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# International Magic? – Finnish Folk Magic Objects in a European Context<sup>1</sup>

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### Abstract

This paper explores international aspects of Finnish folk magic. Folk magic objects in two Finnish museum collections (the National Museum of Finland and Museum Centre Vapriikki) are compared to analogous objects in the Nordiska museet in Sweden and the Pitt Rivers Museum in the UK to reveal the collections' resemblances and differences. The material in question dates to the late nineteenth and early twentieth centuries. Many similar objects occur in these collections. Explanations for this are sought in historical networks between peoples. Yet a closer inspection also reveals variation in practices and beliefs. This reveals the dynamic nature of folk magic traditions, although collection and curation policies also play a role. Moreover, the complex connections between religion, medicine, and magic are uncovered.

Keywords: folk magic, folk medicine, cross-cultural comparison, material culture, Finland, Europe

I have endeavoured to show that Finnish and Lapp magic was isolated, until comparatively modern times, from external influence except that of other Arctic peoples. Among these, however, the practices correspond so closely that Arctic magic is essentially the same from Finland and Lapland on the west to Kamchatka on the east.

The above quotation is from an early twentieth-century paper by Folklorist Wilfrid Bonser (1924, 63). He arrived at this conclusion by studying

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incantations and the epic poems of the *Kalevala*. This conclusion is likely to have delighted the Finnish national romantics of the time, who would have appreciated the idea of a pure and original Finnish folk magic, or at least one with roots among Arctic (Finno-Ugric) 'kinsfolks'. While the idea of purity has long been both abandoned and irrelevant, recent research has not focused on cross-cultural comparisons between folk magic found in Finland and elsewhere. Similarities and differences in traditions reveal networks and processes of adaptation and rejection of ideas. This is why many archaeological studies take an interest in cross-cultural comparisons. However, in Finland, folk magic has traditionally been studied by folklorists rather than archaeologists. The research history is therefore likely to have caused the lack of discussion.

When reading older Finnish research on folk religion and mythology, one finds ample comparisons with practices and beliefs in Europe, and especially in other Finno-Ugric areas (e.g. Haavio 1942; 1967; Harva 1948). Indeed, in the late nineteenth and the first half of the twentieth centuries a comparative method called the historic-geographic or Finnish method dominated folklore research in Finland and beyond (e.g. Krohn 1971; Wilson 1976; Dégh 1986). This method called for huge collections of material that were compared with similar data from other geographical areas. Its aims were to reconstruct the original 'urforms' of folklore texts, and to trace their place of origin and migration patterns. Later, the method was criticized for its either evolutionary or devolutionary assumptions. Moreover, the folklore texts were often treated as if they were superorganic entities independently migrating from place to place. While research paradigms also shifted, the historic-geographic method became obsolete and fell out of use in folklore research (e.g. Dégh 1986, 78f.). In the case of folk magic, the historic-geographic research paradigm resulted in considerable collections of oral incantations and other folklore concerning magic practices, as well as museum collections, but the paradigm shifted before these were extensively studied.

Recently, questions concerning the materiality of magic practices have interested archaeologists and other material culture studies researchers in Europe (e.g. Wilburn 2012; Houlbrook & Armitage 2015; Boschung & Bremmer 2015; Parker & McKie 2018; Gosden 2020). This paper is therefore part of a project funded by the Academy of Finland that aims to understand the material evidence concerning folk magic in Finland. This project focuses on the folk magic object collections of two museums in Finland, the National Museum (KM) and the Hämeen museo collection at Museum Centre Vapriikki in Tampere (HM). The objects were acquired by the museums in the late nineteenth and early twentieth centuries, and were used up to the time of their acquisition. The project's previous publications introduce the National Museum of Finland's collection of magic objects and discuss their agency (Hukantaival 2018; 2020).

This paper focuses on the international (north and west European) aspect of the magic object traditions: is it possible to identify cross-cultural magic objects, and how were ideas about magic objects shared and transmitted? The relationship between religion (Christianity), medicine, and magic traditions is also discussed. In contrast with the old historic-geographic method, the idea is not to find the origins of the magic objects or to trace complete migration networks, but to discuss examples in which networks may have influenced the traditions. The objects in the Finnish museums are compared with similar objects in two other European museums: the Pitt Rivers Museum in Oxford in the UK, and the Nordiska museet in Stockholm in Sweden (NM). Objects mentioned in historical sources, published folklore, and previous research are also discussed. Comparisons between Finnish and Estonian magic objects are discussed in another paper (Hukantaival, Jonuks, & Johanson, manuscript).

## The materiality of folk magic

Snake's court stone: Gneiss. Oval-shaped, cross-section almost round. Surface unpolished. Colour dappled grey. Donated by Moses Pykälistö who had 'received it from Granny Ahola, already dead for 10 years, was over 90 when died. Granny had told that when one kept it in the pocket in court, there was nothing to fear, even if one was a little wrong' Location Saarijärvi, Samuli Paulaharju's scholarship collection in 1905 (Museum Centre Vapriikki, HM 47:159).

The above example from a museum catalogue sheds light on what the material aspect of folk magic means in the context of this paper. Here, the objects in question are classified as belonging to folk magic in the museum catalogues, and this labelling was already done in the late nineteenth and early twentieth centuries. Within this label in the two museums we find 451 main catalogue entries of objects used to induce desired results in everyday concerns: as medicine; to ensure good luck in livelihood and other daily activities; to awaken or eradicate love; or as amulets protecting against harm. Some objects are used for aggressive (curse) purposes: to destroy the

growth of a field or the fishing equipment of a rival fisherman; or to punish a thief with a nasty disease. Ordinary people and more specialized healers and cunning folk used these objects (See Figure 1).

Magic is by no means a problem-free category (e.g. Buss, Wax, & Wax 1965; Hammond 1970; Otto & Strausberg 2014). It carries a heavy burden of ethnocentrism, colonialism, patronizing, and othering. It is a scholarly cat-

**Figure 1.** These seven objects and their wooden container belonged to cunning man Elias Huttunen in Pielavesi (KM F1275). The objects are snakes' court stones, a piece of a thunderbolt, a silver brooch, a ring that had been used to marry three couples, and a bear claw. The catalogue entry includes detailed information on how Huttunen used these, for example, in healing and finding cattle lost in the forest. The objects came to the museum some twenty years after Huttunen's death in 1903. Photo by S. Hukantaival.



egory that may not have been recognized in the cultures where it is applied. As can be seen above, practices labelled as folk magic include elements that westernized modernity does not see as effective or in accordance with reality. However, seeing magic as counter-intuitive or irrelevant only hinders the opportunity to understand diverse worldviews, and how human realities are created. While it is true that choosing to use such labels as folk magic continues this tradition, we still need to communicate with the words we have (cf. Hukantaival 2015).

In this paper the problematic category is embedded in the material, as objects that have been labelled as belonging to folk magic in the museums were chosen for the research. As always, it is difficult to define the boundaries of an abstract category such as folk magic. Do objects mass-produced for sale belong to folk magic? What is the degree of education a person must have before their magic is no longer folk magic but learned or esoterics? Where is the line between magic medicine and academic medicine? As becomes evident below, it is best to acknowledge that the category remains ambiguous. To include a brief remark on the local language, the Finnish word for magic, *taika*, is a loan from a Germanic word that meant 'sign, omen, or miracle' (Häkkinen 2013, 1255).

Of the functions connected with magic mentioned above, medicine is perhaps the most familiar. It refers to something used to restore health in cases of trauma or illness. Naturally, views of sickness and health vary in different cultures. Where medicine is mainly seen as working mechanically/chemically in modern science-based contexts, understanding its efficacy in other contexts calls for familiarity with the specific culture and worldview. Medicine objects may have been used to press against an afflicted area of the body, pulverized and ingested, or worn on the body to cure an illness. An amulet is a small object worn or carried typically for protective purposes (Bailey 2018, 48). The functions of medicine and amulet overlap when an amulet is worn to cure or prevent disease. An amulet may also be worn to ensure good luck, but a good-luck-bringer does not need to be an amulet. For example, objects were placed in buildings to protect the inhabitants and ensure good luck (e.g. Hukantaival 2016; Hoggard 2019).

The magic objects in the Finnish museums belong to the ethnological collections. Yet only a few ethnological publications discuss them (e.g. Sirelius 1906; 1921; Manninen 1933). Additionally, some studies focus on narrative material (folklore), mentioning the use of similar objects (Issakainen 2006; Ratia 2009; Piela 2011). Enthusiastic collectors who participated in a massive effort to record the local folk culture formed the magic object assemblages. Naturally, their formation has influenced the collections. For example, the collectors' interest in asking about objects and their behaviour towards possible donors or their sellers have had consequences. Moreover, the classification in the museum shapes the collections.

The two reference collections in this paper, those of the Pitt Rivers Museum at the University of Oxford and the Nordiska museet in Stockholm, were chosen for their geographic representation. The Swedish Nordiska museet represents a neighbouring area of Finland, and it was assumed that its collections would show more similarities with the Finnish collections due to the close contacts between Swedes and Finns, while the Pitt Rivers Museum was chosen as exemplifying objects from areas farther from Finland. The two reference collections differ in volume. The Pitt Rivers Museum houses enormous collections, and different folk magic-related search commands in its Online Database for Objects in the Collections<sup>2</sup> resulted in a selection of 667<sup>3</sup> European objects or sets of objects belonging to the same catalogue entry (see also Cadbury 2015). This is by no means a comprehensive list of magic-related objects in the Pitt Rivers, but the focus was on objects that resembled the uses or forms of objects in the Finnish collections. A similar online search in the Swedish DigitaltMuseum<sup>4</sup> database led to a selection of 223 catalogue entries in the Nordiska museet.

The results from the online database searches are influenced by how objects have been classified, and the kind of keywords assigned to them. For example, both the Pitt Rivers Museum and the Nordiska museet house commercially made amulets and objects, but these are missing in the Finnish collections. The Nordiska museet houses copper amulets against cholera and small objects called *spiritus*. A *spiritus* is usually a metallic beetle inside a small box and is believed to bring fortune to its owner (Holmberg 1928, 144–7; Östling 2001). The oldest known account of such an object is from the seventeenth century (Holmberg 1928, 146). There is also folklore about the *spiritus* (*piritys*) in Finland – for example, one account explains that these objects could be bought in Turku (Holmberg 1928, 144). For some reason, however, no such objects survive in the Finnish folk magic collections. This may simply be due to chance, but the collection and classification processes

<sup>2 &</sup>lt;http://databases.prm.ox.ac.uk/fmi/webd/objects\_online>, accessed 6 August 2020.

<sup>3</sup> A set of 65 objects was selected for closer analysis at the museum. However, this work was scheduled for April 2020, so it was cancelled because of the Covid-19 pandemic. The planned visit to the Nordiska museet was cancelled for the same reason.

<sup>4 &</sup>lt;https://digitaltmuseum.se/>, accessed 6 August 2020.

may also have caused this if these objects were not seen as worth collecting or were not classified as folk magic.

The diverse formation processes (the influence of individual collectors, the museum policies, curation, etc.) of the European museum collections makes comparisons between them difficult, and the observations in this paper therefore cannot be complete. Naturally, since visiting the collections abroad was limited because of the Covid-19 pandemic, the progress of the digitalization of these collections also causes bias in the results. Moreover, the selection of the objects for this paper was largely subjective. However, for the purposes of this study these shortcomings cause no major problems. The online searches combined with objects mentioned in historical sources, folklore, and previous studies produced adequate information to reveal both similarities and variation in magic object traditions.

# How material magic traditions may have spread: a long-term perspective

The seeming similarity of magic beliefs and practices everywhere in the world and throughout history has caught the attention of many scholars. The classic interpretation saw magic as an ancient relic that remained within cultures (e.g. Tylor 1891; Frazer 1922). More recently, some scholars have suggested explanations based on human cognition (e.g. Pearson 2002; Sørensen 2007). Other scholars have suspected that researchers themselves construct magic by applying this concept to observed cultural phenomena (e.g. Pocock 2006). All these interpretations may contain a seed of truth; however, to further the field of study, scholars of magic need to consider the latter perspective very seriously. Yet as we will appreciate in this paper, when studied closely, magic traditions are less rigid than they appear from a more general perspective. When the worldview allows for magic causation, new elements and innovations may be adopted in the existing traditions (e.g. Stark 2006, 320f.).

Traditional culture-historical archaeology discussed the migration of people and diffusion of ideas as the main causes of the adaptation of new traditions (e.g. Trigger 2006). These two ways remain relevant, but the issue is not quite as simple. First, identifying causes is never straightforward in the complexity of human culture (e.g. Hodder 2016). Moreover, the possibility that similar cultural traits are invented independently in different areas should not be overlooked. This may be due to human cognition, as noted above. Yet contact between different cultures is a major factor, though not everything in another culture is embraced (resistance). Whatever is learned is shaped by the traditions in the new context and takes on new forms and meanings as a result.

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There is ample evidence that people in the area of Finland have had contact with other cultures throughout the area's history and prehistory (e.g. Bertell, Frog, & Willson 2019). This becomes striking in the medieval period, with the introduction of the Christian institutions and the rule of the Swedish crown around the late twelfth century. Since the first university, the Academy of Turku, was established much later, in 1640, the officials needed to get higher education elsewhere, the most common places being Paris, Rostock, and Leipzig, and after the 1530s Wittenberg (Nuorteva 1997). It has also been suggested that the mendicant orders, especially the Dominicans, had a notable impact on local culture, since friars would travel and preach to laypeople (e.g. Haavio 1967, 454ff.). The Saint Olav Dominican convent was established in Turku in 1249. Contacts in the context of Christianity are relevant for the discussion of magic practices in several ways. First, students may have picked up influences from fellow students and other contacts in the university town. It is also important to remember that the border between true religion and condemned magic has shifted and been renegotiated throughout history (e.g. Bailey 2008; Cameron 2010). Thus, practices that later became defined as magic may have spread with Christian doctrine. This is especially evident in connection with the question of medicine, which was closely connected with religion.

The spread of medical knowledge across Europe was connected with universities and libraries. However, medical students from the area of Finland cannot be identified with certainty in the medieval period (Nuorteva 1997, 33, 72, 132). Nevertheless, friars and nuns had medical knowledge, including skills in the exorcism of illness-causing demons and familiarity with medical materials of vegetable, mineral, or animal origin (materia medica) (Haavio 1967, 456; Wallis 2010). Indeed, mendicant orders had their own education systems that were compatible with those of the universities (Nuorteva 1997, 38-46). Medieval medicine was based largely on humoral pathology, in which illnesses were the result of an imbalance of four basic elements in the body: blood; phlegm; black bile; and yellow bile (e.g. Jackson 2001; Wallis 2010). Many of the medieval medical materials that were understood to restore the balance between these elements occur in later folk medicine. Even much later, in 1686, when the first Swedish pharmacopeia, Pharmacopæa Holmiensis Galæno-Chymica, was published, many of the medical ingredients are familiar from folk healers' selection of medicines: for example, adders, toads, and pulverized human skulls (Tillhagen 1962, 14f.).

However, it is clear that medical treatises had an influence even before this first local one was published. For example, medieval books about minerals, *lapidaries*, included the medical properties of stones and fossils (Duffin 2005; see also Brévart 2008). The most influential of these, *De Mineralibus*, was written by the Dominican friar Albertus Magnus, who died around 1260. This book includes the knowledge that amethyst was good for counteracting drunkenness and repressing evil thoughts, while carnelian reduced bleed-ing (Duffin 2005, 61). In his paper about Stone Age tools (thunderbolts) in medieval Lund Peter Carelli notes that such lapidaries were common in Scandinavian libraries (Carelli 1996, 157).

Long-distance trade and travelling craftsmen are also forms of contact distributing objects, skills, and ideas. Turku was part of the Hanseatic trade network through its community of German burghers (Immonen 2007). This mercantile network had a huge impact on material culture in the urban areas of the Baltic Sea region (e.g. Gaimster 2005). Although this question has not been thoroughly addressed, it is likely that various customs and traditions were circulating with ceramics, heating system technology (tile stoves), architectural influences, and travelling craftsmen employed at large building sites. In any case, the area of southwestern Finland, where the oldest town Turku is situated, was clearly integrated with western European networks during the late medieval period.

The effects of the Roman Empire on European culture are also noteworthy. Many of the medical texts mentioned above, including the dominant humoral pathology principle, are derived from classical antiquity (Wallis 2010). Although they were often older than the Roman Empire, this vast network played its part in their becoming widespread. Moreover, magic practices such as curse tablets and the use of certain types of amulets spread as far as Roman Britain (e.g. Parker & McKie 2018; Edmonds 2019). It is likely that several practices now defined as magic were introduced across Europe during this period. However, if these reached the area of Finland, this may have happened later, perhaps during the medieval period.

Medical knowledge in books and treatises may have reached the illiterate part of the population in different ways. People may have learned treatments and medicines by observing medical experts' work. Some friars or nuns may even have taught their skills to a lay apprentice. A lack of evidence means this is speculation, yet the information somehow spread. When literacy became more common, folk healers evidently drew on information from medical books (Stark 2006, 321). A possible example of the oral transition of a written recipe is a handwritten booklet that circulated in the late eighteenth century among church bellringers (*lukkari*), who were also responsible for crude medical treatment. The booklet advises healing bewitched cattle by drilling a hole in the threshold of the cowshed, inserting a goose quill filled with mercury, and plugging the hole (Alanen 1947, 156f.; Hukantaival 2016, 161). This practice became widespread in nineteenth-century Finland (Hukantaival 2016). However, it is uncertain if the booklet actually initiated the popularity of the tradition, or if it simply portrayed something already practised in the communities.

The points of contact discussed here exemplify the kinds of network that may have influenced the magic traditions, but they should not be seen as the only ones. The complexity of cultural contacts and entanglements that has shaped material culture makes it impossible to consider all the variables. As archaeologist Ian Hodder notes in connection with his human-thing entanglement approach, since causality is problematic due to its complexity, his approach focuses on specific sets of heterogeneous interactions within radically open systems (Hodder 2016, 8). Similarly, this study focuses on specific types of objects that show signs of cultural contact, without claiming to reveal the whole picture of these phenomena.

## Cross-cultural magic objects?

There seems at first glance to be a remarkable number of general similarities between magic objects in different areas of Europe. For example, different kinds of natural stones and pebbles, predator canines and claws, and horns or antlers are present in all collections. Similarly, objects that were believed to be bolts of lightning, 'thunderbolts', are common (e.g. Blinkenberg 1911; Carelli 1997; Johanson 2009). However, there is also variation within these wider classes of objects. For example, thunderbolts in the Pitt Rivers collection include Stone Age tools, belemnite fossils, and pyrite nodules. Nordiska museet seems only to house thunderbolts that are Stone Age tools, while the Finnish collections include Stone Age tools, whetstones, and some natural stones as thunderbolts (Hukantaival 2019). Some types of artefacts also occur often (keys, knives, coins, etc.). Stones and animal remains were chosen as examples for this discussion.

### Stones

In the Finnish collections smooth water-polished pebbles are usually called 'snake's court stones' (*käärmeenkäräjäkivi*, 30 items). It was believed that adders would pass this stone from mouth to mouth during their court gatherings in the spring. According to the folklore one could steal the pebble

during this gathering, but the adders would then chase the thief fiercely until they reached a cross-ploughed field where the adders could not follow (Lehikoinen 2009, 199ff.). In some versions of the folklore the stone was a convicted snake that the others had spat on until it turned to stone (*Finlands svenska folkdiktning* VII, 3 1952, 88). The pebble was in any case a powerful magic object that could be kept in the pocket as an amulet, especially when going to court or travelling, or used to heal skin problems and pain by pressing the pebble against the ailing part. In folklore, the stone is often described as spotted or having an indentation or hole in the middle from its having been in the mouths of adders. In the museum collections pebbles catalogued with this name are often flintstone pebbles, but other types of rock also occur. In some cases the snake's court stones are old spindle whorls.

Three objects are catalogued as a 'snakestone' or 'snake pebble', and there is one ammonite fossil with a carved snake's head in the Pitt Rivers collection, but no stones with similar names in the Nordiska museet. However, one flintstone pebble called a 'magic stone' (trollsten) was used to heal pain in a similar manner to the Finnish snake's court stones (NM.0131017). The one snakestone in the Pitt Rivers collection comes from France (1985.52.705). It is a green variolite pebble with mottled markings resembling the skin of a snake. According to the entry in the Pitt Rivers database such snakestones could act as an antidote to poison and cure snake bites. The stones were dipped in water, which was then given to the afflicted person or animal to drink. Since the spots on variolites were also thought to resemble smallpox pustules, the stones were used throughout the Middle Ages as a cure for smallpox. The catalogue entry explains that these pebbles were collected from the Durance river bed and distributed throughout Europe. Regardless of the similar name, such stones therefore seem not to belong to the same cultural idea as the Finnish snake's court stones. It also seems that the distribution of variolites did not reach the areas of Sweden and Finland. The two Pitt Rivers' snake pebbles are also from France (1977.5.1-2). However, no images and no further information is available on these objects in the online database. Ammonite fossils have also been commonly called snakestones. The legend about these objects is that a saint (e.g. St Hilda or St Cuthbert) turned snakes into stone (Skeat 1912).

In the case of the snake's court stones we encounter one of the possible pitfalls of the comparative method. It would be a mistake to assume that since there are no similar legends in the other collections, this tradition was purely local to Finland. There are similar traits to the folklore of snake's court stones in folklore from other areas. For example, Rachael Pymm (2017a; 2017b; 2018) has written extensively on the snakestone bead folklore known in the British Isles. These are glass beads that were thought to have been produced by a knot of adders. They were used as apotropaic amulets and in healing (see also Morgan 1983). An account written by Pliny the Elder is often mentioned in connection with them. In his Natural History (AD 77) Pliny wrote of an item that he called the *ovum anguinum* (snake's egg). He says that this object was valued in the Gallic provinces, but it was unknown to Greek writers. In the summer snakes would entwine together and form rings around their bodies with the slime and foam from their mouths. The snakes would then eject this 'egg' into the air by hissing, and a person should be ready to catch it in a cloak before it hit the ground. One should then immediately take flight on horseback, because the snakes would pursue the thief until a river created a barrier between them. Interestingly enough, Pliny adds that the possession of this object ensured success in lawsuits (Bostock & Riley 1857, 388ff.). The aggressive pursuit is also known in the snakestone bead folklore (Pymm 2018).

While the connection between different snakestone traditions remains debatable, another type of pebble shows strong signs of cross-cultural distribution: the raven stone. In the Finnish museum collections, these are similar (but usually dark-coloured) pebbles to the snake's court stones. However, the name raven stone occurs less often. In contrast with the 30 snake's court stones, there are only six main catalogue entries for raven stones (*korpinkivi*) in the collections. One is a knitted pouch that contains seven raven stones (KM 7928:59). According to the catalogue these had been in the family of the donor for at least three generations. The donor had explained that the stones had been acquired as follows: when one found a raven's nest, one should take the eggs, boil them, and then return them to the nest. When the raven returned, it would fly to fetch a pebble from the River Jordan. This was the valuable raven's stone that could be used for healing toothache and other ailments. Seven stones were needed to accomplish the pebbles' full potential.

The above story about how a raven's stone was found belongs to the known folklore about these objects (Rantasalo 1956). Naturally, there are variations in the folklore. For example, some accounts say that the raven's nest was invisible but could be spotted through its reflection in water (*Finlands svenska folkdiktning* VII, 3 1952, 87f.). The raven stone is one of the very few magic objects that received scholarly attention in the spirit of the historic-geographic method discussed above. The folklorist A. V. Rantasalo published a paper on the raven stone in 1956 in which he compared the folklore against that known in neighbouring areas around the Baltic Sea

(Estonia, Sweden, Norway, Denmark, Germany, and Poland). He also noted a fifteenth-century German manuscript that sheds more light on the above account: when one takes and boils the egg from a raven's nest and then returns it to the nest, the raven flies to the Red Sea, brings a stone, touches the egg with it, and the egg becomes fresh again (Zingerle von 1891, 324; see also Duffin 2012, 185). Rantasalo concludes that the raven stone tradition must have spread to Finland through such literature. The same idea of hurting a bird's young and stealing the magic stone that the bird fetches is recorded in connection with the swallow stone, at least in France (Duffin 2013, 90).

Other types of stones found in many areas are holed stones, cross stones, and calcareous concretions (Imatra stones). Due to the local geology, holed stones in Finland are most often human-made stone tools (often prehistoric) such as clubs and spindle whorls. When stated, these are used in healing; sometimes by pressing the stone onto the body and sometimes by pouring a liquid through the hole when making medicine. The situation is similar in the Nordiska museet, where most small round perforated stones (often old spindle whorls) are called *ältsten*. The name refers to the children's disease älta (in Finnish eltta, often recognized as rickets). The Pitt Rivers Museum houses 63 naturally holed stones, most of which come from the British Isles. These were used as amulets, tied to cattle horns to prevent fairies stealing milk, and hung next to doors to prevent witches or the Nightmare from entering (sometimes called witch stones or hag stones) (see also Dent 1965; Duffin 2011). In the Nordiska museet there is one naturally holed stone from southern Sweden that was hung in a stable to protect horses against the Nightmare (NM.0138473).

Cross stones are naturally cross-shaped staurolite crystals. There are seven of these in the Finnish collections (KM F1249; 7425:4–9). According to the catalogue these belonged to cunning people, and some were used for healing skin problems like the snake's court stones (see also Hirsjärvi 1965). The Nordiska museet seems to be lacking this type of item, but there are 14 in the Pitt Rivers Museum, all from France. Five of these are amulets from St Barbara's Chapel (Brittany, Morbihan, Le Faouët), but no further information is provided. Some of the other staurolites are called 'Crosses of Coadry', and it is sometimes mentioned that they were used as a charm against evil. Elsewhere, staurolites were called fairy crosses, and one folk explanation for these crystals is that they are the petrified tears fairies shed when hearing of the crucifixion of Christ (Duffin & Davidson 2011, 11).

Imatra stones are eye-catching calcareous concretions occurring in the Vuoksi riverbed area in Finland. Similar concretions occur in other glacial sediments (e.g. Wu et al. 2021). There are seven of these in the Finnish magic collections, but only one is catalogued as an 'Imatra stone' (KM 1869:74). According to the catalogue this stone was scraped, and the powder used as medicine. One is called a cunning person's stone (*tietäjänkivi*). This one was soaked in water with other powerful stones. The water was then used to wash pain away (KM F1300). Two of the stones are catalogued as snake's court stones (KM F1240; 8104:4), and two are made into spindle whorls (KM 2378:29; 3588:6). The remaining stone is part of a set of a cunning person's paraphernalia in a textile pouch (KM 4808:14).

There are two calcareous concretions from Swedish Lapland in the Nordiska museet, where they are catalogued as *marleka* (NM.0244927A–B). The name refers to the Nightmare and playing (Carlquist & Carlsson 1951, 422–423), and it seems it was thought that the Nightmare was distracted to play with the curious stone instead of tormenting people or livestock. None of these stones was found in the Pitt Rivers Museum database searches. However, calcareous concretions are known as fairy stones, at least in Scotland (Duffin & Davidson 2011, 11f.).

#### Animal remains

Animal remains that are common in the magic collections are the remains of snakes, badgers, moles, and boar or pig tusks. There are four adders' heads (Vipera berus) in the Finnish magic collections (KM F1256; F1262; F2130; 7101:1). One item in the catalogue is snakemeat (KM 7101:2), but it is marked as destroyed. One of the adder's heads was used when making medicine for epilepsy by pouring rainwater through its throat, and another one when making medicine for bloating in horses in a similar fashion. The catalogue entry for one explains more generally that these were kept inside a wall to repel pests from the building, or shavings of one could be put on a snakebite, or if a malevolent person put it above someone's door, this would spoil the appearance of the girl in the house. The last is said to have been used to estrange two lovers. The cunning man Pekka Ruotsalainen had used the snakemeat when making medicine for a bloating horse or for sudden pain. It could be chewed before taking a drink of spirits when used as medicine. The collection also includes a snake skeleton and skin in a box of the cunning man Pekka Ruotsalainen's paraphernalia (KM 7340; Rytkönen 1932).

The Nordiska museet houses two snakeskins (NM.0097488; NM.0162542). One was used to heal rheumatism as recently as 1929. This collection also has a piece of a threshold of an animal shelter with two holes drilled into it (NM.0223480). One of the holes contains a snake, the other some iron objects for purposes of averting evil. Moreover, one container of magical objects includes some pieces of snakes (NM.00974). The Pitt Rivers Museum has a red silk bag amulet said to contain three snakeheads from Switzerland (1985.52.862) and a grey textile bag amulet containing a grass snake skin from Kazan in Russia (1985.52.236). Moreover, medical literature from medieval times until the eighteenth century includes hundreds of treatises advertising the medicinal and apotropaic virtues of snakes (Brévart 2008, 47–51). For example, the Dominican friars in Krakow popularized snake medicine in the early fourteenth century (Brévart 2008, 48). The *Hortus Sanitatis*, first printed in 1491, is one of the medical treatises that mentions the medicinal use of adders (See Figure 2; *Ortus Sanitatis* 1499; Bay 1917).

There are four catalogue entries for pig tusks (*Sus scrofa* or *Sus domesticus*) in the Finnish magic collections. One of these is two boar tusks that were used to heal sicknesses in horses and other farm animals (KM 8967:1420). A third boar tusk was used 'for healing', without further information (KM 8967:1421). The other two entries do not contain information about the use of the tusks (KM F1235; 3505:33). There is none of these in the Nordiska museet, but the Pitt Rivers database produced 27 boar tusks. Most of these are from Italy (two are from Switzerland, and one is from Albania), and almost all are mounted in metal with a suspension loop. They are labelled as amulets, some with the information that they used to be fastened to



**Figure 2.** Illustration for the chapter about adders (*vipera*) in the 15thcentury medical treatise *Ortus sanitatis* (1499), Liber II (De animalibus), Capitulum CLIIII.

horse gear. Boar tusks were also often part of the zoological component of *materiamedica* cabinets and collections from the early eighteenth century; they were powdered and incorporated into prescriptions for diseases of the throat and respiratory system (Duffin 2017).

There is one badger's foot (*Meles meles*) in the Finnish magic collections (KM F1553). It has come to the museum with a pair of fur mittens. Both objects belonged to the cunning man Juho Sarkkinen, who used them when divining the identity of a thief. The catalogue gives a case of a bird stolen from a snare as an example. The complex divining ritual began when Sarkkinen, while wearing the mittens, used the badger's foot to gather feathers remaining from the stolen bird. The Nordiska museet does not have any badger-related magic objects in its collections, but the Pitt Rivers Museum has three badger feet, and six badger skins or hair amulets. Two of the badgers' feet are from the UK and were 'used as a charm' (1985.51.351; 1985.51.353). The third is from Italy, and it is labelled as a 'possible amulet' (1985.50.911). The badger skin or hair amulets are all from Italy. There is fragmentary evidence that a medical treatise on the badger may have existed, and some recipes have survived (Brévart 2008, 8, 38).

'Of all animals it is the mole that the magicians admire most,' declared Pliny disapprovingly, before giving some examples of how the mole was used in divination and healing (Bostock & Riley 1857, 429). There is one dried mole (*Talpa europaea*) in the Finnish magic collections (HM 314:1). According to the catalogue entry it was used as an amulet when hunting bear, because this would prevent the animal from attacking. The entry of another object (tinder pouch) documents that moles were seen as the miniature of a bear, which is why they were thought to offer protection from bears (HM 188:14). However, in this case the informant had not agreed to sell the mole to the collector, even for a hundred marks. There are two dried moles in bags from the UK in the Pitt Rivers Museum (1911.75.15; 1985.51.373). These were used as amulets for protection from danger and to ensure good luck. Moreover, there are seven mole paw amulets in the Pitt Rivers, some of them consisting of pairs of moles' front paws. Five are from the UK, and two from France. They were used to cure toothache or cramps.

## Discussion

The above examples of objects that occur in magic object collections across Europe show that while there is similarity, there is also considerable variation. This is not especially surprising, as we are dealing with cultural traditions that were mainly transmitted orally and bodily (by showing how something is done). Moreover, folk categories are less strict and rigid than academic ones (e.g. Koski 2008). Yet it is interesting that there seems to be more variation in some object types (e.g. snake pebbles) and less in others (e.g. raven stones). This may be because when these traditions were adopted in some areas, older traditions might show more variation than younger ones. However, it would be a mistake to assume that a tradition was communicated in one contact event only (and only in one direction): it is more likely that we see multiple layers of traditions. Nor should the role of innovation be forgotten: perhaps some cunning people elaborated parts of the lore.

Alongside oral and bodily transmission, literature also played its role. Medieval medical literature seems to have had a great impact, and friars, nuns, or other medically adept literate people probably disseminated this information. Since the magic objects and traditions discussed in this paper are from the late nineteenth and early twentieth centuries, medical advice and narratives read in books may also have influenced the traditions multiple times in the postmedieval period. Previously, magic was seen as a relic of prehistoric religions that survived in peripheral areas. It is more likely that centres of human contact like harbour cities and religious centres like convents played key roles in distributing these practices. However, there is also some truth in the older view: where centres constantly receive new layers of popular magic (horoscopes, crystal ball gazing, spiritism, etc.), older layers of traditions may be preserved for longer at the peripheries.

Magic traditions did not travel by themselves, and they were not received passively. For example, local nature had its effect. Since naturally holed stones are rare in Finland, beliefs about them centred around human-made perforated stone tools. Fossils are also rare in the Finnish Precambrian bedrock, so beliefs about them are less relevant here. Nevertheless, uncommon objects have their place in magic traditions. Flint is also rare in Finland, but many of the snake's court stones are flint pebbles. Flint was imported as tools and raw material in the Stone Age and later, in the historical period, as ballast. Flint was therefore accessible, even though it was unusual. Magic fossils may occasionally have been acquired from neighbouring areas (e.g. Estonia, see Johanson 2018), but these have not ended up in the museum collections.

In addition to the natural environment, the local culture with its traditions and customs shaped any new magic traditions. New additions needed to make sense in the prevailing worldview for them to be interesting to people. Traditions may have been reinterpreted several times, and some practices may have been rejected. Furthermore, in classic literature such as the *Historia de Gentibus Septentrionalibus* (Description of the Nordic Peoples), printed in 1555, Finns were portrayed as adept magicians (Olaus Magnus 2010). We therefore cannot assume that Finland was only on the receiving end of magic traditions. The reputation may even have attracted magicians or cunning people to travel to learn the craft of the Finns (and Sámi). However, in the light of the available evidence it is difficult, if not impossible, to deduce the routes and directions of the interactions.

Yet when examining the examples above, one question that comes to mind is whether we are looking at branches of the same traditions known in different parts of Europe at all. Perhaps we are seeing the results of human cognition that make us experience magic in similar material things (cf. e.g. Whitehouse 2004; Sørensen 2007). For example, the eye-catching form of the calcareous concretions may have simply intrigued people independently in different areas. Thus, the materiality itself may be enough to evoke an idea of magic agency. This may well be the case with some of the object types, but similar narratives connected to many of them are probably the result of some form of interaction between people. However, as noted, individuals may reinterpret the traditions they pick up according to their imminent needs in the situations in which they find themselves.

There seems to be regional variation in the popularity of certain magic objects. For example, the most common animal occurring in the Finnish magic material is the bear (Ursus arctos). The Finnish collections include 74 catalogue entries involving bear remains (bear canines and claws are most common). In contrast, there are 12 bear canine amulets in the Nordiska museet (all but one from Lapland), and only three in the Pitt Rivers Museum (two from France and one from Italy). The Nordiska museet also has two bear claws in its collection. No other bear remains appeared in the database searches. Unfortunately, none of the bear remains in the Nordiska museet and the Pitt Rivers includes information about their use (except for as an 'amulet'). While bear magic was not unique to Finland and Lapland, it seems it was considerably more important in these areas. An obvious reason for this would be local nature and the geographical distribution of bears during the late nineteenth and early twentieth centuries (but this would not explain Sweden). Yet the bear played a special role in Finnish and Sámi (the native people of Lapland) mythology (e.g. Zachrisson & Iregren 1974; Sarmela & Poom 1982). Perhaps the remains of bears in the magic collections reflect a true regional difference. However, this question needs more thorough attention if it is to be properly answered.

#### Conclusion

While there are differences in the emphasis and uses of the magic objects, we still see similar types of objects all over Europe. Some evidence suggests that beliefs about these objects were very old – for example, when we find them in the writings of Pliny. However, Pliny's ideas were copied and redistributed in medieval literature. It is therefore difficult to know if this literature was indeed the medium that spread the practices. In any case, as has been noted, it seems the influence of medieval medicine must have been significant. As medicine was often connected with religious institutions such as mendicant orders, an entanglement of magic, religion, and medicine is revealed.

However, it was surprising that the Swedish collections were not more similar to the collections in Finland than those of the Pitt Rivers Museum. Instead, similarities and differences with the Finnish collections were found in both reference collections. Further studies are needed to properly discuss this observation, but the influence of individual collectors or museum policies is perhaps partly responsible. In any case, the idea Bonser published in 1925 that Finnish magic was isolated has not withstood the test of time. Indeed, in the light of the ample contacts Finns had with neighbouring peoples, this would have been quite extraordinary. It is telling that even the native word for magic, *taika*, is a loanword. Yet more detailed studies of local forms and international traits would benefit the field by shedding light on the dynamics of magic traditions. This paper should be seen as a preliminary study in this respect, which it is hoped will encourage further research.

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# Abbreviations:

HM (Hämeen museo): Hämeen museo collection, Museum Centre Vapriikki. Tampere, Finland.

KM (Kansallismuseo): The National Museum of Finland. Helsinki, Finland. NM Nordiska museet. Stockholm, Sweden.

SKS KRA (Suomalaisen Kirjallisuuden Seura, Kansanrunousarkisto): The Finnish Literature Society, Archive on Traditional and Contemporary Culture. Helsinki.

References

# Alanen, Aulis J.

1947 Lapuan "noidat." – Kytösavut: Etelä-Pohjanmaan Maakuntaliiton julkaisu 3, 143–96.

# Bailey, Michael D.

- 2008 The Age of Magicians: Periodization in the History of European Magic. Magic, Ritual, and Witchcraft 3 (1), 1–28.
- 2018 Magic. The Basics. New York: Routledge.

# Bassett, M. G.

1982 Formed Stones, Folklore and Fossils. Cardiff Wales: National Museums and Galleries of Wales.

# Bay, J. Christian

1917 Hortus Sanitatis. – The Papers of the Bibliographical Society of America 11 (2), 57–60.

# Bertell, Maths, Frog & Kendra Willson (eds)

2019 Contacts and Networks in the Baltic Sea Region. Amsterdam: Amsterdam University Press. (Crossing Boundaries. Turku Medieval and Early Modern Studies).

# Blinkenberg, Christian

1911 The Thunderweapon in Religion and Folklore: A Study in Comparative Archaeology. Cambridge: Cambridge University Press. (Cambridge Archaeological and Ethnological Series).

# Bonser, Wilfrid

1924 The Magic of the Finns in Relation to That of Other Arctic Peoples. – Folklore 35 (1), 57–63.

# Boschung, Dietrich & Jan M. Bremmer (eds)

2015 The Materiality of Magic. Paderborn: Wilhelm Fink Verlag. (Morphomata 20).

174

#### Bostock, John & Henry T. Riley (trans.)

1857 *The Natural History of Pliny,* Vol V (Books XXIV–XXXI). London: Henry G. Bohn. (Bohn's Classical Library).

#### Brévart, Francis B.

2008 Between Medicine, Magic, and Religion: Wonder Drugs in German Medico-Pharmaceutical Treatises of the Thirteenth to the Sixteenth Centuries. – *Speculum* 83 (1), 1–57.

#### Buss, Martin J., Murray Wax & Rosalie Wax

1965 On the Definition of 'Magic'. – Current Anthropology 6 (4), 469–71.

#### Cadbury, Tabitha

2015 Collecting Magic. – Material Religion 11 (3), 413–14.

## Cameron, Euan

2010 Enchanted Europe: Superstition, Reason, and Religion 1250–1750. Oxford: Oxford University Press.

#### Carelli, Peter

- 1996 Blixtar och dunder, Magiska under. Om åskstenstraditionen och förekomsten av stenåldersfynd i medeltida kulturlager. *Fornvännen* 91, 153–70.
- 1997 Thunder and Lightning, Magical Miracles: On the Popular Myth of Thunderstones and the Presence of Stone Age Artefacts in Medieval Deposits. – Hans Andersson, Peter Carelli, & Lars Ersgård (eds), *Visions of the Past: Trends and Traditions in Swedish Medieval Archaeology*, 393–417. Lund: University of Lund. (Lund Studies in Medieval Archaeology 19).

#### Carlquist, Gunnar & Josef Carlsson (eds)

1951 *Svensk uppslagsbok.* Band 19. 2. omarb. o. utvidgade uppl. Malmö: Norden.

### Dégh, Linda

1986 Introduction [Special Double Issue: The Comparative Method in Folklore]. – *Journal of Folklore Research* 23 (2/3), 77–85.

### Dent, J. Geoffrey

1965 The Holed Stone Amulet and Its Uses. – Folk Life 3 (1), 68–78.

#### Duffin, Christopher J.

- 2005 The Western Lapidary Tradition in Early Geological Literature: Medicinal and Magical Minerals. – *Geology Today* 21 (2), 58–63.
- 2011 Herbert Toms (1874–1940), Witch Stones, and Porosphaera Beads. Folklore 122 (1), 84–101.
- 2012 A Survey of Birds and Fabulous Stones. Folklore 123 (2), 179-97.
- 2013 Chelidonius. The Swallow Stone. Folklore 124, 81-103.
- 2017 Medicinal Boar's Teeth. Acta Historiae Medicinae, Stomatologiae, Pharmaciae, Medicinae Veterinariae 36 (1–2), 20–34.

# Duffin, Christopher J. & Jane P. Davidson

2011 Geology and the Dark Side. – *Proceedings of the Geologists' Association* 122 (1), 7–15.

# Edmonds, Radcliffe, G. III

2019 Drawing Down the Moon: Magic in the Ancient Greco-Roman World. New Jersey: Princeton University Press.

### Frazer, James George

1922 *The Golden Bough: A Study in Magic and Religion.* Abridged edition. New York: Macmillan.

### Finlands svenska folkdiktning VII, 3

1952 Folktro och trolldom. Människan och djuren. Gunnar Landtman, Vilhelm Eliel Viktor Wessman & Valter Wilhelm Forsblom (eds). Helsingfors: Svenska litteratursällskapet i Finland. (Finlands svenska folkdiktning VII, 3).

### Gaimster, David

2005 A Parallel History: The Archaeology of Hanseatic Urban Culture in the Baltic c. 1200–1600. – *World Archaeology* 37 (3), 408–423.

### Gosden, Chris

2020 Magic. A History: From Alchemy to Witchcraft, from the Ice Age to the *Present*. New York: Farrar, Straus and Giroux.

### Haavio, Martti

1942 Suomalaiset kodinhaltiat. Helsinki: WSOY.

1967 Suomalainen mytologia. Helsinki: WSOY.

# Häkkinen, Kaisa

2013 Nykysuomen etymologinen sanakirja. Helsinki: Sanoma Pro Oy.

# Hammond, Dorothy

1970 Magic: A Problem in Semantics. *American Anthropologist* 72 (6), 1349–56.

# Harva, Uno

1948 Suomalaisten muinaisusko. Helsinki: WSOY.

### Hirsjärvi, A.

1965 Ristikivi, kansainvälinen parannusväline ja amuletti. – *Suomen Museo* 72, 60–62.

# Hodder, Ian

2016 *Studies in Human-Thing Entanglement*. ian-hodder.com. <http://www. ian-hodder.com/books/studies-human-thing-entanglement>, accessed 16 June 2021.

### Hoggard, Brian

2019 Magical House Protection: The Archaeology of Counter-Witchcraft. New York: Berghanhn Books.

## Houlbrook, Ceri & Natalie Armitage (eds)

2015 The Materiality of Magic: An Artifactual Investigation into Ritual Practices and Popular Beliefs. Oxford: Oxbow.

## Hukantaival, Sonja

- 2015 Understanding Past Actions: Changing Attitudes towards Ritual, Religion, and Everyday Life. – Arvi Haak, Valter Lang & Mika Lavento (eds), *Today I Am Not the One I Was Yesterday: Archaeology, Identity, and Change*, 183–196. Tartu: University of Tartu. (Interarchaeologia 4).
- 2016 'For a Witch Cannot Cross Such a Threshold!': Building Concealment Traditions in Finland c. 1200–1950. Turku: SKAS. (Archaeologia Medii Aevi Finlandiae XXIII).
- 2018 The Materiality of Finnish Folk Magic: Objects in the Collections of the National Museum of Finland. *Material Religion* 14 (2), 183–98.
- 2019 Ukonvaajojen monet kasvot. Luokittelu- ja tulkintakysymyksiä. Janne Harjula, Visa Immonen & Juha Ruohonen (eds), *Puukenkien kopinaa. Henrik Asplundin juhlakirja*, 345–81. Turku: Arkeologia / Turun vliopisto. (Karhunhammas 19).
- 2020 Vital Scrap: The Agency of Objects and Materials in the Finnish 19th-Century World View. – Tiina Äikäs & Sanna Lipkin (eds), *Entangled Beliefs and Rituals: Religion in Finland and Sápmi from Stone Age to Contemporary Times*, 181–199. Helsinki: The Archaeological Society of Finland. (MASF 8).

### Hukantaival, Sonja, Tõnno Jonuks & Kristiina Johanson

2021 Materiality of Magic in Estonian and Finnish Museums. Unpublished manuscript.

#### Immonen, Visa

2007 Defining a Culture: The Meaning of Hanseatic in Medieval Turku. – *Antiquity* 81, 720–32.

### Issakainen, Tenka

2006 "Vainajien lapset". Taikaesineet ajassa. – Ennen ja nyt - Historian tietosanomat 6 (2). < https://journal.fi/ennenjanyt/article/view/108335/63354>, accessed 16 June 2021.

#### Jackson, William A.

2001 A short guide to humoral medicine. – *Trends in Pharmacological Sciences* 22 (9), 487–9.

#### Johanson, Kristiina

2009 The Changing Meaning of 'Thunderbolts.' – Folklore. Electronic Journal of Folklore 42, 129–74.

2018 Missing Interpretations: Natural and Residual Finds in Estonian Archaeological Collections. Tartu: University of Tartu. (Dissertationes Archaeologiae Universitatis Tartuensis 8).

## Koski, Kaarina

2008 Conceptual Analysis and Variation in Belief Tradition: A Case of Death-Related Beings. – *Folklore. Electronic Journal of Folklore* 38, 45–66.

## Krohn, Kaarle

1971 *Folklore Methodology*. Roger L. Welsch, trans. Austin & London: University of Texas press. (Publications of the American Folklore Society. Bibliographical and Special Series 21).

## Lehikoinen, Heikki

2009 Ole siviä sikanen. Suomalaiset eläinuskomukset. Helsinki: Teos.

### Manninen, Ilmari

1933 Kansanomaisesta tautiopista ja taikaparannuksista. – Eino Jutikkala (ed.), *Suomen kulttuurihistoria I*, 228–44. Jyväskylä: Gummerus.

### Morgan, Prys

1983 A Welsh Snakestone, Its Tradition and Folklore. – *Folklore* 94 (2), 184–91.

### Nuorteva, Jussi

1997 Suomalaisten ulkomainen opinkäynti ennen Turun akatemian perustamista 1640. Helsinki: Suomen historiallinen seura & Suomen kirkkohistoriallinen seura.

# **Olaus Magnus**

2010 *Historia om de nordiska folken*. John Granlund, ed. Hedemora: Michaelisgillet.

### Otto, Bernd-Christian & Michael Strausberg (eds)

2014 *Defining Magi: A Reader*. London & New York: Routledge. (Critical Categories in the Study of Religion).

# Parker, Adam & Stuart McKie (eds)

2018 Material Approaches to Roman Magic: Occult Objects and Supernatural Substances. Oxford: Oxbow Books. (TRAC Themes in Archaeology 2).

### Pearson, James L.

2002 Shamanism and the Ancient Mind: A Cognitive Approach to Archaeology. Lanham: Rowman Altamira.

# Piela, Ulla

2011 Esineen taika. – Aila Nieminen, Pia Olsson, Helena Ruotsala & Katriina Siivonen (eds), *Aineen taikaa. Näkyvän ja näkymättömän kulttuurin jäljillä*, 109–23. Helsinki: SKS.

178

### Pocock, David

2006 Foreword. – Marcel Mauss, *A General Theory of Magic*, 1–8. New York: Routledge. (Routledge Classics).

#### **Ortus Sanitatis**

1499 Ortus sanitatis. Strassburg : J. Prüss. <a href="http://archive.org/details/ortus-sanitatis00prss">http://archive.org/details/ortus-sanitatis00prss</a>>, accessed 8 April 2021.

### Pymm, Rachael

- 2017a 'A Charm to Impose on the Vulgar': The Medicinal and Magical Applications of the Snakestone Bead within the British Isles. – Christopher J. Duffin, C. Gardner-Thorpe & R. T. J. Moody (eds), *Geology and Medicine. Historical Connections*, 181–194. London: Geological Society. (Special Publications 452).
- 2017b 'Serpent Stones': Myth and Medical Application. Christopher J. Duffin, C. Gardner-Thorpe & R. T. J. Moody (eds), *Geology and Medicine*. *Historical Connections*, 163–180. London: Geological Society. (Special Publications 452).
- 2018 Snakestone Bead Folklore. Folklore 129 (4), 397–419.

#### Rantasalo, A. V.

1956 Korpinkivi. – Kalevalaseuran vuosikirja 36, 108–24.

#### Ratia, Katri

2009 Taikojen väkevät ainekset. Tutkielma väestä ja sen ilmenemisestä esineissä ja materiaaleissa vanhassa pohjois-suomalaisessa taikaperinteessä. Master's thesis. Jyväskylä: University of Jyväskylä. <https://jyx.jyu.fi/dspace/bitstream/handle/123456789/45665/ URN:NBN:fi:jyu-201504201621.pdf?sequence=1>, accessed 16 June 2021.

### Rytkönen, Ahti

1932 Tietäjä-Pekan taikalipas. – Kansan kuvalehti (16), 14–15.

### Sarmela, Matti & Ritva Poom

1982 Death of the Bear: An Old Finnish Hunting Drama. – *The Drama Review* 26 (3), 57–66.

### Sirelius, U. T.

- 1906 Muutamista suomalaisten taikakaluista. Virittäjä 10 (3–4), 33–40.
- 1921 Varautuminen. Taika- ja varausneuvot. Suomen kansanomaista kulttuuria, 554–61. Helsinki: Otava. (Esineellisen kansatieteen tuloksia II).

#### Skeat, W. W.

1912 'Snakestones' and Stone Thunderbolts as Subjects for Systematic Investigation. –*Folklore* 23, 45–80.

#### Sørensen, Jesper

2007 A Cognitive Theory of Magic. Lanham: AltaMira. (Cognitive Science of Religion Series).

## Stark, Laura

2006 *The Magical Self: Body, Society and the Supernatural in Early Modern Rural Finland*. Helsinki: Suomalainen tiedeakatemia. (FF Communications 290).

## Tillhagen, Carl-Herman

1962 *Folklig läkekonst.* 2. uppl. Stockholm: LTs förlag.

## Trigger, Bruce G.

2006 A History of Archaeological Thought. 2nd Edition. Cambridge: Cambridge University Press.

## Tylor, Edward B.

1891 *Primitive Culture: Researches into the Development of Mythology, Philosophy, Religion, Language, Art, and Custom.* Vol. 1. 3. edition, revised. London: John Murray.

## Wallis, Faith (ed.)

2010 Medieval Medicine: A Reader. Toronto: University of Toronto Press.

### Whitehouse, Harvey

2004 Modes of Religiosity: A Cognitive Theory of Religious Transmission. Walnut Creek, CA: AltaMira. (Cognitive Science of Religion Series).

### Wilburn, Andrew T.

2012 Materia Magica: The Archaeology of Magic in Roman Egypt, Cyprus, and Spain. Ann Arbor: University of Michigan Press.

### Wilson, William A.

- 1976 The Evolutionary Premise in Folklore Theory and the 'Finnish Method'. *Western Folklore* 35 (4), 241–9.
- Wu, Yongkang, Shengmin Luo, Dongfang Wang, Stephen J. Burns, Emily Li, Don J. DeGroot, Yu Yuzhen & Guoping Zhang
- 2021 Origin, Growth, and Characteristics of Calcareous Concretions in the Varved Sediments of a Glacial Lake. – Engineering Geology 287, 106–12.

## Zachrisson, Inger & Elisabeth Iregren

1974 Lappish Bear Graves in Northern Sweden: An Archaeological and Osteological Study. Stockholm: Vitterhets-, historie- och antikvitets akademien. (Early Norrland 5).

### Zingerle von, Oswald

1891 Segen und Heilmittel aus Einer Wolfsthurner Handschrift des XV. Jahrhunderts. –*Zeitschrift des Vereins für Volkskunde* 1, 172–7, 315–24.