

Laura Nissin



ROMAN SLEEP

Sleeping areas and sleeping arrangements in the Roman house



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arrangements in the Roman house

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INTRODUCTION

The main themes of this study are the sleeping areas and the sleeping arrangements in the ancient Roman house (*domus*). The investigation is carried out on two fronts —the literary sources and the archaeological evidence, including finds and the architectural

outline—in order to trace the sleeping arrangements among ancient Romans in general and to identify and analyse the sleeping areas in the private dwellings situated in the Campanian town of Herculaneum. The main interest is to find out the cultural, social and historical factors lying behind the sleeping habits of the ancient Romans and to uncover the 'dormant third' of the lives of Romans and the still unknown sleeping habits among Romans. The essential research questions are *how*, *when*, *where* and *with whom* Romans slept and which factors influenced these arrangements.¹

The main aim of this work is to clarify how the sleeping arrangements worked in ancient Roman houses. The attention is on sleeping, and, for instance, such topics as dreaming or bedroom activities other than sleeping are touched upon only when relevant to the main issue.² The broader goal of this work is a better understanding of the Roman house: its functions and the use of space. The study also deals with the Roman society on a more general level since the way a society arranges domestic space reveals the underlying values and structures of the society in question.³ The emphasis of my work, however, is on the private life of the Romans and the functioning of domestic space in everyday ('everynight') life. The work is set in a framework of sociohistorical topography of Roman domestic space which aims at finding out the relationship between the occupants of the house and the visitors to it; how much interaction was expected and where it took place, as well as the relations among the inhabitants of the house; what they did, where they moved, when, how and with whom these activities took place.⁴

My work is also closely connected with the pioneering work on sleeping habits in modern societies done by sociologists in the past few years. Sleeping is fundamentally important to the well-being of humans and it is crucial to understand how sleeping is arranged in different societies past and present in order to decipher the attitudes towards sleeping and to solve the sleep related problems. The results of my study will then be useful in several contexts: not only in the field of Classical Studies, but also more generally in research on sleep and sleeping. The cross-disciplinary discussion on sleeping has been lively in recent years, for instance, in Finland where are/have been several research groups working on different aspects of sleeping, such as the *New Sleep Order* at the University of Lapland which 'ponders social, cultural, economic and political effects that the

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¹ See more on the background and earlier scholarship influencing these research questions especially in the section 'Sociological, anthropological and historical sleep research'.

² On dreams and dreaming, for recent approaches, see, Harris 2009 and Harrisson 2013. Sex in Roman bedrooms, see, e.g., Clarke 1998 and 2003.

³ On this theoretical approach, see more especially in the section 'Sleep and space — the theoretical background'.

⁴ For more on this approach, see Tuori 2015, 12.

emerging sleep practices bring about',⁵ and the *Sleep Team* at the University of Helsinki, which is a large research initiative concentrating on studying sleeping from multiple angles, especially concentrating on the impact of sleep loss.⁶ I aim to contribute to this discussion by providing accurate information on sleeping arrangements in the Roman past.

The most important findings of previous scholarship are presented in the following chapters, where I also aim to contextualise the results of my research with earlier studies by commenting on whether they either contradict or are aligned with them. The methods and data used, as well as the theoretical framework behind the analysis, are briefly presented before I move on to the original articles and to the results presented in them. The last section is a concise summary highlighting the most important aspects of the study.

BACKGROUND

Sociological, anthropological and historical sleep research

Sleep research is a fast-growing area which produces a large number of results every year. The primary concern is the physiological phenomenon of sleeping, and the main goal is to better understand the meaning of sleep and its importance for the well-being of human beings. Certain questions, such as the evolutionary basis of sleeping, are still mysteries. Researchers cannot fully answer the question why we have to fall asleep and surrender to the dangers of being unaware of our surroundings. The importance of sleep is nevertheless evident and several explanations have been offered, hypothesising, for instance, that sleep seems to be a way for our body and brain to recover and get rid of waste material.⁷ Our understanding of sleep parameters and their impact on the well-being of humans as well as how people slept in premodern societies is constantly growing and new results emerge at a fast pace.⁸

Sleeping, however, is not only a physiological phenomenon. The social significance of sleep has been fully understood only fairly recently, even though some sociological attempts on canvassing the social aspects of sleeping were done earlier, as I discuss in next paragraph. In the following sections, I recapitulate the most important research done on

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⁵ New Sleep Order (2011-13) at the University of Lapland (ulapland.fi/InEnglish/Research/Research-Projects/-Spearhead-projects/New-Sleep-Order). See also *Sleep Cultures*, an Internet site bringing together the researchers and resources on studies of sleep in the humanities and social sciences (sleepcultures.com).

⁶ Cf. Sleep Research Group, Department of Physiology / Faculty of Medicine at the University of Helsinki (helsinki.fi/science/helsleep).

⁷ Xie *et al.* 2013.

⁸ See, e.g., Yetish *et al.* 2015.

the social, historical and cultural aspects of sleep, focusing particularly on the views on the privacy (or the lack thereof) of sleeping. The narrative of the development of sleeping arrangements and the related privacy aspects presumes that this progress —in the context of European history— has been straightforwardly chronological towards more and more segmented and private sleep. However, this is not the case if we take the Roman material into consideration as well.

In their classic study on sleep in its cultural context, V. Aubert and H. White understood that sleeping is not just a biological need but is also an important social matter, playing a role in certain cultural actions, such as (un)dressing, adjusting light and sound and one's sleeping position.⁹ Artefacts of sleep, e.g., nightgowns, as well as certain cultural patterns (e.g., praying) are seen as comforting objects and rituals, which alleviate the fears connected to the sleeper's vulnerable role.¹⁰ According to Aubert and White, humans tend to have one clearly defined place to sleep.¹¹ They also consider night-time social patterns to be easily predictable. On the other hand, sleeping is seen as a way of legitimising retiring into isolation.¹² Unfortunately, they are incorrect about the idea that sleeping in the dark is a learned cultural habit.¹³ In their time the physiological factors determining the need for sleep (the hormone melatonin) were not yet known.¹⁴

The sociological approach to sleep did not immediately gain popularity after the first attempt was made on the subject. The next article treating the social aspects of sleeping was by B. Schwartz in the 1970s, who calls sleep 'perhaps the most important form of periodic remission' and regards sleeping as a biological necessity and socially important function which needs to be protected.¹⁵ Schwartz also touched upon the issue of public and private sleeping when considering homeless (rough) sleepers and how their public sleeping location invites a social stigma and makes them liable to public disdain.¹⁶ P.R. Gleichmann also looked at sleeping as a social phenomenon. He drew special attention to the openness of sleeping rooms, which, according to him have been historically fairly

⁹ Aubert and White 1959 (I), 46, 48.

¹⁰ Aubert and White 1959 (I), 51.

¹¹ Aubert and White 1959 (II), 7-8.

¹² Aubert and White 1959 (II), 13.

¹³ Aubert and White 1959 (II), 5.

¹⁴ See Wurtman 1985, 547: Melatonin was discovered at approximately the same time as the article of Aubert and White was being prepared, namely in 1958, though its effects on the brain and the regulation of circadian rhythm were not yet known.

¹⁵ Schwartz 1970, 485-7.

¹⁶ Schwartz 1970, 494.

easily accessed by outsiders. In Gleichmann's view, the privacy of sleeping areas is a relatively modern occurrence.¹⁷

The main questions of sociological sleep research —how, when, where and with whom people sleep— were first phrased by B. Taylor in 1993¹⁸ and the premises for sociological sleep study '*How we sleep, when we sleep, where we sleep, what meanings we attribute to sleep, who we sleep with*, are all important socially, culturally and historically variable matters' were defined further by S. Williams¹⁹ as well as S. Arber from The Sociology of Sleep group at the University of Surrey.²⁰

Taylor draws a line between sleep and dream research²¹ and also ponders the fundamental question of public and private with regard to sleeping. According to him, the sleep of adults is usually shielded by privacy; the degree of privacy for sleep grows with age and the higher one's status is, the more privately one can sleep. Public sleep (for example, medicalised or otherwise institutionalised sleep and rough sleeping) threatens the authority and power of an adult person.²²

For Williams, sleep provides an important new opening in studying the social practices across the public/private dichotomy.²³ One of the sociological discoveries is that sleeping is used as an excuse to avoid social demands.²⁴ According to Williams, socially suitable and unsuitable ways of sleeping, as well as the normative aspects of sleeping ('dormativity', as he puts), are 'socially, culturally and historically variable matters'.²⁵ Williams lists the key points of sociological sleep research, among them *history* and *culture*, throwing the ball to historians to find out the historical aspects of sleeping cultures.²⁶

Williams also maintains that sleeping habits have developed chronologically from the (seemingly) public Medieval culture towards the more and more privatised activity of our own day.²⁷ His speculation is drawn from the work of N. Elias,

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¹⁷ Gleichmann 1980, 241.

¹⁸ Taylor 1993, 465.

¹⁹ Williams 2005, 1, Williams 2007, 314 and Williams 2008, 640.

²⁰ The Sociology of Sleep group at University of Surrey: sociologyofsleep.surrey.ac.uk.

²¹ Taylor 1993, 465.

²² Taylor 1993, 466-7.

²³ Williams 2007, 325.

²⁴ Schwartz 1970, 489-90, Taylor 1993, 470, and Williams 2007, 318.

²⁵ Williams 2007, 313-4.

²⁶ Williams 2008, 640: other themes, according to him are: body and society; roles and routines; work and employment; gender and the life course; health and illness and politics and ethics. See also Williams 2005, 37 ff. for a cursory examination of historical sleeping arrangements.

²⁷ Williams 2007, 315.

who states that sleeping in the Middle Ages was not as separate and privatised from social life as it is today. In the context of the civilising process, sleeping is seen as becoming an increasingly private and concealed action. This development is presented as a chronological, but not a linear process.²⁸ These studies observe the development of sleeping arrangements starting from the European Middle Ages, thus leaving out Greco-Roman antiquity. However, as my study on Roman material shows, the development is more structural than chronological. In the urban Roman context, certain aspects of privacy which are thought to belong mainly to modern times appear. In the anthropological and cultural sleep research, B. Steger and L. Brunt have paved the way for sleep research in the humanities and setting further research topics such as how vulnerable sleepers are protected in regard to physical and emotional security, who sleeps with whom, what kind of protective rituals are needed and how these aspects vary in different societies.²⁹

According to Steger and Brunt, the connection of sleep and privacy is more pronounced in Europe and Northern America than in Eastern cultures, and in the West, privacy is protected by walls and segmentation of spaces.³⁰ In addition, sleep itself is seen as a radical or even 'anarchistic' separation from the world and social relationships.³¹ They tend to see that co-sleeping in Western societies was more common before 19th century, and that even today, communal sleeping, which 'not only provides protection, but also gives a sense of belonging' is fairly common in Asia, e.g., India and Indonesia.³² On the other hand, even in such establishments as refugee camps and other cases where multiple sleepers share a sleeping area, segregation and privacy is sought after.³³

The sleep cultures differ geographically in other aspects as well. The eight hour sleep-block (and considering daytime napping as a sign of laziness), considered ideal in the Western world, is called *monophasic* sleep culture while the siesta culture, especially known in the Mediterranean region *biphasic*, and the napping culture, practiced largely in an Asian context, *polyphasic*.³⁴

The closest parallels for my study include two articles on historical sleep arrangements, based on studies on ancient literature. G. Klug demonstrates how sleep as a literary theme in its own right appears in Medieval European literature allowing the detec-

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²⁸ Elias 1994, xii-xiii, 134-5, 153.

²⁹ Steger and Brunt 2003 (especially p. 12 ff.) and Steger and Brunt 2003 (especially p. 21).

³⁰ Steger and Brunt 2003, 12-3.

³¹ Steger and Brunt 2003, 14, cf. Montijn 2003, 80.

³² Steger and Brunt 2003, 11-3; Steger and Brunt 2008, 22-4 (safety), also Montijn 2003, 75-8.

³³ Steger and Brunt 2008, 22.

³⁴ Steger and Brunt 2003, 16-21.

tion of the main aspects of sleeping culture in the Middle Ages. In her study on German literary evidence, Klug shows that vulnerability in medieval sleep and gender issues are interconnected; the defencelessness in sleep is related to masculinity, while power over sleep is regarded as a female quality and thus in the representations of sleep in literature the power relations of reality are reversed.³⁵ In contrast, the role of sleeping is rather underplayed in early Chinese literature, as explained by A. Richter.³⁶ However, from the sparse material, certain aspects of Chinese sleeping culture can be inferred, among them negative conceptions of sleep: particularly drunken sleep was a literary *topos* and daytime sleeping was held in contempt.³⁷ Hierarchy played a role in ancient Chinese society in the assumed time needed for sleep, meaning that the ones on top of the social ladder were expected to sleep only a little. Rulers especially were required to remain sleepless in mulling over the well-being of society. Sleep was considered a physical necessity, which a gentleman could easily forget about.³⁸ In addition, a Chinese bed was dangerous place and sleepers were vulnerable to dangers such as murder.³⁹ Many similar deductions can be made from the Roman material, as I show in this work.

The ideology of how good housekeeping is connected to moralistic attitudes is the issue in I. Montijn's study. She points out that, for example, fleabites could be considered a sign of bad housekeeping, ergo, of low moral standards.⁴⁰ She notes that separate bedrooms were designed for reasons of hygiene and health, and explains that bedrooms separated from living rooms and spaces for reception were not customary in Dutch domestic space before the 19th century, when they gradually started to become more and more common thus providing more privacy for the sleeper.⁴¹

C.M. Worthman and M.K. Melby have investigated factors characterising sleeping habits and sleep ecology in Western and 'non-Western' societies resulting in a cross-cultural anthropological survey on the ecology of human sleep.⁴² According to them, the features of sleeping habits in Western culture include solitary sleep from early childhood, concentrating sleep into one single period, controlled bedtimes and housing providing

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³⁵ Klug 2008, 33, 50.

³⁶ Richter 2003, 25.

³⁷ Richter 2003, 27, 29-33.

³⁸ Richter 2003, 34-5.

³⁹ Richter 2003, 38.

⁴⁰ Montijn 2008, 75-80, hygiene understood literally in this article. For 'sleep hygiene' as a concept of factors influencing sleeping habits, see van der Geest and Mommersteeg 2006, 11.

⁴¹ Montijn 2008, 78, 86.

⁴² Worthman and Melby 2002, 71-2. Their term 'non-Western' refers to certain forager, pastoralist, horticulturist, and agriculturalist communities which have been targets of recent ethnographic studies on sleep. On sleeping arrangements in the industrial Western world, see especially p. 104-6.

secluded and quiet environments for sleeping, whereas in the so-called 'non-Western' societies, settings are usually dark yet possibly noisy, possibly without climate control, pillows, ample coverings and heavy padding are uncommon but fire is usually present. They are also less bounded temporally, socially or physically than the modern Western settings and security relies on social features.⁴³ It is clear that in this regard, urban Roman culture corresponds better to the modern sleeping than the so-called 'non-Western', as I elaborate in this study. The idea of the sleeping patterns of Europe developing mainly chronologically (as stated by some scholars) towards more and more segmented and private settings is thus challenged. The urban Roman living environment with private town houses is in close interaction with sleeping arrangements and can be considered as an important factor which dictates these arrangements and is reciprocally shaped by them.

Night is brought up as an anthropological object of study by J. Galinier and his research group in an article discussing how marginal sleep and night have been in the field of anthropological studies. They propose new questions which should be asked in anthropological—and more generally, in cross-disciplinary discussion—of sleep research. Researchers should pay attention to a variety of factors influencing sleeping cultures from the physical surroundings of sleeping to the myths of the night.⁴⁴ They recognise the special nature of the Roman night, which was reflected in the archaic law.⁴⁵ In *Leges duodecim tabularum*, a thief caught stealing in the night is justly killed: *Si nox furtum factum sit, si im occisit, iure caesus esto* (12), and also nocturnal meetings were forbidden (26). The Roman night had indeed special characteristics and can be seen as an object of study for anthropologists and cultural and social historians alike.

In addition to night and sleeping, bed has been placed as an object of study in the social sciences, notably by S. van der Geest and G. Mommersteeg. In their view, a bed can be seen as secure hiding place and locus of privacy, though it fails in this purpose if and when the sleeper is killed in his/her own bed. These accounts are multiple and widely popular from Bible to Shakespeare,⁴⁶ as well as in Roman literature, as I show later.

The degree of permanence in (co-)sleeping arrangements is a question which remains surprisingly little studied; do people tend to use the same sleeping spot every night and do couples keep the preferred bed sides, etc. However, in the research done by P. Rosenblatt, who has surveyed couple bed sharing and the intimacy and pleasure connected with it, we learn how couples tend to have their own sides of the bed. Apart from being a predictable routine, other factors behind the choosing of the side include preferences learned in childhood, protection (men in heterosexual couples), sleeping on the side of

⁴³ Worthman and Melby 2002, 104-7.

⁴⁴ Galinier *et al.* 2010, 820-3, 826.

⁴⁵ Galinier *et al.* 2010, 833. See also Ekirch 2005, 87.

⁴⁶ van der Geest and Mommersteeg 2006, 9-10.

the door and health issues. As rituals to prepare for sleep, his interviewees used prayer, television, reading and sex.⁴⁷

The most important survey on historical sleeping arrangements is undoubtedly R. Ekirch's *At Day's Close: Night in Times Past* which came out in 2005. The main aim of the book is to examine the night-time as a phenomenon in the West before the Industrial Revolution; how people shaped life after dark while facing real as well as supernatural dangers. Evidence is mainly gathered from the British Isles, but sleeping habits of continental Europe are also dealt with. The timespan stretches from the Middle Ages to the early 19th century, focusing chiefly on the Early Modern Era.⁴⁸

Ekirch explains how the fear of the dark is 'age-old' and for protection against the terrors of the night, concrete means (boundaries, watchdogs and even weapons) as well as rituals (religious and magic) have been used.⁴⁹ Moreover, since the night steals the most important sense —vision— artificial light is also needed. Before electricity, illuminants were modest: besides fire in hearths, candles made of animal fat and wax, (oil)lamps and candlewood. One light bulb gives about one hundred times more light than a candle and moonlight is just a fraction of the strength of direct sunlight. He also describes how portable lights were carried outside, not only for the safety of the strollers but also for controlling people and revealing the identity of possible trespassers.⁵⁰ Night watchman is one of the most ancient occupations, common in the European cities as well. Movement in the towns was also controlled by curfews, when only few people could be legitimately outdoors, mainly doctors, midwives and priests about their duties.⁵¹ On the other hand, in broad in daylight, privacy was scarce. He also concludes that night-time and sleep also provided benefits, being 'own time' for servants and even slaves.⁵²

Ekirch also shows that designated sleeping spots for family members as per age and gender were known at least in British households.⁵³ According to him, nightgowns appeared in use for the middle and upper classes during the 16th century and European beds developed from pallets and mats during the 15th and 17th centuries.⁵⁴ However, as I show in this study, the Roman material questions the latter statement.

⁴⁷ Rosenblatt 2006, 15, 31-5, 49-57.

⁴⁸ Ekirch 2005, xxv-xxvii.

⁴⁹ Ekirch 2005, 3, 97.

⁵⁰ Ekirch 2005, 4-8, 66-7, 100-4, 110, 128.

⁵¹ Ekirch 2005, 63-4, 75.

⁵² Ekirch 2005, 149, 233-4, 287.

⁵³ Ekirch 2005, 278.

⁵⁴ Ekirch 2005, 270-4.

Undoubtedly the most important of Ekirch's findings is the phenomenon called 'segmented sleep'. According to him, in the pre-industrial societies, instead of confining sleeping to one solitary block at night, it was typical to divide sleeping into intervals called first sleep and second sleep. These bouts lasted about the same length time and were broken by a period of wakefulness.⁵⁵ He also hints that this was known in ancient Rome as well, revealed in the expression '*concubia nocte*'.⁵⁶ This phrase and whether the segmented sleeping pattern can be detected in the Roman sources, is investigated in more detail in my study.

Research on Roman domestic space and Roman sleeping areas

Social aspects of the Roman house

Before looking more closely into sleeping arrangements, it is in order to give an overview of most noteworthy research on Roman house and domestic space. Names for the private town house of a wealthy occupant stretch in research literature from *Italic house*, *the old Roman house*, *the Roman atrium house*, *Pompeian house*, *the atrium house according to Vitruvius* to just the Latin *domus*.⁵⁷ Only a few remains of ancient town houses have survived in Rome itself and therefore the archaeological study of Roman housing has largely been concentrated (besides in Rome's own port of Ostia) in Campania, in Pompeii and Herculaneum, which give a unique glimpse of urban planning and private housing in the first century AD. The study of Roman housing has long traditions among the Pompeianists. The foundations were laid in the 19th and early 20th century⁵⁸ and a certain renaissance in studies of Pompeian houses and domestic space emerged from the 1980s on, led especially by A. Wallace-Hadrill and J. Clarke, followed by other modern approaches to the Roman house concentrating on the use of space and its social implications by using archaeology, art history and literature. The literary evidence for Roman architecture relies heavily on Vitruvius, the Roman engineer/architect and author of *De Architectura*, even though, in recent studies, the role of Vitruvius as a source for research into especially Pompeian living has been readdressed and the usefulness has been challenged.⁵⁹ In

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⁵⁵ Ekirch 2005, 300-2.

⁵⁶ Ekirch 2005, 301, Ekirch 2001, 364-5 (n. 68).

⁵⁷ Of these different names and their definitions, see Tamm 1973. On a discussion of what makes a Roman house a 'Roman house', see Wallace-Hadrill 2015.

⁵⁸ E.g., Overbeck 1875, Mau 1900; see also Maiuri 1958.

⁵⁹ Wallace-Hadrill 1988 and 1994, Clarke 1991, Dwyer 1991, Zaccaria Ruggiu 1995, Hales 2003, Leach 2004.

addition, in the new excavations in Pompeii, starting from the 1990s many new discoveries have been made, especially concerning the organisation of domestic space in the earlier periods of settlement.⁶⁰

Modern scholars have further defined the social role of the Pompeian/Roman house and how the patterns of social life are reflected in the architecture. The dichotomy between public and private has also aroused interest and new theories have emerged on how public functions and private actions in a Roman house can be detected and where in the houses the social activities took place.⁶¹ The theoretical approaches to privacy in Roman domestic space are discussed in more detail below in the section 'Sleep and space — the theoretical background'.

We know from these studies that the Roman house was the centre for the social life of its owner and witnessed to a certain degree even the economic and political dealings of the occupant.⁶² Wallace-Hadrill discusses the role of the houses as documents of social life⁶³ and how their location, size, organisation of space and decoration formed a code which guided the social flow inside; apart from the movement of the family (including servants), also that of friends, clients and other visitors.⁶⁴ There seems to be a special connection between the function of the spaces and its decoration as well as with social activities in the house and the architectural form — already acknowledged by ancient authors (e.g., Cic. off. 1,138-9 and Vitr. 6,5,1) — particularly pronounced in the organisation of space for receiving clients during morning *salutatio*.⁶⁵ Front doors were kept open, but were heavily made and closable if needed.⁶⁶ In addition to architecture and decoration, porters and other servants also guided and controlled the access to the houses and movement inside it.⁶⁷ The house was the scene for these social calls, as well as the locus for private family rites, and the architecture served these purposes.⁶⁸

According to these studies, spaces in the private town houses were organised around the *fauces–atrium–tablinum* axis, which can be still seen in the architectural layout of

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⁶⁰ E.g., Pesando 1997 and Coarelli *et al.* 2006.

⁶¹ Wallace-Hadrill 1988, 84-5.

⁶² Clarke 1991, 1-2.

⁶³ Wallace-Hadrill 1988, 47, Wallace-Hadrill 1994, 5.

⁶⁴ Wallace-Hadrill, 1988, 55-6, Wallace-Hadrill 1994, 12, 14-5, 36-9, see also Clarke 1991, 1-2.

⁶⁵ Clarke 1991, 1-2, Wallace-Hadrill 1988, 50-52, 55 (cf. Barbet 1985), cf. Grahame 1997, 141. See also recent approaches to *salutatio* and its impact on the use of space in Goldbeck 2010 and Speksnijder 2015.

⁶⁶ Wallace-Hadrill 1988, 46, Wallace-Hadrill 1994, 5.

⁶⁷ Wallace-Hadrill 1988, 77-8, 83-6, Clarke 1991, 2, 13, Dunbabin 1994, 165-6, 172, Dwyer 1991, 27.

⁶⁸ Wallace-Hadrill 1988, 45-6, 54-5, Clarke 1991, 1-4 (quoting F.E. Brown 1961, 9); Dunbabin 1994, 165, Leach 1997, 51-2, 59.

the Campanian houses. Public functions were concentrated in the area of main entrance and central court (*atrium*) and in the master's office (*tablinum*) or even in the bedrooms (*cubicula*). More intimate entertainment took place in the peristyle and the dining rooms (*triclinia*). Smaller, closable rooms are centred around these large circulation areas, *atria* and peristyles.⁶⁹

Wallace-Hadrill sketched invisible boundaries inside Roman houses. According to him, two 'axes of differentiation,' as he frames it, inside the Roman house can be detected: public - private and grand - humble. Friends (*amici*) were received in the public but grand areas, whereas the public and humble areas were sufficient for clients. Among the members of the *familia*, the owner's family was entitled to the private and luxurious spaces but servants had to be content with the humbler ones, though, for instance, in Pompeii, separate areas for slaves are difficult to identify.⁷⁰ Wallace-Hadrill also states that segmentation of domestic space based on gender or age cannot, however, be detected in the Roman (archaeological) material, even if the gender and age differentiations were known to the Romans.⁷¹ R. Laurence highlights the fourth dimension —namely time— of space studies. The temporal logic of Roman use of space, according to him, follows the time-use patterns of elite male Romans from the morning greetings in their houses to the public areas, to *fora* and baths and back home again in time for dinner. Even a gender-based division in the spatial patterns of Roman houses occurs in the context of time, when the men are out and about in their business, the domestic space is left to the women.⁷²

Studies on Roman sleeping: early scholarly approaches

In the earliest research, studies of sleeping have concentrated only either on parts on the phenomenon or are based on relatively limited material. In previous scholarship on Roman cultural history, sleeping is mentioned occasionally. For example, in L. Friedländer's *Sittengeschichte Roms*, issues related to sleeping and bedrooms are discussed in the context of the imperial court and in connection with reception. He also mentions how cer-

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⁶⁹ Wallace-Hadrill 1988, 46, 85, Clarke 1991, 2-6, 10, 12-3, 16, Dwyer 1991, 26-31, Dunbabin 1994, 166-9, Hales 2003, 107, 123-6. For the development of spatial patterns and their relationship to the rituals performed in the private houses, in the architecture of late period dwellings of the *insulae* of Ostia, see, Clarke 1991, 26-9, who argues that the architectural patterns still served the wealthy owners and the rituals taking place in the private houses.

⁷⁰ Wallace-Hadrill 1988, 77-8, Wallace-Hadrill 1994, 8-9, 38, George 1997 (A), 17.

⁷¹ Wallace-Hadrill 1988, 50-2, Wallace-Hadrill 1994, 8-10. Cf. Nevett 1994 questioning to what extent the women's areas in the domestic space were actually restricted and secluded even in ancient Greece, where such gender-based segregation of space was known, see also Jameson 1990, 93, 104.

⁷² Laurence 1994, 122-32.

tain Romans desired peace in their lives, as well as how sleeping was induced with meditation when needed.⁷³ In *Brill's New Pauly*, the English online-version of *Der Neue Pauly* encyclopaedia, the search word 'sleep' returns nearly one hundred results; however, none of these deal with sleeping as a cultural phenomenon; dreams and dream interpretation as well as *incubatio* come closest.⁷⁴ In J. Carcopino's popular work on Roman everyday life, his reconstruction of the Roman day starts in the morning and ends with the evening dinner. Some aspects of sleeping arrangements are, however, mentioned, such as *lucubratio*, nightgowns and fairly prejudiced comments on *cubicula* as well as the question of co-sleeping Roman couples.⁷⁵ In a more recent work on Roman cultural history, P. Veyne mentions that slaves slept at the master's bedroom door, and apparently 'all over the house'.⁷⁶

The literary evidence for cubicula

The term *cubiculum* in Latin literature has aroused interest in recent years and the range of activities associated with it as well as the users of this space are well-known especially from the works of A. Riggsby, E. Leach and A. Anguissola.⁷⁷ In his in-depth study, Riggsby describes the main patterns of activities in *cubicula* as rest, sex (including adultery), controlled display of art, murder, suicide and reception⁷⁸ and claims that the room does not have one definite function.⁷⁹ Some of these functions, particularly receiving guests, as well as the redefinition of the functional role of the *cubiculum* in the Roman *domus* are issues which I have dealt specifically with in this study.

Leach investigates the confluence of archaeological and literary material in connection with the labels of different spaces. She calls her approach 'archaeology of nomenclature' which in practice means close reading of texts mentioning the names of rooms (for instance, *atrium*, *triclinium*) and activities associated with them.⁸⁰ She divides the terminology into two categories; the first refers to the activity and furnishing (*cenatio*,

⁷³ Friedländer 1910, 85, 116, 251, 335, 388-94, 410-11, 582.

⁷⁴ *New Pauly Online* (Brill Online Reference Works, available at <http://referenceworks.brillonline.com/browse/brill-s-new-pauly>, accessed 10/2015). In addition, in *RE* the closest related entry is *cubicularius / a cubiculo*.

⁷⁵ Carcopino 1939: Les divisions de la journée, le lever et la toilette: 171 - La cena: 304; 180-5, 195.

⁷⁶ Veyne 1987, 73.

⁷⁷ Riggsby 1997, Leach 1997, Anguissola, 2010, 37-68 (cf. Anguissola 2007).

⁷⁸ Riggsby 1997, 37-41, 54.

⁷⁹ Riggsby 1997, 42.

⁸⁰ Leach 1997, 50-1.

cubiculum as well as *triclinium* and *bibliotheca*) in the room and the other to its structure (*oecus*, *exedra*, *camera* and *conclave*). She also mentions that certain rooms testified to multiple functions due to the movable nature of furniture.⁸¹ For describing the spaces in Campanian houses, Leach recommends the use of such terms as *camera* and *conclave* which she considers neutral.⁸² *Cubiculum* is for her a symbol for private in the same vein as *atrium* is for public, no matter how public or private these spaces were in reality.⁸³

Anguissola places *cubiculum* in a liminal position between public and private in her detailed presentation of the users, meanings and furnishings and appearance of this room.⁸⁴ She also draws attention to the different, more or less private activities connected to *cubicula*: from sleep and sexual relations to intellectual activities and receiving friends.⁸⁵

The *cubicula* of Romano-African houses have been investigated by M. Carucci, who has also discussed the aspects of public and private in the context of Roman sleeping areas.⁸⁶ In addition, C. Badel included the *cubicula* in his treatise on the reception areas of Roman houses, and in the framework of ranking the order of spaces, he places the *cubiculum* at the summit of the spatial hierarchy — as the last target of a visitor entering the house.⁸⁷

In this study, I have used a variety of literary sources from early Latin plays to Late Antique literature, presuming that the terminology and the main features of the sleeping culture remained mainly unchanged in this time period. The Late Antique *cubicula* in the literary evidence have been investigated by K. Sessa, who concludes that in early Christian thinking *cubicula* were seen as secluded places for spiritual intimacy in contrast to their seemingly open nature in the earlier periods.⁸⁸ L. Dossey also follows these lines, claiming that Roman bedrooms were 'privatised' only in the Late Antiquity and emphasising that the *cubicula* of earlier periods were exposed to public gaze.⁸⁹ This, however, was not actually the case, as I show in my study; the private, secluded nature of *cubicula* was already known and appreciated in the Republican/Early Imperial Roman society. In my opinion, there seems rather to be continuity in the role of this room, although its in-

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81 Leach 1997, 59.

82 Leach 1997, (62-4, 67) 70.

83 Leach 1997, 68-70.

84 Anguissola 2010, 35 and Anguissola 2007, 154-60.

85 Anguissola 2010, 41-2.

86 Carucci 2007, 2012 (A,B,C).

87 Badel 2007, 147.

88 Sessa 2007, 172, 176-80, 187.

89 Dossey 2012, 181-3.

timacy and privacy may have become more accentuated during the time when the public role of the Roman *domus* was already declining.

Studies on the sleeping arrangements of children remain marginal, but are touched on, e.g., by G. Coulon in his treatise on the children in Gaul (*Gallia*). According to him, the wealthiest families had cradles, but in poorer families children slept with their parents or nurses. In his evidence, we see, for example, the supposedly relatively cheap wickerwork baskets used as bassinets. Some evidence suggests that dogs could have slept with children in the bassinets.⁹⁰

Bedrooms in the archaeological evidence

According to the traditional interpretation of a typical Roman/Pompeian townhouse, the rooms of the houses have been identified and named using literary evidence. Following this interpretation, the small, closed rooms on the sides of the front hall (*atrium*), especially flanking the entranceway (*fauces*), are labelled *cubicula*, same as similar spaces in the peristyle area. This convention particularly derives from the studies of Pompeii done by A. Mau and O. Elia, who first surveyed the development of Pompeian *cubicula*. According to Elia, the evolution of Pompeian *cubicula* follows that of the wall painting styles, and three different designs can be distinguished. The identification of *cubicula* is based on architectural elements, notably recesses cut in the walls and decoration showing the place for beds, and finds are rarely taken into account.⁹¹ The narrative of Roman domestic space, and the role of the *cubiculum* as a part of it, has followed largely these lines.

However, recent research on the material culture of Pompeian houses has questioned these identifications and shown that defining the functions of spaces in the Roman houses only on a structural basis is insufficient.⁹² The work on Pompeian houses by P. Allison shows that recesses, which were thought to be used for accommodating beds, and thus a diagnostic criterion for a bedroom, are actually much more multipurpose and their identification is rarely straightforward.⁹³ The rooms which are often referred to in research literature as *cubicula*, the 'small closed rooms off side of front hall or off gardens/terraces' in Allison's terminology, do not yield as much evidence on sleeping as one would expect in a room labelled *cubiculum*.⁹⁴ She also emphasises that labelling the different spaces using Latin names found in literature might give a very misleading picture of the

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⁹⁰ Coulon 1994, 47-9.

⁹¹ Mau 1900, 244-55 (cf. 228-30 layout of 'typical Campanian house'), Elia 1932, 394-9. See also Zaccaria Ruggiu 1995, 397-8, van Binnebeke 1991, 141.

⁹² Especially Allison 2004. See also Berry 1997 (A), 183-4, Berry 2007, 192 and Nevett 1997, 283-4.

⁹³ Allison 2004, 43-7.

⁹⁴ Allison 2004, 64, 71-6, 94-8.

functioning of Roman/Pompeian house.⁹⁵ *Tablinum* is particularly problematic; it is seldom mentioned in Latin literature, but widely used in the research literature on domestic space. The role and function of this room, both in literature and in archaeology, definitely needs further clarification in a detailed study.

This more cautious approach to identifying and labelling the spaces has been adopted by Anguissola, who has studied the archaeological evidence of spaces for sleeping in Pompeii. She identifies the bedrooms by using the 'lowest common denominator', which in her case is the alcove, resulting in the term *camera ad alcova* (in English *alcove-room*) for these spaces.⁹⁶

The bedrooms of Herculaneum are featured in A. Maiuri's main publication of the excavations, *Ercolano: i nuovi scavi* (1927-1958), vol.1, even though the finds are dealt with only in passing.⁹⁷ The organic material of the town, however, has been studied in detail by S. T. A. M. Mols, who has examined all the remains of wooden furniture found there. His book, *Wooden furniture in Herculaneum: form, technique and function*, where he introduces 13 beds and couches and lists the entries in excavation reports mentioning furniture (including beds) with their provenance, serves as a good starting point for further studies on the bedrooms in this town.⁹⁸ M. van Binnebeke lays out certain components for identifying a bedroom, highlighting the importance of studying the architectonic remains (niches in the wall, division of decoration and size and dimension of the room), at the expense of the finds material.⁹⁹

The study of Roman sleeping – beyond cubicula

The study of Roman sleeping arrangements has largely concentrated on investigating *cubicula*, mainly to answer the question *where Romans slept*. From the point of view of the cultural history of sleeping in the Greco-Roman world, some pioneering work has been done as well, most importantly in the edited volume *Sleep*, by T. Wiedemann and K. Dowden. The topics of articles in the volume are varied, concentrating chiefly on studies on sleeping in the writings of certain notable authors. Articles by the editors touch on the everyday meanings of Roman sleep.¹⁰⁰ Wiedemann ponders whether Romans actually

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⁹⁵ Allison 2004, 8-12, 63.

⁹⁶ Anguissola 2010, 72, 171 and *passim*, (terms in English: 425), see also defining *cubiculum* and the problems of the use of Latin labels in an archaeological context: p. 7-11.

⁹⁷ Maiuri, 1958.

⁹⁸ Cf. Wallace-Hadrill 1994, 96-7.

⁹⁹ van Binnebeke 1991, 140.

¹⁰⁰ Wiedemann 2003 and Dowden 2003.

slept during siesta and Dowden discusses the views on sleeping and how it was considered virtuous to manage with little sleep.

Night-time phenomena have also been studied in a collection of articles called *Sub imagine Somni: Nighttime Phenomena in Greco-Roman culture*, edited by E. Scioli and C. Walde. The articles of the volume concentrate most importantly on dreaming and the meaning of dreams in ancient culture, but two of the articles address sleep-related questions more closely. B. Spaeth analyses the Roman stories on 'Night Hag Attacks' where frightening female creatures of the night threatened male sleepers. She sees these accounts as reflecting the fear of sexually active women, who were considered deviant in Roman culture. Insomnia is treated in A. Ambühl's article, which concentrates on looking at the way Roman poets experienced sleeplessness and how insomnia was related to the literary figure of a poet and his inspirations.¹⁰¹

Data and methods

This dissertation is based on both literary evidence and archaeological material (including architectural evidence). Written sources, which form the major part of the data, consist of Latin texts which mention sleeping and resting.¹⁰² Texts were chosen by using reference books, such as *Thesaurus Linguae Latinae (TLL)* and different electronic databases, such as Brepols Publishers' *Brepols Library of Latin Texts* (clt.brepolis.net), *The Digital Loeb Classical Library* (loebclassics.com), The Packard Humanities Institute's *Latin texts* (latin.packhum.org/index) and the *Latin Library* (thelatinlibrary.com), of which the three first ones can be accessed only through a library account and the two latter can be used freely on the Internet.

Finding the relevant texts using digital databases was a long process. I started by going through electronic libraries such as the Latin Library, which contain essential Latin authors and sifting passages by using the search function with such word forms as *cub-*, *dorm-*, and *sonm-*. Some terms, e.g., *cubiculum* (and its derivatives) and the terminology of beds were studied with the help of *TLL*. Initially, my aim was to also include such terms as *nox* (*noct-*), *iac(-eo)* and *quies* (*quiet-*), but it soon became evident that limiting the amount of data was necessary.¹⁰³ In addition, art historical analysis (visual

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¹⁰¹ Spaeth 2010 and Ambühl 2010.

¹⁰² In addition, some relevant Greek authors (mainly Cassius Dio, Plutarch and Soranos) were used.

¹⁰³ TLL lists 318 entries for lemma *cubiculum* (TLL, vol. IV, p. 1266, lin. 30 - p. 1269, lin. 50), 143 entries for *cubicularius* (TLL, vol. IV, p. 1265, lin. 35 - p. 1266, lin. 25) and 25 for *cubicularis* (TLL, vol. IV, p. 1265, lin. 6 - p. 1265, lin. 34). The amount of other passages mentioning sleeping (i.e. terms found with enquiries of *dorm-*, *sonm-* etc.) which were analysed is roughly 800.

representations of bedroom activities), as well as epigraphical material was also left out, in order to refine the research task.¹⁰⁴

I studied the literary evidence by using source critical text analysis, examining what is, for instance, said about the actual place of sleeping (*cubiculum* or some other space); who uses the space: gender, age and social status of the user; the privacy of the place: were married couples sleeping together, did children sleep with their parents, did slaves/servants sleep with their owners, were outsiders admitted to the sleeping area; what time of the day were people sleeping ('siesta', night-time); did the sleeping space have other functions as well, is the location in the house or the contents of the room mentioned and what is said about the possible problems (sleeplessness, nightmares, vermin, etc.), security matters and moral views regarding sleeping habits. Even though the study is inspired by research questions and propositions of sociologists, due to the scattered nature of the evidence, certain methods of the social sciences such as statistical analysis, cannot be directly applied. Certain aspects of sleeping are abundantly present in the texts, yet some elements remain marginal, due to the diffuseness of the data.

Texts included in the study consist mainly of passages which tell us about living and housing in Roman Italy or are aimed at an audience living in the area. I have, however, used certain sources where the setting of the texts falls outside this scope: in some cases, the milieu is outside Roman Italy or does not take place in a domestic context, such as some passages on military life or, for example, works of authors such as Plautus and Apuleius whose writings are nominally set in Greece. In addition, I have also used mythological texts when they can be interpreted as revealing essential elements of Roman sleeping culture. The majority of texts consists of Late Republican and (early) Imperial literature, yet, overall, the literary material ranges from Archaic plays to Late Antique legal texts, allowing a detailed investigation of the social elements of sleeping habits among the ancient Romans. As stated above, the presumption is that the terminology and the main aspects of sleeping habits remained, for the most part, immutable in this time period. The analysis of the literary evidence resulted in three articles (A, B and D).

The archaeological and architectural material was collected from 27 private dwellings in Herculaneum, in houses where evidence of beds has survived. In addition, the results of earlier research on a couple of houses in Pompeii were used in the first article, mainly for formulating hypotheses for further study.¹⁰⁵ The Campanian towns were chosen as targets for the study since Rome itself yields very little evidence on private housing. Herculaneum is an exceptional place for studying household artefacts and activities and this town yields unique evidence for sleeping and reclining, since in the process of the A.D. 79 eruption, the extreme heat of the pyroclastic material carbonised organic material,

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¹⁰⁴ For recent approaches to inscriptions (especially graffiti) in the Pompeian domestic contexts, see, e.g., Lohmann 2015 and Benefiel 2016.

¹⁰⁵ Especially on Allison 2004 and Ling and Allison 2007.

including beds (which I selected as the diagnostic criterion for a bedroom), rendering it durable enough to survive through the ages. The data concerning the material culture and architectonic elements of Herculaneum was gathered from the reports of the excavations¹⁰⁶ as well as using the beds and their provenance presented in Mols (1999). *Maiuri's main work on Herculaneum* (1958) and F. Pesando's and M. P. Guidobaldi's *Pompeii, Oplontis, Ercolano, Stabiae* (2006) were used particularly for mapping the sleeping areas of houses of the town.¹⁰⁷ For collecting and organising the material, I created an MS Access-based database which includes relevant data on bedrooms in Herculaneum. The data was further processed using an MS Excel spreadsheet application. The results on the archaeological material are presented in Article C.¹⁰⁸

Sleep and space — the theoretical background

The analysis of sleeping arrangements, and the aim to answer *why* these arrangements were made, *which* social and cultural factors determined these arrangements and *what they tell us* about the society in question, are influenced by theories on the use of domestic space, on theories of privacy as well as on ideas on the cross-cultural elements of sleeping.

According to the theoretical premises of the use of space, chiefly drawn from the articles included in the *Domestic architecture and the use of space: an interdisciplinary cross-cultural study* edited by S. Kent, human behaviour has an effect on how the built environment is formed and vice versa.¹⁰⁹ Kent herself argues that architecture forms boundaries in otherwise unbounded space and culture plays a role in what types of spaces are bounded, forming such oppositions as inside/outside, public/private, profane/sacred, ours/yours, etc.¹¹⁰ She also asserts that social complexity determines the organisation of space. As society gets more complex, behaviour, use of space, material culture and architecture become more segmented. Functionally bounded areas are those used principally for one or closely related functions. There is often linguistic differentiation between such areas

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¹⁰⁶ Ruggiero 1885 and GdSN, the unpublished excavation reports which are available as a text file transcript of the original manuscript at the Soprintendenza of Herculaneum.

¹⁰⁷ In addition, I documented the houses (with the exception of Casa a Graticcio, III 13-15 and upper floor rooms, which are closed due to the perilous conditions of the structures) during two fieldwork campaigns in Herculaneum.

¹⁰⁸ See also Monteix 2009 for source criticism.

¹⁰⁹ See Kent 1990 (A) 2-3, for theoretical pondering on the relationship between culture, use of space and architecture and how much interaction there is among these elements.

¹¹⁰ Kent 1990 (A), 2.

(e.g., bedrooms, kitchens and bathrooms in Euro-American houses).¹¹¹ Kent introduces five categories of societies based on their socio-political complexity from hunter-gatherers to complex modern societies with 'full time social, political, religious, and economic specialists, secular and non-kin control groups as well as a standing military'. In this category, economic differentiation between socio-political classes and divisions based on cast or gender also occasionally occur and there can even be a rigid division of labour.¹¹²

In addition, as A. Rapoport notes, the built environment is composed of fixed elements (buildings), semi-fixed (furnishings) and non-fixed (e.g., humans and their activities) and in research on space it is important to find out the cues which guide behaviour. *Who does what, where, when and with (or without) whom* are the questions one needs to ask in approaching the interrelationships of environment and behaviour.¹¹³ In addition, D. Sanders lists the factors which influence organising domestic space such as climate, topography, materials available, technological skills, economic means, function and cultural traditions, which all define the form, decoration and placement of houses and how inhabitants and visitors use space.¹¹⁴

Sanders also explains how a built environment is influenced by territoriality, personal space, privacy regulations and boundary controls. Of these, especially the level of privacy differs from culture to culture, but certain aspects, as, for instance, the restricting of unwanted contacts, are universal features. Control produces norms and regulations, and privacy offers the opportunity to choose between isolation and social interaction. The boundaries can be visible or invisible (psychological, personal space, social, socio-physical). For detecting these limitations, such data as architectural elements, distribution of artefacts and ethnographical comparisons can be used.¹¹⁵ In Sanders' view the more modern a society gets, the more it offers opportunities to privacy.¹¹⁶

Several of the aspects of complex societies are easily recognisable in the Roman world and reflected in architecture and space use. The urban Roman upper-class *domus* feature elaborate layouts with a large number of spaces. The diversity of spaces is even reflected in language, i.e., the spaces in the Roman house were terminologically differentiated. In addition, climate influenced Roman architecture and the furnishings of the spaces, including sleeping areas. In my opinion, where the relationship between cultural conventions, space use and architecture is concerned —as is the case in all other such complex

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¹¹¹ Kent 1990 (A), 6, Kent 1990 (B), 128.

¹¹² Kent 1990 (B), 127-8, 130-49.

¹¹³ Rapoport 1990, 9, 13-5.

¹¹⁴ Sanders 1990, 43-4.

¹¹⁵ Sanders 1990, 49-51, 53.

¹¹⁶ Sanders 1990, 50.

issues— no one single and dominant determinant can be found, but they are formed in constant interaction, reciprocally influencing each other.

The Roman *domus* was the economic and, primarily, the social centre of its owner —a place of business and self-display—and open to outsiders to a certain extent, and its role in the interface of public and private has been widely debated. How and where the public functions, such as *salutatio*, the ritualised morning greeting, took place and how were the more intimate activities (usually conceived as achievable within the walls of the private family house)¹¹⁷ interlocked into the use of space?

In the discourse on the public and private in the Roman domestic space, many of the recent studies emphasise how privacy is a culturally specific concept and the ancient Romans had a very different view of privacy, very much in contrast to the modern perception.¹¹⁸ Remarkably, even though in the hierarchy of the *domus*, the *cubiculum* has been seen as more private than, e.g., the dining room (*triclinium*) which in turn is considered more private than the reception areas *atrium* and *tablinum*,¹¹⁹ *cubiculum* is regarded as a space often lacking the private and intimate nature often attributed to a bedroom.¹²⁰ Many scholars seem to attribute this low level of privacy to *cubicula* since they appear among the reception areas where servants were also assiduously present.¹²¹

K. Dunbabin, who defines privacy as safety and seclusion from outsiders, questions whether the modern psychological concept of privacy can be detected in the Roman domestic context, since the Roman house served so many public functions.¹²² According to Wallace-Hadrill the visual transparency of Roman private houses (manifested in the *fauces-atrum-tablinum* axis) revealed the absence of privacy, which could not be achieved even in the bedrooms. He states that Romans did not even desire privacy when performing such activities as bathing and defecating — which we in our modern view might consider better concealed.¹²³ Clarke adds to this view, stating that the ancient Romans had no parallel conception of our modern, twentieth-century idea of privacy and

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¹¹⁷ Cf. Rössler 2005, 3, see also Bourdieu 1977, 122 (associations between 'behind' with 'female' and 'inside' as well as 'private, hidden and secret').

¹¹⁸ E.g., Grahame 1997, 138.

¹¹⁹ Especially formulated by Wallace-Hadrill 1994, 17.

¹²⁰ For bedrooms as secluded, inactive back-region areas, see, e.g., Goffman 1956, 73-5, 87, cf. Elias 1994, 134-5.

¹²¹ Wallace-Hadrill 1988, 59 (note 44), 78, 81, 86-7 (note 130), 92-3, Wallace-Hadrill 1994, 44, Clarke 1991, 13, Dunbabin 1994, 171, Zaccaria Ruggiu 1995, 397-409, Nevett 1997, 290-1; Leach 1997, 68-70.

¹²² Dunbabin 1994, 165-6, cf. Anguissola 2012, 31.

¹²³ Wallace-Hadrill 1988, 81-2. See also Leach 1997, 69.

even that this kind of perception was 'simply alien to [Roman] mentality'.¹²⁴ A. Zaccaria Ruggiu follows these propositions, affirming that there was no clear division between public and private, even though she considers the *cubiculum* as a place of refuge.¹²⁵ On the other hand, M. George draws attention to personal privacy gained through internal boundaries in the houses.¹²⁶ The intimacy of *cubicula* is also discussed by Carucci. She acknowledges the need for withdrawal and secrecy among Romans, yet in her interpretation of how Romans experienced domestic privacy, she tends to emphasise the visibility of the houses and the Roman need for publicity, considering *cubicula* among the highly public spaces within the Roman house, and to downplay the need for privacy among the Roman elite culture.¹²⁷

However, a certain level of privacy, in the context of *cubicula*, is reintroduced in the studies of Riggsby and Anguissola. Riggsby sees the *cubiculum* as a space meant for private and even secret activities.¹²⁸ Anguissola places *cubiculum* in pivotal position between public and private, or as she prefers, between social and intimate, and also draws attention to the secret nature of the room as a place for rest and withdrawal.¹²⁹ Nonetheless, the work of Riggsby, has been used as proof of the public nature of *cubicula* in some later approaches, especially by Dossey who considers *cubicula* as strikingly open spaces.¹³⁰

While it is true that the Roman concept of privacy was different from the modern idea, it does not lead to the conclusion that it was either the complete opposite or totally absent. As I argue in my Article B, privacy, rather than being a static concept, is a product of personal experience influenced by the varying relationships between people in different circumstances. Privacy is gained through negotiation, which is, in turn, affected by personal preferences and the opportunities offered by status, class or wealth.¹³¹ To me, the most remarkable difference between antiquity and the modern Western world is that today privacy is seen a universal human right, even protected by the *The Universal*

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¹²⁴ Clarke 1998, 163.

¹²⁵ Zaccaria Ruggiu 1995, 405-7.

¹²⁶ George 1997 (B), 317-8.

¹²⁷ Carucci 2012 (A), 13, Carucci 2012 (B), 48, 58-9, Carucci 2012 (C), 167, 175-6, 183-5.

¹²⁸ Riggsby 1997, 44.

¹²⁹ Anguissola 2010, 35, 62-5.

¹³⁰ Dossey 2012, 181.

¹³¹ Article B, 15.

*Declaration of Human Rights*¹³² and the right to privacy is well-defined by philosophers and social and legal historians.¹³³

In addition, even though the ancient societies lacked such exact conceptualisation, it does not mean that no concepts of privacy whatsoever were known to Romans. The English word *private* derives from Latin's *privatus*, which can be translated to 'be bereft of something' or 'being apart from the state'.¹³⁴ There are also, however, other terms for 'personal' or 'one's own' in the Latin language. In addition to *privatus* the associated terms in question are *domesticus*, *peculiaris*, *proprius*, *singularis*, and the even Greek *iδιος*, which appears in some works by Roman authors. In addition, such terms for secret/secrecy as *arcanus* and *secretus* bring to light the Roman need for privacy and seclusion and how this need was met. As far as I am aware, no comprehensive philological studies of the use of these terms has been done and therefore a scrutiny of these terms in the original sources in order to understand how Romans perceived privacy/private would merit further research.

In this study, the focus is mainly on the theme of local privacy, which, as B. Rössler defines it, is the 'right to protection against the admission of other people to spaces or areas'.¹³⁵ The key question is how privacy and its close counterparts, intimacy and secrecy, were perceived in the domestic sphere in the context of sleeping. Further questions are how relations among the inhabitants of the Roman houses as well as the visitors to it were formed, who was entitled to privacy among the members of Roman *familia*, if any, and was there even a need for privacy, which is here understood as the sense of being able to withdraw, by one's own choice, from social situations and to be left undisturbed?

As I show in this study, a certain sense of privacy is present in the Roman material and manifests itself in the sleeping arrangements, which provided opportunities for obtaining seclusion, peace and quiet. These features were appreciated and sought after by the elite members of Roman society. However, the chances for withdrawal were somewhat limited and particularly restricted by social hierarchy.

In addition, a particular consensus on the multifunctional nature of Roman houses seems to predominate in the recent scholarship. According to this view, Roman domestic

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¹³² United Nation, General Assembly resolution 217 A 1948: *The Universal Declaration of Human Rights*, § 12.

¹³³ Warren and Brandeis 1890. See also Whitman 2004, 1202-10, revisiting Warren and Brandeis and the problems of the reconciliation of the continental European concept of privacy and the American legal system. See also Max-Neef 1991, in whose taxonomy privacy belongs among the fundamental human needs. Cf. Grahame 1997, 142 (n. 21).

¹³⁴ See Lewis and Short 1879, sv. *privō*: I. 'To bereave, deprive'; II. 'To free, release, deliver.' II, B, *privatus* 'Apart from the State, peculiar to one's self, of or belonging to an individual, private', etc. (Cf., e.g., Arendt 1958, 22-78 for treatment of the realms of the public and the private.)

¹³⁵ Rössler 2005, 5, 9, 142-3.

spaces were multipurpose, without clear function-based divisions. Moreover, the theoretical outline on Roman sleeping maintains that private, individual, segregated and permanent spaces for sleeping did not pertain to the Roman sleeping culture, but sleeping could take place wherever one felt like it and beds and bedding were moved around the house.¹³⁶ However, as I show below, an alternative interpretation, (which also includes the theories on universal elements of how to enhance the emotional security of the sleeper, introduced by Steger),¹³⁷ of the evidence is possible. I show that even Romans may have had permanent and individual spaces for sleeping, though the evidence is insufficient to answer conclusively whether the closed bedrooms can be considered such personal spaces where one can have control over the arrangement of the interior, as described by Rössler.¹³⁸ The privacy and permanence of Roman bedrooms is covered chiefly in the section 'The boundaries of sleeping' below.

RESULTS

Introduction to articles

The results presented in the recapitulation are based on findings published in following four articles.

- A: '*Cubicula diurna, nocturna - Revisiting Roman *cubicula* and Sleeping Arrangements*' in *Arctos* 43 (2009) 85-107.
- B: 'A Bedroom of One's Own' in *Privata Luxuria: Towards an Archaeology of Intimacy. Pompeii and Beyond*, ed. A. Anguissola, München 2012, 15-29.
- C: 'Sleeping arrangements in the Houses of Herculaneum' in *Public and Private in the Roman House and Society*, eds. K. Tuori and L. Nissin, Portsmouth 2015, 101-18.
- D: 'Sleeping Culture in Roman Literary Sources' in *Arctos* 49 (2015) 95-133.

The Article A is founded mainly on the evidence of *cubicula*. The earlier studies on the subject, as well as the uses and users of the space, are treated in the article. My aim is also to show that certain ideas on the use of this particular room, especially reception, are not as straightforward as has been presented in earlier scholarship. A quick look is also taken of sleeping arrangements in a couple of Pompeian houses (based on earlier

¹³⁶ Outlined especially in Allison 2004, 167. See also Nevett 1997, 290-1 and 297 and Nevett 2010, 97-118, Leach 1997, 59, Riggsby 1997, 40, and other scholars touching on the subject: Leach 2004, 50, Dickmann 2010, 71, Veyne 1987, 73.

¹³⁷ Steger 2004, 415.

¹³⁸ Rössler 2005, 143, cf. Nevett 1997, 297.

research on these houses, in Allison 2004 and Ling and Allison 2007). The first article also serves as the basis for further hypotheses. In the following articles, the evidence is extended from the study of just one term, *cubiculum*, to more general texts on sleeping. Article **B** is based on a paper presented in conference which concentrated on privacy issues of Roman housing. In this article, I focus mainly on the aspects of co-sleeping in the Roman world. In addition, in Article **B**, I introduce the key components of sleeping arrangements in anthropological research, as presented by Worthman and Melby and how these factors can be detected in the Roman context. Archaeological material is presented in Article **C**, where the findings from 27 houses in Herculaneum are studied; the aim is to identify the bedrooms in the houses and to clarify the privacy issues related to the sleeping areas. Article **D** is the largest entity and is based solely on literary material. It seeks to answer the questions where, with whom, when and how Romans slept. The hypotheses presented in Article **A**, based mostly on the literature on *cubicula* are tested in Article **D** using wider net of evidence on sleeping. Several of the findings which were already present in the first article can be found repeated in the texts on a more general level, thus consolidating many of the original propositions.

The recapitulation of results is formulated thematically (where, with whom, when and how Romans slept and the boundaries of sleep) so that in each case the results of literary evidence are summarised first and then the archaeological material used for dealing with the same questions is presented. The references to original sources which are available in Articles **A-D** are not duplicated in the summary (unless they are referred to in the text).

I have decided to use the fairly general terms 'Roman house/housing or *domus*' in this discussion, but it must be remembered that while the scope of my literary sources covers wide temporal dimensions and the geographical scope consists of Roman Italy and extends occasionally even outside it, the archaeological material comes from one single Campanian town (reflecting local Italic, Greek and possibly even Etruscan influence in the urban structure and housing).

Indeed, one of the major questions in Pompeian studies is to what extent we can use the material from the small, local Campanian towns as evidence for Roman world and Roman social institutions. It has been debated, for example, whether such important institutions as *salutatio* took place outside the city of Rome.¹³⁹ On the other hand, E. Dwyer discusses how the *atrium* house with its social functions was a still 'fully functioning institution' in Pompeii during the time of the eruption of A.D. 79, and Wallace-Hadrill brings up the close contacts between the metropolitan Roman elite and members of local Campanian upper-class.¹⁴⁰

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¹³⁹ See, e.g., Goldbeck 2010, 22-3, see also 120.

¹⁴⁰ Dwyer 1991, 25, 29, Wallace-Hadrill 1994, 15. See also below, the section 'The surroundings of sleep' for the reality of urban planning.

I am inclined to believe that among the elite of these provincial towns there was a certain desire to keep up with the elite culture of the capital city, which is reflected, for example, in the layout of *atrium* houses. However, the town planning and architecture were restricted and influenced by local customs, means and topography, and therefore the results from the archaeological evidence from Campania should not be too lightly generalised to the whole Roman world. And indeed, wide-ranging generalisations should not be made even with the literary evidence, which is chiefly focused on Roman Italy.

Where Romans slept

Bedroom

The previous research on Roman sleeping has predominantly concentrated on studying *cubiculum* and thus the range of uses of *cubiculum* in Latin literature, its role and functions as a part of Roman house as well as its users are well known. The word *cubiculum* implies resting, and resting is indeed the main function of this particular room. In addition to sleeping, other actions befitting a sleeping area, such as sex and convalescence as well as literary activities, are also associated with the room. In addition, certain other activities, such as dining and storage can be connected with *cubicula* — yet fairly rarely.¹⁴¹ Furthermore, as Riggsby points out, descriptions of murders and suicides committed inside *cubicula* are ubiquitous in literature.¹⁴² According to Riggsby's interpretation of the literary evidence, *cubicula* do not have a single clear-cut function and none of the activities associated with *cubicula* is enough to define the space alone.¹⁴³ In my opinion, though, it is quite clear, that activities which need a bed form the core of the function of *cubicula*: references to rest and sex by far outnumber any of the other activities associated with this room, and beds are a common feature in the passages on *cubicula*. Sleeping and resting as well as sexual encounters are often the backdrop when a scene in literature takes place in a *cubiculum*. The use of the bed is also essential while receiving guests, particularly if the host is confined to bed due to illness. Beds also served for seating and as a place for reading and writing.¹⁴⁴

Some researchers have argued that *cubicula* belonged among the reception areas of the Roman *domus*.¹⁴⁵ Riggsby contents himself with stating that modern writers have con-

¹⁴¹ Riggsby 1997, 37-40, Anguissola 2010, 39-42, Leach 1997, 69-71, Article A, 87-9, Article D, 98.

¹⁴² Riggsby 1997, 39.

¹⁴³ Riggsby 1997, 42.

¹⁴⁴ Article A, 97, Article D, 98.

¹⁴⁵ E.g., Wallace-Hadrill 1988, 59 and Wallace-Hadrill 1994, 44, Zaccaria Ruggiu 1995, 404.

firmed that the *cubiculum* was a place used for reception.¹⁴⁶ However, I believe that the evidence for bedrooms being used as place for reception is slightly ambiguous and needs further examination. There are certain fairly clear references to reception and the *cubiculum* is especially mentioned as a place for private negotiations and receiving friends. Nevertheless, some sources seem to provide a different connotation: only a morally dubious man would receive guests in his bedchamber. According to my interpretation of the evidence, an ordinary *cubiculum* was —rather than being an open place for reception—a private office for working and conducting literary activities. When a *cubiculum* was used as a place for reception, it often depended on certain special circumstances, such as the illness of the host, as stated above. Visiting a bedridden colleague or friend is a common theme in texts; in a society with underdeveloped means of medical care, the bodily impediments must have been rather common and they could not be allowed to get in the way of social duties. Another reason for using a bedroom for receiving guests was the need for absolute secrecy.¹⁴⁷

In addition, the use of domestic space is reflected in the Latin language and the different spaces of a Roman house are linguistically differentiated and there is a clear distinction between a *cubiculum* and other spaces in the Roman house. A *cubiculum* is often connected with other room types, chiefly to those of feasting, and in certain cases, people did fall asleep on dining couches. Nevertheless, the distinction between *cubicula* and *triclinia* is clear, and dining rooms were not primarily designated for sleeping.¹⁴⁸ Therefore I conclude that a *cubiculum* was a separate, even a private bedroom of the (elite) *domus*.

In addition to *cubiculum*, some other words were used —often in connection with or as synonyms for *cubiculum*— for a bedchamber. The Greek derived *thalamus* was a choice of word for poets who found it difficult to fit *cubiculum* into the metre, other words were *conclave* and *cella*. In comparison with *cubiculum*, *thalamus* is the closest synonym.¹⁴⁹ *Conclave* is used more generally for a room that has many uses, including resting. These terms are clearly different; *cubiculum* implies activity (reclining), *conclave* refers to the structure (closed with a key).¹⁵⁰ *Conclave* could be, for example, as a make-shift bedroom, a bedroom in a roadhouse as well as a sickroom. *Cubiculum* was the bed-

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¹⁴⁶ Riggsby 1997, 41.

¹⁴⁷ Article A, 89-90, Article D, 98-9, 116-7, 128. For the question whether *cubicula* were used during morning *salutatio*, see also Goldbeck 2010, 143-4, see also Badel 2007, 147 on the place for audiences in Roman houses.

¹⁴⁸ Article D, 99. Cf. Kent 1990 (B) for the theoretical background. See Riggsby 1997, 37 for connecting dining rooms and *cubicula* and Zaccaria Ruggiu 2001 for a hypothesis on the close connection between *cubicula* and *triclinia* in archaeological material.

¹⁴⁹ Article D, 100 (Lewis and Short 1879, s.v. *thalamus*).

¹⁵⁰ Cf. Leach 1997, 59, 65-8, Article A, 88.

room of the (elite) *domus*,¹⁵¹ but a room used in another kind of dwelling or temporarily for resting, was referred to using the more general term, *conclave*. *Cella* differs from *cubiculum*, *thalamus* (and *conclave*) in the regard of the user of the rooms: it was the term for the sleeping area of slaves and the poor.¹⁵²

Sleeping outside and on the ground was not an uncommon feature in the Latin sources, e.g., in passages which yearn for the modest living of admirable ancestors or are set in military context. The Roman attitude towards sleeping outside differed, depending on the context. Sleeping under the stars was either considered boorish (or even bestial) if done by outsiders to the Roman world or praiseworthy, if the habit revealed the manners of ideal and virtuous Romans. A person taking a nap in public was probably a common sight, yet a person snoozing at a public occasion was liable to ridicule.¹⁵³

Location of bedrooms in houses

Latin literature does not answer explicitly the question of where in the *domus* bedrooms were situated. The typical location of a *cubiculum* seems to have been in the front part of the house and if a bedroom was situated in the inner parts of the *domus* or on upper floors it needed an additional attribute such as *interius* or *superius*.¹⁵⁴ The references locating the bedroom upstairs are, however, somewhat unclear.¹⁵⁵

In addition to elite town houses (*domus*), bedrooms (*cubicula*) could also be found in *villae*, the large country houses¹⁵⁶ or in private suburban gardens (*horti*). For instance, Cato and Columella mention *cubicula* located in farm houses and Pliny and other wealthy villa-owners describe the bedrooms in their villas. The discussion in Cicero's *De Republica* is located in Scipio's *horti*.¹⁵⁷ *Cubicula* are also featured in imperial buildings, both in Palatium and in countryside villas.¹⁵⁸

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¹⁵¹ Riggsby 1997, 37, 43.

¹⁵² Article D, 100.

¹⁵³ Article B, 13, Article D, 100-1, 116.

¹⁵⁴ See discussion in Anguissola 2007, 154-5 and Anguissola 2010, 44-5, see also Article A, 95. (However, one of these cases, namely Phaedr. 3,10,21: 'deinde noctu subito ianuam intravit, recta cubiculum interius petens' the term *interius*, which has been accepted by Brenot 1969, 43, has been replaced with *uxoris* by some editors, e.g., by Guaglianone 1969, 44).

¹⁵⁵ Anguissola 2007, 154-5, Anguissola 2010, 45, see also Article A, 95-6, Article B, 12.

¹⁵⁶ For a definition of *villa*, see, e.g., Viitanen 2010, 3-6.

¹⁵⁷ Cic. rep. 1,14-8.

¹⁵⁸ E.g., Plin. paneg. 83, Aur. Fronto p.85 v.d.H, p. 234 v.d.H, Suet. Dom. 15,2, Hist. Aug. Pius 12,5, Hist. Aug. Heliog. 13 and 14. *Cubiculum* appears sometimes, yet fairly rarely in a non-elite context (e.g., Apul. met. *passim*, Dig. 9,3,5,2).

In the archaeological research literature, the spaces of a typical Roman/Campanian *atrium* house are traditionally labelled with conventional Latin names found in literature. *Cubicula* have been identified in certain places inside the so-called *atrium* house, typically around the front hall (*atrium*), especially flanking the entrance corridor (*fauces*), or the peristyle.¹⁵⁹ Valid criticism against this kind of labelling has been presented in recent studies, highlighting the fact that the labels do not tell us how the inhabitants actually used these particular rooms.¹⁶⁰ While I do not think that the labels should be completely rejected —since it is possible to create a structural typology for rooms in Campanian *atrium* houses and the Latin nomenclature is a handy tool for researchers— it is, though, important to keep in mind that the Latin labels need to be used very cautiously when describing the archaeological material.

Besides location, identification of rooms in an archaeological context is traditionally based on the architectonic elements, in the case of so-called *cubicula* on recesses in the walls and decorative elements, such as mosaic patterns on the floor, showing the place for the bed.¹⁶¹ However, identifying a bedroom by using only structure and decoration has not proved to be reliable enough and therefore I have chosen the material evidence (i.e., bed remains) as the defining criterion for a bedroom in Herculaneum.

Herculaneum, where organic material (including beds and couches) has survived carbonised, provides a unique opportunity to examine the sleeping arrangements in the private houses, focusing on the last phase of occupation in A.D. 79. The unparalleled level of preservation of the organic material was the reason I chose Herculaneum and not Pompeii as the final object of the study. The couple of Pompeian houses surveyed in the Article A,¹⁶² were used mainly as preliminary methodological case-studies testing the feasibility of Pompeian material for my purposes and to formulate hypotheses for further studies, and thus are not treated closer in this recapitulation of the results. Nevertheless, it is important to note that even in Herculaneum, there are certain problems with studying the finds, which have survived only to a certain extent. Originally, there must have been much more furniture, which was destroyed partly in the A.D. 79 eruption and

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¹⁵⁹ See, e.g., Mau 1900, Elia 1932 and discussion above in section 'Bedrooms in the archaeological evidence'.

¹⁶⁰ Especially Allison 2004, also, e.g., Leach 1997, Nevett 1997, 283-4, Berry 1997 (A). See also Article A, 96. For discussion of *peristylium/peristylum*, see, Kawamoto 2015, especially Chapter 2. See also Simelius 2015 for discussion of the uses of peristyles. I have decided to use the English term peristyle in this study, for the sake of convenience, cf. *OED Online*, Oxford University Press, September 2016. Web. 5 October 2016, s.v. peristyle, n., A,1: 'A colonnade or row of columns surrounding a temple, court, cloister, etc.; the court or space surrounded by such a row of columns'.

¹⁶¹ Mau 1900, 245, Elia 1932, 394-9; also, e.g., Zaccaria Ruggiu 1995, 397-8, van Binnebeke 1991, 141, Riggsby 1997, 40, 42. See also discussion of identification of bedrooms in two Pompeian houses (based on the re-documentation by Ling and Allison 2007) in Article A, 101-3.

¹⁶² Article A, 101-3 discussion of two Pompeian houses, based on the re-documentation by Ling and Allison 2007.

partly during the excavation processes.¹⁶³ Therefore, it would be beneficial to further test the conclusions presented in Article C with a larger sample for confirmation, and even though Pompeian evidence differs in some aspects from that of Herculaneum, it might prove viable for further inquiries.

Beds and bed fragments with known provenance have been recorded in 27 Herculaneum houses, in more than 40 different spaces.¹⁶⁴ The surviving beds for adults in Herculaneum are mid-sized and no 'king-sized' beds have been recorded;¹⁶⁵ two beds for children have also been found, but no traces of separate pallets or mats have survived.¹⁶⁶ The problem of identifying a room as a bedroom by relying only on the appearance of the room became evident, particularly in such cases where a room which was identified in earlier studies as a *cubiculum* cannot be confirmed as bedroom; for instance, in one case an alleged *cubiculum* was actually a storage room. In Herculaneum, there are relatively few instances where a bed was found in a ground floor room furnished with a recess (Room 3 in Casa dell'Ara laterizia III 17, another possible such combination is Room H in Casa del Telaio V 3-4).¹⁶⁷ There seems thus to be variation in structural modifications for locating the bed in the bedrooms: apart from the possible recesses, a platform accommodating a bed was also found. In several instances, however, no such structures are present at all. Therefore the architectural form of the room by itself is not a reliable means of identifying a room as a bedroom.¹⁶⁸

According to earlier scholarship, a typically located bedroom, especially in the earlier period Campanian houses lined the entrance corridor.¹⁶⁹ However, such bedrooms seem rare in Herculaneum. There is one certain case of a bed found in such a small, closed room (Casa del Sacello in Legno, Room 2), with window opening to the street and door to *atrium*, and another one similar in type in one of the houses in my sample (Casa del Tramezzo di Legno, Room 2), yet lacking evidence of bed. The identification of third

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¹⁶³ Article C, 101. Cf. also Mols 1999, 222-7 and 262-3 for other furniture finds. However, Herculaneum was probably spared from the post-eruption looting unlike Pompeii and seems to have been more or less lived in before the final catastrophe (Article C 105, for the situation in Pompeii, see Berry 1997 (B), 103-5, Berry 2007, 292-4 and Allison 2004, 15-26).

¹⁶⁴ The definitive number varies depending on the interpretation of the finds. For instance, it is not certain whether there was a bed in Casa a Graticcio, III 13-15, UF Room 1 or whether the find in Casa a Graticcio, III 13-15 GF Room 7 is actually a bed etc.

¹⁶⁵ Mols 1999, 37-8: the sizes of surviving beds vary from 204 to 222 cm x 106 to 125 cm. Cf. king-size: 'of an extra large size' in *OED Online*. Oxford University Press, September 2015. Web. 17 November 2015, s.v. king, n.

¹⁶⁶ Article C, 102-3.

¹⁶⁷ Article C, 117, n. 68.

¹⁶⁸ Article C, 117-8.

¹⁶⁹ Elia 1932, 399.

one (Casa Sannitica, Room 2) is unsure. No beds have been found in typological *tablina* or so-called *alae* in Herculaneum.¹⁷⁰ In some of the houses, beds were found in rooms which could be interpreted as dining rooms rather than as bedrooms. The criterion for distinguishing the possible dining rooms are either the finds (multiple bed remains) and/or the accessibility (more than one opening or large openings with view of a *nymphaeum*) and large size. While the literary evidence reveals that dining rooms were not designed for sleeping, the reality in Campanian towns might have been different and we cannot fully rule out the possibility that these rooms were also used for sleeping. In the smaller apartments, such as Casa a Graticcio (III 13-15), it seems that a bed was a truly multi-functional object, which might have served for both sleeping and dining. In addition, one might speculate that in the mid-sized *atrium* houses, such as Casa del Mobilio Carbonizzato (V 5), the line between separate bedroom(s) and dining room(s) might not have been very distinct. However, this cannot be confirmed with certainty.

While it is true, that a larger sample of houses might be needed to confirm the conclusions, and that the identification of rooms in the archaeological material is challenging, I believe that certain observations on the nature of bedrooms can be made using the Herculaneum material. The combination of material evidence (beds) and accessibility (openings of the room and so-called depth value) and the room type (static/dynamic) reveal particular characteristics of the Herculaneum bedrooms. There seems to have been a tendency to locate the beds in certain types of spaces, especially in the small, closed, static rooms off the *atrium*, i.e., in the so-called/typological *cubicula* or further away from the main entrance, yet not very far away from the main circulation area. Beds were also located in upper floor rooms, which were often well-furnished and decorated.¹⁷¹ Among the archaeological material in Herculaneum there are a few instances where assemblages of finds, including a bed and chest with wax tablets, could suggest that a bedroom was also used as a study.¹⁷²

In addition, to further investigate the identification of the rooms and their use and users, epigraphical material, particularly graffiti, could be of help. Studies have shown that inside Pompeian houses there is an apparent pattern of distribution of graffiti, which are clustered mainly in central, open areas such as the entrance corridors and peristyles, and there are clearly fewer graffiti in the typological *cubicula*.¹⁷³ Sometimes certain individuals can be identified as the writer of the graffito, but the authorship of the graffiti often

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¹⁷⁰ Article C, 110, 112. For the use and functions of so-called *alae*, see Cova 2013. This situation differs if the evidence drawn from Herculaneum is compared to that of Pompeii. For instance, the survey of finds from Pompeii by Allison 2004, 82 reveals, that beds have been found there in the so-called *tablina*, unlike Herculaneum.

¹⁷¹ Article C, 110, 114-5, 117-8.

¹⁷² Article C, 116-7.

¹⁷³ Lohman 2015, 72, fig. 2, Benefiel 2016, 98.

remains difficult to prove, and making straightforward assumptions of the ownership or users of the spaces based on personal names written on the walls is an unreliable method.¹⁷⁴ Nonetheless, a large-scale analysis of the nature of the epigraphical material—including both context and content—could shed light on how the spaces were used on a more general level. As follow-up research, an analysis of epigraphical material in Pompeii might thus prove fruitful for better understanding the use of domestic space and variation between different spaces inside houses. However, the epigraphical material from the bedrooms of Herculaneum is too restricted for this kind of study.¹⁷⁵

Beds and bedding

The defining piece of furniture of a bedroom is obviously the bed. Ancient beds have been studied very extensively, the typology, construction techniques and materials are well known from previous research.¹⁷⁶ The Roman paraphernalia for sleeping and reclining was very elaborate and versatile, which becomes clear in the Latin texts as well; the range is from the humble camp bed (*grabatus*) to the most luxurious furnishings for both reclining during dinner and for sleeping, and in general there were various types of household furniture for various purposes in Roman houses. However, there are no indications that bunk beds were known.¹⁷⁷ This obviously challenges the proposition by Ekirch, who suggests that European beds developed from pallets and mats over time from 15th to 17th centuries.¹⁷⁸ There is a possibility that the use of real beds was discontinued in the change from Antiquity to the Middle Ages, yet to find out whether this was the case would need a separate study.

The Roman bed was called by many names: *lectus*, *lectulus*, *cubile*, *grabatus* (and its variants) as well as *torus*. These terms can be used as synonyms, but with some variation: *lectus* (and the diminutive *lectulus*), *grabatus* and *torus* refer mainly to concrete objects, but *cubile* can also denote more generally a place of rest. The Roman bed was a multi-functional piece of furniture; a place for sleeping, making love, ailing, dining as well as pursuing literary activities.¹⁷⁹ In addition, beds carried certain connotations, in literature the bed could also be used metaphorically to symbolise partnership (yet the humble

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¹⁷⁴ See more in Castrén 1975, 32, Mouritsen 1988, 17, Allison 2001 and Benefiel 2016, 102-4.

¹⁷⁵ Among the very few inscriptions (possibly) from the bedrooms of my sample are graffiti CIL IV, 10499-503, from Casa a Graticcio, III 13-15 (not included in the Article C).

¹⁷⁶ See, Ransom 1905 as well as Mols 1999 and De Carolis 2007. (See also Andrianou 2009, 31-3.)

¹⁷⁷ Article D, 101, cf. bed and identity, Aubert and White 1959 (II), 14.

¹⁷⁸ Ekirch 2005, 274.

¹⁷⁹ Article D, 101-2.

grabatus does not seem to have been used in this sense). Beds were connected with peace and quiet and even secrecy.¹⁸⁰

Even people of limited means owned and used real beds and bedding. Even though the *grabatus* was a humble object, it did have legs and a frame and was not as easily portable as, for example, a pallet would be. References to using only mats and pallets for sleeping are somewhat rare in Roman literature. It is, however, likely that mats were used chiefly by slaves, but that has not been noted by upper-class writers. Moreover, climate seems to have played a part here, the humid Italian winters require beds to be raised from the ground and this might explain why such references to using pallets for sleeping as the well-known biblical reference 'Rise, take up your pallet and walk'¹⁸¹ are not common in the literature from Roman Italy.¹⁸²

Comfortable and even luxurious bedding was favoured, even though the moralists held the desire for luxury in contempt and endorsed austerity. Other pieces of furniture which could be found in Roman bedrooms were seats, lamps, containers, chamber pots and possibly footstools, as well as tables and tableware¹⁸³ and other such fairly generic objects which themselves cannot be used to identify a bedroom.

The surroundings of sleep

One of the research questions is how sleeping is affected by the environment and how such factors as temperature, lighting and sounds influence one's sleep and how these aspects are taken into consideration in arranging sleeping areas.¹⁸⁴

Literary evidence reveals that Roman sleeping areas were designed to be dark and in literature, *cubicula* are often described as dim. Such attributes as *caecum* (blind) and *opacum* and *obscurum* (shady) are used in defining a *cubiculum*. Nevertheless, light is necessary even in bedrooms. Romans paid heed to the orientation of rooms in order to ensure the best possibilities for the illumination of different spaces, and authors advise locating *cubicula* to the side of the house which received sunlight in the morning and organising the spaces according to the different seasons. Ideal *cubicula* would have thus a different orientation than, for example, summer *triclinia*. A seasonal change of bedrooms was not unknown to Romans.¹⁸⁵

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¹⁸⁰ Article D, 101-2.

¹⁸¹ John 5:8 (Vulg. Ioh. 5,8: *Surge, tolle grabattum tuum et ambula*).

¹⁸² Article D, 101-2.

¹⁸³ Article D, 104.

¹⁸⁴ Galinier *et al.* 2010, 823.

¹⁸⁵ Article A, 99-100, Article C, 108, Article D, 105-6; (see also Ash 1960, 66-7 for interpretation of Colum. 1,6,1).

Light might also enter through a window with open or cracked shutters, which are indeed mentioned in the context of bedrooms. The mentions of windows in villas or upstairs bedrooms could reflect reality well: town houses were usually surrounded by neighbouring houses, so the placement of windows could have been problematic on ground floors (or in many cases even the upper floors), unless they were facing the streets or inner courts.¹⁸⁶

Otherwise, light was brought into the bedroom when necessary, with portable lamps, which are mentioned fairly frequently in connection with sleeping areas. The range of different types of lights used in the Roman world varies from lamps to torches and even wax and tallow candles were used for illumination. Bringing light into a dark room is a recurring theme in literature, particularly suitable for creating suspense rising from the interplay of light and dark: errors made in the dark are revealed when light is brought in.¹⁸⁷

In addition to dark, sleeping areas were meant to be quiet and at least the elite members of society could demand and seek silence in their bedrooms. A *cubiculum* is often described as a peaceful space in contrast to the busy and noisy public life. Disturbing the sleeping *dominus* could lead to consequences. Even though for some people the chosen sleeping areas provided peace and quiet, disturbance was not always avoidable.¹⁸⁸

Heating the bedrooms was also taken into consideration, especially by wealthy villa owners, such as Cicero and Pliny, who explain in detail how the heating systems in their villas worked. Bedrooms there could be used in different seasons, and the heating systems in the villas guaranteed enough warmth even in winter time. However, in some cases even the rich and powerful suffered from the cold in their bedrooms. In addition, not only cold but also heat troubled sleepers; ways of resolving the problem were, for instance, sleeping with the bedroom doors open and fanning.¹⁸⁹ In addition, the most luxurious bedrooms could be decorated with art works and Riggsby even includes the 'controlled display of art' as one of the main patterns of association of *cubicula*.¹⁹⁰ However, some of the literary passages suggest that concealing valuable art in private chambers was actually considered objectionable.¹⁹¹

In Herculaneum, bedroom windows were located towards streets or light wells and in certain cases, even facing inside neighbouring houses, possibly attesting to light ser-

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¹⁸⁶ Article A, 99-100, Article D, 105, cf. Article C, 108.

¹⁸⁷ Article D, 105.

¹⁸⁸ Article D, 105. See also below in section 'How Romans slept: the meaning of sleep'.

¹⁸⁹ Article A, 100, Article D, 105-6.

¹⁹⁰ Riggsby 1997, 38.

¹⁹¹ Article D, 104.

vitutes or joint ownership.¹⁹² A room with a window facing the street is obviously liable to noise, even though there seems to have been less cart traffic in Herculaneum than in Pompeii, judging from the fact that there are fewer ruts on the paving of the streets and that some of the streets are actually blind alleys.¹⁹³

The literary evidence on orienting houses mainly refers to *villae* instead of town houses. However, it would seem reasonable to assume that the openings of bedrooms were located so that they received sunlight in the morning, i.e., faced eastwards, whenever possible even in urban settings. The archaeological material available from Herculaneum is not representative enough for exact conclusions on the orientation of the bedrooms there. However, it is fairly safe to say that bedrooms had openings in all directions, yet it seems that there was a slight preference for locating the openings eastwards.¹⁹⁴ Moreover, it seems that the location of bedrooms was dictated more by the reality of urban planning than architectural ideals. It must be also noted, that the street grid in Herculaneum does not exactly follow a north to south orientation,¹⁹⁵ but is aligned with both Mount Vesuvius and the seashore, which also tells us that the natural topography played a part in town planning.¹⁹⁶

Small closed rooms in Campanian houses were often quite dark and additional lighting may have been provided by lamps. The distribution of lamps, however, found in the bedrooms of Herculaneum is fairly uneven and the number of lamps found is surprisingly low.¹⁹⁷ The reason for this is unclear; people might have taken lamps with them when fleeing the city or some of the humble clay lamps might not have caught the attention of the early excavators. As a general observation, lamps were very likely used according to the varying needs of household and distributed throughout the houses fairly evenly, so there are no indications that they can be used as a criterion for the identification of a room as a bedroom.¹⁹⁸

Inside the houses of Herculaneum, the doors of bedchambers, open in most cases, into dynamic spaces,¹⁹⁹ such as inner passageways or other service spaces or onto *atria*.

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¹⁹² Cf. Wallace-Hadrill 1994, 199 and Article C, 108.

¹⁹³ E.g., the access to *Decumanus Maximus* was closed to wheeled traffic from *Cardo IV* between *insulae V* and *VI* and the SW end of *Cardo IV* was also closed to heavy traffic. See also Hartnett 2011, 138, 148 on the barriers causing inconveniences to cart drivers in Herculaneum.

¹⁹⁴ Article C, 108-9. There are a little over 30 openings eastwards (NE, SE) and a little over 20 westwards (NW, SW).

¹⁹⁵ Article C, 108.

¹⁹⁶ Cf. also other guidelines for orienting urban street grids, e.g., Vitr. 1,6, see also Fitchen 1981, 505.

¹⁹⁷ Article C, 108.

¹⁹⁸ Article A, 100-1.

¹⁹⁹ Cf. Clarke 1991, 28, 273: relationships between dynamic/static spaces in Roman housing.

The number of instances of bedrooms opening to service spaces rather than directly to *atria*, as well as the fact that bedroom doors opening to peristyles are very rare, indicate that the system of organising spaces along the *fauces-atrium-tablinum* axis and around the large circulation areas, is more nuanced than one might think only by looking at the traditional, schematic layout of the 'typical Campanian house'.²⁰⁰

In Herculaneum, only few braziers have been found (one of them possibly in connection with a bedroom) and their distribution pattern does not answer the question of whether they were used for heating bedchambers.²⁰¹ Generally, in the context of Roman/Campanian domestic space, keeping rooms heated and ventilated at the same time during colder periods was challenging. The stationery installations for heating, such as hearths, were not enough to provide warmth for the surrounding rooms, so, apart from natural sources of light, heating and lighting relied on portable objects, as shown by H. Boman.²⁰² Allison's survey from Pompeii shows that charcoal braziers have been found mainly in open areas, such as ambulatories surrounding gardens (i.e. in the peristyle area) as well as in the small, closable rooms near the gardens. However, since it is quite improbable, that braziers were used in closed rooms, they were most likely stored in there.²⁰³

With whom Romans slept

Co-sleeping adults

One of the main aims of sleep research is to figure out the relationship between solitary sleeping and co-sleeping and clarify the ways of co-sleeping: do children and their parents share a bedroom, are partners sleeping together or are others types of solutions, e.g., several adults sharing the sleeping area (i.e., communal/group sleep), employed? Modern sleep research defines co-sleeping as the sleep of two individuals with a common bed or

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²⁰⁰ Cf. the 'ideal Roman / Pompeian house' in Mau 1910, 228-30 and Overbeck 1875, 216, 219. Cf. also discussion in Clarke 1991, 1-19.

²⁰¹ The find from the Room 3 or from the room above it, in Casa dei Due Atri, VI, 28-29: the GdSN (27 Nov. 1939) names the find inv. 2017 as 'tripode', made of iron (ferro), the inventory list kept by the La Soprintendenza Pompei (available at Ufficio Scavi di Ercolano) classifies the object among 'bracieri' (not included in Article C).

²⁰² Boman 2005, 59, 64-9, 72.

²⁰³ Allison 2004, 89, 102, 126, Article A, 100, see also Fitchen 1981 (especially p. 485-8, 497-8), for problems of integrating the needs for ventilation and heating/illuminating as well as the perils of using charcoal braziers in ill-ventilated areas (risk of carbon monoxide poisoning). See also a recent approach to the use of charcoal in domestic contexts in Veal 2012, 26 who suggests that charcoal-fuelled braziers were also used for heating bedrooms (see also Veal 2013, 55).

even bedding, and close contact, and the term refers very often to parent-infant interaction; in some cases the term pair sleep is used in order to specify the relationship between sleepers. In some societies communal or group sleeping among adults is also known to exist.²⁰⁴ In my study, the term co-sleeping is used to mainly cover the instances where two adults or an infant and his/her caretaker share a sleeping area.²⁰⁵

As observed in anthropological sleep research, sleep in traditional societies is seldom solitary, but some variation in the degree of co-sleeping can be attested, from common sleeping spots to separate locations in shared areas to separate spaces with little hope of peace and quiet.²⁰⁶ Urban Romans, especially members of the upper class, preferred peace and quiet and, if possible, tended to choose trusted people to share the sleeping area with, reflecting thus the characteristics which are usually attributed to sleepers in more modern societies.²⁰⁷

Roman society was complex with differentiated gender roles, yet the organisation of Roman domestic space was not particularly gender-specific.²⁰⁸ In the Roman context, co-sleeping was mainly reserved for couples enjoying an emotional connection and/or a sexual relationship. Co-sleeping and sharing a bedroom with a spouse or lover was common in Roman times and the examples in Latin literature are numerous.²⁰⁹ Other types of co-sleeping arrangements were also possible, for example, adult family members may have shared a bedroom. In addition, the ancient sources show that sometimes the bed is shared with a companion dog.²¹⁰ However, communal sleeping among upper class family members inside a *domus* does not appear as a common feature in the sources, yet certain flexibility in sleeping arrangements comes up in special contexts: non-related adults sharing sleeping areas during travels and in the military. Religious rituals could also have an impact on sleeping: there is some evidence for nocturnal religious services where the attendees slept in temples, though on the other hand certain rites needed purity and abstinence and thus required couples to sleep apart.²¹¹

²⁰⁴ Article B, 3, and especially for terminology, see, e.g., Kloesch and Dittami 2008, 93.

²⁰⁵ Article B, 3, see also term 'communal sleep' for more than two adults sharing the sleeping area in Article D, 107.

²⁰⁶ Worthman and Melby 2002, 78.

²⁰⁷ Article B, 14, Article D, 104-6.

²⁰⁸ Wallace-Hadrill 1988, 51-2, Wallace-Hadrill 1994, 8, (113), Riggsby 1997, 42. See also Laurence 1994, 122-32 (and above section 'Social aspects of the Roman house').

²⁰⁹ Article B, 4, Article D, 107-9, Wallace-Hadrill 1994, 113, Anguissola 2010, 43.

²¹⁰ Article D, 108-9.

²¹¹ Article B, 4, Article D, 108-9.

The Latin verb *secubo*, which means lying apart, is often used to emphasise the absence of someone rather than just referring to someone sleeping alone.²¹² Moreover, even though spouses seem to have slept together, there must have been exceptions to this practice; for instance, Riggsby and Carcopino suggest that elite couples may have slept separately.²¹³ Special circumstances when spouses might have slept separately were, for instance, the illness of either of the spouses or possibly the wife's pregnancy.²¹⁴ Other reasons for sleeping apart, as I show in the Article D, included marital problems such as finding the partner unattractive. Shared intimacy was not always a pleasure as the stories of nocturnal quarrelling reveal.²¹⁵ These passages remind us how personal preferences played their part in arranging sleeping.

Sharing a bed often reveals an intimate relationship between the users. One special literary feature is to use the bed as well as bedroom and sleeping together in general as symbols of marriage and fidelity. Latin words which denote lying together or sharing a sleeping area, *concubinatus* (union between man and an unmarried woman of lower status) and *contubernium* (union between slaves) are used as terms for marriage-like unions for those who could not enter into *matrimonium*.²¹⁶

Contubernium also refers to friendship and living under the same roof. In military context it refers to occupying the same tent in a camp as well as close companionship and attendance which often resulted in lifelong relationships. Otherwise, sharing a bedroom during travels is known from the texts. However, even in those circumstances, people were inclined to choose carefully the person with whom to share the sleeping area, if that was possible.²¹⁷

Sleeping arrangements for servants

The Roman *domus* were inhabited by large *familiae*, which included not only the elite nuclear family, but the servants, slaves and free(d), as well, and in some cases, relatives and other dependants.²¹⁸

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²¹² Wallace-Hadrill 1994, 113, Anguissola 2010, 43, Article B, 4, Article D, 109.

²¹³ Riggsby 1997, 46 (n. 51), Carcopino 1939, 196.

²¹⁴ Wallace-Hadrill 1994, 113, Anguissola 2010, 43, Article B, 4.

²¹⁵ Article D, 108-9.

²¹⁶ Article B, 4, Article D, 102.

²¹⁷ Article B, 4-5, Article D, 108.

²¹⁸ See more on the structure of *familiae* in George 1997 (B), 299. In addition, on the social status of wet-nurses, see Bradley 1986.

The evidence for sleeping arrangements among servants is limited, but it seems that the heads of Roman households were expected to carefully plan the sleeping arrangements for all members of the *familia* and the *dominus/paterfamilias* had the final say in the way these arrangements were made. The distribution of sleeping areas seemed thus to have depended on the status of the inhabitants.²¹⁹

As discussed above, *cubiculum* was the name of the bedroom used by the slave-owners, while *cella* could be used for the room assigned to slaves.²²⁰ Slaves were allowed in *cubiculum* for service there but dismissed if privacy was needed.²²¹ Veyne alludes to slaves sleeping at the door to the master's bedroom, or 'all over the house'.²²² The sources do confirm that household slaves on duty customarily slept or stayed on guard outside (*excubiae*) the owner's bedroom, within earshot, rather than staying/sleeping inside the bedroom, and evidence of slaves sleeping inside the slave-owner's bedroom is meagre.²²³ Slaves were expected to behave well and avoid disturbing the peace. Certain passages reveal how servants were dismissed for the night. Slaves were also responsible for preparing the bedroom for the sleepers, and for waking them up and assisting with morning routines as well. Unsurprisingly, the opportunities for controlling one's own sleeping arrangements seem to have been minimal for some or fairly many of the household slaves, though we can, in my opinion, assume, that the ability of influencing in one's sleeping arrangements among slaves was as variable as was the range in the status of the Roman slaves.²²⁴ The statement made by George, that the sleeping spot of slaves reflected their duties seems very probable.²²⁵ We know from the literary sources that sleeping conditions for slaves varied, and were sometimes very harsh, markedly for those of the lowest status.²²⁶ On the other hand, illness might have been a suitable reason for slaves to stay in bed, even though evidence for this is insufficient. Also, stereotypical, insouciant slaves who sleep despite the fact that their owner stays awake, can be attested in Roman litera-

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²¹⁹ Article B, 6-8, Article D, 109.

²²⁰ Article D, 100. For other uses of *cella*, including rooms in baths, monasteries, prisons as well as storerooms etc., see TLL, vol. III, p. 759, lin. 19 - p. 761, lin. 80. Other possible words for communal sleeping or sleeping areas of slaves could be *dormitorium* and *paedagogium*, which, however, are very rarely used in this sense in Latin texts (Plin. nat. 30,51 and Plin. epist. 7,27,13, *dormitorius* TLL, vol. V 1, p. 2036, lin. 25 - p. 2036, lin. 51 and *paedagogium* TLL, vol. X 1, p. 30, lin. 49 - p. 31, lin. 18, see also Article D, 112).

²²¹ Article D, 109.

²²² Veyne 1987, 73.

²²³ Article B, 7, Article D, 109-10 and Dig. 29,5,14.

²²⁴ For the different occupations of slaves, see, e.g., Joshel 2010, 130, 168, 183.

²²⁵ George 1997 (A), 22. Cf. Article B, 6.

²²⁶ Article B, 5-8, see note 18: this seems to have reached to the labouring class as well, at least according to Cato's (agr. 13) account of sleeping arrangements in the oil-pressing facilities. Article D, 109-10.

ture as well. Totally contrasting stories are those which tell of slaves who are killed in the house, even in their owner's stead.²²⁷ We can also hypothesise that the state of sleep was a welcomed refuge from the day's labour for household slaves (as well as for the free lower classes).²²⁸ In addition, we know from at least one source how slaves who sleep well were even favoured by some slave-owners, suggesting that this refuge was actually possible for Roman slaves.²²⁹

In the archaeological evidence, certain questions concerning the degree of co-sleeping in the Roman/Campanian house remain open. The archaeological material cannot answer with certainty questions on the social status of the sleepers. It is challenging to identify the sleeping areas of servants in the Herculaneum material. Mats or a similar type of separate, portable solutions were very likely used for servants of the households in Herculaneum, yet nothing has survived. In addition, we do not know for certain how many people might have slept in these beds or bedrooms: for example, it is difficult to judge as to whether the beds in Herculaneum were designed for one or more sleepers.²³⁰

We know from the literary sources that slaves on duty slept in front of the owner's bedroom. If the Herculaneum slaves slept in beds by the doors of their owners, one would expect at least some evidence of this among finds. However, the pattern of placing the beds mainly inside certain types of rooms suggest otherwise: the slaves on guard duty either slept on mats/mattresses, which have not survived or this practice was not common in Herculaneum. The case of two bedrooms in the back of Casa dello Scheletro (III 3, R16 and R18) might suggest a division of sleeping areas where a member of the elite family slept in the well-decorated and well-lit Room 18 while the servant on duty have slept in the undecorated, small Room 16 close by.²³¹ However, this remains purely speculative.

The question of arranging the sleeping of slaves in Campanian houses has been dealt with in some earlier studies. George shows how difficult it is to detect with certainty separate sleeping quarters for slaves in Pompeian houses and that Pompeian slaves probably slept where they could.²³² J.-A. Dickmann follows the same lines: evidence for distant small cells for slaves or slave families is rare, but it is possible that slaves slept in upper floors. He also speculates that some slaves sleeping on their mats and would find a differ-

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²²⁷ Article B, 7, Article D, 111.

²²⁸ See discussion in Ekirch 2005, 286-7 on the 'egalitarian nature' of sleep, see also below the section 'The boundaries of sleeping' and note 301.

²²⁹ Article D, 110.

²³⁰ Article C, 118. On the question of whether Campanian beds can be judged as designed as single or double beds, see Wallace-Hadrill 1994, 113-4.

²³¹ Article C, 111.

²³² George 1997 (A), 18.

ent sleeping spot every night.²³³ While it is very probable that slaves slept on mats, mattresses or pallets, and found a sleeping spot wherever possible, the evidence of this is too limited for definitive answers. The suggestion that people changed their sleeping place often is questionable, as I show below in the section on permanence and multifunctionality.

S. R. Joshel and L. Hackworth Petersen revisit this invisibility of slaves in the Roman archaeological material, which is often repeated in the research literature.²³⁴ They propose an approach which sees the 'archaeological record as readable for the material lives of slaves'. Drawing from the ideas of M. De Certeau, they suggest a way of 'seeing slaves' by distinguishing the strategies and tactics used in Roman social encounters. 'Strategy' belongs to the class of slaveholders, while 'tactic' is employed by slaves. According to this idea, command of space use (strategy) is connected to power, but tactics could be used by slaves as a means of breaching the system of tight control. Among these tactics, Joshel and Hackworth Petersen list actions which the slave-owners repeatedly judged as misbehaviour, such as running away, thieving and other such acts. Slaves could also resist the strategic arrangement of space by making noise and disturbing the peace.²³⁵ If we apply this approach to the (literary) evidence for sleeping, it can be noted that while the slaveholders were in charge of controlling the sleeping arrangements, slaves could seize the opportunity to break this system by doing exactly what they were not supposed to do, for instance, disrupting the peace and dawdling in their work preparing beds, thus making themselves visible not only to their owners but to us as well.

Sleeping arrangements for children

As I discuss in the Article D, in the Roman context, it seems that the best place for child-birth and where to rear the newborn was decided case by case, and a place was prepared in a room in the house which best met the requirements outlined, for example, in medical instructions for child rearing. Among these recommendations given on how babies should sleep we find fairly detailed instructions on the beds, mattresses and other furnishings of the nursery as well as requirements for caretakers.²³⁶ There are even views which coincide with certain modern instructions: the babies should not sleep in the same bed with their caretakers, but in a cot which should be placed alongside the nurse's bed, so that the child is as close to the adult as possible.²³⁷

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²³³ Dickmann 2010, 71.

²³⁴ I would like to thank the preliminary examiner Dr. J. Berry for pointing out this approach.

²³⁵ Joshel and Hackworth Petersen 2014, 4-17. See strategy and tactic in De Certeau 1984, xix

²³⁶ Article D, 111.

²³⁷ Article D, 111. Cf., e.g., American Academy of Pediatrics (AAP, Task Force on Sudden Infant Death Syndrome).

According to Riggsby *cubicula* cannot be confirmed belonging to children.²³⁸ Wallace-Hadrill remarks that specific rooms for children cannot be recognised in the archaeological material and that age was not a factor which would have shaped Roman domestic space.²³⁹ Anguissola suggests that infants slept with their parents or with nurses or tutors.²⁴⁰ According to what I have been able to deduce from the sources, children might have slept in the company of nurses, even though sometimes the mother seems to be the primary caretaker of an infant. Babies slept in rocking cradles, which were called *cunae* and (*in*)*cunabula*, though wickerwork baskets (bassinets) were also used.²⁴¹ *Incunabula* could denote to a specific area for rearing children as well, yet the evidence for nurseries is sparse.²⁴²

Knowledge of the sleeping habits of older children is even more meagre. In some rare instances, the literary passages mention solitary sleep in a *cubiculum*, co-sleeping among siblings or sharing a *cubiculum* with parents, but we do not know whether the older children slept in their own beds/bedrooms or shared with their parents (or tutors or other servants) in general. The imperial children might have had their own bedrooms.²⁴³

In the archaeological material from Herculaneum, there are two finds attesting to sleeping arrangements for children. The first one is a rocking cradle, which seems to have been taken along with the adults seeking safety in the space where they eventually died. The second is a small bed especially made for a child. Even if this evidence is meagre, these objects seem to provide a hint that children were definitely taken into account in sleeping arrangements: babies did not sleep only in static cots or baskets, and elder children could have had beds of their own instead of sharing the bed or mattress with siblings, nurses or parents.²⁴⁴

Despite the overall sparseness of the evidence, it seems to me that the elder children of affluent families as well as the imperial children may have slept in their own bedchambers. However, this does not lead to the conclusion that Roman houses were markedly age-segmented architecturally, but the use of space in the (elite) houses was flexible so that the sleeping of infants and children could be arranged case-specifically in the way which suited the family best. These findings, in my opinion, point to the idea that children were taken into consideration in all areas of life, which coincides well with the ideas

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²³⁸ Riggsby 1997, 42.

²³⁹ Wallace-Hadrill 1994, 10.

²⁴⁰ Anguissola 2010, 44.

²⁴¹ Coulon 1994, 47-8.

²⁴² Article D, 111-2.

²⁴³ Article D, 112.

²⁴⁴ Article C, 114-5, 117-8.

in recent research on Roman families, especially that done by B. Rawson, who states that children were 'in principle and often in practice, welcome and valued and visible in Roman society'.²⁴⁵

When Romans slept

Waking up to a new day

Our wake and sleep cycle, the so-called circadian rhythm, follows a roughly 24-hour pattern, which is regulated mainly by the variation of light and darkness surrounding us.²⁴⁶ The greatest change in this cycle was produced by the introduction of electric lighting in the 19th century.²⁴⁷ As seen above, the dependence on natural light was a factor in designing Roman houses, but artificial lighting was also used to continue important tasks after dark. Roman sleeping was not confined to a single monophasic block, but divided into rest periods both in the daytime and at night.²⁴⁸

In Rome, according to certain Latin texts, waking up the household in the morning was among the responsibilities of the servants, who themselves were woken by cockrels.²⁴⁹ There might have been other solutions for controlling the wake-up, yet our sources do not mention them. Apart from servants in private houses, there must have been other people in different occupations who had to wake up early or stay up the whole night. Nevertheless, in Roman thinking, rising early was thought to have been a trait of only noblemen.²⁵⁰ Sleeping late was scorned and late sleepers were openly derided. However, there were certain noblemen who admitted that they found early morning rising displeasing. Regulating time and space use in houses depended on the wishes of the head of the household; if he did not want to be disturbed and woken up, he was not. The head of the household could also schedule sleeping according to his needs.²⁵¹

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²⁴⁵ Rawson 2003, 1.

²⁴⁶ On circadian rhythm, see, e.g., Ko and Takahashi 2006.

²⁴⁷ On the impact of electric light on forager communities, see, e.g., de la Iglesia *et al.* 2015.

²⁴⁸ Article A, 99, Article D, 105, 119. On lighting the Roman house, see Boman 2005, on different sleeping cultures (mono/bi/polyphasic), see Steger and Brunt 2003, 16-20.

²⁴⁹ Article D, 113.

²⁵⁰ Dowden 2003, 140-50, see also Article D, 113.

²⁵¹ Article D, 113-4.

Morning routines included ablutions and toilette and changing into daytime attire. Adults were also known to use the morning for reading and writing whereas children seem to have been expected to greet their parents.²⁵²

Wealthy Roman patrons were visited by clients in the morning during *salutatio*, a ritualised morning greeting.²⁵³ The importance for sleep research of looking at this tradition is to find out how this practice shaped the space use in the early mornings. It is not explicitly certain whether *cubicula* were used for *salutatio*, the evidence hints that it was possible if not customary. *Salutatio* took place in the early morning, even before sunrise, and certain writers found the early morning rising a real nuisance. Sometimes the callous patrons even tried to avoid the visitations of their most avid clients and made them wait a long time while they themselves spent the morning tired and hung-over from yesterday's feasting. This kind of behaviour was disapproved of by such moralists as Seneca and Cicero.²⁵⁴

Daytime resting was habitual for the Romans, as one might expect in a biphasic (siesta) culture.²⁵⁵ The habit of daytime napping in ancient times has been questioned by Wiedemann who discusses whether people actually slept or not during siesta.²⁵⁶ However, even if people did not always sleep during the siesta, it does not speak against the siesta culture as having a midday resting period, which is clearly attested in Latin literature. In addition to resting, literary activities and conversations, or even sexual encounters could take place during the siesta. Seasonal change in daily routines and sleeping habits were attested in Roman siesta practice. Sleeping in public was probably common, but not always part of the respectable siesta regime: people dozing off during daytime, for example, merrymakers and gamblers wearied by the frolics of previous night were ridiculed in the literary sources; on the other hand, sleepy judges were not an uncommon sight if the rhetoric of an advocate was dull. Sleeping in the dining room also seems to have been possible but it was derided, at least if it resulted from heavy drinking. There was a clear distinction between bedrooms and the dining rooms, for the latter was not the customary

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²⁵² Article D, 113.

²⁵³ Recent approaches to *salutatio*, e.g., Goldbeck 2010 (see especially p. 143-4 for discussion on the locations for *salutatio*) and Speksnijder 2015.

²⁵⁴ Article A, 89, Article D, 114-5.

²⁵⁵ The Spanish word *siesta* is of later origin, yet derived from the Latin *sexta (hora)*. In ancient Latin terminology, mid-day napping consists, e.g., of such words as *meridio* and *meridiatio* derived from *meridies*, mid-day (TLL, vol. VIII, p. 842, lin. 73 - p. 843, lin. 9 and TLL, vol. VIII, p. 839, lin. 38 - p. 839, lin. 42 and Article D, 115).

²⁵⁶ Wiedemann 2003.

place to sleep. Drowsing in public could be also used as a means of avoiding unwanted social interaction.²⁵⁷

Another context when sleeping in the daytime was acceptable was during convalescence, when resting was necessary. A peaceful *cubiculum* was thought to be suitable for this purpose and its role as a place for a sickbed is clearly attested in the sources. The patient was treated by medical experts as well friends and family members.²⁵⁸

Preparing for the night

Fear of the dark is a universal phenomenon: darkness is connected with threats and secrets, and negative connotations for the night are abundant.²⁵⁹ Sleepers are defenceless against dangers, and even the Roman night was dark and full of terrors. The adverse attitude towards the dark is corroborated in texts: darkness permitted dark deeds and allowed deviant behaviour to overrun the city and give license for illicit actions or even for supernatural powers to operate. This is reflected in the narrative of the Roman night which concentrates largely on the negative sides of darkness and emphasises the special nature of the night-time, which needed to be regulated in order to keep the foundations of the patriarchal society unshaken.²⁶⁰

Soothing rituals and routines are thus an essential part in preparing for the night and sleep. According to social scientists, there are certain universal elements which can facilitate the sense of security of the sleeper. As stated by Steger, these are the stability of the place (the permanence of the surroundings and secure walls), the presence of trusted people, repeated rituals, and the socially acceptable conduct of sleeping.²⁶¹ Williams includes closing doors, saying goodnight, changing clothes and reading in bed as routines which assist the progress of taking on the sleep role.²⁶²

Some of these elements are also found in Roman society; Romans regarded the customary bed the safest. Trusted people were chosen as co-sleepers, if possible. Placing images of guardian deities such as the *Lares cubiculi* in bedrooms could also be interpreted as a ritual for safeguarding the bedroom. In addition, such calming functions as walking alone before going to bed could have served as a soothing mechanism. Other routines included ablutions and changing into nightdress, even though there is little evidence for

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²⁵⁷ Article B, 13, Article D, 115-6.

²⁵⁸ Article D, 115-7, see also above the section 'Where Romans slept: Bedroom' for a bedroom as the place for a social call when visiting a sick friend or colleague.

²⁵⁹ See, e.g., Ekirch 2005, 4, Garnert 1993, 112-3.

²⁶⁰ Article A, 94, Article D, 117, 121 (and 125 on nightmares).

²⁶¹ Steger 2004, 415, see also Steger and Brunt 2003, 12.

²⁶² Williams 2008, 642, cf. Aubert and White 1959 (I), 51, Schwartz 1970, 491 and Rosenblatt 2006, 49.

Roman sleepwear. It seems, however, that a light outfit was customary and acceptable in a bedroom. Slaves assisted in preparations for the night by furnishing the bedroom with necessary objects.²⁶³

Night-time

Romans regulated their diurnal time use, even though the division of the day into hours of equal length was not possible before the introduction of the water-clock and in the Archaic period, for instance, the setting of the sun was considered the deadline for legal dealings. Night-time, divided into four three-hour periods called *vigiliae*, was controlled particularly in the army or when safeguarding the city of Rome.²⁶⁴ Ekirch has introduced the idea that the sleeping culture of pre-industrial European societies was characterised by a sleeping routine called 'segmented sleep', i.e., the nightly sleep was divided into two bouts called first and second sleep, with a short wakeful period in between them. According to him, in the ancient Roman context this is seen in the expression *concubia nocte* for the so-called first sleep.²⁶⁵ While this expression appears relatively often among Roman authors, to me it seems rather to correspond to the expression 'in the dead of night,' than to indicate that the Roman night was customarily split into two nightly intervals. Even though the Roman night as a whole was subdivided into segments, reflected in the language with several expressions for different parts of the night, this terminology rather covers the time-use of people who were awake at night for one reason or another while others were sleeping, than revealing a common system of segmented sleep. Therefore, I conclude that the segmented nightly sleeping pattern was not an established Roman sleeping practice but the Roman sleeping culture was biphasic, consisting of two main divisions: the midday siesta and one period of sleep at night.²⁶⁶

Burning the midnight oil

Sleep could be postponed until late at night by practicing *lucubratio*, i.e., working and especially conducting literary activities in the night by the light of a lamp.²⁶⁷ Dowden calls lucubration 'high-status sleep deprivation'²⁶⁸ and J. Ker emphasises displays of frugality

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²⁶³ Article D, 117-19, cf. Olson 2003 on Roman sleepwear. On *Lares cubiculi*, see Gagetti 2006, 481-90 and Small 2007, 191-3, cf. Article A, 94, Article B, 11.

²⁶⁴ On time keeping, see, e.g., Laurence 1994, 123, Article D, 119.

²⁶⁵ Ekirch 2005, 300-1, 137, Ekirch 2001, 364-5 (n. 68).

²⁶⁶ Article D, 119.

²⁶⁷ Cf. Carcopino 1939, 181.

²⁶⁸ Dowden 2003, 141, 150-4.

when working at night by the light of only one lamp.²⁶⁹ *Lucubratio* can be regarded as a special Roman cultural phenomenon, which, in my opinion, reveals temporal privacy, i.e., stealing a little bit of time for oneself in the liminal hour between waking and sleeping.²⁷⁰ This privacy was offered by the *cubiculum*. Lucubration was considered an activity quite suitable for virtuous Roman men, and even women, and Roman enemies were respected if they managed with little sleep, though the word *lucubratio* could also be used in a pejorative sense, meaning the evening entertainment of (old) ladies.²⁷¹ An irregular sleeping rhythm was sometimes regarded as harmful and instructions on how to practice lucubration correctly were given in medical writings.²⁷²

Lucubration was especially practiced by the Roman elite. Outside the noble circles, a sleepless night could be spent in a variety of activities. For example, farmers, bakers and others with such occupations might be up and working during the night.²⁷³ On the other hand, some the night-time activities were not as respectable, such as carousing, arranging trysts and other secret meetings. Even though some restrictions were placed on nocturnal meetings, I did not find direct evidence for curfews in the ancient context.²⁷⁴

How Romans slept: the meaning of sleep

The question *how Romans slept* is here understood as how the Romans viewed sleep as a whole, how the physical impact of sleep was understood, how sleep related problems were dealt with, and what meanings were attributed to sleep and night more generally. Sleeping is not only a physiological phenomenon; views on sleeping in different cultures rely on and reveal the mindset of the surrounding society. Metaphors of sleep and sleeping and night in proverbs also reveal interesting cultural conceptions.²⁷⁵

The adverse attitude towards darkness turns up again here. Ghosts and nightmares were known to haunt sleepers and ominous dreams and premonitions received in sleep

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²⁶⁹ Ker 2004, 217.

²⁷⁰ Article D, 120.

²⁷¹ Article D, 120.

²⁷² Article D, 121.

²⁷³ Article D, 121.

²⁷⁴ Cf. s.v. curfew n., in OED: from old French, *couver-feu* (cover + fire): 'A regulation in force in Medieval Europe by which at a fixed hour in the evening, indicated by the ringing of a bell, fires were to be covered over or extinguished', in extended use 'a restriction imposed upon the movements of the inhabitants of an area for a specified period'. (OED Online. Oxford University Press, accessed March 29, 2016).

²⁷⁵ Article D, 121-2.

were ubiquitous in Roman literature.²⁷⁶ Premonitions were thought to come from divine sources, carrying messages for the future (including forewarnings of death, foretastes of future challenges as well as fortunes and instructions on how to proceed in certain matters).²⁷⁷ However, as W. Harris explains in his work on dreams in Classical Antiquity, there is no clear-cut answer to the question of whether the Romans actually believed in dreams; the attitudes to dreams varied and using the information from dreams depended on the circumstances.²⁷⁸

Physiology influences cultural phenomena, as we can deduce from some of the ancient sources. Spaeth discusses the nocturnal creatures ('night hags') causing terror among Romans.²⁷⁹ The *incubus*, a nightly apparition of another evil creature forcing himself upon sleeping women, already appeared in ancient texts. The physiological explanation of this parasomnia, i.e., 'sleep paralysis' has been understood only fairly recently.²⁸⁰

In my opinion, the ghost stories were used not only for entertainment but also ways of dealing with such difficult and delicate issues as a bad conscience. Less frightening must have been the apparitions of deceased loved ones and relatives, which can be interpreted as a soothing psychological coping mechanism for the bereaved.²⁸¹

The small, but very real threats were such unwanted animals as snakes, scorpions as well as such pests as cockroaches, which were occasionally found in bedrooms. Before the introduction of effective pesticides, bedrooms were more or less infested with such nuisances as lice, bed bugs and other such vermin. Romans connected insects that shun the light (*blattae lucifugae*) with dark bedrooms. Certain measures were taken against the vermin; herbal pesticides included fleawort, pennyroyal, cucumber and some aromatic plants. As maintained by I. Montijn, in certain later period cultures, good housekeeping is connected to high moral standards (and bad housekeeping could be revealed by flea bites!).²⁸² This kind of moralistic view is not evident in Roman texts, possibly because the subject of housekeeping is too mundane for elite authors. However, it becomes clear that bug-infested beds were connected to both poverty and parsimony.²⁸³

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²⁷⁶ For more on the subject of ghost stories, see, e.g., Goldstein *et al.* 2007 and Felton 1999.

²⁷⁷ Article D, 125.

²⁷⁸ Harris 2009, 125-6, 132.

²⁷⁹ Spaeth 2010, 238.

²⁸⁰ Article B, 11 (n. 33) and Article D, 125.

²⁸¹ Article D, 125-6.

²⁸² Montijn 2008, 75-80 (article on Dutch sleeping culture).

²⁸³ Article D, 124. See also new studies in the field of historical parasitology in Mitchell, 2016, and especially p. 5 for bed bugs (*cimex lectularius*).

Apart from an adversity towards the dark, Romans also often perceived sleeping as negative, as related to death, or testimony of such vices as drowsiness, laziness and dullness. Drunken sleep and wasting the night-time was disparaged, drinkers were liable to surprise attacks and ruses under wine-induced heavy sleep, *sopor*. According to certain writers, chiefly Cicero, human beings need constant activities and ceasing to be occupied is unnatural. Perpetual sleep would be as bad as or even worse than death. In addition, a sleeping audience was a sign of poor rhetorical skills or of badly composed verse.²⁸⁴ In contrast, wakefulness was considered praiseworthy and virtuous.²⁸⁵

Nevertheless, sleeping well was also an important issue for the Romans. Despite the negative attitudes towards the dark and sleep, the positive aspects of resting peacefully were also acknowledged and reviving one's strength was considered vital. Even writers who otherwise tend to emphasise how little they needed sleep, understood how sleeping was necessary for restoring one's energy. Quintilian thought that fatigue obstructed good writing. A good night's sleep ensured relaxation of the body and peace of mind; it alleviated worries and cares and was an important part of the ingredients for a happy life. Night-time was committed to rest, yet vivid dreams could be the source of inspiration.²⁸⁶

On the other hand, sleep deprivation was known to distress Romans, the negative effects of sleeping disorders were well understood and sleeplessness was considered detrimental and even used as torture. The reasons behind insomnia were attributed to such lifestyle choices as excessive drinking and eating. Worries, restlessness of mind, a troubled conscience, insanity and lovesickness as well as physical illnesses kept Romans awake. In addition, the noises produced by city life kept Romans awake at night. The evidence of *Lex Iulia Municipalis* suggests that heavy wagons (*plostrum/plaustrum*) ran on the city streets at night. Other noisemakers included disorderly servants, neighbours, townsmen as well as barking dogs.²⁸⁷ Sleep deprivation vexed both rich and poor, but the impoverished people of Rome had little power over their situation and could not find an easy solution to ameliorate their situation. Wealthier homeowners, on the other hand, could demand servants keep quiet or they could flee the noisy city in search of repose. (For instance, the bedrooms in Pliny's Laurentine villa were specially designed to create a peaceful environment for withdrawal.)²⁸⁸

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²⁸⁴ Article D, 125-7.

²⁸⁵ Dowden 2003, 149-50.

²⁸⁶ Article D, 121-2, 126-7.

²⁸⁷ Lex Iul. munic. 64, also known as the *Tabula Heracleensis*, Article B, 9, Article D, 121. See more, e.g., in Hartnett 2011, 143-52. See also Kaiser 2011, 174-5 questioning whether the daytime ban on traffic in Lex Iul. munic. 52 concerned vehicles other than the *plastra* (freight wagons carrying heavy loads). Cf. Williams 2005, 135 for sleep deprivation as torture.

²⁸⁸ Article D, 105-6, 110, Article C, 8, see also article A, 107-8.

Sleeplessness was treated in many different ways with more or less effective remedies. The opium poppy was considered a powerful drug and its sleep-inducing qualities were already known before Romans. For example, mandrake, saffron, iris, wine and even cabbage are introduced in the sources as sleep-inducing remedies.²⁸⁹

Heavy sleep, often resulting from labour, hardships, drinking or illness might cause snoring. The stigma of snoring, mentioned by Williams in the context of modern views on sleeping,²⁹⁰ was also branded on Roman sleepers: snoring was not regarded as a welcome trait in a person.²⁹¹ However, sleep apnea does not seem to have been understood as an illness of its own.

Snoring could be so loud that it was heard the neighbouring houses, creating an unsolicited intimacy even in elite quarters. Snoring could be used to in order to pretend to sleep and covering one's head was a cue for wanting to be in peace and withdraw from the world. Sleep, real or feigned, could thus be used as a means of avoiding unwanted social interaction, or in order to turn a blind eye on disgraceful behaviour. In addition to snoring, yawning also revealed a slack lifestyle and could be interpreted as a sign of boredom, laziness and indifference, apart from just revealing tiredness. Yawning and snoring also highlighted the incompetence of an orator.²⁹²

In addition, climate played a part in Roman sleeping arrangements: the seasonality of sleeping habits, including changing the sleeping area according to the seasons, is known in the literature. The biphasic regime, with a resting period in the hottest hours of the day and working in the cool nights, tells us about the practices in Roman Italy.²⁹³

The boundaries of sleeping

Vitruvius' writings on the Roman house are inescapable for anyone studying the using space and the dichotomy of public and private in Roman houses and society. According to him, in Roman private houses (*privatis aedificiis*), there was a division of spaces into two opposing categories, *propria* (one's own) and *communia* (common, public). *Cubicula* belonged in the first category, where outsiders were not permitted to enter without invitation (*in ea non est potestas omnibus intro eundi nisi invitatis*).²⁹⁴

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²⁸⁹ Article D, 122.

²⁹⁰ Williams 2005, 93.

²⁹¹ Article D, 123-4.

²⁹² Article D, 123-4.

²⁹³ Article A, 99, D, 99-100, 114. See also above section 'Where Romans slept: Beds and bedding' on the influence of weather on the use of beds and mats.

²⁹⁴ Vitr. 6,5,1.

Further literary evidence which deals with privacy and the segregation of the Roman sleeping areas reveal that there was a desire for privacy, particularly among the elite members of society, who could demand this. The need to be left alone in peace and quiet, withdrawing from social occasions (even by feigning sleep) and high degree of control over closed bedrooms are traits associated with Roman sleeping arrangements. The bedroom was the locus of this withdrawal. The juxtaposition of public and private is displayed through *cubicula* in literature; secluded and secure *cubicula* are the places of informal dress, unlike the busy city, which needs suitable outdoor dress. In the same vein sleeping was considered a private action. Bedrooms and beds were meant for peace, quiet and even secrecy.²⁹⁵

Earlier research tended to emphasise how *cubicula* were more or less also populated by the *familia* of the house.²⁹⁶ Some scholars, however, see *cubicula* in a slightly different light focusing on the secret nature of *cubicula*. Especially Riggsby connects *cubicula* with secrecy and points out that slaves are often described as being outside of bedrooms when their owners were sleeping.²⁹⁷ In my opinion, the literary evidence for sleeping areas in Roman houses show that upper class Romans appreciated and demanded privacy in their sleeping quarters.²⁹⁸

As seen above in the section 'With whom Romans slept', a closer look at the users of *cubicula* reveals that slaves could enter to perform their duties there but were dismissed if privacy was needed. It is important to note that household slaves were customarily stationed *outside* the owner's bedroom, rather than staying inside — a fact that has been acknowledged by many scholars but overlooked in the interpretation of the use of space.²⁹⁹ In my mind, it is yet one more of the features which attests to the desire for peace and privacy on the side of Roman elite. Slaves, on the other hand, had less power over their own sleeping arrangements and thus fewer opportunities for attaining privacy or none whatsoever.³⁰⁰ However, the state of sleep itself can be considered the ultimate privacy: a sphere where no outsiders can enter. It is possible that Roman slaves had a similar attitude to their later Jamaican counterparts, according to whom there is no master in the sphere of sleep.³⁰¹

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²⁹⁵ Article A, 91-2, Article B, 8,10, 14, Article D, 99-100, 102, 105-7, 116, 123.

²⁹⁶ E.g., Wallace-Hadrill 1988, 78 (cf. Wallace-Hadrill 1994, 44), Clarke 1991, 13.

²⁹⁷ Rigsby 1997, 45 (cf. 44), see also Anguissola 2010, 35, 62-5.

²⁹⁸ Article A, 91, Article B, 10-2, 14, Article D, 109-10.

²⁹⁹ See also section 'Sleeping arrangements for servants' above.

³⁰⁰ Article B, 7-8, Article D, 110.

³⁰¹ Cf. Jamaican proverb 'Sleep hab no Massa' in Ekirch 2005, 286-7, Article B, 7.

However, there must have been some flexibility in the arrangements, and slaves were close by to assist in the night and morning routines of their owners. The literary evidence suggests that while it was also possible that in certain cases slaves were sleeping inside the bedroom with their owners, this was not a common practice. Instead, slaves might have been present in the bedrooms serving couples engaged in sexual activities, as stated by Clarke, based on observations on love-making scenes in wall paintings.³⁰²

In addition to the privacy issues between family members and servants, the dichotomy of public and private also comprises the relationship between inhabitants of the house and the visitors to it. As seen above, some researchers have argued that *cubicula* belonged among the reception areas of a Roman *domus*. It seems though, that the prevalence of this function has been slightly overstated. It was possible to use *cubicula* for reception, yet in many cases this was due to certain specific circumstances, which were discussed above.

Physical Boundaries

As seen above in the passage from Vitruvius, an invitation was in many cases needed to get into a Roman bedroom. In the description of movement about bedrooms, besides neutral words such as *venio* and *intro* (to come, to enter), words hinting at people coming in invited, led or even carried by another person are common (e.g., derivatives of verb *ducere*, to lead). It seems that entering a bedchamber without permission was not approved, yet family members seem to have had an easy access to each other's rooms and admittance was based on familiarity. Forceful entries into bedrooms took place and violent terms such as *irrumpo* (to break, burst into) and *invado* (invade) are also used in describing movement inside a bedroom, confirming that access to the bedrooms were controlled by boundaries. Nevertheless, as seen in the various descriptions of homicides taking place in *cubicula*, the elaborate closing systems and otherwise high degree of physical security did not always stop forceful transgressors.³⁰³

Controlling access to the different spaces was a duty of the servants (e.g., *ostiarii*, *cubicularii* are mentioned in this context). Physical boundaries were also commonly present in houses. Doors provided separation and seclusion and Roman sleeping areas could be—and indeed were—closed to maintain privacy,³⁰⁴ and entering someone's sleeping place was in many ways restricted, unlike some scholars seem to speculate.³⁰⁵

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³⁰² Clarke 1998, 94-107, 163.

³⁰³ Article A, 91, Article D, 108-9.

³⁰⁴ Article A, 91, Article B, 10-1, Article D, 107. On boundaries in the Campanian houses, see Lauritsen 2012, (Article C, 107). See also George 1997, (B), 317-8 on boundaries and personal privacy.

³⁰⁵ E.g., Nevett 1997, 291 hypothesises that 'it is possible that there were no inhibitions about entering someone else's sleeping accommodation'.

As seen above in the section 'Sleep and space — the theoretical background', previous scholarship has established that a segmented organisation of space points to a complex society where possibility for privacy was available when needed or wanted. In addition, partitioned houses and the specialisation of household spaces reveal the level of privacy of the societal practices, and sleeping is a function especially connected to privacy.³⁰⁶ The physical boundaries of sleeping in private Roman dwellings were well established. Along with the profuse mentions of bedroom doors in literature, the archaeological material is also in accord with this finding: the small rooms in the Campanian houses —especially so-called/typological *cubicula*— were usually closable.³⁰⁷ In addition, the layout of the archaeological remains of Campanian private residences reveals how the degree of internal partitioning in Roman houses is high and the houses were designed to provide secure physical surroundings for sleepers.³⁰⁸

In Article C, I took a closer look at the juxtaposition between the outside (public) and the inside (private) in the context of bedrooms and their relationship to the main entrance of the house. As a tool for this, I calculated a depth value (i.e., the number of boundaries needing crossing in order to reach the bedroom from the front door) for each possible room.³⁰⁹ The most common depth value among the bedrooms with known locations in Herculaneum is three, and ground floor bedrooms with a higher depth value are less common. These locations seem to indicate that interaction between household members using the bedrooms and visitors was expected. Nevertheless, the evidence also points towards privacy being appreciated by the sleepers in Herculaneum, the prevalence of doors and high degree of internal segregation of spaces seem to suggest this. In addition, the bedrooms situated in quiet corners of the house, far away from the main entrance, as well as those in upper floors —often well-furnished and decorated— must have yielded a greater degree of privacy.³¹⁰

Permanence and multifunctionality

It is fairly difficult to answer the question of whether Roman sleeping was confined to permanent bedrooms or if it was customary to change one's sleeping place often and

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³⁰⁶ Especially Steger and Brunt 2003, 12-3, Kent 1990 (B), see more in the discussion above in the section 'Sleep and space — the theoretical background'.

³⁰⁷ See Lauritsen 2012 (especially p. 105).

³⁰⁸ For the number of spaces in different Campanian houses, see, e.g., the quartile classification in Wallace-Hadrill 1994, 79-81. See also Article A, 95, Article B, 10-1, Article C, 107, Article D, 106.

³⁰⁹ See more in Hillier and Hanson 1988, 149.

³¹⁰ Article C, 109.

whether people had their personal sleeping locations or even bedrooms of their own.³¹¹

In previous scholarship, a certain consensus on the use of space and the multifunctionality of Roman houses seems to prevail, which maintains that the spaces in Roman houses were multipurpose, no clear function-based division can be seen and furniture is said to be easily moved around. According to the theories on sleeping, setting aside private, individual and permanent spaces for sleeping was not a phenomenon in ancient Roman culture, but sleeping could take place randomly and whimsically, wherever one felt like it and beds and bedding were moved around the house.³¹² However, based on literary evidence for sleeping and theories of sleep and space, there is room for a dissenting view as well, as I argue throughout my research.

First of all, in general it is typical of human beings to differentiate activities, and sleeping is one of those activities which require a special space. The spaces in Roman houses are also clearly differentiated linguistically (a trait connected to a segmented organisation of space³¹³), the distinctive room labelling is found in several texts and this corresponds well with the architecture of the largest houses, which display a great degree of internal segregation, as shown above. Therefore, even if certain areas of the houses had multiple functions, and activities overlapped, there is also a clear differentiation in the use of space.³¹⁴

Secondly, people are territorial creatures of habit and as such tend to prefer one place over others and are stressed if they are forced to move from their habitual places. This type of routine-based behaviour is commonplace and easily observed in everyday life: we tend to hang on to our favourite places. For example, when a family gathers around the dinner table, the places are usually the same and when a couple shares a bed, the sides rarely change.³¹⁵

As seen above, there are certain cross-cultural elements which can be used to ease the sense of insecurity of the sleeper, including fixed places for sleeping and routines in daily (or in this case, nightly) activities.³¹⁶ The studies on sleeping arrangements in both historical and modern contexts also show that people tend to seek seclusion and perma-

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³¹¹ See discussion on privacy and personal space in Rössler 2005, 143, cf. Nevett 1997, 297 and discussion above in section 'Sleep and space — the theoretical background'.

³¹² Outlined in Allison 2004, 167 and Leach 1997, 59, Leach 2004, 50, Nevett 1997, 290-2, 297-8 and Riggsby 1997, 40. See also Dickmann 2010, 71, Veyne 1987, 73, Wallace-Hadrill 1988, 91-2, George 1997 (A), 24. See also discussion in section 'Sleep and space — the theoretical background' above.

³¹³ Kent 1990 (B), 127-8.

³¹⁴ Article D, 98-100.

³¹⁵ See also Sanders 1990, 49, Aubert and White 1959 (II), 7-8, Rosenblatt 2006, 31 for territoriality, permanence and routines and their effect on space use and sleeping arrangements.

³¹⁶ Steger 2004, see also more above in section 'Preparing for the night'.

nence in their sleeping arrangements even in circumstances where housing conditions are modest and in societies where sleeping in public is commonplace. Even those who sleep rough tend to have regular sleeping spots whenever possible.³¹⁷

To claim then that the Romans were very different in respect to these traits, there should be strong evidence to back up the proposition. However, the available evidence points in another direction. Roman houses had secure settings for sleeping with numerous small rooms with closable doors. In the Roman context, trusted people were chosen as co-sleepers where possible. There are certain references to routines which could be interpreted as soothing rituals to safeguard the bedroom. Some (though admittedly fairly few and vague) passages in Latin literature corroborate the idea that the *cubiculum* was a private personal space and the idea that the customary bed is the safest was not unknown to Romans.³¹⁸

In addition, the evidence of the surviving beds from Herculaneum supports the idea that bedrooms there were in permanent use: beds are large enough not to be easily and conveniently moved around the house in contrast to what has been suggested.³¹⁹ This must have been the case especially when the bed is wider than door opening, requiring more than one person to move the bed. The archaeological evidence suggests that bedrooms of Herculaneum could have had other functions besides sleeping, yet, even if these rooms had overlapping functions, only certain rooms in the houses were used for sleeping. In the ground floor rooms of private houses in Herculaneum, beds have been found in small closed rooms (which can be interpreted as bedrooms or *cellae ostiariae* in private houses) and dining rooms. Therefore, even though the furniture has only partially survived, the evidence points to a clear pattern of bed distribution inside the houses.³²⁰

Seasonality in the use of space reveals some flexibility even in choosing the sleeping area, yet this custom does not contradict the idea of permanent settings for sleeping areas, but there were permanent, assigned sleeping spots which varied only according to season.³²¹

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³¹⁷ E.g., Ekirch 2005, 278, Schweder *et al.* 1995, 30, Brunt 2008, 168-9, Rensen 2003, 105, cf. van der Geest and Mommersteeg 2006, 10.

³¹⁸ Article A, 93-5, Article B, 11-2, Article D, 117-9.

³¹⁹ See especially Leach 2004, 50 who quotes Parslow 1998, 111, who in turn refers to the early excavators' ideas on the domestic space, based on the assemblages of finds discovered in the storage rooms of *Praedia Iuliae Felicis*. Cf. also Leach 1997, 59.

³²⁰ Article C, 112, 118.

³²¹ Article A, 99.

SUMMARY

The main factors influencing the sleeping arrangements in Roman society included the social status of the sleeper, the climate, the urban culture, the need for control, moralistic ideas as well as ritualistic behaviour. However, it must be remembered that personal preferences also have played their part in arranging sleeping. Certain findings of modern sociological sleep research can be observed even in Roman material. Among these are safeguarding the sleeper with rituals, using sleep (even feigned) to avoid social interaction as well as sleep deprivation as a means of torture.

I also claim that inhabitants of Roman households had routine-based nightly activities and very likely also permanent sleeping spaces, and also that the wealthiest Romans had—or at least desired to have—peaceful and private bedchambers. However, the locations of sleeping areas could change according to the season and the environment. The settings for sleeping among upper class Romans were solitary rather than social and communal/group sleeping among the members of the elite nuclear family in houses was not typical; slaves on duty slept outside the owner's bedroom rather than inside. Children were taken into consideration in all areas of life including sleeping arrangements. The use of a *cubiculum* as a place of reception often depended on specific circumstances, such as the illness of the host.

Night-time and darkness influenced Roman space use as well. Fear of deviant behaviour in the darkness resulted in the need to tightly control people in order to hold on to the patriarchal structures of society. Ghost stories were used for dealing metaphorically with such delicate issues as a bad conscience. However, in spite of a negative outlook on sleeping and night, the positive aspects of resting were admitted; sleep deprivation was understood to be harmful and problems with sleeping were actively remedied.

Drawing from the theories of space use, the diversity of Roman domestic space becomes evident; different spaces are linguistically differentiated in the literary evidence. The previous research tended to emphasise the multifunctionality of the Roman house, the multifaceted nature of the *cubiculum* and claim that *cubiculum* was just a generic term without one, single definition. However, the using a bed is the key element for identifying the *cubicula*. In addition, *cubicula* known from literary sources were segmented both functionally and linguistically making them clearly separate spaces in the Roman house which provided opportunity for peace, quiet, withdrawal and privacy. It can thus be concluded that a *cubiculum* was a separate, even private bedroom of the (elite) *domus*.

In the archaeological evidence, we also see a relatively high degree of partitioning and boundaries between different spaces inside houses, an idea which aligns with the literature; a segmented organisation of space made privacy and permanent sleeping conditions possible. The evidence from Herculaneum shows that beds were placed in certain types of rooms and that many bedrooms opened onto secondary service spaces instead of opening directly onto *atria* or peristyles, which tells us that the system of organising

spaces around large circulation areas is more nuanced in Campanian houses than one might think. However, the material cannot be generalised too far. There seem to already be differences when comparing the evidence drawn from Herculaneum to that of Pompeii, where, according to earlier research, beds have been found in the so-called *tablina*, unlike Herculaneum.

Local privacy, as defined by Rössler, is present in the Roman material and it manifests itself in the sleeping arrangements. Sleeping habits, the paraphernalia of sleeping or the sleep-related privacy aspects do not necessarily develop (only) chronologically, but are shaped reciprocally by the structure of the surrounding society.

Lastly, I would like to venture to look at what historical sleep research can offer to sleepers in modern societies. For instance, the safest way to arrange infants' sleeping is a widely discussed subject in the modern Western world, and sometimes the debate can get very heated. The main issue is whether to practice co-sleeping (either room-sharing or bed-sharing) or solitary sleeping (when the infant is in a separate room).³²² During the writing of this recapitulation, *The New York Times* published a blog post pondering on this topic.³²³ The piece was given impetus by the 'Safe Sleep' Campaign launched by the city of New York in order to prevent sleep-related infant fatalities, which asserts that the safest way for a baby to sleep is alone in a bassinet with no toys or loose bedding.³²⁴ This proposition is contrasted with theories on how bed sharing from birth is the best way to keep a sleeping baby safe. What is noteworthy for this inquiry is how these arguments are justified. Particularly the advocates of bed sharing seem to rely heavily on 'historical practices', often without actual knowledge of historical sleeping arrangements. For example, one of the experts used for the blog post claims that 'babies have slept with parents throughout most of history'. Similar arguments can be found elsewhere as well. For instance, one of the supporters for the co-sleeping practice, J. McKenna, claims that 'for as far back as you care to go, mothers have followed the protective and convenient practice

³²² E.g., The American Academy of Pediatrics (AAP) recommends room-sharing without bed-sharing (Task Force on Sudden Infant Death Syndrome 2011). See also on terminology, e.g., in *Safe to Sleep*-campaign developed by the U.S. Department of Health and Human Services, according to which 'the terms "bed sharing" and "co-sleeping" are often used interchangeably, but they have different meanings'. (<https://www.nichd.nih.gov/sts/about/SIDS/Pages/common.aspx>, accessed 03/16).

See also, e.g., J. McKenna: 'The Bedsharing Controversy' at cosleeping.nd.edu/controversies/ (accessed 07/15) and L. Carroll: 'Risky or loving? Co-sleeping study divides parents and doctors' at today.com/health/co-sleeping-linked-infant-deaths-bed-sharing-remains-popular-1D79912957 (accessed 06/15). Cf. also Carpenter *et al.* 2013.

³²³ N. Wartik: Stay Close, Sleep Close, or 'Stay Close, Sleep Apart?' in: parenting.blogs.nytimes.com/2015/06/29/stay-close-sleep-close-or-stay-close-sleep-apart/?smid=fb-nytimes&smtyp=cur (accessed 07/15).

³²⁴ Sleep Safe Campaign: *Stay close, Sleep Apart* in: www1.nyc.gov/assets/home/images/press_release/2015/April/sleepsafeCampainen.jpg (accessed 07/15).

of sleeping with their infants.¹³²⁵ However, as I have shown, this issue is more complex, as can be inferred from the Roman material. This is a place for historians to step forward and provide accurate information on sleeping arrangements in the past.

To know how people have slept in the past can help us understand how to arrange sleeping in the best way even today. Not drawing *ought* from *is* (or in this case from *was*), i.e. claiming that we should mimic the sleeping arrangements of the past, but we should instead find out underlying attitudes to sleeping and especially the potentially detrimental patterns of thinking which form obstacles to good sleeping. In the Roman material, this manifests itself in moralistic views of how much sleep is considered ideal. This kind of reasoning is pervasive in modern thinking as well and we have all heard of the proverbial early bird catching the worm. The passages on heroic Roman men who managed with little sleep, however, conveniently forget those slaves who were ordered to wake up the households and do not pay much attention to the role of women in the house. Modern sleep research has shown that shortage of sleep can be harmful to health.³²⁶ Therefore, instead of relying on the moralistic anecdotes on how 'virtuous people' manage with little sleep, we should add more weight to the modern science on how to sleep well. A comparative historical study could further reveal the universal elements of sleeping, different ways in which sleeping can be arranged, and how societies without electric lighting arranged time use.

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³²⁵ E.g., McKenna: Bedtime Story: Co-sleeping Research in http://www.naturalchild.org/james_mckenna/bedtime_story.html (accessed 03/16).

³²⁶ E.g., Alhola and Polo-Kantola 2007, 553-67.

ORIGINAL ARTICLES

Articles A, B and D available online at Helda - Digital Repository of the University of Helsinki (links below). Article C is not available online.

A: '*Cubicula diurna, nocturna* - Revisiting Roman *cubicula* and Sleeping Arrangements' in Arctos 43 (2009) 85-107 (<http://hdl.handle.net/10138/166688>).

B: 'A Bedroom of One's Own' in *Privata Luxuria: Towards an Archaeology of Intimacy Pompeii and Beyond*, ed. A. Anguissola, München 2012, 15-29, online 1-15 (<http://hdl.handle.net/10138/166686>).

C: 'Sleeping arrangements in the Houses of Herculaneum' in *Public and Private in the Roman House and Society*, eds. K. Tuori and L. Nissin, Portsmouth 2015, 101-18.

D: 'Sleeping Culture in Roman Literary Sources' in Arctos 49 (2015) 95-133 (<http://hdl.handle.net/10138/166687>).

.

BIBLIOGRAPHY

Research literature used in Articles A-D as well as in summarising report. Journals and book series are abbreviated according to the practice of AJA Abbreviations system where possible.

P. Alhola and P. Polo-Kantola, "Sleep deprivation: Impact on cognitive performance" in *Neuropsychiatric Disease and Treatment* 3/5 (2007) 553-67

P. M. Allison, "Placing Individuals: Pompeian Epigraphy in Context" in *JMA* 14/1 (2001) 53-74

P. M. Allison, *Pompeian households, an analysis of the material culture*, Los Angeles CA, 2004, (with a companion website at stoa.org/pompeianhouseholds)

A. Ambühl, "Sleepless Orpheus: Insomnia, Love, Death and Poetry from Antiquity to Contemporary fiction" in E. Scioli and C. Walde (eds.) *Sub imagine Somni: Nighttime Phenomena in Greco-Roman culture*, Pisa 2010, 259-84

D. Andrianou, *The furniture and furnishing of ancient Greek houses and tombs*, Cambridge 2009.

A. Anguissola, "Persone e oggetti nel cubiculum: la costruzione letteraria della privacy nella casa romana" in F. de Angelis (ed.) *Lo sguardo archeologico. I normalisti per Paul Zanker*, Pisa 2007, 149-67

A. Anguissola, *Intimità a Pompei: riservatezza, condivisione e prestigio negli ambienti ad alcova di Pompei*, Berlin 2010

A. Anguissola, "The Dynamics of Seclusion. Observations on the Casa del Labirinto and the Casa degli Amorini Dorati at Pompeii" in A. Anguissola (ed.) *Privata luxuria: towards an archaeology of intimacy*, München 2012, 31-47

H. Arendt, *The human condition*, Chicago 1958

H. B. Ash, *Lucius Junius Moderatus Columella: On Agriculture, in three volumes, vol.I, Res Rustica I-IV*, with recension of the text and an English translation by H. B. Ash, 1960

H. Askitopoulou, I. Ramoutsaki and E. Konsolaki, "Archaeological evidence on the use of opium in the Minoan world" in *International Congress Series (ScienceDirect)* 1242 (2003) 23-9 doi:10.1016/S0531-5131(02)00769-0

V. Aubert and H. White (I), "Sleep, a sociological interpretation I" in *Acta Sociologica*, 4/2 (1959) 46-54

V. Aubert and H. White (II), "Sleep, a sociological interpretation II" in *Acta Sociologica*, 4/3 (1959) 1-16

C. Badel, "L'audience chez les sénateurs" dans J.-P.Caillet et M.Sot (eds.) *L'audience - Rituels et cadres spatiaux dans l'antiquité et le haut Moyen Age*, Paris 2007, 141-64

A. Barbet, *La peinture murale romaine. Les styles décoratifs pompéiens*, Paris 1985

R. Benefiel, "The Culture of Writing Graffiti within Domestic Spaces at Pompeii" in R. Benefiel and P. Keegan (eds.) *Inscriptions in the private sphere in the Greco-Roman world*, Leiden 2016, 80-110

R. Berg, "Mobili e arredi della casa Romana" in P. Castrén (ed.) *Domus Pompeiana: una casa a*

Pompeii, Helsinki 2008, 105-26

R. Berg, "La casa come cassaforte. Riflessioni sulla distribuzione dei reperti e modelli di conservazione degli oggetti nelle case pompeiane" conference paper held in *The 18th International Congress of Classical Archaeology*, Mérida (Spain) 15.5.2013.

J. Berry (1997 A), "Household artefacts: re-interpreting Roman Domestic space" in R. Laurence and A. Wallace-Hadrill (eds.) *Domestic space in the Roman world: Pompeii and beyond*, Portsmouth 1997, 183-95

J. Berry (1997 B), "The Conditions of Domestic Life in Pompeii in AD 79: A Case-study of Houses 11 and 12, Insula 9, Region I" in PBSR 65 (1997), 103-26

J. Berry, "Instrumentum domesticum - a case study" in J. J. Dobbins and P. W. Foss (eds.) *The World of Pompeii*, New York 2007, 292-301

M. van Binnebeke, "Some remarks on the functions of houses and rooms in the Insula V at Herculaneum" in Meded 50 (1991) 13644

H. Boman, "White light - White Heat. The use of Fire as a Light and Heat source in an atrium House in Roman Pompeii" in *Current Swedish Archaeology* 13 (2005) 59-75

P. Bourdieu, *Outline of a Theory of Practice*, Cambridge – New York 1977

K. Bradley, "Wet-nursing at Rome: a study in social Relations" in B. Rawson (ed.) *The Family in Ancient Rome: New Perspectives*, London 1986, 201-29

A. Brenot, *Phaedrus, Fables / Phèdre; texte établi et traduit par Alice Brenot*, Paris 1969

F. E. Brown, *Roman architecture*, New York 1961

L. Brunt, "Sote hue log: In and Out of Sleep in India" in B. Steger and L. Brunt (eds.) *Worlds of Sleep*, Berlin 2008, 153-74

G. Camodeca, "Gli archivi privati di tabulae ceratae e di papiri documentari. Pompei ed Ercolano: case, ambienti e modalità di conservazione" in A. Coralini (ed.) *Vesuviana, Archeologie a confronto (Atti del Convegno Internazionale, Bologna, 14-16 gennaio 2008)* Bologna 2009, 18-42

H. V. Canter, "The Paraclausithyron as a Literary Theme" in *AJP* 41/4 (1920) 355-68

J. Carcopino, *La vie quotidienne à Rome à l'apogée de l'Empire*, Paris 1939

E. De Carolis, *Il mobile a Pompei ed Ercolano: letti, tavoli, sedie e armadi: contributo alla tipologia dei mobili della prima età imperiale*, Roma 2007

R. Carpenter, C. McGarvey, E. Mitchell, D. Tappin, M. Vennemann, M. Smuk and J. Carpenter, "Bed sharing when parents do not smoke: is there a risk of SIDS? An individual level analysis of five major case-control studies" in *BMJ Open* 3/5 (2013) doi: 10.1136/bmjopen-2012-002299

M. Carucci, *The Romano-African Domus: studies in space, decoration, and function*, Oxford 2007

M. Carucci (2012 A), "Introduction" in M. Carucci (ed.) *Revealing privacy: debating the understandings of privacy*, Frankfurt am Main 2012, 11-8

M. Carucci (2012 B), "Visualising ancient privacy in the Roman house" in M. Carucci (ed.) *Revealing privacy: debating the understandings of privacy*, Frankfurt am Main 2012, 45-60

M. Carucci (2012 C), "Intimacy in the *Cubiculum*: From Textual Sources to Material Evidence in Roman Africa and Iberia" in A. Anguissola (ed.) *Privata luxuria: towards an archaeology of intimacy*, München 2012, 165-85

P. Castrén, *Ordo populusque Pompeianus: polity and society in Roman Pompeii*, Roma 1975

P. Castrén (ed.), *Domus Pompeiana: una casa a Pompei*, Helsinki 2008

P. Castrén, R. Berg, A. Tammisto and E.-M. Viitanen, "In the Heart of Pompeii - Archaeological Studies in the Casa di Marco Lucrezio (IX, 3, 5.24)" in P. G. Guzzo and M. P. Guidobaldi (eds.) *Nuove ricerche archeologiche nell'area vesuviana, scavi 2003-2006: atti del convegno internazionale, Roma, 1-3 febbraio 2007*, Roma 2008

M. de Certeau, *The practice of everyday life* (translated by S. Rendall), Berkeley 1984

CIL = Königlich Preussische Akademie der Wissenschaften zu Berlin, *Corpus inscriptionum Latinarum* (Berlin 1893-)

J. Clarke, *The houses of Roman Italy 100 B.C.-A.D. 250: ritual, space, and decoration*, Berkeley, 1991

J. Clarke, *Looking at lovemaking: constructions of sexuality in Roman art, 100 B.C. – A.D. 250*, Berkeley – Los Angeles – London 1998

J. Clarke, *Roman sex: 100 B.C. to A.D. 250*, New York, 2003

F. Coarelli, F. Pesando, M. Verzàr-Bass and F. Oriolo, *Rileggere Pompei*, Roma 2006

G. Coulon, *L'enfant en Gaule Romaine*, Paris 1994

E. Cova, "Closets, Cupboards, and Shelves: Storage in the Roman House" in *Phoenix* 67/3-4 (2013) 373-91

R. S. Cox, "The Suburbs of Eternity: On Visionaries and Miraculous Sleepers" in B. Steger and L. Brunt (eds.) *Worlds of Sleep*, Berlin 2008, 53-73

M. H. Crawford, *Roman statutes*, London 1996

E. Dickey, *The Colloquia of the Hermeneumata Pseudodositheana Volume 1. Colloquia Monacensis-Einsidensia, Leidense-Stephani, and Stephani from the Hermeneumata Pseudodositheana*, Cambridge – New York 2012

J. A. Dickmann, "Space and Social Relations in the Roman West" in B. Rawson (ed.) *A companion to families in the Greek and Roman worlds*, Oxford 2010, 53-72

A. C. Dionisotti, "From Ausonius' Schooldays? A Schoolbook and Its Relatives" in *JRS* 72 (1982) 83-125

L. Dossey, "Sleeping arrangements and Private Space: A Cultural Approach to the Subdivision of Late Antique Homes" in D. Brakke, D. Deliyannis and E. Watts (eds.) *Shifting Cultural Frontiers in Late Antiquity*, Surrey 2012, 181-98

K. Dowden, "The value of sleep: Homer, Plinies, Posidonius & Proclus" in T. Wiedemann and K. Dowden (eds.) *Sleep*, Nottingham Classical Literature Studies 8, Bari 2003, 141-63

K. M. D. Dunbabin, "The use of private space" in *La ciutat en el món romà: actes XIV congrés internacional d'arqueologia clàssica*, Tarragona 1994, 165-76

E. Dwyer, *Pompeian domestic sculpture: a study of five Pompeian houses and their contents*, Roma 1982

E. Dwyer, "The Pompeian Atrium House in Theory and in Practice" in E. Gazda (ed.) *Roman Art in the Private Sphere - New Perspectives on the Architecture and Décor of the Domus, Villa and Insula*, Ann Arbor 1991, 25-48

R. Ekirch, "Sleep We Have Lost: Pre-industrial Slumber in the British Isles" in *AHR* 106/2 (2001) 343-86

R. Ekirch, *At day's close: night in times past*, New York 2005

O. Elia, "I cubicoli nelle case di Pompei, Contributo alla Storia della Domus" in *Historia* 6 (1932) 394-421

N. Elias, *The history of manners. The civilizing process*, vol. 1 (English translation by E. Jephcott), New York 1994

A. Ernout and A. Meillet, *Dictionnaire étymologique de la langue Latine, Histoire des mots*, Paris 1959

E. Falkener, "Report on a house at Pompeii Excavated under Personal Superintendence in 1847" in *The Museum of Classical Antiquities: being a Series of essays on Ancient Art. Vol. II*, London 1860

D. Felton, *Haunted Greece and Rome: ghost stories from classical antiquity*, Texas 1999

J. F. Fitchen, "The Problem of Ventilation through the Ages" in *Technology and Culture* 22/4 (1981) 485-511

L. Friedländer, *Darstellungen aus der Sittengeschichte Roms in der Zeit von August bis zum Ausgang der Antonine* (Erster Teil), Leipzig 1910

J.W. Fuchs, O. Weijers and M. Gumbert, *Lexicon Latinitatis Nederlandiae Medii Aevi*, vol. II C, Leiden 1981

E. Gagetti, *Preziose sculture di età ellenistica e romana*, Milano 2006

F. M. Galassi and H. Ashrafiyan, "Has the diagnosis of a stroke been overlooked in the symptoms of Julius Caesar?" in *Neurological Sciences* 36 (2015) 1521-22

J. Galinier, A. Monod Becquelin, G. Bordin, L. Fontaine, F. Fourmaux, J. Roulet Ponce, P. Salzarello, P. Simonnot, M. Therrien and I. Zilli, "Anthropology of the Night: Cross-Disciplinary Investigations" in *CurrAnthr.* 51/6 (2010) 819-47

J. Garnert, *Anden i lampan, etnologiska perspektiv på ljus och mörker*, Stockholm 1993

GdS = Ruggiero 1885

GdSN = *Giornale dei Nuovi Scavi di Ercolano, unpublished excavation reports of Herculaneum*, (1927—), available as a text file transcript at the Soprintendenza of Herculaneum

S. van der Geest and G. Mommersteeg, "Beds and culture: Introduction" in *Medische Antropologie* 18/1 (2006) 7-17

M. George (A), "Servus and Domus: the slave in the Roman house" in R. Laurence and A. Wallace-Hadrill (eds.) *Domestic space in the Roman world: Pompeii and beyond*, Portsmouth 1997, 15-24.M. George (B), "Repopulating the Roman House" in B. Rawson and P. Weaver (eds.) *The Ro-*

man family in Italy: status, sentiment, space, Canberra – New York – Oxford 1997, 299-319

R. K. Gibson and R. Morello, *Reading the letters of Pliny the Younger: an introduction*, Cambridge 2012

P. Gleichmann, "Einige soziale Wandlungen des Schlafens" in *Zeitschrift für Soziologie*, 9/3 (1980) 236-50

E. Goffman, *The presentation of self in everyday life*, Edinburgh 1956

F. Goldbeck, *Salutationes: die Morgenbegrüßungen in Rom in der Republik und der frühen Kaiserzeit*, Berlin 2010

D. Goldstein, S. Grider and J. Thomas, *Haunting experiences: ghosts in contemporary folklore*, Utah 2007

F. Graf, "Incubation" in H. Cancik and H. Schneider (eds.) *Brill's New Pauly*, Brill Online Reference Works 2015. (Accessed 30.12.2015, referenceworks.brillonline.com/entries/brill-s-new-pauly/incubation-e524700)

M. Grahame, "Public and private in the Roman house: investigating the social order of the Casa del Fauno" in R. Laurence and A. Wallace-Hadrill (eds.) *Domestic space in the Roman world: Pompeii and beyond*, Portsmouth 1997, 137-64

A. Guaglianone, *Phaedri Augusti liberti Liber fabularum / recensuit Antonius Guaglianone*, Torino 1969

N. de Haan and G. Jansen (eds.), "Cura aquarum in Campania" in *BABesch Suppl.* 4, Leiden 1996

S. Hales, *The Roman House and Social Identity*, Cambridge 2003

W. Harris, *Dreams and Experience in Classical Antiquity*, Cambridge – London 2009

J. Harrisson, *Dreams and dreaming in the Roman Empire: cultural memory and imagination*, London – New York 2013

J. Hartnett, "The Power of Nuisances on the Roman Street" in R. Laurence and D. J. Newsome (eds.) *Rome, Ostia and Pompeii: movement and space*, Oxford 2011, 135-59

C. Henriksén, *A commentary on Martial: epigrams book 9*, Oxford 2012

B. Hillier and J. Hanson, *The social logic of space*, Cambridge 1988

S. E. Hoffer, *The anxieties of Pliny the Younger*, Atlanta 1999

H. O. de la Iglesia, E. Fernández-Duque, D. Golombok, N. Lanza, J. F. Duffy, C. A. Czeisler and C. R. Valeggia, "Access to Electric Light Is Associated with Shorter Sleep Duration in a Traditionally Hunter-Gatherer Community" in *Journal of Biological Rhythms*, 2015 doi: 10.1177/0748730415590702

M. H. Jameson, "Domestic space in Greek city-state" in S. Kent (ed.) *Domestic architecture and the use of space: an interdisciplinary cross-cultural study*, Cambridge 1990, 92-113

G. Jansen, "Private toilets of Pompeii" in S. E. Bon and R. Jones (eds.) *Sequence and Space in Pompeii*, Oxford 1997, 121-34

S. R. Joshel, *Slavery in the Roman world*, Cambridge - New York 2010

- S. R. Joshel and L. Hackworth Petersen, *The material life of Roman slaves*, Cambridge -New York 2014
- A. Kaiser, "Cart Traffic Flow in Pompeii and Rome" in R. Laurence and D. J. Newsome (eds.) *Rome, Ostia and Pompeii: movement and space*, Oxford 2011, 174-93
- Y. Kawamoto, *The Vitruvian Peristyle: A Textual and Archaeological Study*, London 2015
- S. Kent (A), "Activity areas and architecture: an interdisciplinary view of the relationship between use of space and domestic built environments" in S. Kent (ed.): *Domestic architecture and the use of space: an interdisciplinary cross-cultural study*, Cambridge 1990, 1-8
- S. Kent (B), "A cross-cultural study of segmentation, architecture and use of space" in S. Kent (ed.) *Domestic architecture and the use of space: an interdisciplinary cross-cultural study*, Cambridge 1990, 127-52
- J. Ker, "Nocturnal Writers in Imperial Rome: The Culture of Lucubratio" in CP, 99/3 (2004) 209-42
- R. E. L. B. de Kind, *Houses in Herculaneum: a new view on the town planning and the building of insulae III and IV*, Amsterdam 1998
- G. Kloesch and J. P. Dittami, "A Bed for Two? Gender Differences in the Reactions to Pair-sleep" in B. Steger and L. Brunt (eds.) *Worlds of Sleep*, Berlin 2008, 93-104
- G. Klug, "Dangerous Doze: Sleep and Vulnerability in Mediaeval German Literature" in B. Steger and L. Brunt (eds.) *Worlds of Sleep*, Berlin 2008, 31-52
- C. Ko and J. Takahashi, "Molecular components of the mammalian circadian clock" in *Human Molecular Genetics* 15/2 (2006) 271-77 doi: 10.1093/hmg/ddl207
- R. Laurence, *Roman Pompeii - Space and Society*, London - New York, 1994
- T. Lauritsen, "The form and function of boundaries in the Campanian house" in A. Anguissola (ed.) *Privata luxuria: towards an archaeology of intimacy*, München 2012, 95-114
- E. W. Leach, "Oecus on Ibycus: Investigating the Vocabulary of the Roman House" in S. E. Bon and R. Jones (eds.) *Sequence and Space in Pompeii*, Oxford 1997, 50-73
- E. W. Leach, *The social life of painting in ancient Rome and on the Bay of Naples*, Cambridge -New York 2004
- M. Leumann, *Lateinische Laut und Formenlehre* (Handbuch der Altertumswissenschaften: Abt. 2; Teil 2, Lateinische Grammatik, von Leumann-Hofmann-Szantyr; Band 1), München 1977
- C. T. Lewis and C. Short, *A Latin Dictionary*, Oxford 1879
- M. Lightman and Z. William, "Univira: An Example of Continuity and Change in Roman Society" in *Church History* 46 (1977) 19-32
- R. Ling, *The Insula of the Menander at Pompeii, Vol. 1, The structures*, Oxford - New York 1997
- R. Ling and P. M. Allison, with a contribution by T. Giove, *The Insula of the Menander at Pompeii. Vol. 3, The finds, a contextual study*, Oxford 2006
- P. Lohmann, "Some thoughts on the habits of graffiti-writing: Visual aspects of scratched inscriptions within Pompeian houses" in *The Archaeological Review from Cambridge* 30/1 (2015) 70-6
- A. Maiuri, *Ercolano: i nuovi scavi (1927-1958)*, Roma 1958

- A. Mau, *Pompeji in Leben und Kunst*, Leipzig 1900
- M. Max-Neef, *Human scale development: conception, application and further reflections*, New York - London 1991
- P. D. Mitchell, "Human parasites in the Roman world: health consequences of conquering an empire" in *Parasitology FirstView Article* (2016) 1-11 doi:10.1017/S0031182015001651.
- S. T. A. M. Mols, *Wooden furniture in Herculaneum: form, technique and function* (translated by Rob Bland), Amsterdam 1999
- N. Monteix, "Inventio Herculaneis: per una rilettura dei giornali degli scavi di Ercolano" in A. Coralini (ed.) *Vesuviana, Archeologie a confronto (Atti del Convegno Internazionale, Bologna, 14-16 gennaio 2008)*, Bologna 2009, 81-98
- I. Montijn, "Beds Visible and Invisible: Hygiene, Morals and Status in Dutch Bedroom" in B. Steger and L. Brunt (eds.) *Worlds of Sleep*, Berlin 2008, 75-92
- H. Mouritsen, *Elections, magistrates and municipal élite: studies in Pompeian epigraphy*, Roma 1988
- L. Nevett, "Separation or seclusion? Towards an archaeological approach to investigating women in the Greek house in the fifth to third centuries B.C." in M. Parker Pearson and C. Richards (eds.) *Architecture and Order: Approaches to Social Space*, London 1994, 98-112
- L. Nevett, "Perceptions of domestic space in Roman Italy" in B. Rawson and P. Weaver (eds.) *The Roman family in Italy: status, sentiment, space*, Canberra - New York - Oxford 1997, 281-98
- L. Nevett, *Domestic Space in Classical Antiquity*, Cambridge 2010
- J. F. Niermayer and C. Van De Kleft (überarbeitet von J.W.J. Burgers), *Mediae Latinitatis Lexicon Minus*, vol. A-L, Leiden 2002
- OED, OED Online = Oxford English Dictionary (Online)
- OLD = Oxford Latin Dictionary
- K. Olson, "Roman underwear revisited" in CW 96 (2003) 201-10
- C. Parslow, *Rediscovering antiquity: Karl Weber and the excavation of Herculaneum, Pompeii, and Stabiae*, Cambridge 1998
- F. Pesando, *Domus: edilizia privata e società pompeiana fra III e I secolo a.C.*, Roma 1997
- F. Pesando and M. P. Guidobaldi, *Pompei, Oplontis, Ercolano, Stabiae*, Roma 2006
- M. Plezia (ed.), *Lexicon Mediae et Infimae Latinitatis Polonorum*, vol. II C, Wrocław 1959-1967
- O. Prinz, T. Payr and P. Dinter, unter Mitarrb. von H. Antony, *Mittellateinisches Wörterbuch bis zum ausgehenden 13. Jahrhundert*, München 1999
- C. L. Ransom, *Studies in Ancient Furniture, Couches and Beds of the Greeks, Etruscans, and Romans*, Chicago 1905
- A. Rapoport, "Systems of activities and systems of settings" in S. Kent (ed.) *Domestic architecture and the use of space: an interdisciplinary cross-cultural study*, Cambridge 1990, 9-20

- B. Rawson, *Children and childhood in Roman Italy*, Oxford - New York 2003
- B. Rawson, "Introduction: Families in the Greek and Roman Worlds" in B. Rawson (ed.) *A companion to families in the Greek and Roman worlds*, Oxford 2010, 1-14
- RE = A. Pauly and G. Wissowa, Real-Encyclopädie der Classischen Altertumswissenschaft (1893–1978)
- P. Rensen, "Sleeping without a Home: The Embedment of Sleep in the Lives of the Rough-sleeping Homeless in Amsterdam" in B. Steger and L. Brunt (eds.) *Night-time and sleep in Asia and the West: exploring the dark side of life*, London - New York 2003, 87-107
- A. Richter, "Sleeping Time in Early Chinese Literature" in B. Steger and L. Brunt (eds.) *Night-time and sleep in Asia and the West: exploring the dark side of life*, London - New York 2003, 25-46
- G. M. A. Richter, *Ancient furniture: a history of Greek, Etruscan and Roman furniture*, Oxford 1926
- A. Riggsby, "'Public' and 'private' in Roman culture: the case of *cubiculum*" in *JRA* 10 (1997) 36-56
- H. J. Roby, *Roman private law in the times of Cicero and of the Antonines*, Cambridge 1902
- J. C. Rolfe, *Ammianus Marcellinus: in three volumes. With an English translation by John C. Rolfe*, London 1963
- P.C. Rosenblatt, *Two in a Bed. The Social System of Couple Bed Sharing*, Albany 2006
- B. Rössler, *The Value of Privacy*, Malden 2005
- M. Ruggiero, *Storia degli scavi di Ercolano ricomposta su' documenti superstiti*, Napoli 1885
- L. Sammallahti and M. Lehto, *Suomalainen sänky: kansanomaisten vuodekalusteiden historiaa*, Helsinki 2006
- D. Sanders, "Behavioral conventions and archaeology, method for the analysis of ancient architecture" in S. Kent (ed.) *Domestic architecture and the use of space: an interdisciplinary cross-cultural study*, Cambridge 1990, 43-72
- B. Schwartz, "Notes on the Sociology of Sleep" in *The Sociological Quarterly* 11/4 (1970) 485-99
- R. A. Schweder, L. Arnett Jensen and W. M. Goldstein, "Who Sleeps by Whom Revisited: A Method for Extracting the Moral Goods Implicit in Practice" in J.J. Goodnow, P.J. Miller and F. Kessel (eds.) *Cultural Practices as Contexts for Development*, San Francisco 1995, 21-40
- K. Sessa, "Christianity and the *cubiculum*: Spiritual Politics and Domestic Space in Late Antique Rome" in *Journal of Early Christian Studies* 15/2 (2007) 171-204
- S. Simelius, "Activities in Pompeii's private peristyles: the place of the peristyle in the public/private dichotomy" in K. Tuori and L. Nissin (eds.) *Public and private in the Roman house and society*, Portsmouth 2015, 119-32
- A. M. Small, "Urban, suburban and rural religion in the Roman period" in J. J. Dobbins and P. W. Foss (eds.) *The World of Pompeii*, New York 2007, 184-211
- J. Sorabella, "Eros and the Lizard: Children, Animals, and Roman Funerary Sculpture" in A. Cohen and J. B. Rutter (eds.) *Constructions of childhood in ancient Greece and Italy*, Princeton 2007

- B. Spaeth, "The Terror that Comes in the Night: the Night Hag and Supernatural assault in Latin Literature" in E. Scioli and C. Walde (eds.) *Sub imagine Somni: Nighttime Phenomena in Greco-Roman culture*, Pisa 2010, 231-25
- S. Speksnijder, "Beyond 'public' and 'private': accessibility and visibility during *salutationes*" in K. Tuori and L. Nissin (eds.) *Public and private in the Roman house and society*, Portsmouth 2015, 87-99
- G. Stefani, "La vera data dell'eruzione" in *Archeo* 260 (2006) 10-4
- B. Steger, (*Keine*) *Zeit zum Schlafen?: kulturhistorische und sozialantropologische Erkundungen japanischer Schlafgewohnheiten*, Munster 2004
- B. Steger and L. Brunt, "Introduction: into the night and the world of sleep" in B. Steger and L. Brunt (eds.) *Night-time and sleep in Asia and the West: exploring the dark side of life*, London - New York 2003, 1-24
- B. Steger and L. Brunt, "Introduction" in B. Steger and L. Brunt (eds.) *Worlds of Sleep*, Berlin 2008, 9-30
- V. M. Strocka, *Casa del Labirinto (VI 11,8-10)*, München 1991
- B. Tamm, "Some notes on Roman Houses" in *OpRom* 9 (1973) 53-60
- Task Force on Sudden Infant Death Syndrome, "SIDS and Other Sleep-Related Infant Deaths: Expansion of Recommendations for a Safe Infant Sleeping Environment" in *Pediatrics* 128 (2011) 1341-67
- B. Taylor, "Unconsciousness and Society: The Sociology of Sleep" in *International Journal of Politics, Culture, and Society*, 6/3 (1993) 463-71
- TLL = *Thesaurus linguae Latinae*, editus iussu et auctoritate consilii ab academicis societatisbusque diversarum nationum electi, Leipzig - München 1900-
- K. Tuori, "Introduction: Investigating public and private in the Roman house" in K. Tuori and L. Nissin (eds.) *Public and private in the Roman house and society*, Portsmouth 2015, 1-15
- R. Veal, "From Context to Economy: charcoal and its unique potential in archaeological interpretation: a case study from Pompeii" in I. E. Schrüfer-Kolb (ed.) *More than just numbers? The role of science in Roman archaeology*, Portsmouth 2012, 19-52
- R. Veal, "Fuelling ancient Mediterranean cities: a framework for charcoal research" in W.V. Harris (ed.) *The Ancient Mediterranean between Science and History*, Leiden - Boston 2013, 37-58
- P. Veyne, *A history of private life. 1, From pagan Rome to Byzantium* (translated by Arthur Goldhammer), Cambridge 1987
- E.-M. Viitanen, *Locus bonus - the relationship of the Roman villa to its environment in the vicinity of Rome*, Helsinki 2010
- A. de Vos, "I,7,11 Casa dell'Efebo o di P. Cornelius Tages" in G. Pugliese Carratelli, I. Baldassarre, T. Lanzillotta, S. Salomi (eds.) *Pompeii: pitture e mosaici*, vol.1, Roma 1990
- A. Wallace-Hadrill, "The Social Structure of the Roman House" in *PBSR* 56 (1988) 43-97
- A. Wallace-Hadrill, *Houses and society in Pompeii and Herculaneum*, Princeton 1994

- A. Wallace-Hadrill, "What makes a Roman house a 'Roman house'" in K. Tuori and L. Nissin (eds.) *Public and private in the Roman house and society*, Portsmouth 2015, 87-99
- S. Warren and L. Brandeis, "Right to Privacy" in *Harvard Law Review* 4/193, 1890
- J. Whitman, "The Two Western Cultures of Privacy: Dignity Versus Liberty" in *Yale Law Journal* 113 (2004) 1153-221
- T. Wiedemann, "Roman siesta" in T. Wiedemann and K. Dowden (eds.) *Sleep*, Bari 2003, 125-39
- S. J. Williams, *Sleep and society: sociological ventures into the (un)known...*, London 2005
- S. J. Williams, "The Social Etiquette of Sleep: Some Sociological Reflections and Observations" in *Sociology* 41/2 (2007) 313-28
- S. J. Williams, "The Sociological Significance of Sleep: Progress, Problems and Prospects" in *Sociology Compass* 2 (2008) 639-53
- C. M. Worthman and M.K. Melby, "Toward a Comparative Developmental Ecology of Human Sleep" in M.A. Carskadon (ed.) *Adolescent sleep patterns: biological, social, and psychological influences*, New York 2002, 69-117
- R. J. Wurtman, "Melatonin as a Hormone in Humans: A History" in *The Yale Journal of Biology and Medicine*, 58 (1985) 547-52
- L. Xie, H. Kang, Q. Xu, M. J. Chen, Y. Liao, M. Thiagarajan, J. O'Donnell, D. J. Christensen, C. Nicholson, J. J Iliff, T. Takano, R. Deane and M. Nedergaard, "Sleep Drives Metabolite Clearance from the Adult Brain" in *Science* 18/342/6156 (2013), 373-77 doi: 10.1126/science.1241224
- G. Yetish, H. Kaplan, M. Gurven, B. Wood, H. Pontzer, P. R. Manger, C. Wilson, R. McGregor and J. M. Siegel, "Natural Sleep and Its Seasonal Variations in Three Pre-industrial Societies" in *Current Biology* 25/21 (2015) 2862-8 doi: <http://dx.doi.org/10.1016/j.cub.2015.09.046>
- A. Zaccaria Ruggiu, *Spazio privato e spazio pubblico nella città romana*, Roma 1995
- A. Zaccaria Ruggiu, "Abbinamento *triclinium - cubiculum*: Un'ipotesi interpretativa" in Monika Verzár-Bass (ed.) *Abitare in Cisalpina: l'edilizia privata nelle città e nel territorio in età romana*, Trieste 2001, 59-101