Chapter 8 Depicting Trypillia: Emergence and Transformation of the Realistic Style



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8.1 Introduction

In the course of prehistory and history, one can observe numerous 'episodes', limited in space and time, in which attempts were made to enhance the 'transmission of reality' through artistic means. During these phases, among other things, the number of objects with 'realistic' details or characteristics increases, the means of artistic expression (objects, types, techniques, etc.) become more diverse; an increased realism in the depiction of objects/subjects can be observed; that is, more attention was paid to the accurate presentation of details. Additionally, the size of some objects, for example sculptures, increases. In contrast to these phases, we can observe other periods when artistic representations become more schematised and the number of forms of the images decreases.

The stylistic development of objects from Neo-Chalcolithic settlements in South-Eastern and Eastern Europe falls within this observation, particularly in Trypillia, where a number of artefacts depict people and surrounding objects or their individual elements in a realistic manner, such as anthropomorphic figures, as well as sledge and house models. At least some of these images/representations have limited temporal and spatial boundaries. In order to better understand the context of the emergence of 'realistic' images, the dynamics of their development, the circumstances of their disappearance, their connection to transformation processes,

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and other issues, we identify and analyse different categories of such representations originating from prehistoric settlements dating back to 4700–3100 BCE from the territories of modern Ukraine and Moldova, which are united under the name 'Trypillia'.¹ To discuss possible interpretations of the phenomenon, similar images in other socio-cultural contexts have also been considered, as this stylistic development can be an important indicator reflecting the specifics of transformations in ancient communities.

First, the topic of realistic/naturalistic style in Trypillian studies was raised in connection with the study of 'realistic' figurines, which were part of a much larger array of anthropomorphic representations, mostly 'schematic' ones, conveying the human image in general terms. The research on this category of finds is associated with the name of T. G. Movsha (1973), who believed that realistic and schematic-realistic sculptures were endowed with personality traits, as they have thoroughly modelled faces, hairstyles, arms, torsos, and legs. In contrast, N. B. Burdo (2010) included only figurines with detailed modelled heads in this category of figurines, stressing that it would be more correct to call this category '*anthropomorphic plastics with realistic details*' (our translation: Burdo, 2010, pp. 124–125). The topic of depicting real/constructive elements on ceramic objects has also been considered in the context of house and sledge models (e.g. Balabina, 2004; Passek, 1938; Shatilo, 2016). In one of the most recent works on this topic, I. V. Palaguta and E. G. Starkova (2017, pp. 68–77), analysing a house model from Popudnia, concluded that not only the interior but also the characters of the model are shown in a 'naturalistic way'.

In line with some other authors, we refer to the phenomenon of depicting objects with fine attention to detail as 'realism' (e.g. Burdo, 2013; Buzian & Bilousko, 2009; Gusev, 2009; Movsha, 1973; Pogoševa, 1985) or also 'naturalism'² as a synonymous term (e.g. Balabina, 2004; Bibikov, 1953; Majewski, 1947; Palaguta & Starkova, 2017), although we are well aware of the complexity and ambiguity of these terms. The concept of realism in art is particularly complex.

8.2 The Concept of 'Realism'

In a general sense, the term *realism* refers to a specific relationship of art to reality, for example by depicting ordinary objects or everyday life situations, and by attempting to provide a truthful, non-idealised representation of the oobject which is free of speculative fiction and supernatural elements (Alscher et al., 1977, pp. 55–60). Of course, there are specific 'realisms' in certain epochs and regions. Here are just some of them: Archaic and classical Greek art with large sculptures

¹Trypillia cultural complex including Usatovo sites (after e.g. Diachenko & Harper, 2016).

 $^{^{2}}$ When we use the term 'realism' or 'realistic' style in relation to certain artistic depictions in prehistory and Trypillia in particular, we mean (1) images that reproduce real objects or scenes; (2) objects that depict realistic details; and (3) artefacts with a certain quality of depiction of plastic corporeality.

(e.g. Boardman, 1978; Bol, 2002), Flemish painting of the fifteenth century with its 'disguised' symbolism (Panofsky, 1953), the Italian Renaissance with perspectives (the illusion of reflecting reality: e.g. Gombrich, 2001), or the realist art of the nine-teenth and twentieth centuries, which was decidedly political and educational (e.g. Nochlin, 1971). The latter realism is linked to the 'social question' and the critique of capitalism as a system, and consists of realistic depictions of everyday life and 'unadorned' representations of social conditions.

In contrast, we can trace periods in the history of art when the 'representation of reality' was less prevalent and the variety of artistic products was reduced; they became more schematic, and the emphasis was more on the 'decorative', which can of course have also ideological reasons, such as a general 'hostility' to images (e.g. Mellink & Filip, 1974). In prehistory, this applies to, for example, the Bronze Age of some regions, which, compared to the previous period, lacks a wide range of diverse images (e.g. Fokkens & Harding, 2013; Kneisel, 2012; Kossack, 1954). In historical times, similar trends can be observed, for example, in late antiquity and the following centuries.

For each of these periods, as well as others, there were specific links between the political, social or religious intentions of producers and the social perception and interpretation of the artworks. These connections are the subject of attempts to interpret artworks iconologically in the sense of E. Panofsky (1939) or socio-historically from the point of view of M. Baxandall (1972). While considering these phenomena, it is also important to (1) spatially delineate the centres of innovative artistic production, and (2) keep in mind the context of the production of objects and images and their recipients.

In order to understand whether it is possible to trace a similar connection between the 'realistic' style and social processes in Trypillia, we will turn to the consideration of Trypillia artefacts with more 'naturalistic' details.

8.3 Sources

Ceramic *house models*, depicting the exterior or interior of a building or a part of it, can be considered as objects with certain manifestations of 'realism'. Many objects of this type show the building or its separate parts in general (walls, roof, entrance). This is especially true of some objects from Neolithic settlements in Macedonia and some of the North Bulgarian models (e.g. Trenner, 2010, pp. 136–145, 154–155, 159). In contrast to these finds, a number of Trypillia models depict buildings in more detail. These artefacts are traditionally divided into 'closed' models with a roof – type 'A' – and 'open' models without a roof – type 'B' (Gusev, 1996, p. 18). Structurally, the models consist of the floor, walls, roof (type A), entrance, and often a round 'window' in the wall opposite the entrance (a small opening under the roof, possibly for ventilation). In addition to these parts, which reflect the 'general idea' of the building, in a number of models there are additional 'realistic' elements. They include: the division of the model into two parts (the 'entrance hall' and the

main room), details of wall construction (pillars), details of roof construction in type A (a canopy over the 'entrance hall', beams, zoomorphic elements of the roof decor, etc.), and the interior of buildings in type B. The reflection of real parts of houses in these elements has been repeatedly discussed in literature (e.g. Palaguta & Starkova, 2017; Passek, 1938; Shatilo, 2016). Thus, a number of more 'realistic' elements can be distinguished among the models.

Several special studies have been devoted to models of houses, including the catalogues of finds (Gusev, 1996; Shatilo, 2005; Yakubenko, 1999). In total, 74 models are known so far, but a critical analysis of the finds has shown that some artefacts (e.g. fragments of 'legs') interpreted as 'house models' do not have distinctive building features (21 in total, see Shatilo, 2021). Therefore, the total number of known Trypillian models can be reduced to 53, of which at least 24³ have additional 'realistic' features.

The next category is ceramic *sledge models*. Structurally, they consist of at least two parts – a 'body' made in the form of a round/oval bowl or a rectangular vessel, fixed on two runners. The third optional part of the artefact is single or double zoo-morphic application(s) on the front part of the 'body'. The existence of elements of real sledges – above all runners, which are curved up in the front and protrude in the back – is a basic criterion for distinguishing this type of finds.⁴ In addition to the runners, there are other, rather rare images of constructive elements on the 'bodies' of the models (graphic and three-dimensional) – *stanchion* or *sledge posts* and *side rails* or *stringers*, and some models have an image of a *harness* on the zoomorphic applications (Balabina, 2004; Kruts et al., 2013, p. 82; Shatilo, 2017).

Several works have been devoted to sledge models (e.g. Balabina, 2004; Burdo, 2003; Shatilo, 2017). This category of artefacts is often used in the study of prehistoric means of transport (Gusev, 1998). One of the most recent works is a study by N. Chub (2018) on the invention of the wheel. In total, at least 123 models are known (Shatilo, 2021), a significant number of which are represented by fragments.

The following categories of 'realistic' details are represented on some of the clay anthropomorphic figurines. *Anthropomorphic statuettes* is a widespread category in the inventory of the Cucuteni-Trypillia complex: as of 2017 about 9222 figurines are known (Terna, 2017, pp. 223–224). From this array of material, S. Terna used 5979 figurines for his research, 3289 of which belong to the 'Trypillian' part of the cultural complex (Terna, 2017, pp. 225–230). A large series of Cucuteni-Trypillian anthropomorphic figurines are presented in a number of publications (e.g. Burdo, 2014; Monah, 2016; Pogoševa, 1983, 1985; Terna & Vasilache, 2019).

Among these finds, the researchers distinguish between figures made in a realistic or naturalistic style – with detailed modelled heads, arms, torsos, legs and other elements (for a history of the question, see Burdo, 2013) – and the general array of 'schematic' figures; only the 'realistic' and 'schematic-realistic' ones were described

³Accurate estimates are complicated due to the fragmentation of the finds.

⁴A number of artefacts that do not have this characteristic but have been interpreted as 'sledge models' are not considered in this chapter (e.g. Kruts et al., 2001, p. 60: Figures 54.4, 54.6; Kruts et al., 2005, p. 40: 16.3).

at the level of individual objects. N. B. Burdo compiled a catalogue of such terracottas (109 artefacts in total: Burdo, 2013, pp. 119–346), in which she included Cucuteni-Trypillian anthropomorphic plastic with detailed modelled heads (*'figurines, sculptural details in the vessels decoration, ceramic ladles, and pottery made in the form of a sculpture that realistically reproduces the human face'*, our translation: Burdo, 2013, pp. 22).

This chapter considers the following categories of 'realistic' elements or details on anthropomorphic figurines: detailed modelled heads, depictions of hairstyles and hair accessories, headgears, jewellery, various clothing and footwear details.⁵ Each of these elements (for example, jewellery or hip belts) is considered in the chapter regardless of whether the figurines bearing such depictions are classified as 'realistic', 'conventionally realistic' or 'schematic',⁶ as each of them obviously conveys real details. In addition, sometimes several of these details can be represented on a single find (for example, a necklace and a detailed modelled face), sometimes only one of these elements can be found on a single figurine. Despite the fragmentation of the material, there are some whole unfragmented or almost undamaged figurines where only one or two elements are 'realistically' shown (e.g. Pogoševa, 1985, Figs. 106a, 760, 795). That is why it seems appropriate to consider each category of realistic details depicted on anthropomorphic figurines separately. The main sources for the calculation and further analysis of these categories have been the catalogues by A. P. Pogoševa (1985, pp. 134-242) and N. B. Burdo (2013, pp. 224-345), as well as other publications (Burdo, 2001, pp. 98–143; Burdo, 2010, pp. 129–136; Burdo, 2011, Figs. 1–3; Burdo, 2015, pp. 29–31; Buzian & Bilousko, 2009, p. 335; Buzian & Yakubenko, 1998, p. 60; Gusev, 2009, pp. 310-322; Kandyba, 1937, pp. 150-152; Korvin-Piotrovsky & Menotti, 2008, pp. 71-130; Kruts, 1977, pp. 57–58, 60; Kruts et al., 1985, Fig. 40; Kruts et al., 2001, pp. 57–61; Kruts et al., 2005, pp. 7–93; Kruts et al., 2008, pp. 49–50; Kruts et al., 2009, pp. 42–44, 47, 49; Kruts et al., 2011, pp. 37–59; Kruts et al., 2013, pp. 60, 83; Markevich, 1981, Figs. 12, 63, 74, 85; Monah, 2016, pp. 156–423; Ovchinnikov, 2014, pp. 341–352, 356, 381; Passek, 1949, pp. 6, 93–94; Shmagliy, 2000, pp. 20, 23; Starkova, 2020, Fig. 1).

The 'realistic' heads of anthropomorphic figurines contrast strongly with the 'schematic' ones, which depict the head very schematically in the form of a small disc with a protrusion for the nose. N. B. Burdo divides figurines with thoroughly modelled head details – nose, eyes, lips, ears, etc., which are shown in plastic – into '*realistic'* (with a relief head: chin, back of the head) and '*partly realistic'* (with a head in the form of a disc and only some more naturalistic elements: Burdo, 2010, 2013). In total, there are 76 figurines with such 'naturalistic' heads.⁷

⁵In the future, for completeness of the study, realistically depicted parts of the body (e.g. torso, arms, legs) should also be taken into account.

⁶The traditional division of plastics into these categories is not used, instead each element described below is considered *independently* as a manifestation of 'realism'.

⁷Figurines without information about the settlement from which they originate are not included in the list.

The depictions of hairstyles and hair accessories on anthropomorphic figurines show/depict the ways of styling hair. They can be moulded, sometimes with drawn lines showing the hair, and painted. A fairly standard hairstyle is represented on a number of anthropomorphic figurines, which depict long hair pulled together at the back below the level of the shoulders. This method of hair fixation requires a special object to hold the hair. Many figurines depict various accessories apart from the hair, or ways of fixing the hairstyle with special objects that hold the hair in the same way (e.g. Burdo, 2015, p. 31, Figs. 2.7, 2.8, 2.10; Kruts, 1977, pp. 58, 60, Fig. 23.1; Monah, 2016, p. 273, Figs. 118.3, 118.322, 167.4, 167.337; Ovchinnikov, 2014, p. 346, Fig. 113.1; Passek, 1949, p. 6, Table 93, Fig. 48; Pogoševa, 1985, Figs. 652, 706a; Starkova, 2020, p. 97, Fig. 1.19). At the Cucuteni site Traian-Dealul Fântânilor, a bone object was found that may have been used for pinning hair (Mantu et al., 1997, p. 227). The lower part of the hair, up to the point where it is put (pulled) together, can be depicted in the form of letters 'U' and 'V'. The accessory and/or hair at the lowest part of the hairstyle may be in the form of a circle or of two triangles with their peaks connected. Some figurines with long hair do not have such an element that could represent a special accessory for forming the hairstyle, in that case the hair has the outline of the letter 'U' in the lower part (e.g. Passek, 1949, p. 94, Fig. 49.4c; Pogoševa, 1985, Figs. 746, 760; Ovchinnikov, 2014, p. 341, Fig. 108.2). At least 38 figurines with such a hairstyle are known.

A separate group is represented by *images of headgears* on figurines, which are shown quite naturalistically and are similar to each other. Unlike hairstyles, 'hats' are found exclusively on figurines with 'realistically' modelled heads and are sculpted, sometimes painted (Burdo, 2010, pp. 195–198). The known headgear are small caps that cover only the back and the top of the head. In seven cases, they are high, i.e. ending above the level of the head (e.g. Movsha, 1973, Figs. 5.2, 6; Pogoševa, 1985, Fig. 937), in two cases – on the figures from Krutukha-Zholob and Kostesht IV – such a 'cap' is low and resembles a small skullcap or tubeteika (Buzian & Yakubenko, 1998, Fig. 3.1; Markevich, 1985, Fig. 74.9). Two figurines have headdresses with 'horns' (from the site Brynzeni IX: Markevich, 1985, Fig. 110; and maybe from the site Hrymiachka: Buzian & Bilousko, 2009, Fig. 3.1). Among the figurines with high hats, two have a rounded hole in the upper part (from the sites Brynzeni III and Pavoloch: Markevich, 1981, Fig. 63; Pogoševa, 1985; Fig. 1012). This small group includes 10 representations.

Jewellery on anthropomorphic figurines is represented by necklaces. A. P. Pogoševa (1985, p. 130) has identified nine types of necklace depictions, which can engraved or painted. Among the identified types, one depicts a decoration (or other element) on the back. The most common type is a single line drawn around the neck. Other types of decorations are represented by rows of dots, parallel strokes and other types of images. In this study, at least 94 figurines with necklaces have been recorded.

The most prelavent category of 'realistic' images on anthropomorphic figurines is the representation of *clothing, clothing details* and *footwear*. A. P. Pogoševa illustrated variations in each type of representation of (1) *lines on the neck – upper chest* (hereinafter *neckline*), (2) *shoulder belts*, (3) *hip belts*, (4) *loincloths* and (5) *shoes*, which could engraved or painted (Pogoševa, 1985, pp. 131–133). Apart from the necklines and partially the loincloths, all the other details of the outfit listed above usually encircle the body of the figures. The quantitative distribution of these representations in this study is as follows: 99 hip belts, 61 necklines, 28 loincloths, 18 shoulder belts, 11 shoes; in total 217 realistic details depicted on at least 165 anthropomorphic figurines.

The last category of objects with realistic details is images on zoomorphic arte*facts.* This category is the least numerous and is represented by representations of various elements of animal use equipment (e.g. for pulling by the traction method) or for other purposes (e.g. 'clothing' and/or decorations(?) for cattle), which can be interpreted as images of headbands, collars, headrests, shabracks/blankets, straps (for harnesses, fixing shabracks, or cargo attached to the animal's back), *halters*, bridles, harnesses, and belts. In other words, this category includes images on zoomorphic artefacts that may show a variety of *special equipment* used by ancient population to facilitate the use of animals (for pack or draft transportation) or for other purposes (e.g. 'clothing' or decoration). Such details are found on zoomorphic figurines, zoomorphic applications from sledge models and vessels, zoomorphic pottery, and on rattles (Balabina, 1998, pp. 84-86, 94, 98; Balabina, 2004, Figs. 5, 11.3, 11.4, 11.6; Gusev, 1998, pp. 16–17; Kravets, 1951, pp. 128–130; Kruts et al., 2013, pp. 78–82; Kruts et al., 2008, p. 124; Ohlrau, 2020, Plate 62.7; Patakova, 1979, Fig. 14.19). In total, there are 19 objects showing such equipment, which are made mainly using the painted technique (a few are engraved).

8.4 Analysis

For the analysis of the selected categories of finds, lists were compiled, which included 53 house models, 123 sledge models, 435 'realistic' images on anthropomorphic figurines (each type separately – 'realistic' heads, images of hairstyles and hair accessories, headgear, jewellery, hip belts, shoulder belts, necklines, loincloths, shoes) and 19 images of special equipment on zoomorphic artefacts; in total 630 images originating from 521 artefacts.

Each settlement where realistic artefacts were found and included in the study was dated according to the available absolute dates (mainly after Chapman et al., 2018; Diachenko & Harper, 2016; Harper, 2013; Millard, 2020; Müller et al., 2016b, 2017; Ohlrau, 2020; Rassamakin, 2012; Rud et al., 2019; Shatilo, 2021; Ţerna et al., 2019; Tkachuk, 2014; Uhl et al., 2014), and in the absence of ¹⁴C dates, based on relative chronological data (mainly after Chernysh, 1982; Dergachev, 1980; Markevich, 1981; Movsha, 1984; Ovchinnikov, 2014; Rizhov, 2007; Tkachuk, 2005b, 2014). As suggested by T. Harper (2013, pp. 28–46), the data from the Kyiv Radiocarbon Laboratory were not considered, as they often show extremely large deviations from the largely consistent dates of other laboratories. In addition, we took into account that the existence of a single settlement could last more than 50–100 years, and ceramic styles, traditionally considered chronologically sequential, could have existed, at least partially, synchronously (see e.g. Shatilo, 2021; Tkachuk, 2014).

When dating some of the settlements of the late C1 period, T. Tkachuk (2014) used the hypothesis of the rapid spread of the *Badrazhy ceramic style* from the Prut region to other territories after 3700–3650 BCE, where the features of this style can be traced at the settlements of the Kosenivka group, and such sites as Krutukhy-Zholob, Konovka, Polyvanyn Yar I, Kolodyazhne, etc.

The Koshylivtsi-Oboz site, from which a significant number of the realistic images originate, was dated from the end of the C1 stage to the beginning of C2 stage because its ceramic complex includes both artefacts typical for the sites of the Final Trypillia (Tkachuk, 2005a, pp. 116–117) and finds that are characteristic for earlier stages of Trypillia (Chernysh, 1982, p. 297: Plate LXXVII: Figs. 1, 29; Kozlowski, 1939, p. 36, Fig. 8; Tkachuk, 2005a, Figs. 21.11, 21.12).⁸

8.4.1 Chronological Assessment of the Material

The chronological analysis was carried out by dividing the number of artefacts of a certain category, according to their dating, into time steps of 100 years. This made it possible to draw up a series of graphs, where the horizontal axis represents the chronological scale, and the vertical axis the number of different object categories. All graphs show certain chronological patterns of distribution and are divided into two groups.

The first group includes house models, depictions of hairstyles, 'realistic' heads, hip and shoulder belts, and necklines on anthropomorphic figurines. The second group includes sledge models, depictions of animal use equipment on zoomorphic objects, as well as headgear and shoes on anthropomorphic figurines.

The images from the first group are quite numerous, all of them are present in small numbers in Early Trypillia, after which they almost completely disappear (Fig. 8.1). Around 4000–3900 BCE, they reappear, but in much larger numbers, which increase over time. The exception is the necklines, which are not recorded up to 4000 BCE, and between 4000 and 3800 BCE are present in small numbers, which rapidly increase in 3800–3700 BCE. Around 3600–3500 BCE a rapid drop in the number of these objects and elements could be observed; though they are still found in very small quantities up to 3300 BCE. At the same time, there are different peaks in the maximum amount of the material: for example, house models and images of hairstyles and 'naturalistic' heads reach their maximum number around 3800–3700 BCE. Shoulder belts have several peaks by these parameters, which is most likely due to the small amount of material available.

⁸That is, in Koshilovtsy there are objects that are not typical for C2 complexes such as, for example, the binocular-shaped objects (e.g. Palaguta, 2007, p. 134), or pear-shaped vessels with small straight or gently inward-sloping collars without additional elements on the shoulders (e.g. Dergachev, 1980, pp. 178–202).

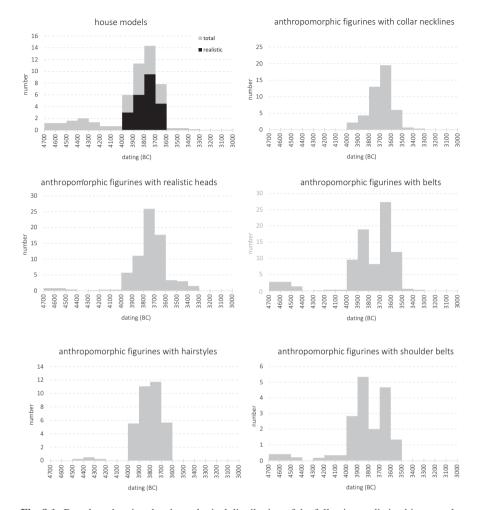


Fig. 8.1 Bar plots showing the chronological distribution of the following realistic objects or elements: house models, anthropomorphic figures with collar necklines, 'realistically modelled' faces of anthropomorphic figures, anthropomorphic figures with belts, anthropomorphic figures with hairstyles and related accessories, anthropomorphic figures with shoulder belts

The artefacts and details from the second group are less numerous, except for sledge models (Fig. 8.2). They are united by the fact that they are all 'new' categories of the material that were hardly found on Trypillian sites before 3800 BCE.⁹ Almost immediately after their appearance, these objects and elements reach their

⁹Two or three sledge models are chronologically related to an earlier period, but they are difficult to evaluate due to the lack of images, descriptions, the context in which they were found, and other problems (models from the settlements of Nezvysko, Konovka, and Selyshche, see e.g. Balabina, 2004; Gusev, 1998; Shatilo, 2021).

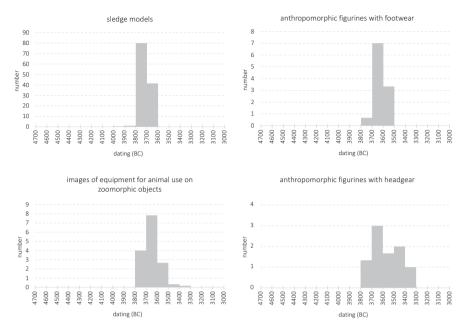


Fig. 8.2 Bar plots showing the chronological distribution of the following realistic objects or elements: sledge models, anthropomorphic figurines with footwear, images of equipment for animal use on the zoomorphic objects, anthropomorphic figurines with headgear

maximum number around 3700–3600 BCE, after which their number gradually decreases. Some of them exist up to 3300 BCE. Unlike the first group, where the growth of the total number of items is gradual and the decline is rapid, the second group shows a completely opposite trend – rapid growth in number, slow decline.

Separate from these groups are images of jewellery and loincloths on anthropomorphic figurines (Fig. 8.3). The first element shows some similarities with the first group: a large number of images of necklaces can be traced starting from 4000–3900 BCE, followed by a gradual increase to a maximum number in 3700–3600 BCE. After that, however, there is a gradual decrease in the number of images, rather than a rapid one, until c. 3300 BCE. A significant proportion of the images of necklaces from this chronological period decorate highly stylised figurines, the lower parts of which are made in the form of a parallelepiped (e.g. from Usatovo, see Patakova, 1979, pp. 36, 38, 77).

As for the second element, loincloths, their distribution does not fit into the identified trends, with the exception of the disappearance of such images after c. 3300 BCE. This may have been influenced by the small sample size, a significant proportion of which is represented by anthropomorphic figurines from the Polyvaniv Yar II settlement layer of the B1–B2 period.

Thus, different categories of 'realistic' representations have both common and different patterns of chronological distribution. In the general graphs, where the minimum number of anthropomorphic figures with (1) clothing elements (Fig. 8.4)

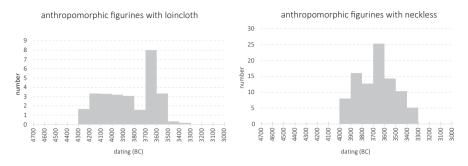


Fig. 8.3 Bar plots showing the chronological distribution of the realistic elements on anthropomorphic figures: loincloths, necklaces

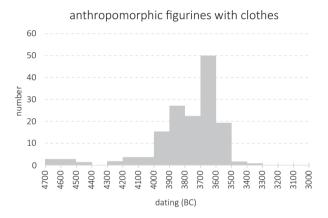


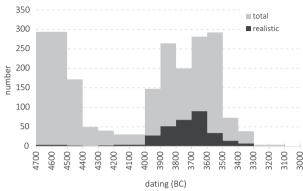
Fig. 8.4 Bar plot showing the chronological distribution of the realistic elements on anthropomorphic figures (total)

and (2) all realistic elements (Fig. 8.5) are counted in total, the trends of small samples of material (e.g. images of shoes or loincloths) are not noticeable. Both graphs show a similar distribution to the first group.

8.4.2 Frequency of Finds

To estimate the frequency of 'realistic' images among the total number of anthropomorphic figurines, let us consider the graph, where the horizontal scale is a chronological scale and the vertical scale is the number of figurines.¹⁰ In general,

¹⁰After Burdo, 2001, pp. 98–143; Burdo, 2011, Figures 1–3; Burdo, 2013, pp. 224–345; Burdo, 2015, pp. 29–31; Gusev, 2009, pp. 310–322; Kandyba, 1937, pp. 150–152; Korvin-Piotrovsky & Menotti, 2008, pp. 71–130; Kruts, 1977, pp. 57–58, 60; Kruts et al., 2001, pp. 57–61; Kruts et al.,



dating (BC)

Fig. 8.5 Bar plot displaying the chronological distribution of the studied sample of anthropomorphic figurines and of specimens with realistic features

the sample is distributed over the period under study very unevenly: although the time period between 4700 and 4450 BCE and between 3950 and 3550 BCE is very well represented, the number of finds from 4450 to 3950 BCE is much lower (Fig. 8.5). This uneven distribution is difficult to assess, since the number of settlements included in the consideration for phases B1 and B1–B2 is by no means much smaller than in Trypillia A (sample size: Trypillia A = 14; B1 = 10; B1-B2 = 14; B2 = 31.5; C1 = 38.5 and C2 = 25 settlements). S. Terna (2017, p. 223) believes that the density of figurines per 100 m² of excavation area does not fundamentally change in different Trypillia periods and averages five finds. Accordingly, the lower number of figurines between 4450 and 3950 BCE may be due to the data sampling, lower research intensity of this phase, or other factors. At the same time, the sampling is geographically quite representative, as it includes settlements from different regions (Fig. 8.6).

In contrast to the total number of figurines, the frequency of figurines with realistic elements can be well estimated (Figs. 8.5 and 8.7): their number is very small during the early stages, but between 3950 and 3550 BCE, a significant increase is noticeable. For realistic figurines, the median value at this stage ranges from 12% to 27%. The peak of their frequency is between 3800 and 3650 BCE, after which their frequency decreases again.

It should be noted that a large number of realistic images on anthropomorphic figurines from the end of C1 and the beginning of C2 come from the settlement of Koshylivtsi, which dominates some categories.

anthropomorphic figurines

^{2005,} pp. 7–93; Kruts et al., 2008, pp. 49–50; Kruts et al., 2009, pp. 42–44, 47, 49; Kruts et al., 2011, pp. 37–59; Kruts et al., 2013, pp. 60, 83; Markevich, 1981, Figures 12, 63, 74, 85; Ovchinnikov, 2014, pp. 341–352, 356, 381; Passek, 1949, pp. 6, 93–94; Pogoševa, 1985, pp. 134–242; Shmagliy, 2000, pp. 20, 23; Starkova, 2020, Figure 1; total of c. 2350 figurines.

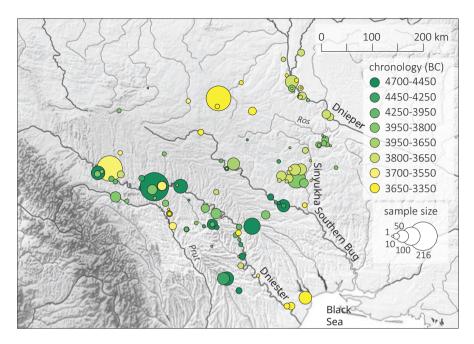
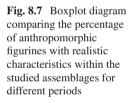
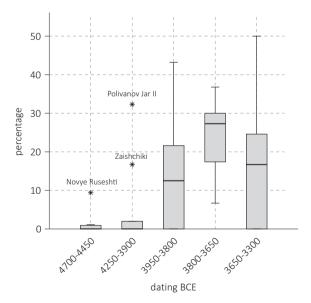


Fig. 8.6 Spatial distribution and dating of the examined samples of anthropomorphic figurines. (Figure by the authors)





To estimate the number of house and sledge models, one can calculate the number of finds per 100 m² of excavation area, as it was done for anthropomorphic figurines (Terna, 2017), or calculate the number of finds per 1 excavated dwelling (Shatilo, 2021). The latter approach has been tested on the materials from Trypillian settlements in the Syniukha River basin, where (some of) the models were found.¹¹ Thus, it was shown that at the settlements where large-scale research was carried out and more than 20 sites were excavated (Volodymyrivka, Popudnia, Talianki), the number of models is quite stable and fluctuates within the range of one house model per 9–12.5 excavated houses (3950–3650 BCE). At the same time, the proportion of the models showing more realistic details is quite significant (Fig. 8.1). In contrast to this category, sledge models are very common (mainly at large settlements): on average, 1–1.2 models were found per fully excavated house (3800–3650 BCE, Dobrovody, Maidanetske, Talianki settlements).

Finally, the least numerous are the images of equipment for animal use on zoomorphic objects dating from 3800–3300 BCE. In her monograph, V. I. Balabina (pp. 246–248) analyses about 292 zoomorphic figurines from Trypillian settlements of the C1 and C2 periods. Only 3% of these figurines have images that can be interpreted as real things, namely harnesses, bridles, belts and other equipment for cattle.

8.4.3 Spatial Distribution

Mapping of the different categories of 'realistic' images showed that some of them were typical for the entire area covered by the study, while others were typical for smaller regions. This is particularly noticeable after 4000 BCE, mainly for stages B2 and C1 in the terms of relative chronology.

In the time period 4000–3700/3650 BCE, house models, realistic heads and representations of hairstyles on anthropomorphic figurines are concentrated mainly in the Sinyukha River basin and in smaller number on the Dnipro (Figs. 8.8, 8.9, and 8.10), while sledge models and images of equipment on zoomorphic artefacts have been found almost exclusively in the Sinyukha River region (Fig. 8.11).¹²

¹¹The sites of the Volodymyrivka, Nebelivka and Tomashivka groups, where more than two sites were excavated.

¹²*Anthropomorphic plastics*: e.g. the sites Chapaivka, Kazarovychi (Kruts, 1977, pp. 57–58, 60); Volodymyrivka, Valyava, Kocherzhyntsi Pankivka (Pogoševa, 1985, Figures 568–570, 710, 744); Ploniste, Vasylkiv, Rozkoshivka, Maidanetske, Dobrovody, Sushkivka, Tomashivka, Talianki, Chychyrkozivka, Pekari, Kolomyishchyna I (Burdo, 2010, pp. 129–135, Figures 30, 38, 39, 41–45, 56–70, 78, 83–86); hutir. Nezamozhennyk, Kvitky II, Vilshana I, Khlystunivka, Zelena Dibrova; hutir Khmilna, Kaniv-Novoselytsia I (Ovchinnikov, 2014, Figures 110.3, 112.1, 112.6, 113.1, 113.6, 114.9, 115.2, 115.3); Nebelivka (Burdo, 2015, Figures 2.1, 2.7, 2.8, 2.10); *house models*: e.g. Volodymyrivka. Andriivka, Volodymyrivka, Hrebeny, Dobrovody, Kolomyishchyna II, Kolomyishchyna I, Kocherzhyntsi Pankivka, Maidanetske, Popudnia, Rozsokhuvatka, Sushkivka, Talianki, Chychyrkozivka (Shatilo, 2005, pp. 130–139); *sledge models and images of special equipment*: e.g. the sites Sushkivka, Maidanetske, Talianki, Chychyrkozivka, Dobrovody (Balabina, 1998, pp. 84–85; Balabina, 2004, pp. 188, 191; Kruts et al., 2005, p. 63; Ohlrau, 2020, Plate 62.7).

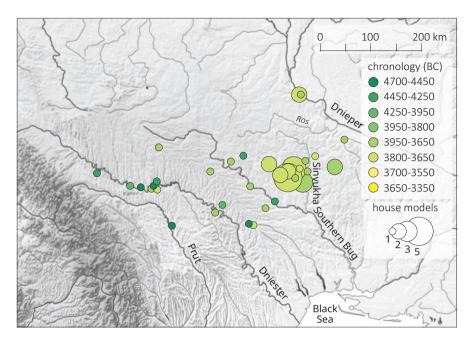


Fig. 8.8 Spatial distribution and dating of house models. (Figure by the authors)

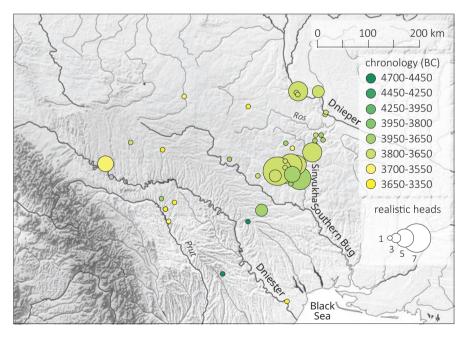


Fig. 8.9 Spatial distribution and dating of realistic heads on anthropomorphic figurines. (Figure by the authors)

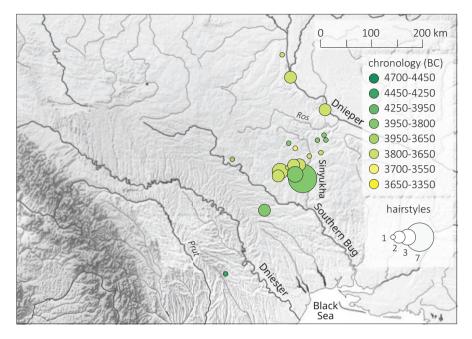


Fig. 8.10 Spatial distribution and dating of hairstyles images on anthropomorphic figurines. (Figure by the authors)

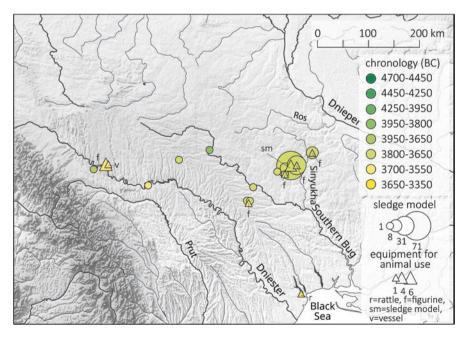


Fig. 8.11 Spatial distribution and dating of sledge models and pictorial representations of equipment used to exploit animal labour. (Figure by the authors)

A number of researchers have pointed to the concentration of 'realistic figurines' and models in the aforementioned territories, where mega-sites also existed (e.g. Burdo, 2010, p. 148; Movsha, 1973, pp. 19–20; Palaguta & Starkova, 2017, p. 75). Outside these areas, the listed artefacts have also been found on the Dniester and Southern Bug,¹³ but they are less numerous and do not form clusters, which may partly reflect the state of the research in these areas.

After 3700/3650 BCE, some of the listed categories of the material are found outside the Sinyukha River basin and the Dnipro region, but in smaller numbers,¹⁴ and mainly in the 'western' areas of Trypillian sites.¹⁵

To a certain extent, the described tendencies are also typical for the depictions of headdresses on anthropomorphic figurines. Thus, the earliest of them are known for the settlements of Molodetske and, possibly, Kvitky 2 (Movsha, 1973, Fig. 5.2; Ovchinnikov, 2014, Fig. 112.1). Later representations were found mainly much more to the west¹⁶ and to the north¹⁷ of these settlements (Fig. 8.12).

Slightly different patterns can be traced for the depictions of jewellery (Fig. 8.13) and clothing on anthropomorphic figurines (Fig. 8.12). Thus, representations of necklaces, necklines and hip belts are typical for many settlements from different regions, which are generally located throughout the territory under consideration. To generalise, in stage B2 they are found at the settlements from the Prut to the Ros (necklaces, necklines) and the Dnipro (hip belts), in C1 they are more present on the Sinyukha and Dnipro rivers, and at the end of C1 and C2 they dominate the Dniester and partly the Prut.

¹³ Anthropomorphic figurines: the sites Stari Karakushany, Nemyriv, Krynychky (Pogoševa, 1985, Figures 617a, 638, 649, 652), Mala Mochulka, Kalaharivka (Burdo, 2013, pp. 245–250, 271–272, 335–336); *sledge models*: the settlements Nezvyssko, Chechelnyk (Balabina, 2004, p. 188); Kryvytske (Rud, 2018); *house models*: the settlements Voroshylivka, Konivka I, Mykhaylivka, Nemyriv, Trostyanchyk, Cherkaskiy Sad II (Gusev, 1996, pp. 27–29).

¹⁴As an exception, images of special equipment were found on seven different zoomorphic artefacts (mostly figurines) at the Koshylivtsi site, which makes up a significant proportion of the sample.

¹⁵*Anthropomorphic figurines*: the sites Brynzeni III, Rusiany, Kostesti IV (Markevich, 1981, Figures 63.5, 63.9, 74.9), Brynzeni IX (Markevich, 1985, Figure 110), Koshylivtsi, Kolodyazhne, Pavoloch (Pogoševa, 1985, Figures 937, 1008, 1012), Hrymiachka (Buzian & Bilousko, 2009, Figure 3.1), Mayaki (Burdo, 2013, pp. 340–342); *zoomorphic objects*: the sites Usatovo (Patakova, 1979, Figure 14.19), Koshylivtsi (Balabina, 1998, pp. 85–86, 94, 98); *house models*: Kosteshty IV, Konovka II (Gusev, 1996, p. 28).

¹⁶ Settlement Kalagarivka (Movsha, 1973, Figure 6), Koshylivtsi (Pogoševa, 1985, Figure 937), Kostesti IV (Markevich, 1985, Figure 74.9), Hrymiachka (Buzian & Bilousko, 2009, Figure 3.1), Brynzeni III (Markevich, 1981, Figure 63), Brynzeni IX (Markevich, 1985, Figure 110).

¹⁷The sites Pavoloch (Pogoševa, 1985, Figure 1012) and Krutukha Zholob (Buzian & Yakubenko, 1998, Figure 3.1).

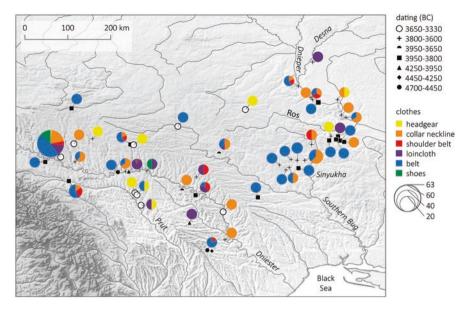


Fig. 8.12 Spatial distribution, dating and classification of clothing images on anthropomorphic figurines. (Figure by the authors)

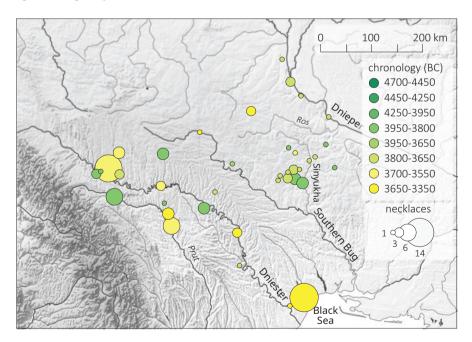


Fig. 8.13 Spatial distribution and dating of necklace representations on anthropomorphic figurines. Figure by the authors

As for loincloths and shoulder belts, the trends of their distribution are not entirely clear – they were mainly found on the figurines from the Prut-Bug interfluve,¹⁸ they are also found in small numbers up to the Dnipro¹⁹ and even the Desna,²⁰ but are almost completely absent in the Sinyukha River basin.²¹

8.4.4 Dimensions of Anthropomorphic Figurines

In general, stylistic changes during the process of transition to the 'realistic' phase of art can be seen in the appearance of large sculptures associated with architecture, in addition to small sculptures that had existed much earlier. Similar changes can be observed, for example, in Greece, where in the seventh century BCE significantly larger, up to life-sized, sculptures appear for the first time (Pedley, 1999). Our next consideration is whether similar changes are also happening with Trypillia figurines.

For more than half of the figurines considered in this chapter, we have taken measurements of their size. The size estimation method is based on the presumption that the height ratios of the different body parts show certain regularities. This allows estimation of the likely overall height of the statuette, for example, from the height of the head, torso, or lower body. We considered the development of three-part figurines (with head/neck, torso and lower part) and separately we examined two-part figurines (with head/neck and lower part from late Trypillia period assemblages, which were made in the form of a parallelepiped; cf. Fig. 8.14).

The proportions of different body parts were determined for 69 complete figurines, from which we calculated scaling factors by using median values to calculate the *likely overall height*. For example, when measuring fragmented statuettes consisting of three parts, the size of the head was multiplied by a factor of 6.8, the torso

¹⁸Loincloths – the settlement Shypentsi (Kandyba, 1937, Photography 51), Kostiesty IV (Markevich, 1985, Figure 74.13), Rakovets, Lomachentsi, Stina, Koshylivtsi (Pogoševa, 1985, Figures 542, 543, 738, 755, 800, 808, 836, 836, 879, 887, 897, 899), Nemyriv (Starkova, 2020, Figure 1.9); *shoulder belts* – the settlement Shypentsi, (Kandyba, 1937, Photographies 45, 46, 49, 65, 66), Rakovets, Stina, Koshylivtsi (Pogoševa, 1985, Figures 541, 544, 755, 821, 823, 828).

¹⁹For example, the settlement Chapaivka (Pogoševa, 1985, Figure 769) and Petropavlivka (Ovchinnikov, 2014, Figure 109.4).

²⁰ The site Yevminka (Pogoševa, 1985, p. 132).

²¹This distribution can be explained to some extent by the small sample of these representations, based on works with high-quality drawings of figurines, mainly by Pogoševa (1985), which did not include a significant amount of material from the region of giant settlements, which were just actively studied, Markevich (1985), Ovchinnikov (2014), and where these elements were clearly visible (e.g. Kandyba, 1937).

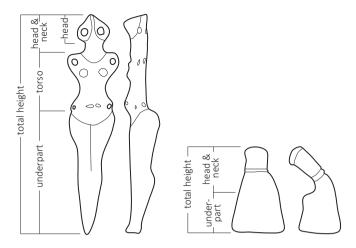


Fig. 8.14 Scheme illustrating the way in which measurements were taken on three-part and twopart figurines

by a factor of 3.4, and the lower part by a factor of 1.9.²² For two-part figurines, the height of the neck and head was multiplied by a factor of 2.25, and the height of the lower part by a factor of 1.8. Similar results for three-part figures were obtained for Maidanetske by N. B. Burdo (2011, p. 11), who, however, analysed the proportions separately for each of the subtypes of anthropomorphic figurines she identified.

As a result, five classes of statuette sizes have been identified (Table 8.1). Not all of them are represented by completely preserved specimens. In particular, large and very large figurines have never been fully preserved. About 83% of the figurines are very small and medium-sized figures ranging from 1 cm to 18 cm, while only 17% of the figurines in the sample are large (18–30 cm) and very large (over 30 cm). The largest figurine (c. 70 cm high) is from Karakušany, of which only the head survived (after Pogoševa, 1985, Fig. 617a).

A chronological comparison of the frequency of occurrence of the different size classes shows an uneven distribution of the number of figurines measured for different chronological periods, with a particularly low number of figurines in the period between 4450 and 3950 BCE (Fig. 8.15). The early period between 4700 and 4450 BCE is characterised by a very large proportion of small figurines, a moderate number of medium-sized figurines and a very small number of large figurines. Later, the percentage of medium and large figurines increases significantly. After 3950 BCE, very large figurines appear for the first time, but they are not very common. Again, between 3800 and 3600 BCE, there is a significant increase in the frequency of large figurines, which together with very large specimens account for 40% of the sample.

²²The calculation of the height of the figurines may not be entirely correct in cases where only the upper parts of the objects have been preserved, where it is unclear whether we are dealing with a standing type or a sitting figure type. However, in our opinion, this source of error can be dismissed in our study, as the proportion of seated figures is less than 10%, and calculating height in this way still gives a general idea of the size of the figures.

Size categories	Dimensions	Quantity	Percentage
Very small	<5 cm	51	9,9
Small	5–10 cm	194	37,6
Medium	10–18 cm	184	35,7
Large	18–30 cm	78	15,1
Very large	>30 (to 70 cm)	9	1,7
Size is not determined		511	

 Table 8.1
 Size classes of anthropomorphic figurines and their number in the analysed sample

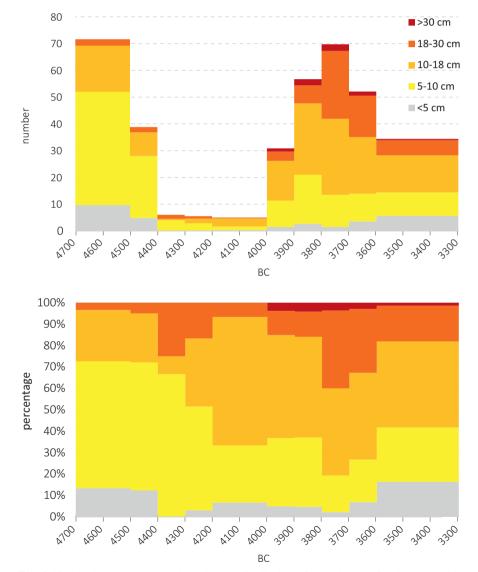


Fig. 8.15 Absolute and relative chronological distribution of size classes of anthropomorphic figurines

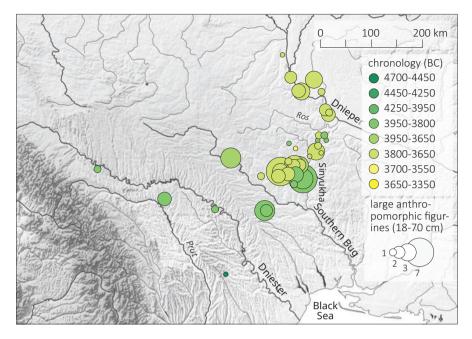


Fig. 8.16 Spatial distribution and dating of large anthropomorphic figurines (18–70 cm). (Figure by the authors)

After this peak, the size of the figurines decreases again, but the number of small figurines (less than 10 cm) is not as dominant as in the early Trypillian period.

The large and very large specimens may have been partly characterised by other 'realistic' features, such as plastically shaped heads and carefully modelled faces (Burdo, 2013, pp. 29–30). In terms of time, such figurines are concentrated in the phase between 3950 and 3600 BCE, and spatially they are most often found at settlements of the Sinyukha River basin, and slightly less frequently at settlements of the Dnipro region (Fig. 8.16).

8.5 Discussion and Conclusion

The chronological, quantitative and spatial distribution of 'realistic' categories in Trypillia is very heterogeneous. The Early Period (4700–4400 BCE) is characterised by a minimal number and small range of images from the settlements of the Dniester basin.²³ With the beginning of the Middle Period and up to 4000 BCE, there are even fewer representations, and most of them are still originating from the

²³ Anthropomorphic figurines with realistic details: sites Aleksandrovka, Luka-Vrublivetska, Novi Ruseshty, lower layer (Pogoševa, 1985, Figures 123, 322, 390, 392–394, 410); *house models* (depicting only the general idea of the house) from the sites Luka-Vrublivetska, Timkovo, Okopy (Gusev, 1996, pp. 28–29).

Dniester region.²⁴ This period is characterised by an overall lower number of anthropomorphic sculptures, both in this sampling and in more complete collections (Ţerna, 2017, p. 232). However, around 4000 BCE a new stage in the development of 'realistic' style begins.

Objects and images between 4000–3700 BCE can be divided into 2 groups:

- 1. chronological, which are typical for the entire Trypillian zone;
- 2. *specific* or *regional*, concentrated in the Sinyukha River basin and, in some cases, on the Dnipro River.

The second group is characterised by the following patterns:

- Their number gradually increases many times and drops rapidly after the maximum peak;
- The different categories are characterised by increased realism and an emphasis on details (e.g. models show numerous constructive elements);
- The assortment of images increases significantly and reaches its maximum around 3800 BCE with the emergence of new representation types (e.g. on zoo-morphic objects);
- The development towards more realistic style here is also associated with enlarged anthropomorphic sculptures, which could also have additional realistic features.

After 3700 BCE, some of the representations that had been typical for settlements in the Sinyukha River basin expanded their territory at the expense of, first of all, the 'Western Trypillia' ones and, partly, of more northern territories (see above). After 3500 BCE, the phenomenon gradually fades away: a number of images continue to exist in the same areas, as well as in the Northern Pontic region (Usatovo sites), but in smaller numbers, after which they disappear around 3300 BCE.

Thus, we can say that there was a certain 'realistic' phase in the development of Trypillian art, and which, moreover, was concentrated on the sites of the Sinyukha River basin (before 3700 BCE). Such phenomena were not unique in history. A similar trajectory of anthropomorphic sculpture stylistic development can be traced for Middle and Late Neolithic Vinča figurines (5400/5300 to 4600/4500 BCE).

Anthropomorphic figurines from Vinča-Belo Brdo and Southeastern Europe have already been described in detail (e.g. Hansen, 2007, pp. 203–223; Höckmann, 1968, pp. 50–88; Parzinger, 1993, pp. 332–343). The basis for our study were 570 whole and fragmented anthropomorphic figurines from the publications of M. Vasić (1932, 1936a, b, c). The analysis of these sculptures enabled us to make a number of observations, in particular, about the development trends similar to Trypillian ones within a rather short chronological period between 5050 and 4700 BCE, when:

²⁴ Anthropomorphic figurines: sites Novi Ruseshty, upper layer, Zalishchyky, Polivaniv Yar II (Pogoševa, 1985, Figures 461, 477, 487–492, 495–496, 511); *house models* from the settlements Berezivska GES, Borysivka, Velyka Muksha, Vilshanka (Gusev, 1996, pp. 27–28).

- 1. The number of figurines increases significantly for a certain time;
- The frequency of statuettes with more detailed plastic elements such as plastically formed heads, masks, ears, noses, eyes, arms, pelvic parts, spines, etc. grows considerably;
- 3. The frequency of figurines with perforation (holes for hair or jewellery on heads, arms and hips) and images of clothing increases;
- 4. The number of types of figurines increases: in addition to the standard type (standing statuette), there is a wider range of figurines that have, for example, a different body position (sitting on the floor, on chairs, or on pedestals)²⁵;
- 5. In addition, there are different classes of statuette sizes, the largest of which are approximately 1 m high (Hansen, 2007, p. 211).

This development of sculptures coincided with the specific historical processes that took place in this area at the settlements with Vinča-type ceramics, one of which was the eponymous tell. The so-called 'Vinča culture' (5400–4500 BCE) was an extensive regional network of human communities with a rich material culture (Tasić et al., 2015, 2016; Whittle et al., 2016), to some extent a 'central region' and an 'innovation core' of a much wider peripheral area where its influences were felt (Hofmann, 2020).

The period 5050–4700 BCE in the area of Vinča-type pottery settlements is characterised by increasing population density, the emergence of increasingly agglomerated settlements and a significant intensification of contacts between different settlements (Borić, 2015; Chapman, 1981, pp. 52–83; Hofmann et al., 2019; Porčić, 2020; Whittle et al., 2016). This development towards greater social and economic intensification contributed to the emergence of important innovations, for example, in metallurgy (Borić, 2009; Pernicka et al., 1993; Radivojević, 2015; Rosenstock et al., 2016), and led to increased intensification and specialisation in the production of, for example, ceramics and flint (Kaiser & Voytek, 1983, p. 347; Spataro, 2018, p. 264; Vuković, 2011, p. 96). These trends spread to large peripheral areas throughout the central and western Balkan region (Hofmann, 2020).

The crisis of this system between 4700 and 4600/500 BCE led to a number of changes: a decrease in population, in particular when many tells cease to exist (Borić, 2015; Hofmann et al., 2020; Link, 2006); a growing number of conflicts, seen in more frequently recorded cases of house fires and an increase in the number of fortified settlements (Arponen et al., 2016; Whittle et al., 2016); dispersed settlement patterns emerge and the 'disconnection' of peripheries can be observed (Hofmann, 2020). This crisis is accompanied by changes in the stylistic development: the number of figurines is decreasing very rapidly, and schematised figurines without realistic characteristics are increasingly used (Fig. 8.17).

Coming back to Trypillia, it should be emphasised that the Syniukha River basin also represented a separate region where a rich network of large and smaller settlements with very similar material and symbolic culture existed 4100–3650/3550 BCE (e.g. Kruts, 2012; Müller et al., 2016a, b, 2018; Ryzhov, 2012; Shatilo, 2021).

²⁵ In the future, it is important to take these parameters into account for Trypillia artefacts as well.

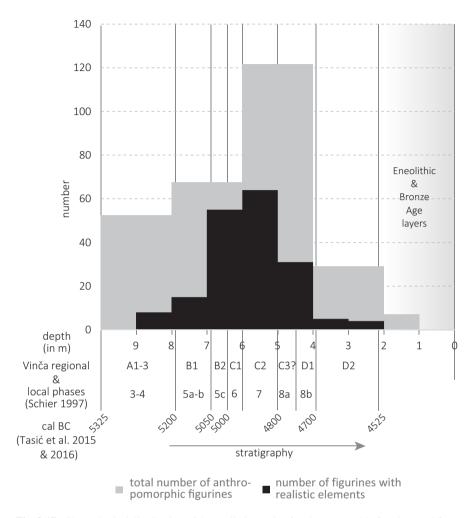


Fig. 8.17 Chronological distribution of the studied sample of anthropomorphic figurines and figurines with realistic features in the stratigraphy of Vinča-Belo Brdo, in relation to the highest absolute dating probability after Tasić et al. (2016) and local and regional phases after Schier (1997)

The scale of population concentration and agglomeration, both at a single large settlement and at the level of the whole region, was probably much greater than we know for other Trypillian territories (Hofmann & Shatilo, 2022). The area and number of Trypillian settlements in the Syniukha River basin region gradually increases with each chronological phase, reaching a maximum at c. 3800–3700 BCE, when the largest giant settlements (150–320 ha), located in close proximity to each other (c. 15 km), partially coexist (e.g. Kruts, 1989; Nebbia et al., 2018; Shatilo, 2021).

There were constant intensive interactions and exchanges of symbols, knowledge, technologies and possibly objects between different settlements. Due to this, innovations and developments that can be traced, for example, in the period 3950–3650 BCE in social organisation (e.g. Hofmann et al., 2019; Müller et al., 2018), ceramic production (e.g. Ellis, 1984; Korvin-Piotrovskiy et al., 2016; Ryzhov, 2012), and transport (e.g. Maran, 2004) were rapidly spreading to all settlements within the region.

This tendency towards increasing population density in the growing large settlements culminates in the rise of crisis phenomena after 3700 BCE and the crisis (3650–3550 BCE) which occurred, for example, in the process of hierarchisation and the resulting collapse of the social system (e.g. Hofmann et al., 2019), the degradation of settlement structures (Ohlrau, 2015, pp. 48–49, 2020, pp. 242, 245–246), the rapid decline of the population (Kruts, 1989, p. 129), and finally the depopulation of the territory. Similar changes can also be traced in the material culture in general (see, for example, Kushtan, 2015; Ryzhov, 2001–2002) and in miniatures in particular: house and sledge models disappear, and the few anthropomorphic figurines lose their 'realistic' characteristics.

Thus, the 'realistic' style in both cases *is associated with* densely populated regions of agglomerated and smaller settlements where networks of intense interactions were created. As a possible *explanation for the emergence* of this style, I. V. Palaguta and E. G. Starkova (2017, p. 75) consider it a *change in social reality* – the formation of large collectives, and, as a result, the need to specify images by giving them individual features.

The stylistic development towards greater realism also implies that the objects under consideration received greater 'stylistic attention' in the sense of Wobst's information-theoretic interpretation (Wobst, 1977). The increased 'attention' paid to these objects may indicate that they had a certain significance in the societies characterised by a high degree of interaction. To get closer to understanding which innovations and processes led to greater realism (and to its decline), it is necessary to consider the functions of these objects in different social processes and the scope of their use, as well as the question of who the recipients and producers of such objects were (e.g. conditions of production, decentralised or specialised).

For Trypillian sites, there is extensive evidence for the existence of specialised pottery production, at the latest from 3950 BCE (Ellis, 1984; Korvin-Piotrovskiy et al., 2016). This 'professionalisation' of production could be one of the mechanisms and explanations for the higher quality and more detailed style of clay sculpture.

The gradual increase in both the number and variety of realistic objects and images may indicate an increasing need for social interaction to maintain the 'sense of community' (ideology) that is characteristic of large socio-cultural settlement networks with high population density (Watkins, 2008). The intensive exchange (including innovation) and growing symbolic entrainment between Trypillian settlements of the Syniukha River basin can be clearly seen in the prevalence of ceramic styles of the respective chronological periods and the use of similar objects, including clay figurines (Shatilo, 2021). In the case of realistic representations, this may mean that their number grows through imitation and borrowing, and when new items (e.g. a sledge) are introduced, they rapidly enter into widespread use within these settlement networks.

Similar trajectories of stylistic development, for example, at the sites of the Butmir culture (Bosnia) or Ain Ghazal (Jordan), show similar social contexts (Hofmann, 2013; Simmons et al., 1988). Further detailed consideration of these transformative contexts can both correct and offer new explanatory models for understanding the 'realistic' style.

8.5.1 Conclusions

This study once again raises the long-standing debate about the driving forces of stylistic transformations. In our opinion, they are most likely to be found in the social processes with the use of these objects in different practices.

The consideration of different categories of material from two contexts – Trypillia and Vinča-Belo Brdo – showed that objects with 'realistic' characteristics were widespread within a time-limited period and geographical regions characterised by specific historical development. Among other things, this development is marked by: agglomerated settlements, high population density, innovations and active interactions of large groups of people, both in the extended networks of communication and exchange of complex societies and within the communities of separate settlements. The development ends with a crisis, during which the processes of disintegration of settlements and depopulation of regions take place. At this time, clay sculptures partially disappear and partially decrease in quantity, as well as losing their 'realistic' characteristics.

8.6 Summary

This study, once again, raises the question of the driving forces of stylistic development. For that, we focused on two prehistoric contexts, more specifically on Trypillia and the Late Neolithic site of Vinča-Belo Brdo where we analysed various objects with 'realistic' images.

For Trypillia, we included the following categories: house models, sledge models, depictions of equipment for animal use on zoomorphic objects (figurines, vessels, etc.), 'realistically modelled' faces of anthropomorphic figures, and depictions on anthropomorphic figures (hairstyles and accessories for hair, necklaces, footwear and clothing). Based on the latest findings on chronology, we trace the aforementioned realistic features in time and space by means of quantifications and mapping. Additionally, we investigate the changes of anthropomorphic figurines in terms of size.

In the case study of Vinča, the frequency of realistic features in different depths of the tell stratigraphy is placed in relation to the total number of figurines and the historical dynamics of late Neolithic societies. The consideration of different material categories shows that objects with 'realistic' characteristics mainly occur in certain periods and geographical regions that are characterised by specific historical developments. These include high population densities in large agglomerated settlements, increased innovativeness, intensive interaction in densified far-reaching communication and exchange networks.

In both case studies, the developments ended in fundamental crises and were associated with the disintegration of large settlements and population decline. Related to this, some types of 'real' objects disappear, while others become fewer and lose their 'real' characteristics.

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