5. Specified catalogue of art techniques

(texts, tutorials, documenting traditions, materials, processes, success and failure)

EU4ART Alliance WP3
Methodological Renewal of Training Courses
Work Package

CONTRIBUTORS

EU4ART Alliance WP3 – Methodological Renewal of Training Courses Work Package
WP3 Leader: Christiane OERTEL (HfBK Dresden)
WP3 Coordinators: Till Ansgar BAUMHAUER (HfBK Dresden), József MÉLYI (HUFA Budapest), Beatrice PERIA (ABARoma), Andris VITOLINS (LMA Riga)
Further contributors: Elise BEUTNER (HfBK Dresden), Margit KOLLER, Andrea SZILÁK and Patrick Nicholas TAYLER (HUFA, Budapest), Marco RINALDI (ABARoma),
Janis GAILITIS (LMA Riga)

https://eu4art.eu

Table of Contents

V. Specified Catalogue of Art Techniques

The aim of the following texts is to introduce several issues and questions connected to contemporary art education, focusing on the discourse connected to the renegotiation of traditional methods and the new horizons inherent in current technology in context of ongoing workshop practices. In the first segment of the text, our aim is to provide a theoretical background to some important educational issues, while the second part of the document deals with the practical realities of the current workshops in the partner institutions of the EU4ART Alliance.

As the education of art is filtered through the different possible artistic positions, it is necessary to examine the role art plays in the perception of our surroundings. This perception is not a purely visual question, but embedded among a complex set of social, political and environmental conditions. This is the basis of reflexivity, which is a vital aspect of a contemporary artist's tuition. To avoid self-explanatory, simplified definitions, one has to keep revisiting the very foundation of art education as well. The following texts will shed new light on these essential issues.

V.I   Research Paper 1: Till Ansgar Baumhauer: drawing as a tool of perception (2021)

Hyperfocus – An Interview with Till Ansgar Baumhauer

* This text was published originally in the March issue of the Hungarian Art Journal Új Művészet (Art Today) as part of the dissemination of the EU4ART project.
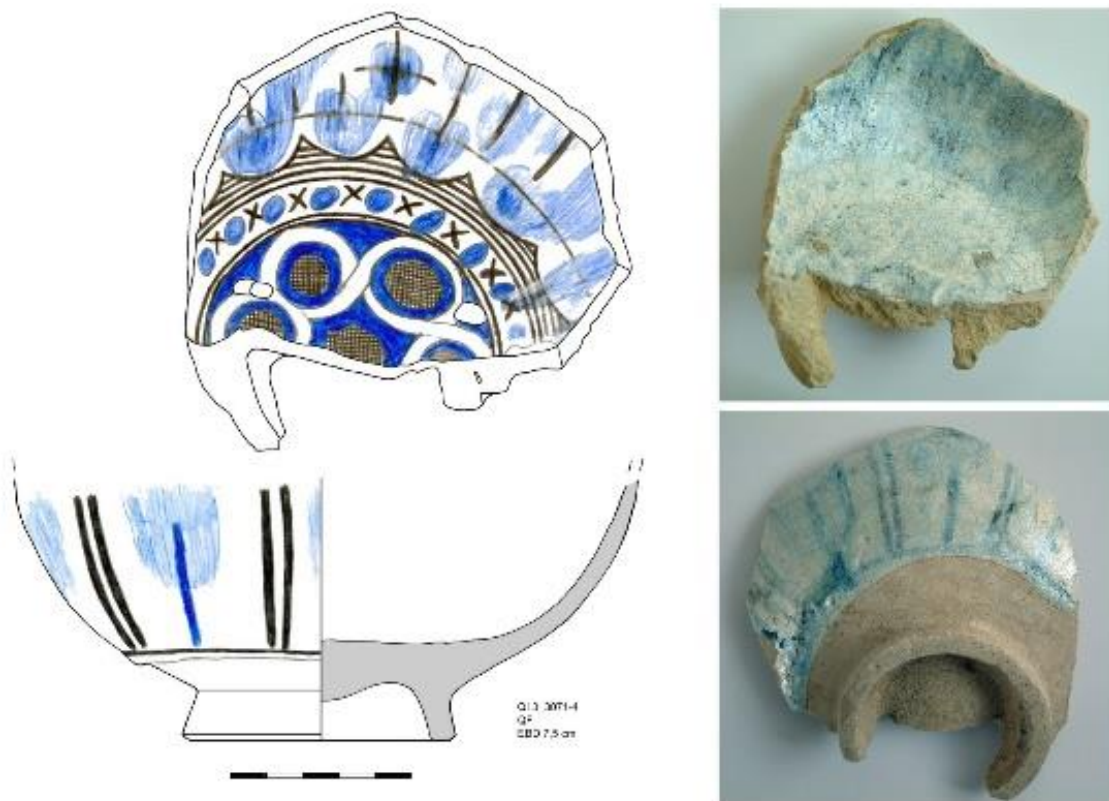
Two photographs of a glazed shard (16th/17th century) and archaeological drawing of the shard, Herat (Afghanistan), 2010 © Ancient Herat Project

As a research associate, artist, curator and researcher at the Hochschule für Bildende Künste in Dresden, Dr Till Ansgar Baumhauer examines, among other things, the common zones of fine arts and scientific research, based on the questions elicited by the practice of archaeological drawing. At the end of 2020, during a digital conference titled Handmade Tales, Baumhauer referred to several contemporary artists – while analysing the complex historical antecedents and current possibilities of non-artistic drawing practices – such as Asuka Hishiki, Miron Schmückle and Jorinde Voigt. As a

continuation of this thought-provoking lecture, I interviewed him about the broader context of objectivity in documentary-scientific drawing.

Patrick Tayler: Documentary drawing has long been an essential medium for disseminating scientific knowledge. How can drawing that captures the obsessive practice of visual observation – pointing beyond the topic of academic studies – reveal new aesthetic and cognitive realms?

Till Ansgar Baumhauer: If we recall the early examples of documentary draftsmanship, we arrive at the drawings and engravings that recorded the fragments unearthed during archaeological excavations in the Renaissance and Baroque era, which appeared subsequently in the royal courts. We could also allude to the depictions of the various Wunderkammer collections. Drawing has always been part of the specific process of gathering and recording information and has often focused on new, unknown, and even surprising objects. Meanwhile, landscapes and vedutas – that we can interpret as travelogues – have also become increasingly important. In the context of the "Egyptian Expedition" led by Napoleon, drawing as a genre contributed to the charting of the confiscated goods and preserved – in a certain sense, as a testimony – how the colonists tried to understand the exploited culture through the filter of European perspective. There are very exciting opportunities in examining these representations – not disregarding their informational value – as specific documents of cultural prejudices and misunderstandings implied by the aesthetic approach that we could define within the "Western" visual experience.

Patrick Tayler: At a particular stage, you were involved in archaeological drawing in Afghanistan. What additional information do we gain if we choose the subject's point of view manifested through graphic signs instead of the optical image's objective nature?

Till Ansgar Baumhauer: When we investigate aspects of information loss that are caused, for example, by corrosion, fragmentation, or in many cases even censorship, we must, of course, also talk about changes in the concepts of perception, but also in the idea of beauty, completeness, and reconstruction. Today, the archaeological draftsman strives to make as much information available as possible in each drawing. These visual facts are collected through the intense visual observation of the object. However, during this documentation procedure, the conscious artistic decisions also provide a significant component: the draftsman tries to reconstruct the worn-out patterns, highlighting and foregrounding the relevant parts. Drawing also means filtering information, which carries the additional risk of misperception or false interpretation. I am preoccupied with precisely those moments when the culturally conditioned approach of the artist becomes apparent. This more intense process of perception can still present many details that a photograph does not usually reveal, as there is no subjective focus of interest in this case.

Patrick Tayler: In the contemporary art scene, one can speak of the marginalisation of mimetic principles. What alternative does art represent as a field of intense perception? Which creators and theorists shape this dialogue?

Till Ansgar Baumhauer: I would not say that mimetic principles have been marginalised. Of course, in the global context of our continuously accelerating world, the implementation of modes of intense attention in drawing and painting practices seems increasingly problematic. Actually, there is currently an intense discourse in the United Kingdom, for example, concerning the scientific perspectives of drawing, that is, the interpretation of drawing as research. As this question essentially arises in the category of artistic research, the main actors exploring the practical and theoretical fields often connect the two areas in the form of personal union. For example, British artist and scientist Gemma Anderson published a remarkable book on the subject in 2017. Another example could be the Brazilian-born artist Walmor Corrêa, who deploys work processes and research conditions that seem at first scientific to provide a framework for various cultural narratives and collective myths.

Patrick Tayler: In one of your lectures, you referred to Mihaly Polanyi's theory of tacit knowledge, meaning the whole domain of knowledge and skills that we latently possess and which point beyond the verbalisable dimension. In what ways can this be related to the practice of drawing?

Till Ansgar Baumhauer: The notion of tacit knowledge is deeply intertwined with the practice of documentary drawing. Let me give you an example: imagine a vase, a body of revolution, with many different diameters. Furthermore, the entire surface is covered with an intricate, swirling pattern. If you want to depict this pattern, you have to assign these spatial parameters to the plane, which quickly becomes terribly complex: on the one hand, you have to distort the pattern to "flatten it out", and on the other hand, you want to keep the image as detailed as possible, holding yourself to the strict demands of scientific objectivity. Even from a theoretical aspect, it is clear that such a task is impossible to accomplish. Only years of experience can help you find an adequate solution to specific problems and to verbalise these. To describe an object verbally and visually is an entirely different undertaking. I often feel that I fail when I have to present an object based on the possibilities of speech or text. A solution could be to use language as a "creative material" while translating tangible, complex phenomena into words. Later, this can, cause exponential difficulties by making such a text almost impossible to understand without serious efforts.

Patrick Tayler: Can art become a tool and method of research?

Till Ansgar Baumhauer: Of course, if we allude here to the field of drawing research, but you can also find it in the service of various other scientific disciplines, such as botanical and zoological taxonomy or mathematics, astronomy and medicine. In botanical drawing, typification's intriguing question complicates this issue: the tension between the general and the individual. Of course, today, drawing is in many cases supported by technical and digital tools. We should be asking: to what extent can

drawing be standardised as part of a methodology? Drawing is a very personal process where the collected observations are also somewhat subjective, but this does not mean that the researcher cannot uncover new and relevant layers of knowledge through drawing.

V.2 Research Paper 2

The following section investigates the question of the changing role that virtuality and the digital sphere play in the tuition of art. The initial research paper by Dr Ágnes Előd is complemented with short case studies focusing on the career path of different alumni of the institutions.

Dr. Ágnes Előd, senior lecturer: Manual and Virtual Modelling – The effect of manual artistic skills on learning virtual modelling (2021)

Manual art skills such as drawing, painting and sculpting that students have previously acquired have significant impact on the learning curve that is expected from them when learning 3D editing software. Based on the experience gained at the Hungarian University of Fine Arts over fifteen years, we present the related tendencies.

Educational structure stemming from artist training traditions

Traditionally, modelling and drawing after models has been part of the higher education structure. The role it plays in education today is rooted in the historicist style of the last third of the 19th century. Its significance in Hungarian art education has been constantly changing during the 20th century. In the middle of the 20th century and in the following decades, the teaching of modelling and drawing after model received a new momentum as a result of the fact that public orders favoured the so-called socialist realist style.

The method of teaching modelling and drawing after model is based on the analytical observation of what we see. This way, students do not only acquire drawing or sculpting routine, but also learn to formally analyse what they see. This enables them to draw or model an imaginary sight that only exists in their imagination, with the same precision as an existing one.

Analytical observation is even more important in virtual modelling than in real-life drawing or sculpting because the artist must be able to imagine and map not only the form, but also the structure of the form.

Importance of manual skills in 3D modelling

3D models can only be created using the specific methods that computers allow. There are several ways to create digital forms. It depends on the intended use and the form itself which method is the best to apply.

For industrial prototyping processes, such as CNC milling and robotic arm carving, the typically used models consist of surfaces bounded by curves. Such models can be generated with CAD type software applying parametric modelling. Of all the prototyping procedures, 3D printing is an exception because the most common printers work with non-CAD models.

Another major application of 3D models is the so-called render output, when virtual models are not realised in real space but only a virtual photo or video is made of them. This application includes all product renders (photo-realistic images in catalogues for advertising purposes), architectural and other visual designs, animated films and computer games. The biggest part of our everyday visual environment consists of images produced in this way. This is why there is such a high demand in the visual industry for professionals who can create good quality models.

The vast majority of models used for this purpose consist of planes. If planes are small enough, i.e. the resolution of the model is high, smaller details of the form can also be displayed. These planes are arranged in a special structure. This structure, which is only intended to bring shapes, human visual perception, and computer visualization capabilities to a common denominator, must be considered by the model maker when designing the form of the model.

The surface structure plays a particularly important role in the case of complex organic forms. In the case of a human head, for example, the net of planes describing the surface (mesh) must follow the form. Therefore, to create models of such complexity, experts are needed who received all-round training and comprehend both form and structure.

With the increase of hardware performance, the complexity of displayable forms has also increased. The hardware performance particularly affects the so-called real-time render-type areas of application, such as computer games, VR and other interactive fields because here computers have to show images in real time at a speed of 60 frames per second.

While hardware performance only allowed the handling of low-resolution models that, for example, in the case of a human figure, displayed details, such as an ear, with a single plane, a well-trained technician, who understood the mesh structure well, was sufficient to create models. Today, however, games use such high-resolution models that can only be created by a professional who can model a detail-rich ear, too.

In this context, during the modelling process, the value of analytical observation skills has increased. The most highly qualified professionals of the visual industry should possess the skills that can be acquired through freehand drawing and modelling.

Comparison of the training of 3D professionals with artistic and technical backgrounds

There are two ways to train such professionals: either we teach artists who can already sculpt to model with a computer, or we teach computer experts to sculpt. Experience shows that the former is not only simpler but faster, too. While it takes a technically qualified professional five years to learn how to sculpt an ear, it takes a few months for an art student to learn what surface structure a computer wants when designing the form of an ear.

The only reason for this is that art students have already mastered the analytical observation skills from their previously acquired freehand drawing or modelling routine and apply them on a daily basis. It can be claimed with high probability that the ultimate reason is not the art medium itself (drawing or sculpting) but the analytical observation method, because faster learning curve is observed not only in the case of sculpture students but also art students of any major.

An interesting addition to this is that this faster learning curve can also be observed among students majoring in Intermedia at the Hungarian University of Fine Arts, although these students mostly have prior training in photography rather than a drawing or sculpting.

Visual industry as the market for the university

The visual industry is an important market for arts higher education because not all of the students who graduate as artists want or are able to pursue a career in the international scene of commercial galleries. These students are offered creative and much more predictable career opportunities in industries such as animation film, computer game, architecture and visual design and other sectors creating VR content. With an artist degree, they can get a job in visual industry that satisfies their own need for creativity.

As a comparison, the film set industry, which has become a large-scale industry in Hungary in recent decades, employs a large number of artists with a degree in sculpture, but the nature of the work does not reach creative level in the vast majority of the cases. The artistic management and design of the international productions shot in Hungary will remain with the international producer, and only the physical production of the set is outsourced to Hungarian subcontractors. In many cases, this means that

the sculptor who carves the set is a much higher qualified artist than the designer himself who does the creative part of the work.

In digital genres, this trend is less prevalent, as the whole industry is completely international, and teleworking is much more widespread due to the nature of the genre. Therefore, it is common that recent graduate artists are able to find a creative position as their first job and can work in high-quality international productions.

The demand for such highly qualified professionals occurs internationally and is constantly growing, as the general public expects digitally produced content to be more and more realistic and rich in detail.

Summary

Fine arts higher education already has the necessary methods to train professionals for the visual industry who are highly qualified also at the international level. Such training is very economical because the analytical observation ability acquired through the manual training can already be taken for granted among students and therefore a much faster learning curve can be expected. Furthermore, students' labour market opportunities have expanded significantly.

Based on all the above, it can be stated that there is still a great demand for digital training based on manual training in fine arts higher education. In addition, the importance of this type of training will increase in the future.

Case Study 01: Ákos Ezer, Alumni of the HUFA

Ákos Ezer finished his studies at the Hungarian University of Fine Arts in 2014. Apart from being an internationally recognised young artist in the contemporary art scene in Hungary, he also spent years working in the field of 3D design.
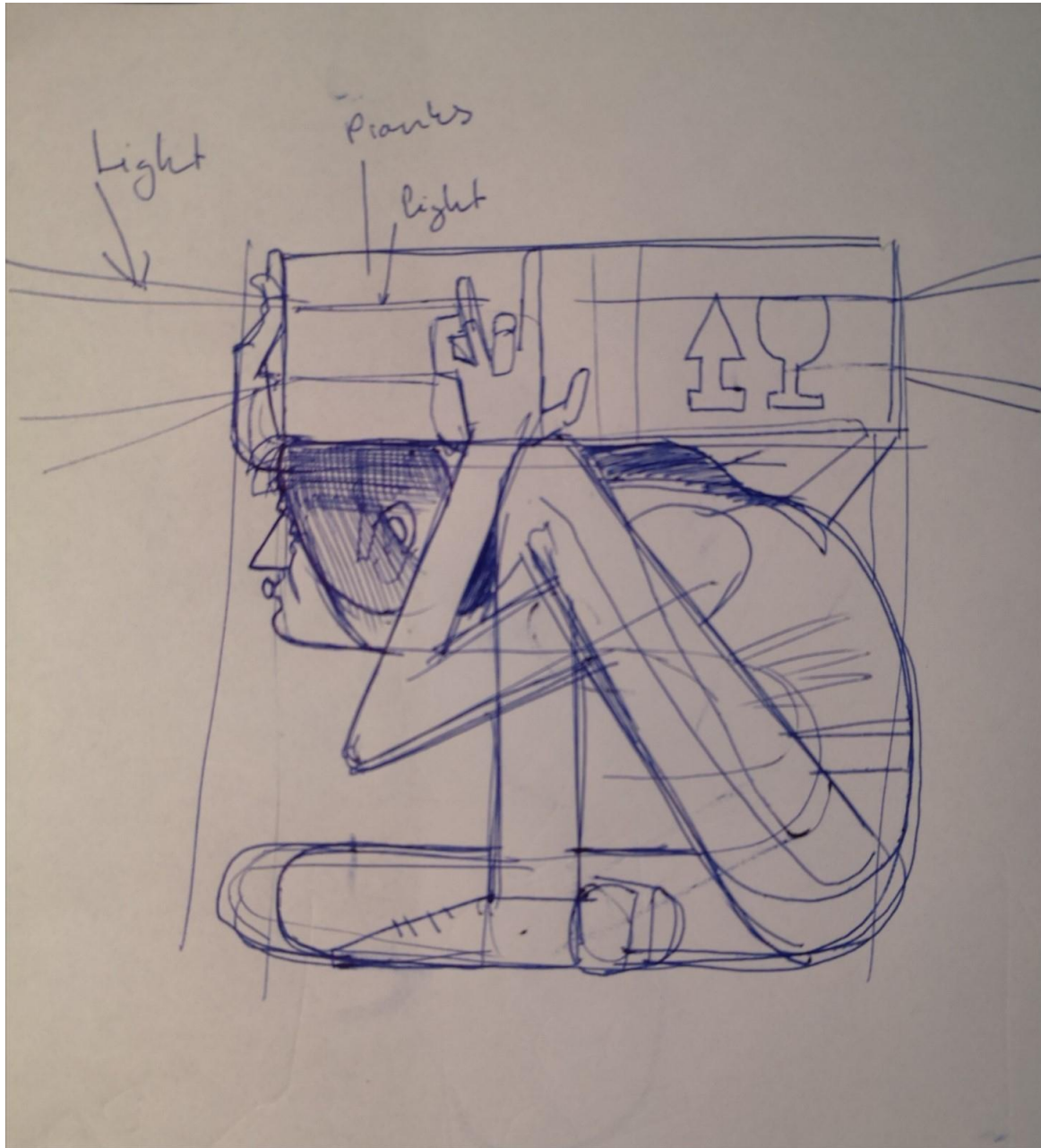
3D render and sketch of *Delivery man* (2021), resin, PVC, metal, LED light touch sensor, mixed media, 35×34×40 cm Image courtesy of the artist

Patrick Tayler: What do you think about the correlations between the visual thinking inherent to 3D software and contemporary painting? How does the virtual sphere enrichen the compositional and general toolkit of the painter?

Ákos Ezer: As a 3D modeller and a graphic artist, I had to present a given topic from many different angles and various crops countless times. In these situations, I had to usually recalibrate the composition and the lighting to work well with the given camera angle. As these programs strive to imitate real physical terms – even though I did not receive any formal tuition in photography – I learned lighting through using these. I utilise these experiences in my paintings as well, and it has become incorporated in the way I think. I received many commissions at a company where I worked as a 3D generalist for 4 years because I had classical training in drawing. During these work hours, I had several opportunities to develop my skills in drawing or sculpting. There are similarities between modelling a face or a hand realistically in 3D and drawing an anatomically precise rendition. I thought about these tasks always like a challenge.

PT: An essential step of installing your exhibitions is that you virtually reconstruct the venues beforehand and determine your artwork's exact size and position. What other practical tasks are facilitated by your 3D experiences?

ÁE: Yes, this made things definitely easier. It makes it possible for me to know how many artworks I have to make and how many pictures I should take to the exhibition venue. It facilitates communication with the given gallery's staff and helps me test how different variations could work. Apart from this, I created an exclusive C-print series using 3D, the visualisation for my first ceramic sculpture, and I designed the 3D model for my latest exhibition, which was consequently produced according to this by the Hong Kong-based company. Currently, I am also working on a larger-scale sculptural project, and if everything goes according to the plans, I will also use 3D software to create this work.

PT: Do you also use digital image editing programs and 3D software for specific stages of your process? How can you utilise your complex experiences in the digital field while working on autonomous artworks?

ÁE: I do not use digital techniques to make paintings and ceramics, but my graphic work was created using 3D software, and my series-produced sculptures also needed computer technologies, as this was a process on the verge of industrial design.

3D render of exhibition titled *Abstract Hungary* (2019) at KM Graz, Image courtesy of the artist

PT: Where and how did you train yourself for 3D work? What kind of digital, 3D skills do you think should be included in the education of the Hungarian University of Fine Arts and ideally in the infrastructure of a university education?

ÁE: I took an intensive course at Mesharray Media School. It was about a 200-hour program. I do not think 3D education at the university is necessary for everyone because it is not an essential thing for artistic practice. Also, it can be pretty frustrating for those who don't navigate easily in the world of computer software. Instead, I think access should be provided to those who are interested. Maybe as an optional course, where the students can become more familiar with the different areas. 3D was a journey that was necessary because I wanted to find my position in the job market. Today, of course, I use it sometimes since I understand the field. With basic 3D knowledge, no one goes too far. Since we are talking about a vast range of expertise, it is not necessarily possible to master the whole thing in a university setting, but if someone is interested in specific segments or wants to incorporate some of it into their art process, it's great if the university can give a helping hand.

PT: What do you think about the role of traditional model drawing tuition in doing 3D work? Is having an education in traditional fine arts an advantage in the 3D field?

ÁE: It depends on what area we are talking about. You can definitely benefit from character modelling or animation, but this is not really a fine art category, but more close to applied graphics. In contrast, particle and fluid simulation or motion design can be safely mastered without anatomical-drawing skills.

V.3. Catalogue with the description of the workshop courses

As the relation between the workshops and the studios has been thoroughly described for each institution in Chapter IV.3, we will not go further into detail here. Each institution has formed a publication about their spatial capacities, lists of taught techniques, utilized tools and courses. We suppose that describing specific artistic processes here would not really give enriching for the EU4ART project in itself, as this is common (sometimes even traditional) knowledge which does not lead any further in explaining the project in its specificities. Nevertheless, there are of course certain focus point the academies perceive as relevant so that they produced informative material about the.

Therefore, we here provide this material in the attached documents and video files as well as links.

V.4. List of relevant links and attached documents

V.4.a Material with general information about the workshops of the academies

- Workshops Budapest V_4.pdf
- Workshop description Dresden catalogue_of_workshops_hfbk.pdf
- Workshops Dresden EU4ART_Broschuere_2_Werkstatt
- Workshops Rome ABARoma_workshopcatalogue.pdf
- Workshops Riga WORKSHOPS_STUDIOS_AAL.pdf

V.4.b Material describing certain workshop practices and aspects

The relevant files can be found under this weblink.

It provides the following documents:

For MKE

- polírozás.mp4
- nyomtatás_1.mp4
- nyomtatás_2.mp4
- aszfaltos nyomtatóalap.mp4
- lito_festékezés és nyomtatás (szöveg nélkül)
- szita bemutatás.mkv
- házilagosa mélynyomás maratás_hang nélkül.mp4
- Aquatinta tesztek_1.mp4
- Alulemez_elökészítése_polírozás hoz.mp4
- Aquatinta tesztek_2_nyomtatás_ver3_io.mp4
- MAH00446_vizebázisú_végere dmények.mp4
- MAH00445_vizebázisú_cellhidegtü próba 3.mp4
- MAH00444_vizebázisú_ cellhidegtü próba 2.mp4
- MAH00441-443_vizebázisú_ cellhidegtü próba 1.mp4
- rézkarc lemez alapozás (2).mp4
- rézkarc lemez alapozás (1).mp4
- fametszet_festékezés.mp4
- fametszet_nyomtatás_3.mp4
- fametszet_nyomtatás_2.mp4
- fametszet_nyomtatás_1.mp4
- fametszet_technika.mp4

For HfBK

- Tutorial_Kopf_FULL.mp4
- Tutorial_Skelett_FULL.mp4
- Tutorial_Studiofotografie_FULL.mp4
- Tutorial_Schwein_FULL.mp4
- Tutorial_Schulbuchheftung_FULL.mp4
- Tutorial_Japanische_Bindung_FULL.mp4
- Tutorial_Koptische_Bindung_FULL.mp4

For ABAROMA

- Ajossa-papertechnology.mp4
- Scolamiero_pigmento.mp4
- Video presentazione serigrafia 2020.mp4
- Prof. Piloni- Tecniche Calcografiche Sperimentali.mp4
- Painting Accademia di Belle Arti di Roma 2.mp4
- Painting Accademia di Belle Arti di Roma.mp4
- Graphic Art Accademia di Belle Arti di Roma.mp4

An additional link is:

For LMA

https://www.youtube.com/watch?v=WILJ4wGmmB0