

‘Serra ex ferro’—‘Serra ex vitro’:¹ medieval history—computers—image messages reconsidered

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The discourses initiated, determined, and influenced by the contents and messages of images are about depicted actions, persons, objects etc. In this respect, there is certainly no basic difference between images and the representations of spoken or written text. In our, the historians', constructions, we clearly always have to be mindful of these factors and contexts. Of particular interest are those fields and aspects that are discussed regularly and intensively in our sources. There, we are confronted with connections of the qualitative and the quantitative, opening the possibility to search for patterns, their role, rules

¹ Thomas Aquinas, *Summa Theologiae*, I, q. 39, a. 8: ‘Quilibet autem artifex intendit suo opere dispositionem optimam inducere non simpliciter, sed per comparationem ad finem. Et si talis dispositio habet secum adjunctum aliquem defectum, artifex non curat, sicut artifex, qui facit serram ad secandum, facit eam ex ferro, ut sit idonea ad secandum; nec curat eam facere ex vitro, quae est pulchrior materia, quia talis pulchritudo est impedimentum finis’ [Every artist strives to put the best arrangement into his work - not the best in absolute terms, but the best in relation to his aim. If such a composition involves some adverse effect, the artist does not worry about this. If, for example, the artist is making a saw for cutting, he makes it of iron, because iron is suitable for the purpose, and he does not dream to make it of glass, which is a more beautiful material, for such beauty is in conflict with the aim]; see Władysław Tatarkiewicz, *History of Aesthetics* II: *Medieval Aesthetics* (The Hague and Paris, and Warszawa: Mouton and PWN, 1970), p. 262.



Fig. 1. 'Visitation of the Virgin', Master of the Schottenaltar, panel painting, Austrian, 1469/1480. Vienna, Schottenstift. The idealized paved and clean street in Vienna is appropriate to the 'Visitation of the Virgin'. © Institut für Realienkunde des Mittelalters und der frühen Neuzeit, Krems.

and raising connotations.

When using pictures for such types of analysis, we certainly have to be conscious of the fact that we are dealing with various levels of the 'reality of images',² just as we have to be alert when using written or any other source

² Concerning late medieval images, see Keith Moxey, 'Reading the 'Reality Effect'', in *Pictura quasi fictura. Die Rolle des Bildes in der Sachkultur des Mittelalters und der frühen Neuzeit*, ed. by Gerhard Jaritz, Forschungen des Instituts für Realienkunde des

material. When, for instance, we analyse medieval visual sources, we have to be aware that the 'reality of images' and this 'reality of contexts' influenced the medieval perception of information by the pictures' beholders, just as they, albeit in another way, influence our own perception.

In order for the message to be apprehended, the contents and contexts have to be proper and purposeful ones. The qualities have to be appropriate to the objects, to the depicted persons, to the actions. The saw has to be made out of iron, as Thomas Aquinas stressed in the thirteenth century; the painter cannot make it out of glass, the more beautiful material, such beauty being in conflict with the aim, for only an iron saw can convey the act of sawing.

There is always a need for the beholder to have a suitable means to recognize the message—something that we already find in the well-known example from the *Libri Carolini* (end of the eighth century). This concerns two identical pictures of a beautiful woman: one represents the Virgin Mary, the other represents Venus. The first is to be venerated, the latter discarded.³ The painter provided the beholders with the solution, with a clearly recognizable sign for those who were able to read and to understand: one picture received the caption 'Virgin Mary'; the other received the caption 'Venus'. In this example it was the

Mittelalters und der frühen Neuzeit. Diskussionen und Materialien, 1 (Vienna: Verlag der Österreichischen Akademie der Wissenschaften, 1996), pp. 15–22; Gerhard Jaritz, "Et est ymago ficta non veritas". Sackultur und Bilder des späten Mittelalters", in *ibidem*, pp. 9–13; idem, *Zwischen Augenblick und Ewigkeit. Einführung in die Alltagsgeschichte des Mittelalters* (Vienna: Böhlau, 1989), pp. 71–92.

³ *Libri Carolini* IV, 16: 'Offerentur cuilibet eorum qui imagines adorant . . . duarum feminarum pulchrarum imagines, superscriptione carentes, quas ille parvipendens abjicit, abjectasque quolibet in loco jacere permittit, dicit ille quis: Una illarum sanctae Mariae imago est, abjici non debet; altera Veneris, quae omnino abjicienda est, vertit se ad pictorem querens ab eo, quia in omnibus simillimae sunt, quae illarum sanctae Mariae imago sit, vel quae Veneris? Ille huic dat superscriptionem sanctae Mariae, illi vero superscriptionem Veneris: ista quia superscriptionem Dei genitricis habet, erigitur, honoratur, osculatur; illa quia inscriptionem Veneris, dejicitur, exprobatur, execratur; pari utraeque sunt figura, paribus coloribus, paribusque factae materiis, superscriptione tantum distant' [A man who venerated pictures was shown two pictures of beautiful women without any captions, which someone had thrown away, caring little for them. Someone said to him: one of these is a picture of the Virgin Mary and should not be thrown away, and the other is of Venus, and should at all costs be thrown away. The man turned to the artist and asked him which one was the picture of Mary, and which one was of Venus, for they were completely alike. The painter supplied one picture with the caption: The Virgin Mary, and the other with the caption: Venus. The picture with the caption: Mother of God, was elevated, venerated, and kissed, and the other, because it had the caption: Venus, was maligned, scorned and cursed, although both were equal in shape and colour, and were made of identical material, and differed only in caption]; see Tatarkiewicz (as in note 1), p. 100.



Fig. 2. 'Christ Visiting St George in Prison', panel painting, 1516. Spišská Sobota (Slovakia), parish church. The idealized paved and clean urban streets is appropriate to 'Christ Visiting Saint George in Prison'. © Institut für Realienkunde des Mittelalters und der frühen Neuzeit, Krems

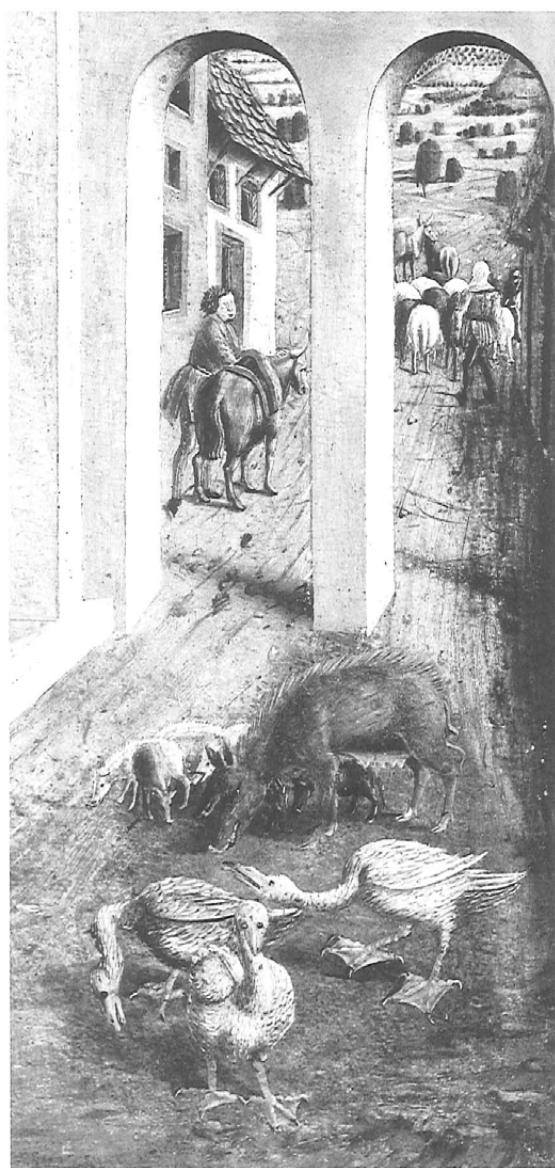


Fig. 3. 'The Dream of St Joseph', Friedrich Pacher, (detail: the hard road to Egypt), panel painting, Tirol, before 1500. Innsbruck, Landesmuseum Ferdinandeum. The negative model of a bad and dirty road is appropriate to the 'Dream of Saint Joseph' suggesting that they start the difficult 'Flight to Egypt'. © Institut für Realienkunde des Mittelalters und der frühen Neuzeit, Krems



Fig. 4. 'The Temptation of St Martin by the Disguised Devil', panel painting, before 1500. Göflan (Südtirol), parish church. The ground is strewn with stones. © Institut für Realienkunde des Mittelalters und der frühen Neuzeit, Krems



Fig. 5. 'St Florian and St Sebastian' (detail: Emperor Frederick III as St Sebastian), panel painting, Styrian, c. 1480. Obdach (Steiermark), church of the hospital. The long and curled hairstyle of Emperor Frederick III. © Institut für Realienkunde des Mittelalters und der frühen Neuzeit, Krems, Austria

caption that counted; the caption ‘Venus’ created the image of Venus for those who could read or who were told; the caption ‘Virgin Mary’ turned the second image into the Mother of God. In other cases, however, it is the presented form and quality of the actual contents of the pictures that creates the recognition. But always some kind or type of context of the signs in different levels plays the important role—as also for our own analyses.

Let us come back to the discourse initiated and influenced by images, and let us concentrate on intensity, regularity, and the particular connotation offered by the contents: this combination of the qualitative and the quantitative. For our studies and our search for relevant patterns, computer-supported image analysis has proved particularly useful. Some Central European groups of images and their interpretation may serve as examples. The basis for analysis is about 20,000 late-medieval images,⁴ described in a very detailed, structured, and standardized way that are available in a *Kλειω*-database,⁵ thus making text–image links possible in different variants.⁶ The issues of visual representation that we are interested in are those that often play a decisive role in late-medieval written evidence dealing with aspects of daily life and material culture. As examples we will deal with streets and roads and their quality and cleanliness;⁷ male hairdressing;⁸ other material signs of the outward appearance of social groups,

⁴ These images are integrated in the database REAL of the ‘Institut für Realienkunde des Mittelalters und der frühen Neuzeit’ of the Austrian Academy of Arts and Sciences. See Gerhard Jaritz, *Everyday Life in the Middle Ages and Digital Image Analysis* (1995): <http://rubens.anu.edu.au/chart/jaritz.html>; idem, ‘Computergestützte Bildanalysen in der Geschichte mittelalterlichen Alltags’, *Österreich in Geschichte und Literatur*, 39 (1995), 156–61. Parts of the contents of REAL are available on:

<http://www.imareal.oeaw.ac.at>.

⁵ Concerning *Kλειω*, see Manfred Thaller, *Kλειω. A Database System* (St Katharinen: Scripta Mercatura Verlag, 1993); Matthew Woppard and Peter Denley, *Source-Oriented Data Processing for Historians: A Tutorial for kleio* (St Katharinen: Scripta Mercatura Verlag, 1993); see also <http://www.gwdg.de/kleio/> and <http://gilgamesch.hki.uni-koeln.de/develop/site/>. With regard to *Kλειω*-image analysis, see Gerhard Jaritz, *Images. A Primer of Computer-Supported Image Analysis with kleio IAS* (St Katharinen: Scripta Mercatura Verlag, 1993); see also idem, ‘Medieval History and Digital Image Processing’, *Schede Umanistiche. Rivista semestrale dell’Archivo Umanistico Rinascimentale Bolognese*, nuova serie (1998), 201–09.

⁶ See Gerhard Jaritz. *Bound Images: Encoding and Analysis* (1995): <http://www.uky.edu/~kiernan/DL/jaritz.html>.

⁷ On medieval streets and roads, see, e.g., Jean-Pierre Leguay, *La rue au moyen âge* (Rennes: Ouest France, 1984); Lynn Thorndike, ‘Sanitation, Baths, and Street-Cleaning in the Middle Ages and Renaissance’, *Speculum* 3 (1928), 192–203.

⁸ See Jean Loubier, ‘Das Ideal der männlichen Schönheit bei den altfranzösischen Dichtern des XII und XIII Jahrhunderts’ [Phil. Diss. Friedrichs-Universität Halle Wittenberg] (Halle a. S., 1890), pp. 44–56; Oskar Voigt, ‘Das Ideal der Schönheit und

such as pointed shoes,⁹ and the image of peasantry.¹⁰ They here will be used as examples to show the general possibilities and uses of visual sign language from the fourteenth to the beginning of the sixteenth century.¹¹ For this, they also can be seen as important individual sources of information for a history of mentalities of the late Middle Ages.¹²

The quality of streets and roads regularly played an important role in a variety of late medieval written sources, particularly those of urban areas: there are distinct references in laws, craftsman contracts, donations, account books, chronicles, travel accounts, etc. The poor quality of medieval roads is still a stereotype in today's historical presentation of the Middle Ages, particularly the one taught in schools. But in the many late-medieval discussions about roads, their cleanliness, the contrast between paved and unpaved, and between easy and difficult travel over them are all of critical importance. And it seems to be quite obvious that images in their contexts also deal with such questions and problems and use them to mediate a variety of different messages.¹³

On the one hand, we are confronted with the image of the highly idealized urban street conforming to every requirement as to cleanliness, of top quality,

Hässlichkeit in den altfranzösischen chansons de geste' (Phil. Diss., Universität Marburg, 1891), pp. 34–36; Gerhard Jaritz, 'Young, Rich, and Beautiful. The Visualization of Male Beauty in the Late Middle Ages', in *The Man of Many Devices, Who Wandered Full Many Ways. Festschrift in Honor of János M. Bak*, ed. by Balázs Nagy and Marcell Sebők (Budapest: Central European University Press, 1999), p. 63.

⁹ See Gerhard Jaritz, 'Schnabelschuh und Hörnerhaube oder: Bild, Sachkultur und Kontextualisierung', in 8. Österreichischer Kunsthistorikertag. *Vergangenheit in der Gegenwart—Gegenwart in der Kunstgeschichte?*, Kunsthistoriker 11/12, 1994/1995 (Vienna: Österreichischer Kunsthistorikerverband, 1996), pp. 8–12.

¹⁰ See, generally, Gerhard Jaritz, 'The Material Culture of the Peasantry in the Late Middle Ages: "Image" and "Reality"', in *Agriculture in the Middle Ages. Technology, Practice, and Representation*, ed. by Del Sweeney (Philadelphia: University of Pennsylvania Press, 1995), pp. 163–88.

¹¹ Concerning the literary sign language of dress, see Gabriele Raudszus, *Die Zeichensprache der Kleidung. Untersuchungen zur Symbolik des Gewandes in der deutschen Epik des Mittelalters*, Ordo. Studien zur Literatur und Gesellschaft des Mittelalters und der frühen Neuzeit, 1 (Hildesheim Olms, 1985).

¹² See Axel Bolvig, 'Images of Late Medieval "Daily Life". A History of Mentalities', *Medium Aevum Quotidianum*, 39 (1998), 94–111.

¹³ See Gerhard Jaritz, 'Umweltbewältigung. Der Beitrag der Geschichtswissenschaften', in *Umweltbewältigung. Die historische Perspektive*, ed. by Gerhard Jaritz and Verena Winiwarter (Bielefeld: Verlag für Regionalgeschichte, 1994), pp. 14–16 and errata; idem, 'Alltag in der Stadt des 15. und 16. Jahrhunderts', in *Alltagserfahrungen in der Geschichte Österreichs*, ed. by Ernst Bruckmüller (Vienna: ÖBV Pädagogischer Verlag, 1998), pp. 52–55.



Fig. 6. 'Parable of Dives and Lazarus' (detail: the servant of Dives), panel painting, Upper Rhine, end of the fifteenth century. St. Paul im Lavanttal (Kärnten), collections of the Benedictine monastery. The long and curled hairstyle of the servant of Dives. © Institut für Realienkunde des Mittelalters und der frühen Neuzeit, Krems



Fig. 7. 'Labours of the Months', month of August (detail: hairstyle of an 'improper' peasant), ink drawing, South German, 1475. Vienna, Österreich. Nationalbibliothek, MS. 3085, fol. 5^r. The chaotic curly hair of an 'improper' peasant. © Institut für Realienkunde des Mittelalters und der frühen Neuzeit, Krems

and in excellent condition with a good standard of pavement. For example, the particular religious event of the 'Visitation of the Virgin' (fig. 1) is integrated into a depiction of the community for which the image was produced: in this case Vienna.¹⁴ The representation of the street follows two patterns of ideal-

¹⁴ See Heinrich Ferenczy, *Das Schottenstift und seine Kunstwerke* (Vienna: Orac, 1980), p. 194; Walther Brauneis, 'Beitrag zur mittelalterlichen Topographie der Stadt Wien', *Österreichische Zeitschrift für Kunst und Denkmalpflege*, 27 (1973), 121–31.

zation, that of one's own town and one of a highly important religious action. This ideal of one's own community need not necessarily be a 'real' image, but may obviously just be a type. Such an example, for instance, may be seen in a representation of 'Christ Visiting Saint George in Prison', out of a winged altarpiece in today's Slovakia (fig. 2). Again, the paved and clean streets play a relevant role in the idealization of action and place.¹⁵

On the other hand, a contrasting image of roads may be recognized in cases where a generally negative connotation should be mediated. This is, for instance, particularly true of the flight of the Holy Family into Egypt. One typical example is a representation of the 'Dream of St Joseph', in which the angel appears and tells him that he and his family should flee (fig. 3). It shows the very bad, dirty, and hard road to Egypt, a road on which animals forage for food. Bad roads, paths, and squares may also turn up in connection with other negative connotations that images should mediate. One of these examples is the 'Temptation of St Martin by the Disguised Devil' showing the ground strewn with stones (fig. 4).¹⁶

Religious messages, therefore, obviously use a language of signs that is based soundly on the practical experience and knowledge of the beholders. In this case that language is based on regular discussion about an important material aspect of everyday life: streets and roads. The contrasts in their quality are the means of providing the audience with auxiliary information to reinforce religious and spiritual messages. In order to apprehend such results, it is useful to employ the above-mentioned text-image databases and analyse them qualitatively and quantitatively with regard to contents and contexts. This means, for instance, searching the databases for the topics and contents of late-medieval works of art, where streets and roads are described verbally as well-paved or clean, or where there are descriptions of dirt, stones, puddles, or foraging animals in the context of streets. A comparison of the results of these two queries shows 'message-bound contrasts', of which a few examples have been selected above.

Another example may be taken with regard to aspects of the outward appearance of people. For the whole of the Middle Ages, the image of beautiful males followed a certain pattern.¹⁷ One of the key indicators was their long and curled hair of fair or light brown colour.¹⁸ Such hair was also used to represent the actual inner qualities of these beautiful, rich, and young males, or other men closely connected to them. In images, it was typically used for rulers (fig. 5), rich and socially important men, their servants (fig. 6), angels, or the apostle John the

¹⁵ See Libuše Cidlinská, *Gotické kridlové oltáre na Slovensku* [Gothic winged altarpieces in Slovakia] (Bratislava: Tartan, 1989), p. 82.

¹⁶ As in note 13.

¹⁷ See Gerhard Jaritz, 'Young, Rich, and Beautiful' (as in note 8), pp. 61–77.

¹⁸ As in note 8.

Evangelist.¹⁹ Other groups of lower status in the social hierarchy of medieval society do not have this type of hair. If such men wear long and curled fair hair in images, they may obviously be connected with patterns of the 'world upside-down'.²⁰ This becomes very clear, for instance, in the obviously satirical and also didactic illuminations of a South German manuscript of 1475, representing the Labours of the Months. There, the peasants have a coiffure that by no means fits their role and social position (fig. 7), but the depiction also shows that they were not quite successful in their attempt to overturn the order of the world; their curls look rather chaotic.²¹ These Labours of the Months, therefore, show proper peasants' work done in the proper season. But parts of the outward appearance of the persons doing this work obviously do not correspond to their social status and function. In a humorous and satirical way, the pictures seem to represent the attempt of peasants to rise in the social hierarchy by changing aspects of their outward appearance. This is a *topos* that we find regularly, particularly in medieval literary sources.²² The peasants try to adopt the hairstyle of the nobility but are not really able to do so. Thus, such images or texts mediate not only humour and satire to their audience but also a moral: Look what happens to peasants who act like this; one laughs at them, so be careful that something similar does not happen to you, if you try to leave your proper place in the social order.

Late-medieval pictures also operate in a similar way with regard to specific items of dress. Amongst the most discussed pieces of clothing in the late Middle

¹⁹ See *Gotik in der Steiermark. Katalog der Landesausstellung Stift St Lambrecht* (Graz: Styria, 1978), p. 135; Jaritz, 'Young, Rich and Beautiful' (as in note 8), pp. 64–65.

²⁰ Concerning the motive of the 'world upside-down' generally, see, e.g., Hedwig Kenner, *Das Phänomen der verkehrten Welt in der griechisch-römischen Antike* (Klagenfurt: Geschichtsverein für Kärnten, 1970); Roger Chartier and Dominique Julia, 'Die verkehrte Welt', in *Die unvollendete Vergangenheit und die Macht der Welt-auslegung*, ed. by Roger Chartier (Berlin: Wagenbach, 1989), pp. 73–82; Helmut Hundsbichler, 'Im Zeichen der 'verkehrten Welt', in *Symbole des Alltags—Alltag der Symbole*, ed. by Gertrud Blaschitz, et al. (Graz: Akademische Druck- und Verlagsanstalt, 1992), pp. 555–70; Christa Grössinger, *The World Upside-Down. English Misericords* (London: Harvey Miller, 1997).

²¹ Jaritz, 'Young, Rich, and Beautiful' (as in note 8), p. 65.

²² See, e.g., Helga Schüppert, 'Der Bauer in der deutschen Literatur des Spätmittelalters', in *Bäuerliche Sachkultur des Spätmittelalters*, Sitzungsberichte der Österreichischen Akademie der Wissenschaften, phil.-hist. Klasse, 439 (Vienna: Verlag der Österreichischen Akademie der Wissenschaften, 1984), pp. 125–76; Herman Bract, 'A thing most brutish': The Image of the Rustic in Old French Literature', in *Agriculture in the Middle Ages. Technology, Practice, and Representation*, ed. by Del Sweeney (Philadelphia: University of Pennsylvania Press, 1995), pp. 191–204.



Fig. 8. 'Duke Albrecht of Austria', ink drawing, Tirol, last quarter of the fifteenth century. Vienna, Österreich. Nationalbibl., MS. s. n. 12820, fol. 40v. The pointed shoes of Duke Albrecht of Austria. © Institut für Realienkunde des Mittelalters und der frühen Neuzeit, Krems

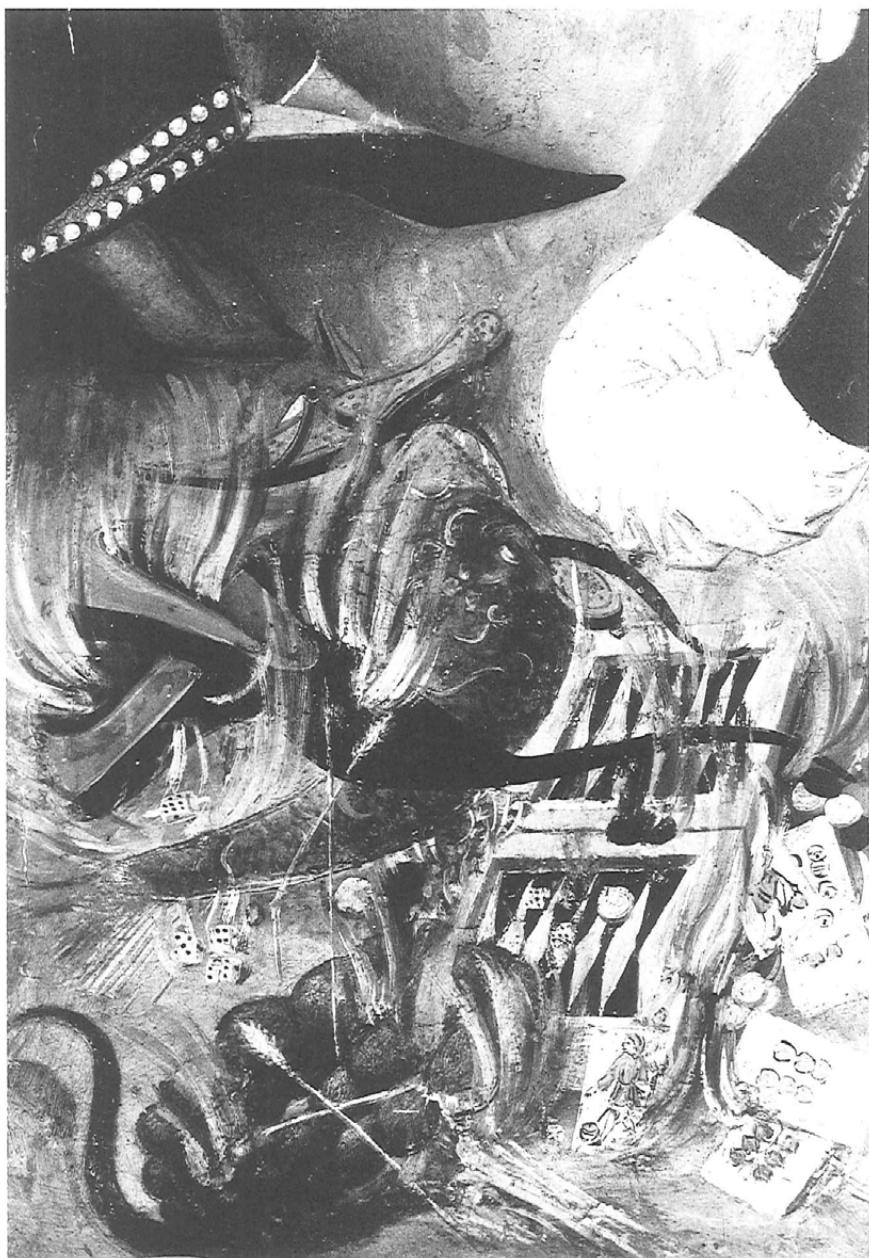


Fig. 9. 'Sermon of St John Capistran in Bamberg' (detail: Bonfire of the Vanities), panel painting, c. 1470. Bamberg (Germany), Staatsgalerie. Pointed shoes are burnt as an object of the Vanities. © Institut für Realienkunde des Mittelalters und der frühen Neuzeit, Krems

Ages were pointed shoes.²³ Throughout Europe, particularly around the mid-fourteenth and mid-fifteenth century, sumptuary laws and sermons deal with them, especially prohibiting or criticizing town-dwellers' wearing of them; chronicles regularly report problems that occur for men who use them. They are to be seen as a sign of superbia for large parts of late-medieval society. If one analyses pictorial sources from the period, one comes across a pattern similar to what we have seen when examining male hairstyles. Pointed shoes seem to have been very fashionable and legitimate for people of the upper classes, such as rulers (fig. 8) or noblemen, and again their servants (fig. 6).²⁴ All of them seem to have been allowed and privileged to wear them as a sign to show their exceptionally high status or their close connection to such persons. This clearly emerges from written as well as pictorial evidence. Conversely, pointed shoes are regularly used in images to represent negative connotations for specific lower class people, particularly persons such as tormentors of saints or other enemies of order and faith (see fig. 4). An example closer to practical life is represented in an image of the Bonfire of the Vanities initiated by a sermon of St John Capistran in Bamberg (fig. 9). Here, pointed shoes are shown as one of the objects of superbia to be destroyed.

Thus, on the one hand, a concentration on individual objects and details of the outer appearance of persons is enhanced by these new computer-supported approaches.²⁵ On the other hand, the complete and general appearance (i.e., the sum total of signs) of the individuals depicted may also be analyzed. An interesting example is again the use of the 'image of peasants' as a positive or as a negative model.²⁶ The typical legitimate working dress of peasants consists of the undyed, knee-long, coarse woollen tunic; they wear simple shoes or boots, or are barefoot. In that manner, they may be depicted publicly and didactically to

²³ As in note 9.

²⁴ Concerning obvious problems, also occurring for members of the nobility, cf. the well-known 'Berner Twingherrenstreit' in the 1470s. See Leo Zehnder, *Volkskundliches aus der älteren schweizerischen Chronistik* [Schriften der Schweizerischen Gesellschaft für Volkskunde, 60] (Basel: Krebs, and Bonn: Habelt, 1976), pp. 81–83; Gerhard Jaritz, 'Kleidung und Prestige-Konkurrenz. Unterschiedliche Identitäten in der städtischen Gesellschaft unter Normierungszwängen', *Saeculum*, 44 (1993), 16–17.

²⁵ See, generally, Gerhard Jaritz, ‘“Seiden Päntel an den Knien” oder: Die Hoffart liegt im Detail’, in *Ut populus ad historiam trahatur. Festgabe für Herwig Ebner zum 60. Geburtstag*, ed. by Gerhard Dienes, et al. (Graz: Leykam, 1988), pp. 63–74.

²⁶ This use of peasants as a positive and negative model can also occur at the same time in the same source; see Jaritz, 'The Material Culture of the Peasantry' (as in note 10), pp. 165–66; *Quellen zur Geschichte des Bauernstandes im Mittelalter*, ed. by Günther Franz [Freiherr vom Stein-Gedächtnisausgabe, 31] (Darmstadt: Wissenschaftliche Buchgesellschaft, 1974), pp. 548–52.



Fig. 10. 'Labours of the Months', month of July (detail: peasants at mowing and hay-making), wall-painting, c. 1400. Trento, Castello Buonconsiglio, Torre d'Aquila. The ideal outer appearance of a field-working peasant.
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show their positive function in medieval society (fig. 10).²⁷ The peasants are doing the right work at the right time in the right way, and they are correctly dressed. They are a positive model for the whole of society. But peasants can certainly also function as a negative model; as we have seen, they may be used as an object to demonstrate satirically, and also didactically, the wrong way of behaving. This might be the case in a representation of the Last Judgement (fig. 11). There, the sinful peasant is clearly clad in dress that certainly does not fit his work and status: doublet, hose, codpiece, and duckbill-shoes. His negative inner state is visualized by his outer appearance. The peasants, whom we mentioned before, with their chaotic curled hair, make the same point (see fig. 7). They wear doublets and hose that are pointed at the feet, again a type of dress that certainly does not belong to rural fieldwork (fig. 12). The image's

²⁷ See Nicolò Rasmussen, *The Frescoes at the Torre Aquila in Trento* (Rovereto: Manfrini, 1962); Gerhard Jaritz, 'Lebensbilder? Die mittelalterlichen Fresken aus dem Adlerturm von Trento (Trient)', in *Das andere Mittelalter. Emotionen, Rituale und Kontraste* (Krems: Kunst-Halle Krems, 1992), pp. 127–33.



Fig. 11. 'Last Judgement' (detail: the devil grips a peasant), panel painting, Schnatterpeck-workshop, first quarter of the sixteenth century. Kortsch (Südtirol), trustee church. The 'improper' peasant gripped by the devil on Judgement Day. © Institut für Realienkunde des Mittelalters und der frühen Neuzeit, Krems



Fig. 12. 'Labours of the Months', month of August (detail: one of the 'improper' field-working peasants), ink drawing, South German, 1475. Vienna, Österreich. Nationalbibliothek, MS. 3085, fol. 5". 'Improper' outer appearance of a field-working peasant. © Institut für Realienkunde des Mittelalters und der frühen Neuzeit, Krems

message can only have been meant comically and satirically and, thus, also didactically and with a moralizing intention.²⁸ They are not proper peasants any more.

²⁸ For the satirical-didactic treatment of peasants in late medieval and early modern art generally, see, e.g., Hans-Joachim Raupp, *Bauernsatiren. Entstehung und Entwicklung des bäuerlichen Genres in der deutschen und niederländischen Kunst, ca. 1470–1570* (Niederzier: Lukassen, 1986); Keith Moxey, *Peasants, Warriors and Wives. Popular Imagery in the Reformation* (Chicago: University of Chicago Press, 1989), pp. 35–66.

The 'contrasting' image messages used painted material objects and phenomena that belonged to everyday knowledge and experience in the late Middle Ages. They have been analyzed through the use of a large database of digitalized images, linked with detailed, standardized, and highly structured image descriptions. It is not the 'realities' of medieval roads, of hairstyle, of pointed shoes, or of peasants' dress that are important, but the messages intended to be mediated by these painted examples. The application of computer-supported methods to apprehend these patterns has been mentioned at the beginning of this contribution but not dealt with extensively. With the help of selected examples, this article intended rather to discuss some trends in the development of the aims of (art) historical research in dealing with the source evidence of late medieval images. An awareness of the relation among—and the context of—the images' contents, their patterns, and intended messages has started to play an important role in medieval studies. The computer-supported methods are very suitable for this type of analysis, and by using them, some of the purposes of analysis have themselves been modified and developed; comparative research into the 'texts' of image representations in a qualitative and quantitative way has increased, becoming more sophisticated and refined.

It has definitely been one of the major successes of computer-supported (image) analysis in the historical disciplines during the recent years that many scholars are now so familiar with it that it no longer seems necessary to place a strong emphasis on explaining or describing it in detail. Most of the currently available methods using computer-supported image analysis have been explored extensively; their theoretical background has often been clarified. As we have reached this point, we have become much more able to concentrate on our specific historical research interests.