

A perspective on medieval perception of Norwegian church art

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Abstract This paper discusses the broad use of imitation techniques to give the impression of precious materials in Norwegian religious sacred art, with special attention to polychrome wooden objects from the thirteenth century. The question of how fictive objects made out of wood, covered with chalk ground, metal foil and paint were accepted as key works of art in religious devotion is examined. What the objects intended to emulate and how they could compete with precious objects will be discussed. Supporting evidence is offered from the preserved sacred polychrome sculpture and panel paintings in Norway from the period.

What makes an imitation successful is discussed in terms of the factors that contribute to the intended illusion. This is argued in relation to the attitudes towards display of such objects at the time they were installed within the church, which takes them out of the modern constraining concept of art and material value.

Introduction

The use of painterly materials and techniques to imitate precious metals, stone, pearls, gems, high status textiles and fur is characteristic for the painted objects from the early Middle Ages and throughout the thirteenth century in Norway as elsewhere in Europe. The Church in this period appears to have had no qualms about the emulation of such costly and precious items, as skilled imitation was common practice.

In the modern attitude towards imitations, they are generally considered to be cheaper versions of the original. Although the word 'imitation' might suggest inferiority in our minds, these polychrome works served as iconic objects in the interiors of medieval churches.¹ There were however limits to the substitution of rare and valuable materials with more readily available and cheaper materials. Spike Bucklow has pointed out how medieval craft treatises contain numerous warnings – thus, brick dust should not be substituted for vermilion, tin for silver or gilded brass for solid gold.² In the Norwegian material from the twelfth and



Figure 1 Virgin from Hove, Vik in Sogn, tabernacle: H. 124 × W. 52.2 × D. 48.7 cm (sawn off below knee height), Virgin: H. 94 × W. 45.5 × D. 35.5 cm, polychrome oak, c.1230 (Bergen Museum MA 27). (Photo © BM, UiB)

thirteenth centuries we find no attempt to replicate the effect produced by costly and often imported materials by mixing cheaper ingredients. Their manufacture required expensive material from distant sources, such as the semi-precious stone lapis lazuli from the mines of Afghanistan and the lacca pigment from Far East Asia. Even the chalk used in the grounds was imported from the English Channel and the Continent, as there are no natural outcrop sources of the quality required in Norway.³ The materials were typically applied in a singular manner, each colour usually containing only one or two pigments.

It would appear, from the medieval artistic perspective, that the craftsman's skill and labour had a greater value for the worshipper than the material used, as refinement and skill in the performance of the painting was highly valued. Kristin Aavitsland has identified the classic roots of this argument, referring to documents such as Ovid's *Materiam superabat opus*, which suggests that material was subordinate to aesthetic quality.⁴ Bucklow has explained how workmanship was commonly called 'art' and how the role of 'art' is the key to understanding the use of imitation as a legitimate activity.⁵ He pointed to how art could 'imitate nature in her manner of operation' and was an 'aid to nature'. He also argued how, in the thirteenth century, science, natural and artificial were not mutually exclusive, while in alchemical theory natural materials could also be seen as imitations. Bucklow quoted Plotinus, who stated how 'the arts do not simply imitate what they see but they run back to the forming principles from which nature derives.'⁶

The high quality in the craftsmanship behind the objects is supported by the analyses performed on the material. The Norwegian Virgin from Hove, dated to around 1230 (Figure 1) is an interesting example and also surprising, as the good quality and well-crafted polychromy hides a problematic wooden core.⁷ The skilfully made and extraordinarily well-preserved polychromy is still able to give a good impression of its intended golden glory. The craftsmen excelled in the use of a range of coloured glazes and other painterly effects combined with different metals and gilding techniques. The preserved object is exquisite and there is nothing in the original polychromy that points to anything other than expert painterly craftsmanship. But to our surprise beauty is only skin deep. The X-ray pictures reveal a surprisingly poor quality oak core, revealing at least 38 iron nails – some of them securing cracks as well as holding the separately carved head (Figure 2). A vertical crack through the wooden core of the sculpture starts out to the left of the throat and continues in a vertical line all the way down to the legs. The crack has been secured with eight iron nails placed 5 cm apart. There are other nails for which function and necessity are difficult to explain as they are found in places where there is no obvious need for them. For instance there are nails, now hidden by the original polychrome, set into the top of the throne where no flaws in the construction can be observed.



Figure 2 X-ray detail of the Virgin from Hove (Figure 1). (Photo: Kaja Kollandsrud © BM, UiB)

The craftsmen obviously knew their material as the nails are expertly concealed. Even today there are no visible signs on the surface revealing their location, such as cracking, loss or discoloration of paint as a result of corrosion coming through from the nails. The X-ray photographs show that each nail head was covered with a square platelet of metal, most probably tin.⁸ This corresponds with what Cennino Cennini suggested in his treatise for protecting the ground layers above from staining.⁹ In this case this technique has indeed worked well, as the surface is not discoloured.

The materials imitated

In addition to the quality of the work, the medieval response to these religious icons depended on the metaphysical characteristics, as well as the physical properties of the materials from which they were made or represented.¹⁰ With surfaces painted to imitate precious metals and stones, exquisite textiles, costly furs and decorated leather, the objects were lifted out of the ordinary in almost every detail of their appearance. This is illustrated by examples of some imitations given below.

Stones

In the preserved material in Norway from this period there are many examples of painted imitations of valuable stones including a variety of colours on crowns, jewellery, hemlines and along the edges of crosses, and in the frames on the altar frontals.

The Virgin from Hedalen is a typical example where the crown in imitation gold has been embellished with painted attractive stones (Figure 3).¹¹ The effect of the soft lustre of the crown obtained in the imitation gold contrasts with the matte unpolished oil gilding in the hair. This indicates the intentional choice of materials to obtain the desired effect in the polychromy. Analysis of the binding medium used in the central red stone on the crown suggests that it is egg – probably the yolk.¹² The tempera binder would contribute to obtaining a translucent effect. It was a wise choice as the egg medium would not disrupt the underlying glazed imitation gold based on pure pine resin, which would dissolve and could develop a wrinkled surface if an additional layer of oil paint was applied.

An early example of the imitation of porphyry is the roughly painted back of the Romanesque Calvary group from the church in Urnes (Norway) dated to the middle of the twelfth



Figure 3 The Virgin from Hedalen, Valdres, H. 140 × W. 52 × D. 33 cm; now *in situ* in the church. The original sculpture is to the left and the reconstruction to the right. (Photo: Eirik I. Johnsen © KHM, UiO)

century.¹³ Another example is the coarsely finished back of the younger English Westminster Retable, created in or around 1260, which has been interpreted as a polished slab of porphyry.¹⁴ No such imitation has been found on the back of the Norwegian frontals, but imitation of both red and green porphyry, executed as small black, and sometimes white, dashes or 'tails' spattered over red or green areas is common in painted scenes on the frontals in the late group dated to the first half of the fourteenth century.¹⁵ In these, porphyry imitation is found in details such as altars,

beds, columns and sarcophagi. The Norwegian St Paul from Gausdal from the latter half of the thirteenth century stands on a base with imitation porphyry made in the same way as seen in the frontals (Figures 4 and 5).

Textile

Expensive textiles are indicated both by the weight and fineness of the way the carving renders the flow of the folds. Lustre and depth of colour are often produced by the application of paint in two layers: a translucent glaze applied

on lighter underpaint, for example a red organic glaze on red lead. Patterns in the shape of fleur-de-lis, the crescent moon and petal flowers have been added to imitate costly textiles. In the thirteenth century these were most often applied in a metal foil such as silver, with the use of stencils. Intricate linear patterns suggest fine weave as in the stocking revealed on the leg of St Olav from Fresvik (Figures 6 and 7).¹⁶ The inside of the Hedal Virgin's headdress is sprinkled with crosses produced in a sgraffito technique; the red glaze was pushed aside while still wet, revealing the lighter red lead underpaint. The pillow on the throne of the Virgin has a diaper pattern created with lines that most probably resemble another fine woven textile.

Fur

Medieval clothing of the nobility was often lined with fur, and imitation of fur in sculpture is typically found in the linings of the mantles worn by Marian images and saints. White winter skins such as vair, ermine and lettice, and dark furs, for example marten and sable from animals in the north, were highly prized. Wearing such fur-lined garments signalled class privileges and which furs were used depended on fashion as well as the wearer's wealth and social standing.¹⁷

The stylised blue and white pattern, as seen in the mantle of the Virgin from Hedalen, is a representation of vair fur. The pattern results from the way patches of the winter fur of squirrel were sewn together in alternating cup-shaped pieces of back and belly fur. When simplified in heraldic drawing and painting, the grey-blue and



Figure 4 St Paul from Gausdal, Oppland, Norway (KHM C. 35143): H. 181.5 × W. 45.5 × D. 20 cm, polychrome oak, c.1250–75. (Photo © KHM, UIO)



Figure 5 St Paul from Gausdal (Figure 4): detail of the porphyry imitation in red and green on the plinth. (Photo © KHM, UIO)

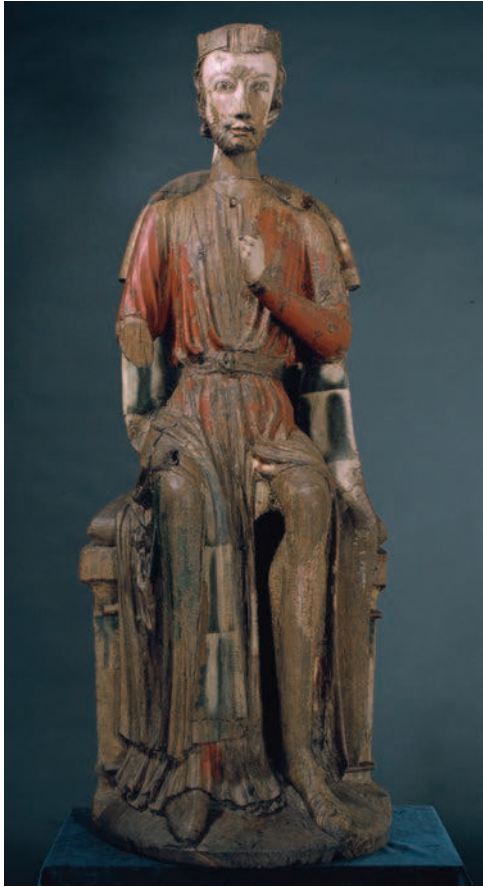


Figure 6 St Olav from Fresvik, Norway (KHM C. 35142): H. 155.5 × W. 65.0 × D. 52.5 cm, polychrome oak, c.1250–75, KHM. (Photo © KHM, UiO)



Figure 7 St Olav from Fresvik (Figure 6): detail of stocking. (Photo © KHM, UiO)

grey-white effect became blue and white in alternating pieces.¹⁸ Examples of a variety of vair in brown and white can be seen in the mantle lining of the Christ Child in the Virgin from Hedalen and the neck lining of St Olav from Fresvik.

Ermine was imitated with small painted tail ends on a white base colour. It is common on the frontals, but less frequent on sculpture. The St Olav from Røldal is one rare example in sculpture where the lining has large black tail ends on white.¹⁹ Unn Plahter has noted that lettuce, the winter pelt of the snow weasel, was less expensive than ermine but more valuable than miniver – the most exclusive small patterned variety of vair. It is therefore possible that an apparently white lining was meant to represent fur.²⁰

In the Virgin from Hedalen, the colour of the neck lining of the Virgin's mantle appears dark brown, but analysis shows that it is a mix of organic red and azurite.²¹ Its method of application also suggests that it was meant to depict fur: the reconstruction of this technique produced a stiff paint that, on the original Virgin, had been applied by stippling with a shorthaired coarse brush to imitate fur. Eva Andersson has noted that the dark and thick marten was commonly used in linings and in the documentary sources to which she refers, sable always occurs together with other expensive materials, such as vair and scarlet.²²

Decorated leather

Examples of imitation of decorated leather objects are seen in the book held by both St John from Heggen and St John from Dyste.²³ These have a linear pattern in red lead and lead white on a carbon black base that may suggest an embossed surface.

What makes an imitation successful?

What is experienced when viewing an object is the information collected from the way that light reflects off its surface. Texture, colour and surface gloss carry vital information that we interpret in a variety of ways, leading to illusion. For instance, in order to convince us that we are looking at solid gold, the surface must have the colour and reflective qualities of material that we have previously recognised as gold. For this to be convincing it must give the impression of the density and characteristics that we associate with a solid material. This can be disrupted easily if the surface is damaged, exposing supporting



Figure 8 Detail of the Virgin from Evron, the abbey church of Notre dame de l'Epine, France. (Photo © Erling S. Skaug)



Figure 9 The frontal from Heddal (KHM C. 34746) H. 97 × W. 157 cm, pine panel, c.1250. (Photo: Jaques Lathion © KHM, UiO)

layers of a different colour. The current preservation state of many of these objects increases our difficulty in interpreting the original intent as surfaces are no longer intact and the visual impression has been disrupted – silver foils have corroded and glazes have darkened and developed craquelure patterns.

A mercury gilded copper repoussé frontal, such as the Danish golden altars, seems to the modern mind to be closer to the genuine precious metal object than the imitation gilding produced with painterly techniques in the Norwegian polychrome. The physical nature of the surface gives the perception that is interpreted as dense and solid even though it is not. These objects must of course have been more costly to produce than the Norwegian polychrome – suggesting a higher status and the power of the people behind them.

The Virgin from Evron in the abbey church of Notre Dame de l'Epine (Marne, near Châlons-en-Champagne and Verdun) is an interesting example as it has a wooden core that is covered with sheets of metal foil (Figure 8).²⁴ The crown was decorated with imitation inlay and the belt with enamel. The dress is white metal foil, suggesting silver – the metal surface of the crown and belt appears to be yellow metal suggesting gold. We know that the surface of metal was

treated with transparent coloured glazes and lacquers.²⁵ Could it be that what now looks like silver originally had a golden glaze that added a soft golden depth as in the 'imitation gold'?

Andrew Oddy mentioned two reasons as to why it became unpopular to use gold foil. First, because of its thickness, it is a wasteful method to cover a surface when the same effect can be achieved using thinner gold leaf. Secondly, a thick foil obscures the finer detail of the sculpture and is difficult to apply to a modelled surface as it creases easily, as seen in the surface of the Virgin from Evron (Figure 8).²⁶

What does the imitation point towards?

In the early group of the Norwegian altar frontals (second half of the thirteenth century) there is a rich use of glazes on highly polished silver leaf and lighter reflecting underpaints. This is illustrated in the frontals from Heddal and Tingelstad I (Figure 9).²⁷ The painting was executed mainly with an oil-based paint, which allowed for translucent glazes in yellow, red and green. The frames often had a repeated pattern of imitations of precious stones, glass inlays or enamels.

Unn Plahter has suggested that these objects were intended to imitate the effect of the more scarce precious enamel works on gold rather than the widespread opaque enamels on copper (Figure 10).²⁸ She proposed that some paint effects may even have overcome the limitations of what could be produced by goldsmiths at the time and argued that towards the middle of the thirteenth century oil paint was superior to enamel as an artist's medium, as subtle nuances and soft modelling could be obtained more easily. While greater detail and variation in hue could be obtained using paint rather than enamel, Plahter has suggested that painters plainly exploited the properties of the oil medium, thus creating an independent style in its own right.

Plahter has referred to Neil Stratford, who points out that using silver as a base surface for enamel was a problem in the medieval period as its melting point was alarmingly close to that of enamel. There was also a risk of cracking when the vitreous enamel cooled after firing due to differences in the amount of contraction of the two materials. According to Stratford there is virtually no surviving early medieval enamel on silver, the normal techniques for embellishing silver being niello and gilding.²⁹ The incompatibility of enamel and silver was overcome by a change in the glass recipe, thereby lowering the firing temperature and more closely matching the heat expansion of the two materials. In this way Champléve was revolutionised in the last quarter of the thirteenth century, making it possible to produce translucent enamel.

Of course economy and availability of materials must have played an important role in the medieval period as it does now. However, Bucklow argued that the monetary value was considered less significant than other values, pointing for example to the use of blue glass in the Westminster Retable. This blue glass, he argued, shared with lapis lazuli other values by virtue of their common forming principle.³⁰ When a sculpture or frontal was produced, the effects sought by the craftsman were intentional, such as the golden, glossy and translucent surfaces that could effectively emulate precious materials. The materials used in creating these illusions were not cheap, but used in paint and in the thin metal leaf for gilding, the materials can be thinly applied to the surface and so less was required. This allowed for the production of objects that were impressive in size – as will be illustrated by the tabernacle assemblies discussed later in this article.



Figure 10 Opaque Limoges enamel on a copper base from Uvdal stave church, Buskerud (C. 23328): H. 32.5 cm × W. 25.5 cm, c. 1240–60. (Photo © KHM, UIO)

The use of these materials also enabled visual impressions that could not be easily achieved by the materials that they were intended to imitate. In the so-called 'imitation gold' technique, the visual result is a soft texture as light is both scattered and reflected at different levels within the glaze. This reduces the hard specular reflection that makes a polished metal surface look stark and cold, so perhaps the intention was to create a more interesting surface than that of pure gold. This could have also been the reason behind the application of varnish or glaze over gold foil – to moderate the shine and depth of the surfaces. Plahter has pointed to Eraclius (Book III), who stated that such a varnish will make the exposed ground in gilded areas less visible; and to Daniel V. Thompson, who suggested that the varnish was put onto gold 'to make it look even more like gold'.³¹ The application of a yellow glaze on the gold was found on the crucifix from Hemse (Sweden) dated to around 1170.³² Another example is the early thirteenth-century sculpture from Dyste (Norway).³³ The Virgin from Hove is another example where a varnish was applied to the polished gold leaf on the outside of the mantle and the inner dress in its entirety (Figure 1).³⁴



Figure 11 Many-edged axe from Akershus, Vestby, Norway (KHM C. 31079): 6 x 18 cm. (Photo © KHM, UiO)

Skeuomorphism

A skeuomorph is a derivative object that retains ornamental design cues to a structure that was necessary in the original.³⁵ Skeuomorphs are material metaphors instantiated through our technologies in artefacts.³⁶ The act of copying one material with the intention of evoking the appearance of another is a phenomenon that occurs in all human material culture, today as well as in the past. Deborah Olausson pointed out that given our evolutionary biases, we usually assume that copying precious objects is an act of economic desperation or a sign of misplaced delusions of grandeur.³⁷

Olausson described a number of examples of skeuomorphisms in Scandinavian prehistory and suggested that the reasons behind these choices can be multiple. One can, like Olausson, question the *a priori* assumption that the precious object was always the original upon which the copy in a different material was based. For example, there exist many types of polygonal axes and they were probably modelled after mid-European copper axes from at least 2000 BC. A well-known example is the Stone Age polygonal battle-axes with a complicated shape with facets and hemispherical butt made from a ground non-flint raw material (Figure 11).³⁸ From Denmark there are examples of funnel-beaker clay pots that have been imitated in wood.

There can be many reasons other than economic for skeuomorphism. For example, the modern plastic sandal, with the same design details as the original leather type, fulfils the function as footwear and has the added advantage of being waterproof. Elaborate lacing found on Velcro-secured shoes points back to the decorative effect of neatly laced-up shoes. Regarding

current opinions of animal welfare groups about wearing real fur, connected to cruelty, the consequence of wearing the real thing and not the imitation could even lead to scandal!

The digital skeuomorph is popular in computer interfaces where the imitation of well-known, loved and functioning devices is replicated in the software of iPads or smart phones. Here pictures of buttons that appear to move up and down, files and folders that look like real world objects are added to operating systems that formerly had a command line input. When opening an address book it comes up as the traditional, graphically appealing, leather-bound stitched paper book. The user can immediately relate to how this emulation works. So even in the digital world we can manoeuvre our way around with no need for new instruction.

Display and intention

The inherent qualities of materials and their connotations impart meaning to medieval objects and the images they create. Colour acquired symbolic meaning associated with its natural qualities and references in scripture and lapidaries.³⁹ Plahter referred to the shading from blue, red and green drawn wet-in-wet towards white in the Norwegian frontals as 'dual shading' and observed that this technique was used to depict religious items such as angel wings and micro-architecture in the Norwegian frontals.⁴⁰ It is also common on the throne and plinth of sculptures, where it acts as a visual indication separating the heavenly creations that objects depict from the ordinary earthly features.

Sculpture painted in brilliant colour enhances both realism and the sense of transformation.



Figure 12 The golden altar from Stadil, 96.5 x 150 cm, gilded copper on wooden frame, c. 1200–25.
(Photo © Nationalmuseet, København)

Like gold and valuable stones, the impression of the image assaulted the senses and evoked a response among onlookers.⁴¹ The appearance of these works within dimly lit churches, with constantly varying light, had the ability to elicit admiration and awe, thus fulfilling their intended function as mediators between humanity and the sacred. They acted as the boundary between the physical and the spiritual worlds, becoming a metaphor for the divine revelation.⁴²

Looking at impressive objects such as the Danish golden altars, the objects were made with the intention of looking as though they were made from solid gold, but in reality are copper repoussée on a wooden frame, and the precious stones are rock crystal – or glass – mounted on coloured backgrounds.

The Danish golden altar from Stadil has an inscription running along the edge that can help us to get closer to the intention of this object (Figure 12). The twelfth-century voice reflected in this text acts as a respectable defence for exposing such a shimmering and purely materialistic earthly object as it turns into a portal to salvation.

You see this panel shining with golden splendour, but even more it shines through the knowledge it spreads of the sacred history. For it reveals to those pure in heart the mysteries of Christ, whose own lustre outshines gold. Thus, you who

read by means of that (panel), purify your mind by faith if you want to behold the joys of the divine light.⁴³

The text moves the genuine beyond the object itself into the mind of the beholder. The material object will mirror the spiritual divine world and thereby act as a tool for the mind to transcend – as long as the object has the capacity to provoke successfully such a reaction in the audience it has achieved its purpose.

The relationship between the preserved object and the original intent of the work

When relocated into a museum, and displayed under exhibition lighting, these objects lose their architectural and religious context, and thus their original significance and sense of awe diminishes. In the Middle Ages, the frontals and sculpture would have been set into a larger architectural setting such as a tabernacle shrine or part of the ecclesiastical paraphernalia within a church. In the changing light of a candlelit wooden church, with small apertures transmitting a glimpse of the conditions outside, the flickering light reflected off the polished metal surfaces would have undulated as the worshipper moved in front of the objects, bringing them ‘to life’. The presentation



Figure 13 The Hedal tabernacle (Figure 3) reassembled (photo from an exhibition at Henie Onstad Art Centre 1972–73).

would have engaged a range of senses including fragrance, music and prayer.⁴⁴

The reconstruction of the Norwegian Virgin from Hedalen sheds light on how material ageing has affected the original sculpture and therefore our perception of it. Based on the accumulated knowledge of the medieval techniques at the time, the Virgin appears as ‘brand new.’⁴⁵ The result is as close as our interpretation and knowledge of the original materials can bring us to the original impression (Figure 3). Although the original has never been overpainted and appears to be in an extraordinarily good state of preservation, the reconstruction nevertheless illustrates how experiencing the specular and diffuse reflection of the original surface is essential for its greater understanding. These properties of the original surface have been lost and so the changed surface makes it difficult to comprehend fully today.

The Hedal Virgin was the central sculpture of a tabernacle shrine with folding doors. The remaining original parts of this assemblage are preserved as separate pieces *in situ* in the stave church. Figure 13 shows the now separated parts assembled for an exhibition at Høvik in the 1972–73. Note that the now overpainted interior contained smaller relief sculpture in the niches. The recent reconstruction made by colleagues

at the Norwegian Institute for Cultural Heritage Research (NIKU), Oslo, of the painting on the outside of the folding doors of the tabernacle, shows a surprisingly simple design of alternating red and green rectangles (Figure 14).⁴⁶

At first the simplicity of this motif is contrary to the ornateness of the interior, but seen in context it can be easily explained. When closed, the simple chequer pattern emphasises transcendence, with the crowning church pointing upwards – like an arrow towards heaven. At 3.5 m tall, the worshipper has to look upwards physically into the gloom of the church ceiling to appreciate it. The closed tabernacle acts as a pillar supporting the crowning holy church. The church is now the focus stretching toward heaven to connect with the spiritual world. The inside cannot be seen in this configuration – the Virgin would be accessed when opened on feast days – moving the focus to the enthroned Virgin and the stories depicted on inner doors relating to her life. Both the crowning church and the imitated gems on the crowns of the Virgin and Child evoke the Heavenly Jerusalem, a celestial vision of the holy city as described in the Book of Revelation (21:9–27).

The different elements of such a tabernacle seem to have been intentional, and it is possible that the red and green pattern carried information that could be interpreted with meaning for the informed member of the congregation. Red and green are highly decorative complementary colours; however the precise symbolic meaning of the decoration has yet to be established. Bucklow discussed the alternating use of red and green,⁴⁷ indicating its significance and how it can be connected with the male and female in the choir screens. The symbolism in this context may however be different.

If the remaining fragments from a similar tabernacle from the neighbouring church at Reinli are examined, the outside shows a similar even more simplified colour scheme. The rough and uneven washes create a texture in the red colour that appears to have been deliberate. The small sample that I have examined suggests the mimicking of a stone surface.

With this in mind it is worth drawing attention to the 2010 version of the Stadil inscription used by Pope Benedict XVI when consecrating the Sagrada Familia in Barcelona:

This work of art stands as a visible sign of the invisible God, to whose glory these spires rise like arrows pointing towards

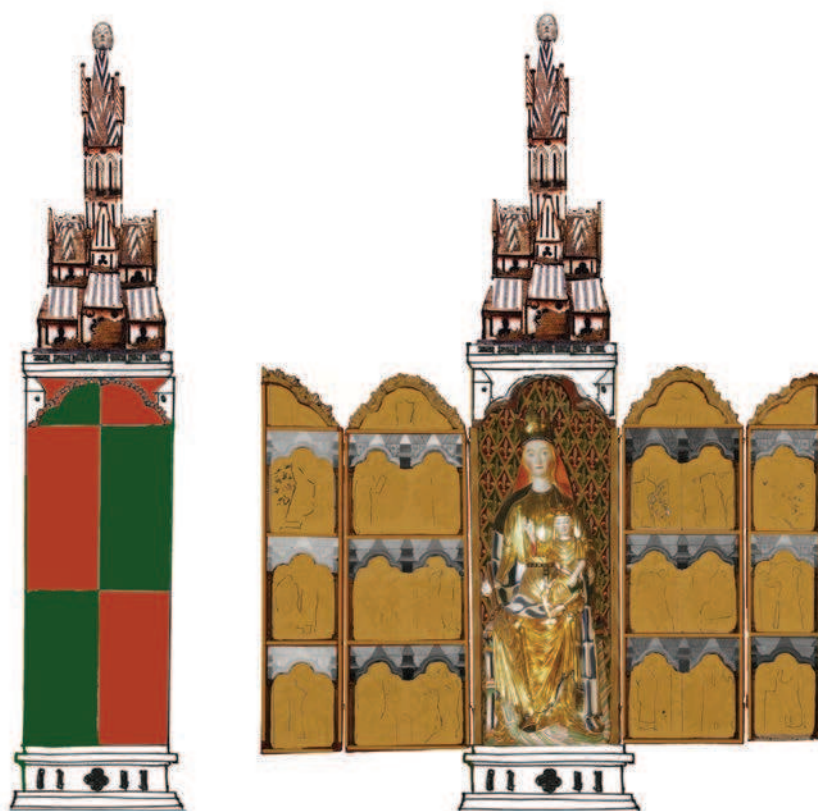


Figure 14 Colour reconstruction of the tabernacle shrine from Hedalen (Figures 3 and 13), showing the open and shut positions. The plinth is copied from the Virgin from Dal and the canopy is based on the shrine from Fröskog, Sweden. Tabernacle: H. 162 × W. 232 × D. 5 cm (open position). Crowning: H. 156 × W. 55 × D. 50 cm. (Colour reconstruction: Mille Stein; drawing: Ola Storsletten; digital picture manipulation: Elisabeth Andersen © NIKU)

absolute light and to the One Who is Light, Height and Beauty itself.⁴⁸

So a beautifully crafted imitation would fulfil the purpose – as the vision would be in the mind of the beholder.

Conclusion

The use of imitation in the Norwegian material dated to before 1350 shows highly developed craftsmanship and creative use of ingredients. Furthermore, a profound knowledge of how to use painterly techniques allowed painters to obtain effects that emulated costly materials and even surpassed what goldsmiths could create with the technology of the time. The paint scheme contributes, with its modelling and the

ways the colours have been applied, to create an aesthetic work. The high degree of skill behind the creation lifts the object out of the ordinary. The object acts as a mediator between the earthly and divine for the congregation.

Acknowledgements

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Notes

1. Imitation is a copy or reproduction of a genuine article: 'The quality of an object in possessing some of the nature or attributes of a transcendent idea being such in appearance only and made with or manufactured from usually cheaper materials', Merriam Webster 2011: www.merriam-webster.com/dictionary (accessed 4 April 2011).
2. Bucklow 2009a.
3. Perch-Nielsen and Plahter 1995.
4. Aavitsland 2007.
5. Bucklow 2006: 269.
6. *Ibid.*; Plotinus 1984: 239.
7. Williamson 1995: 117.
8. Similar square tin platelets covering iron nails have been identified as tin (SnO₂) in the Norwegian frontals: see Plahter et al. 2004: vol. 2, 18.
9. Cennini 1960. Written in the fourteenth century, the techniques Cennini describes are grounded in the late thirteenth and mid-fourteenth century or possibly earlier, as the application of tin platelets over nail heads in the early thirteenth century discussed here. Plahter 2006: 18. Tin platelets were identified in the Norwegian frontals from Heddal and Skaun.
10. Gage 1993: 74–5.
11. The technique often referred to as imitation gold is produced by highly polished silver foils applied directly on the chalk ground onto which a yellow glaze is applied that gives the silver the impression of gold. A reconstruction of the Virgin from Hedalen was produced in the late 1980s at Kulturhistorisk museum (KHM), Oslo, based on knowledge retrieved from analysis of the medieval painting technique, observations on the original sculpture and with the support of the written medieval Icelandic text *Likneskjusmið*: Plahter 1995; Wiik 1995, 1998. A video showing work on the reconstruction is available at www.khm.uio.no/utstilling/faste/middelalder/maleri/madonna.html.
12. White 1995: 127–35.
13. Frøysaker and Kollandsrud 2006.
14. Binski and Massing 2009.
15. Plahter et al. 2004: vol. 2, 114, 115, 136, nn. 198, 250.
16. See Wiik 2006: 20–27 and Plahter 2006a: 28–33.
17. Andersson 2013: 106–7; Plahter et al. 2004: vol. 2, 109; Emberley 1998.
18. Vair (from the Latin *varius* 'variegated'). The squirrel in question is a variety of the Eurasian red squirrel (*Sciurus vulgaris*). In the coldest parts of northern and central Europe, especially the Baltic region, the winter coat of this squirrel is blue-grey on the back and white on the belly: Veale 1966: 224. Variations of vair are laid out in different patterns, each with their own name. See further discussion on the use of variations of vair and other types of fur in the Norwegian frontals in Plahter et al. 2004: vol. 2, 109.
19. St Olav from Røldal church, Hardanger (MA 294, 147 × 54.3 × 37 cm with backboard) now in the Bergen Museum, University of Bergen.
20. Plahter et al. 2004: vol. 2, 109.
21. Plahter 1998: 57.
22. Andersson 2013: 108.
23. St John from Heggen, Norway (D. 3003, height: 117 cm), now in Drammen Museum of Art and Cultural History. St John from Dyste, Norway (C. 39995, 113 × 30 × 12 cm) now in KHM.
24. Taralon and Maitre-Devallon 1966: 161–2.
25. The following has been judged from the photograph only and has to be considered accordingly.
26. Oddy 2000: 3.
27. The frontal from Tingelstad I (C. 5040) was reconstructed using the same techniques and materials as the original. The work was carried out by painting conservators Katrine Scharffenberg and Anne Milnes in collaboration with the painting conservators of KHM, Eivind Bratlie and Kaja Kollandsrud, in 2012. The reconstruction can now be experienced in the original location in front of the altar in the church of St Petri, Hadeland (Norway).
28. Plahter 2010: 166.
29. Stratford 2009: 125.
30. Bucklow 2006: 270.
31. Plahter 2006b: 18; Merrifield 1999: Eraclius, Book III, XXI [267]: 224; Thompson 1956: 56.
32. Crucifix from Hemse, Gotland: Plahter 2006b: 11–9.
33. C. 1525, dated to c.1225–50, now in KHM: Selsjord 1993.
34. The Virgin from Hove was examined and treated by the author in 1996. The varnish has not been analysed, but looks more like an egg-white varnish (personal communication with Unn Plahter, October 2012).
35. Vickers and Gill 1994.
36. Gessler at www.skeuomorph.com/ (accessed 15 March 2012).
37. Olausson 2006, unpublished talk. Referenced in agreement with the author.
38. SARC Stone Age Reference Collection, UiO: https://wiki.uio.no/hf/iakh/sarc/index.php/Axes#Polygonal_axe_-_Mangekant.C3.B8ks (accessed 25 August 2011).
39. Kessler 2004: 20; Gage 1993: 74–5.
40. Plahter et al. 2004: vol. 2, 120.
41. Kessler 2004.
42. Kessler 2000.
43. Inscription on the Stadil golden altar translated by Aavitsland (2011: 219): + QVAM CERNIS FULUO TABULAM SPELNDORE NITENTE(M) PL[U] S NITET YSTORIE COGNITIONE SACRE

PANDIT ENIM CHR[IST]I MYSTERIA QVE
SUP[ER] AURVM IRRADIANT MVNDIS
CORDE NITORE SVO ERGO FIDE MVNDES
MENTE[M] SO CERNERE LVCIS GAUDIA
DIUINE QVI LEGIS ISTA UELIS.

44. Pentcheva 2010.

45. See note 11.

46. Stein 2010.

47. Bucklow, in this volume.

48. Words of Pope Benedict XVI, pronounced at the beginning of his homily, 7 November 2010, before some 25,000 people, of which more than 7000 filled every corner of the newly consecrated Basilica of the Holy Family in Barcelona. See Vatican information services: <http://visnews-en.blogspot.com/2010/11/pope-consecrates-church-of-sagrada.html> (accessed 7 November 2010).

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