

# ARCHAEOLOGY AND THE SOCIAL SCIENCES

## STUDYING THE SOCIAL ORGANIZATION OF NEOLITHIC HUNTER-FISHER-GATHERERS IN FINLAND

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### *Introduction*

Although aspects of the social organization of Neolithic (c. 5100–1800 calBC) hunter-fisher-gatherer societies<sup>1</sup> in Finland have been referenced in archaeological literature since the early twentieth century (see e.g. Pääli 1915: 108), up to the present time there has been little broad ranging analysis of the social forms of such groups. In the majority of the few case studies, Finnish-Neolithic societies have been described as generalized hunter-gatherers living in bands or, in some cases, as representatives of fairly developed tribal institutions (e.g. Halinen 2005: 104–105, 113; Seger 1982: 25, 31–32; Siiriäinen 1981: 33; for a definition of generalized hunter-gatherers, see Hayden 1997:12; the definition of band, see Service 1971b [1962]: 98, Service 1979 [1966]: 4–6; the definition of tribe, see Service 1971b [1962]: 131–132; Sahlins 1968: 15, 20–21, 24). Recently, it has been suggested (Okkonen 2003) that at least on the Middle and North Ostrobothnian coast, between about 3500–2500 calBC, the societies represented complex hunter-gatherers and were thus neither egalitarian nor stratified (Okkonen 2003: 219–226; for definitions of complex hunter-gatherers, see Arnold 1996: 78–79; Hayden 1997: 8, 11). The definition, identification and distribution of these societies have been under animated discussion in Anglo-American literature during the last few decades (see e.g. Arnold 1996; Hayden 1997; Rowley-Conwy 1998; Sassaman 2004; Zvelebil 1998).

This article aims to provide an introduction to the current state of Neolithic social studies in Finland with the following section presenting a short historical review of discussions concerning Neolithic social organizations—that is, the relations between groups and individuals (Service 1971b [1962]: 11). Alternative approaches to current archaeological studies of Neolithic societies are then examined. There is hardly anything new in these suggestions and some of them have already been quite thoroughly discussed in some Finnish studies (e.g. Halinen 2005: 96–102, 104–105; Okkonen 2003: 215–235; Seger 1982: 25, 29–32; Siiriäinen 1981: 32–33). Still, it could be stated that their full potential is not adequately explored in Finnish Stone Age research at the moment. Thus, in the third section an outline of some further potential points of contact with sociological and anthropological approaches is presented. A preliminary outline of a few research problems strives to serve as an example of the objects and prospects of these kinds of approaches.

### *Research history: a short review*

The following historical review of research in the field is neither a critical nor comprehensive one but seeks merely to offer a short introduction to the studies of Neolithic social

organizations in Finland. Five treatments were selected for closer examination on the basis of their representativeness of both the studies of their time and certain main theoretical orientations:<sup>2</sup> Sakari Pälsi's *Riukjärven ja Piiskunsalmen kivikautiset asuinpaikat Kaukolassa* (Pälsi 1915); Ville Luho's *Kokemäen Pispän kivikautinen asuinpaikka* (1960); Torsten Edgren's *Jäkärälä-gruppen: en västfinsk kulturgrupp under yngre stenåldern* (Edgren 1966); Ari Siiriäinen's *On the Cultural Ecology of the Finnish Stone Age* (Siiriäinen 1981); and Jari Okkonen's *Jättiläisen hautoja ja hirveitä kiviröykkiöitä—Pohjanmaan muinaisten kivirakennelmien arkeologiaa* (Okkonen 2003). Ville Luho's *Suomen kivikauden pääpiirteet* (Luho 1948) is also briefly mentioned.

In his academic dissertation *Riukjärven ja Piiskunsalmen kivikautiset asuinpaikat Kaukolassa* (Pälsi 1915), Sakari Pälsi studied the Stone Age settlement sites in Kaukola on the western shore of Lake Ladoga on the Karelian Isthmus, an area which was part of Finland at the time. The research material comprised about twenty sites—ten of them excavated—situated around and between two waters, the Lake Riukjärvi and the Straits of Piiskunsalmi. During the research period these waters were connected by another strait. Pälsi briefly discusses the inhabitants of two of these sites: Lavamäki and Tiitunmäki (Pälsi 1915, 108). The principal bulk of the ceramic material in both sites was Typical Comb Ware (Pälsi 1915, 70–71, 88–89), which is dated to ca. 3900–3500 calBC (Pesonen 1999b: 193). In Lavamäki Pälsi excavated at least three possible dwelling remains and in Tiitunmäki two. Judging by the locations of the structural remains, the finds and cultural layer features with respect to each others he states that the dwellings were probably inhabited at the same time.

On the basis of the sparse dwelling remains, weak cultural layers as well as the fairly small area of these and other sites known at that time in Finland, Pälsi draws the conclusion that these communities were relatively small and organisationally simple. They were composed of perhaps one kin group and lived in small villages like those found at Lavamäki and Tiitunmäki (Pälsi 1915: 108). In Lavamäki, he thought, possibly six or seven couples lived with their children, and in Tiitunmäki three or four. Pälsi further proposes that the eldest male member of the group may have held a leading position and these small and scattered communities were probably integrated only by a common language and race (Pälsi 1915: 108).

In his monograph *Suomen kivikauden pääpiirteet* (1948), Ville Luho comments briefly upon the variation in Corded Ware (3500–2300 calBC) grave assemblages in Finland which, in his opinion, indicates wealth differences among the deceased (Luho 1948: 138–139; for dating, see Pesonen 1999a). Twelve years later he approaches the question from another direction. In his article *Kokemäen Pispän kivikautinen asuinpaikka* (Luho 1960), he describes the structures and finds at the Kokemäki Pispä settlement site in South-West Finland. The site dates back to the Typical Comb Ware period (Luho 1960: 14). Luho also draws parallels, when possible, between his material and that found at other sites in Finland and on the Karelian Isthmus. In an otherwise descriptive treatment, he draws fairly straightforward conclusions concerning the social organization of the Pispä community on the basis of the grave assemblages. He suggests that the objects in those graves that contained only weapons and tools reflect both the ranked status of the deceased and his or her task in society: flint points would indicate a grave of a hunter and fish hook shafts that of a fisherman and so on (Luho 1960: 29). A few years later, however, Torsten Edgren

(1966) points out in his monograph *Jäkärälä-gruppen: en västfinsk kulturgrupp under yngre stenåldern* that the groups were hardly that specialized. Instead, he suggests, the grave goods could reflect group members' beliefs about the needs people may have in the after-life. An alternative explanation, in Edgren's opinion, is that the generously equipped graves belonged to a chieftain or a shaman (Edgren 1966: 99).

Ari Siiriäinen (1981) outlines some features of the economic history of the Finnish Stone Age in his article *On the Cultural Ecology of the Finnish Stone Age*, presupposing that social institutions adapted to economic fluctuations, or, on a broader level, were under the influence of cultural-ecological processes (Siiriäinen 1981: 32–35). In the course of the Early (ca. 5100–3900 calBC) and Typical Comb Ware periods large sites began to appear in coastal areas and the inland lake district (Siiriäinen 1981: 33; for dating, see Pesonen 1999a). Siiriäinen suggests that they were inhabited by several hunting bands or family units. Smaller sites were used by one band or they were visited by foraging task groups, such as hunters. Mass hunting of seal could indicate the existence of “a quite developed tribal institution” and even the emergence of village systems in some areas (Siiriäinen 1981: 33).

In his doctoral thesis *Jättiläisen hautoja ja hirveitä kiviröykkiöitä—Pohjanmaan muinaisten kivirakennelmien arkeologiaa*, Jari Okkonen (2003) considers the question of complex hunter-gatherers (see e.g. Arnold 1996; Hayden 1997; Rothman 2004; Sassaman 2004). He discusses the possibility that this form of organization existed on the coast of Middle and North Ostrobothnia in Finland about 3500–2500 calBC, presenting Elman Service's and Morton Fried's evolutionary schemes of social organizations (Okkonen 2003, table 7, p. 216). Because the complex hunter-gatherers, like other transegalitarian societies, were neither egalitarian nor stratified societies (Hayden 1997: 11), they fall into the typology of ranked societies in Fried's model and are situated somewhere in the category of tribe or between the tribe and chiefdom in Service's scheme (Okkonen 2003: 216–217).

An unusually large dryland increment occurred in the shoreline zone of Ostrobothnia 3700–2700 calBC. This was due to the isostatic uplift and local topography and probably led to an abundance of faunal resources such as migratory birds and fish. (Núñez and Okkonen 1999: 110–111; Okkonen 2003: 221–222.) At the same time new features can be observed in material culture, possibly illustrating a period of strong cultural development (Okkonen 2003: 221). Construction of the ‘Giants' Churches’—large clearings encircled by relatively big rocks—and semi-subterranean houses indicates fairly sedentary settlement as well as village-life with developed group organization. The flow of exotic materials such as amber and flint artefacts provides possible evidence either for the redistribution of status items managed by chieftains or the institution of gift exchange. Large ceramic vessels reflect the importance of storage while the construction of massive fishing weirs at the mouth of at least one salmon river are possibly indicative of economic specialization and increased control over this resource. (Okkonen 2003: 220–225.) Taking these and other artefacts under consideration, Okkonen advances the opinion that the societies on the Middle and North Ostrobothnian coast were complex hunter-gatherers at the time (Okkonen 2003: 224).

#### *Studies of Neolithic societies and the social sciences*

Studies even partly concentrated on the reconstruction of social organization in Neolithic Finland have been fairly scarce (see however Halinen 2005; Okkonen 2003; Seger 1982).

This is in part caused by the prevalent theoretical orientations in Finnish Stone Age research over the past decades and in part by occasionally expressed scepticism about archaeologists approaching these kinds of questions due to the scanty excavated material (Siiriäinen 1981: 32) and deficient analytical methods for dynamic studies of social organizations (Zvelebil 1981: 10). A further explanation is the insufficient use of mediating theories and models for crossing the gap between archaeological material and methods on the one hand and social questions on the other (Lavento 2000: 65; 2005: 33). Achieving this aim would require a better command of social theories and ethnography on the part of archaeologists (Herva 1999, 2000; Herva and Lavento 2001; Lavento 2000, 2005; Rähälä 2000). Some recent studies indicate, however, that this is already the direction being taken (e.g. Halinen 2005; Okkonen 2003). Still, archaeology in general and Finnish Stone Age research in particular would derive benefit from adopting more sociological and anthropological influences (Herva and Lavento 2001: 51–52; see also Service 1971a: 139).

Sociology, even though it studies modern societies with differentiated institutions, could be a source of inspiration for archaeologists working on prehistoric societies, though this preconceives the idea that there are parts so general by nature in human social behaviour that they are universal and can be studied with a common set of concepts (see Giddens 1984a: xvii–xviii). Elman Service's tripartite definition of culture (Service 1971a: 140, 149) partially supports this view and is one which has interesting potential for archaeological analysis. Service differentiates three aspects of culture. The first one consists of "historically stable" traits; in other words, they are living tradition or elements of a common "parent culture". The second aspect involves traits which may be transferred between two distinct cultures by diffusion. The third aspect comprises "functionally adaptive" traits which result from adaptations to certain environmental or historical influences. (Service 1971a, 140, 149.)

Anthony Giddens' (1984a) "theory of structuration" has already been applied to some archaeological studies (e.g. Barrett 1994; Pihlman 1990). His insights onto the continuous "reproduction of social systems", "duality of structure"—the contradiction and the relation between structure and action (Giddens 1984a: 25, 169, 198–199; Giddens 1984b [1979]: 24, 117–118, 208, 323)—are appealing to archaeologists who often study prehistoric social transformations over the course of long periods of time.

Anthropology could further enrich Finnish Stone Age research in multiple ways. By becoming better acquainted with the main theories and history of both anthropological and sociological thought archaeologists could approach their subject matter with some explicit ideas of what a culture or a society is, how and why changes, what kind of a relation there is between a culture/society and its environment, both natural and social, or the structures of the society and an individual (e.g. Immonen 2008: 56; Kankaanpää 2008: 44–45; see also Giddens 1984b [1979]: 19–20, 87–103; Service 1971a: 148–149; White 1975: 3–13). Secondly, Finnish archaeologists could bring added depth to their analyses by defining and clarifying the concepts already in use or at least referenced, for instance: social organization, social structure, band and tribe (see, however, Okkonen 2003: 216–217; Seger 1982: 25). Thirdly, Finnish archaeologists could make more use of ethnography and anthropological literature (see e.g. Sahlins 1968; Service 1971b [1962]; Service 1979 [1966]) as a source of analogies when they consider, for instance, the possible forms and variations of prehistoric societies and make their selection of traits informative in this respect.

To an increasing extent, the latter path is one followed by Finnish scholars (Halinen 2005: 102; Okkonen 2003: 215–219) but it is to be hoped that sociological and anthropological approaches will continue to be integrated more firmly into studies of Neolithic social organizations in Finland. So far, suggestions about social organization have often been discussed in conjunction with economical or environmental analyses (Núñez and Okkonen 1999; Siiriäinen 1981); with relation to studies of subsistence strategies or settlement patterns (Halinen 2005) and sometimes burial analyses (Edgren 1966; Luho 1960; Seger 1982). Lately, the traits of complex hunter-gatherers have also been considered in the Finnish Stone Age context (Okkonen 2003). In Anglo-American archaeological literature, discussion of these traits has been active during the last decades (e.g. Arnold 1996; Hayden 1997; Rothman 2004; Rowley-Conwy 1998; Sassaman 2004).

At present I am studying the social organization of hunter-fisher-gatherers in North Karelia, eastern Finland between 4500–3500 calBC. The research material consists of sites, their structures and finds in a restricted area. The research questions and methods are still in the process of refinement but the study falls into two parts: the first one is a synchronic approach and the second one diachronic/dynamic. In the first part I aim to reconstruct some aspects of social organization. I am going to divide the research period into four or five phases in order to make comparisons between them. My aim is, in simplified form, to separate specialized camps from residential sites (cf. Binford 1980: 10–12) and by comparing the number of sites and camps of various sizes during succeeding periods in this restricted area explore certain questions pertaining to social organization during these periods: for example, how did the size and number of the residential units and the overall population in the groups change over time and what was the level of their dispersion/integration during these phases (see Service 1971b [1962]: 100–109; Rowley-Conwy 1998: 193; Sassaman 2004: 233)? At the diachronic level I will be concentrating on analysis of social transformation. The principal question I wish to pose my data is how the rules and resources shared between groups ('structure') took part in the reproduction of social systems through organizing the residential units' annual movements ('action')? Relations between groups are seen as constraining but also enabling a certain 'mobility pattern' and vice versa. (see Giddens 1984a: 169, 297–308.)

Hopefully, in the future there will be a growth in Stone Age studies in Finland that concentrate, for example, on intra-site analyses of the interiors of dwelling remains in order to draw inferences about the composition of the domestic family unit or household (see e.g. Gron 1991, 1995). Another important question is that of interpretation of the ceramic traditions. Whenever representatives of two or more ceramic traditions have been encountered at a single site, they have often been interpreted as indications of separate occupational phases (for a critique of the application of ceramic typologies, see Rähälä 1996: 116). The possibility still remains to be considered in Finland is whether on some occasions these "mixed sites" are indications of exogamy and virilocal marital residence rules (for definitions, see Service 1971b [1962]) assuming the ceramic vessels were manufactured by women (Binford 1968: 269–270), or the existence of clans (for definition see Sahlins 1968: 23; Service 1971b [1962]: 116).

*Conclusion*

This essay suggests that the scarcity of treatments of social organization in the field of Finnish Stone Age research is due to at least three factors: firstly, the prevalent theoretical orientations and the forms of their applications in the Stone Age research field during the past decades; secondly, a lack of belief in the sufficiency of excavated sites and material in Finland to enable these kinds of approaches—though this is not the case anymore (see e.g. number of excavated houses Pesonen 2002: 30, table 5); and thirdly, the lack of familiarity with theory in the social sciences resulting in a lack of mediating discussions between archaeological material, methods and theory, and social questions (Lavento 2000: 62, 64; Rähälä 2000: 54; Lavento 2005, 33).

Until the 1960s the culture-historical tradition was the prevalent theoretical orientation in archaeology (Olsén 1997: 31–33) and it still has its effects upon the research (Immonen 2008: 83). The main concern within this orientation was the descriptive, chronological-typological categorization of finds and structures at settlement sites and finding parallels to them to serve as indications of culture contacts through diffusion or migration (Olsén 1997: 32–33; see e.g. Pälsi 1915; Luho 1960). Little attention was given to detailed discussions of social organization.

The New Archaeology, or processualism, with a culture-ecological orientation (c.f. Olsén 1997: 54–55) appeared in Finnish Neolithic research at the turn of the 1970s (see e.g. Siiriäinen 1981; Zvelebil 1981). The main orientations in Finland have been studies of economy, such as subsistence strategies (e.g. Kylli 2000; Mökkönen 2000; Saukkonen 1994) or trade (e.g. Vuorinen 1982), and settlement patterns (e.g. Halinen 1995; Kylli 2000; Mökkönen 2000; Sartes 1994; Saukkonen 1994) with a fairly strong emphasis on socio-cultural adaptive strategies to the natural environment (c.f. Olsén 1997: 54–55). Studies concentrating mainly on social questions have remained underrepresented (see, however Seger 1982). In recent years this trend has slightly changed and more interpretive approaches in the studies of social organization have gained ground (e.g. Halinen 2005; Okkonen 2003).

It is suggested that increasing application of sociologically and anthropologically-influenced approaches in archaeological studies would further benefit Finnish archaeology in general (Herva and Lavento 2001: 51–52) and Stone Age research in particular. They would offer the theoretical framework needed for analyzing social transformations and, in addition, alternative models for observing and interpreting meaningful traits in the archaeological record (c.f. Lavento 2005: 33; Rähälä 2000: 53). By acquiring a basic knowledge of the main social theories as well as of the history of sociological and anthropological thought Finnish archaeologists studying Stone Age societies would be able to raise the repressed “social” (Preucel and Meskell 2004: 3–8) to the level of other approaches in the field. After this is achieved studies of Neolithic social organizations in Finland may offer more insights into the variation of intermediate forms of hunter-fisher-gatherer societies (e.g. Arnold 1996; Hayden 1997; Okkonen 2003: 219–226) as well as into the origins of inequality more generally (see Wiessner 2002: 233).

## NOTES

<sup>1</sup> The transition to Neolithic is marked by the adoption of the use of pottery in the Finnish chronology (Mökkönen 2007, 20; dating of the period, see Pesonen 1999a, comp. Halinen 2005, 34; Huurre 1998, 14; Mökkönen 2007, 22; Pesonen 2002, 9; see also Carpelan 2004, 41; Pesonen 1999b, 194, 195, fig. 2).

<sup>2</sup> This subject matter is treated in many other studies, in some of them quite thoroughly (Halinen 2005; Seger 1982); for aspects closely related to it, such as demographic questions see, for example, Halinen 1995, 1997, 1999a, 1999b; Huurre 1998; Kotivuori 1993, 1996a: 9–11, 1996b; Núñez and Okkonen 1999; Pesonen 1999c; Vuorinen 1982.

## REFERENCES

- Arnold, J. E.** 1996. The Archaeology of Complex Hunter-Gatherers. *Journal of Archaeological Method and Theory* 3(2): 77–126.
- Barrett, J.** 1994. *Fragments from Antiquity: An archaeology of social life in Britain 2900–1200 BC*. Oxford: Blackwell.
- Binford, L. R.** 1968. Methodological Considerations of the Archaeological Use of Ethnographic Data. In Richard B. Lee and Irven DeVore (eds), *Man the Hunter*. Chicago: Aldine.
- Binford, L. R.** 1980. Willow Smoke and Dogs' Tails: Hunter-gatherer settlement systems and archaeological site formation. *American Antiquity* 45(1): 4–20.
- Carpelan, C.** 2004. *Environment, Archaeology and Radiocarbon Dates: Notes from the Inari Region, Northern Finnish Lapland*. Early in the North, vol. 5. Iskos 13. Helsinki: The Archaeological Society of Finland, The Finnish Antiquarian Society.
- Edgren, T.** 1966. *Jäkärilä-gruppen: en västfinsk kulturgrupp under yngre stenåldern*. Suomen Muinaismuistoyhdistyksen Aikakauskirja 64. Helsinki.
- Giddens, A.** 1984a. *The Constitution of Society: Outline of the theory of structuration*. Cambridge: Polity.
- Giddens, A.** 1984b. *Yhteiskuntateorian keskeisiä ongelmia: toiminnan, rakenteen ja ristiriidan käsitteet yhteiskunta-analysissä*. Translation into Finnish by Pasi Andersson and Ilkka Heiskanen. Helsinki: Otava. (Originally published 1979 as 'Central Problems in Social Theory: Action, structure and contradiction in social analysis'.)
- Gron, O.** 1991. A Method to a Reconstruction of Social Structure in Prehistoric Societies and Examples of Practical Application. In Ole Gron, Ericka Engelstad and Inge Lindblom (eds), *Social Space: Human spatial behaviour in dwellings and settlement*. Proceedings of an Interdisciplinary Conference. Odense University studies in history and social sciences, vol. 147. Odense: Odense University Press.
- Gron, O.** 1995. *The Maglemose Culture: The reconstruction of the social organization of a Mesolithic culture in Northern Europe*. British Archaeological Reports, International series 616. Oxford: Tempus Reparatum.
- Halinen, P.** 1995. *Ounasjärven alueen esihistoriallisten peuranpyytäjyhteisöjen asutusmallit*. Licentiate Thesis. Institute for Cultural Research, University of Helsinki. Unpublished manuscript at the Institute for Cultural Research, Department of Archaeology, University of Helsinki.
- Halinen, P.** 1997. Kaustisen Kankaan asuinpaikka ja punamultahaudat. *Muinaistutkija* 2/1997: 18–26.
- Halinen, P.** 1999a. Burial Practices and the Structure of Societies during the Stone Age in Finland. In Matti Huurre (ed.), *Dig It All: Papers dedicated to Ari Siiriäinen*. Helsinki: The Finnish Antiquarian Society, The Archaeological Society of Finland.
- Halinen, P.** 1999b. Suomen liikenteen esihistoria: kivi- ja pronssikausi. In Tapani Mauranen (ed.), *Maata, jäätä ja kulkijoita. Tiet, liikenne ja yhteiskunta ennen vuotta 1860*. Tuhat vuota tietä, kaksisataa vuotta tietäiläystä. Osa I. Helsinki: Edita.
- Halinen, P.** 2005. *Prehistoric Hunters of Northernmost Lapland: Settlement patterns and subsistence strategies*. Iskos 14. Helsinki: The Finnish Antiquarian Society.
- Hayden, B.** 1997. *The Pithouses of Keatley Creek: Complex hunter-gatherers of the Northwest Plateau*. Forth Worth: Harcourt Brace.

- Herva, V.-P.** 1999. Tiedettä! Suomalainen arkeologia alennustilassa. *Muinaistutkija* 3/1999: 47–54.
- Herva, V.-P.** 2000. Terveen järjen jäljillä: uskotko enkeleihin? *Muinaistutkija* 2/2000: 65–66.
- Herva, V.-P. and Lavento, M.** 2001. Päästätkö Ludwigin sisään? *Muinaistutkija* 1/2001: 48–52.
- Huurre, M.** 1998. Kivikauden Suomi. Helsinki: Otava.
- Immonen, V.** Kulttuurihistoriallinen suuntaus. In Petri Halinen, Visa Immonen, Mika Lavento, Terhi Mikkola, Ari Siiriäinen and Pirjo Uino (eds), *Jobdatus arkeologiaan*. Helsinki: Gaudeamus Helsinki University Press.
- Kankaanpää, J.** 2008. Kosketuskohtia kansatieteeseen ja kulttuuriantropologiaan. In Petri Halinen, Visa Immonen, Mika Lavento, Terhi Mikkola, Ari Siiriäinen and Pirjo Uino (eds), *Jobdatus arkeologiaan*. Helsinki: Gaudeamus Helsinki University Press.
- Kotivuori, H.** 1993. Kivikauden asumuksia Perä-Pohjolassa—vertailua ja rakenteellisia tulkintoja. In Raili Huopainen (ed.), *Selviytyjät: näyttely pohjoisen ihmisen sitkeydestä*. Lapin maakuntamuseon julkaisuja 7. Rovaniemi: Lapin maakuntamuseo.
- Kotivuori, H.** 1996a. Mietteitä alisen Kemijoen kivikauden asuinmuistoista. *Muinaistutkija* 1/1996: 8–12.
- Kotivuori, H.** 1996b. Pyytäjästä kaskenraivaajiksi: Rovaniemen asutus n. 6000 eKr.–1300 jKr. In *Rovaniemen historia vuoteen 1721: Kotatuilta savupirtin suojiin*. Jyväskylä.
- Kylli, J.** 2000. *Maatalouden alku Espoon ympäristössä—asutusmalli toimeentulostrategian kuvastajana*. Master's Thesis. Institute for Cultural Research, University of Helsinki. Manuscript at the Institute for Cultural Research, Department of Archaeology, University of Helsinki.
- Lavento, M.** 2000. Näkemyksiä Suomen arkeologian alennustilasta. *Muinaistutkija* 2/2000: 61–65.
- Lavento, M.** 2005. Muinaismuistolaki 40 vuotta—tutkimuksen näkökulma. *Muinaistutkija* 1/2005: 26–35.
- Luho, V.** 1948. *Suomen kivikauden pääpiirteet*. Helsinki: Otava.
- Luho, V.** 1960. *Kokemäen Pispan kivikautinen asuinpaikka*. Suomen Museo LXVIII. Helsinki.
- Mökkönen, T.** 2000. *Saimaan vesistöalueen pyyntikulttuurien toimeentulo ja asutusmallit—Kerimäen tutkimustapaus*. Master's Thesis. Institute for Cultural Research, University of Helsinki. Manuscript at the Institute for Cultural Research, Department of Archaeology, University of Helsinki.
- Mökkönen, T.** 2007. Esihistorian ajanjaksot. In Mika Lavento and Antti Lahelma (eds), *Sama maisemat, eri kulkijat—Repoveden kansallispuisto kivikaudelta 1900-luvulle*. Metsähallituksen luonnonsuojelujulkaisuja, Sarja A 165. [Vantaa]: Metsähallitus.
- Núñez, M. and J. Okkonen** 1999. Environmental Background for the Rise and Fall of Villages and Megastructures in North Ostrobothnia 4000–2000 calBC. In Matti Huurre (ed.), *Dig it All: Papers dedicated to Ari Siiriäinen*. Helsinki: The Finnish Antiquarian Society, The Archaeological Society of Finland.
- Okkonen, J.** 2003. *Jättiläisen bautoja ja birveitä kiviröykkiöitä—Pohjanmaan muinaisten kivirakennelmien arkeologiaa*. Acta Universitatis Ouluensis. B Humaniora 52. Oulu: Oulu University Press.
- Olsén, B.** 1997. *Fra Ting til Tekst: Teoretiske perspektiv i arkeologisk forskning*. Oslo: Universitets forlaget.
- Pesonen, P.** 1999a. *Suomen esihistoriallinen keramiikka*. 10.3.1999. Institute for Cultural Research, Department of Archaeology, University of Helsinki. [www-document] <<http://www.helsinki.fi/hum/arla/keram/>> (last accessed 5.6.2008).
- Pesonen, P.** 1999b. Radiocarbon Dating of Birch Bark Pitches in Typical Comb Ware in Finland. In Matti Huurre (ed.), *Dig It All: Papers dedicated to Ari Siiriäinen*. Helsinki: The Finnish Antiquarian Society, The Archaeological Society of Finland.
- Pesonen, P.** 1999c. Rekikylä—kivikautinen kylä Ylikiimingissä. *Muinaistutkija* 1/1999: 2–14.
- Pesonen, P.** 2002. Semisubterranean Houses in Finland—A review. In Helena Ranta (ed.), *Huts and Houses: Stone Age and Early Metal Age buildings in Finland*. Jyväskylä: Gummerus.
- Pihlman, S.** 1990. Kansainvaellus- ja varhaismerovinkiajan aseet Suomessa: typologia, kronologia ja aseet ryhmästrategioissa. *Iskos* 10. Helsinki: Suomen Muinaismuistoyhdistys.
- Preucel, R.W. and L. Meskell** 2004. Knowledges. In Lynn Meskell and Robert W. Preucel (eds), *A Companion to Social Archaeology*. Oxford: Blackwell.
- Pälsi, S.** 1915. *Riukjärven ja Piiskunsalmen kivikautiset asuinpaikat Kaukolassa*. Helsinki: K.F. Puromiehen kirjapaino.
- Rothman, M. S.** 2004. Studying the Development of Complex Society: Mesopotamia in the late fifth and fourth millennia BC. *Journal of Archaeological Research* 12(1): 75–119.
- Rowley-Conwy, P.** 1998. Cemeteries, Seasonality and Complexity in the Ertebolle of Southern Scandinavia. In



RESEARCH REPORTS

- Marek Zvelebil, Robin Dennell and Lucyna Domanska (eds), *Harvesting the Sea, Farming the Forest. The emergence of Neolithic societies in the Baltic region*. Sheffield Archaeological Monographs 10.
- Räihälä, O.** 1996. A Comb Ware House in Outokumpu Sätös: Some remarks on the application of ceramic typologies. In Tuija Kirkinen (ed.), *Pithouses and Potmakers in Eastern Finland: Reports of the Ancient Lake Saimaa Project*. Helsinki Papers in Archaeology, no. 9. Helsinki: University of Helsinki, Department of Archaeology.
- Räihälä, O.** 2000. Mikä onkaan suomalaisen arkeologian tila? *Muinaistutkija* 3/2000: 52–56.
- Sahlins, M. D.** 1968. *Tribesmen*. Englewood Cliffs: Prentice-Hall.
- Sartes, M.** 1994. *Subneolithic and Neolithic Settlement Systems in South-West Finland: Discussion on resource areas*. Fenno-Ugri et Slavi 1992. Prehistoric Economy and means of Livelihood. Museovirasto, arkeologian osasto, julkaisu n:o 5. Helsinki.
- Sassaman, K. E.** 2004. Complex Hunter-Gatherers in Evolution and History: A North American perspective. *Journal of Archaeological Research* 12(3): 227–280.
- Saukkonen, J.** 1994. *Annual Cycles, Base Camps and Means of Livelihood: Stone Age hunter-gatherer settlement in the Närvijoki River area of southern Ostrobothnia*. Fenno-Ugri et Slavi 1992. Prehistoric Economy and means of Livelihood. Museovirasto, arkeologian osasto, julkaisu n:o 5. Helsinki.
- Seger, T.** 1982. *Om stenålderns jägarsambälle: en experimentell analys av två subneolitiska gravfält i Finland*. Helsingin yliopiston arkeologian laitos, moniste no 29. Helsinki.
- Service, E. R.** 1971a. *Cultural Evolutionism: Theory in practice*. New York: Holt, Rinehart and Winston.
- Service, E. R.** 1971b [1962]. *Primitive Social Organization: An evolutionary perspective*. New York: Random House.
- Service, E. R.** 1979 [1966]. *The Hunters*. Englewood Cliffs: Prentice-Hall.
- Siiriäinen, A.** 1981. *On the Cultural Ecology of the Finnish Stone Age*. Suomen Museo 1980. Vammala.
- White, L. A.** 1975. *The Concept of Cultural Systems: A key to understanding tribes and nations*. New York: Columbia University Press.
- Wiessner, P.** 2002. The Vines of Complexity: Egalitarian structures and the institutionalization of inequality among the Enga. *Current Anthropology* 43(2): 233–269.
- Vuorinen, J. H. T.** 1982. *Piikivi ja Suomen kampakeraaminen piikauppa*. Helsingin yliopiston arkeologian laitos, moniste no 30. Helsinki.
- Zvelebil, M.** 1981. *From Forager to Farmer in the Boreal Zone: Reconstructing economic patterns through catchment analysis in prehistoric Finland*. British Archaeological Reports, International series 115, parts 1–2. Oxford.
- Zvelebil, M.** 1998. Agricultural frontiers, Neolithic origins and the transition to farming in the Baltic basin. In Marek Zvelebil, Robin Dennell and Lucyna Domanska (eds), *Harvesting the Sea, Farming the Forest: The emergence of Neolithic societies in the Baltic region*. Sheffield Archaeological Monographs 10.

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