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7 Conclusions

In the final chapter, we present the twelve principal conclusions of the monograph, discussing the major implications of each finding for Trypillia megasite archaeology. We then move away from a traditional account of our Project findings to a more intimate, person-focussed narrative about the Nebelivka megasite from the perspectives of ten different people – a Nebelivka Guardian, a house-builder, a clan leader, a visitor to the Assembly, an organizer of the Assembly, a pilgrim, an adolescent visitor, a Nebelivka ritual leader, a trader and one of the last generations of those living at Nebelivka. While these narratives are fictional, we hope that they convey something of the sense of being part of the extraordinary phenomenon that was a Trypillia megasite. We then return to a more traditional theme by considering what would form part of a future Trypillia megasite research agenda. We conclude the conclusion with a personal 'Endword'.

7.1 Principal Results

1. There is a strong case that Trypillia megasites were not only urban sites in relational terms, not only examples of low-density urbanism sharing all of the seven principal traits of megasites in general, but also the earliest known examples of LDU in the world, dating to ca. 3900 BC onwards. This result is perhaps surprising to the majority of archaeologists and certainly to all of the general public. It challenges the long-held view of the primacy of Near Eastern urban origins in the Fertile Crescent in the Late Uruk period (3400–3000 BC) and puts the Trypillia megasites at the heart of the debate over the emergence of urbanism in prehistoric Eurasia. Perhaps now it is time for colleagues to put themselves in Benedict Anderson's (1991) mindset and *imagine the possibility* of urban developments in Eastern Europe before those in the Near East?

2. The basis for the emergence of megasites was the Trypillia Big Other – that supra-regional consensus about the importance of houses, figurines and pottery for Trypillia lifeways – which reproduced itself as much through everyday practices (the *habitus*) as through the extensive social networks, including exchange, stretching from the Cucuteni group Eastwards to the Dnieper valley. The Big Other provided a common interactional framework for communal projects at a supra-settlement scale – a common set of shared values materialised in regionally specific ways. Without the Big Other, it seems highly unlikely that communal projects on the scale of the creation of megasites would have been possible.

3. The planning of Nebelivka was not a question of inheriting and reproducing a pre-existing and well-known form with established planning elements (concentric house circuits, inner radial streets, a vast inner open area, Assembly Houses) but rather a process of bricolage whereby the planning elements appearing for the most part individually on earlier, 5th millennium BC large sites were integrated over time into a single unified layout. The creation of an unprecedented settlement plan required a key group of early residents to *imagine the possibility* of a megasite – in itself a remarkable achievement. The 'final plan' of Nebelivka was not the same as the initial plan, which started as a minimal version of either (a) a house circuit with perimeter ditch (the Distributed Governance and Pilgrimage Models) or (b) several Quarters with later infilling of additional Quarters (the Assembly Model).

The new geophysical investigations of the 2000s and 2010s have not only confirmed the well-known, basic elements of the megasite plan but also identified several novel elements and combinations of elements in the plan. Individual elements include the Assembly House, the unburnt house, different sizes of pit, industrial features including kilns, and pathways. Groups of elements include Neighbourhoods, Quarters and pit lines or groups, with single pits often close to houses.

The precision of these geophysical plans has opened up a new world of interpretational possibilities limited only by the elaboration of theoretical support for the interpretations and a fine-grained chronological inner sequencing of megasites. In this project, we have made every effort to provide the former, while the latter is

so far lacking on every megasite where such an effort has been made. The absence of a fine-grained inner sequence has led to two approaches to spatial analysis: the (highly questionable) assumption that all structures at a megasite were in coeval use (e.g., Ohlrau 2015; cf. some of the Visual Graphic Analyses assumed coeval use of all structures in a Quarter: Section 4.3.2), and the integration of the modelling of inner sequences with spatial analyses (other VGA, Section 4.3.2).

The overall conclusion of the spatial analyses is that, nested within an overall site framework agreed or imposed from the top-down at the start of megasite dwelling, there is a huge amount of 'local' variability in the layout of every single planning element – whether the length of ditch segments, the size or shape of dwelling houses or Assembly Houses, the size and temporal duration of Neighbourhoods, the size and layout of Quarters, the constitution of inner and outer circuits, inner radial streets, blocking streets and squares and the size and shape of the three main open areas. This heterogeneity strongly suggests that the megasite was formed by a variety of home communities, each of whom seeking to maintain the identities of their own home sites in the face of tendencies to adopt an overall Nebelivka identity. In addition, the diversity of house sizes in any single Neighbourhood suggests 'local' competition in the construction of homes. Perhaps the key finding of the visual graph analyses of both entire Quarters and temporal groupings within Quarters was that, despite the detail of architectural variability, each Quarter would have had similar structuring of visibility and movement across the entirety of the site and over long periods of time. This finding shows an important link across scales of inhabitation, with megasite spatial order emerging as a monumental part of the Trypillia *habitus*.

4. An interpretation difference was soon to open up between the Durham group and our colleagues from Ukraine and Germany in respect of the very nature of a megasite and the populations at these sites. This difference is introduced at this juncture because it underlies the remainder of our conclusions. We have used the shorthand of **'**Maximalists' and 'Minimalists' for these two opposed positions. We suggest that there were two kinds of Maximalist-Minimalist relationship: the Ukrainian-German teams are demographic maximalists (site population estimates) and empirical minimalists (estimates for subsistence and building resources), while the Durham group consists of empirical maximalists (estimates for subsistence and building resources) and demographic minimalists (site population estimates). We claim that we have demonstrated that the Maximalists have consistently underestimated the resources and labour required to build megasites by using our experimental programme of house-building, -burning and burnt house excavation to produce realistic estimates of resources and labour for these tasks.

5. The divergence in views about megasites summarised in point 4 did not exist at the start of our research project but came to a head with time at the so-called 'tipping-point', when we recognised as many as nine (later 10) lines of evidence that cast doubt on, or simply contradicted, the standard position of all-year-round, permanently occupied megasites with populations in their tens of thousands. One of

the most important lines of evidence concerned the Nebelivka sediment core, located 250m East of the perimeter ditch of the megasite and in which we had expected to find proxies for a massive level of human impact on the local chernozem-dominated forest steppe. It was a great surprise to find that the level of human impact on the environment was modest - indeed, no greater during the megasite occupation than it was before and after it. This result and the other nine lines of evidence prompted a re-conceptualisation of megasites as long-term centres but with much smaller populations (in their thousands rather than tens of thousands) and with either seasonal or permanent occupations. This led us to develop three models for Nebelivka: the Distributed Governance Model, the Assembly Model and the Pilgrimage Model. The comparative evaluation of the three models shows that each model has interpretative advantages and disadvantages; it is not possible at this juncture to reject any model or to give a final preference for the most likely scenario. One of the primary reasons for the ambiguity in our assessment of the models was our failure to create an internal phasing of the various building units in the Nebelivka plan. The coincidence of our 80+ AMS dates with a wiggle on the calibration curve meant that the most useful dating result was the estimate of a 200-year duration for Nebelivka, most probably between 3970 and 3770 BC but no fine-tuned discrimination between the durations of inner or outer house circuits or inner radial streets.

6. The fieldwalking and remote sensing programmes in the Nebelivka micro-region showed that there were no other Trypillia 'sites' (i.e., dense clusters of surface pottery and house daub) within 8km of Nebelivka; indeed, there was only one Trypillia sherd deposited within the 5km radius of the megasite. This absence of a 'hinterland' distanced Nebelivka from the classic 'urban - rural' relationship in favour of a concentration of people at the megasite coming from sites in a wider region. Following intensive data cleaning, the spatial analysis of the site database from the 'Trypillia Encyclopaedia' (Videiko 2004), amounting to 499 dated Trypillia sites of known location and area, showed that Trypillia megasites were outliers in the general size distribution of Trypillia settlements at a scale of 100km, which acted as the operational limit of their social territories. This means that a large group of small settlements could have acted as 'home communities' for either visitors to, or residents at, the Nebelivka centre. This result was important in establishing baselines for the three alternative Nebelivka models, each of which conform to the parameters of overall megasite house numbers and the lack of major human impact on the forest steppe environment.

7. The Distributed Governance Model starts from the premise that there was small-scale settlement in the Nebelivka area before the megasite was founded and that settlement was linked into a wider network of sites who would co-operate in a long-term communal centre. Once the decision was made to start the centre on the Nebelivka promontory, building of the first house circuit defined the overall shape of the site over a decade, with a group of ten clans each sending settlers to build and live there permanently. Each year, a different clan took over all aspects of the running

of the megasite and contributed to its provisioning by bringing resources from their home site. The population level varied between 2,400 and 3,200 people, living in ca. 400 houses, with a steady rate of house-building and -burning which emphasised the success of clan control. Festivals and ceremonies peaked at the end of the year with the 'Change of Clan' ceremony but with smaller-scale rituals throughout the year. In summary, this model shows the possibilities of a much smaller population than had been previously considered living permanently, yet sustainably, on a megasite without creating major human impacts on the local landscape and without over-stretching local resources by the provision of food, drink, salt and other resources from outside the megasite. Any small-scale threat to regular contributions would have been dealt with at clan level, while the centralising tendencies of the Trypillia Big Other would have been invoked to ensure support from all ten clans.

8. The Assemblage Model invokes a seasonal settlement of the megasite, with a major annual one-month assembly period supported by a small population of megasite Guardians. The Guardians have settled on or near the Nebelivka promontory before the start of the megasite to lay out the outline of the site, plan for the assembly and organise the supply of building materials, not least five years of coppicing hazel rods for wattle-construction. The megasite was developed through the layout of four or five Quarters in each of the first three 30-year generations, with an estimated fewer than a 1,000 visitors in the first generation, rising to a maximum of 3,300 visitors in Generation 4. This expansion brings the major resource challenge of a peak of house-building in Generation 3 and maximum house-burning in Generation 4. However, spread over 30 years, the rate of building and burning would not have produced more than minor peaks in human impact. The visitors would have supplied their own food and drink resources during the assembly period, while the small permanent resident population would have been engaged in small-scale mixed farming all-year-round. The Assembly visitors would have benefited from an intensive social life, meeting people from more home communities than would otherwise have been possible and creating alliances through the ceremonies of the start and the end of the assembly month and the frequent special events (deposition, house-burning) throughout the month. There was a tension between the overall 'Nebelivka Identity' and the identities of the visitors' home communities which was never fully resolved because of the short time of the assembly period. The heterarchical social structure varied seasonally, with the group of Nebelivka Guardians controlling the overall organisation of the Assembly period from the top down but with Neighbourhoods and Quarters organised from the bottom up, having much more freedom to make their own 'local' decisions as regards house-building, -burning and other ceremonial events during the assembly period.

9. The Pilgrimage Model built on the pre-existing social networks linking communities across the entire Cucuteni-Trypillia world. In earlier periods, local site clustering brought together settlements in seasonal interaction, often through important ritual aspects of the Trypillia Big Other. This model extends the scale of this seasonal interaction through the decision of a group of site Guardians (cf. the Assembly

Model) to found a larger pilgrimage centre on the Nebelivka promontory. The biggest challenge in this model was the large-scale construction effort in the first two years of the megasite to dig the complete perimeter ditch and use the clay materials to build an entire house circuit. This ambitious decision was based on the premise that a massive communal effort would produce a particularly impressive, monumental pilgrimage centre, whose form and fame would attract many visitors and leave a lasting spiritual impression on the thousand or so builder-pilgrims. Once the pilgrimage centre's layout was established, later construction proceeded at a gentle pace, with the start of a second house circuit in Generation 1 and the Inner Radial Streets from Generation 2. The pilgrimage season lasted for the eight snow-free months of the year, with a month's visit from 20–100 pilgrims from as many home communities as could be accommodated up to just under 2,000 pilgrims per month. Ceremonies of arrival and departure, with appropriate visual and sound effects, were therefore regular events, as well as the larger annual ceremonies celebrating the Nebelivka identity, which were focussed on the Mega-structure and the other Assembly Houses. The importance of processions, whether executed in silence and contemplation, or with chanting and rejoicing, can be linked to the evolution of many specific megasite planning features, including the space between the two concentric house circuits, the frequent pairing of Assembly Houses and the cumulative increase in house memory mounds. The death of a Nebelivka Guardian would lead to a replacement from Quarter or Neighbourhood leaders, increasingly from home communities outside Nebelivka.

10. The importance of house architecture in Trypillia archaeology can hardly be overstated. Most excavations focus largely or completely on burnt house remains, while, before the Project, eight different experiments had been conducted on the building and burning of eleven Cucuteni-Trypillia houses. Trypillia archaeologists were amongst the earliest in Europe, if not *the* earliest, to recognise the deliberate burning of domestic houses. So how could an integrated study of small excavated samples of burnt and unburnt house remains and the results of an experimental programme of house-building, -burning and the excavation of the burnt remains two years after the conflagration contribute to this long-running debate?

There were four major issues to which the Nebelivka Project's experimental research has made a useful contribution: (a) the comparative interpretation of features, fittings and objects in the experimental house and Trypillia burnt houses; (b) whether the burning of experimental one- and two-storey houses left traces that would be recognisable in excavations of Trypillia *ploshchadki*; (c) the quantity of fuel needed for a successful house-burning; and (d) whether house-burning was a deliberate social practice.

Many of the excavation features found in our Test Pits were replicated in the burnt house, including general features (the burnt mass of house daub (*ploshchadka*), vitrified daub) and specific construction details (wall panels, sandwich layers of two fallen walls). Wall daub could readily be differentiated from floor daub in the experimental excavation.

The key finding as regards the indication of one- or two-storey houses was the state of household features such as hearths, podia and platforms. The appearance of dispersed middle-floor fragments and fragments of features (especially platform fragments) in excavation is good evidence of a two-storey house, while intact or fragmented but *in situ* features indicate the high probability of a one-storey building. The finding of a high ratio of two-storey to one-storey houses in the test pits (5:1) shows that such building differentiation was common at Nebelivka.

Because several former Trypillia house-burning experiments had failed to achieve complete combustion, a large quantity of firewood (30m^3, equivalent to 420 trees 0.15m in diameter and 4m in length) was fitted into the two-storey house. It is important to note that almost 10 times the amount of wood was needed to burn a two-storey house as was used to build it. This conclusion has important implications for the question of deliberate house-burning.

There are several reasons that make it highly improbable that a complete combustion of a timber-framed, wattle-and-daub house leading to the creation of both a *ploshchadka* and vitrified daub would have been possible through an accidental fire or even a military attack. The full implications of this important conclusion have yet to be digested in European prehistory.

The implications are perhaps strongest for Balkan prehistory, in which the concept of a 'Burnt House Horizon' (Tringham & Krstić 1990a) has been debated since the 1980s. An example concerns the recent papers produced by the 'Time of the Their Lives' Project, in which there has been a consistent assumption that burnt houses were the product of attacks or accidents. The sequence of burnt and unburnt houses at tell Uivar was used as a major element in the interpretation of the whole site and of wider Vinča developments (Draşovean et al. 2017). However, the internal site changes from deliberate burning on one horizon and the decision not to burn down houses on a later horizon require other, 'local' explanations in terms of site dynamics which have not yet been considered. The high probability of deliberate burning of most burnt houses raises many questions in a wide variety of prehistoric contexts.

11. One of the many attractions of working with Trypillia material is the quantity and quality of the finds associated with the burnt houses which are the main focus of excavation. The spectacular painted pottery and fired clay figurines have formed the centrepiece of recent international exhibitions about the Cucuteni-Trypillia group, which have led to the recent popularization of this group. Yet the aesthetic qualities of the finds have seduced most Trypillia specialists into a reflectionist attitude to the material: viz., the finds constitute a direct reflection of the daily lifeways of Trypillia households and communities – what in Schiffer's (1976) terms was 'primary refuse'. We are reminded of Hayden & Cannon's (1983) observation that "Artifact distributions in sedentary contexts provide the least reliable, most ambiguous indicators of specific activity areas, but are nevertheless the indicators most widely used" (see discussion in Chapman & Gaydarska 2007, Chapter 4). This quotation summarises the typical approach of Trypillia specialists to household finds assemblages. It is deeply ironic

that while these colleagues were the earliest to recognise deliberate house-burning, they did not extend this insight to how Trypillia households and their relatives and affines contributed to the house-burning ceremony with their material offerings. In other words, most Trypillia house assemblages were 'death assemblages' created for the deliberate burning event rather than reflections of living household practices. Likewise, the large quantities of finds found in pits derived more often from specific depositional 'events' than from generalised household refuse. As an alternative to reflectionism, we see the archaeology of Nebelivka as an archaeology of selective fragmentation and episodic discard/depositional practices, mediated by principles which we can glimpse but which are rarely in clear focus. A little more accessible to spatial analysis is the recognition of the varying spatial scales at which deposition took place, ranging from the individual act of placing an old and worn red deer incisor pendant in the Mega-structure before it was destroyed to the communal deposition of an estimated 322 vessels or vessel parts in that same Mega-structure. These various spatial scales of deposition were, by the same token, proxies for the inclusivity of social identities signalled by these deposited objects, as exemplified by the distribution of several painted decorative motifs across the full range of the megasite to signify the ubiquity of personal interactions on the Nebelivka promontory.

12. It is fundamental to our understanding of the Nebelivka megasite to paint a clearer picture of the social structure governing daily practices and wider social networks at the centre. The following six principles are sufficiently general to be applicable to each of the three alternative models for Nebelivka yet specific enough to make detailed proposals for future critical evaluation.

The social order must be inextricably linked to the Trypillia Big Other in a reflexive relationship where the materialisation (houses, pots, figurines, etc.) should be demonstrably symbolic of that wider Trypillia social order.

The social order needs to be a horizontally open kind, able to accommodate a wide variety of people from many different home communities – meaning also a lot of people – and yet create the possibility for a megasite identity to which all can build loyalty and affection. Such a social order would have privileged consensus-building over exclusionary strategies. The obvious possibilities are sodalities based upon relations between non-kin groups covering many settlements in a region or some form of descent group, such as lineages, whether segmentary or not.

The social order needs to be heterarchical, avoiding more than two levels of vertical differentiation, so as to control any individual or household tendencies towards aggrandizement and/or accumulation. This principle excludes the possibility of some variant on the 'House Society' and should mitigate scalar stress. In terms of the corporate-exclusionary continuum, the social order is clearly closer to the corporate end.

The social order needs to be nested in accordance with the subsidiarity principle (e.g., different occasions for deposition or feasting would have occurred at each nested level or at more than one nested level where appropriate). This principle would fit the

nested spatial order of household – Neighbourhood – Quarter – megasite, thereby mitigating scalar stress.

The social order needs to be simple and flexible enough to cope with changing demands and challenges yet robust enough to support experimentation with problems that no-one in the Trypillia world had ever had to face before.

The social order needs to include 'safety valves' which allow for failures, mistakes, unforeseen problems and conflicts between the same community as well as, more probably, between members of different home communities. The proxies for such social safety valves included low-density living, with many places in a huge site to escape to in case of trouble or locationally marginal houses or Neighbourhoods.

The social experiment of creating a planned Trypillia megasite would have needed to integrate such principles by bricolage from previous experience, past smaller-scale lifeways and on-the-ground improvisation. Whether or not these principles fit the prehistorian's preconceptions of the form of an early, unprecedented urban social order, we submit that the bricolage of these principles would have allowed the development of a social order which lasted, on different megasites and in different places, for close to 600 years.

7.2 What People Thought About the Nebelivka Megasite

We have discussed the growth of the Nebelivka megasite from what came before, the early dwelling, the development of the megasite plan, the emergence of Quarters and Neighbourhoods, the importance of Assembly Houses, all of the basic components of the plan, the transformation of the site from living houses to living- and dead-houses and the abandonment of Nebelivka. We wish to conclude this monograph with a more intimate, person-focussed narrative about the Nebelivka megasite – a narrative which is not at odds with the structural conclusions presented above but which highlights what it may have been like for people to organise the coppicing of hazel on a big scale, move onto the site and live at, or come on a monthly visit to, a place in the company of hundreds or even thousands of people from different home communities. In this section, we present the imaginative viewpoints of ten different kinds of people who engaged with the megasite in contrasting ways.

7.2.1 The Viewpoint of a Nebelivka Guardian

It was always going to be difficult to persuade all of the other settlement leaders to agree on one specific place for a future centre, even though everyone agreed that it was an important task. Leaders with roots in the Southern Bug valley to the South-West knew dozens of promontories framed by small streams – places replete with fertile soils and good pasture between the stands of trees. The problem was which of

the many places to choose. But, one Midsummer's Eve, we were sitting round the fire in the small site South of the Nebelivka promontory and we saw shooting stars fall right on the promontory. This dazzling event made a big impression on the elders, who, there and then, decided that this was the most auspicious place for their centre.

As I said, there was already an agreement between many site leaders to create something big and impressive which would attract interesting people and special objects. Now we had a site, the work of planning began.

The first task was to plan the stock-piling of tools for the house-building and for digging the big ditch round the site. Builders and diggers should come with their own tools but hard work wears the tools out within a month and we needed to have more tools in reserve. Local flint was readily available from within a day's walk but good stone for axe-making was not to be found in our local valleys. So exchange was needed, which meant objects for exchange in return for the axes had to be collected from the leaders. The keeping-back of scapulae from every bovid that was to be slaughtered henceforth would provide for shovels, while there were still enough mature red deer in the woodlands to provide antlers for picking tools. So teams of hunters started the job of killing the deer, while groups of antler-collectors collected the shed antler in late spring. Those who knew the wetlands of our valleys were recruited to identify the areas of the best-quality reeds for house-roofing, while those with potting experience dug pits to test the quality of the clay on the promontory and marked out ditch sections so as to exploit this heavy material. Elsewhere, woods-men and -women found the closest hazel stands and started the work of coppicing immediately, for it would take five years to produce a good harvest of hazel rods for wattle-making. Everyone in the small sites near the promontory was engaged in the preparations for the site and it took a lot of talking, eating and drinking to keep everyone at their tasks. Which meant a lot of food and drink production to oil the logs[111] of the project.

The negotiations on the size and layout of the new centre were long and hard, because all views had some merit – those wanting a smaller site would have an easier task for marking out the perimeter ditch and the areas for building, those in the middle sought a fairly impressive site with a fairly heavy planning load and those ambitious types who thought nothing of marking out a 7km perimeter with a site length of over 2km in order to make a huge impression on the clans around our valley. In the end, the maximalists won and, under protest, we agreed to create a megasite to exceed the size of any earlier site. The planning team walked the promontory many times to get to know the building site, its points of intervisibility, the breaking-points where slopes became too steep for construction and, in particular, the best clay patches which would define the line of the ditch. In the end, the areas for early house-building and the line of the ditch were marked out with vertical timbers hammered into the soil and tied with coloured threads woven on our household looms.

111 In the absence of wheels, the appropriate metaphor here is 'logs'.

7.2.2 The Viewpoint of an Early House-Builder

I suppose I was a good choice for a builder on the new site. With my close connections to a reliable supplier of stone axes and flint tools, I had had experience of building houses before and knew the kinds of good-quality timber, hazel rods and reeds to make a solid house. And I was also heavily indebted to our site leader for providing food and drink for the wedding of our eldest daughter to a poor young lad from the next settlement.

I started off for the new site with five other builders from my settlement, carrying our tools and food and drink. We stayed overnight with relatives on the way, which took care of the food and drink we had brought. So by the time we reached the new site in the afternoon of the second day, we were ready for our first real meal of the day. Slowly that day, and for the next few days, other carpenters, wattle-makers and roofers arrived. All of us were expected, since the local group had prepared stocks of food and drink for us. The residents had also collected lots of clay, reeds and hazel withies in piles around the areas marked out for house-building. What was not ready – and this was our first job – was the construction timber. There were dense but small stands of trees in the centre of the site which became the source of the house timber. The sound of a old oak tree crashing to the ground, narrowly missing a pile of hazel rods, filled the promontory with the sad noise of growth destroyed. Many trees came down in those first few days. Once the trees were de-barked, a new noise took over – the rhythmic cutting of mature wood into beams for building. Many stone axes and chisels were destroyed in the cutting but, again, the site guardians seemed well-prepared with replacement tools. There was a strong motivation to build the houses, since there were no others for the building team to rest or sleep in. After a week of little sleep but long hours of work, the first house was ready for occupation.

The building season seemed never-ending and it must have felt the same for the ditch-diggers, who exhausted their own digging tools before working through the centre's tool reserves. The cattle consumed in the feasting provided a steady supply of scapula shovels but hunting parties had to be organised to bring back more deer antler for picks. Once, the tools were so slow in coming that a return visit was possible to my home community – then back to the job. But, as I approached what was a building site from the Southern ridge for the first time since I had arrived three months ago, I was deeply impressed with the view – a huge arc of new houses in groups and lines inside a big ditch separated by intermittent causeways. And the first part of the site was still only half-finished! To have helped to build the biggest site in the region – in our local world – this was a story to tell my children and grandchildren.

7.2.3 The Viewpoint of a Clan Leader

It is now halfway through the year when our clan took responsibility for the provisioning of the now-complete megasite. Why are there so many new people arriving from other clan settlements? Perhaps this is not so surprising, since the word is that our site is the biggest in the whole of the Trypillia world. But the new numbers put pressure on our clan settlements to bring the food and drink to Nebelivka every fortnight. It is not so much the growing of such quantities of additional grain – after all, we have had nine years to store grain in readiness for the 10th year of clan provisioning – what we call the 'year of commitment'. Neither is it the 'sacrifice' of prime beef and good sheep and goats for their walk to the megasite – this trip just needs careful guards to protect the stock against brigands. No – it is the carrying of what seems like the additional *tons* of grain over 60km to Nebelivka, as well as the *tons* of salt which we had to acquire through exchange of other clan valuables. One thing is certain – transport would be even harder if it had not been for the invention of the sledge, which works reasonably well over grass in the snow-free months.

I suppose it is inevitable that there will be protests about the extra hard work involved in the year of commitment. One household with access to less fertile land than most of the community suffered two bad crop years in a row and one of them was the year of commitment. So, of course, there were moans and groans about the unfairness, the hard life … There were even complaints from the others about the clan support offered to the unfortunate household, even though the family knew they had to make retribution in times of future good harvests. But these protests amounted to small-scale bickering, with no sign ever of a clan-wide revolt against the year of the commitment. This is because all the clans accepted that the benefits of the system outweighed the costs – that for one hard year, you gained nine years of care from the other clans, who supported your presence at Nebelivka.

I am surprised that the clan system has worked out so well at the megasite – initially, there were fears that freeloaders would bring down the whole enterprise and that it would end in disaster. Another common concern was living with so many different clans with whom our own clan had never been on the best of terms. But we had enjoyed poor hostile relations with other clans because we had never lived, worked, co-operated and partied with them. Once you formed part of a community of over 2,500 people, you realised that other clans were not so very different from your own group and that clan symbols were simply that – painted pottery which could have been painted in another way, with four vertical lines inside a lozenge instead of two diagonal lines in a circle. Megasite living brought a new tolerance to our clan members – a recognition of the superficiality of minor differences and the importance of genuine opportunities for interaction.

7.2.4 The Viewpoint of a Visitor to the Assembly

As a mother of three, I live in a typical small Trypillia farming settlement of 200 or so people, where we live in 30 houses and meet with relatives and affines from two or three other similar communities a few times each year. Talking to my parents and their grandparents, this is how life was when they were growing up. As long as the fertile soil delivered its promise of a good harvest, there were few stresses in our lives, while births, marriages, serious illnesses and deaths provided the surprises and the peaks of excitement, enjoyment or sorrow of our lives. Perhaps the greatest moment in community life was a house-burning; everybody in the community helped to gather the fuel for a successful burning, which provided a spectacular event for the day.

So when news filtered through from the next community of the building of a huge new Assembly site only 40km from our settlement, there was a palpable sense of anticipation for new experiences, especially meeting new people and maybe seeing new kinds of objects made by skilled people of the kind that we did not have in our midst. The offer of my parents to look after the children released me to go with our community group of 30 people to make our community's first visit to the assembly site and report back. We were aware that our contribution to the new centre was to build a series of four new houses in our month's visit, so we took our own tools as well as food and drink, two cows and gifts to the residents of Nebelivka.

The first surprise on our two-day journey was the number of other people following the stream-side tracks Southwards to Nebelivka. Even if no-one from our group knew the whereabouts of the promontory (in fact, we did have one such person), we could not possibly have got lost – we just needed to follow the crowd. It did not take long to find affines who had visited our settlement in the past – people whom we could co-operate with on the megasite and whose presence removed any sense of fear or apprehension about whom we may find at the assembly.

Our arrival at Nebelivka was preceded by views of the site from the Northern side, which showed us the full width of the promontory site, with its dominant circuit of 70 or 80 new houses, often two-storied, and including some houses of a size I had never seen before. The Nebelivka folk were seemingly well-prepared for so many visitors, for there were people to guide us round the Northern house circuit towards the West entrance. We were sent to a big triangular area near a stream with a source seemingly in the centre of the megasite and asked to settle down until the time for an evening meal. This triangular area was many times larger than our settlement, yet it made up only one small part of the assembly site. It was the place where our group, and those from nearby settlements, would live and build their houses.

7.2.5 The Viewpoint of an Organizer of the Assembly

One month to go before the assembly begins! Will it be better organized than last year's Assembly? I certainly hope so – to run out of food and drink as well as building resources half way through the festival because of the surge of visitors was, frankly, an embarrassment … It is great that the Assembly has proven to be such a success but not so good that we were overwhelmed by sheer numbers. Luckily, the potential for frustration among the visitors, which could have boiled over into violence, was contained and the basically good-humoured assembly crowd were remarkably tolerant of our failings. We could have countered that visitors were supposed to bring more resources of their own but I doubt that visitors would have appreciated such a reply. Better to turn our attention to the following year and see what we could improve on.

The site guardians will need to get help to bring more forest resources (building timber, withies) and other supplies (clay, reeds) in advance to the actual building plots where the new houses will be erected. Even if they do not bring all the materials for each house, this work would make a huge difference to the assembly's building programme of perhaps 40 houses in one month if a lot more material is brought to the site next year. We shall also need to stockpile more sledges, lithic tools and stone axes for transport and construction.

It will also be important to improve ways of guiding new arrivals to the parts of the megasite where they need to build their houses. We thought we could count on second-time visitors being able to show new arrivals around the megasite and ensure they ended up in their Neighbourhood. This did not happen. Since we cannot rely upon experienced visitors, we shall have to mobilise more assembly helpers to meet and greet new arrivals and escort them to their building site, where some of their affines and relatives should already be in place.

Most importantly, we need to manage the supply of food and drink much better than last year. It is very bad to have a rumour circulating that Nebelivka ran out of food and drink for the main events of their assembly for the second year running. I think that the home communities will not object overmuch to bringing extra food on the hoof to the assembly, by way of one additional bull and three extra caprines per community; an extra animal from each household of visitors would, however, probably be too much to ask. The site guardians will need to invest in the building of extra communal baking facilities for the obvious higher demand for unleavened bread at the main ceremonies. If we can resolve these issues, I am confident that the Nebelivka assembly will become well established in the region as the key event of our annual social calendar.

7.2.6 The Viewpoint of a Pilgrim

I am a figurine-maker from a home community almost 80km from Nebelivka and, as such, am fully committed to the system of religious beliefs in which figurines play an important role in ceremonies[112]. My sister and I joined a small pilgrim group of 20 souls from our settlement, partly to intercede in a healing ritual for her cranial disfigurement, partly as an act of devotion that would strengthen our belief and practices. Although we were not able to build houses, we could prepare food and drink for our brethren.

The scale of the pilgrimage was such that neither my sister nor I had ever experienced before. In the summer month of July when we visited, there were almost 2,000 pilgrims at the centre. Two massive ceremonies of arrival and departure framed the visit, using the huge inner open space which occupied an area 10 times the size of our home community. In addition, there were weekly ceremonies based upon processional routes and Assembly Houses. The processions wound their way along the perimeter ditch, then outside the outer house circuit, then between the two house circuits and then between two inner radial streets to reach the inner open area. More intimate rituals for smaller numbers of important ritual leaders were held in the Assembly Houses, which were located at intervals along the processional route. There were also periodic rituals based on the houses where the pilgrims dwelt, including healing rituals where pilgrims were invited to deposit figurines or figurine parts representing the ill pilgrim. As a result of my placing a realistic image of my sister in our dwelling house, my sister's health improved and she had fully recovered by the time we had returned to our home.

The sense of solidarity with other pilgrims, the scale of ceremonial shared with so many other co-believers and the sheer size of the centre itself – they say that it is the largest pilgrimage centre in the Trypillia world – these were what made the Nebelivka pilgrimage so special to me and my sister. We may never return to the pilgrimage centre again but it has had a profound effect on my life as a pilgrim and an explicitly beneficial effect on the health of my sister. I encourage every person who is committed to the faith to visit the Nebelivka centre.

7.2.7 The Viewpoint of an Adolescent Visiting Nebelivka for the First Time

My parents had been to visit the Nebelivka assembly several times, always leaving me behind with my grandparents, whom I loved deeply but who were a poor substitute for a vast assembly. Finally, once I had reached my 13th birthday, I was allowed to accompany my parents to the assembly, together with my best girl-friend from the

112 The system which the Project refers to as the'Trypillia Big Other'.

settlement. This would be the first long trip that we had ever made outside our settlement.

We reached the assembly site after a long, dry and dusty 20-km walk in which the settlement group set what seemed to us to be far too quick a pace but which was designed to bring us to the site by the evening of a single day. An unbelievable sight greeted us – a vast central site many times bigger than our settlement, completely illuminated by hundreds of campfires lit up across the site. Hundreds of people were present and yet not present – in the shadows, their faces invisible but playing their part in the creation of an atmosphere that was quite new to me and utterly fascinating. The talking and the singing – the playing of pipes, each with a different tune, at many places on the site – together produced not so much a cacophony as a welcoming wall of sound which I had never heard before. So this was an assembly site.

The biggest difference from our home settlement was that something different happened every day, with the biggest impact being that I met different young people from new villages every day. Some of them dressed in completely different ways from the people in my community, others spoke with the same language but used odd words, often with a slightly different accent, and still others looked different, with faces the like of which I had never seen before, with different hairstyles and personal ornaments. But because this was an assembly site, it was safe to meet these different kinds of people, talk to them and get to know them in a way that my parents would never have permitted back in our settlement. Some of the meetings were open and in the daytime, others were surreptitious, at night, covered by the shadows of the houses cast by the bonfires. It is hardly surprising that mutual boy – girl, boy – boy and girl – girl attractions started up in such a magical place. Love-gifts were exchanged in the last evening, to be hidden on the walk back and treasured in secret at home until another assembly. Would my special friend from over the river come back? Would I ever be allowed to pay another visit?

7.2.8 The Viewpoint of a Nebelivka Ritual Leader

I was a ritual leader in a small settlement before moving permanently to the Nebelivka centre as one of the site guardians, where I helped to create the context for a far wider range of ceremonies than any ritual specialist had ever participated in before. We managed to do this by drawing on a small number of basic ritual sequences, which could then be elaborated or re-combined so as to work at very different scales of participation, whether a single household, an Assembly House, a Neighbourhood or a Quarter.

Many of the rituals which we led were staged in the Mega-structure, where the many different platforms created stages for different presentations, observed by different groups. I used the ritual board game in the Mega-structure with several tokens brought in by visitors to the megasite; at the end of the game, the players took

their tokens away and I ritually smashed the board. One of the special decorations which I would wear for such ritual games was the gold hair-ornament which I lost in the Mega-structure during a performance. By far the largest ceremony centred on the burning down of the Mega-structure, which involved collecting sherds or vessels from all over the megasite to create a massive offering before starting two fires – one in the Eastern rooms and one in the South-West corner.

We transferred the same form of rituals to many other megasite contexts so as to enable the residents or visitors to familiarise themselves with the ritual for themselves. We made this particularly effective in house-burning ceremonies, which acted as a ritual magnet for an entire Neighbourhood or Quarter and helped to integrate the residents through a highly emotional performance.

Another form of ritual which we adopted for many different contexts concerned the rituals of arrival and departure which framed group visits to Nebelivka. These often local rituals made most sense through depositional events involving pit-digging and re-filling. Many different groups participated in such rituals, with each group using the materials they had at hand, often markedly different from the materials for a nearby pit deposition-event.

One of the most specific rituals which we created for the pilgrim visitors to Nebelivka involved the staging of offerings in Assembly Houses during important processions through the megasite. The ritual took the form of blessing the objects which the pilgrims had brought so that they could take part of the Nebelivka blessing back home with them.

7.2.9 The Viewpoint of a Trader Visiting Nebelivka at Assembly Time

I am quite good with people and languages and this has helped me to facilitate trade and exchange between people from different backgrounds in the widespread Cucuteni-Trypillia networks which linked hundreds of communities. My mobile life has taken me to many places, from the Black Sea to the peaks of the Eastern Carpathians and the Dnieper Rapids. I have seen many sights, including salt mountains and salt lagoons, many strange species, including lions on the Black Sea shore and strange red birds in the Black Sea, and many settlements, including great dwelling mounds and unconquerable hilltop fortifications, but I have never experienced anything quite like Nebelivka. It is so obvious to me: since it is people who do exchange, the megasite is the greatest centre for my livelihood – there may be 2,000 people on site in the fortnight that I visited. Unlike many people from small communities, I actually enjoy meeting strangers – it is one of the pleasures of a mobile life – so Nebelivka is a paradise for a trader, an unrivalled opportunity to make contacts and set up future exchanges on an undreamt-of scale.

You can imagine why I don't carry much 'stock-in-trade' with me: it's too dangerous for a solo trader, who can be attacked and robbed anywhere along the

forest track. So I carry just a few shiny, colourful, attractive but especially light objects to start a trading relationship. I usually have in my bag some copper ornaments, a red deer canine pendant or two, several flint cores from the Prut valley, a few marble or limestone beads and, occasionally (they are so rare nowadays) a marine shell bracelet. I used to carry gold ornaments too but word got around and, after two muggings, I abandoned the idea. But what I do have attracts the attention of Trypillia people and then I can bring the new partner what they specially desire on a return trip.

Here in the Nebelivka assembly, I often need to exchange a copper item for a good dinner but there are regular exchange partners at the megasite at the same time who will invite me to their feast to keep my attention. Until now, I used to go from community to small community, sleeping at each site for a few nights, exchanging stories, spreading gossip about families living on nearby sites and trading ornaments and tools. This was good for obtaining a diversity of things for exchange but it is a hard life. The Nebelivka assembly makes me think of a new trading plan – stocking up with more exchange goods and visiting the assembly every year, making it my main exchange event. I would never ask the guardians to let me settle down at Nebelivka – for now, I still prefer life on the road – but that centre, and others which may develop, would allow me to travel less and meet more people. I'll continue site – to – site trading for another year or two and then make up my mind.

7.2.10 The Viewpoint of One of the Last Generations of Residents at Nebelivka

Everyone as old as me – and I'm over 50 now – harps on about the 'good old days' – how things were better then than now (better beef goulash, tastier borsch, bigger portions of venison, more beer). And also how you could get firewood in a 15-minute walk, whereas now you'd be lucky to find some in an hour. It's not surprising that there are fewer house-burning ceremonies nowadays – no-one can find enough fuel for a proper fire and there's rarely a spare bull that can be sacrificed for a good funeral feast.

The last time the Eagle Clan had their 'year of commitment', there was an unprecedented disaster, with several other clans having to bring their own food and drink from their home communities. No-one really seemed to know the cause of it but the rumours were that half of the Eagle Clan communities were in favour of paying their dues while the other half were opposed to the idea. If a clan is split down the middle, it is hard to find a compromise. So the supporters had to work extra hard to supply the megasite and, of course, they couldn't manage the additional load. There were too many objectors (I would call them 'backsliders') for the supporters to impose any sanctions and the rule of the Big Other is not what it was.

Something else has changed in these valleys recently. Once Nebelivka was the only major centre for clan meetings but now one or two new centres have emerged, and less than two days' walk from Nebelivka at that. The leaders of the new centres

are, of course, opposed to each other's success but this is nothing compared to the rivalries they provoke with the established centre at Nebelivka. There are no doubt many inducements to persuade clan leaders to abandon the old centre and join a new megasite. New arrangements for house-building with construction timber on site rather than 10km away; a lower proportion of food and drink for the clan to supply for the first 10-year cycle; new metal status symbols for clan leaders to take home and display in their own domestic ceremonies, etc., etc. The new leaders are doubtless also skilful in dredging up old memories of less-than-happy times at Nebelivka, as well as in exploiting those divisions in the clans which have already threatened the social order of almost two centuries. It is easy to forget that many 10-year cycles had already been successfully completed at Nebelivka until the first, recent disaster. But, as the old Trypillia saying goes, the grass is always greener on the other side of the river. As someone who has lived all my life at Nebelivka in the family of a site guardian, my own fear is that the megasite may soon disappear. And then what would I do?

While investigating a site as large and complex as that of Nebelivka, it is easy to overlook the people who lived there permanently or paid seasonal visits to the centre. We hope that our small cast of ten 'representatives'[113] has brought more life to the Project findings by showing the human face of meeting at such a centre.

7.3 A Future Research Agenda

Every interesting research project raises more questions than it can answer. The questions which we have posed and still not answered vary from detailed questions about individual objects or events (see the list of eight 'inexplicable' occurrences at the start of Section 5.5) to general issues affecting all Trypillia settlements (e.g., the problem of the wiggle on the calibration curve at the start of the 4th millennium BC). We have narrowed down these questions for the future to five issues for the Trypillia group in general and three issues pertaining specifically to Nebelivka.

7.3.1 Issues for Trypillia Studies

First, in our 2014 article (Chapman et al. 2014b, p. 398), we predicted that the new generation of high-precision geophysical investigations would create a new research agenda for field investigations that would last two decades. We are delighted that this prediction is already being fulfilled, with new excavations of Assembly Houses at two more megasites – Majdanetske and Dobrovodi (Müller et al. 2018; Hofmann et al. 2019).

113 All of the characters are imaginary and any resemblance to a living individual is purely fortuitous.

Careful stratigraphic excavation of large pits has also been built into the Majdanetske project (Müller & Videiko 2016). The excavation of kilns has made perhaps the greatest progress in the last five years (Korvin-Piotrovskiy et al. 2016), while the method of test-pitting to recover a series of samples for AMS dating has also been adopted at Majdanetske (Müller et al. 2017) and is urgently needed for Taljanki. We are still poorly informed about the form and content of the smaller pits and, especially, the pit groups. And there is much to be learned about the entrances to megasites (the breaks between ditch sections) and, especially, the ditches themselves. Long ditch exposures of the kind favoured at *Rondels* such as Svodín, Slovakia (Němejcová-Pavúková 1995) or causewayed enclosures such as Etton, England (French & Pryor 2005) would yield vital information about the practices of ditch-digging, re-cutting episodes and the deposition of finds in ditches.

The second gap in our understanding of Trypillia megasites concerns the settlement patterns in the megasite hinterlands. The current project was the first to include intensive, systematic as well as targeted fieldwalking in their research design, with vital results for our understanding of the Nebelivka settlement. A positive sign is that further fieldwalking has already begun in the Vinnitsa region (V. Rud, pers. comm.). Given the large size of megasite territories, a huge effort will be required for this task.

Thirdly, while we have a broader range of general vegetational histories for the Ukraine than we had a decade ago (e.g., Harper 2016, 2019; Pashkevych 2012; Shumilovskikh et al. 2017), targetted palaeo-environmental investigations near megasites are still very rare. While samples collected from archaeological contexts can provide useful data (e.g., Kirleis & Dal Corso 2016; Kirleis & Dreibrodt 2016), it is essential to recover long, well-dated sediment cores from wetlands close to megasites. It is not an exaggeration to say that no other information will confirm or disprove the alternative hypotheses about the size of megasite populations and their alleged effects on the local forest steppe.

Fourthly, following a central decision by the directorate of NAS Institute of Archaeology, the vast majority of financial resources devoted to the understanding of Trypillia megasites has been channelled into intensive excavations at only two megasites – Taljanki and Majdanetske. The third megasite under intensive investigation is Nebelivka. It is fundamental to explaining the origins of megasites in the Trypillia Phases BI and BI/II that complex inter-disciplinary investigations are targeted at smaller and earlier Trypillia sites in the Southern Bug-Dnieper Interfluve (e.g., the Mogylna sites, Onopriivka and Vesely Kut).

The fifth point concerns the whole of world archaeology, not only the Trypillia group, and is related to the promised improvements to the radiocarbon calibration curve (Alex Bayliss, pers. comm.). These improvements should reduce the deleterious effects of the wiggles, which in our specific case, may help to overcome the problems of early 4th millennium BC chronology and help achieve the Project's only unfulfilled objective so far – the modelling of a tight internal Nebelivka chronology.

7.3.2 Issues for Nebelivka

First, we have proposed three alternative models of smaller-scale, sustainable megasite dwelling – namely the Distributed Governance Model, the Assembly Model and the Pilgrimage Model. In the current state of research, we do not find it possible to discard any of these three models. The models are only to a certain degree overlapping, so it is unsustainable to continue to support all three models. However, this part of the Nebelivka research agenda requires further elaboration in future years.

The second point relates to the experimental house-building programme. The comparative element of the programme was vitiated for good village political reasons. However, were the political situation in Nebelivka to change, any future opportunity to burn the one-storey house and excavate its burnt remains would be beneficial in allowing the comparative examination of both houses.

The third issue concerns artifact studies. Very few characterization studies have yet been performed on the Nebelivka samples of pottery, figurines and ground stone, not to mention the only gold object currently known from the Trypillia group. Characterization studies would strengthen our understanding of the exchange networks which linked Nebelivka to the rest of the Trypillia world. A single detail about exchange concerns the discovery of graphite-painted decoration on pre-Trypillia pottery in the forest steppe zone and on some of the Trypillia pottery at Nebelivka. There is an urgent need for a programme characterizing the most important graphite sources in Southern Ukraine and the related pottery, both Neolithic and Trypillia.

7.4 Endwords

To conclude the conclusion, the Project would like to repeat its thanks to all of the individuals, groups and institutions who have made this research so productive over the last decade. If the development of new and ‘unacceptable’ (i.e., challenging) ideas and hypotheses have provoked strong reactions and led to the breaking of partnerships or friendships, we can only state that, although we had hoped that there would not be a choice, the honest pursuit of a better understanding of the past is more important than personal relations. We hope that any intellectual failings published here are treated with respect.