# What is a 'Good' Copy of Edvard Munch's Painting?
## Painting Reproductions on Display

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## Abstract

Paintings in museums might occasionally be replaced by a photoprint mimicking the original. This article is an investigation of what constitutes a *good reproduction* of an artwork (oil painting) that is meant to be displayed. The article discusses what the usefulness of reproductions depends on, applying the *Valuation Studies* approach, which means the primary concern is with the practice of valuing itself. In other words, the study focuses on how museum experts evaluate reproductions of oil paintings. The article analyses three cases of displaying digitally printed copies of Edvard Munch's oil paintings between 2013 and 2015 in the Munch Museum and in the National Gallery in Oslo. The study is based on a series of semi-structured interviews with the experts, working at and for the museums, that were involved in producing and exhibiting of the photoprints: curators, conservators, museum educators, and external manufacturers. The interviews were grouped into five clusters, which I have chosen to call *registers of valuing* following Frank Heuts and Annemarie Mol (2013). The described valuation practices have to do with delivering experiences to the public, obtaining mimetic resemblance, solving ethical aspects, exhibitions' budget, and last but not least, with the time perspective.

# Introduction

Art museums are less afraid of copying their pieces than we may think. Despite their traditional role as custodians of the original, they occasionally experiment with reproducing canvases and displaying them in exhibitions that serve a particular purpose. This article explores what constitutes a *good reproduction* of a painting in the context of being a supplementation for the original artwork. The investigation was done by taking an ethnographical approach, interviewing museum experts and people involved in the museum projects, working for the museum. Recently, the rapid development of new printing technologies, especially 3D printing, has generated interest in rethinking the use of reproductions in museum exhibitions (Latour and Lowe 2011, Foster and Curtis 2016). In the introduction to the book *Coping with the Past. Creative Perspectives on Conservation and Restoration* the authors points out that "[t]he new intimacy with works of art created by these technologies reveals unexpected aspects and potential, and in some cases allows us to study them more freely and more creatively" (Gagliardi et al. 2010: XV). Bruno Latour and Adam Lowe, in their essay "The Migration of the Aura or How to Explore the Original through Its Facsimiles" (2011) propose distinguishing between good and poor copies of artworks based on the quality of reproductions. They even go one step further and claim that the *aura* of an artwork in Walter Benjamin's sense might migrate from the original to the professionally prepared reproduction, as long as three conditions are fulfilled. Firstly, a reproduction should be displayed in its original location, where it used to belong historically. Secondly, it should be possible to come in close contact with the painting without being disturbed by hordes of tourists. Thirdly, the reproduction technique should be advanced enough to resemble the surface features and register the three-dimensional aspects of paintings. As I read them, Latour and Lowe suggest a good reproduction is that which possess an aura. I will argue that the question of a good reproduction is even more complicated and not strictly limited to the Walter Benjamin's often-explored notion of aura. In the following I identify and name five different categories involved in copying artworks, which I call *registers of valuing* after Frank Heuts and Annemarie Mol (2013). As the reader will come to see from the following analysis, some of the described categories, for instance the mimetic and the experiential registers, indirectly evoke the auratic qualities of copies. On the other hand, others, for example the ethical or the monetary registers, transcends such auratic qualities. What is important to emphasize, I choose to limit my inquiry to the exhibition context. More specifically, the article analyses three cases of displaying digitally printed copies of Edvard Munch's oil paintings between 2013 and 2015 in the Munch Museum (including the annual summer exhibition at the artist's studio Ekely) and in the National Gallery in Oslo. The following aims to shed new light not on the public's reception of the copies, but on

the museum practice of valuing. I would like my article to contribute to the young interdisciplinary field of Valuation Studies.

The article aims to research the less visible and under-researched areas of museum routines and exhibition making in regards to copying. As Hans Dam Christensen posits, "it is pertinent to rethink the use of reproductions in current Art History and Visual Studies, and, further, to reflect on the difference between representation and art object" (2010: 214). 3D printing has received some attention in the interdisciplinary field of museum studies, but no previous investigation has looked specifically at the use of UV-printed reproductions in the museum context, even though this technique is more widespread in at the time of writing than 3D printing. All the life-size reproductions that are the focus of this study are photoprints. Most of them were developed with ultraviolet printing technology (except these displayed in Ekely; in that case water-based printing was employed). The canvases were photographed with a high resolution digital camera, and then the photo files were developed with photo software and printed out. In the process of UV printing, inks turn to a solid immediately when exposed to UV light, therefore this technique enables one to print on a variety of substrates such as glass, metal, plastics or canvas. This type of digital print is durable, for example it is more resistant to scratches and exposure to water and sunlight than water-based ink printing. Moreover, it is cheaper than 3D printing and enables the picture to obtain a depth of up to 5 millimetres (Stormo 2015). For this reason, it is sometimes called 2,5-dimensional printing.

## Unpacking the *Valuation Studies* and Registers of Valuing

In the following, my primary concern will be with the practices of valuing. *Valuation Studies* is a new emerging field of transdisciplinary studies, which focuses on valuation as a social practice. The field combines approaches from disciplines such as sociology, science and technology studies, management and organisation studies, and social and cultural anthropology, just to mention a few (Helgesson and Muniesa 2013: 3). The unifying feature is dealing with subjects or objects of valuation and situations in which "the value or values of something is established, assessed, negotiated, provoked, maintained, constructed and/or contested" (*Valuation Studies* 2013).

The research focus and the analytical strategy of this paper are inspired by the approach presented by Frank Heuts and Annemarie Mol in the article "What Is a Good Tomato: A Case of Valuing in Practice" (2013), in which they explored what *good tomatoes* might be. They studied not the "*worth* (a quality)", but rather "*valuing* (an activity)" (ibid. 129). Through analysing a series of interviews with tomato growers, sellers and consumers, they captured and demonstrated the complexity

and dynamic of the valuation process of a mundane vegetable. They named and identified five different sets of categories, which enabled them to detect the various aspects of good tomatoes. I decided to follow the same path when analysing my empirical material, even though I dealt with the reproductions of art masterpieces; I spoke to a number of people involved in reproducing oil paintings and asked them what is a good reproduction, and how do they make it "good". Thus, in the context of this paper, being "good" refers to possessing qualities that are considered and perceived as positive by my informants. The implication here is that "goodness" is relative and a subjective, rather than an objective, feature of painting reproductions. This is in line with what Heuts and Mol describe as "different kinds of goodness" (ibid. 134). They explore this phenomenon of the plurality of the concept of goodness by applying the analytical notion of *registers*, which is central to their methodological approach. However, while they write extensively about what registers *do*, they do not define them in concrete terms. Before going further, therefore, I would like to reflect upon what I mean by "registers" within this paper. If one were to glance at the definition of the noun *register* in the 2010 edition of the *Oxford Dictionary of English*, one would see no less than seven different meanings listed. Two of them in particular seem to be relevant for our purposes here. A *register* in music is: "a particular part of the range of a voice or instrument". Whereas in Linguistics a *register* is "a variety of a language or a level of usage, as determined by degree of formality and choice of vocabulary, pronunciation, and syntax, according to the communicative purpose, social context, and standing of the user". So "register" would be a spectrum, which enables us to systematize and capture the intensity of a phenomenon.

Registers help us focus on the practice of valuing as an action itself, they "indicate a shared relevance, while what is or isn't good in relation to this relevance may differ from one situation to another" (Heuts and Mol 2013: 129). This feature distinguishes them from the "economies of worth" introduced by Luc Boltanski and Laurent Thevenot (2006, see also Thevenot 2002), which focus on justifying the evaluating acts and worth of things. Furthermore, the different registers of valuing clash and there are tensions between them: "[…] they rob each other of any potential self-evidence. They instantiate each other's criticism" (Heuts and Mol 2013: 129). For example, a craftsman would not bother about exactly the same qualities of a good copy as a curator or museum educator; but at the same time, it is easy to observe overlaps between registers.

That brings us to the next point – it is important to notice that valuing is not a passive activity. In the case of the reproductions it is about assessing value and producing it at the same time (Helgesson and Muniesa 2013: 4). The informants perform various actions in order to obtain the desired result, namely *a good copy*. For example, the process of transforming a digital file into a proper printed repro-

duction requires some tinkering and a series of adjustments. The printer I spoke to said, "I am preoccupied with the best technique, the best possibility all the time. I always think about it [when working]."[1] Clearly, in the process of reproducing art, "[t]he *assessment* part and *improvement* part […] slide over into each other" (Heuts and Mol 2013: 129), thus, valuation should be considered a performative action.

Furthermore, the entities involved are not only humans – Antoine Hennion, posits that *Valuation Studies* methodology "involves that we grant a certain degree of agency to things: they react, resist, make us do things. […] One does not listen to interviews in the same way, ask the same questions" (2015: 51). Heuts and Mol share this view when they call actors for *socio-material figures* (2013). Consequently, I will perceive reproductions as actors with obligations towards the originals, which I will come back to, especially while analysing the ethical register.

## Methodology and the Choice of Cases

The investigation is primarily based on a series of seven semi-structured interviews with experts that were involved in producing and exhibiting the photoprints in the museum. Having multiple conversations with the staff enabled me to identify interesting cases for my research. All in all, I conducted seven interviews – I spoke with two curators, two conservators, two museum educators, and one external manufacturer. Each conversation took about an hour. Due to the fact that this article is a discussion on how reproductions are evaluated by professionals, talking with individual members of the public (e.g. audiences, visitors to the museum) about their experiences and impressions concerning "good" copies is beyond the scope of this study. The conducted interviews focused on three cases of displaying digitally printed copies of Edvard Munch's oil paintings between 2013 and 2015 in the Munch Museum and in the National Gallery in Oslo in Norway. Moreover, the interviews were supplemented by an analysis of the press coverage of the exhibitions in the national newspapers and online. The analysis was based on the search in *Atekst Retriever* database.

All the conducted interviews were transcribed and exported to *NVivo*, a qualitative data analysis software. After the first overview reading and familiarizing myself with the content, I listed the emerging thematic clusters (in *NVivo* they are called *nodes*). I then read carefully through the transcripts again and matched these clusters with the fragments that had to do with the valuing of reproductions. For example, transcribed quotations about ethical or mimetic issues were labelled accordingly and assigned a colour which together represented a given register. Some passages received more than one label. As the result of this colour-coding it became clear that the gathered empirical material could be clustered and organi-

zed within five overarching registers. Each register represented a different aspect of what was considered to constitute a "good" reproduction: Experiential, Mimetic, Ethical, Monetary, and Time registers. As the analysis has shown, some of them were employed by the informants more frequently (see Fig. 7 on p. 56). For practical reasons, I will introduce them starting from the most frequently mentioned, but first I will go through the analysed cases.

The first case concerns the reconstruction of Edvard Munch's famous picture series, the *Frieze of Life,* in the Munch Room in the National Gallery in Oslo, which was a part of *Munch 150* exhibition.[2] (Fig. 1) The installation of twenty-two paintings was modelled after Edvard Munch's exhibition at the Berlin Secession in 1902, where the artists experimented with the framing of the cycle and hung it high up on the walls around the room.[3] (Fig. 2) Like art historian Wenche Volle points out, the reconstruction "draw[s] attention to the way in which he [Munch] framed the frieze and adapted it to different architectural settings within different art institutions" (2014: 144). The series deals with existential themes, expressed in titles such as *Love*, *Angst* and *Death* (subtitles actually used in 1902 and 2013), and was in 2013 shown in the same manner as 111 years before – the paintings were taken out of their frames and mounted high on the walls, framed only in a beige textile passe-partout.
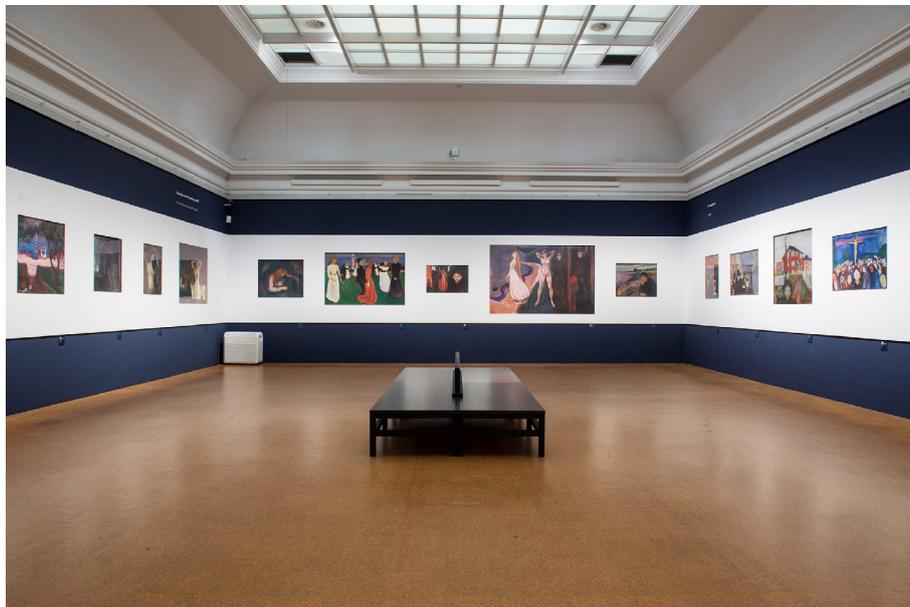


Fig. 1. Edvard Munch's *Frieze of Life* reconstructed in the Munch room in the National Gallery, Oslo, 2013. Photo: The National Gallery.

Fig. 2. Edvard Munch's exhibition at Kunsthandlung P.H. Beyer & Sohn, Leipzig, 1903. Photo: The Munch Museum.

The *Frieze of Life* series can be read as a connected visual narrative (Guleng 2013, Eggum 2000, Volle 2013). The aim of the installation was to present the whole and offer a unique spatial experience, but not all the original paintings could be borrowed. Therefore, in order to build a reconstruction, when setting up the exhibition, the museum had to rely on five coloured photoprints: *Dance on the Beach* (1899–1900), *Jealousy* (1895), *Woman* (1894), *Golgotha* (1900), and *Death and the Child* (1899). Reproductions were ordered at a printing house FotoPhono Imaging in Oslo, which is known for engaging in artistic projects.

A second case is the *Touch Munch* project, which dealt with the important issue of the accessibility of visual art. It was a collaboration between the Munch Museum, the *Norwegian Association* of the *Blind* and Partially Sighted, and the company Canon. The idea of the project was to enable the blind and partially-sighted to experience art through UV-printed tactile reliefs of three paintings *Melancholy* (1893), *Despair* (1894), and *Separation* (1896) (Stormo 2015, Valmot 2015, Steen and Rafaelsen 2015). The reliefs delivered a multisensory experience and were presented jointly with the authentic artworks in October 2015 (see Fig. 3 and Fig. 4).

Fig. 3. The *Touch Munch* exhibition, the Munch Museum, Oslo, 2015. Photo: Canon Norge as.



Fig. 4. A close-up of the tactile relief of *Melancholy. Touch Munch* exhibition, the Munch Museum, Oslo, 2015. Photo: Canon Norge as.

In addition to the two main cases introduced above, a third one, less-explored by me, serves to provide context. That is the annual summer exhibition produced by the Munch Museum and displayed at the Munch's atelier Ekely,[4] which was the artist's permanent residence on the outskirts of Oslo from 1916 until his death in 1944. The exhibition's core part is the reconstruction of a wall of the artist's studio based on a photograph taken ca. 1938, which depicts Munch himself, posing on the sofa, with three rows of his pictures in the background. In the exhibition, fourteen photoprints are displayed in the same order as the paintings hung on the wall 75 years ago (see Fig. 5 and Fig 6). The documentary exhibition was shown for the first time in 2013 and has been presented every summer since then.



Fig. 5. Edvard Munch's studio wall reconstruction, Ekely, Oslo, 2015. Photo: The Munch Museum.

## Experiential Register

The first register relevant to valuing reproductions is the experiential register. It has to do with engaging with the public and delivering a sensorial and affective experience. In other words, it is about the reception of the copies with human senses. The reproduction's task in the museum exhibition is often more complex than to simply mimic the original. Like Adam Lowe notes, "[t]here is no doubt which is the more authentic object. But which version provides the more authentic experience is open to question" (2010: XIII). The analysis of my qualitative data shows

that the experiential aspects of reproductions were most frequently mentioned by respondents (thirty-five times; see Fig. 7). Furthermore, variants of a Norwegian noun *en opplevelse* (an experience) and a verb å oppleve (to experience) were mentioned by interviewees about 20 times.



Fig. 6. Edvard Munch in his studio at Ekely on the outskirts of Oslo, ca. 1938.
Photo: The Munch Museum.

The aim of the *Frieze of Life*-installation was to reconstruct the visual narrative as a whole and give an experience to the public: "It is a very unique spacious experience to watch paintings framed in a white ribbon on the wall. It [the *Munch 150* exhibition] was the only time in the history we could do that," curator 1 said. It was a kind of once in a lifetime experience, which was possible to conduct only in connection with the anniversary. This reconstruction project was the first time Munch's famous picture series was displayed as an ensemble after his death. The reconstruction aimed to bind the past to the present. Masterpieces like *Scream* and *Madonna* were taken out from their golden frames in order to be mounted as a frieze. Nothing like that had been done before. On top of that, curator 1 added, "it will for sure never be done again; I think it was fun to experience that."

The tactile reliefs presented in the *Touch Munch* exhibition delivered a multisensory experience for the partially-sighted, who usually do not visit art museums, where things can be experienced mostly with the sense of sight. The main aim with the tactile reliefs was to introduce the content of the paintings: "for ex-

ample in *Separation* this hair which goes from the woman and around the man's neck, one might experience that." In other words, educators perceive tactile reliefs not as exact reproductions, but rather as a tool which enables story-telling. The reliefs were presented together with the original paintings: "it [the reliefs] enables partially-sighted people to come close, to touch, and get a feeling of how the picture looks like for us. It is a positive thing," commented museum educator 2. Even though the tactile reliefs were designed to serve the blind and persons with weak sight, it was impossible for them to make much out of it without the professional help of a guide. The best result came from providing a combination of audio-guided tours and touching of the reliefs, explained educator 2. What is more, all the vernissage guests were invited to borrow a masque and experience the paintings with different senses than their eyes.

## Mimetic Register

The mimetic register is about resembling the authentic artwork in terms of colours, size and surface. The task of the photoprint, or its basic obligation towards the original, is to imitate and to provide a likeness. In his book *In Praise of Copying* Marcus Boon explores the notion of mimesis and posits, following Socrates and Heidegger, that "it is outward appearance that makes something *like* something else" (2013: 19). The analysis of my qualitative data seems to confirm that statement: the mimetic register became the second most frequently activated register. The desired visual features of the copies were mentioned thirty-one times in six interviews. The mimetic register covers the technical aspects of reproducing work of art. The informants focused mostly on obtaining the right colour, surface and size. This section, therefore, is accordingly divided into three parts under these categories.

### *Colours*

The printing process of the five reproductions from the *Frieze of Life* series took place at the FotoPhono Imaging. It was not enough to push a *print*-button, like some might imagine. In order to obtain the desired colours, the digital files delivered by the museum needed to be developed, which required approximately three hours of work per single file. The actions taken by the printer involved tinkering towards improvement: adjusting the intensity of the shades or emphasizing the faded black contours. The printing master made a strong claim, saying that "I can manipulate a picture so that it will look like an original." He said that all that would not have been possible without being familiar with Munch's *oeuvre* and style:

> My task, I thought, was to build up Munch's brush strokes, and open the contours, that he was very occupied with. To capture the intensity of the colours that he was fond of; some things like that, which were not in the picture; so I have painted on Munch's painting [in Photoshop].

He points to the photoprint of the *Woman* (1894) which temporarily decorates the FotoPhono Imaging's office and continues,

> I have underlined these lines, because they were almost gone, these contours, that Munch is famous for. […] Also, I have slightly emphasized the green colour here and the red, and brought out the details. If you watch it from the distance, you can see the details in what I have done; I brought the dynamic back, because it was completely greyish, it was almost gone.

What is interesting is that the curatorial staff in the beginning considered whether they should include black and white or coloured photoprints. Curator 1: "In the end we didn't experience it [black and white reproductions] as a good esthetical solution. They would seem very unfamiliar elements." So they went for coloured photoprints and after the decision was made, a few rounds of colour-correction were necessary.

The education department and external manufacturers involved in *Touch Munch* were occupied with colours too, even though the project was directed towards the partially-sighted public. In Norway there are very few people who are completely blind, so the quality of the colours was relevant. Educator 2 relayed: "The Canon printer is so precise and great at mapping the colours that it delivered a realistic picture for the partially-sighted." When asked about the features of a good reproduction, the educator answered:

> What was most positive for me was that the image of the colours was so good that it felt like we took the partially-sighted and blind seriously, because we didn't give them something McDonald's-like. We gave them something resembling the original.

## *Surface*

Depending on the type of paint that has been used, different adjustments of the light setting are necessary when photographing an artwork. The next visual clue addressed by the respondents was the light: "there is a difference between an oil and acryl [painting], how should one lighten an oil painting and how should one

lighten acryl, how should one lighten the different type of paints, that is a knowledge one needs to have", explained the printer from FotoPhono Imaging.

The technical conservator spoke about the paintings' texture, which is impossible to replicate faithfully with the UV-printer. The Canon Arizona printer, which was used in both of my main cases (The Frieze of Life and Touch Munch), prints up to 75 layers on a single image and the relief can stick out up to 5 mm. The conservator explained that when reproducing "one completely loses the structure of the material." To exemplify her point, she showed me a Munch painting with a thick layer of paint. The other interviewee from FotoPhono Imaging was concerned about the texture as well: "I needed to bring out the canvas, the canvas was a little bit behind here, it's kind of visible in many places; I needed to bring it out, because it is not a white canvas, it is grey." The interview was conducted in Norwegian, and by the word I have directly translated as "behind" the interviewee meant that the canvas was not visible enough before he developed the file.

In turn, the main goal with the tactile reliefs was not to introduce the surface, but rather the content of the paintings. Preparing a mimetic copy of the artist's strokes wouldn't give that much meaning to the blind and partially-sighted public. Therefore, experienced museum educators were asked not only to pick the paintings, but also to choose which motifs should be highlighted. Moreover, "in the reliefs there are in a way hierarchical levels. Some of the reliefs are smaller and some are higher", noted museum educator 2. The chosen paintings are from Munch symbolic period. "In one of them we chose to accentuate the eyes [in *Despair*], but with another one we didn't do that, for example", explained educator 1. The details were agreed on during a meeting of the educators with printers from the company Canon. The meeting took three–four hours and the result was a depth map, stating which elements should be highlighted.

## *Size*

When making a replica, getting the scale right matter, because changing the proportion of an image transform the original: "All decisions as to scale are creative ones. Such decisions are a basic form of copia, and the production of difference within the same" (Boon 2013: 191).  All the copies which are subjects of this study are full-size representations and this feature has been listed as an advantage. Although, under some circumstances, depending on the copy's function, a smaller or bigger object might work better. Like in the *Touch Munch* exhibition, where the aim was to enable the blind and partially-sighted to experience art through the tactile reliefs:

> we have prepared one additional set in half-size, which we might use in
> different exhibitions. The pictures were relatively big. It was difficult to

see the total picture. So actually it would have been nice to have them be smaller. But of course it is also something to experience them in their life-size. (Museum educator 1)

While the second educator added: "[..] maybe we should have them in 1:1 and a small one in addition where it would be easier to get an overview."

## Ethical Register

A third register of valuing reproductions mobilized by interviewees is the ethical one. It has to do with appropriation and corresponds with the thesis put forth by Thevenot that "objects might participate in the moral world" (2002: 2). In his article *Which Road to Follow?* he tracks how roads are involved in people's moral evaluations. In turn, copying art, even in the museum exhibition context, requires solving plenty of ethical issues.

The first of the three occurring dilemmas is how faithful a reproduction supposed to be. And the emerging answer would be: a fairly accurate one, but not too perfect either. The first part, good quality, seems relatively uncomplicated, but it is more to it than that. A reproduction carries meaning and one of their tasks is to spread knowledge about the original artwork. Therefore, displaying a poor quality reproduction might insult the original painting, like in the story told by the skilled printer from FotoPhono Imaging who spotted a presentation of Edvard Munch's paintings at the Oslo Airport:[5]

> I arrived from abroad and saw Munch displayed at Gardermoen. They were big pictures, it looked so damn bad. Then I saw them one week after that, I was abroad again, and then I called the project leader [of *Munch 150*]. […] I came to her and said: 'this needs to be taken down. You cannot present Munch like that. It would be better if it is not there.' And she actually agreed with me.

Shortly after, new versions were made and the display was improved. Munch's honour was saved. On the other hand, it seems as though curators do not wish to include reproductions that would resemble the original completely and so mislead the public. The curator of the reconstruction of the *Frieze of Life* put it like this: "[the reproductions] are much more two-dimensional. And flatter, which was also the intention. It wasn't the intention to erase the difference between the original and the reproduction. It is impossible anyway. Even with a 3D printer". The curatorial staff was shown two versions of the UV photographic print of the *Woman* (1894) – one printed on canvas and one on an aluminium substrate. The first type

of substrate was turned down. The printer stated:

> it is us who have the skills and know how good it [a copy] could be; museums have no idea about that. It was so good that when we sent a reproduction on a canvas of this painting [*Woman*, 1894] they didn't want to have it. They meant that they could not use it, because it looked like an actual Munch.  But at this point the painting was reworked a lot, I sat many hours and worked, developing the structure.

Apparently, in that particular case the actual intention was to rely on prints that would look more like photographs and less like oil paintings. It seems like a reproduction has some ethical obligations towards the original and towards the public. A copy should not mislead the public's eye. Therefore, it is important to state on the label that displays the item that it is a copy, argued the curator. This brings us to the second dilemma: displaying reproductions might generate shame and embarrassment, because it can be seen as an act of failing to satisfy the public's expectations. In *Munch 150* five out of twenty-two paintings in the series installation had to be replaced by the photoprints. This sense of failure was articulated by a museum conservator:

> They wanted to stage the *Frieze of Life*–room in the exhibition and then they had to use reproductions to be able to do that. It was really a shame. But I understand that they had to use reproductions. That was what has happened.

The curator of the *Frieze of Life* reconstruction discussed how KODE Art Museums of Bergen refusing to loan *Woman* (1894) and *Jealousy* (1895): "Bergen withdrew two paintings a few weeks before the exhibition. That was something we could not predict at all. That was a big shock. We didn't think it would be that many." Two paintings from the Munch Museum, *Golgotha* (1900) and *Death and the Child* (1899), were too fragile to display. The fifth one, *Dance on the Beach* (1899–1900), owned by the National Museum of Prague could not travel outside Czech Republic at that point.

This brings us to the third point. Art critics have various opinions on whether it is appropriate or not to exhibit reproductions in art museums. I have investigated press coverage of these three exhibitions. Out of them the reconstruction of the *Frieze of Life* received the most media attention. It seems that the majority of the critics appreciated the curators' intention and they did not perceive it as anything extraordinary to display a couple of reproductions in the National Gallery, if the purpose was clearly defined and stated (Gjessing 2013, Bhar 2013, Chris-

tiansen 2013, Elton 2013). In contrast, there was one clearly critical voice – the art historian Ingvild Krogvig was critical of including reproductions and framing them in such a way that they were perceived equally with the paintings: "[…] the original works seems almost as sterile as the reproductions. And that brings as to the exhibition's only eyesore. Big money was spent on the exhibition's architecture and diverse stage props" (2013: 40). Reading the reviews, it becomes apparent that while the majority react positively to the exhibition of reproductions, there is still not a perfect unanimity of opinion as a minority persistently consider them to constitute nothing more than superfluous scenery. In the case of Krogvig, the concern goes beyond that of the assumed superfluous nature of reproductions in exhibition; she has also raised questions concerning the monetary issues.

Much was written about *Touch Munch* and tactile photoprints, but not in national newspapers, rather in photography and technology magazines like *Computerworld*, *Fotografi*, *Teknisk Ukeblad*, *Sign og Print*, *Tek.no*. Reviewers' reactions on showing the tactile photoprints in the museum were enthusiastic and focused on the technical aspects of the printing process, which means that journalists evoked mainly the *mimetic register*. The documentary summer exhibition at Ekely was barely noticed by big newspapers.

## Monetary Register

The monetary register of valuing reproductions has to do, firstly, with the expenses connected to the production of the copy itself and, secondly, with the resources that can be saved by the museum by exhibiting a reproduction instead of an original masterpiece (for example, the working hours and surveillance of a conservator). In the case of the most fragile paintings, which require a complex treatment, ordering a copy can solve the problem of lack of time and human resources. A conservator had this to say about exhibiting a reproduction of the *Alma Mater* sketch in the exhibition *The Way to the Aula* (The Munch Museum, 2011): "The work was in very poor condition. And, like always in such circumstances, there was little time. So there was no time to treat it. That was one of the reasons [why the original could not be displayed]."

UV-printing might be less expensive than financing a long conservation project, but it is still a cost in the budget: "It is quite costly to make such big [prints] on an aluminium substrate," said curator 1 of *the Munch 150* exhibition, which relied on five reproductions manufactured by FotoPhono Imaging. In two out of three cases that I am analysing, the print collaboration between the museums and the skilled copyists had a form of sponsorship: "that was a very good [exhibition], so I thought it would be good for us to sponsor it. I sent a few invoices, but not many. And we were mentioned in all the speeches. That was a win-win situation,"

explained the printer. The respondents confirmed the popular belief that corporate-museum collaboration and partnership offers mutual benefits (Rousseau 1998, Rectanus 2002, Kotler et al. 2008). However, even sponsored events might involve large amounts of museum resources: "If you think about the working hours and the resources the museum has used, we have used massive resources on that," museum educator 2 said, who coordinated the project enabling to experience art through the tactile reliefs.

## Time Register

The last register relevant to valuing reproductions is a time register, which can be defined in many ways. My material contains a few instances where people mentioned historical time or reproductions' afterlife. I have decided to call it a separate register, because time-related qualities point in completely different directions than the rest of the registers that were discussed above. The time register points back and forward in time. A copy that we consider good or decent today might not be considered as such in twenty years, because of its corrosion or the rapid development of reproducing technology. But sometimes it might be quite the opposite – nostalgia for the older plaster reproductions appeared in one of the narratives. Educator 2: "When I was interviewed by a woman from the Norwegian Association of the Blind, she said that at one point in the 90s it was fantastic, it was much better. Why don't you show them [plaster models] any more? [laugh]." These models were made by an artist (Kjersti Grøstad) with her hands.

The past and future are the relevant contexts here, and so is the present moment, or the right moment in history, like the curator of the *Frieze of life* reconstruction emphasized many times. The jubilee of Edvard Munch's 150th birthday was a special point in time, legitimizing the reconstruction:

> That was the only time in the history that we could make it. Paintings are owned by so many different people and institutions and because of the jubilee we were able to loan many of them, which we wouldn't usually have been able to do. (Curator 1)

Regardless of the quality of the reproductions, exhibiting only them, without the originals, would be pointless. In that case the reproductions' task would have been to substitute for the fragile originals. This unique historical circumstance which was the celebration of the jubilee added some value and meaning to the photographic prints.

Last but not least, my concern is with what happens with the photographic prints when they have completed their task after the art show is dismantled. The-

refore, I asked museum experts how the reproductions are handled afterwards, where are they kept and whether they are registered in a museum catalogue. It turned out that the art museums have no space dedicated to storing exhibition photographic prints. As one of the curators explained: "That is slightly difficult. They are packed together and placed here and there." Thus, sometimes they might serve as decoration in offices. Curator 1: "some employees took them into their offices. That is one of the pictures that were shown [pointing at the wall]." Moreover, both curators mentioned the possibility of thrashing the reproductions at some point. Curator 2 said: "he [a technician] told me already after he took the exhibition down 'so what, was that the last year? Can we throw them away now?' [laugh]"; even though, in that particular case the plan was to display them annually in Edvard Munch's atelier. In turn, the tactile reliefs presented jointly with the authentic art objects were displayed only once and only for a week. One of the educators told of what followed, when the exhibition was over: "we had no showroom for them. They hang in the cinema now, in the corridor next to the cinema room." The cinema room is located in the underground floor of the museum building and not all visitors go down there and have a chance to see them. The museum had an agreement with Canon which obliged them to display the *Despair* and *Separation* reliefs until the end of 2016.

Furthermore, do museums have an overview of the reproductions they have? And has anyone considered registering them in the museum database? Every time I attempted to ask these questions, the informants' first reaction was laughter and dismissal. But I did not give up and kept on asking, encouraged by Michael Angrosino, who actually recommends a *cultivated naïveté* as an important quality of the observational researcher and offers the reminder that an ethnographer should "never [be] afraid to question the obvious or the taken-for-granted" (Angrosino 2007: 56–58). So I continued to ask questions, confronting uneasiness and controversial issues. A curator who was asked whether photographic prints are museum objects answered: "Not at all. No, it is not a question." A museum educator asked about the possibility of registering a tactile relief in the database answered: "No [laugh]. I don't think it's going to happen." Meanwhile, the second educator added: "No one in the house besides us know what it is about, don't you think so?" So there are no specific registers of the reproductions. Moreover, in some cases a couple of items which were used for a specific exhibition might be considered as one object: "No, actually I don't have it [a register]. I look at the photographs they are based on; so I consider them all together" (curator 2).
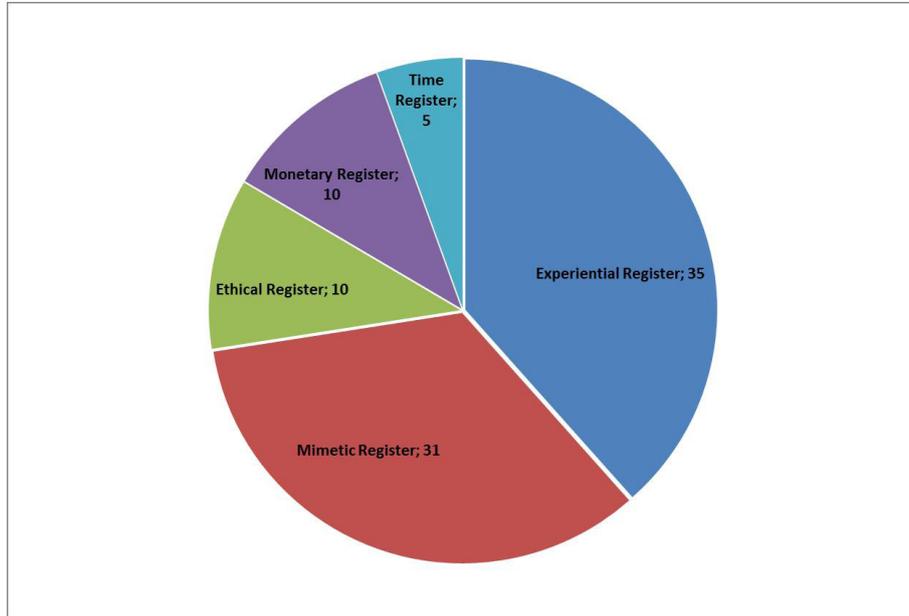
Fig. 7. Registers of valuing compared by the number of times they were mentioned in the interviews.

## Tangle of Registers

Multiple registers of valuing are in play simultaneously and create a web of connections. Some of them are employed by the informants more frequently (see Fig. 7). They form a network of intertwined threads that overgrow, coincide and are confusedly interlaced. When valuing the reproductions, the interviewees gave a lot of attention to the experiential aspects. These clues seemed to have guided the curatorial staff and educators in their primary aim; and, therefore, the other registers, which can be compared to a fluid structure, adjust to that idea. The informants might suddenly switch from talking about one register to another. Not to mention that two or more registers might be activated simultaneously.

Sometimes it is impossible to draw a border line between them, like in the case of the mimetic and experiential register, where I have observed a rather obvious overlap. They clearly interfere, but do not coincide. Reproduction needs to possess certain characteristics in terms of colours, surface and size in order to appeal to visitors' senses. The experiential register has to do mostly with creating an *atmosphere* and resembling a work's of art aura; while the mimetic register is more about technical aspects and exquisite delineation of the original.

Furthermore, there is a friction between the mimetic and the ethical register. Copies fulfil an important *moral* task – by displaying them museums protect fragile originals from the potential damage that might be caused by their exposure.

Although today's technology enables the creation of reproductions that respect the mimetic features of the canvas, including resembling its surface, it is not always the museums' intention to include the copies of the highest quality. The printer created the best copy he could have, but it was not what the museum wished to include in the exhibition. This implies that, a copy's ethical obligations towards the original in the museum context is to represent it in a decent way (but not to forge it!). One of the possible explanations could be Masahiro Mori's hypothesis of the uncanny valley,[6] which says that watching a piece almost resembling the original might cause cognitive dissonance, uneasiness and revulsion among some observers.

Moreover, as the analysis of the empirical material shows, there is a tension between the monetary and the previous two registers of valuing of the photoprints (mimetic and experiential). The exhibition budget, which is often limited, determines the choice of the mimetic technique. When two registers are in conflict with each other, the tension between them might be solved by negotiations and by reaching a compromise, for example by ordering a decent copy for a reasonable price or by collaboration in a form of corporate sponsorships.

But compromise is not the only way to solve controversies; "sometimes one value might overrule the other" (Heuts and Mol 2013: 132), like in the case of the discarded reproduction of *The Woman*, when the museum did not wish to display the photoprint on a canvas, but chose a *flatter* print, on aluminium substrates. The ethical register overruled the mimetic one. Another controversy between the mimetic and the experiential register arose in connection with the *Touch Munch* project. The feedback from the partially-sighted public was that they would rather prefer to experience reliefs in reduced size, since the reproduced paintings were rather big. In that case, by reference to experience the mimetic register overruled the experiential one.

The time register is significantly related to all the other categories. Printing technology improves over time. And this improvement results in copies of higher quality in terms of mimetic features. As a consequence the museum experiences changes too. Moreover, the time register corresponds with the ethical one. This could be seen, for example, when the historical moment (the Munch's birthday anniversary) justified including reproductions in the show. This was emphasized by the statement about "the only right moment in history". I could multiply the examples of the various relations between registers, but I feel they have been analysed in the characteristics of the registers above.

# Conclusion

Facsimiles have not always had a positive reputation among interest groups such as museum experts or audiences; therefore they have often been overlooked. Thus, this investigation shed some new light on under-researched practices regarding copies in the museum that so far have not been noticed. This is in tune with Latour's and Lowe's posit that "we should refuse to decide too quickly when considering the value of either the original or its reproduction" (2011: 108). The notion of registers served as a framework for better understanding of different kinds of reproductions' "goodness" in the museum exhibition context. Identifying and naming the five registers helped to grasp subjectivity and relativity of reproductions being perceived and conceptualized as good by staff and associated professionals.

I focused on the processed perspective – valuing as activity. The result of the process of giving worth and assessing, however, was that values were produced. Consequently, I was interested in how they were constructed and how they interacted with each other. As the analysis has shown, a good reproduction is a heterogonous set of phenomena, a result of negotiations and compromises, and therefore, could be compared to a resultant force[7] in physics. Producing a copy in a museum is a collective process and multiple registers of valuing are at work at once: experiential, mimetic, ethical, monetary and time registers. My informants repeatedly referred to all five of them; sometimes they tended to switch between them, at other times two or three registers were referred to simultaneously. My analysis of the interviews confirms that things have several values, in the words of Helgesson and Muniesa: "what things are worth can be manifold and change – and these values can be conflicting or not, overlapping or not, combine with each other, contradict each other" (2013: 7). Hence, the conditions that make a reproduction *good* are not constant; they are rather fluid, dependent on the registers of valuing which are activated at the moment and can evolve over time. Valuation is done differently in the printing house, the museum exhibition room, and the curator's office. The investigation has shown that a good reproduction of a painting means different things to different people, e.g. the printer delivered a reproduction which resembled the original so much, that the curators discarded it. Furthermore, they vary between situations too, e.g. partially-sighted members of the public appreciate the experience offered to them, but they need not be concerned with monetary aspects at all. Moreover, the process of attributing worth is often a performative action, e.g. developing graphical files on a computer or a few rounds of colour-correction. The result of the clashes and tensions I have described between registers and their dynamic character is that it is impossible to schematize the valuation process (Heuts and Moll 2013: 140).

This study has focused on exhibitions of one artist in three locations. Reproductions, however, are valued at other sites and in other kinds of places as well. I

believe that based on the analysis of these cases we can learn about the usage of reproductions in the museum context in general. Other museums, such as cultural history or applied arts museums face similar challenges. Their objects might occasionally need to be replaced by a surrogate too, and they may decide to display copies alongside original works. Then the question concerning *what* a good copy *is* arises and triggers new negotiations that seek to find a middle ground for all parties involved.

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## Notes

[1] All the quotes from the interviews were translated to English from Norwegian by myself.

[2] The *Munch 150* exhibition (2013) was a collaboration between the Munch Museum and the National Museum. It was a huge celebration of the anniversary of artist's 150th birthday.

[3] No photo documentation from the exhibition at the Berlin Secession in 1902 is preserved; the curators therefore relied on the three installation photographs from the exhibition at Kunsthandlung P.H. Beyer & Sohn in 1903.

[4] The studios at Ekely are owned and sustained by Edvard Munch's Studios foundation which task is to preserve them as a cultural heritage monument and ensure that they are used as a place to work for artists and promotion of visual arts (http://www.munchstudios.org/).

[5] A temporary show in connection with the Munch 150 jubilee in 2013.

[6] In his essay *The Uncanny Valley* (2012) Masahiro Mori posits that watching robots (human replicas) that looks nearly like a human evokes uneasiness and revulsion in the observers. Looking at something almost resembling the original can elicit eerie sensation among some people. The essay was originally published in 70s in Japanese, but only recently the concept of the uncanny valley attracted interest in engineering, but also psychology and popular culture.

[7] A force, velocity, or other vector quantity that is equivalent to the combined effect of two or more component vectors acting at the same point.

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