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Of marks and meaning : a palaeographic, semiotic-cognitive, and comparative analysis of the identity marks from Deir el-Medina.

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UNIVERSALITY IN FORM, FUNCTION AND DERIVATION

1 FORM

a. Formal composition

In this section the commonalities and differences in the formal appearance and composition of marking systems are discussed, and we attempt to explain them. In Part I chapter 1 it was already mentioned that marks generally have a 1) pictorial or 2) linear geometric form. That is, their formal appearance is pictorial or geometric. Pictorial forms involve representations of persons, animals or objects in reality; linear geometric forms are usually called ‘abstract’ in that they are simple strokes, curves, dots, or combinations of these, which do not seem to represent anything concrete. When a society makes use of (a) linguistic writing system(s), characters borrowed from these scripts may complement the pictorial and geometric forms. The three groups together constitute the formal composition of a marking system (fig. III1-1):

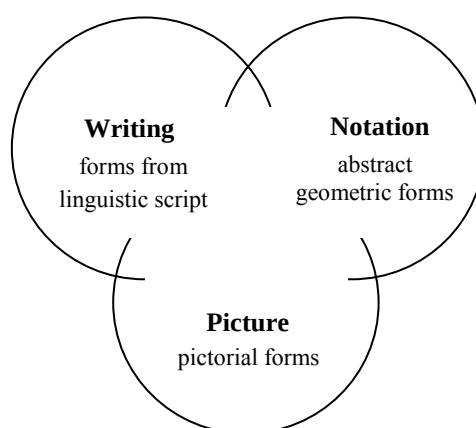


Fig. III1-1 Venn diagram of visual communication, giving a classification of the formal appearances of the marks (i.e. their signifiers). A classification of the actual nature of the marks would depend on their semiosis. Adapted from Elkins, *The Domain of Images*, 85-86.

In Parts I and II we also discussed the problems involved in such a classification and its representation in Elkins' Venn-diagram of visual communication: the diagram presents the domains ‘abstract geometric’, ‘pictorial’ and ‘forms from linguistic script’ merely as modern designations for the formal appearance of the marks, disregarding their signifieds, referents and overall semiosis. In other words, the designations ‘abstract geometric’, ‘pictorial’ and ‘forms from linguistic script’ merely serve to classify the signifiers, or representamen, of the marks as seen through modern western eyes. When we are not dealing with marking systems that belong to our culture, the signifieds and referents, and consequently the processes of signification, often remain unknown to us, especially in the case of ancient and obsolete systems. Questions such as whether ‘abstract geometric’ marks may in fact be stylized representations of objects or beings, or whether ‘pictorial’ marks also have phonetic value, and whether marks convey literal meaning

or phonetic or graphic rhetoric meaning as metaphors and metonymies can only be answered after further thorough paleographic and semiotic analysis of each individual marking system has been carried out. In paleographic analysis the scholar must take into account a discrepancy between what his or her eyes consider to be pictorial, geometric, or linguistic forms on the one hand, and what actually may have been the origin and nature of the marks in question on the other; in semiotic analysis (s)he must take into account a discrepancy between what in modern eyes initially appears to be literal or rhetoric icons, indices or symbols on the one hand, and what is ultimately the semiotic nature of marks in the system on the other. For instance, on the basis of its formal appearance, a mark **X** may be classified in the domain of ‘abstract geometric’ notation, while in fact it is a graphic variation of the linguistic sign M in Norway, a metaphorical symbol for manhood in Africa, and a stylized representation of an object such as a stool with assigned conventional or rhetoric meaning in again other systems.⁷ The classification and its accommodation in the Venn-diagram is therefore only an initial, hypothetical classification from which one could depart to further investigate the nature and function of the marks and classify them accordingly.

Unfortunately, such thorough paleographic and semiotic research is for many systems usually not obtained due to the fact that any form of speculation or hypothesis on the nature of marks and their semiosis is often hindered by a lack of knowledge and context, but also due to the fact that there has not been a phenomenological framework or model to serve a semiotic analysis of marks and their systems. Therefore, we must in this comparative analysis first of all depart from the formal appearances of marks as described in the literature, and discuss differences and commonalities in the formal composition of marking systems, involving differences and commonalities on a deeper semiotic level only where occasional notes on meaning and referents allow it.

Having said that, we find the combination of pictorial and geometric forms with forms borrowed from linguistic scripts in marking systems throughout the world. In Part I we have seen that ancient Egyptian potmarks, builders’ marks and quarry marks display all three groups of forms in all periods of usage. Even characters shared with hieroglyphic script we find from the Early Dynastic period onwards. In 18th dynasty Thebes 55 of the 111 marks in total (= 49.55%) seem to be related to hieroglyphic script at least formally, while 177 of 203 marks from dynasty 20 (= 87.19%) may be related to script in form as well as in value. In 20th dynasty Thebes we even find groups of hieroglyphs, words and phrases in hieroglyphic orthography⁸ functioning in addition to pictorial and geometric forms in a nonlinguistic marking system.

Amongst identity marks encountered on Anatolian seals from the pre-Persian period (before 547 BC), of which approximately 75 different motifs are known, 20 (=26 ⅔%) take the form of, or are clearly derived from alphabetic letters. These are mainly Aramaic letters, the language and script used for administration throughout the Persian empire.⁹ Further influence from script may be found in the mark **A**, which has been interpreted as a pseudo-cartouche. It is peculiar that none of the marks seems to derive from Anatolian scripts, especially since it has been remarked that the same practice of marking and the same forms of marks are not as frequently encountered on Persian and Greek or Cypriot style seals as

⁷ For Norway, see below; for Africa, see Mafundikwa, *Afrikan alphabets*; for the interpretation of a stool, see Part I Table I3-1 code II 001 and Part II, chapter 2.

⁸ Haring, ‘Introduction’ in Haring & Kaper (eds.), *Pictograms or Pseudo Script?*, 2-3. See also Part I.

⁹ Some of the letter-marks might pass as Greek according to Boardman, ‘Seals and Signs’ in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 158. On page 160 he rules out Elamite, Hittite and neo-Hittite as sources of inspiration and furthermore specifies Greek influence as ‘small’ with ‘few similarities’ to the Anatolian compositions.

they are on Anatolian seals; the marks on the Anatolian seals seem to be part of an Anatolian practice.¹⁰ In addition to Aramaic letters other marks seem to represent objects. Classical art historian and archaeologist Boardman gives the examples , , , and . Although he does not elucidate on which objects exactly these forms would represent, we could suggest a plant-form for  and a tool, such as a hammer or ax, for . The remainder of the marks, Boardman says, seems to have been ‘deliberately composed from a very narrow repertory of shapes – basically the circle, hook, open and closed arcs, short lines, some at angles or T-shaped, some omegas’.¹¹ Boardman explicitly notes that the marks as a group do not form any sort of alphabet or syllabary, because they are always isolated. Except for the 20 Aramaic letter-shapes the marks in general have little in common with any of the alphabets in use in southern and western Anatolia or elsewhere in the Persian empire.¹²

Inclusion of pictorial representations of objects and beings, geometric linear configurations and characters from linguistic script has also been mentioned for the marks of the nomadic clans of the Tuareg in northwest Africa (called ‘*ejwāl*’), as well as for the marks of the nomadic Mongols on the steppes of Mongolia (called ‘*tamaga*’). Clan marks in nomadic or semi-nomadic pastoral societies are primarily used to mark livestock (their most valuable property) and for that purpose are known as livestock marks.¹³ There are various ways to mark livestock, two of which are universal: marking by means of ear notches or brand marking by means of a red-hot iron. The former method offers only limited possibilities given the fact that with a knife only the edge of an animal’s ear can be cut in a pattern of straight, curved or angled lines. It is therefore the second method where we usually find the marks that are more generally used as clan marks in other contexts as well. The principal *ejwāl* used by the Tuareg of Mali (the Kel Tamachek), mainly on camels and donkeys, display pictorial or linear shapes that represent animal tracks (e.g. of a bustard, gazelle, or snail), familial objects (e.g. hammers, spoons, drums), or shapes of the night sky (full or crescent moon); others are characters from Tifinagh or Arabic script.¹⁴ The *tamaga* of the Mongols, mainly used on horses and sometimes on camels, are often pictorial or simplified linear depictions of objects, animals or parts of animals. Only objects or animals with positive value qualify for use as a mark. For instance, an Y-shaped mark represents the nasal cleft of a camel, which is ‘small in size but great in power since it leads the camel’, an animal which is afforded sacred value in Mongol culture. Another mark represents a spindle, ‘whose belly grows larger and larger’, representing a sign of fertility.¹⁵ These marks seem to attest metonymical and metaphorical thought: the Y-mark as an iconic representation of a part of the animal that conveys meaning through a metonymical relation between its form and function, ascribing the bearer of the mark a leading role or characteristic; and the spindle as iconic representation with a metaphorical aspect of accumulation. Further pictorial *tamaga* we find in the forms that are derived from religious symbols and which also occur in Buddhist astrology, representing celestial phenomena. In

¹⁰ Boardman, ‘Seals and Signs’ in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 155-157.

¹¹ *Ibid.*, 158.

¹² *Ibid.*, 158-159.

¹³ This is certainly not the only function of clan marks; they are furthermore used to mark natural phenomena such as rocks, trees, stones or wells; architecture such as door frames, pillars, walls and architraves; and certain objects and utensils. Reasons for this include the assertion of the right as first occupant to use the adjacent grazing land or the water in wells. To avoid dispute on such topics the nomads leave their mark. Landais, ‘The Marking of Livestock in Traditional Pastoral Societies’ in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 100. See also section 2 below.

¹⁴ *Ibid.*, 94. For animal tracks as indices considered to be proto-writing see Part II chapter 2, sections 2-3.

¹⁵ *Ibid.*, 95.

addition to pictorial and linear forms, the Mongol *tamaga* contain forms derived from Tibetan or classical Mongol alphabetic or ideographic scripts.¹⁶

In other marking systems we may detect a development from the use of merely two domains (pictorial and abstract geometric) in an earlier phase, to the inclusion of the third domain (forms from linguistic script) in a later stadium, often under outside pressure or due to growing influence and knowledge of script. Among the pre-colonial clan marks of the Kadiwéu Indians of south-west Brazil (Mato Grosso province), for instance, we find designs that have been described as ‘asymmetrical yet balanced’ patterns containing ‘relatively simple motifs such as spirals, S-shapes, crosses, muscles, Greek key-patterns and scrolls’¹⁷ and as ‘arbitrary combinations of conventionalized foliage, curvilinear figures, volutes and scrolls, triangles, diamond-shaped and rectilinear figures, ovals joined with V-shaped lines, bands showing bird and fishlike figures and rectilinear frets’.¹⁸ That the designs described as such are not simply interpretations by western scholars is clear from the fact that the Kadiwéu themselves gave their patterns names such as ‘diamond’, ‘spiral’, ‘circle’, ‘stair pattern’ or ‘crossed lines’.¹⁹ Several authors, among whom Lévi-Strauss, have further argued for a distinction between geometric and pictorial design styles segmented on gender lines: women would tend toward a geometrical, formal and abstract style that excluded representation and characterized decorative painting and ornamentation; men would lean toward a figurative style that usually captured wild animals, livestock (especially horses), plants, people and other figures.²⁰

The marks of the Kadiwéu people have been linked to Amazonian and Andean marking systems further north.²¹ Similarities between the Kadiwéu marks and those of the Wayúu people in northern Colombia and northwest Venezuela have not remained unnoticed.²² It has been argued that these systems were indigenous and intrinsic parts of the totemic and social structures of the clans.²³ It was only after the arrival of the Spanish and Portuguese that the marking systems began to show characters from linguistic script: the Roman alphabet. The process of alphabetization is especially visible in Brazil. The colonizers brought with them cattle, iron brands and their own marking system, which came to be used by the so-called ‘white herders’ in the south and northeast.²⁴ In the 18th century the first regulations and guidelines for mark usage were set up. Official Spanish and Portuguese mark registers were in use in the 19th century to prevent theft, provide grounds for judicial appeal and to regulate and control the movement of cattle.

¹⁶ Landais, ‘The Marking of Livestock in Traditional Pastoral Societies’ in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 95.

¹⁷ Lévi-Strauss, *Tristes Tropiques*, 187, referred to in Evans Pim, ‘Indigenous and European Marking Systems in Brazil’ in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 481.

¹⁸ Oberg referred to in Evans Pim, ‘Indigenous and European Marking Systems in Brazil’ in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 481.

¹⁹ *Ibid.*

²⁰ *Ibid.*, 481-2, referring to Ribeiro, *Kadiwéu: ensaios etnológicos sobre o saber, o azar e a beleza*, 264-266. Cf. Lévi-Strauss, *Tristes Tropiques*, 190.

²¹ Evans Pim, ‘Indigenous and European Marking Systems in Brazil’ in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 485-6.

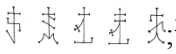
²² Lévi-Strauss & Belmont, ‘Marques de propriété dans deux tribus sud-américaines’, *L’homme* 3 no. 3 (1963), 102-108; Evans Pim, ‘Indigenous and European Marking Systems in Brazil’ in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 488-490.

²³ *Ibid.*, 489, 497-9; Gusinde, ‘Totemistische Eigentumsmarken der Guajiro-Indianer’, *Anthropos* 56 (3-4) (1961), 531-542.

²⁴ Evans Pim, ‘Indigenous and European Marking Systems in Brazil’ in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 489-9.

The first marks in these registers were mainly alphabetical monograms.²⁵ In the northeast it furthermore became common to add an alphabetical ‘parish mark’ to an owner’s mark on cattle, corresponding to the local community where the owner had his or her residence. Interestingly, however, rather than giving the initials of the names of the localities themselves many of these parish marks provided the initials of the saints to whom the localities were devoted. They are therewith symbols with double metonymic semiosis: through saint referring to locality, and through locality to owner.

The tendency to replace older pictorial and geometric designs with alphabetical ones took its most radical turn with a presidential decree (Decree No. 9452, March 20, 1912) that established a new marking system and a period of eight years to replace ‘arbitrary marks’ with those following the new governmental system. Even though this Decree never became effective due to strong resistance, the use of traditional marks decreased significantly. Most of the original Kadiwéu marks became progressively replaced by owners’ initials from the 1930s and 1940s onwards, and marks on livestock were initially simplified and reduced in size, but eventually replaced by smaller alphabetical brands.²⁶ Although a revival took place in the 1970s promoting the traditional pictorial and geometric designs in various branches of the arts (music, literature, dance, theatre, cinema, architecture, etc.), they are nowadays no longer used as identity marks.²⁷

While the Spanish and Portuguese brought to south America their alphabetic marks, contaminating with them the indigenous systems of geometric and pictorial figurative designs, a transition from predominantly geometric and pictorial masons’ marks to alphabetic initials can also be followed in Europe. Identity marks have a long history in Europe. Marks were applied onto stones used for construction already during the late Roman Empire. The practice disappeared with the fall of the Empire but returned at the end of the 11th century. Between the 12th and 16th centuries these so-called ‘masons’ or ‘lapidary’ marks, were mainly of forms that represented tools or other objects or beings (e.g. hammers, trowels, striker braids, T-squares, arrows, bows-and-arrows, fish or the Ichthus-symbol), or abstract geometric configurations (e.g. triangles, pentagrams, crosses, and many linear configurations).²⁸ Some letters do occur, in particular A, M, E and N/Z,²⁹ but in comparison to later times they are rather marginal in the marks’ corpora and one can in fact ask to what extent forms such as $\mathfrak{A}$ and $\mathfrak{M}$ can be considered to be the letters A and M when we do not know the names of the persons who used the marks.³⁰ Only from the 16th century onwards do we see two indications of a transition toward alphabetic marks. First, from approximately 1525 onwards and influenced by the introduction of Roman capital letters the marks began to be provided with serifs. Examples are ,³¹ although not alphabetic letters themselves, the marks do show influence of a trend in linguistic script. Second, more nonlinguistic marks in the 16th and 17th centuries were accompanied by initials. Professor in building history De Vries calls

²⁵ Evans Pim, ‘Indigenous and European Marking Systems in Brazil’ in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 491, 495.

²⁶ *Ibid.*, 484-5 referring to Siqueira, *Arte e técnicas Kadiwéu*.

²⁷ *Ibid.*, 485, 495-6.

²⁸ Janse & De Vries, *Werk en Merk*, 50-53, 97.

²⁹ *Ibid.*, 51 and figs. 32, 34-35.

³⁰ Compare the mark II 043 from Deir el-Medina, which is certainly not the letter M (Tables I3-1, I3-2). De Vries suggested that the marks in the form of letters were perhaps applied by the commissioning chief or master, as most workers in the 11th to 13th centuries presumably could not write. Personal communication Haring and De Vries (23-12-2011).

³¹ Janse & De Vries, *Werk en Merk*, 56-57.

such marks encountered on buildings in the Low Countries ‘typical transitional form(s)’.³² For marks on buildings in Belgium and France professor in history Van Belle also finds letters only from the 17th century onwards.³³ Both De Vries and Van Belle attribute the changes to a better and more widespread knowledge of the alphabet.³⁴

A similar transition, but much more recent, we can discern in the formal appearance and composition of familial and personal identity marks used since medieval times in small Portuguese fishermen’s communities.³⁵ The Roman alphabet was already in use in many fields of the Portuguese society since the 19th century, but it only gradually began to influence the fishermen’s marks from the 1930s onwards.³⁶ Whilst before this period most marks from, for instance, the communities of A Guarda and Póvoa de Varzim were mainly pictorial and geometric in form, including the cross, triangle, star or asterisk, the bird’s foot, hour glass, the harpoon, and various geometric configurations that resulted from a practice in which each new generation added one line to the basic family mark,³⁷ anthropologist Evans Pim concludes from ethno-archaeological research that the increase of alphabetic characters took place in two stages: initially alphabetic letters were added to the original pictorial or geometric basic mark, but eventually they completely supplanted the original mark.³⁸ Explanations for the fact that the fishing communities switched to alphabetic marks at such a late period compared to the European masons’ marks in general are twofold. First, Evans Pim suggests it should be seen in the light of resistance by the communities against ‘State individual identity standardization procedures’ set in place in the 19th century mainly for enhanced control regarding taxes and military conscription. Civil registers were initiated at this period, imposing standards on how people should be named and how they should sign.³⁹ Resistance against these standardization procedures might have come forth from a wish to preserve community tradition and identity. Second, the ultimate transition in A Guarda and Póvoa de Varzim has been linked to changes in the available and used materials and tools (e.g. from wood and cork to plastic and other synthetic materials), which led to changes in the technique of applying marks; curved marks such as many letters from the Roman alphabet became easier to execute as they could now be drawn, and no longer needed to be incised.⁴⁰

The transition to characters from the Roman alphabet not only changed the formal appearance and composition of the originally pictorial and geometric marking systems in south America and Europe; also, the increase and eventual take-over of alphabetic initials changed their entire structure and derivational systems, which eventually led to a cease in age-old traditions of inheritance and mark derivation (see

³² De Vries, ‘Signs and Symbols’ in Haring & Kaper (eds.), *Pictograms or Pseudo Script?*, 213, fig. 14.

³³ Van Belle, *Dictionnaire des Signes Lapidaires*, XIII.

³⁴ *Ibid.*; De Vries, ‘Signs and Symbols’ in Haring & Kaper (eds.), *Pictograms or Pseudo Script?*, 213.

³⁵ Evans Pim, ‘From Marks to Ogham’, *Re:marks* 1 (2013), 107-115 On page 112 Evans Pim explains that the marks, until recently found in Póvoa de Varzim and A Guarda, are nowadays only seen in the latter community. Graça had argued in 1942 that the same kind of identity marks had also been used in the fishing communities of Bouças, Baiona, Cangas and Vigo, while locals from A Guarda, questioned by Evans Pim recalled that the marks had furthermore been used in the fishing communities of Moanha, Ogrobe, Bueu and Marin, as well as in the rural areas of Goião and Portela.

³⁶ Starting in the community of Buarcos. Evans Pim, ‘From Marks to Ogham’, *Re:marks* 1 (2013), 107, 115.

³⁷ For this derivational system, see section 3 below (fig. III1-15).

³⁸ Evans Pim, ‘From Marks to Ogham’, *Re:marks* 1 (2013), 114.

³⁹ *Ibid.*, 107.

⁴⁰ *Ibid.*, 114.

section 3 below). These examples may be seen in the light of a development that Harris has called ‘The Tyranny of the Alphabet’.⁴¹

Thus, it could be said that there are two trends discerned in the formal composition of marking systems. On the one hand there are systems that draw from all three domains of visual communication – pictorial representation, geometric configuration, and forms from linguistic writing. They may place emphasis within one domain or shift emphasis from one domain to include others to a larger extent during the course of their lifetime as we have seen happening in the marking system from Deir el-Medina, but all three domains simultaneously serve as sources of inspiration. On the other hand there are marking systems that undergo a transformation to the extent that one domain gradually begins to exclude the others (fig. III1-2) and therewith affects the entire structure and system. Both the shift in the system from Deir el-Medina and the transformations of the systems in Brazil and Europe including Portugal, are a matter of increasing influence from linguistic writing on nonlinguistic visual communication. What such an increase could mean and why it could take places are questions we will return to in chapter 2.

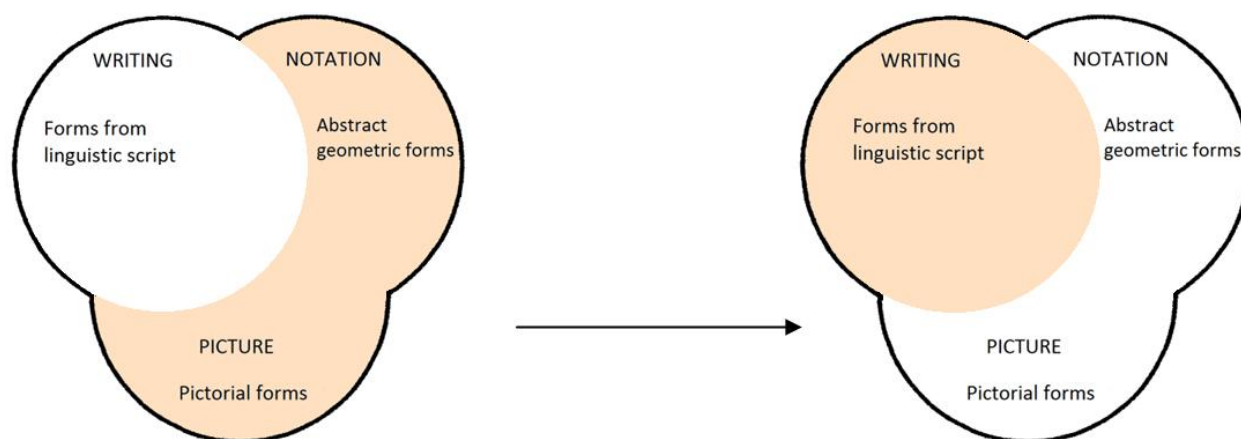


Fig. III1-2 The transformation toward the Roman alphabet in marking systems from European communities and societies (Portugal, medieval Europe) or non-European communities and societies under European influence (Brazil). The transformation is a more radical form of the shift in emphasis that was discerned in the marks from 20th dynasty Thebes (Part I chapter 1, Part II chapter 2). The figure on the right includes part of the Notational domain as monograms can become rather abstract geometric in appearance and the marks in general, although mainly characters from linguistic writing, do not behave according to linguistic rules. An example is given below (Norwegian livestock marks).

It appears that, when a nonlinguistic system of visual communication (increasingly) makes use of the domain of Writing, the marks from this domain usually retain their phonetic value to render the initials or the first syllables of the names of their owners. Examples from France and Belgium, all dated to the 17th century and later, are the following (Table III1-1):⁴²

⁴¹ Harris, *Rethinking Writing*, vii.

⁴² Van Belle, *Dictionnaire des Signes Lapidaires*, 5, 6, 13, 15, 17, 20, 25-27, 47; Van Belle, ‘The Study of Lapidary Signs’, *Re:marks* 1 (2013), 63. See also Esquieu, ‘Sur les traces des tailleurs’ in De la Roncière et al. (eds.), *Histoire et Société*, 121, 123. The latter mentions that the letter A is most frequent, and may have been used by the ‘chef de chantier qui signe par le A, première lettre de l’alphabet’.

Table III1-1 Alphabetic identity marks conveying the phonetic sounds of the owners' names

Mark	Date	Owner
B	1688	Fm. Baudry
D	17 th century	P. Derideau
Ⓛ	17 th century	J. Delalieux
BC	17 th century	J.B. Capitte
W	17 th century	P. Wincqz

AW	17 th century	A. Wincqz
B	18 th century	R. Derideau
MD	18 th century	Fm. Mondron
NL	18 th century	N. Lisse
MP/MP	18 th century	M. Paternotte
PCT	18 th century	P.C. Trigalet

We see that single letters were used as well as two or more letters following one another, but also that two letters could be fused into a monogram. While the examples of monograms in the Table still remain fairly simple, more complicated monograms are found among the identity marks used by the Lapps of present-day Kautokeino (Norway), applied onto their reindeer. Each mark conveys the initial(s) of its owner, adding to it the initial(s) of the owner's father and of the family name (in some cases the grandfather's name instead). An initial of the owner's wife could be added as well.⁴³ The marks are interesting, because the graphic variations of alphabetic letters as well as the monograms are very geometric in appearance. They show how subjective a classification of marks into classes of 'geometric forms' and 'linguistic writing' can be as modern western eyes, used to reading alphabetic script on a daily basis, may at first not even be able to recognize alphabetic letters in these seemingly geometric configurations. Consider fig. III1-3.⁴⁴ The marks consist of several initials that were usually applied to one side of the reindeer and a monogram that was applied to the animal's other side:

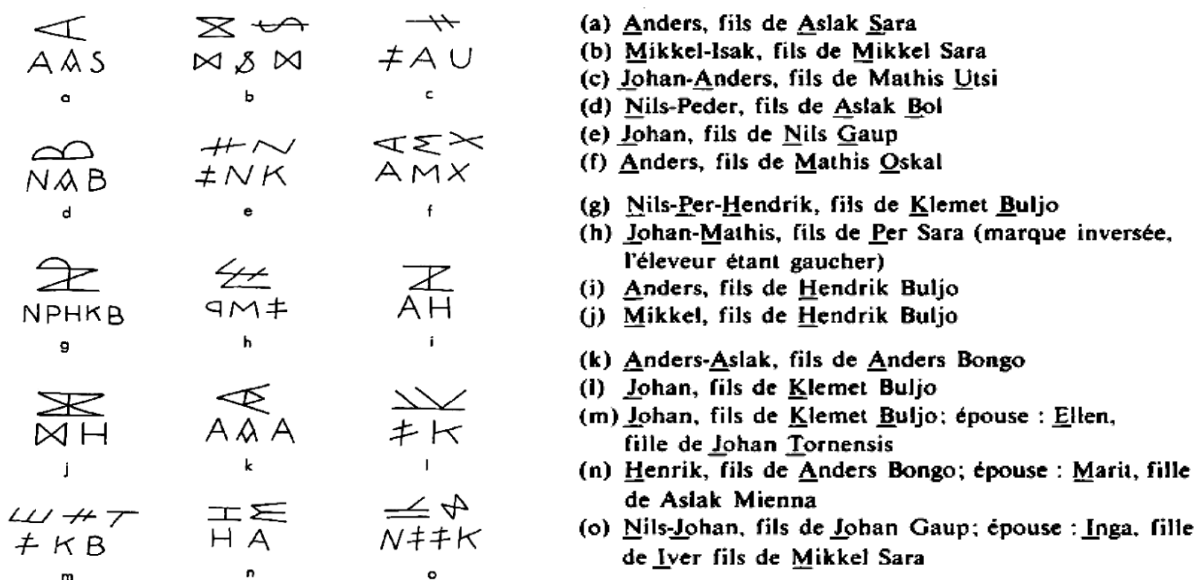


Fig. III1- 3 Livestock marks used by the Lapps of Kautokeino giving initials of names and surnames. Delaporte in *Journal d'agriculture traditionnelle et de botanique appliquée*, 34 (1987), 22.

⁴³ Delaporte, 'Le marquage du bétail chez des pasteurs lapons', *Journal d'agriculture traditionnelle et de botanique appliquée* 34 (1987), 19-23.

⁴⁴ Cf. *Ibid.*, 22 (fig. 2); Landais, 'The Marking of Livestock in Traditional Pastoral Societies' in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 83 (Fig. 1).

Six examples will be highlighted:

Mark a contains the letters **A**, **A** with graphic variation and **S**, which stand for ‘**Anders**, son of **Aslak Sara**’. The graphic variation between the two A’s serves to distinguish the two different names Anders and Aslak. On the other side of the reindeer (depicted above the initials in fig. III1-3) the letter A was applied, but turned 90° against the clock in nonlinguistic manner.

Mark b belongs to ‘**Mikkel**-Isak, son of **Mikkel Sara**’. The initials present twice the mark , which is a graphic variation of the letter M to distinguish the initial from others referring to names beginning with M (compare  for Mathis and  for Marit in other examples). Between the two marks for Mikkel is the letter S crossed by a diagonal line for the family name Sara, which may be a different family than the Sara-family in mark ‘a’ considering the graphic variation here. In nonlinguistic fashion, turned 90° against the clock, both M and S accompany the initials on the other side of the reindeer;

Mark c belongs to ‘**Johan Anders**, son of Mathis **Usi**’. Johan Anders is a compound name. In case of compound names, the owner was free to choose whether he would include both initials or only one. From comparison with other identity marks where the position of  in front of the letters A and U coincides with the name Johan it appears that this mark is in fact a graphic variation of the letter J. Both initials of the name Johan Anders are thus included, followed by the initial of the family name Usi. The letter J in its variation  turned 90° against the clock accompanies the initials on the other side of the animal.

Mark g shows the initials that refer to the name **Nils-Per-Hendrik**, son of **Klemet Bujo**. The monogram consists of N, P (missing a small part on top), and H all turned 90° against the clock and fused together into a monogram; a configuration with the initials of the son;

Mark i belongs to ‘**Anders**, son of **Hendrik Buljo**’. The monogram is a fusion of the initials A and H turned 90° against the clock.

Mark j contains the initial M which we have already seen for the name Mikkel. Here it concerns ‘**Mikkel** son of **Hendrik Buljo**’, the brother of Anders who carried mark i. The monogram is a configuration of M and H both turned 90° (whether clockwise or against the clock makes no difference as both these marks are vertically as well as horizontally symmetrical).

One may be tempted to consider marks that render initials not as nonlinguistic identity marks, but rather as abbreviations in a linguistic writing system, especially since the graphic variations refer to names and not to different individuals bearing those names. Yet, such an assumption would be incorrect. First, the graphic variations we encounter are not a part of any conventional alphabet. Second, the orientation of the marks, in contrast to alphabetic letters that function in a linguistic writing system, is not fixed. In the Norwegian monograms alphabetic letters are only graphically used to form nonlinguistic compositions that, turned 90°, do not behave according to linguistic rules.⁴⁵ Third, the full meaning of each mark, giving identity and genealogy, is contained within the composition itself, and does not depend on other surrounding marks. The marks are derived from linguistic writing, but the system as a whole remains nonlinguistic in nature.

⁴⁵ See also the letter ‘P’ in mark h, which is reversed.

In addition to the European marks from the 17th century onwards and the present-day Norwegian marks, the 20th century Portuguese fishermen marks that consist of letters of the Roman alphabet also convey the names of their owners. However, instead of first and surnames they render the initials of, or entire *nicknames*. Families and individuals in the Portuguese communities were traditionally referred to by means of nicknames, and having the marks refer to the former is, according to Evans Pim, a remnant of the resistance against the ‘State individual identity standardization procedures’ explained above.⁴⁶ The people might have lost against the invasion of the alphabet, but they would not give up their nicknames which traditionally expressed their identity. An example is the mark **TIIO**. It belongs to a man known in the community of A Guarda as ‘Tito’. He was the first of his grandfather’s descendants to adopt an alphabetic mark, and therewith leaving the family mark (fig. III1-4). However, instead of using his initials (JBRG) he rendered his nickname. ‘Tito’ is nowadays in his sixties, which shows how recent an affair the transition to alphabetic marks in the community of A Guarda is.⁴⁷

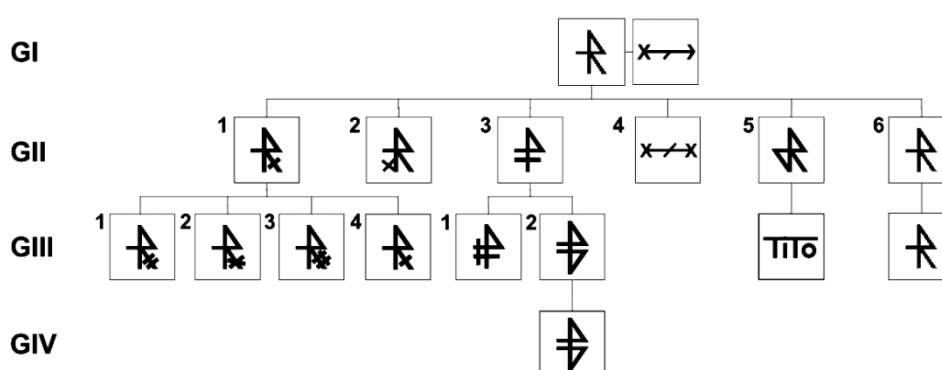


Fig. III1- 4 Geometrical family mark followed for four generations. ‘Tito’ in Generation III was the first to adopt an alphabetic mark. Evans Pim, ‘From Marks to Ogham’, *Re:marks* 1 (2013), 113 (fig. 9).

In 20th dynasty Deir el-Medina we see a greater variety in the use of marks with phonetic value than in medieval and modern Europe. Whilst we do encounter initial sounds of names and nicknames (including those of forefathers), we saw in Part II that in addition marks from the domain of Writing can give descriptions of function or place of origin, for instance in the cases of 𓂏 for a scribe, 𓂏 for a scorpion controller, 𓂏 for a doorkeeper, 𓂏 for a foreman, or 𓂏 presumably for someone from *Mn-nfr* ((nick?)named *Pz-Mn-nfr*). These metonymic and metaphoric descriptions provide the system from Deir el-Medina with its semantic creativity, which is not seen in Europe.

b. Formal analogies

Disregarding for a moment the marks derived from the Roman alphabet, it may be observed in Plate III1-1 that marks with apparently pictorial and abstract geometric forms display a surprisingly large degree of similarity, not only at regional levels but notably also on a universal scale. Some forms and features of marks are encountered on all continents, for instance Σ , $\perp$, $\cap$, $\triangle$, $\circ$ and $\diamond$. At a regional level, logical explanations for this phenomenon are cultural continuity and practices of borrowing and adoption

⁴⁶ Evans Pim, ‘From Marks to Ogham’, *Re:marks* 1 (2013), 107.

⁴⁷ *Ibid.*, 114, cf. 113 fig. 9.

of marks and entire systems from those of neighboring groups, clans, communities or societies. Looking at Plate III1-1 we see roughly four groups of systems with marks of similar formal appearance: they concentrate in 1) Europe, 2) Eurasia, 3) Africa, and 4) south America. In each of these regions borrowing and adoption (conscious or unconscious) is usually due to a shared cultural environment, for instance adherence to the same religion, remembrance of the same historical events, or usage of similar linguistic writing systems, but also to a shared geographical environment: older marks and marks of other groups, clans or communities can be seen applied onto rocks, trees, animals, objects, houses, temples or other constructions, and as such can form a source of inspiration. In Part I chapter 2 we already saw how a core set of marks appears to return again and again in various ancient Egyptian marking systems from different periods. It concerns especially $\sqcup$, $\bowtie$, $\boxplus$, $\uparrow$, $\ddagger$, $\blacksquare$, $\downarrow$, $\top$ and $\boxtimes$. They are in each case different marks in that their meaning and reference was determined in specific temporal and geographical frames (identical *forms* are not identical *marks*), but while the referents stayed behind the forms could be easily adopted from one locality, period, or context to another. Whether seen on pottery or blocks of stone scattered around constructions already in ruin, or whether known as cultural or religious symbols or characters from writing, the historical, cultural and linguistic continuum that existed throughout Egyptian history was a source of inspiration and an explanation for the recurrent selection of forms. Especially the strong symbolism of $\ddagger$, $\uparrow$ or $\blacksquare$, or the positive meaning of $\downarrow$ in Egyptian culture and religion may have caused such forms to be selected time and again; they were part of the collective memory.

A cultural continuum is also suggested with regard to the marks on early Anatolian seals and later masons' marks elsewhere in the Persian Empire.⁴⁸ The Anatolian seals display 'linear devices' which in fact are pictorial, geometric and Aramaic looking identity marks that occur in combination with Lydian inscriptions (6th to 4th centuries BC). It was explained above that Boardman considers them not to be part of a Persian Achaemenid practice, but rather a phenomenon of southwest Anatolian origin.⁴⁹ Similar mark designs from the pre- or early-Persian period have also been found principally in that region, for instance in the Belevi quarries that supplied Ephesus, on Lydian pottery from Gordion, engraved on Lycian tombs 'cut below the inscriptions as though indicating mason or scribe', and on coins from the 5th to 4th centuries BC relating to local satraps.⁵⁰ Boardman sees immediate forerunners of the designs in masons' marks encountered on blocks from Lydian constructions at Sardis dated to the 7th and 6th centuries BC, before the Persian invasion.⁵¹ While the marks would thus be of Lycian and Lydian origin they soon spread to regions further east under Persian rule. Lydian masons were employed by Darius at Susa, and at Pasargadae there is archaeological evidence for their influence and possible presence already under Cyrus. Many masons' marks have been recorded especially from the latter site, and several of them resemble the Anatolian marks.⁵² Compare, for instance, the forms $\bowtie$ vs. $\bowtie$; $\ominus$ vs. $\oplus$; $\wp$ vs. $\wp$; $\cup$ vs. $\cup$; $\S$ vs. $\S$; $\approx$ vs. $\approx$; Υ vs. Υ ; $\boxminus$ vs. $\boxminus$ in Plate III1-1. After the Achaemenid Persians the concept to use marks for identification would have continued strongly throughout the Empire: Boardman records

⁴⁸ Boardman, 'Seals and Signs' in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 153-170.

⁴⁹ *Ibid.*, 153-155, 158. Cf. Yatsenko, 'Marks of the Ancient and Early Medieval Iranian-Speaking Peoples of Iran, Eastern Europe, Transoxiana and South Siberia' in *ibid.*, 131-132, who mentions that 'The seals of the Achaemenid Empire ... more often appear not in Persi[d]a, but in western satrapies'.

⁵⁰ *Ibid.*, 132; Boardman, 'Seals and Signs' in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 159.

⁵¹ *Ibid.*, 159, 161. See also Plate III1-1. Differences between the marks from Sardis on the one hand and the early Persian seal marks on the other are assigned by Boardman to the technique of execution: the former notably show less circular forms, which are more difficult to manage with a chisel on ashlar than with a drill on a gem (p. 163).

⁵² *Ibid.*, 164.

that the marks are seen on buildings, coins and livestock from the Parthian and Sassanian Empires. Yet, while it is easy to speculate on cultural contact and practices of borrowing and adoption of marks that were put to use in various contexts, it is extremely difficult to follow any development or transmission in the culturally and politically widespread eclectic region of Sarmatia.

At a universal level formal analogies are more interesting because they are less easily explained by cultural continuity and forms of contact. A number of five explanations may be suggested. First, many marks are constructed out of the elementary forms $\square$, $\triangle$, $\circ$, $\diamond$, $—$, $|$ and $\cap$ in various orientations and combinations. These are the most simple forms perhaps universal to the human mind.⁵³ It is conspicuous that these forms are less often encountered in pure form – that is, as semantic units, or marks, *an sich* – than as constructing features in more complex forms – that is, as functional units in bigger meaningful compositions. Perhaps this says something about the feeling or need to actually *create an identity mark* for oneself or one's group. The basic forms are a set of tools by which to create a specific and proper conveyor of identity; instead of simply $\backslash$ or $\triangle$, the combinations $\times$ and $\boxtimes$ are, although simple, already combinations *specifically created* for a purpose.

A second explanation for universal formal analogies may be the origin of forms in natural and celestial phenomena or the domestic environment in which groups and communities live. Celestial phenomena such as the sun, moon and stars, and forms from nature inspired by plants, trees or flowers, but also animals, domestic and wild, and objects used daily such as pots or tools are universal sources of inspiration. The recurrence of forms such as $\star$, $\circ$,⁵⁴ $\odot$, $\oplus$, $\otimes$, $\uparrow$, $\uparrow$, $\uparrow$, $\uparrow$ ⁵⁵ and $\smile$ might be explained as such, as well as perhaps the form of the neck support Υ seen in Egypt as well as throughout Sarmatia and Mongolia.

Third, forms that represent concrete objects or beings may coincidentally be simplified to similar simple and linear forms. The clearest example is $\boxtimes$, which is seen throughout the world either as a geometric form, or as a variant of M, or as a representation of a standing man as a symbol for manhood, or as a simplified representation of some object, perhaps a stool. The form is universally called an 'hourglass' which it may have represented, although this is unlikely for Deir el-Medina or earlier Egyptian marking systems as no hourglasses are known to have been used.⁵⁶ Another example may be Υ , of which has been mentioned above that it represented the nasal cleft of a camel in Mongol culture, but which also occurs elsewhere in the world, among others as a potmark in Early Dynastic Egypt and as workman's mark in Deir el-Medina: the camel, or dromedary, was not encountered regularly in Egypt before the Graeco-Roman period.⁵⁷ The form Υ in hieroglyphic script was described as a supporting pole

⁵³ Dehaene discusses the idea that 'cultural diversity hides a restricted array of universal mental structures' (an idea put forward by Lévi-Strauss) and what the origin of these fundamental cultural features could be. One hypothesis is that they come forth from the brain circuits of the human mind in which minimal arrangements of shapes (an inventory of learnable mental forms) are triggering stimuli for more complicated constructs. Dehaene is speaking among others of religion, music, art and facial expressions, and we might now add our corpora of nonlinguistic marks. Dehaene, *Reading in the Brain*, 304-312.

⁵⁴ When interpreted as the sun.

⁵⁵ The last three as tools: arrows and hammer or ax(?).

⁵⁶ 'Absence of evidence is not evidence of absence' (Carl Sagan), but the absence of evidence among so many objects and documents known from the Theban necropolis, and the fact that we do not know a word for 'hourglass' makes it at least unlikely.

⁵⁷ That is, the dromedary was sporadically attested already in the Early Dynastic Period, but was not regularly used or domesticated until much later. It was only by the hands of foreign conquerors from the north and northeast (Assyrians, Persians, Alexander the Great) that the one-humped camel was introduced in Egypt on a greater scale, and was used as the main transport animal in the desert. See <http://www.ucl.ac.uk/museums-static/digitalegypt/foodproduction/camel.html>; Ripinsky, 'The Camel in Dynastic Egypt', *The Journal of Egyptian Archaeology* 71 (1985), 134-141.

by Alan Gardiner as it occurs as a classifier after the word *shn.t*, ‘support’, although in reversed representation 𓂏 was described as a ‘pitchfork’.⁵⁸ A third example of what may possibly be analogy on the basis of similar simplification may be seen in a remark made by professor in history and theory of culture Yatsenko. He argued that the identity marks of the Sarmatian nomadic peoples are formally analogous to those of later Turkic and Siberian peoples as well as to those of medieval German, Dacian and Caucasian peoples in the west. The forms he describes on the one hand as depictions of animals and elements of everyday reality, such as garden vegetables, trees and ladders (that is, objects and beings from the natural and domestic environment), and on the other as schematic and highly stylized depictions of animals such as goats and birds and animal bodies in profile. Cultural contact, similar sources of origin, but also stylization may all be causes for formal analogy.⁵⁹

A fourth explanation for formal analogy may be the manner of production. Marking systems from medieval Europe, Portugal and Africa, and marking systems from south America, the Eurasian continent and southern Europe in general have similar appearance, defined mainly by a curved or straight execution of marks. In Europe, a change in the use of tools can be linked to a change in the style of the marks. It has been remarked that those marks from the High Middle Ages (11th to 13th centuries), for instance in Germany, the Czech Republic or Switzerland, were generally curved in form as they were executed by means of a pointed chisel that could easily be used to make circular and curved lines.⁶⁰ In later times, especially in northern Europe, another kind of short chisels was used as a result of which the marks became composed mainly of straight lines. Curved lines after the 14th century were extremely rare in northern Europe, while they remained common in southern European marks, which were also more often drawn or scratched than chiseled.⁶¹ As such, different manners of production cause differences in the formal appearance of marking systems, and the variations that remain for straight marks mainly consist of the addition of a number of straight lines in different orientations, lengths and combinations.

The fifth explanation that could account for similar appearance of marking systems that are removed in time and space concerns precisely the addition of lines or other elements. This is the system or pattern of derivation, the manner in which marks were given slight variations when passed on to younger generations. There are certain aspects in these systems of derivation that appear to be universal. We will discuss them in more detail in section 3 below.

To summarize, although the formal analogies of marks in systems throughout the world may at first seem baffling, there are a number of logical explanations for them. Cultural continuity and contact mainly play a role at regional level, although contact also explains the use of Roman alphabetic marks in Brazil. At a universal scale, the human mind and the natural and domestic environment may have formed universal pools of inspiration from which forms or formal features were drawn. Stylization and manner of production contributed further to similar appearance. But there is one important difference between formal analogies at regional level and on a universal scale that must be kept in mind: whereas forms borrowed or adopted at regional level due to continuity or contact may share the same origin, tradition, and cultural, religious and linguistic frame, and could therefore at least in theory share similarities in

⁵⁸ Gardiner, *Egyptian Grammar*, 496, 517.

⁵⁹ Yatsenko, ‘Problems and Study Methods of the Ancient and Early Medieval Iranian-Speaking Peoples’ Nishan-signs’, Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 109-110, 117, 119-120.

⁶⁰ Janse & de Vries, *Werk en Merk*, 49.

⁶¹ *Ibid.*, 53-55.

meaning and reference as well, formal analogy on a universal scale is more often the result of coincidence, without there being a deeper meaning or relation in reference. Forms may be universal, but marks in the semiotic sense are not.

2 FUNCTION

a. Multi-purpose systems

Nonlinguistic marking systems generally serve the function of conveying identity: each mark is a concise, separate entity that refers to the person or persons who used it. Beyond this main function, however, they are *multi-purpose systems*; that is, just like linguistic writing systems can be put to use for different ends, marking systems are found in different contexts, for different aims and on different surfaces.⁶² Scholars often use a variety of terms such as ‘masons’ marks’, ‘livestock marks’ or ‘border’ or ‘territorial marks’ in order to emphasize the specific purpose of the marks they study; while all are expressions of identity, they convey identity respectively in relation to work-related production, property and territory. The differences between various purposes may be very small, and oftentimes two or more purposes overlap; yet, it is important to distinguish among the diverse purposes as they are the only distinctions that prevent us from equating marks on cattle with marks on chapel doors and temple walls, to name just some examples.

In this section we first briefly exemplify six important purposes for which marking systems are used. Thereafter we discuss the multi-purpose nature of marking systems represented in the scheme as in fig. III1-5, giving the main function of identity marks, the contexts in which they are found, and some of the main purposes for which they are encountered.

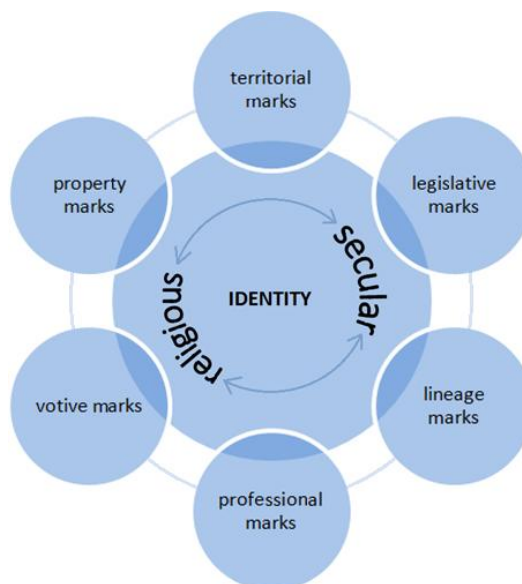


Fig. III1-5 Radial Venn-diagram accommodating the main function of marking systems (conveying identity), their contexts of use (religious and secular) and the purposes for which they are put to use.

⁶² We specifically do not use the term ‘multifunctional systems’ as has been done previously, as we believe that the universal function of identity marks is the conveyance of identity and that this main function serves different purposes in different contexts and on different surfaces.

a.1 Property marks

The most ubiquitous purpose of identity marks is the conveyance of identity in relation to ownership. Marks can be applied onto objects of various kinds, often with special value to the owner(s). In the region of Sarmatia marks were applied onto valuable items such as musical instruments, vessels and warrior's accessories; marks on Anatolian seals, in some cases accompanied by the message 'this is the mark of NN', indicated ownership of the seal and of everything onto which the seal was applied; in Gallaecia identity marks were used on a range of domestic objects such as plates, pots and chairs, as well as on tools and fishing equipment such as nets, oars, compasses and sails, and even on houses marking them as the property of those who lived there.⁶³

Especially intensive was the application of marks onto a wide range of objects in Deir el-Medina. Marks occur on a large variety of pots, bowls, jars, dishes, cups and ringstands, on bronze amphora supports, tags, jar stoppers, flints and tools, and on domestic objects such as linen, wooden combs, stools and seats, footstands and dishes of lamps, wooden neck supports and small altars.⁶⁴ Aston suggested that the marks found mainly on dishes, ringstands and storage jars in the area of the workmen's huts and the Valley of the Kings could reflect that the workmen took their own water supply with them: a storage jar with water, a ringstand on which to place the jar, and a cup to drink from. In such a communal, regimented working environment, individuals 'might have felt the need' to mark their own set.⁶⁵ This means that the use of identity marks to indicate property was first of all linked to the work in the Valley rather than to the community in the village of Deir el-Medina. However, that the marks were also intensively applied in private context from dynasty 18 onwards is apparent from the finds of marked objects in the houses inside the village as well as in tombs on grave goods.

In addition to objects, animals could be marked as property as well. Many nomadic societies from antiquity down to the present day use marks on livestock which is, after all, their most valuable property. The Tuareg mark their camels and donkeys, and in Eurasia a clan mark on cattle indicates property of the clan, while additional ear-notches indicate the care by individual families.⁶⁶ Marking the ownership of cattle by means of brand marks was practiced in ancient Egypt possibly as early as the Old Kingdom,⁶⁷ but there is secure evidence only for dynasty 18 onwards.⁶⁸ An iron brand from Thebes dated to dynasty 18 or later, now in the British Museum (EA 57321), shows a lioness head, which suggests that it was used to mark cattle that belonged to a temple of the goddess Sekhmet (fig. III1-6).⁶⁹ Two further brands come from Amarna (München ÄS 5520, BM EA 58817): the first displays the hieroglyphs *nfr* and *nh*,

⁶³ V.N. Yurjevitch referred to by Yatsenko, 'Problems and Study Methods of the Ancient and Early Medieval Iranian-Speaking Peoples' Nishan-signs' in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 110, 112 (footnote 2), 116, 123; Samashev, 'Kazakh Tamgas' in *ibid.*, 329; Boardman, 'Seals and Signs' in *ibid.*, 153; Evans Pim, 'From Marks to Ogham', *Re:marks* 1 (2013), 104.

⁶⁴ See the Database *Symbolizing Identity*. Many examples can be found under 'Objects' and filtertypes 'Domestic Objects' and 'pottery'. It is conspicuous that most of the mark-specimens on pots and domestic objects date to dynasty 18 (78,79%). This is mainly due to a large find of linen from the tomb of Kha (TT8) bearing his mark. The largest variety of objects with marks we find in dynasties 19 and 20.

⁶⁵ Aston (David), 'Theban Potmarks' in Haring & Kaper (eds.), *Pictograms or Pseudo Script?*, 54, 58. See also Part I chapter 2.

⁶⁶ Landais, 'The Marking of Livestock in Traditional Pastoral Societies' in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 90; Yatsenko, 'Problems and Study Methods of the Ancient and Early Medieval Iranian-Speaking Peoples' Nishan-signs' in *ibid.*, 112 (footnote 2).

⁶⁷ Müller, *Der Waffenfund von Balâta-Sichem und Die Sichelschwerter*, 76 and footnote 14; Klebs, *Die Reliefs und Malereien des neuen Reiches* I, 69.

⁶⁸ Stead, *Egyptian Life*, 32 (fig. 43); Vandier, *Manuel* V, 280; Müller, *Der Waffenfund von Balâta-Sichem und Die Sichelschwerter*, 72-77; Klebs, *Die Reliefs und Malereien des neuen Reiches* I, 69-70.

⁶⁹ http://www.britishmuseum.org/explore/highlights/highlight_objects/aes/b/bronze_branding_iron.aspx; Stead, *Egyptian Life* (1986), 32 (fig. 43).

according to Müller for ‘junges, lebendes (Vieh)’, and the second shows cow-horns.⁷⁰ The marking of cattle is also depicted in several New Kingdom tombs, for instance in the tomb of Paheri in Elkab and the tombs of Nebamun, Weserhat and Kenamun in the Theban Necropolis. Although Vandier remarks that in the case of Paheri ‘il est possible que ce soit son propre bétail qu’il ait fait marquer au fer rouge’ the branding usually concerned herds belonging to the king or to a temple, ‘in Pacht gegeben’ to officials.⁷¹ Vandier suggests that the animals depicted in the tomb of Nebamun bear ‘la marque de propriété d’Amon’ as Nebamun says to his scribe Djehutynefer ‘Do not turn the back on the cattle of Amun, our lord’.⁷² It is conspicuous that the workmen from Deir el-Medina did not use their identity marks on animals, especially on donkeys. That they could in fact possess one or more donkeys which they rented to members of the *smd.t*-personnel, who used the animals to bring water from the Nile Valley up to the village, is clear from ostraca that record ‘contracts’ with details such as when, how long and for what price donkeys were rented out. These records themselves lack many details, such as information on the exact animal that was rented.⁷³ Usually the only mention of the donkey is the phrase *p3 3* (‘the donkey’) without further specification. It would be conceivable that a donkey owner marked his animal(s) with his personal mark on the basis of which he could identify the donkey(s) as his property in the theoretically possible case that the animal(s) would be lost, stolen or resold to a third party. Such marks would ideally also be recorded in the contract to serve an anti-theft purpose (see *a.3 Legislative marks* below). In this context, it is interesting to mention that the Baxtyâri nomads of Iran make use of livestock marks that do not convey the identity of the owner, but are rather a kind of summary of the features of each individual animal in the flock. These marks function within a system for tracking lost or stolen animals that calls upon networks of solidarity based on clan alliances and customary rules for settling disputes. In the case that a lost or stolen animal is found with another herd, the original owner is expected to give a comprehensive description of the animal, which can be checked against the mark.⁷⁴ As such, the marks do not directly refer to the owner, but they still function to identify property. In Deir el-Medina, however, there is no textual or archaeological evidence to support the practice of marking donkeys, and the only brand marks known seem to refer to the property of higher instances rather than to individual ownership (fig. III1-7).



Fig. III1-6 Bronze branding iron for marking cattle. Perhaps from Thebes, dynasty 18 or later. BM EA 57321.⁷⁵



Fig. III1-7 Sacrificial bull procession in the Great Court of Ramesses II, Temple of Luxor. Photograph: Dirk Huyge (KMG-MRAH).

⁷⁰ Müller, *Der Waffenfund von Balâta-Sichem und Die Sichelschwerter*, 74-75.

⁷¹ Vandier, *Manuel V*, 280-281; Klebs, *Die Reliefs und Malereien des neuen Reiches I*, 69.

⁷² Vandier, *Manuel V*, 281; Davies, *The Tombs of Two Officials* (TTS 3), 32.

⁷³ Van der Moezel, ‘Donkey-Transactions’ in Haring, Kaper & van Walsem (eds.), *The Workman’s Progress*, 157-174.

⁷⁴ Landais, ‘The Marking of Livestock in Traditional Pastoral Societies’ in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 102-103.

⁷⁵ http://www.britishmuseum.org/explore/highlights/highlight_objects/aes/b/bronze_branding_iron.aspx.

a.2 Territorial, or border marks

Closely related to the purpose of marking property is the purpose of marking the borders of one's territory, or marking one's presence in a certain territory. As such, identity marks can be seen on trees, wooden posts, sticks, stones, wells or other natural and man-made phenomena.⁷⁶ On the one hand, they may be an expression to note that 'X was here', as in the numerous graffiti people in the past and present have left behind. An example are the numerous marks in graffiti throughout the Theban Mountains dating mainly to the 19th and 20th dynasties. By leaving such marks, one makes the territory part of his personal experience. On the other hand, territorial marks have as their specific purpose the demarcation of territory belonging to families, clans, tribes, communities or societies. In nomadic societies, such demarcation provides the right of first usage, for instance to use the water in a well, to let the cattle pasture, or to harvest crops. But demarcation also implies the responsibility to manage the resources, not only for the first occupants, but also for those who will subsequently use the land. Demarcation, then, serves to avoid disputes in a form of society that is mainly oral in nature and makes no use of written contracts. The system is accepted by all tribes and creates a hierarchy that gives the first tribe to mark a territory *legitimacy* over it.⁷⁷ With legitimacy we arrive at a third purpose of identity marks: legislative marks.

a.3 Legislative marks

Identity marks can have legislative and binding value in judicial and administrative matters. They can be a legislative measure that, with the potential to be used in court, can ensure accountability. The marks imply certain rights and obligations upon which the users of the system have agreed; their acknowledgement makes the marks valid evidence. Thus, they can serve as anti-theft devices. This is often the prime purpose of marking livestock. The marks turn theft into a far more risky process and are the only means to justifiably get lost or stolen animals back. In Mongol culture, where marks protect herds from raiding and theft, it is therefore forbidden to freely change a mark or to randomly choose a new one; this is only allowed when approved and registered by a local chieftain. To falsify a mark is considered a crime.⁷⁸ In south America administrative registers with records of all the marks used by herders were initiated in the 19th century 'to prevent theft and to provide grounds for judicial appeal'.⁷⁹ Similarly, marks used by the Norwegian reindeer herders are officially recorded by the administration of Norway and can be used as evidence in court.⁸⁰ Valuable objects as well could be marked specifically with the aim of providing them with a measure against theft. Van Belle notes that the marks on stones meant for construction in 18th century Belgium provided the stone-suppliers of quarries with such a security measure.⁸¹

Marks could also be used as legal and binding evidence in contracts, treaties, alliances, pacts and bonds. Such agreements may be oral and the contracts and treaties unwritten, being symbolized only by

⁷⁶ Evans Pim, 'From Marks to Ogham', *Re:marks* 1 (2013), 101, 104. Marks that occur on trees in communal forests do not necessarily serve to demarcate territory in a literal sense. Rather, they can simply mark specific trees as the property of an individual or a family.

⁷⁷ Landais, 'The Marking of Livestock in Traditional Pastoral Societies' in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 100-101.

⁷⁸ *Ibid.*, 101-105.

⁷⁹ Evans Pim, 'Indigenous and European Marking Systems in Brazil', in *ibid.*, 491.

⁸⁰ Landais, 'The Marking of Livestock in Traditional Pastoral Societies' in *ibid.*, 105; Delaporte, 'Le Marquage du Bétail chez des Pasteurs Lapons', *Journal d'agriculture traditionnelle et de botanique appliquée* 34 (1987), 19. Note, however, that Delaporte speaks only of the incised earmarks having been endowed with juridical value; apparently, the brand marks 'n'ont que peu d'existence aux yeux des lois norvégiennes'.

⁸¹ Van Belle, 'The Study of Lapidary Signs', *Re:marks* 1 (2013), 63.

the recording of two or three marks which represent different parties. Such accumulations of marks can be encountered especially on objects such as (ritual) vessels, rocks or buildings, and monuments of important or religious nature. They may concern war treaties, contracts on territory (in which case the marks can simultaneously serve as border marks), marriage bonds, collective oaths or unifications. Sworn brotherhood between two (or more) groups is often implicit. Amongst the Arab nomads in western Chad (Kanem region) marks are used in a pact known as *sirr*: an alliance between two parties to keep each other informed on the state of the wells and pastures in the region, as well as of the movements of neighboring peoples. Mutual assistance is compulsory in times of trouble. The parties of a *sirr* exchange their marks and make communal use of them. As such, they signify themselves as one.⁸² The pact connects rights and obligations to this new collective identity.

Marks can also have legislative value in linguistically written documents. As such, they function as nonlinguistic equivalents to linguistically written names or signatures. In the light of the traditional western focus on the alphabet as the superior system of visual communication it is interesting to see this combination in documents with legal status. We clearly see the use of personal identity marks in written contracts in late medieval Europe. According to Van Belle marks could accompany a stonemason's name or completely replace it.⁸³ The latter we see in a document dated to January 14, 1538, which contracts the Flemish building master Simon Pinet for Our Lady's Tower lantern in Zwolle (the Low Countries). Pinet signed with his mark because 'he could not write very well'.⁸⁴ Six months later Simon Pinet, however, disappeared, leaving the work only half finished. The remaining workmen signed a new contract with the church wardens (fig. III1-8), three of whom signed with their name, while thirteen others signed with their mark because they were 'not able to write'.⁸⁵ Another example, dated two years earlier, is a bargain for purchase of stone from England, which has three masons' marks on it (fig. III1-9).⁸⁶ Also interesting is the mark of the master mason Thomas Crump on a seal, which was attached to a contract dated to 1381, related to the construction of a gatehouse at Cooling Castle, Kent (fig. III1-10).



Fig. III1-8 Building account of Our Lady's Church Zwolle, 1538. De Vries, 'Signs and Symbols' in Haring & Kaper (eds.), *Pictograms or Pseudo Script?*, 217 (fig. 13).

⁸² Landais, 'The Marking of Livestock in Traditional Pastoral Societies' in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 92.

⁸³ Van Belle, 'The Study of Lapidary Signs', *Re:marks* 1 (2013), 63-64.

⁸⁴ De Vries, 'Signs and Symbols' in Haring & Kaper (eds.), *Pictograms or Pseudo Script?*, 212-213.

⁸⁵ 'een deel hoer marck die niet scriven conden'. *Ibid.*, 213.

⁸⁶ Saltzman, *Building in England Down to 1540*, Plate II.

The use of marks in a system of administrative control is seen in Egypt since Early Dynastic Times. The use of potmarks in a regional network of (re)distribution in dynasties 0-1, and the use of builders' marks in the administration of construction projects in the Old and Middle Kingdoms were mentioned in Part I, chapter 2. The latter were also included in hieratic records concerning the work and the workmen on papyri, found in archives such as at Kahun. In Deir el-Medina we see the identity marks, especially in dynasties 18 and 19, accompanied by dots and strokes, which may reflect a system of control, although not combined with any form of linguistic script. In dynasty 20, however, we find marks ostraca that are similar in structure to documents written in hieratic, usually to be interpreted in entries from right to left, conform hieratic writing. These ostraca record (partially) the same information as the hieratic rosters that record the daily duty of the workmen. They functioned in addition to writing, but the marks also merged with elements of writing. In Part I, chapter 1, examples were given of 20th dynasty ostraca which show the hands of scribes who were familiar with hieratic script, as their marks show a clear hieratic ductus. The exact extent to which the documents with marks were equal to hieratic documents as 'official administration', that is, their value in relation to hieratic documentation to the government in Thebes, remains, however, not satisfactorily known.

a.4 Professional marks

Identity marks can be used specifically in relation to work and work production. As such, they are often designated as 'builders', 'masons', 'quarry, or 'sculptors' marks', '*marques de tâcheron*' (relating to the profession), or as '*marques de carrière*' or '*marques d'appareillage*' (relating to the place of work respectively the use of the marks). Yet, all designations are defective, or 'falsely generic, because they designate a broad phenomenon by a single one of its categories.'⁸⁹ In many cases, details on the functioning of the marks in the practice of daily life at the building sites are obscure. Thus, it is often unclear whether the marks refer to individuals or to teams, to which phase of the construction they relate, or to what extent we may discern different socio-professional groups of workers being referred to, such as quarrymen, masons, unskilled laborers and more specialized craftsmen.⁹⁰

Several hypotheses about the users and user context of identity marks as relating to work and production have followed from elaborate research conducted in the field of medieval Europe.⁹¹ These hypotheses are not mutually exclusive as the medieval European marks did not form one marking system, but rather various marking systems valid in the context of specific building projects. Whether they referred to individuals or groups and to which phase of the construction they were related may have varied from country to country, region to region, even from city to city. Thus, the following users and user contexts are all possible. First, the marks on blocks of stone and in written documentation can refer to individual masons and are thought to identify them in relation to the amount and quality of their work. This information would have been used for control on quality, and potentially also for payment, although not necessarily: the documentation on the construction of the cathedral of Utrecht (the Low Countries) shows that the masons, who applied their mark on almost every block of stone, were paid by the day, and not by piece.⁹² Second, there are marks that appear to be related to certain specific masters and which

⁸⁹ Reveyron, '*Marques lapidaires: the state of the question*', *Gesta* 42 no. 2 (2003), 161-162.

⁹⁰ For uncertainties in this respect with regard to masons' and sculptors' marks in Anatolia and the Persian Empire, see Boardman, 'Seals and Signs' in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 161-165.

⁹¹ Based on the classification by Van Belle, *Dictionnaire des Signes Lapidaires*, xi-xii. See also Reveyron, '*Marques lapidaires: the state of the question*', *Gesta* 42 no. 2 (2003), 161-170.

⁹² Janse & De Vries, *Werk en Merk*, 49-501; Salzman, *Building in England down to 1540*, 127.

were used by them as well as by their apprentices. In their book *English medieval industries* (1991), professor of medieval history and archaeology Blair and medievalist Ramsay remark that ‘Only a master craftsman would have a mark: it would be applied to all the products of his ship, whether made by him or his apprentices...’.⁹³ This may have been the practice in other fields outside masonry and construction as well; Janse and De Vries mention that many guilds were organized according to a control system based on the master masons’ marks.⁹⁴ Third, there are the so-called ‘quarry marks’. In Part I, chapter 2, we have referred to the ambiguity of this term: it refers merely to the place where the stone was cut, while the marks may have had different aims and potentially referred to different (groups of) people. Some quarry marks should indeed be categorized as identity marks of individual quarrymen, or teams of quarrymen, but others functioned rather in relation to the height of a bedding in the quarry,⁹⁵ or the quality of a block or layer of stone. The medievalist Salzman has studied the relation between quarries and building projects in England down to 1540, but details about the actual work done inside the quarry remain obscure. The preliminary extraction of the blocks (effected with heavy mallets and iron wedges) was regarded as unskilled or the lowest type of skilled labor, as is apparent from the rates of pay. The next step was to reduce the blocks further by splitting and sawing them to the required dimensions. The final tooling might be performed at the quarry, or in the masons’ lodge on the building site. It has been argued that the blocks were marked *before* they left the quarry.⁹⁶ Different groups or ranks of quarrymen could have been responsible for that. A document related to the building of Vale Royal Abbey in 1278 mentions at least three groups of masons: one consisting of *cementarii*, who cut, prepared and worked the blocks of stone; one consisting of *quariatores*, ‘ordinary quarriers and strikers with great hammers and men serving the masters’; and ‘labourers with spades and hoes clearing (the earth) in various quarries’.⁹⁷ The difference between *cementarii* and *quariatores* is not entirely clear, but it appears that the *cementarii* were temporarily contracted workers, who were paid by contract, while the *quariatores* were more permanent employees and were paid by the day. Salzman mentioned that marks on medieval construction sites usually appear on quite a small proportion of merely the plain stones of a building. This, he argued, could suggest that the marks related only to the temporary men who were on piece work, or possibly to the casual laborers who were not known to the master and whose work it was therefore more desirable to check.⁹⁸

A fourth hypothesis on the interpretation of marks is based on a text cited by Salzmann, dated to 1442 and relating to Gloucester Castle. The text suggests that a mason (or a master mason?) could go to the quarries to check the quality of the stone, marking the ones he approved of: ‘*Wages of John Hobbys, riding to the quarry of Upton and the quarry of Freme to pick out and prove good stones from the bad stones ... and marking (signand) and scappling and proving the stones so picked out...*’.⁹⁹ A similar text is known from Zwolle (the Low Countries), which recounts that the mason(?) Willem Coertsz marked, and therewith reserved certain blocks of stone from a seller.¹⁰⁰ In both cases, the marks were applied in

⁹³ Blair & Ramsay (eds.), *English medieval industries*, xxvi. See also the remark by Janse & De Vries about the time when a mason would receive or at least start using his own mark: at the moment he had become a companion. Janse & De Vries, *Werk en Merk*, 49.

⁹⁴ *Ibid.*, 50. Cf. the remark on merchants’ marks in Ward et al., *The Ring from Antiquity to the Twentieth Century*, 57.

⁹⁵ Reveyron, ‘*Marques lapidaires: the state of the question*’, *Gesta* 42 no. 2 (2003), 164.

⁹⁶ *Ibid.*.

⁹⁷ Salzman, *Building in England down to 1540*, 126.

⁹⁸ *Ibid.*, 127.

⁹⁹ *Ibid.*, 126.

¹⁰⁰ Janse & De Vries, *Werk en Merk*, 51.

the quarry or at least before they reached the construction site, and they related to the quality of the stone. But instead of conveying the identity of the quarrymen, they conveyed the identity of the mason who came by for selection. A fifth and final hypothesis also concerns the quality of blocks that came from the quarry. Salzman notes that quarrying in England was a regular trade, and in certain districts there must have been a fairly continuous demand for stone.¹⁰¹ The marks, applied at the quarry, served to identify certain lots of stones that had arrived from certain quarries.¹⁰² The building master on site could check the quality of the lots, and if he was satisfied with the quality of one specific lot, the marks would tell him from which quarry it came or which quarryman or quarrymen were responsible for it; he could order more. Such control implies traceability, and the marks therewith served a purpose of advertisement on the building site. As such, they could become trademarks, as apparently also happened in other guilds: De Vries shows the proud display of a house brand for beer and honey in the form of an identity mark.¹⁰³

On the level of the individual, a similar development led to the use of identity marks as artists' signatures, used specifically to link an aesthetically pleasurable or high quality work to the specialized craftsman who produced it. Among the masons' and quarry marks, however, such a purpose seems to have been rare. Janse & De Vries mention that a feeling of professional pride may have led some masons to apply a mark to their work, but it is conspicuous that marks generally seldom appear on tracery or carved stones, most of which would be worked by masters. Perhaps the responsible masters would have been easily identified on the basis of style alone.¹⁰⁴ In the merchants' guild we do see a gradual development of the marks toward a trademark or signature that reassured buyers the goods had come from a reputable source: the merchants' marks came to link a merchant as an accountable person to the goods he sold. During the 15th and 16th centuries some merchants became so proud of their marks that they started using them as coats of arms, representing them on their merchants' rings and other belongings.¹⁰⁵ With this growing importance of marks as trademarks in the economy and society came a growing practice of forgery, and laws needed to be installed concerning the selection and use of marks. Guilds ordained that new marks had to be approved, and were assigned to an individual by his craft. Alternations in one's mark were not allowed unless approved by the whole craft.¹⁰⁶

In Part I, chapter 2, the function of artists' marks was dismissed with regard to potmarks from Egypt and Nubia; there are too few distinctions among them and the pattern of marking vessels is irregular. Moreover, the marks were used over long periods of time, longer than the lifetime of an artist. In Deir el-Medina, however, we may find the conveyance of artists' identities by means of marks on the so-called furniture ostraca (fig. III1-12).

¹⁰¹ Salzman, *Building in England down to 1540*, 121.

¹⁰² See also Reveyron, 'Marques lapidaires: the state of the question', *Gesta* 42 no. 2 (2003), 164.

¹⁰³ De Vries, 'Signs and Symbols' in Haring & Kaper (eds.), *Pictograms or Pseudo Script?*, 212, 217 (fig. 12).

¹⁰⁴ Salzman, *Building in England down to 1540* (1967), 127; Janse & De Vries, *Werk en Merk*, 51, 57, 97. Also personal communication with De Vries, and personal communication between Haring and De Vries (23-12-2011).

¹⁰⁵ Blair & Ramsay, *English medieval industries*, xxv-xxvi; Ward et al., *The Ring from Antiquity to the Twentieth Century*, 57, 71, 77-70.

¹⁰⁶ Salzman, *Building in England down to 1540*, 127. See also Van Belle, *Dictionnaire des Signes Lapidaires*, XV.



Fig. III1-12 O.Florence 2628 (left) and O.München 398 (right) showing pieces of furniture accompanied by marks.

The identity marks accompany pieces of furniture such as beds, chairs, and chests, and presumably indicate craftsmanship or at least a relation of some sort between the furniture and the workmen indicated through the marks.¹⁰⁷ That they are not ownership marks may be assumed from the fact that one piece of furniture can be accompanied by up to three marks, which may indicate piecework or cooperation of specialists. We do not suggest to interpret the marks on the furniture ostraca in the same context as the marking of the workmen's presence and *wrš*-duties on the marks ostraca in general, as the former concern special work on demand for which the skills of the workmen may have been specifically required. It could have been a way of making an extra income not as workmen of the crew, but as craftsmen in their own right.¹⁰⁸

a.5 Lineage marks

Identity marks often contain information that connects an individual to particular family lines. As such, they are encountered on tombstones in different societies throughout history. In both medieval Europe and Sarmatia personal or family marks could be used on tombstones as replacement for the image or name of the deceased.¹⁰⁹ In Gallaecia as well, identity marks are encountered in great numbers on tombstones. Among the more than 500 examples at the Santa-Maria à Noia cemetery in Noia are what Evans Pim calls 'heraldic marks', which indicate descent from a specific family. Some tombstones even seem to have been reused by subsequent generations.¹¹⁰

In the world of the living identity marks have an important status related to lineage as well. For the Kazakhs they are primary distinguishing signs for external presentation of different clans and tribes. A Kazakh legend tells of a man of the Jalayir tribe, named Birmanak, who was captured by another Kazakh tribe in the course of a conflict. While he lived among his captors he married a woman from their tribe, who bore him two sons. He instructed his sons to look for his original tribe after he would die, and told them that they would recognize it by its mark in the shape of a comb. The sons did as they were told. They left after Birmanak had died and after long wandering came across horses bearing the sign he had described. After listening to their story, the elders of the Jalayir tribe approved the rights of the sons and adopted them as their own children.¹¹¹ The legend is illustrative of the important role played by marks in matters concerning paternal lineage.

¹⁰⁷ For the furniture ostraca, see also Killen & Weiss, 'Markings on Objects of Daily Use' in Andrassy, Budka & Kammerzell (eds.), *Non-Textual Marking Systems*, 137-158.

¹⁰⁸ Lesko, *Pharaoh's Workers*, 12.

¹⁰⁹ Yatsenko, 'Problems and Study Methods of the Ancient and Early Medieval Iranian-Speaking Peoples' Nishan-Signs' in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 113; Janse & De Vries, *Werk en Merk*, 48.

¹¹⁰ Evans Pim, 'From Marks to Ogham', *Re:marks* 1 (2013), 102.

¹¹¹ Samashev, 'Kazakh Tamgas' in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 329.

Nomadic societies generally embed the use of marks into a complicated system of stratification. These societies are usually segmented according to lineage structures including various clans, tribes, nuclear families and several sub-units and lineage segments for which English has no nomenclature. The political function of these societies is based on a dynamic equilibrium between structurally equivalent units, which prevents the emergence of chieftainships with broader powers. This structure favors the dispersion of lineage segments, which is a means of both optimizing the exploitation of pastoral land and of minimizing food, health, and political risks. Identity marks represent the different clans, tribes and other segments. A person's social and political status in such a society, which is important among others in relation to first usage of land or resources, is reflected in his mark, the meaning of which depends on rules governing inter-generational and inter-group transmission. The core of the marks used by all segments of society is usually a clan mark. Those marks are transmitted unaltered from generation to generation. Segments within a clan are further distinguished by minor details or features added to the clan mark. This system is seen, for instance, among the clans of Mongolia. Mongol marks present detailed information about an individual: the clan to which he belongs is indicated by a primary mark, while his paternal line, his position in the eldest or youngest branch of the family, his status as nobleman, commoner or slave and his religious or lay status is expressed by means of a series of complementary marks that are combined with the primary clan mark. These complementary marks have both syntagmatic and paradigmatic semantic properties. For example, the selection of the mark that represents a 'throne' (𐎢) indicates that the owner descends from the eldest branch of his lineage, 'since this line is the one that inherits the images of the spirits of the ancestors that sit on the throne.' When it is in syntagmatic relation with the main mark positioned to the latter's right it furthermore denotes primogeniture, as opposed to a relation in which it would be located to the main mark's left side.¹¹²

The reason behind expressing one's lineage is usually related to expressing one's status within society, which is of most interest to those of royal or noble descent. In southern Brazil marks are clearly related to the highest ranks in society. After the Spanish and Portuguese conquests, the Kadiwéu Indian society was stratified into three ranks: captains (*capitães*), warriors (*soldados*) and captives from other ethnic groups (*cativos*). These ranks did not have great impact in the relatively egalitarian social relations, but symbolically they are reflected in the use of identity marks especially during ceremonies and feasts: marks were the exclusive right of the captains and their families, who used them on their personal belongings but also tattooed them on their bodies. Warriors were entitled to adopt special names and use a special artificial language (formed by the addition of a suffix to each word), but it is unclear whether they were allowed to bear their own mark. Captives did not have marks. They were, however, most numerous in society, which turned mark usage into a privilege and distinctive lineage affirmation of only a small group of 'true' Kadiwéu. They were marks of nobility and social hierarchy, even more than names: it has been remarked that at the death of a relative the family members, particularly close descendants, would change their names while the family mark was retained. This turned the mark into the element of continuation that identifies and positions an individual within the collective regardless of name changes throughout his lifetime.¹¹³

¹¹² For mark derivation in more detail, see section 3.

¹¹³ Evans Pim, 'Indigenous and European Marking Systems in Brazil' in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 477-478, 480, 482, 484. This practice was still observed in 1948.

a.6 Religious marks

The last purpose of identity marks to be mentioned here is their usage in the context of religion, as votive, pilgrims', or prophylactic marks. On the pavement of the Hathor temple from the reign of Ramesses II in Deir el-Medina we find at least 17 different workmen's identity marks along with names in hieroglyphic writing (fig. III1-13). Both the names and the marks are presumably votive inscriptions, which were made with the aim of acquainting a deity with the identity of the dedicator who appeals, for instance, protection or fertility.¹¹⁴

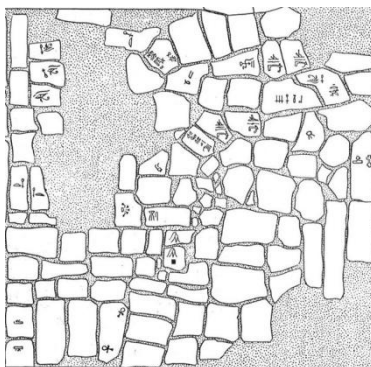


Fig. III1-13 Votive marks on the pavement of the Hathor temple at Deir el-Medina. Bruyère, *Rap.* 35-40, fasc. II pl. IX

Gallaecian marks were also used in religious context. They were left on church or chapel doors after votive processions or pilgrimages. The doors of the chapel at Santa Tegra, A Guarda, are covered with marks, as are those of the chapel of Senhora da Bonança at Póvoa de Varzim (figs. III1-14 and 15). They were also made on church alms boxes and played an important role in weddings when the mark of the newly wedded man would be made in the church vestry.¹¹⁵

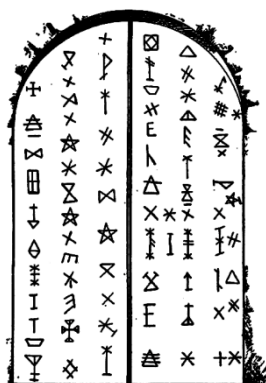


Fig. III1-14 Votive and pilgrims' marks on the chapel at Santa Tegra, A Guarda. Evans Pim, 'From Marks to Ogham', *Re:marks* 1 (2013), 110 (fig. 9).



Fig. III1-15 Votive and pilgrims' marks at the doors of the Senhora da Bonança chapel at Póvoa de Varzim.¹¹⁶

In constructions from medieval Europe masons' marks are sometimes encountered on prominent places, very highly placed or very visible even after the walls were finished with stucco and paint. It has been suggested that these marks were placed with a votive purpose showing, for instance, participation of a mason on the construction of a church to God and the people on earth. Especially signs in the forms of

¹¹⁴ Cf. Luiselli, 'Personal Piety in Ancient Egypt', *Religion Compass* 8 (2014), 105-116.

¹¹⁵ Evans Pim, 'From Marks to Ogham', *Re:marks* 1 (2013), 110-111.

¹¹⁶ Photo from: http://www.geocaching.com/geocache/GC11CP6_siglas-poveiras-senhora-da-bonanca?guid=593fd538-784a-4c4e-af94-c7686a6e37ee.

alpha and omega, a fusion of P and X (the monogram chi-rho for 'Christus' sometimes combined with P and A for 'pax') and crosses may be considered votive references.¹¹⁷ Votive purposes of marks may also be seen on accumulations of several marks on one block of stone; Janse & De Vries provide two examples from the St. Johanneskirche in Neumarkt and the Our Lady's Church in Kampen (the Low Countries) in which the mark of a master mason is surrounded by marks of companions. Since these accumulations deviate from normal practice they may concern a special purpose of relating the team of workers and their master mason to the religious institution.¹¹⁸

In the region of Sarmatia marks gradually accumulated in sanctuaries over the course of several centuries, which may indicate pilgrimage and religious rituals. One of the largest series of marks was found on pottery dating to the 5th and early 8th centuries at the site of Sidak in the south of Kazakhstan. This was an interregional sacred temple complex dedicated to the worship of dead ancestors of clans from near and afar.¹¹⁹ The majority of the marks found in the complex are known from vessels which were used as ossuaries containing the remains of deceased clan members, but many were also applied onto vessels filled with food or wine, which were customary gifts brought by worshippers. The marks, of which at least 60 different types have been distinguished, have exact or very close parallels in clan marks known from monuments in neighboring regions and on objects, most notably coins. Several of them belong to foreign rulers. This suggests interregional stability in population and active participation by different clans in the life of this cult centre through pilgrimage.

b. The universality of multi-purpose systems

The main function and aim of identity marks is certainly to convey identity, but this takes place in different contexts and for different purposes. The contexts are twofold: secular and religious. In secular context marking systems generally serve the purpose of conveying identity in relation to property, agreements, legal issues and accountability. In religious context they generally serve the purpose of conveying identity in relation to votive matters. However, the contexts and purposes cannot clearly be distinguished. If we resort to Saussurean terminology, one can say that on the level of *langue* (i.e. the system) marking systems can be put to use for one or several purposes in secular and religious contexts. Yet, on the level of *parole* (i.e. of the particular manifestations of marking systems, their actual usage as property, border, legislative, professional, lineage or religious marks) one manifestation may simultaneously serve multiple purposes in secular as well as religious contexts. Marks frequently serve more than one purpose *at the same time*. Thus, marks encountered as territorial or border marks do not merely serve the purpose of identifying the owners of territory; they may simultaneously identify these owners as being of royal or high descent and provide them with certain rights of usage or passage, or they may indicate the existence of an agreement, an oral contract or treaty with the division of territory as a result. Professional marks encountered on construction sites may not merely serve a purpose of control and/or payment during the construction process, but may also be an expression of pride and artistry or votive feelings, or they may be a trademark, or identifiers of the mark user in relation to his genealogy.

¹¹⁷ Personal communication between Haring and De Vries (23-12-2011). Morel, *Le bâtisseur et le commanditaire Outils et perspectives d'une étude des signes lapidaires dans l'ancien diocèse de Clermont (fin XIe – début XIIIe siècle)*, online: <http://medieval-europe-paris-2007.univ-paris1.fr/D.Morel.pdf>, especially figure 5.

¹¹⁸ Ibid.; Janse & De Vries, *Werk en Merk*, 62-63.

¹¹⁹ Yatsenko, 'Marks of the Ancient and Early Medieval Iranian-Speaking Peoples of Iran, Eastern Europe, Transoxiana and South Siberia' in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 134-136; http://www.transoxiana.org/13/smagulov_yatsenko-sidak_sanctuary.php.

Marking systems are multi-purpose systems on the level of *langue* or system as well as on the level of *parole* or usage. In this they are equal to other systems of visual communication. Linguistic writing systems, for instance, are designed specifically to be used in different contexts and for different purposes. Also, the photograph of president Kennedy in Part II, chapter 2 (section 1.c) is an example of a manifestation of the *langue* of photography that serves mixed secular and religious purposes in its layers of meaning: promoting Kennedy as a presidential candidate and suggesting divine approval.

Similar to all marking systems discussed, the system from Deir el-Medina was a multi-purpose system in that it was first of all used to convey the identity of the workmen in relation to the work in the Theban Necropolis and their membership of the crew, but in addition was used to indicate property – not only in the context of work on pottery taken to the Valley of the Kings, but also in private context on domestic objects and grave-goods – as well as to convey identity for votive purposes or express lineage relations.¹²⁰ In addition to what appears to have been their main purpose, the workmen intensively made use of the marks in different contexts and for different purposes in daily life. In this sense, the system was a system of visual communication alternative to linguistic writing, as it could be drawn from to convey a message that was not limited to the administrative marks ostraca.

3 DERIVATION

Thus far, we have looked at the forms and purposes of marking systems and discovered certain universalities in composition and function. We now turn to a comparison of the development of marking systems over longer periods of time: how were marks transmitted in the systems, passed on from generation to generation? Several systems show clear derivational patterns that were fixed on the basis of more or less strict rules. However, before we start comparing the derivational patterns and the formal development of marking systems over various generations, we have to stop a moment to think about the concept of ‘individuality’. In the modern western world the social and political trend of individualism focuses on the individual who strives for independence and self-reliance and advocates his own goals and desires over the interests of the group. In many other societies elsewhere in the world, however, collectivism rather emphasizes the interdependence of members of the group and stresses the priority of group goals over individual goals. This difference implies a difference in the conception of identity: individual vs. collective identity. This was already seen in the previous section, especially in the subsection on property marks: individual property and ownership are especially important in modern Western culture, while in traditional societies property, such as land and live-stock, is first of all collective property, the care of which can be farmed out to individuals. That a herd, for instance, is not individually owned becomes clear from the fact that, if necessary, the animals can be redistributed after a drought or epizootic that caused several losses.¹²¹ It is, then, no surprise to see, that the marks of nonlinguistic systems often do not refer exclusively to individual identity. Even in a system where each member of the group or society carries his or her own distinctive mark, the importance of collective identity appears

¹²⁰ For instance in the Theban Graffiti 0181 (*Jn*)*j*-*hr-hz*w (i) and his son *Hzy* (iv); 1077 (the marks of three generations: *Hzy* (iv), *Hzy* (vii), *Jmn-nht* (vi/xii)); or 1465 (*Hzy* (vii) *s3 Jmn-nht* (x) with the mark of his son *Jmn-nht* (vi/xii).

¹²¹ Landais, ‘The Marking of Livestock in Traditional Pastoral Societies’ in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 101.

from its derivation from an original family, tribe or clan mark, and from the purposes when the marks are put to use, for example, to indicate membership of a certain rank or hierarchy.

The prevailing concept of identity that lives in a society is reflected in the marks and in their systems of derivation. In this section we look at several well-studied systems of derivation, on the basis of which we argue, first, that these systems reflect the existence of a mixed concept of collective and individual identity: they relate to kin- or family-groups in which every individual member is marked. Yet, we also argue that a trend away from collectivity toward individualism can be discerned in the development of the marks and the derivational systems. Often, this trend means the end of traditional marks and derivational practices.

a. Derivation through the addition of individualizing elements

A system in which marks are basically family, kin or clan marks that are individualized by means of the addition of strokes or other geometric or pictorial elements appears to be universal. Such marks are used by individual persons, but they refer to them as being members of a larger group. Derivation on the basis of a family, kin or clan mark is seen in many nomadic societies from antiquity down to the present day, for instance in Sarmatia, Mongolia, and among the Bedouin of Arabia,¹²² but it is also seen in three well-studied systems: those from Gallaecia, Brazil and medieval Europe.

a.1 Gallaecia

The marks from Póvoa de Varzim and A Guarda form a system that followed fixed rules of hereditary mark composition.¹²³ A limited set of basic mark shapes, that is approximately 17 to 22, has been identified in these communities. They are kin marks. According to long-established rules every individual would add a stroke (called *pique*) to the main mark according to his position within the kin, so that everyone in the community would know exactly to whom a particular mark referred. The first born of the head of the kin, for instance, would add one *pique*, followed by two *piques* and three *piques* by the second respectively third born, and so on until the youngest, who usually inherited the original mark of the father together with most of his belongings. This is in contrast with the more universal practice in which the eldest son is given the patrimony. Evans Pim explains that this difference is due to the tradition that in Portuguese fishing communities the youngest son is usually the one who remains in the family home and takes care of his parents, therefore being awarded the best portion of the inheritance.¹²⁴

Evans Pim remarks that ‘women would count equally in the sequence of differentiating marks between brothers and sisters – if a man was the third born after two sisters his mark would feature three *piques*.¹²⁵ The usual task of women in the community was to repair the nets that belonged to their fathers, brothers or husband, and to preserve and sell the fish caught by them. However, they could also themselves inherit their father’s equipment, and, according to Evans Pim, it has even been attested that in

¹²² For Mongolia and Arabia, see *ibid.*, 92, 98-100; for Sarmatia, see Yatsenko, ‘Problems and Study Methods of the Ancient and Early Medieval Iranian-Speaking Peoples’ Nishan-Signs’ in *ibid.*, 112 (footnote 2), 117, 121; for Arabia, Van Gennep, ‘Les <<wasm>> ou marques de propriété des Arabes’, *International Archives of Ethnography* 15 (1902), 87.

¹²³ Evans Pim, ‘From Marks to Ogham’, *Re:marks* 1 (2013), 108-109.

¹²⁴ *Ibid.*, 108. Interestingly, a similar tradition existed in early medieval Turkic marks used in south Siberia, the only difference being that not the youngest son, but a daughter would keep the sign in its original form. For a son, a small detail most often in the upper part of the mark was changed. Yatsenko, ‘Some Problems Related to Early Medieval Turkic Tamga-Sign Studies’, *Re:marks* 1 (2013), 10.

¹²⁵ Evans Pim, ‘From Marks to Ogham’, *Re:marks* 1 (2013), 113.

such cases ‘the husband after marriage would take over the mark of his father-in-law, adding the variation’ that corresponded to his wife’s position in the genealogy.¹²⁶ He therewith abandoned the mark of his own kin.

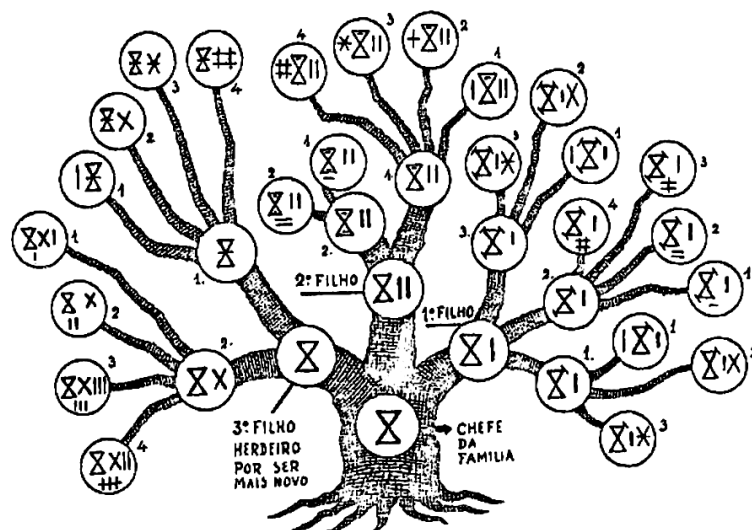


Fig. III1-16 Genealogical tree of the kin group Σ from Póvoa de Varzim.
Evans Pim, ‘From Marks to Ogham’, *Re:marks* 1 (2013), 109 (fig. 8).

Fig. III1-16 exemplifies mark derivation on the basis of the kin group with the mark Σ from Póvoa de Varzim. The mark Σ is carried by the head of the kin. His first two sons create new family marks by adding one respectively two *piques*: Σ^I and Σ^{II} . The third son kept the original mark Σ . On the right it can be seen that the three sons of Σ^I each added a diagonal *pique* to one of the corners of their father’s mark: Σ^I , Σ^I and Σ^I . The two sons of Σ^{II} each added one respectively two horizontal *piques* to the inner triangles of their father’s mark: Σ^{II} , and Σ^{II} . The firstborn of the son who inherited the original family mark Σ added a horizontal *pique* that crossed the mark: Σ . His younger brother added a second *pique*, but combined both *piques* into a cross accompanying the mark: $\Sigma \times$. The number of *piques* accumulated with each new child, but as this number grew, new compilations were created. This is particularly clear in case of the mark Σ^{II} , which belonged to the firstborn of the second son of the head of the family. The firstborn of Σ^{II} , in turn, added a *pique* to the left of the mark ($^I\Sigma^{II}$); the second son added another *pique* and formed it into a cross with the *pique* of his older brother ($+\Sigma^{II}$); the third son added a third *pique* turning the cross into an asterisk ($*\Sigma^{II}$); and the fourth son added a fourth *pique* and therewith created a square to accompany the father’s mark ($\#\Sigma^{II}$).

The rules for creating individualized family marks were so strict and systematic that Evans Pim paralleled them to linguistic rules. He describes the basic kin marks as the radical or root element which is modified by a series of prefixes, suffixes or affixes creating lexemes. The basic radical or root acted as a semantic element referring to a specific kin group within the community. The individual marks are equal to lexemes that transfer crucial knowledge on ancestry or descent, genealogical distance or fraternal position. As such, the system allowed to ‘trace existing relations’ among individuals within the community, ‘defining hierarchical positions within a generation and referencing those preceding and

¹²⁶ Evans Pim, ‘From Marks to Ogham’, *Re:marks* 1 (2013), 113.

coming after them.¹²⁷ The same rules of hereditary mark composition have successfully been applied to tombstone marks dating from a 15th century cemetery in Corunha's San Fransico, further north along the Atlantic coast in modern Spain. This suggests a long-established and continuing tradition of hereditary mark composition throughout Gallaecia.¹²⁸

a.2 Brazil

In Brazil the livestock marks of the white herders made use of similar consistent derivation techniques as encountered in Gallaecia. The basic mark was called the *matriz*, to which a series of elements called *diferenças* could be added in accordance with the position of a son or daughter in the family (fig. III1-17). It could be argued that this system of hereditary mark composition came to Brazil with the European colonizers: not only were the techniques of derivation similar, fig. III1-16 also shows the Portuguese tradition in which the youngest son inherited the original mark of his father, while his elder brothers used modified versions. However, the forms of the marks and the *diferenças* closely resemble the indigenous Brazilian Kadiwéu marks. It has been suggested that the Kadiwéu marks worked according to a similar system of derivation and inheritance: they show certain base-forms and repetitive elements that can be interpreted as a nonlinguistic code. Although there are no accounts on how the Kadiwéu marks were transmitted and modified generation after generation, they may at least have inspired the forms of the marks and *diferenças* used by the white herders.¹²⁹ Put differently, similar systems of hereditary mark composition may have existed among the Europeans and the indigenous Brazilian peoples, both of which were inspirational sources for the marks of the white herders: specific traditions from the European system, and specific forms and *diferenças* from the indigenous systems.¹³⁰ Nowadays, unfortunately, the specifics of the system of the white herders as regards the order of inheritance and the allotment of *diferenças* have been mostly forgotten and cannot be compared to an even poorer known Kadiwéu system of inheritance. Where family marks are still preserved, they either show arbitrary combinations of marks with *diferenças*, or simply numbers placed underneath the original family mark.¹³¹

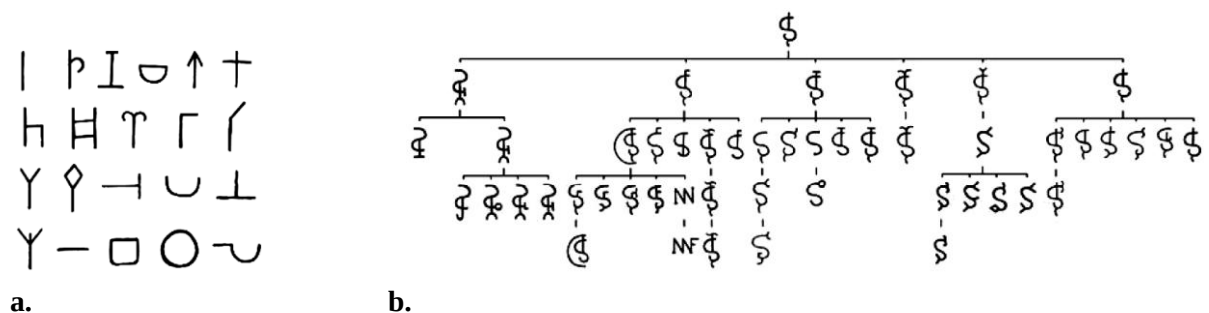


Fig. III1-17a. *Diferenças* that were added to the *matriz*, the base mark, in the system of hereditary mark composition among the white herders. The elements received denominations to describe their specific shapes ('flower', 'fork', 'ear', 'cross', 'hammer').
b. Genealogical tree based on the modern description of the marks belonging to the family of Virgílio Maia (2004). Virgílio Maia,

¹²⁷ *Ibid.*, 108.

¹²⁸ Evans Pim, 'From Marks to Ogham', *Re:marks* 1 (2013), 102, 108-109, referring to Martín & Gómez, 'As laudas sepulcrais de San Francisco da Coruña (I)', *Anuario Brigantine* 17 (1994), 241-266.

¹²⁹ Indeed, Evans Pim remarks a strong tradition both in northeastern and in southern Brazil of identifying non-alphabetical marks with an older heritage, foreign to the newcomers. Evans Pim, 'Indigenous and European Marking Systems in Brazil' in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 495.

¹³⁰ One may be reminded of the fact that cattle as well as branding irons were foreign to the indigenous peoples of Brazil. Therewith, the whole practice of branding cattle and the main aim of herders' marks was already derived from the European system.

¹³¹ The numbering system was mainly used by women. Evans Pim, 'Indigenous and European Marking Systems in Brazil' in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 479, 492-493.

referred to in Evans Pim 'Indigenous and European Marking Systems in Brazil' in Evans Pim, Yatsenko & Perrin (eds.), *Traditional Marking Systems*, 493-494 (figs. 15, 17).

a.3 Medieval Europe

The systems of derivation encountered in Gallaecia and Brazil are comparable to a system that has been suggested for medieval Europe, but there is an important difference as well. In medieval Europe the allocation and use of a mark appears first of all to have been related to work; that is, although the marks could be used for different purposes, the prime reason for having a mark was work-related, which meant that the masons' and quarry marks were not used by women and were not passed on within the private context of the family. Marks could be passed on from father to son, but primarily when the son took over his father's position and profession. There are examples in which the mark received an additional stroke when used by another family member. Thus, on the basis of documents concerning the construction of the cathedral of Utrecht (the Low Countries) the mark  could be connected to Willem van Boelre, while the mark  may have belonged to his son Gijsbert van Boelre.¹³² The same could perhaps be argued for similar marks such as ,  and ; or ,  or ; or for a range of marks similar to those encountered in Póvoa de Varzim: , , , , , , , , , ,  and .¹³³ It was argued in section 1 above that the existence of similar systems of hereditary mark composition is one of the explanations for the fact that many marks display similar forms and shapes, especially seen when comparing the medieval European and Gallaecian marks. It is apparent, however, that in comparison to the European marks the fishermen marks have remained fairly simple. Evans Pim mentions the suggestion that after the third generation the original grandfather's mark, if unused, would be retaken or combined with the mark of the maternal grandparents. Unfortunately, such practices could not be demonstrated from field study in A Guarda.¹³⁴

In addition to the complementary strokes, however, other methods of passing on or adopting marks are known from medieval Europe as well. An ordinance from Germany, the Rochlitzer Ordnung dated to 1462, states that an apprentice received the mark of his master, without alteration.¹³⁵ Also, it has been argued that a mark was not in all cases the personal or permanent belonging of a mason or craftsman; marks could be assigned temporarily, and be valid only during the course of a construction project.¹³⁶ Thirdly, it has been mentioned that a mason or craftsman could decide to create a mark for himself, therewith not adopting the mark of a predecessor.¹³⁷ There thus seem to have existed various practices of transmission and adoption of marks which suggests that there was not one system of medieval European identity marks; there was rather a general practice of using marks, from which several systems were developed first and foremost with local relevance to construction projects and the work conducted in guilds.

An important change in all three regions – Gallaecia, Brazil and medieval Europe – came with the growing influence of the Roman alphabet. This alphabet eventually caused the traditional systems of

¹³² Janse & De Vries, *Werk en Merk*, 55-56.

¹³³ Van Belle, *Dictionnaire des Signes Lapidaires*, e.g. 68, 70, 636-639.

¹³⁴ Evans Pim, 'From Marks to Ogham', *Re:marks* 1 (2013), 109 and note 14.

¹³⁵ Esquieu, 'Sur les traces des tailleurs' in De la Roncière et al. (eds.), *Histoire et Société*, 121; Deuchler, *Belser Stilgeschichte*, 228.

¹³⁶ Reveyron, "'Marques lapidaires'", *Gesta* 42.2 (2003), 165. See also Aubert, referred to in Esquieu, 'Sur les traces des tailleurs' in De la Roncière et al. (eds.), *Histoire et Société*, 121.

¹³⁷ Reveyron, "'Marques lapidaires'", *Gesta* 42.2 (2003), 165.

hereditary mark composition to cease. It has been mentioned that the usage of alphabetic letters changed mark designs: in a transitory phase the initials of a person's name could accompany the family or base mark or replace the additional strokes and elements of derivation, but ultimately initials and entire names substituted the original marks altogether. The addition of strokes and elements of derivation no longer made sense as all the information needed to distinguish the marks and the persons to whom they referred was already phonetically contained in the letters. This development made the marks more personal and individual, as collective family marks disappeared.

b. *Derivation in Deir el-Medina*

With regard to the material from Deir el-Medina we are not able to argue for a system in which family marks acted as base marks to be modified by individual persons. There may be one example of what could be considered a family mark, although details on the exact transmission remain obscure: the form A appears to be a recurrent element in identity marks related to the family of *Sn-nḏm* (i). Thus, the mark $\text{A}^{\dagger}$ was found on building blocks on the north and south walls of the court of TT1, the tomb of *Sn-nḏm*.¹³⁸ This strongly suggests that the building blocks had been marked specifically for his tomb, and $\text{A}^{\dagger}$ was therefore his mark. A different combination of A with a second element is $\text{A}^{\dagger}$ or $\text{A}^{\dagger}$, also dated exclusively to dynasty 19. It was found several times on pottery in the tomb of *Sn-nḏm*, as well as in tomb TT 2, which belonged to *Hḥ-bḥn.t* (i).¹³⁹ The fact that *Hḥ-bḥn.t* (i) was a son of *Sn-nḏm* (i) supports the allocation of $\text{A}^{\dagger}$ or $\text{A}^{\dagger}$ to him. One of *Sn-nḏm*'s other sons was *Bw-nḥt=f*.¹⁴⁰ A statue of him was found in Puits N 1182, in which we also encounter pottery with the marks R , $\text{V}^{\dagger}$ and V . Unfortunately, these forms are only known from drawings by Bruyère and it is impossible to ascribe a mark to *Bw-nḥt=f*, let alone a specific modified variant. On the basis of ostrakon BM 50716 it was argued above (p. 199 with note 298) that the mark A alone being equal to AA at least on that particular ostrakon was in later times still used by a great-great grandson of *Sn-nḏm*, the workman *Nḥ.w-m-Mw.t* (vi) before he became foreman (after which he started using W). Although we cannot follow the use of or identity behind either AA or A during the many generations that separated *Sn-nḏm* and *Nḥ.w-m-Mw.t*, we could suggest that *Nḥ.w-m-Mw.t* may have adopted the mark A because of the prominence of his forefather *Sn-nḏm* and his family in dynasty 19 and, related to that, the prominence of the mark A in general being possibly related to the office of foreman (p. 173). All in all, while details remain unclear, the mark A may have specifically related to the office of foreman in dynasty 19, while it could have been more generally used and passed on within the family of *Sn-nḏm*, having become a mark to identify this foreman as well as his descendants including *Nḥ.w-m-Mw.t*.

Indications of what may perhaps be elements of hereditary mark composition we see in the marks Y and Y , and in X , X and X : the horizontal lines added underneath, or crossing the marks Y and X . They were discussed in Part I, chapter 1. If indeed these lines indicate a derivational practice, they are seen predominantly in dynasty 18, the period when the marking system shows least influence of script. But in

¹³⁸ See the building blocks 'Bruyère, Sen-nedjem 5.1-5.6' (Database *Symbolizing Identity*); Bruyère, *La tombe no. 1 de Sen-Medjem*, 10.

¹³⁹ The provenance is recorded as 'Tomb 2b', or TT 2B of *Nḥ.w-m-mw.t* (vi) in dynasty 20. *Nḥ.w-m-mw.t* was a great-great grandson of *Sn-nḏm*. Davies, *Who's Who at Deir el-Medina*, 26, 51, 73, 172, chart 7.

¹⁴⁰ *Bn-nḥt=f*; cf. *ibid.*, 44.

fact, the occurrences of the variants with added lines are too few to be able to recognize a system or strict rules of derivation.

What kinds of transmission are, then, seen in the marks from Deir el-Medina? Certainly, we see the adoption of marks from fathers by sons without modification. Well-known examples are 𓂏 and 𓂐 used by *Mry-R* and *K3s3*, adopted by their sons *Nfr-htp* respectively *Pn-^cnk.t* in the exact forms 𓂏 and 𓂐 . Another well-known example is the mark 𓂑 used by three generations in the family of *Jn(j)-hr-htw* (i). It will be obvious that these marks convey meaning on the basis of phonetic value. As such, they could refer to a workman's father's name, and were used by the sons as a sort of family mark, although without the addition of an element that referred specifically to them. The marks could also refer to a workman's grandfather's name. Because of the fact that a family name was often repeated every second generation, there is in such cases simultaneously a phonetic link to the grandson's name. Instead of adopting an older family mark, a workman could also start using a new mark that was adapted to his own name, to his nickname, or to his function in the crew. Examples are 𓂒 *wnš*, which appears in dynasty 20 as a mark used by *Jmn-nht* (xii) nicknamed *P3-wnš*; the change of $\text{𓂓} / \text{𓂔}$ used by *Nht-mnw* (vi) to 𓂕 as a new manner to refer to his newly obtained position as foreman of the crew; 𓂖 or 𓂗 used by the scorpion controller *Jmn-ms* (i); and 𓂘 used by the scribes in dynasty 20. In the case of *Nh.w-m-Mw.t* (vi), his former mark $\text{𓂓} / \text{𓂔}$ was taken up by *P3-mdw-nht* (i), who was not related to him. We do not know why he adopted the mark 𓂓 ; perhaps it was simply because it was related to the position in the duty rosters which was filled by *P3-mdw-nht* when *Nh.w-m-Mw.t* left. We have, then, roughly three kinds of mark transmission or adoption in addition to the suggested examples of individualized family marks: adoption of a mark related to the father's or grandfather's name without modification; adoption of a new mark related to name, nickname or function; and adoption of a new mark related to position in the duty rosters. We do not know to what extent these forms of transmission and adoption were personal choices: were the workmen free to make their own choice, did this choice have to be approved of, or were the marks allocated? By whom would the marks have to be approved or allocated? At least it can be said that with respect to mark derivation and adoption of marks there does not seem to have existed one strict system of rules. There were no fixed elements of hereditary mark composition as seen in Portugal and Brazil; instead, the best connections between mark and workman were sought by means of phonetics, genealogy and semantic creativity that made use of names, nicknames, functions and administrative positions. It may not have been a matter of 'anything goes', but within the limits of the possibilities mentioned there was certainly variation in the reuse of older marks and the adoption of new marks.

In not displaying a strict system of derivation but rather variable manners of adopting a mark, the marks from Deir el-Medina are particularly comparable to the marks from medieval Europe. Another comparison with those marks is seen in the lack of women carrying their own mark, or taking part in the transmission of marks from parents to offspring. In Deir el-Medina, the possession and use of a mark seems first of all to have been related to the work in the Theban Necropolis and the membership of the crew, just as the purpose of professional marks was considered the prime reason for the existence of the marks in medieval Europe. In both cases, the marks could be used for other purposes, also in private context and potentially referring through the workman to his family as well (for instance on domestic or funerary objects), but the marks were first of all carried by the men in relation to their work.

