

# BETWEEN RECONSTRUCTION OF THE PAST, VISITOR EXPECTATIONS AND ANIMAL WELL-BEING

## Told and Untold Stories about Human–Animal Relationships at Open-air Museums

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As most open-air museums focus on preindustrial rural living conditions, they exhibit historical farmhouses that are presented in a specific holistic way, including the surroundings and livestock. Although these presentations create the impression of historical authenticity, they must remain incomplete due to missing sources and practical exhibition reasons. This also involves the human–animal relationships. Moreover, most visitors cannot interpret the settings displayed properly due to missing knowledge. After highlighting some historical aspects of human–animal relationships using the example of northwest German farmhouses, the article deals with the limits and opportunities of the open-air museums' presentation of human–animal relationships based on a survey among German-speaking open-air museums. Finally, it pleads for a transparent approach to sensitize the visitors to humans' current handling of and attitude towards animals.<sup>1</sup>

*Keywords:* authenticity, museology, open-air museum, human–animal relationships, agricultural history

### **The Basic Story of Open-air Museums – Former Ways of Living and Architecture**

Architecture organizes both ways of living and human–animal relationships (Dodington 2015: 41–42). Relationships between humans and animals materialize in buildings. Open-air museums display buildings; they collect, preserve, explore and exhibit them (Deklaration 1982; Handschuh 1990; Rentzhog 2007). Most of the open-air museums focus on rural living conditions in the preindustrial era.<sup>2</sup> They reflect the changes in rural areas and rural living

conditions triggered by nineteenth-century agricultural modernization. Right from their beginnings in the late nineteenth century, the open-air museums' view of the rural past was influenced by civilization's scepticism. However, simultaneously, they fulfilled a compensatory function, as they mitigated the effects of modernization which particularly affected rural architecture by abandoning traditional building patterns (cf. Apel & Carstensen 2001: 657). In preindustrial times, most people lived in the countryside and made their living from agriculture – production

of field crops, livestock and breeding. Accordingly, the coexistence of humans and animals, the way in which humans handled their livestock and other animals, and how they cultivated and harvested plants are documented in many of the buildings shown in open-air museums. To be more precise: buildings in open-air museums represent the museum's reconstruction of this life.

### **Told but mostly not understood Stories – Domestic Animals at Open-air Museums**

Most open-air museums compose(d) their buildings to show specific regional styles of preindustrial rural architecture, differentiated by social distinctions or architectural changes during history. Therefore, open-air museums display many different forms of farmhouses, and bigger museums referring to larger districts – similar to the Ballenberg open-air museum that represents the whole of Switzerland – even show many kinds of farmhouses and, thus, different kinds of human–animal cohabitation. The following remarks focus initially on one regionally specific example of the conditions in northwestern Germany, where the so-called *niederdeutsches Hallenhaus*<sup>3</sup> (low German hall house) (Stiewe 1997) had dominated since the Middle Ages, with the exception of the coastal areas near the North Sea, where the so-called *Gulphaus* became common from the sixteenth century onwards (Gläntzer 2002). In contrast to other parts of Germany that switched over to the year-round stall-feeding of cattle from the eighteenth century (Nisly 2019), farmers here continued grazing their cattle outside on pastures during the summer (cf. Achilles 1991: 24; Bölts 1966: 208, 222). Nevertheless, during the winter, most farmers lived together with their cattle, chickens and horses (if they could afford to keep some) in the same building, too, not only under one roof but also on the same (ground) floor. Both – *Hallenhaus* and *Gulphaus* – realized this kind of interspecies cohabitation, and yet, they stand for quite different human attitudes towards their animals (cf., in detail, Schimek 2018).

After these northwest German examples, the focus widens to open-air museums' ways of reconstructing and conveying historical human–animal relation-

ships referring to museums throughout Germany including an Austrian and a Swiss one on the basis of a survey I carried out for this article. In addition to this, my reflections are founded on my own experiences as an open-air museum curator, talks with colleagues and observations in different museums.<sup>4</sup>

### **One Story: Human–Animal Cohabitation and Social Status**

Different attitudes towards animals kept in *Hallenhaus* or *Gulphaus* farmsteads can be observed from their ground plans and the organization of the human–animal cohabitation materialized in the buildings which are shown, for example, in the open-air museums of Cloppenburg or Molfsee. Until the early twentieth century, the *Hallenhaus* farmers put great value on the constant supervision of their livestock: at most, a breast-high gate separated the stable area from the kitchen area (*Flett*) (see figure 1). When a dividing wall was constructed between the stable area and the *Flett* in order to reduce drafts (Ottenjann 1936: 53), this partition was so generously windowed that eye contact between humans and their cattle was always possible. Even from the *Kammerfach* – the actual living area of the farmer and his family which was situated beyond the *Flett* – windows enabled them to monitor livestock and staff constantly (Jansen 1909: 62). Also, the maids and farmhands had their sleeping places in the immediate vicinity of the cattle: the farmhands were located next to or above the horse stables (Jansen 1909: 62), and the maids slept closer to the cows in the *Flett* area. This brought a particularly dense, physical closeness between humans and cattle that made a constant verbal and nonverbal communication possible. All the sounds of the cattle were heard; humans could always talk to the animals when an animal was restless, for example, due to illness or an impending birth. During the winter, the male servants sleeping in the unheated chambers above the stables barely benefited from the heat emanating from the horses, moreover, the humidity and odours of the cattle and its manure had to be accepted. Therefore, on the human side, a socially staggered move away from livestock is noticeable, but while the farmer and his family were looking to distance



Figure 1: Cohabitation of humans and cattle without architectural separation in a low German hallhouse: Observed from the cows' position, from their deep stable, two men are enjoying their pipes while the smoke from the open-hearth fire cures the bacon, ham and sausages under the ceiling. Around 1940, Garrel (County of Cloppenburg). (Photo: Bilderwerk Münsterland Museumsdorf Cloppenburg)

themselves from their livestock in the *Kammerfach* at night, they left their staff in the proximity described (cf. Kaiser 1982). The usual alcove beds, which could be closed using doors or curtains, were also influenced by livestock husbandry: they not only provided more warmth and privacy than open bedsteads, but above all, they protected humans from the many flies caused by living with the cattle in the same house. Thus, the museums' *Hallenhaus* farmhouses record different forms of human–animal cohabitation depending on and creating different social status.

### Another Story: Human–Animal Relationships and Different Forms of Agriculture

Cattle and horses were lined up on either side of the centrally located hall-like *Diele*, from which the cattle were fed. The cattle stood there during the six

months of winter – cows on one side and calves on the other – in so-called *Tiefställe* (deep stables or stalls), positioned about 60 cm deeper than the *Diele* (Jansen 1909: 62; Kaiser 2008: 12; Ottenjann 1936: 51). The valuable manure was collected in these and it was enlarged by the litter of straw chaff or, in poorer areas, foliage and heather (Jansen 1909: 56; Kaiser & Ottenjann 1998: 139–140). The animals stood, thus, in their own dung, which mounted up higher and higher while the manure ripened in there protected from the weather. Therefore, the mucking out at longer intervals was physically hard work. The dung hill was piled up at the entrance gate of the farmhouse (Jansen 1909: 56), where the free-range chickens could look for food. For milking, the farmer's wife or maid – milking was women's work in most places – had to get into the dung-filled

*Tiefställe* with the dirty cows. Food and water – up to 60 litres per animal per day, which had to be carried inside in buckets (Jansen 1909: 81; Kaiser 1995: 11) – were given to the animals from the *Diele*. Removable timbers made sure that the cattle did not leave their stable compartments but only put their heads through towards the *Diele* for eating and drinking; these timbers could be moved if necessary, to let the cattle in and out. Until the nineteenth century, the animals were able to move freely within the box-like stable compartments (Ottenjann 1936: 51). Relatively few cows were kept in many inland, less fertile regions, and they were mainly fertilizer producers and utilized only secondarily for milk and meat production, and instead of expensive horses as draft animals on poorer farms. Later, with an increase in livestock numbers, the cows were packed tighter and were tied by the head, firstly with ropes, and recently to the present, mostly with specially constructed chains. The *Hallenhaus* cowsheds and the similarly built stables were low, dark and humid, the latter because of the fermenting dung (Kaiser 2008: 12). Therefore, the historical *Hallenhaus* farmhouses displayed in open-air museums reflect not only social differences but also a specialized form of agriculture that shaped the living conditions of the livestock.

In contrast to this, the living conditions of both humans and animals differed in the *Gulphaus*, although human habitation and the stabling of cattle and horses were also united in this type of building: between its stable and its living quarters was usually a corridor, which served as a transitional area and dirt sluice, and hindered a constantly free line of sight into the stable (Jansen 1909: 67, 84; Rauchheld 1913: 317). The cattle were kept in *Hochställe* (high stables or stalls), which meant only a little litter. The cows stood there in pairs, separated from their neighbours by low board walls (*Schotten*), and each cow was tied with its head to the outer wall. Behind them ran a masonry manure drain (*Grope*), where the effluent gathered, and the liquid manure was diverted outside (Jansen 1909: 79). The stable was mucked out twice a day to keep the livestock clean. The mucking out and milking were more comfortable duties in the *Gulphaus* (Rauchheld 1913: 316). The cows'

udders were highly visible in this form of stabling, and expert visitors – like other farmers – were able to estimate the milk yield (cf. Jansen 1909: 80). Not the cost-causing heads and mouths to be fed as in the *Hallenhaus*, but the money-making calf- and milk-producing rear parts were presented in the high stables as if they were on a stage. However, the feeding was more difficult for the farmhands, because the food had to be presented to the animals in the so-called *tail feeding* from behind. The platforms of the high stables were relatively short to ensure that the manure fell reliably into the *Grope*, which took the cows some time to become accustomed to (Jansen 1909: 79–80). Similar to the *Hallenhaus* farmers, the *Gulphaus* farmers who had farm servants let them sleep close to their livestock either in alcove beds in the corridor or – especially the farmhands – in the stable near to the very precious horses (Jansen 1909: 77, 83), so they could always react immediately in case of problems. The *Gulphaus*, with sophisticated living conditions for the farmer, was better suited to a market-oriented economy as was practised on the fertile coastal soils (Bölts 1966: 231–232; Jansen 1909: 67).

However, the way in which humans lived with animals caused social differences. These can be noticed not only inside the farmhouse concerning the farmer's family and his servants but also referring to varying economic opportunities of farms in general. Unlike those middle- and upper-class conditions mentioned, many northwestern German smallholder farmers could not afford such a structural separation from their livestock until the twentieth century and even had to keep their pigs in the house (Jansen 1909: 62; Kaiser 2008: 17, 18). Due to the pungent smell emanating from the pigsties, richer farmers built separate ones for their pigs as soon as they could afford them. Compared to other domestic species, pigs were mostly kept in rather poor building conditions, such as ramshackle sheds (Kaiser 2008: 17–40).

### **A Third Story: Species-specific Esteems**

Consequently, open-air museum presentations of different accommodations for animals and humans also show the different valuations for different spe-

cies, including humans, depending on the material opportunities applicable, social status and regional traditions. The rarely displayed doves, for example, are a sign of a prosperous lifestyle because only a few wealthy farms kept pigeons. Other stables represent special subsistence strategies, similar to the sheep barns often shown that were built for dung gathering in the pastures remote from the farms (Jansen 1909: 62; Schröder 1993), or apiaries, which were placed near the bee pastures. A striking example is the snail garden shown at the Beuren open-air museum; people in southwestern Germany would breed grapevine snails to enrich the menu.

This also applies to other architectural details referring to additional animal inhabitants. There are the “cat holes” cut into the entrance gates of many farmhouses in the open-air museums, through which the mousers were able to enter and leave the house unhindered. The large entrance gates of *Hallenhaus* farmhouses, accessible by the loaded harvest wagons, proved to be a sophisticated species-specific entry and exit barrier. They were either divided horizontally, so that light and air could pass freely through during daytime, mostly through the open upper half, or if the gate wings were undivided, breast-high “rear gates” ensured that no quadruped could slip through (Jansen 1909: 59). So free-range cattle could not run in or out and simultaneously, the lighting and ventilation of the hall was guaranteed. In the gable tops of some houses owl holes (*Eulenlöcher*) were cut out (Rauchheld 1913: 313), so that owls could fly into the attics, have their nests there and chase mice and other rodents to protect the crop stored there to feed humans and cattle. The coops for the free-range chickens (*Hühnerwiemen*), a rack on which the chickens spent the night, were installed in the halls of the *Hallenhaus* farmhouses. During the daytime, they had to look for fodder outside. A chicken ladder often made it possible for them to enter and leave even when the entrance gate was closed. At the end of the nineteenth century, larger farms throughout Germany had animal-powered power plants, such as horse-gins, operated by horses (*Rossmühle*, *Göpel*), oxen or cows, which had been harnessed to the gin and by which, for ex-

ample, threshing machines were driven. Even dogs were placed into special treadmills or wheels to drive churns for producing butter (Jansen 1909: 81; Kaiser 1997). Farm wagons and carriages, ploughs and other equipment point to the importance of horses, steers and cows as draft animals. Even dogs and goats were sometimes harnessed to carts. All this can be found in and around the farmhouses of many open-air museums.

In addition to livestock reared for economic reasons (Petrus 2015c), pet animals (Petrus 2015a) that were kept for rather emotional and/or prestige reasons also lived on a farm. Sometimes, dogs could receive both utility and pet status, depending on the extent to which they had to exercise warning and protective functions as farm dogs and had to provide work services within the peasant economy or contribute to the well-being of their owners as petting animals and/or living prestige objects. Figurative representations in wall decoration, such as Delft tiles imported from the Netherlands especially for the social upper strata, testify to the esteem in which people held the working – cattle or horses – or petting – dogs or birds – animals at this time (see figure 2). Birdcages also refer to pet animals serving the emotional needs of peasants. This appreciation of certain species seems to be the reason for the ornamentations in the shape of horses’ heads or swans on top of the roofs of many farmhouses in northern Germany (Heuer 1999). Today, open-air museums no longer interpret them as remnants of pre-Christian Nordic-Germanic beliefs, as they did until the 1940s.

However, open-air museums’ presentations do not only refer to pets and livestock as they were kept for useful reasons in connection with preindustrial agriculture. Some of the most striking examples are the stork nests, for which special substructures were installed on top of the roofs so that the lucky charms did not settle on the chimneys and clog them. The *Écomusée d’Alsace* in Ungersheim, France, houses an impressive veritable colony of storks.<sup>5</sup> On a smaller scale, nesting boxes for birds mounted on the gables and small openings in the entrance gates left for swallows give evidence of the human nesting aid for



Figure 2: Gendered animal-keeping as wall decoration: In most regions, women had to handle the cows and men the horses. Dutch tile tableau from the late nineteenth century, shown in the open-air museum in Cloppenburg. (Photo: Michael Schimek)

valued wild animals (Faria & Horta 2015), appreciated as lucky charms and insect eaters.

The opposite behaviour was shown by humans to troublemakers and food competitors. Traps were set up against flies and especially mice. In some regions, special storage buildings were developed that seem to hover as they are based on special anti-mice pillars, as shown in the open-air museum in Detmold (see figure 3). For the same reason, it was a common practice to hang food from the ceiling to protect it against mice, or to save it in certain storage containers, such as bread cabinets.

### Communication Problems

All the farmhouses and stables exhibited in open-air museums were built originally to fulfil the requirements and attitudes that were in many ways interlinked and formed the people previously living in them. They show regional and social accordance and differences and historical developments concerning former rural living, including human–animal relationships. At least, they show the material frame and the remains of it. However, the stories behind the houses and their equipment are seldom told due to specific reasons related to open-air museums. As far

as the historical rural human–animal relationships are represented in material culture, the so-called holistic mode of presentation, which is characteristic of open-air museums, also depicts the former living of humans and animals. Holistic means that all the objects – from the house to the sewing needle – are shown exactly in that place where they (might) have been in the past, based on their functions. Everything is shown in a “lifelike” manner and allegedly “authentically” furnished. The houses are placed in an environment that corresponds to a model landscape, including the position of the buildings, the gardens and the design of the paths. Concerning human–animal cohabitation, the farms presented consist, on the one hand, of furnished living areas for humans and, on the other hand, of stable areas for animals, equipped with appropriate livestock-related implements such as manure forks, push carts, milking stools and buckets, and bridles.

But what do the visitors get from all this? How are they informed about the variety of historical human–animal relationships realized in a farmhouse, on a farm or in a village? In what ways are the differences described in social, species-specific, regional and temporal terms that are visible on the



Figure 3: Structural protection against food competitors: On anti-mice pillars hovering granary built about 1820 in Lasbeck (County of Coesfeld), shown in the open-air museum in Detmold. (Photo: Michael Schimek)

buildings and their structural and furnishing details legible for them? In the first place, most open-air museums rely on their holistic presentation method and the idea that the objects in their settings arranged according to their function explain each other and, thus, illuminate the context (for criticism of this, see Könenkamp 1988: especially 146–151; Dröge 1993). Yet, what Lenz Kriss-Rettenbeck had already noted in 1981 regarding the lack of interpretive capacity of the open-air museum visitors is even more valid today. Many museologists complain that most visitors no longer have an agricultural background and written guides are rarely consulted, thus, there is only a little knowledge available to decipher the settings presented in all their details and to interpret the buildings in all their various dimensions

properly (survey 2019). Just a very few visitors can imagine the work done by humans and animals on a farm in preindustrial times, which Kriss-Rettenbeck pointed out in the 1980s, anticipating today's epistemological interest:

However, the energy to be used is not a mechanical power supplied by coal, hydropower, oil or petrol or nuclear power, but power distributed in small portions that must be extracted from or better squeezed out of organisms. These organisms are not called [...] tractors, pneumatics, electrics [...] etc. These organisms of the preindustrial peasant culture are effective in the fingers, hands, arms, shoulders, legs and backbones of grandfather and grandmother, father and mother, fore-

man (Baumer<sup>6</sup> [Großknecht]), horse's farmhand (Rossknecht), mid-farmhand (Mitterknecht), small farmhand (Knecht [Kleinknecht]), stable maid and kitchen maid (Kuchldirn) and of children whose performance is strengthened only in the bodily extent by handy device. The bipeds are joined by the four-legged fellows as energy suppliers. The energy problem consists here in the muscle strength, in the sensorimotor reaction ability, in the health and willingness to work of the human and animal individual. (Kriss-Rettenbeck 1981: 15)

Obviously, Kriss-Rettenbeck refers to the conditions of a large farm that employs a lot of personnel with a finely graduated hierarchy underlaid. However, he also clearly states the difficulty and heaviness of the physical work performed daily by humans and animals. But how should this hierarchy, severity of labour and the teamwork of the different species be communicated to museum visitors?

It's true that many open-air museums present permanent exhibitions about the animals that were kept in their stables and farmhouses at their original location, but they do this quite rarely in the view of the large number of stables. One example is an exhibition in Bad Sobernheim about the *Glanrind*, a regional cattle breed from the river Glan. The reason for this restraint might be caused by the necessary use of information boards, showcases or other media that would disturb the holistic kind of presentation. In addition, the farms exhibited in an open-air museum come from the same or adjacent regions where often the same breeds were kept, which means most stables have to stay without information in order to avoid repeating it. Most of the permanent exhibitions prefer mammals, especially large livestock, such as cows and horses, like the one about the *Senner Pferde*, a horse breed from the Westfalian Senne region, displayed in Detmold. Temporary exhibitions are devoted to certain species of animals, such as that shown already in 1993 in Cloppenburg on "Farmer's dogs and cart curs" (*Bauernhunde und Karrenköter*) (Kaiser 1993). Most museums use boards to inform their visitors about the animals shown, which causes problems with free-ranging species positioned away from their

information (Dröge 1993: 43; survey 2019, no. 10); moreover, some offer other written explanations in guide-books or special short guides (Dröge 1985: 180). Multimedia is used rather rarely (survey 2019).

Museologists emphasize that thematic guided tours and educational programmes are most likely to communicate the topic in question successfully, especially because the visitors are addressed more emotionally (Meiners 2016: 4; survey 2019). However, as these mediation formats usually must be booked selectively in advance, they reach only a small part of the audience. In addition, almost all open-air museums offer theme days dealing with real animals, usually in cooperation with external breeders, clubs and associations, such as the *Gesellschaft zur Erhaltung alter und gefährdeter Haustierrassen* (Society for the conservation of old and endangered livestock) (survey 2019). They are very popular and well-attended but raise difficult questions about animal welfare and visitor safety<sup>7</sup> and convey relatively little about historical livestock conditions, as the animals are presented mainly outdoors in action rather than indoors in their historical stables.

### **The Story of Open-air Museums as Saviours of Endangered Species**

Since the most popular storytellers are the animals themselves, almost all open-air museums keep them (survey 2019). At a first glance, the keeping of animals seems to correspond perfectly to the holistic open-air museum presentation style. Until the 1980s livestock keeping may have served primarily to enliven the museums' presentations and to increase their attractiveness (survey 2019); but since then many open-air museums became involved in the conservation of endangered livestock (and crops) as part of a "historical ecology" (Carstensen 1999; Rentzhog 2007: 403–404). This reaction to the modern intensive agriculture, that has given up the cultivation, keeping and breeding of old, but low-yielding crops and livestock breeds for profitability reasons, was preceded by the French kind of so-called *écomusée* (Korff 2002b) in the 1970s. Just as they previously saved threatened historical buildings and equipment by their museumization, open-air museums



do so today with living plants and animals, which they perceive as historical artefacts – because mankind bred and shaped them for their needs – and as cultural assets and a cultural heritage that has to be protected (Carstensen 2011; Meiners 2016: 2; Roscher 2014: 19; survey 2019; Sternschulte 1995: 5). The open-air museum Hessenpark in Neu Anspach even takes part in the “Ark project”<sup>8</sup> that was founded to save rare breeds. A certain scepticism about the current agricultural development becomes evident among the museums, though there are also opinions that question the necessity of keeping old breeds alive to refresh the gene pool at some point in the future (Roscher 2014: 21–22).

However, the reference point for the presentations is always the humans and their cultural development and history, their needs and, above all, their points of view (cf. Meiners 2016: 8). In fact, this is true in two aspects: firstly, the historical humans – and not the animals – are focused on in the presentations and, secondly, it is the point of view of the respective museologists, and their interests and attitudes that determine the presentations and reflect, at the same time, a broader social attitude. This is no longer a constantly male domain, because many women are now working at open-air museums, some in leading positions. But the perspective still remains Central European. Thus, open-air museums consider themselves not only as architectural museums displaying historical buildings from different regions with different ways of construction, but they understand themselves also as repositories of human knowledge and intermediaries of historical forms of human culture and life. This also implies keeping and breeding animals and conveying information about them.

The extent of the involvement differs depending on the local possibilities. Large museums have up to 300 animals (Carstensen 1999: 67, 78), smaller ones correspondingly less. Many institutions, especially bigger ones such as those in Detmold, Neu Anspach or Kommern, participate actively in the breeding of old domestic breeds (Carstensen 1999: 61, 72), which requires staff-intensive year-round qualified care (Bedal 1997: 21, 28); smaller open-air museums care for animals only during the summer half-year and

loan them from their external owners, as most close anyway during the winter. The majority keep them as property throughout the year. Most museums have chickens, followed by sheep, bees, geese, cows, pigs, goats and horses. Rabbits and donkeys are less common, and only individual museums keep peacocks, pigeons, ducks, turkey, snails and fish, such as carp or pike (survey 2019). Surprisingly, hardly any open-air museums have cats or dogs, although they lived on most farms in past times.

It is important to the open-air museologists that not just any breeds are kept, but only those breeds that fit in regionally with the respective open-air museum (Ernst 1985: 190–191; Sambraus 2010; Sternschulte 1996: 186–188). Thus, the Rhineland-Palatine Open-air Museum in Bad Sobernheim keeps *Glanrinder* and *Coburger Fuchsschafe* (fox sheep from the Coburg region), the Lower Saxon Open-air Museum Museumsdorf Cloppenburg *Ostfriesisch-Alt-Oldenburger Pferde* (East-Frisian old-Oldenburg horses), *Bunte Bentheimer Landschweine* (Bentheim black pied pigs) and *Emden Gänse* (Emden Geese), the Westfalian Open-air Museum in Detmold among other species *Senner Pferde* and five regional breeds of chickens, the Hohenlohe Open-air Museum in Wackershofen *Schwäbisch-Hällische Landschweine* (Swabian-Hall pigs), and so on. Most museums just show their animals to their visitors. In addition, a few museums also use their animals for demonstrations of historical working techniques, for example, horses and oxen as draft animals pulling wagons, harrows and ploughs, they show sheep-shearing by hand or smiths working on horses' hooves. A very few employ their animals as part of a historically operating agriculture (Bedal 1997: 29; Kamp 2017a: 119; Tobler 2015: 13–14). However, providing such a historical agriculture needs more staff, such as farmers and/or animal keepers (cf. Tobler 2015), and only well-equipped museums can afford this. Therefore, cooperation with breeders, breed societies and associations mentioned above plays a major role at most museums (Carstensen 2011; survey 2019).

As a further contribution to species protection (Benz-Schwarzburg 2015) and biodiversity, environmental protection has mostly been extended

to the museum grounds, with its entire flora and fauna (Renzthog 2007: 402–406). This includes the protection of wild herbs, which are often treated as weeds outside of open-air museums, and rare wild animals, such as bats, solitary bees (Carstensen 1999: 61, 71) and other insects, birds (e.g. swallows, owls, kestrels) and amphibians (toads and frogs) (survey 2019). Many museums offer their visitors special information about their wild inhabitants. Some open-air museums, such as the one in Lindlar, near Cologne, founded in 1985 as the Open-air Museum for Ecology and Peasant Handicraft Culture (Bergisches Freilichtmuseum für Ökologie und bäuerlich-handwerkliche Kultur), regard this as a central aspect of their work (Carstensen 1993: 52–57; Kamp 2017a: 115–116, 2017b). At the same time, the fact that open-air museums themselves disturb many original biotopes is largely ignored (Dröge 1985: 177). Firstly, the necessary structural facilities and, secondly, the high numbers of visitors put a strain on the origin biotopes.

### **Limits of Human–Animal Storytelling at Open-air Museums**

The holistic claim of an open-air museum's presentation, which looks as if the farmer and his livestock have just left and will come back soon, was questioned critically from the 1980s onwards (Freckmann 1982; Handschuh 1990: 790–797; Kreiling 1985, 1992). Often only an idealized picture can be drawn. A house represents so many references to life, for which there is no sufficiently dense source material to illuminate every performance in the past to the last. This is especially true when it comes to representing the individual living conditions on a farm or in a house. The further back the representation reaches into the past and, consequently, contemporary witnesses to ask about the time can no longer be found, the more difficult the display becomes. The reconstruction of living conditions and especially livestock farming based on object analysis and the evaluation of written sources, such as wills, inventories and travelogues, must remain patchy. Even if an excellent tradition of historical sources allows a very dense reconstruction, this always remains only par-

tial, in view of the diversity and complexity of past realities. In spite of or – to be more exact – because of their meticulous scientific research, open-air museums, therefore, tend to offer “as far as we know it has probably been like this”-type of presentations rather than “this is how it was”-type of displays, although the holistic settings convey the impression of the latter.

To make things more complicated, open-air museologists have to decide on certain historical situations and suitable objects which they deem worth displaying, as it is not possible to show everything at the same time. The holistic mode of presentation demands synchronous presentations. Diachronous presentations in younger museum displays refer almost exclusively to building history, using rather small “windows of findings” illustrating changes in construction or colouring.<sup>9</sup> Referring to human–animal relationships, it is hardly possible to show the seasonal changes in human–animal cohabitation connected with cattle supply of both summer and winter in the same building simultaneously. Even the daily routine, with its various operations, cannot be displayed in the holistic mode. The buildings are like stages on which the play “How people used to live on farms” is performed, but there is always only one scene shown: Most open-air museums seem to present human–animal cohabitation on a summer's Sunday morning, since both cattle and humans are missing. Presumably the cattle are grazing on pastures outside and the farm's people are attending the church service.

The holistic presentation mode also faces serious technical problems: due to its limited size, the terrain of an open-air museum hardly offers the possibility of reproducing all the landscape and architectural references of the model settlement situation with its gardens, fields, meadows, pastures, fallow, moorland and heathland or forest realistically (Keim 2007). Thus, smaller open-air museums do not have the necessary meadows and pastures to be able to feed their animals all-year round without buying fodder from outside (Ernst 1985: 190; survey 2019). The “reality problem” continues in the buildings; for example, they are insulated from the earth's moisture for

reasons of conservation and, therefore, have a drier room climate than the historical model situation. When furnishing the houses, inventory of different provenance is normally used because the building's own equipment is not completely or not preserved at all. Some implements, for example threshers, chippers, scythes and axes, can only be shown secured or not at all, for security reasons.

Showing especially the animal husbandry in a historical way, which is particularly desirable according to the holistic principle, proves to be a technically difficult, ethically questionable and legally partially impossible problem. Although geese, goats, pigs and cows had already been kept for ages in Skansen – the first open-air museum founded by Artur Hazelius in Stockholm in 1891 (Rentzhog 2007: 8, 402) – without questioning, there came up a critical discussion about the enlivening of open-air museums in Germany in the late 1970s and early 1980s. Main issues were the use of museum staff dressed in historical costumes, the organization of folklore events and commercial activities and craft demonstrations, but animal husbandry was touched, too (Bedal 1997: 20; Ernst 1985; Korff 2002a, 2002c: 98–102; Rentzhog 2007: 347–350; Zippelius 1974: 18–20, 1981: 106). Not only was a superficial “disneyfication” contrary to the museum's educational mission feared, but also the danger that open-air museums might become too similar to zoos. Nevertheless, nowadays, most open-air museologists regard keeping animals as an important part of the holistic presentation (survey 2019). Consequently, almost every open-air museum keeps animals and the visitors expect it. An open-air museum that has no or only a few animals, is considered, particularly by children, to be lifeless and boring (Bedal 1997: 19; Ernst 1985: 191; Huwyler 1999: 54; Meiners 2016: 5; survey 2019; Tobler 2015: 20). A survey among the visitors of the Kiekeberg open-air museum has revealed that, apart from the historical houses, the animals presented are the most important for them (Stiftung Freilichtmuseum am Kiekeberg 2018: 21). Another museum estimates that about 20 percent of its visitors come exclusively because of the animals displayed (survey 2019, no. 14). It is not without reason that open-air museum

mascots, which are supposed to make the museum's visit more interesting for children, are represented by animals, such as Frieda and Anton, the “museum mice” of the open-air museum in Bad Sobernheim, Mäcki, the “museum cat” in the museum in Hagen or Mechthild, the hen in the museum in Veßra.

Apart from the problem of growing enough food mentioned several times in the survey (survey 2019), no open-air museum has the necessary personnel to populate all the farms and stables shown with the species enumerated above, also considering that the stocking of cattle in preindustrial times with often less than ten cows was significantly smaller than the normal size of herds today (cf. Abel 1962: 221; Böltz 1966: 200–201). Even the running of one single museum farm and the keeping of a few animals cause an immense amount of personnel and costs (e.g. to buy the feed necessary or pay for the vet). And which animals should be shown? In contrast to the more or less authentic objects handed down from the past, living animals are always today's living creatures (Bedal 1997: 23–24; Dröge 1993: 43), which, at best, belong to a historical race but do not necessarily look the same as they did hundred, two hundred or more years ago (if we know that at all) (Freckmann 1985: 112). The current breeds of cows, for example, do not fit into the historical stables because the animals are now much larger (Kaiser 2008: 11–12). Bred back breeds genetically are modern breeds, such as the *Deutsches Weideschwein* (German pasture pig),<sup>10</sup> extinct from the end of the 1970s and then newly bred on the basis of current pigs by the open-air museum in Kommern in cooperation with the University of Gießen (Dzapo 1994; Ernst 1985: 194; Roscher 2014: 69). They just look similar to their historical models without a biological continuity.

In addition, the historical stables hardly meet the standards currently required – a fact of which those responsible at the museums are absolutely aware (survey 2019). The less animal-friendly but usual tethering of cattle for more than hundred years, for example, is to be abolished in the foreseeable future. Pigs, as mentioned above, were often kept in particularly poor, narrow, dark and often dilapidated sheds and stables. They were driven in oak forests for mast

and kept there (Mangold 2018), along with cows and sheep, which also grazed on grass or heathland areas. However, this type of livestock farming by shepherds cannot be widely realized because of the lack of personnel and land. Two exceptions are the museums in Bad Windheim (sheep) and Kiekeberg (geese) that stock herding animals (survey 2019). A few museums, for example in Hohenfelden, Massing or Walldürn-Gottersdorf, exhibit at least the carts and houses of shepherds, documenting their poor living conditions as village shepherds.

Moreover, animal husbandry represents a considerable hazard potential to the visitors, especially since few people nowadays know how to handle livestock properly (Bedal 1997: 27; survey 2019). Even the free-roaming geese or chickens can cause difficulties in an open-air museum, when ganders or roosters, stressed out by the high number of visitors and children, attack and injure museum guests (Dröge 1993: 43). Geese, unlike the historical model, are therefore often kept in fenced areas. In fact, free-roaming chickens and ducks in great numbers have developed a hitherto unknown food behaviour by approaching visitors to obtain food that they bring to the museum or while they are being served in the outdoor area of the museum's restaurant. As there are no human inhabitants in the museum farmhouses, free-roaming chickens enter the living rooms and dirty them with their excrement and even occasionally laying their eggs in the farmer's bed.

The horses, cows, goats and sheep are mostly kept outdoors in fenced enclosures (Sternschulte 1996: 186). However, sheep were usually kept in the open countryside by shepherds, and cattle have in some places been kept indoors all the year round for the past two hundred years (Nisly 2019). It is true that the fences used in museums are often based on historical models, but these are usually not too far back in the past, because fenced pastures were created mostly with the division of common land (*Allmendeteilung*) and land consolidation (*Verkopplung*) during the nineteenth century. Electric fences often secure the barriers (Tobler 2015: 14; survey 2019). They not only prevent the animals from escaping but also keep them and the visitors at a distance and

prevent the latter from being bitten by the animals or feeding them with unsuitable fodder, which still happens repeatedly (survey 2019). If epizootic diseases, such as avian influenza, occur, the animals of the species affected must be housed and separated in a form that the past did not know, either.

Many open-air museums keep their animals in historic stables but use modern equipment (survey 2019). The purist but animal-stressing husbandry based on a historical model would certainly trigger severe protests from the visitors. The renunciation of keeping cats and dogs mentioned earlier might lead back to the wish to avoid trouble, as the way in which humans handle these species and their attitude towards them have shifted fundamentally from working to pet animals (cf. Meiners 2016: 5). The currently changing views on the ethically and morally correct treatment of animals by humans raise the fundamental question whether the aim of presenting historical human–animal cohabitation legitimizes enlivening the historical stables and sheds at all. Even when the husbandry is compliant with the law and animal-friendly, it still causes complaints from well-meaning visitors who are unable to interpret certain animal behaviour correctly (survey 2019). Alternatively, the visitors interpret this behaviour differently from the museums' professionals. Thus, modern stall equipment is required for all-year livestock keeping, leastways in the interior of historic buildings, which may affect the valuable original substance, as well as the liquid manure and the dung of the animals' produce (Bedal 1997: 28; Huwyler 1999: 50–53). Therefore, completely modern stables are built in some open-air museums, for example in Wackershofen for their regional *Schwabian-Hall* pigs bred there or in Bad Sobernheim for the local *Glanrinder* and *Coburger Fuchsschafe*. If pigs are kept, such as the *Bentheim black pied pigs* in Cloppenburg, they receive a fold yard as space in which they can run – something that historically was rather rare. Thus, visitors can now approach as close as nowhere else to their meat producers, which turns the pigs into caressed pets (see figure 4). That is why some parents conceal the final purpose of pig keeping from their children, although they



Figure 4: Pigs as pets? Rare traditional *Bunte Bentheimer Landschweine* (Bentheim black pied pigs) and their visitors at the Cloppenburg open-air museum in 2014. (Photo: Eckhard Albrecht)

might find the hogs as a regional specialty on the menu of the museum's restaurant. Therefore, the Kiekeberg open-air museum or the Hohenlohe one in Wackershofen do not show the killing of animals in public on the occasion of their yearly slaughtering feasts (cf. Dröge 1993: 43). Yet, visitors can watch the following steps of slaughtering, which seems to be quite courageous in the face of the current discussions of meat and beef consumption, animal welfare and the social taboo of showing death in general.<sup>11</sup>

It is true that there is an existentially significant difference for some species at many open-air museums compared to the past in that the animals are not slaughtered but live out their natural span of years. This, for example, often concerns the poultry,<sup>12</sup> that consequently become older than historically known and appear in an unusual, aged shape. For pigs, on the other hand, the principle "saved by eating" mostly applies, as allegedly only sufficient demand for the respective products makes breeding eco-

nomically reasonable (Mangold 2018). Therefore, many open-air museums sell their animal products ranging from honey and eggs to meat and beef to their visitors or make use of them among their staff (survey 2019).

### **Animal Enemies Fought and Personal Interspecies Relationships – Untold Stories from behind the Scenes**

While open-air museums do everything in their power to preserve, as far as possible, historical breeds of domestic animals and show them to their audiences and protect certain wild animals as much as is feasible, they simultaneously pursue other species relentlessly. All animals conceived as pests (Nagy 2015), ranging from rodents, such as rats or mice, to harmful insects, such as wood-damaging beetles (*Anobium punctatum*, *Xestobium rufovillosum*) are targeted. Open-air museologists regard as pests all species that endanger the historical buildings and

objects; this includes those that merely disturb the museum presentations, such as ants. Spiders are regularly removed so that the historical room settings are not contaminated by cobwebs which would impair their effect. Here, the model situation is followed accordingly: good parlours and younger living environments are kept more spider-free than workshops or stable areas, where cobwebs were common historically. Other animals, such as wild boars, deer, nutria, moles, voles, snails or wild ducks, are being fought as and when necessary if they inflict too much damage on the terrain or the gardens or endanger visitors (cf. survey 2019).

The elaborate fight practiced against wood pests – which, by the way, the preindustrial human hardly knew about – is ultimately a never-ending fight against nature. After all, it is a completely natural process and, therefore, it makes sense that organic materials, such as wood, are decomposed by insects or fungi and reincorporated into the natural cycle. Museums in general and open-air museums with their historical buildings in particular are based on the principle of an unnatural eternal existence. Therefore, a constant and immense effort must be made to stop natural processes from occurring in order to protect the houses and equipment. This ranges from constructive wood protection, that disposes of accumulating rain and/or groundwater quickly and safely, for example, via roof drainage or ground drainage, to permanently running special heating that keep the indoor climate so stable and dry that insects and fungi do not settle, and to hot air treatment and gassing, which kill existing infestation and for which sometimes entire buildings have to be packed (Noldt & Michels 2007; Wimmer 2017). All these measures are communicated and discussed among professional circles, and the visitors are only remotely connected with it.

This also applies to the care of the animals shown. Some museums, such as the Hessenpark or the museum in Beuren, demonstrate, for example, the animal feeding to their visitors, but many working steps are carried out hidden inside the stables and outside the opening hours. Since livestock farming in open-air museums is not economically moti-

vated, the animals are kept extensively, cared for intensively and are mostly perceived as individuals. The qualifications of the staff responsible varies from agricultural professionals to semi-skilled employees and volunteers, such as participants of a voluntary ecological year. Hardly any open-air museum employs academics specialized in animal studies. Most have one agriculturally trained employee and a small number of semi-skilled staff, so that two to four people at most care – some of them part-time along with other functions – for the animals (survey 2019). The affection towards the animals depends on the individuals and differs from sober professionalism to deeper feelings, which often depend on the species. A horse or cow needs more individual care and can be perceived by humans as an individual more easily than a chicken. Not each animal – particularly non-mammals such as chickens – acquires a name (survey 2019). However, there are still animal lovers, such as the retired typesetter living in the open-air museum of Bad Sobernheim who takes care of chickens and geese, especially if they are ill, and he strolls through the museum on mild evenings accompanied by the museum's unofficial cat. For him, living in an open-air museum with its animals means a special livability.<sup>13</sup>

### **Conclusions: Limits and Chances**

The open-air museum's handling of animals shows considerable discrepancies: the historical animals are – just like the historical people<sup>14</sup> – always present in the material culture of the holistically exhibited houses and objects shown but actually not really existing. Only substitutes can be shown that, at best, look like their historical models. But even these are kept in a very limited number and under conditions that correspond not to the historical but a modern understanding of animal welfare. That is why most stables shown look unused and sterile as if they had never been inhabited (Bedal 1997: 26). The best way to draw a rather realistic picture of former farming might be farmsteads, that are run according to the historical model and convey a “lively” picture of “immediate vividness” (Bedal 1997: 29) of the proximity historically experienced by humans

and animals (Nisly 2019). That was accompanied particularly by “the very annoying intrusion of the smell of manure and of vermin” (Jansen 1909: 64) into human living areas. Farms, such as those run in Bad Windsheim, allow visitors to draw their own conclusions about preindustrial rural life when they enter a stable, not only by using their eyes but also their ears, feet, hands and skin and especially their noses. However, only a few open-air museums can realize such a “historical agriculture” with all its smells and noises, which – similar to experimental archaeology – can also create additional knowledge about agriculture (Apel & Carstensen 2001; Bedal 1997). After all, modern regulations and perceptions regarding animal welfare restrict the degree of historical correctness in reconstructing former living conditions, which many museologists point out. Open-air museums’ animal husbandry is oriented – contrary to the historical model – to today’s human opinion of their well-being (Schmidt 2015). “Animal welfare stands above all”, states Uta Bretschneider of the Hennebergisches Museum Kloster Veßra, and many colleagues agree with her (survey 2019, no. 1). Due to their self-conception of being places of nature conservation and environmental protection, open-air museums are part of a “historical ecology”, which deals with rare animals and plants that are kept and multiplied. In contrast to this, other, no less historical, species that endanger the open-air museums’ purpose are fought equally consciously. Finally, animal husbandry in open-air-museums is founded on time-dependent interpretations from a human’s point of view, as museologists and most visitors are humans.<sup>15</sup>

Thus, the presentation of animals in open-air museums remains just as incomplete as the depiction does in general concerning preindustrial living conditions that were equally humble for animals *and* most humans from today’s perspective. Open-air museologists are well aware of these limitations and the incompleteness of their holistic, open-air style presentation method. Each presentation is always only an approximation of the historical model. Animals are used as particularly impressive didactic media, and in some cases, they are specially

bred for this purpose. They are exhibited, presented in specific, historical-like activities and enhance the impression of historical authenticity. However, numerous presentations lack information on the limitations in the background and the visitors to most buildings displayed are forced to make sense on their own of what they see with the risk of misunderstandings. Nevertheless, although the limitations and the cut-outs are hardly addressed to the visitors directly, the “visual disturbances”, such as signage, other modern mediation media and, last but not least, the museum visitors themselves by populating the historical arrangements, ensure that the open-air museum’s “time travel” is always experienced as incomplete.

And yet, no other kind of museum can reconstruct historical life so closely to its example (Deklaration 1982: 100), no other kind of museum is more vivid, allows its visitors to come so close to its objects, and even to go into them. That is why open-air museums rank among the most visited museums and also reach many less museum-savvy visitors. With their theming of the (mostly) rural historical living conditions of humans and animals they are particularly able to create the awareness of the current use of livestock which is being prominently discussed in the media (cf. Carstensen 2011: 311; Sternschulte 1996: 178; survey 2019; on the history of modern farming, see Meyer 2000: 412–430). The basic questions on the human–animal relationship and its underlying ethical norms, cultural values and practices, which have recently been focused on by human–animal studies (Petrus 2015b) and cultural animal studies (Borgards 2016), can be discussed with a broad audience. Open-air museums can create awareness of issues such as biodiversity, animal wellness in the production of food or the connection between nutrition and climate change (survey 2019, no. 7). The low-threshold mode of presentation offers special opportunities. Past living conditions of humans and animals can be made present within the context of a “controlled imagination of history” (cf. Pflüger 2014). At the very least, they allow their visitors to experience things that may be at first sight banal but are actually basal, as former well-known knowledge about animals and their

residues becomes increasingly rare: Where else are today's people still confronted with road apples, cow dung, sheep dumplings, chicken dirt, dung hills and blowflies? Former hygienic standards can be experienced with all the senses as well as conclusions about our own living conditions can be drawn by comparison. As can be seen, numerous far-reaching and deeper insights are possible. And indeed, meanwhile many open-air museums organize workshops, conferences and theme days about these pressing issues. Open-air museologists should take their chances by telling more and differentiated human-animal stories founded on corresponding research work, stories that avoid creating idyllic impressions (Nisly 2019) and that also reveal the limits of open-air museums' capabilities. This should be stories from history that motivate arguments about human beings' future handling of themselves, their fellow creatures and their environment (cf. Carstensen 1993; Rentzhog 2007: 406).

## Notes

- 1 I thank Sophie Elpers, Amsterdam, and Michaela Fenske, Würzburg, for their valuable advice, Philip Saunders, Berlin, and Hannah E. Drissen, Oldenburg (Oldb.), for supporting the translation from German into English and Magdalena Tellenbach, Marieholm, for her thorough proofreading.
- 2 Nowadays, numerous open-air museums also address the period after the Second World War, but also mainly with a focus on rural areas.
- 3 According to its wide prevalence, this house pattern is found in many open-air museums, such as those in Cloppenburg (DE), Detmold (DE), Kommern (DE), Hösseringen (DE), Molfsee (DE), Klockenhagen (DE) and Lyngby (DK).
- 4 The survey was carried out in July 2019 among 30 German, 1 Austrian and 1 Swiss open-air museums, which are managed by full-time professionals and can be categorized as medium or large in size. 22 museums returned the completed questionnaire, and 3 answered by e-mail. Results of the survey are cited as "survey 2019". I have worked at different open-air museums as a director, head of a department or deputy director since 2002. Examples of other European countries are published by: Halmová, Očková & Janošíňová (2011).
- 5 See <http://www.ecomusee.alsace/en/exploring-the-ecomusee/our-heritage/natural-spaces-and-species> (accessed July 26, 2018).
- 6 I owe the explanation of the south German term "Baumer" to Elisabeth Weinberger, Munich.
- 7 Particularly for safety reasons, for example, the large event "PferdeStark", dealing with horses, offered since 1995, stopped being held in the LWL Open-air Museum Detmold in 2011. Meanwhile other open-air museums have ceased offering such events due to tightened regulations made by veterinary officials (survey 2019).
- 8 Cf. <http://www.g-e-h.de/index.php/arche-projekt> (accessed November 7, 2019).
- 9 There are rare exceptions, such as the "Doppelhaus from Ochsenfeld" at the Bad Windsheim open-air museum or the workers' rowhouse from Tilburg in the Netherlands open-air museum in Arnhem, which show houses divided into different periods of time. However, the display remains synchronously holistic within each part.
- 10 See [http://www.kommern.lvr.de/de/im\\_museum\\_unterwegs/tiere/deutsches\\_weideschwein/deutsches\\_weideschwein\\_1.html](http://www.kommern.lvr.de/de/im_museum_unterwegs/tiere/deutsches_weideschwein/deutsches_weideschwein_1.html) (accessed January 16, 2019).
- 11 Cf. [https://www.kreiszeitung-wochenblatt.de/hollensstedt/c-politik/der-kiekeberg-und-petas-ideologische-beissreflexe-warum-die-tierschuetzer-nicht-ernst-zunehmen-sind\\_a103330](https://www.kreiszeitung-wochenblatt.de/hollensstedt/c-politik/der-kiekeberg-und-petas-ideologische-beissreflexe-warum-die-tierschuetzer-nicht-ernst-zunehmen-sind_a103330); <https://www.swp.de/suedwesten/staedte/schwaebisch-hall/eine-echte-hausschlachtung-wie-beim-bauern-16452701.html> (all accessed November 7, 2019).
- 12 However, many animals in open-air museums do not die of natural causes – they are euthanized due to age-related diseases.
- 13 The retired typesetter is known to me personally and I have seen him taking such a walk several times.
- 14 Open-air museums try to visualize historical people by so-called *living history* or *played history*, whereby this medium in Germany is still used in a particularly critical and restrained manner in contrast to the inclusion of living animals realized almost everywhere. See Carstensen, Meiners & Mohrmann (2008); Duisberg (2008).
- 15 In contrast to all other kinds of museums, dogs are allowed to accompany their humans here. These animal visitors sometimes cause trouble to free-range chickens if their owners underestimate their hunting instincts and forget to put them on a leash. It would be interesting to observe the visit to an open-air museum from a dog's point of view.

## References

- Abel, Wilhelm 1962: *Geschichte der deutschen Landwirtschaft vom frühen Mittelalter bis zum 19. Jahrhundert*. Stuttgart: Verlag Eugen Ulmer.
- Achilles, Walter 1991: *Landwirtschaft in der frühen Neuzeit*. München: R. Oldenbourg Verlag. DOI: <https://doi.org/10.1524/9783486701876>.
- Apel, Gefion & Jan Carstensen 2001: *Erdbeerspinat und Apfelbaumalleen: Die Thematisierung von Landwirtschaft und Umwelt aus musealer Sicht am Beispiel des*



- Westfälischen Freilichtmuseums Detmold. In: Karl Ditt, Rita Gudermann & Norwich Rüße (eds.), *Agrarmodernisierung und ihre ökologischen Folgen: Westfalen vom 18. bis zum 20. Jahrhundert*. Paderborn et al.: Ferdinand Schöningh, 657–669.
- Bedal, Konrad 1997: Haustiere im Freilichtmuseum – sinnvolle Ergänzung oder unnötige Belebung? *Franken unter einem Dach* 19: 19–30.
- Benz-Schwarzburg, Judith 2015: Artenschutz. In: Arianna Ferrari & Klaus Petrus (eds.), *Lexikon der Mensch-Tier-Beziehungen*. Bielefeld: Transcript Verlag, 45–48.
- Bölts, Johann 1966: Die Rindviehhaltung im oldenburgisch-ostfriesischen Raum vom Ausgang des 16. Jahrhunderts bis zum Beginn des 19. Jahrhunderts. In: Heinz Wiese & Johann Böls (eds.), *Rinderhandel und Rinderhaltung im nordwesteuropäischen Küstengebiet vom 15. bis zum 19. Jahrhundert*. Stuttgart: Gustav Fischer Verlag, 131–272.
- Borgards, Roland 2016: Einleitung: Cultural Animal Studies. In: Roland Borgards (ed.), *Tiere: Kulturwissenschaftliches Handbuch*. Stuttgart: J.B. Metzler, 1–5. DOI: [https://doi.org/10.1007/978-3-476-05372-5\\_1](https://doi.org/10.1007/978-3-476-05372-5_1).
- Carstensen, Jan 1993: Mensch contra Umwelt – Anmerkungen zum Thema “Umweltschutz” im Freilichtmuseum. In: Jan Carstensen & Monika Vater (eds.), *Mensch und Umwelt: Ein Thema volkskundlicher Forschung und Präsentation? Zweites ökologisches Kolloquium*. Köln: Rheinland-Verlag GmbH, 49–58.
- Carstensen, Jan 1999: Historische Ökologie und neues Umweltbewusstsein [Historic ecology and an environmental awareness]. *19. Konferenz Verband Europäischer Freilichtmuseen 21. bis 28.8.1999*. Molfsee: Schleswig-Holsteinisches Freilichtmuseum e.V., 59–68.
- Carstensen, Jan 2011: Von Lakenfeldern und westfälischen Totlegern: Biodiversität im LWL-Freilichtmuseum Detmold. In: Detlev Hellfaier & Elke Treude (eds.), *Museum, Region, Forschung: Festschrift für Rainer Springhorn*. Detmold: Lippisches Landesmuseum, 309–312.
- Carstensen, Jan, Uwe Meiners & Ruth-E. Mohrmann (eds.) 2008: *Living history im Museum: Möglichkeiten und Grenzen einer populären Vermittlungsform*. Münster et al.: Waxmann-Verlag.
- Deklaration 1982: Grundsätze über die Anlage und den Betrieb von Freilichtmuseen [Principles for the creation and operation of open-air museums]. In: Verband Europäischer Freilichtmuseen [Association of European Open-air Museums] (ed.), *25 Jahre ICOM-Deklaration über Freilichtmuseen: Tagungsbericht Ungarn 1982*. Szentendere: Szabadtéri Néprajzi Múzeum, 91–113.
- Dodington, Edward M. 2015: Architektur. In: Arianna Ferrari & Klaus Petrus (eds.), *Lexikon der Mensch-Tier-Beziehungen*. Bielefeld: Transcript Verlag, 41–45.
- Dröge, Kurt 1985: Natur und Kultur: Zur Problematik von Pflanzenansiedlung und Tierhaltung im Freilichtmuseum. In: Claus Ahrens (ed.), *Technik und Industrie, Pflanzenbau und Tierhaltung, Gesellschaft im Wandel, Entwicklung der Freilichtmuseen/Technique and Industrie, Plant-growing and Keeping Animals, Changing Society, Development of Open-air Museums*. Tagungsbericht Verband Europäischer Freilichtmuseen/Association of European Open-air Museums. Hagen-Detmold 1984, 176–183.
- Dröge, Kurt 1993: Museumsarbeit und Landwirtschaft: Über die Unvereinbarkeit natürlicher Gegensätze. In: Jan Carstensen & Monika Vater (eds.), *Mensch und Umwelt: Ein Thema volkskundlicher Forschung und Präsentation? Zweites ökologisches Kolloquium*. Köln: Rheinland-Verlag GmbH, 39–48.
- Duisberg, Heike (ed.) 2008: *Living History in Freilichtmuseen: Neue Wege der Geschichtsvermittlung*. Rosengarten-Ehestorf: Freilichtmuseum am Kiekeberg.
- Dzapo, Vlado 1994: Wege und Erfolge der Schweinertückzucht im Freilichtmuseum: Bericht aus der Zusammenarbeit mit dem Institut für Tierzucht und Hausgenetik der Justus-Liebig-Universität Gießen. *Jahrbuch Hessenpark*, 75–77.
- Ernst, Eugen 1985: Zur Frage der Tierhaltung in Freilichtmuseen, dargestellt an den Entwicklungstendenzen im Hessischen Freilichtmuseum. In: Claus Ahrens (ed.), *Technik und Industrie, Pflanzenbau und Tierhaltung, Gesellschaft im Wandel, Entwicklung der Freilichtmuseen/Technique and Industry, Plant-growing and Keeping Animals, Changing Society, Development of Open-air Museums*. Tagungsbericht Verband Europäischer Freilichtmuseen/Association of European Open-air Museums. Hagen-Detmold 1984, 190–201.
- Faria, Catia & Oscar Horta 2015: Wildtier. In: Arianna Ferrari & Klaus Petrus (eds.), *Lexikon der Mensch-Tier-Beziehungen*. Bielefeld: Transcript Verlag, 419–422.
- Freckmann, Klaus 1982: Die besondere Realität der Freilichtmuseen. *Volkskunst* 5: 114–117.
- Freckmann, Klaus 1985: Freilichtmuseen als historische Quelle. *Freundeskreisblätter* 20: 109–114.
- Glänzer, Volker 2002: Das Gulffhaus in Ostfriesland – eine Innovation des 16. und 17. Jahrhunderts. In: Jan Klápště (ed.), *The Rural House from the Migration Period to the Oldest Still Standing Buildings: Beiträge der Konferenz Ruralia IV in Bad Bederkesa, Niedersachsen, 8.–13.9.2001*. (Ruralia IV). Prague: Institute of Archaeology, Academy of Sciences of the Czech Republic, 58–75.
- Halmová, Maria, Katarína Očková & Marianna Janoštinová (eds.) 2011: *Conference Report 2011*. Association of European Open-Air Museums. Turany, Slovakia: Slovenské národné múzeum.
- Handschuh, Gerhard 1990: Freilandmuseum – zwischen Idylle und Aufklärung. In: Will Cremer & Ansgar Klein (eds.), *Heimat: Analysen, Themen, Perspektiven*. Bonn: Bundeszentrale für Politische Bildung, 781–827.
- Heuer, Ute 1999: *Giebelzierden, Pferdeköpfe, Giebelpfähle und Wetterfahnen am Beispiel der Lüneburger Heide*. Uelzen: Museumsdorf Hössering.

- Huwylar, Edwin 1999: Die Präsentation von Bauernhoftieren im Freilichtmuseum Ballenberg – Chancen und Gefahren. 19. Konferenz Verband Europäischer Freilichtmuseen 21. bis 28.8.1999. Molfsee: Schleswig-Holsteinisches Freilichtmuseum e.V., 47–58.
- Jansen, [Gustav] 1909: *Das Bauernhaus im Herzogtum Oldenburg: Jahrbuch für die Geschichte des Herzogtums Oldenburg* 15: 53–92, <https://digital.lb-oldenburg.de/ihd/periodical/pageview/148489> (accessed July 30, 2018).
- Kaiser, Hermann 1982: Mägde, Knechte, Heuerleute: Gesinde auf dem Lande zwischen Weser und Ems. In: Heidi Müller (ed.), *Dienstboten in Stadt und Land*. Berlin, 22–41.
- Kaiser, Hermann 1993: *Ein Hundeleben: Von Bauernhunden und Karrenköttern. Zur Alltagsgeschichte eine geliebten und geschundenen Kreatur*. Cloppenburg: Museumsdorf Cloppenburg.
- Kaiser, Hermann 1995: *Der große Durst: Von Biernot und Bramtweinfeinden – rotem Bordeaux und schwarzem Kaffee. Trinken und Getränke zwischen Weser und Ems im 18./19. Jahrhundert*. Cloppenburg: Museumsdorf Cloppenburg.
- Kaiser, Hermann 1997: Die Hundekarne. In: Uwe Meiners (ed.), *75 Jahre: Heimatmuseum – Museumsdorf – Niedersächsisches Freilichtmuseum in Cloppenburg*. Cloppenburg: Museumsdorf Cloppenburg, 213.
- Kaiser, Hermann 2008: Über Kuhställe und Schweinekofen: Formen der Viehhaltung in Nordwestdeutschland. *Zeitschrift für Agrargeschichte und Agrarsoziologie* 56: 11–40.
- Kaiser, Hermann & Helmut Ottenjann 1998: *Museumsführer Museumsdorf Cloppenburg – Niedersächsisches Freilichtmuseum*. Cloppenburg: Museumsdorf Cloppenburg.
- Kamp, Michael 2017a: “Heitere Gefühle bei der Ankunft auf dem Land”: Das LVR-Freilichtmuseum Lindlar im Spannungsfeld von Besuchererwartung und Bildungsauftrag. *Siedlungsforschung: Archäologie – Geschichte – Geographie* 34: 111–124.
- Kamp, Michael 2017b: Intervention und Widerständigkeit – Zur Entstehungsgeschichte des LVR-Freilichtmuseums in Lindlar. In: Christiane Cantauw, Michael Kamp & Elisabeth Timm (eds.), *Figurationen des Laien zwischen Forschung, Leidenschaft und politischer Mobilisierung*. Münster & New York: Waxmann, 105–124.
- Keim, Helmut 2007: Kulturlandschaft als Museumsexponat? Ein besonderes Problem überregionaler Freilichtmuseen. In: Solveigh Sjöberg-Pietarinen (ed.), *Tagungsbericht/Conference Report 2005*. Verband Europäischer Freilichtmuseen. 22. Tagung Finnland [Association of European Open-Air Museums]. 22nd Conference Finland. Tampere, Finland: Turku Provincial Museum, 165–173.
- Könenkamp, Wolf-Dieter 1988: Erklärung durch “Zusammenhang”? Zur Theorie und Praxis der Ausstellung im kulturhistorischen Museum. In: Silke Götsch & Kai Detlev Sievers (eds.), *Forschungsfeld Museum: Festschrift für Arnold Lühning zum 65. Geburtstag*. Kieler Blätter zur Volkskunde 20: 137–167.
- Korff, Gottfried 2002a: Geschichte im Präsenz? Notizen zum Problem der “Verlebendigung” von Freilichtmuseen (1985). In: Martina Eberspächer (ed.), *Museumsdinge: Deponieren – exponieren*. Köln: Böhlau, 60–74.
- Korff, Gottfried 2002b: Die “Ecomusées” in Frankreich – eine neue Art, die Alltagsgeschichte einzuholen (1982). In: Martina Eberspächer (ed.), *Museumsdinge: Deponieren – exponieren*. Köln: Böhlau, 75–84.
- Korff, Gottfried 2002c: Die Kunst des Weihrauchs – und sonst nichts? In: Martina Eberspächer (ed.), *Museumsdinge: Deponieren – exponieren*. Köln: Böhlau, 96–109.
- Kreilinger, Kilian 1985: Darstellungsprobleme im Freilichtmuseum. *Freundeskreisblätter* 20: 115–122.
- Kreilinger, Kilian 1992: Wirklichkeit im Freilichtmuseum. In: Susanne Abel (ed.), *Rekonstruktion von Wirklichkeit im Museum: Tagungsbeiträge der Arbeitsgruppe “Kulturhistorische Museen” in der Gesellschaft für Volkskunde*. Hildesheim: Roemer-Museum, 85–90.
- Kriss-Rettenbeck, Lenz 1981: Gesichtspunkte und Grundsätze für Freilichtmuseen. Oder: Hausen und Wirtschaften als Ausstellungsproblem. In: Konrad Bedal & Kilian Kreilinger (eds.), *Freilichtmuseum und Hausforschung*. Bad Windsheim, 11–18. Published also in: *Bayerische Blätter für Volkskunde* 8 (1981): 188–196.
- Mangold, Josef 2018: Das Kommernschwein: Alleinstellungsmerkmal: guter Geschmack. In: Josef Mangold (ed.), *Kommern: Ein Blick zurück. 60 Jahre LVR-Freilichtmuseum Kommern. Ein Festband*. Kommern: LVR-Freilichtmuseum Kommern, 162.
- Meiners, Uwe 2016: Haustiere im Freilichtmuseum. Unpublished lecture manuscript presented at the conference “Tierisch gut? II. Ökologisches Symposium zur Tierhaltung”, 8.–9. April 2016 at the Franconian Open-air Museum Bad Windsheim.
- Meyer, Heinz 2000: 19./20. Jahrhundert. In: Peter Dinzelbacher (ed.), *Mensch und Tier in der Geschichte Europas*. Stuttgart: Alfred Kröner Verlag, 404–568, 610–616.
- Nagy, Kelsi 2015: Schädling. In: Arianna Ferrari & Klaus Petrus (eds.), *Lexikon der Mensch-Tier-Beziehungen*. Bielefeld: Transcript Verlag, 307–309.
- Nisly, Jadon 2019: Under one Roof Year-round: The Multi-species Intimacy of Cohabiting with Cows in Byre-houses since the Economic Enlightenment. *Ethnologia Europaea* 49(2): 50–69. DOI: <https://doi.org/10.16995/ee.1446>.
- Noldt, Uwe & Hubertus Michels (eds.) 2007: *Holzschädlinge im Fokus: Alternative Maßnahmen zur Erhaltung historischer Gebäude* [Wood destroying organisms in focus]. Detmold: Merkur Verlag.
- Ottenjann, Heinrich 1936: Die Wiedererrichtung des “Quatmannshofes” im Museumsdorf zu Cloppenburg. *Oldenburger Jahrbuch des Vereins für Landesgeschichte und*

- Altertumskunde* 40: 1–62, <https://digital.lib-oldenburg.de/ihd/periodical/pageview/143744> (accessed November 19, 2019).
- Petrus, Klaus 2015a: Heimtier. In: Arianna Ferrari & Klaus Petrus (eds.), *Lexikon der Mensch-Tier-Beziehungen*. Bielefeld: Transcript Verlag, 144–146.
- Petrus, Klaus 2015b: Human-Animal Studies: In: Arianna Ferrari & Klaus Petrus (eds.), *Lexikon der Mensch-Tier-Beziehungen*. Bielefeld: Transcript Verlag, 156–159.
- Petrus, Klaus 2015c: Nutztier. In: Arianna Ferrari & Klaus Petrus (eds.), *Lexikon der Mensch-Tier-Beziehungen*. Bielefeld: Transcript Verlag, 263–268.
- Pflüger, Christine 2014: Historische Imagination. In: Ulrich Mayer, Hans-Jürgen Pandel, Gerhard Schneider & Bernd Schönemann (eds.), *Wörterbuch Geschichtsdidaktik*. Schwalbach/Taunus: Wochenschau Verlag, 105–106.
- Rauchheld, Adolf 1913: Wie unser Volk baut und wohnt. *Heimatkunde des Herzogtums Oldenburg*. Band I. Bremen: Niedersachsen-Verlag Carl Schünemann, 310–334.
- Rentzhog, Sten 2007: *Open Air Museums: The History and Future of a Visionary Idea*. Kristianstad: Jamtli Förlag and Carlsson Bokförlag.
- Roscher, Anne Katharina 2014: *Wiedergeburt der alten Rassen: Wie sinnvoll sind Rückzucht und Erhaltungszucht?* Hamburg: Diplomica Verlag.
- Sambras, Hans Hinrich 2010: *Gefährdete Nutztierassen: Ihre Zuchtgeschichte, Nutzung und Bewahrung*. Stuttgart: Eugen Ulmer KG.
- Schimek, Michael 2018: Der Stall als Schnittstelle zwischen Mensch und Tier. *Rheinisch-Westfälische Zeitschrift für Volkskunde* 62/63(2017/2018): 171–185.
- Schmidt, Kirsten 2015: Wohlergehen. In: Arianna Ferrari & Klaus Petrus (eds.), *Lexikon der Mensch-Tier-Beziehungen*. Bielefeld: Transcript Verlag, 422–424.
- Schröder, Jörg 1993: *Historische Schmuckentwürfe Niedersachsens unter Berücksichtigung haltungsgeschichtlicher Aspekte*. Diss. Tierärztliche Hochschule Hannover.
- Sternschulte, Agnes 1995: *Die Haustiere*. Detmold: Westfälisches Freilichtmuseum – Landesmuseum für Volkskunde Detmold.
- Sternschulte, Agnes 1996: Felder und Wälder, Gärten und Tiere: Von der Umfeldgestaltung zur Abteilung Landschaftsökologie. In: Stefan Baumeier & Jan Carstensen (eds.), *Westfälisches Freilichtmuseum Detmold: Geschichte – Konzepte – Entwicklungen*. Detmold: Westfälisches Freilichtmuseum Detmold, 175–192.
- Stiewe, Heinrich 1997: Lower Saxon: Hall-house. In: Paul Oliver (ed.), *Encyclopedia of Vernacular Architecture of the World (EVAW)*. Cambridge: Cambridge University Press, 1359–1361.
- Stiftung Freilichtmuseum am Kiekeberg (ed.) 2018: *Das Freilichtmuseum am Kiekeberg und seine Besucher: Ergebnisse einer Besucherbefragung im Jahr 2017*. Rosengarten-Ehestorf: Freilichtmuseum am Kiekeberg.
- Tobler, Beatrice 2015: “Einen gutes Gespann”: Landwirtschaftsgeschichte und ihre Vermittlung im Freilichtmuseum. *Zeitschrift für Agrargeschichte und Agrarsoziologie* 63: 12–27.
- Wimmer, Maria 2017: “Das Museum als Lebensraum?": Vom Umgang mit tierischen Schädlingen im Freilichtmuseum Glentleiten. *Jahrbuch für die oberbayerischen Freilichtmuseen Glentleiten und Amerang* 12: 170–183.
- Zippelius, Adolph 1974: *Handbuch der europäischen Freilichtmuseen*. Köln: Rheinland-Verlag.
- Zippelius, Adolph 1981: Zur Frage der Belegung der Freilichtmuseen. In: Adolph Zippelius, *Das Rheinische Freilichtmuseum und Landesmuseum für Volkskunde in Kommern: Geschichte und Ausblick*. Köln: Rheinland-Verlag, 95–107.
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