved in the development of the Mingei online platform. In particular, CNR will develop software to help annotate knowledge that is related to digital objects that are created in this project to document heritage crafts (i.e. motion capture). Additionally CNR will work on a semi-automatic tool that will help construct, manage and visualise those previously mentioned narratives.
Up until now, CNR has been working with FORTH on the definition of the software architecture of the Mingei online platform. Furthermore, CNR participated to the meeting with the Haus der Seidenkultur to capture the requirements on the representation of knowledge concerning the process of silk weaving and the documents about that knowledge.

***The European Data Model* (EDM) is a new proposal for structuring the data that Europeana will be ingesting, managing and publishing. The Europeana Data Model is a major improvement on the Europeana Semantic Elements (ESE). Its aim is to avoid the use of different data standards within the different heritage sectors.**
****The CIDOC Conceptual Reference Model* (CRM) provides definitions and a formal structure for describing the implicit and explicit concepts and relationships used in cultural heritage documentation. The CIDOC CRM is intended to promote a shared understanding of cultural heritage information by providing a common and extensible semantic framework that any cultural heritage information can be mapped to.**

Written by Valentina Bartalesi, CNR

3.5. The power of co-creation

August 10, 2019

To digitise and transfer knowledge about the (in)tangible aspects of crafts; that is the goal of our European project Mingei. Already from that single sentence, a lot of questions arise.

How do we define the term 'craft'? What is considered a craft, compared to art or industry? Who has the knowledge and expertise on a craft, and who do we need to transfer this knowledge to? How do you identify and capture intangible aspects of crafts? How can you digitise knowledge and expertise that is so inherently physical? And what is the best way to transfer knowledge to specific audiences, in specific contexts?

Silk weaving, mastic harvesting and glass blowing

We have to understand that these questions can be answered in many different ways, because they can all be influenced by the context in which they are asked. For that reason, Mingei is an interesting project. It is based on three pilots, each connected to a different craft, to research these questions.

Early July, I got to go to Paris for a day to visit the Musée des Arts et Métiers, that is hosting the pilot on glass blowing. My main objective; to get to know the context and scope of their research and design questions in the Mingei project, so that we can find the best way to support them in their process.

The challenge of co-creation

In the context of each pilot, we will introduce a co-creation process to help research the questions. Waag is responsible for that introduction and will support and coach these craft partners in that process. The craft partner will host activities with local craftsmen, museum staff, stakeholders, visitors and other people with relevant knowledge and expertise that will contribute to shaping the content for digitalisation, and the conceptualisation of solutions for knowledge transfer.
Co-creation is a new approach for most of the project partners, which means it requires some changes in their regular practice. Change is always difficult, especially when you are working in a big institution, where you have to deal with many factors outside of your control. So, the best way for me to support the partner, is to better understand their context. And since there is a direct and quick train from Amsterdam to Paris, it was an easy decision to go visit the Musée des Arts et Métiers and see for myself.

Eye for context

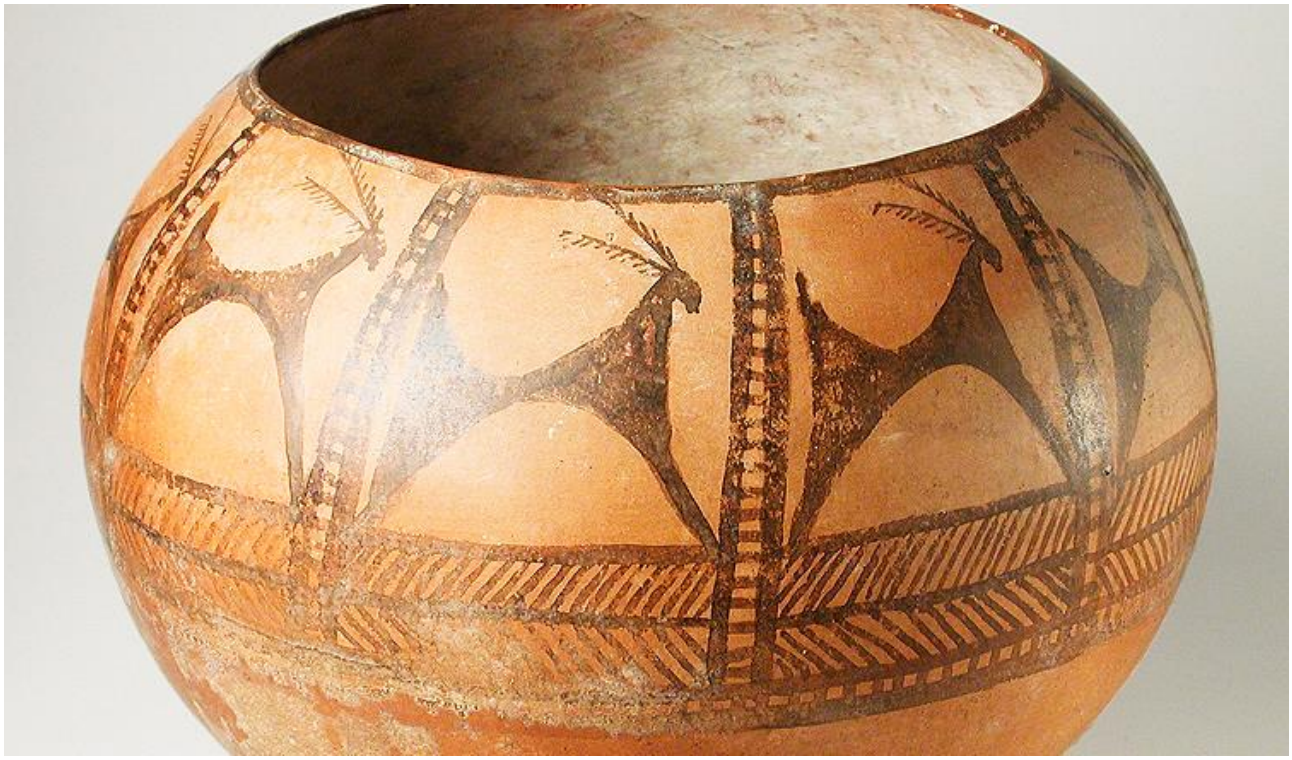
During my visit in Paris, I got to see the set-up of the museum and the way a variety of crafts we're already displayed. This helped me understand the possibilities and limitations the museum had to deal with. I also got a bit of insight into the day-to-day practice of the museum staff and the type of visitors they would cater to. I was able to do some small exercises with both the curators and the educational staff, so that we would better understand the ambitions that were floating around in the museum, in relation to the Mingei project. All these things are important to know when setting up a co-creation process. The more aware you are of your 'limiting' factors and scope, the better you are able to find the space for experimentation.

It was a fruitful visit, both for me, representing Waag, and for the museum – since we both have a better understanding of what we might be able to achieve in the project. In December, we will visit the museum again. By that time, they should have some nice co-creation sessions under their belt, and I am looking forward to their new insights and ideas.

Written by Meia Wippoo, Waag

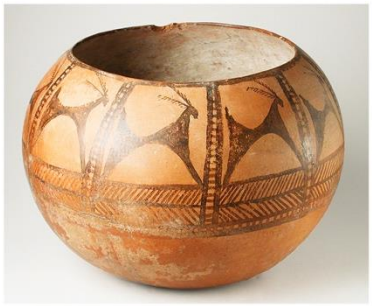
3.6. On the name of the Mingei H2020 project

September 2, 2019



Mingei is the name of an art movement developed in the late 1920s in Japan by Yanagi Sōetsu (1889–1961), and as a term it refers to “peasant or folk arts” or “arts of the people”. The term was coined by Yanagi to refer to “hand-crafted art of ordinary people” and the beauty found in inexpensive, utilitarian objects created by nameless and unknown craftsmen, for the people by the people.

The term can be better understood when considering the earlier Arts and Crafts movement, created about 1880 in England, which focused on the aesthetic value of utilitarian objects. The movement stood for traditional craftsmanship using heritage styles and decoration patterns, against the impersonal, mechanized direction of society during the Industrial Revolution and the relatively low status of decorative arts.



A prehistoric pot from Central Iran, circa 5000-4500 B.C., at the Los Angeles County Museum of Art.

An unsigned Japanese ceramic jar, late 17th century, at the Japan Folk Crafts Museum.

A ceramic pot, 1950, signed by Pablo Picasso at the Musée Picasso.

Both movements underscore that craft products have a dual substance. They are usable items, yet at the same time they include heritage that represents a region and its people. This heritage does not reside only in the object as a unique, tangible work of art. Most importantly, it resides in the skills and knowledge that is necessary for its making and the traditions embedded in it.

In contrast to the preservation and study of unique, tangible works of art where individual creation and innovation has the first role, Mingei reminds us of the intangible heritage of collective creation by anonymous craftspeople within the tradition and social context is preserved.

Digitisation, digital curation, and digital preservation of tangible heritage have marked significant progress during the last 30 years. As a result, the Cultural Heritage Sector uses mature standards and tools for the digital curation and preservation of tangible heritage.

The Mingei H2020 EU project advances digitisation of Cultural Heritage, by providing a two-fold means towards the digitisation of both tangible and intangible aspects of a craft heritage. On the one hand, the artefacts, tools, and materials of a craft, as well as, the motion of craftspeople during craft practice are digitised. On the other hand, Mingei semantically encodes and preserves knowledge on craft communities through historical and ethnographical tools.

Etymology of the Mingei term

The name "Mingei" combines min (民), meaning the common people, and gei (芸 or 藝, the same character used in geisha), meaning art. It is also an abbreviation for minshuteki kōgei (民衆的工芸), which literally translates to popular industrial arts. Essentially, Mingei refers to the art of the common people. In 1916, Yanagi made his first trip to Korea out of a curiosity for Korean crafts. The trip led to the establishment of the Korean Folk Crafts Museum in 1924, and the coining of the term mingei by Yanagi, potters Hamada Shōji (1894–1978) and Kawai Kanjirō (1890–1966). In 1926, the Folk Art Movement was formally declared by Yanagi Sōetsu. The philosophical pillar of mingei is "hand-crafted art of ordinary people" (民衆的な工芸 (minshū-teki-na kōgei)). Yanagi's book The Unknown Craftsman has become an influential work since its first release in English in 1972. Yanagi's book examines the Japanese way of viewing and appreciating art and beauty in everyday crafts, including ceramics, lacquer, textiles, and woodwork. A similar process of industrialization was occurring in Europe at this time, leading to the Arts and Crafts Movement in England, meant to preserve traditions of handmade functional objects. Sōetsu Yanagi synthesized these ideas with Buddhist principles of simplicity to form the Mingei Movement, which was announced in 1926.

"It is my belief that while the high level of culture of any country can be found in its fine arts, it is also vital that we should be able to examine and enjoy the proofs of the culture of the great mass of the people, which we call folk art. The former are made by a few for a few, but the latter, made by the many for many, are a truer test. The quality of the life of the people of that country as a whole can best be judged by the folkcrafts."

Adapted from: Yanagi, Soetsu (1989). The Unknown Craftsman: A Japanese Insight into Beauty. New York: Kodansha International.

Written by Xenophon Zabulis, FORTH

3.7. The creation of virtual avatars

September 2, 2019

Part of Mingei's digitization process is the creation of virtual avatars that represent the craftsmen and the intangible elements of heritage crafts. Virtual avatars are the result of 3D construction. In the field of computer graphics and computer vision, 3D reconstruction concerns any procedure that includes the capturing of the shape and the appearance of real objects. In the context of Mingei, MIRALab Sarl works on face and body reconstruction of real people, in order to create a natural-looking 3D virtual character identical to them.

Why use virtual avatars?

In the context of digitized cultural heritage, virtual humans can help with immersing the users in the virtual environments where the craft is presented, as it makes the craft procedures more interesting for them. Several studies highlight the advantages of virtual avatars, as they can elicit better results with regard to social presence, engagement and performance. There are studies where users favored interacting with an agent capable of natural conversational behaviors (e.g gesture, gaze, turn-taking), rather than an interaction without these features. [L SEP]

Moreover, it has been demonstrated that an embodied agent with locomotion and gestures can positively affect users' sense of engagement, social richness and social presence. Finally, with respect to engagement, participants have claimed that they can better recall stories of robotic

agents when the agent looked at them more during a storytelling scenario. The use of virtual avatars is thus a step towards the preservation and representation of heritage crafts.

The creation process

The creation of those virtual avatars is divided in the following steps:
1. 3D scanning and image acquisition
2. 3D points and texture reconstruction
3. Standard topology wrapping
4. Blendshapes generation
5. Body integration
6. Lip syncing setup

For the first step, an image-based full body and 3D face scanner was used. We decided to test first the face reconstruction, so we adapted all the cameras to the face position as shown in the pictures below.

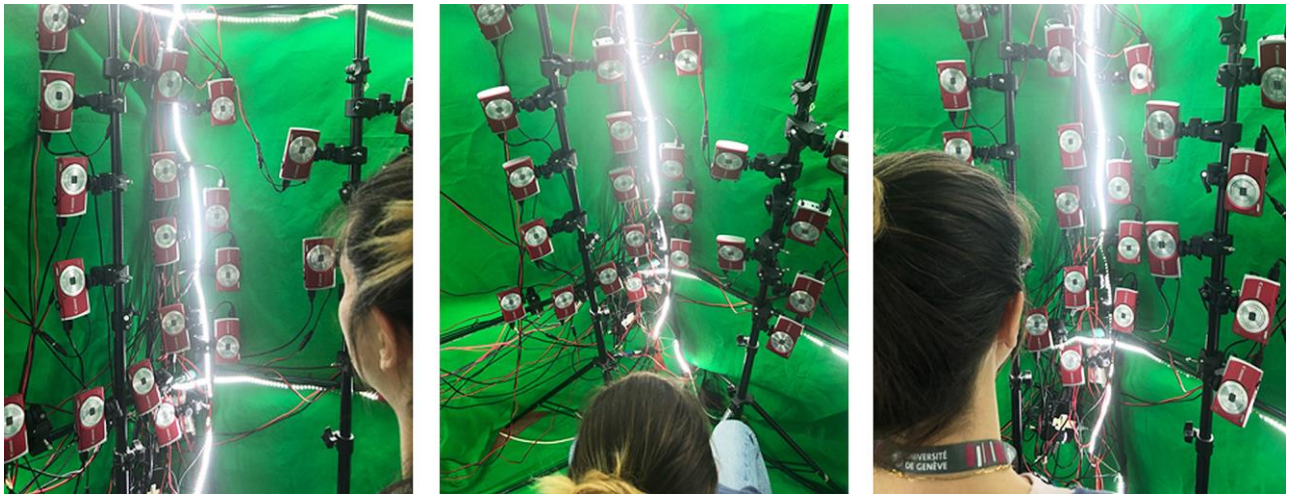


Figure 1: Camera set up for face capture

Image acquisition is the information source of the 3D reconstruction. Sixty 2D digital images were acquired by 60 compact cameras synchronized and controlled by a single computer. All photos have been taken into a specific restricted area with green background (as shown in figure 1) which allows us to edit the photos and increase the quality. For this processing stage, we used Matlab and thus, we extracted all this green background. The transformed photos, called masks, are inserted into the Agisoft Metashape tool, in order to improve the reconstruction accuracy. We used photos of all the vowels as shown in Figure 2. Therefore, we had a separate representation of each one of them.

Figure 2. Examples of the face reconstruction, using the Agisoft tool, for three vowels

As a third step, we proceeded with the retargeting of the head textures and the geometry onto a standardized head. We worked in a predefined area of the head which is the front part. To this end, the Wrap3D or Russian3DScanner tool were used, to adjust the topology of the face to a standardized head (the blue one).

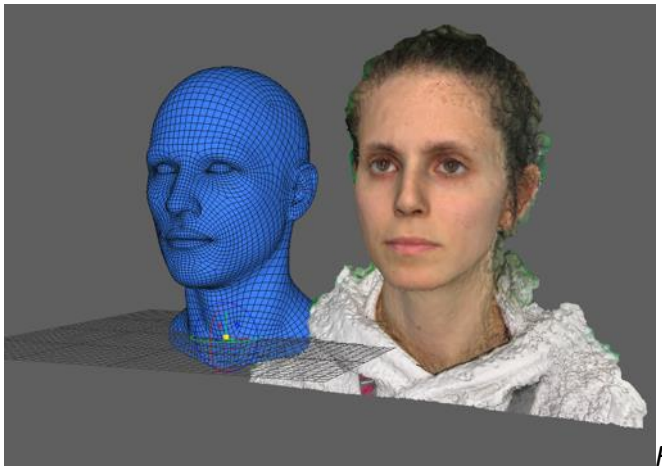


Figure 3. Face wrapping using R3DS

The fourth step concerns the ability of the avatar to "speak", as well as have some facial expressions. The goal of this step is the generation of blendshapes, which are necessary for the lip synchronization. Blendshapes in general is a term for morphing. It is a way of deforming the geometry to create a specific look or shape for the mesh. For example, on a virtual character's face various facial expressions can be created, that can then be blended so as to acquire the desired result. Blendshapes are the most popular method for generating facial animations.

So, for each expression we created during the second and third step, we used the Optical Flow, which is part of the Wrap3D tool, to deform the standardized head in terms of the vowels' geometry. The goal was to maintain the texture of the head mesh.

The final step of the face reconstruction was the lip-syncing procedure as mentioned above. Lip syncing is a technical term for matching a person's lip movements as they are speaking, with prerecorded spoken vocals that a listener can hear. In our case, a Unity plugin was used, called LipSync Pro. Thus, before starting with this process, we exported all the previous data as Blendshapes and we integrated them in a Unity project.
We subsequently proceeded with the analysis of the audio signal of the speech, and we extracted the phonemes and placed them in the audio in a specific timing to reproduce the lip syncing from the Blendshapes.

Figure 4. The complete avatar (left) and the avatar in a Unity environment (right).

Finally, when the head was ready, we integrated it to a body, creating a full avatar as can be seen in Figure 4.
Having the avatar ready, we then proceeded to test on it some of the animations that were the product of motion capture (MoCap) excecuted by Armines at the Haus der Seidenkultur in Krefeld. For this, the MoCap files needed to be converted from BVH to FBX form, and the Avatar needed to be configured to have a humanoid skeleton in Unity. Finally, there is a correspondence in the joints of the skeleton of the MoCap and the ones of the Avatar. The avatar can now move according to the motion capture of the craftsmen at Haus der Seidenkultur.

Written by MIRALab Sarl

3.8. Mingei's consortium meeting & activities on Chios

October 1, 2019

From 9 to 13 September 2019, PIOP welcomed all partners to the Mingei Consortium Meeting onChios, Greece, where the Mingei pilot on mastic is deployed. With coordinated efforts, the valuable help of the Mastic Museum staff and PIOP's excellent relations with the local community of Chios, we were able to organize a fruitful meeting.

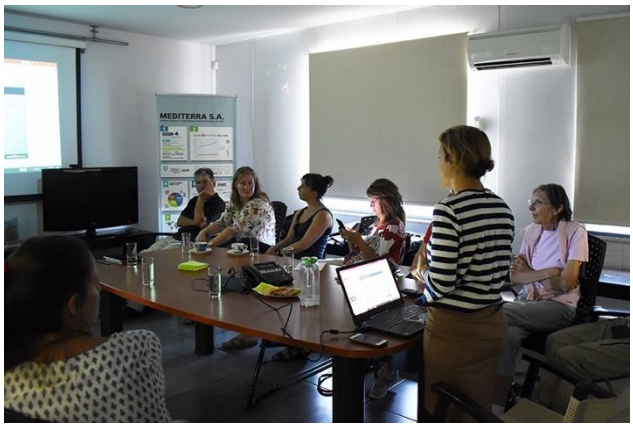
Visit at the Chios Gum Mastic Growers Association

On Monday morning of 9 September 2019 , the consortium visited the Chios Gum Mastic Growers Association – which represents the entire community of Mastic cultivators on Chios – and had an interesting meeting with the president Mr G. Toumpos. One of the main aims of the Association is, with respect of growers-associates labour and efforts, to stand by them as an assistant, by contributing to the upgrade of mastiha cultivation, to the improvement of its producing procedure and of course to the guarantee of the highest possible

Meeting at the Chios Mastiha Growers Association in Chios (Chora).

profits. The consortium received input on the needs of mastic growers, ranging from practical issues to strategical goals.

Visit at Mediterra S.A.



In the afternoon, the consortium visited the Mediterra S.A. Company and had a meeting with Ms Marialena Kavoura. Mediterra was founded by Chios Mastiha Growers Association, with the main objective to develop, product, promote, and sale mastiha products worldwide. Mediterra is a company initiated by the Association and it has the role of a marketing tool for mastic products. Today, they are also building a research centre for pharmaceutical and medical uses of mastic.
The main concern of Mediterra today is to promote mastic in the markets of U.S.A. and Australia, among others, where mastic is not known. Mastic is nowadays considered a super food, thus the main marketing strategy for those new markets is the pharmaceutical and medical use of mastic. Major export countries include those where mastic is used in their daily routine, such as in Saudi Arabia.

Mastic cultivation and agritourism

On Tuesday morning of 10 September 2019, the consortium met with thematic tourism stakeholders and with Ms Boura, who is the owner of the tourist Agency named Mastic Culture, in order to provide the experiential presentation in the field, at the Mastic Museum.At the open air exhibition of the Mastic Museum, where pathways have been developed, as an itinerary through the mastic field, participants became acquainted with the special characteristics of mastic cultivation and the agricultural landscape of southern Chios.
Mastic cultivation steps, processes and practices were demonstrated to and performed by the participants, providing a first-hand experience of the labour, the dexterity and the required practical difficulties, as well as the consideration of efficient use.

Plenary meeting

On the first day of the official consortium meeting, Wednesday 11 September, all partners and guests from the advisory board (Ms Stavroula – Villy K. Fotopoulou and Mr David Fajolles) attended presentations of the progress of the project and discussed with the consortium. During the day, all participants viewed the motion capture process that was taking place at the mastiha trees of the museum.

A guided tour of the exhibition space provided the opportunity to become acquainted with the history of mastic, the process of the mastic cultivation and the architecture of the settlements. Everyone became familiar with the history of the cooperatives, the Chios Mastiha Growers Association, the steps in the mastic production Line, its uses and the products.

Keynote talk by Villy Fotopoulou

Intangible Cultural Heritage, Local Knowledge and Sustainable Management of Cultural Assets and Environmental Recourses.

During her talk, Ms Fotopoulou provided insights in Intangible Cultural Heritage, Local Knowledge, and Sustainable Management of Cultural Assets and Environmental Recourses. Ms Fotopoulou provided guidelines on the policies for the preservation of Intangible Cultural Heritage as acquired from the collaboration of the General Directorate of Antiquities and Cultural Heritage, of the Ministry of Culture and Sports – Hellenic Republic with UNESCO, regarding the inscription of elements of Greek Cultural Heritage in the Representative List of Intangible Heritage of Humanity.

Keynote talk and guided tour by Manolis Vournous

The architecture of the Mastiha villages

In the afternoon of the first day of the meeting, PIOP had planned two architectural guided tours in the Olympoi and Pyrgi villages, by Mr Manolis Vournous, architect and former mayor of Chios. Mr Vournous presented his talk in the context of two guided tours at these villages. Mr Vournous elaborated on the architecture of the Mastiha villages and the way it supported the cultivation of mastic during the last 10 centuries, as well as the protection of threats to the local communities due to piracy and weather conditions. The group ended up at the central square in Olympoi, where we had the opportunity to relax and enjoy the dinner provided by PIOP.

Co-creation activities

On Thursday of 12 September, we started the day with an update on the technological progress of the project by the technical partners. After that, we continued with the co-creation sessions organized by WAAG, which focused on the creation of mastic stories oriented to the museum's spaces, both indoor and outdoor. All participants were divided into three groups and created stories that linked the history of mastic, its social implications, the chewing gum production line and the external pathways of the natural landscape with the potential needs of different group visitors. The great participation, the fantasy and the ideas of all partners showcased the charm and the impact of this unique product on everyone.

Keynote talk by David Fajoles

Why does the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage matter?

On the final day of the plenary meeting, Friday 13 September, we had the chance to attend the speech of Mr Fajoles, on the importance of the 2003 Convention for the Safeguarding of the Intangible Cultural Heritage. During his talk, Mr Fajoles provided insights on the organisation and operation of UNESCO Culture Conventions and in particular the 2003 convention on Safeguarding of the Intangible Cultural Heritage, as well as the ways in which heritage is inscribed in the representative List of the Intangible Cultural Heritage of Humanity or the List of Intangible Cultural Heritage in Need of Urgent Safeguarding. Mr Fajoles presented in detail the function of Heritage Inventories, awareness-raising on international and national level, as well as the function and value of the Register of Good Safeguarding Practices of UNESCO.

The planning of the next steps and issues of the council put the epilogue to a productive but intense 3-day meeting. The next consortium meeting will take place in Paris, involving the glass pilot, upcoming December. Until then, the scent of mastic has remained strong in everyone.

Short bios of invited presenters

Stavroula – Villy K. Fotopoulou is a graduate of the Department of Archeology and History of the Athens School of Philosophy. She has been working in the Ministry Of Culture since 1996, where she was appointed as a graduate of the National School of Public Administration. She holds postgraduate degrees in Modern History (NCSR, 2008) and in Social Folklore (NCSR, 2011). She is the Director of Modern Cultural Heritage in the Ministry of Culture since 2014. She has represented the Ministry of Culture in International Organizations (UNESCO, EU), on matters of its competence.

David Fajolles is a Professor at Sciences Po – C-factor.tech Paris, in Cultural Policies and International Relations. He is a Former Secretary General of the French National Commission for UNESCO and has worked for the French Ministry of Culture as an advisor to the Minister and as a head of the department studies. He is the founder of Manufacturing of Curiosity, a European initiative for smart innovation in cultural and creative industries.

Manolis Vournous graduated in 1996 from the School of Architectural Engineering of the National Technical University of Athens, and in 2000 with a scholarship from the Institute of State Scholarships he completed postgraduate studies in monument restoration at York University, graduating with distinction. His research interests relate to the architecture of Chios during the period of the Genoese and the Ottomans. With his publications and conferences he has dealt with issues, such as the vigils and fortifying architecture of Chios, the evolution of the post-Byzantine church in Chios and the creation and evolution of its settlements. From 1996 to 2003 he worked in Athens focusing mainly on studies and supervision of the restoration of buildings and the incorporation of new architecture into a historical setting. In 2014 he was elected Mayor of Chios.

Written by PIOP and FORTH

3.9. New richness at the museum: AR & VR apps

October 1, 2019

Digitisation of cultural heritage turns Europe's cultural resources into an important pillar of the digital economy. The EU Work Plan for Culture also raises the issue of digitisation of cultural content and suggests that digital services can foster the expansion of trans-European tourism networks. Massive digitization of ancient documents and artefacts is becoming a reality; according to new research conducted by Axiell, museums' audience engagement strategies are focusing on digitisation of the collection as well as on the use of social media and informative websites to deliver public value and educational opportunities.

Developing mobile apps

Museums are also leveraging on technologies such as smartphones and tablets, with 33% citing that visitors can use their own devices to access a complete guide of the museum and almost 40% increasing their investment to do the same.

Within the context of the Mingei project, imaginary is developing a collection of mobile apps to preserve those Intangible Heritage Crafts that are part of the history and economic life of the areas and communities in which they flourished. Visitors will be accompanied in distant worlds

experiencing customs and traditions to make them meet ancient crafts: the art of silk weaving (Haus der Seidenkultur, in Krefeld), the mastic cultivation and processing (Piraeus Bank Group Cultural Foundation, Greece) and the reproduction of a carafe from 1842 (Conservatoire National des Arts et Métiers – CNAM, Paris).

A new reality

These mobile apps will enrich the museum experience and contribute to guarantee visitors' engagement thanks to the usage of Augmented, Virtual Reality. Augmented reality is the process of using technology to superimpose images, text or sounds on top of what a person can already see. It uses a smartphone or tablet to alter the existing picture. Users stand in front of a scene and holds up their device. It will show them an altered version of reality. Since 2010, an increasing amount of AR applications in the Cultural Heritage domain is recorded [1] representing one of the most significant benefits from a supply perspective because an increasing number of tourists are nowadays looking out for unique and memorable on-trip experiences [2].
On the other hand, Virtual Reality offers total immersion in a different reality and replaces what the user sees with an alternate reality and requires specialist technology, such as headsets, controllers and sensors.

With these technologies, combined with a powerful storytelling based on the contents provided by museums, imaginary will create a remarkable blend of historical artefacts, characters, activities to offer dramatic, emotionally engaging stories that can be experienced while at a cultural site or remotely.

In conclusion, the digitization of both tangible and intangible cultural heritage means to safeguard our living heritage bridging our past and our future: an important community-building practice, it helps to ensure the longevity of invaluable customs and practices and it validates life experiences of older members of a community.

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Written by Imaginary

3.10. Digitizing crafters' motions by ARMINES

October 1, 2019

Within the Mingei project, state of the art technology is used to preserve and represent traditional crafts. By digitizing processes, we can preserve the expertise of artisans, and simplify the transmission of craft skills and knowledge from generation to generation by using new innovative technologies, such as virtual reality, which is a technology already under use for educating complex techniques and skills. This expertise could be for example the handling of tools, where certain gesture, force or posture is required to execute the craft effectively.

ARMINES oversees two aspects of the Mingei project related to digitization. Firstly, we execute the motion capture of experts related to the pilots of mastic harvesting (top image), silk weaving and glass blowing (image below). Secondly, we work on the development of a system that can track a human body in real time, and then recognise the gestures that the person is executing with the aim to compare them with the expert's gestures and provide some feedback.

The motion capture of weaving (left) and glass blowing (right).

What is digitization?

We call digitization any kind of method that creates an electronic archive of the crafts. Standard coloured video is the simplest and most popular method. We also apply other methods, including 3D videos using depth cameras and motion capture to record the joint angles of the human body. Using different methods, it is possible to record and preserve crafts in a way that they can be reproduced. This allows historical arts to be preserved in a more organic way than just using photography and descriptive texts.

The first step of the digitization process is to breakdown the craft movement to components. For the crafts expert, the whole process is a continuous action. However, in order to digitize the motions properly, we had to sit down with the expert and separate each motion to subtasks.

Challenges of motion capture

Of course, the whole endeavor has its own caveats. Logically, the recorded motions have to be from a highly skilled expert, since their motions become the “default” motions to be preserved. In general, the challenges of digitization are related to the environment and the task that is being recorded. For example, mastic harvest is done outside, and the expert has to come into contact with dirt, dust, and tools that may affect the recording equipment. For weaving, the expert has to use bulky equipment (especially the loom) that can obscure the motions making the recording incomplete. The challenge is to record the complete motion, and simultaneously ensure that the digitization process does not interfere with the way the experts perform. As such, there is always a trial period until the best setup to record is found. Once this step is overcome, the digitization is fairly simple.

Another challenge is the presentation of the recorded information. In general, the more technically "rich" a dataset is, the more problematic is to present the data to the general public. For example, the motion capture data are strictly speaking a series of numbers. This requires special consideration on how to make the preserved crafts accessible to everyone. However, within Mingei, crafts that have been important for local economies across EU will be preserved in a functional way. Currently, historical preservation is concerned with items, with no way to preserve the methods that created them. Mingei will preserve the actual motion patterns and strategies making the items an example of a finished product.

Our next step is to continue the recording of experts and improve our methodologies for posture estimation and gesture recognition.

Written by ARMINES

3.11. "Tradition Meets Trend" at the Silk Museum

October 30, 2019

Chinese silk has a history of five thousand years. The unique techniques used, the vivid colours and its fascinating history have all contributed to the fact that silk occupies a very significant chapter in the history of Chinese – but also global – culture.

From 20 September until 20 October 2019, the Piraeus Bank Group Cultural Foundation (PIOP) and the China National Silk Museum presented the exhibition "Tradition Meets Trend" at the Foundation's Silk Museum in Soufli, Greece. The exhibition included modern clothes and accessories of silk from the collections of the China National Silk Museum.

The exhibition used silk apparel to recreate the charm of silk craftsmanship via four sections: embroidery, silk-screen printing, weaving, dyeing. Both tradition and modern design trends are applied to create objects – works of art that showcase the inexhaustible vitality of Chinese silk.

The exhibition highlighted the greatness of silk culture and functions as a bridge between the two civilisations, Chinese and Greek. An embroidered coat of red satin with flower and bird patterns, the **qipao** brocade, blue-dyed silk scarves and many other spectacular creations, offered visitors the opportunity to “travel” to distant China.

The exhibition, which was under the auspices of the Culture & Tourism Department of the province of Zhejiang and the Embassy of the People's Republic of China in Greece, came under the framework of the co-operation agreement signed between PIOP and the China National Silk Museum in October 2017. In the same context, providing for cultural exchanges between the two entities, PIOP will lend artefacts from its collections to be displayed at the China National Silk Museum in 2020.

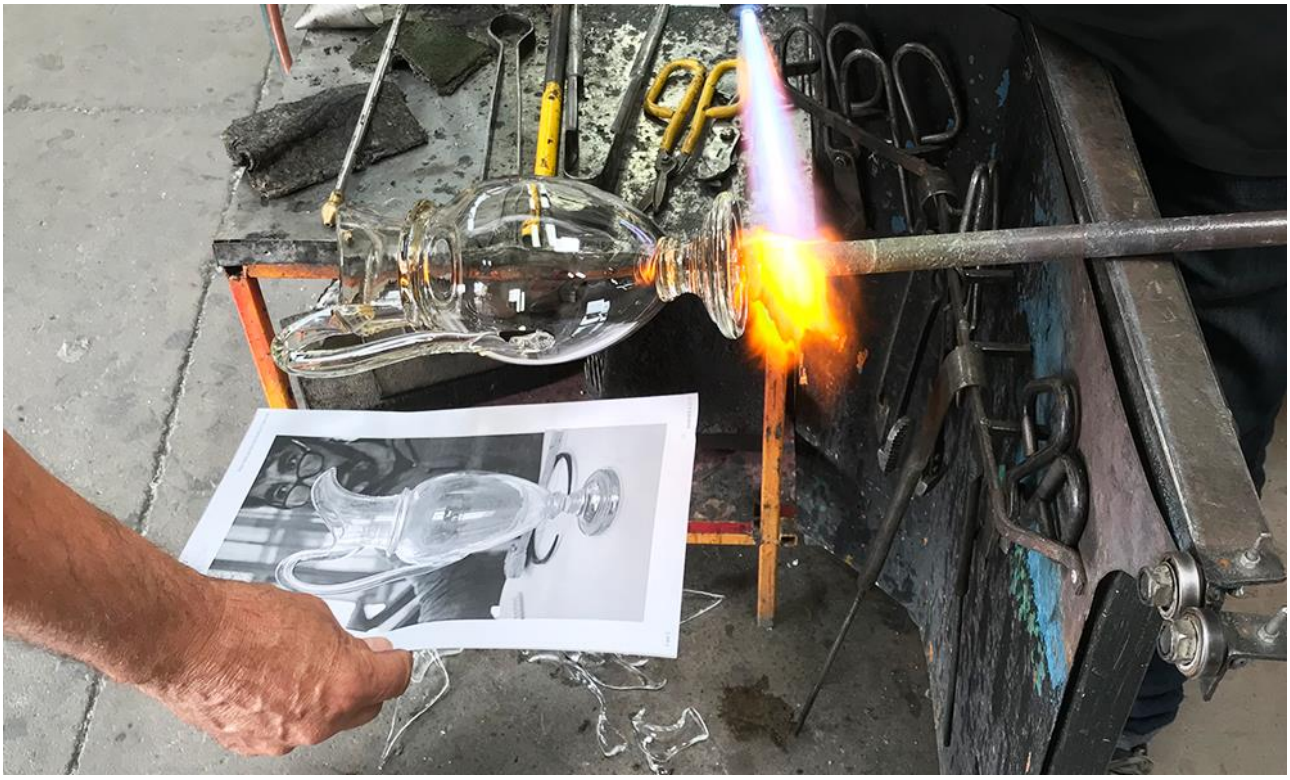
Written by PIOP

3.12. Multidisciplinary collaboration in reproducing a glass carafe

October 31, 2019

As part of the Mingei project, the Musée des Arts et Métiers is making a copy of a carafe dated in 1842, made by Georges Bontemps at his crystal factory of Choisy-le-Roi in France. This work is documented by an anthropologist of the Laboratory “Histoire des Techno-Sciences en Société” of CNAM. The recording of the glass master’s gestures using a sensor suit and different cameras is done by ARMINES Research Center in Paris and the Institute of Computer Science FORTH in Heraklion, Greece.

During the month of May, the Centre Européen de Recherches et de Formation aux Arts Verriers (CERFAV) already studied the re-enactement process of the carafe. In September and October, the teams worked together to reproduce the carafe and record the actions necessary to craft the 1842 Bontemps’ carafe.



The manufacturing of the carafe

The master glassmaker Jean-Pierre Mateus and Dominique Jamis, former head of the hot-glass workshop at CERFAV, experimented with several techniques to assimilate the old carafe manufacturing process. More than twenty carafes were made before reaching a model similar to the original one. The manufacturing steps were as follows:

1. Blowing of the body: first step of the manufacturing pr
   ocess, the glassblower picks the glass in the furnace and shape it by his breath, the gravity and his hands to create the desired body of the carafe.
2. Laying the ” leg and foot ” of the carafe: with the help of the assistant, this step involves sticking two new glass parts to the body of the carafe by returning it and deposing two very specific amount of glass to be able to shape it with tools.
3. Crafting the neck: with a pincer, the glassmaster stretches the upper part of the body to made it identical to the original model.
4. Laying the glass cord: the assistant comes to deposit a fine tub between the body and the neck and the glassmaster shapes it while the glass is still hot.
5. Cutting the beak of the carafe: with a chisel, the glassmaster opens the neck of the carafe to desired shape and forms a beak.
6. Laying the handle: the assistant brings hot glass and puts it on the beak of the carafe, then he stretches it to create a tube that the glassmaster attaches to the body with the desired

shape.

Two tools had to be specially created during the re-enactment process. First, a clapper in wood consisting of two rectangular pieces of wood joined at one end by a leather hinge and an aperture in one of the pieces of wood to squeeze a blob of glass in order to form the foot. Second, an experimental tool in soft metal created by the glassmaster to be able to make the cord between the body and the neck as thin as it is in the original carafe.

Ethnographic observation

During this entire process, the anthropologist Arnaud Dubois has conducted an ethnography of this re-enactment consisting of an observation of the working activities, the documentation of these activities with photographs and films, and different formal and informal interviews of the two craftsmen. One of the methodologies used during this research interest has been to observe and document the "geography of the workshop" to understand the relation between the body, the tools, the matter and the space when the craft is performed. Using the general frameworks of the "operational sequence" as conceptualised by the French anthropologist André Leroi-Gourhan in 1965, this method helps the researcher to understand the complex interaction between the craft practitioners gestural and sensitive actions, the active role of matter and tools, and the 'choreographic' dimension of movement in the workshop as a fundamental characteristic of a craft practice. Because craft knowledge is mostly non-verbal, this methodology is very useful to define and document the technical gesture of a craft.

While the operational sequence has been understood by the anthropologist, members of ARMINES laboratory equipped the glassmakers with sensors to record their key gestures and monitor their breath. Then, five cameras, installed in the workshop by the engineers of FORTH, were used to document the interaction between the master glassmakers and complete the recording of their actions.

Multidisciplinary collaboration

The collaboration between craftsmen, research-engineers and a social scientist permits to understand, reproduce, describe and document the tangible and intangible know-how embedded in the heritage artefact of the CNAM's collection. The multiple discussions and several experimentations between these people from different background and disciplines create a deep and new understanding of the carafe. An interesting thing of this collaboration has been also to help everyone to have a reflexive approach of his own work and methodology. The craftsman through his collaboration with the computer scientists rethought his technical gesture in a new way. The anthropologist who is working with the engineers thinks differently about the ethnographic methodology he could use to study technical gestures. And the research-engineers collaborating with an ethnographer need to be more precise and exhaustive in their digitisation.

In November, Arnaud Dubois will go to FORTH to work with the technological partners on the various materials collected. This collaboration between researchers in computer science and anthropology researchers aims to achieve a most accurate and realistic digital reproduction.

Written by CNAM

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