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CHAPTER 51

MUSEUM EXHIBITIONS, OPEN-AIR MUSEUMS, AND HANDS-ON ARCHAEOLOGY

GUNTER SCHÖBEL

Introduction

It was a sensational event, when in 1973 John Coles presented the analysis of the stomach contents of a bog body—Tollund Man—from Denmark. The public was amazed that British archaeologists, in an experiment and in participation with the BBC, replicated the food remains found in the bog body's stomach. The meal apparently had only been edible by washing it down with a generous swallow of whisky (Coles 1973: 47). Just as spectacular was the experiment presented in 1899 by the Swiss anatomist Kollmann from Basel, who had cast the fingertips from a Neolithic human found at the pile dwellings of Corcelettes at Lake Neuchâtel in Switzerland. Their impressions had been left in the still-moist bottom of a clay pot. The scientific discussion inferred that these fingertips must have belonged to a delicate hand, presumably of a woman or a child, and, judging from the imprints, the fingernails had been reasonably well trimmed (Leuzinger and Schöbel 2004: 60).

These kinds of exciting stories have been repeated, and not only from the justly famous prehistoric pile dwellings of the Circum-Alpine region. There is, for example, Ötzi, the Ice Man found near Hauslabjoch in the Ötzal Alps. There are the Bronze Age ships of Dover and Salcombe; the oldest trackways made of wooden planks in England, Ireland, the Netherlands, Germany, and elsewhere; and last but not least the wooden wheels from the Upper Swabian bogs in Southern Germany. During its 200 years of history, wetland archaeology has also contributed greatly to developments in science. It played a great role in the development of pollen analysis, dendrochronology, aerial photography, and underwater archaeology, as well as in archaeometry, an interdisciplinary approach oriented towards the application of natural scientific methods. These new methods, their findings, and above all the new interpretations enabled by them have inspired the arts, politics, pedagogy, the media, and museum founders to utilize these unique results in their presentations by introducing them to the public.

Because of the wealth of finds and information, 'wetlands' and their highlights such as the pile dwellings and the bog settlements have become the centre of public interest in Europe since the nineteenth century (cf. contributions by Leuzinger, Chapter 50, and Kaeser, Chapter 49 this volume). Still today, wetland finds attract extraordinary interest. Germany, Latvia, Denmark, and Switzerland were, and still are, very proud to own such valuable historical archives. Indeed, they are proud to a degree that they have called the pile dwellings in the Alpine region and neighbouring countries the 'Pyramids of Switzerland', and from the earliest research, accounts and summaries of European history have been written in English, French, and German (Keller 1866; Munro 1908). In the 19th century, pile dwellings were topics of discussion at several international conferences (Schöbel 2004a). However, during the 20th century they became more a matter of regional interest (although this is still open to discussion).

In 2004, on the occasion of the 150th anniversary of pile-dwelling discovery and research in Europe, several papers were published (Antiquarische Gesellschaft Zürich 2004; Dixon 2004; Liabeuf and Gachet 2006; Leuzinger and Schöbel 2004; Rückert 2004; Schöbel 2004a) that provided an overview of the reasonably current status in research. In the spring of 2010 Switzerland, together with five other countries—France, Germany, Austria, Slovenia, and Italy—submitted a selection of ancient pile dwellings in and around the Alpine region for inclusion on the UNESCO World Heritage list, and this application has recently been successful. Currently, pile-dwelling finds are displayed as evidence of early European cultures in almost all archives of renowned museums from Paris to London, St Petersburg to Vienna. But meanwhile also the USA, China, and Cambodia often feature wetland excavation finds amongst exhibitions on recent discoveries. Worldwide, this is a newly developing sector in the museums field. The first publicly available list of museums includes 210 institutions with historically important collections, of which 55 are archaeological open-air museums. Among those are the Swiss National Museum, Zurich (Landesmuseum Zürich), the Natural History Museum, Vienna (Naturhistorisches Museum Wien), the Rosgarten-Museum Konstanz in Germany, the Museum Mondsee in Austria, the Museo Parco delle palafitte di Fiavé in Italy, and the Narodni muzej in Ljubljana, Slovenia.[1] Emphasis is given to the presentation of wetland finds of the Stone and Bronze Age between 5000 and 700 BC. In the British Isles, wetland finds are known from crannogs and lake-dwellings dating from the Bronze Age, through the Middle Ages and up to modern times (O'Sullivan 1998; 2000; see also Henderson and Sands, Chapter 16 this volume). In Northern Europe, we find Viking settlements from around 1000 AD.

Historical development of wetland museums

The core of most exhibits from wetlands is formed by private collections. Artefacts accidently found during peat cutting or digging draining channels, or through methodical collection from lake floors, prompted the founding of the first museums during the 19th century. In Ireland, for example, Sir William Wilde and William G. Wood-Martin reported on 220

[1] A complete list of museums can be viewed at www.pfahlbauten.de/museen.

crannogs between 1839 and 1886. The finds of these excavation sites became the basis for the Royal Irish Academy exhibition that was ultimately to form the core of the collections of the National Museum of Ireland (O'Sullivan 1998; 2000: 6). Preserved exhibitions of private collectors, such as the German Colonel Schwab in Biel 1873 or the pharmacist Ludwig Leiner in Konstanz 1871, still today present a sense of the early phase of museum displays (Schöbel 1997: 115). These finds not only decorated prehistoric sections of aristocratic collections, but also became an expression of publically supported exhibits (cf. Kaeser, Chapter 49 this volume). Furthermore, not only the Imperial Natural History Museum in Vienna but also civil antiquarian societies like those in Zurich under the leadership of Ferdinand Keller exhibited finds from lake-dwellings. Natural-history cabinets contained remains of animals, plants, woods, and textiles from ancient times before advanced civilizations. They reported the latest scientific findings in zoology, botany, geology, and material analysis. These were universal presentations fitting the trends of the 19th century.

Open-air museums in Europe

The development of archaeological open-air museums cannot be separated from the genesis of folkloristic open-air museums or the development in indoor museums. The scientific bases were the same. However, they always differed in their form of presentation, in the museological methods applied, and in their style of dialogue with the visitor. The reasons for this were the locations of the museum, which were situated either in the countryside, close to the excavation sites, or in the residential districts of metropolitan areas. The museum in the countryside and the museum in the metropolitan area each attracted an audience with distinct motivations: conveying information out of doors and presenting information inside historical buildings constitute two forms of communication.

Today, at the beginning of the 21st century, concepts are required that correspond with modern learning. These are formed more by the needs of individual target groups and less by the design visions of the curators. The multiplicity of cultural materials, together with a multifaceted public awareness, demand a range of diversified offerings. Museums with traditional concepts are affected by this trend. Open-air museums, on the other hand, are booming. As new and successful educational establishments, they demonstrate changes in the reception of history, fulfilling society's need for new ways of dealing with the visitor (Black 2008; Hooper-Greenhill 2007; Korff 2007; Lord 2007; Zipsane 2008). By open-air exhibitions, through 'hands-on'approaches, with their relationships with nature and their wider spectrum of methods, they reach the audience more directly and effectively than traditional museum designs.

In recent years a continuous boom in the building of archaeological open-air museums can be observed throughout Europe. The museums guide introduced in 2009 by the EU Directorate-General for Education and Culture in connection with the project liveArch counted no fewer than 212 institutions (Fig. 51.1) (Pelillo 2009) in Europe. More than 100 of these institutions have emerged in Germany, Switzerland, and Austria (Schöbel 2008: 95, fig.1). Some of these (of which a selection is introduced here) focus on wetland settlements: Denmark (Lejre Sagnland; Vinderup Hjerl Hede), Germany (Bad Buchau Federseemuseum; Uhldingen-Mühlhofen Pfahlbaumuseum), Great Britain (Glastonbury Peat Moor Centre; Peterborough

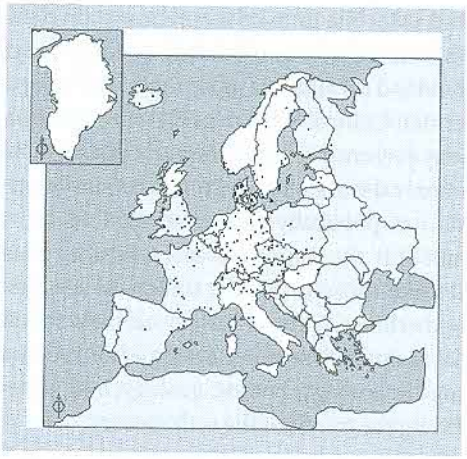

FIGURE 51.1 Archaeological open-air museums in Europe. (*Pfahlbaumuseum Unteruhldingen*, after Pelillo 2009.)

Flag Fen; Dover Museum), France (Charavines Musée archéologique; Lons-le-Saunier), Ireland (Craggaunowen Crannog, Co. Clare; and the crannog at the National Heritage Park at Ferrycarrig, Co. Wexford), Italy (Montale Rangone parco archeologico), Latvia (Araisu arheologiskais muzejparks), the Netherlands (Lelystad Switerkamp), Norway (Bostad-Borg Lofotr Viking Museum), Scotland (Kenmore Scottish Crannog Centre), Sweden (Höllviken Fotevikens Museum), and Switzerland (Hauterive-Neuchâtel Laténium; Wauwiler Moos; Village Lacustre de Gletterens).

Because of its pedagogical qualities, this type of museum design is very attractive both to political decision-makers and to the target audience. It is striking, quickly designed, and often more cost-efficient than a traditional museum. Based on the variety of communication methods and attractions, it reaches a broad segment and different sectors of the population. From the point of view of the museum operators on one hand and consumers, such as families, travel groups, educators, on the other hand, these advantages make the open-air museum an effective instrument in conveying history in a Europe that is searching for regional identity. The tourist industry and regional politics support these concepts and are delighted with the results: living history is finally presented in a natural outdoor surrounding instead of a dusty indoor setting.

For traditional science, open-air establishments are often controversial. The high number of visitors is striking; but on the other hand, the museum concept is often criticized as being too simple. The point of criticism is the lack of original substance and original finds. Too often we hear the terms 'fake', 'camouflage', 'playground', 'Disneyland'—but open-air museums adjust better to changes within society and the requirements of an orientation towards the visitor. They thereby quickly cross the barrier between the demands of scientific exactness in presentation and what pleases the public. It is also important to realize that today it is no longer possible to operate a museum without directly approaching the visitor. Finally, even in traditional museums, the boundaries between classic exhibits and entertainment shift along with visitors' growing demands. Dinosaurs, and images of Fred Flintstone and Pirates, can be seen next to the display cases in historical museums. This is the state of the art, and no longer a 'problem' of open-air museums.

There has not been a clear definition of open-air museums since the International Council of Museums' (ICOM) definition of museums of 1956 (Zippelius 1984: 14; Schöbel 2004b: 156). This declaration allows the setting of a borderline regarding the purely recreational facilities of the tourist industry. Establishments that do not fulfil the criteria for archaeological and pedagogical quality are not museums according to this definition, but rather recreational parks, often with well-constructed historical ambience. The essential difference is that a historical museum must have a scientific responsibility and supervision, which is not required for the 'histotainment' park. For a museum, moreover, educational aims and the conveying of scientific knowledge always rank higher than the desire for profit.

The origins of open-air museums

It is commonly held that the farm and folk museum founded 1891 by Artus Hazelius in Skansen near Stockholm, Sweden (Rentzhog 2007), is the mother of all open-air museums. Lyngby was founded in 1901 in Denmark, followed in 1906 by the Kashubian Ethnographic Park in Poland, in 1909 by Königsberg in Prussia, and in 1912 by Arnhem, Holland. Almost every European country, from Switzerland to the Ukraine, had a successful heritage farm museum as a typical institution in the 20th century. They are—and this is the difference—not (re)construction museums like their archaeological counterparts; instead they are managed by folklorists and ethnologists. They work with original or translocated buildings, and with the traditions of the last three to four centuries. Their goal is to conserve the substance, and simultaneously to enrich this substance with 'living history' or 'éco musée' concepts. Drawing from this idea, archaeological experts adopted the elements of exhibiting material culture in ensembles inside the house or in room furnishings (Schöbel 2004a: 224).

Art paved the way for the development of wetland museums. At an early stage, theatre dealt with prehistoric humans. In 1882 a group in Neuchâtel, Switzerland, showed prehistoric lake dwellers with originally replicated tools. 'Living theatre' was already known in the 19th century, when poetry about lake-dwellings was written in Cambridge, England, and on Lake Constance. In addition, pageants like those in Rorschach at the Swiss lake shore (Kaeser 2008) clearly marked the desire to connect architectural reconstruction and historical presentation. Today this might strike us as dilettante, but aside from the fact that some 'histotainment' enactment at festivals does not reach beyond the dilettante level, it nevertheless made possible access to the examination of history for the public, and attracted a big audience.

In the 19th century, the arts were devoted to the new great archaeological discoveries. Poetry, novels, and painting all reflected excavation results. The historical paintings of the late Romantics created scenarios like 'burning villages' or the 'The hunter returning home' (Fig. 51.2). In the confrontation with archaeological finds from the wetlands, those countries sought a new identity, an explanation anchored in history. The classic ancient world was no longer the only topic discussed in citizens' parlours—it was strongly paralleled by regional prehistory. With the formation of national states in Europe, numerous antiquarian societies and folkloristic museums were founded as an expression of the search of a new regional

FIGURE 51.2 A hunter returning home. (After Kaeser 2008: 93.)

identity. And even industrial circles and politicians exploited this new trend to favour national and regional history.

The young Swiss state presented itself with the aid of archaeological finds, historical paintings, and house models of the Stone Age at the world expositions in Paris 1867 and 1873 in Vienna (Rückert 2004: 169).

The technical and artisan industrial fairs that took place during the time of industrialization offered space for propaganda. In 1889 in Paris, in the shade of the Eiffel Tower, reconstructions of houses of prehistoric appearance in their original scale were exhibited (Schöbel 2008: 97 ann. 23 and 24). Artur Hazelius was inspired by the ethnographic living rooms at the World Exposition when he built Skansen. The suggestion by Colonel Schwab that pile dwellings should be built an their original size in Biel close to the museum, or the idea of Emile Desor of introducing similar buildings in 1867 at the Paris Expo, had previously failed due to the objections voiced by Ferdinand Keller, who was not enthusiastic about large reconstructions. After Keller had died in 1881, the first replica of a Stone Age pile dwelling was created 1889 in Schönenwerd, in the private landscape park of the shoe manufacturer Bally on the river Aare in the Solothurn canton. Bally had also been in Paris to see new discoveries and inventions. Especially designed for the public, reconstructions followed in Lindau after a major anthropological congress on Lake Constance, Germany, in 1899. On the Attersee in Austria, reproductions emerged in 1910 sponsored by the Deutsche Heimat association. Another followed at Bevaix, Switzerland, in 1913 (Fig. 51.3), and in 1919 reconstructions took place under the leadership of Hans Hahne (Museum Halle) in Rössen, Germany. At Unteruhldingen on Lake Constance, Germany, a museum was built under the auspices of a local history association, the University of Tübingen, and local politicians (Fig. 51.4) (Kaeser 2008; Schöbel 2004a: 222f.). It owned an archaeological collection, was scientifically managed, was open to the public, and integrated the interdisciplinary insights of the natural sciences, archaeology, and pedagogy; in addition, like Skansen, it developed into a non-profit organization. It was built as an archaeological open-air museum, which is continuously expanding up to the present day.

The first archaeological open-air museums were constructed of wood, the same building material of which the residential houses were built north of the Alps before the arrival of the Romans. That is the main reason for the first open sites to emerge in an area in which unique finds allowed for the best reconstructions—the wetlands. The arts and comparative

FIGURE 51.3 Pile-dwelling reconstruction, Bevaix, Switzerland, in 1913. (Kaeser 2008: 133.)

FIGURE 51.4 The Lake-Dwelling Museum in Unteruhldingen, Germany, in 1928. (© Pfahlbaumuseum, Unteruhldingen.)

folklore, but also the exemplification of historic crafts and a national identity prior to the classical cultures, contributed to the emergence of this concept. Above all, however, it was the reforming pedagogy of the 1920s and the opinion that head, heart, and hand should be addressed in a museum exhibit. With the help of the film industry, radio broadcasts, and magazines, these new museums soon reached millions of people (Fig 51.5). In Germany, a renewed nationalism and thus a narrowing of the media content followed the auspicious beginnings and the great success with the educated social classes in the Expressionistic 1920s. Between 1932 and 1938 many new museums emerged, which developed from archaeological findings. They include Oerlinghausen in 1936 or the Swedish Lojsta in 1932, and the early Biskupin in Poland in 1936–1939 (Schöbel 2004a). The subject was didactically well staged. Nevertheless, these museums used their popularity to implement their political aim, attempting to evidence national cultural heights from history (Colloque Archéologie 2006; Leube 2001). The susceptibility to manipulation of possible interpretations in an archaeological open-air museum that works with replicas and reconstructions is an important lesson from this time. Even today, we should remain watchful regarding fashions or the political demands placed on a museum (Peterson 2003: 387). The accusation of being popular did not affect the indoor museums; they reacted with 'purification' and 'scientification' of the contents.

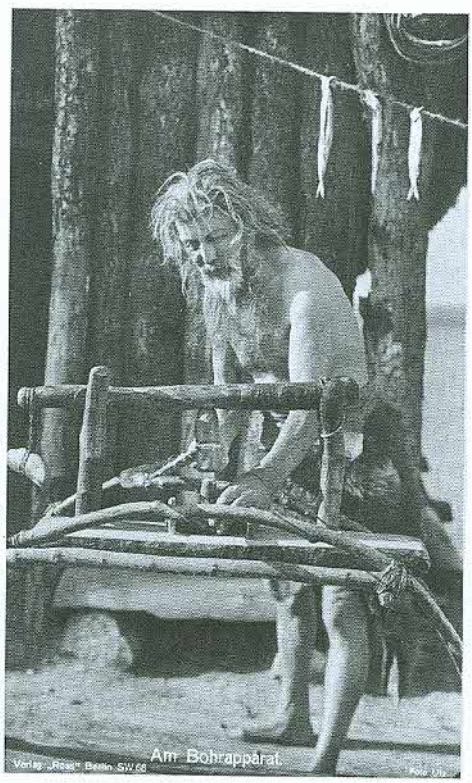

FIGURE 51.5 The first Ufa Film of the wetlands, Unteruhldingen/Berlin 1927. (® Pfahlbaumuseum, Unteruhldingen.)

Experimental archaeology, museum pedagogy, and their historical foundations

Experimental archaeology involves the (re)construction of objects, buildings, and contexts, through which ideas about the past can be thought about in practical terms. It is often, but not always, associated with popular education. While science does not need an audience, the method is of great importance and is essentially the basis of every archaeological open-air museum. (Cox 1993: 21). Possibly one of its earliest manifestations was when Frank Sehested built in 1879 the first open-air museum with a Stone Age log cabin at Broholm, Denmark (Ahrens 1990: 12; Peterson 2003: 62). His Stone Age house was, as Ahrens called it, an ethnographic conclusion by analogy that selected models from Scandinavia. Archaeological findings like those in Rössen and Unteruhldingen were not its basis. We do however know that, for the first time in Europe, an attempt had been made to build a house with replicated Stone Age tools, which are still in existence today, and Sehested was one of the first to carry out reliable methodical experiments. Claus Ahrens (1990) considered him the father of experimental archaeology. To be exact, he is only one of the fathers. Carl Wurmbrand from Austria in 1877 produced 6kg of Noric iron in a bloomery furnace. Since 1875 Ferdinand Keller from Zurich had been conducting auger experiments. Starting in 1877 he experimented with birch tar. Kollmann, a physician from Basel, started in 1879 to produce anatomical reconstructions based on pile-dwelling finds. In 1919, Robert Rudolf Schmidt and Hans Reinerth reconstructed in an experiment a bog house according to the findings from Federsee. In 1926, for a 'life experiment of the Stone Age' at Unteruhldingen, Germany, a movie was produced by Ufa Film titled *Natur und Liebe—Schöpferin Natur* ('Nature and Love—Nature the Creator'). The experimental houses recreated in 1933 could be utilized for educational purposes in two indoor reconstructions of log houses at the Rorschach museum in Switzerland. Other indoor exhibits followed in Schaffhausen, Switzerland, and at the open-air Mettnau museum on Lake Constance in Germany. The prehistorian Reinhold Bosch (Schöbel 2004a: 228) introduced hands-on Stone Age projects for teachers and pupils between 1936 and 1944 in Seengen and Hallwill in Switzerland, as a means of museum pedagogy.

A new beginning for open-air museums came from Scandinavia. Hierl Hede at the end of the 1950s, and works at Lejre starting in the 1960s, marked the new approach of experimental and pedagogic reconstruction in Denmark (Fig. 51.6). Hans Ole Hansen, one of the protagonists in Denmark, denounced as a romantic, as an amateur archaeologist, and simply as a pedagogue, developed the idea of open-air museums. These archaeological centres spread to Sweden, England, Poland, Germany, and Austria, although individual approaches differed from country to country. Similarly, the open-air museums that meanwhile had emerged in the United States, such as at Colonial Williamsburg or the Plymouth Plantation, played an important role. However, the European approach remained a counterpoint to classical, politically initiated museum design. In Ireland, the amateur archaeologist and art collector John Hunt added a crannog to his open-air museum at Craggaunowen that still stands today (Ahrens 1990: 26). In 1970, the museums director Hampel established a prehistoric open-air museum, covering all epochs, in the palace garden near Asparn, Austria. In 1972 Peter Reynolds founded the Butser Ancient Farm Project in the south of England, thereby setting

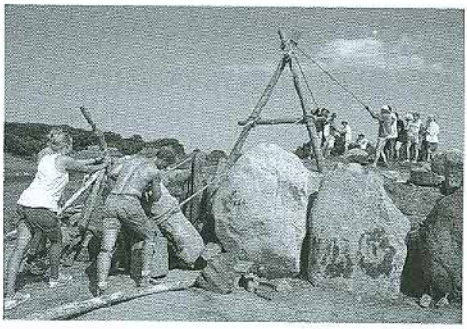

FIGURE 51.6 Research centre, Lejre (Denmark) (Lejre Forsøgscenter).

new conceptual standards for reproducibility of prehistoric living conditions (Reynolds 1999).

Experimental archaeology, attempts to experience life as it was in the Stone Age, new museum pedagogy, and the reliable reconstruction of findings were well on their way. In 1959, for the first time blind people were guided through an indoor reconstruction of a Stone Age house in a museum in the former GDR as a new target group with handicaps (Schöbel 2008: 102). In Oerlinghausen in Germany, a third building phase after 1936 and 1961 started in 1979, utilizing a consistent result-oriented reconstruction technique. However, didactically designed interior fittings, which had previously been common, were missing. Crop husbandry became—as can be seen in Berlin-Düppel, part of the presentation—just as it was later in the historical garden with prehistoric crops (Fansa 1996). In this concept, the reconstruction of the environment supported presentation as a holistic approach characteristic for an open-air museum. Here, the contemporaneous development in the rural open-air museums of Europe had a fertilizing effect.

Adelhard Zippelius and Claus Ahrens, two professional archeologists, played a significant role in the recognition of these new types of museum. They were responsible for the development of the ICOM resolution also in regard to the reconstructed archaeological museums. From a museological point of view, between 1970 and 1990, many new open-air museum sites were established, which however, received neither governmental recognition nor financial support. Most remained in private ownership and under local management. For the most part, it is 'hands on' pedagogy or the college concept in Scandinavia and Germany that confers visibility on the archaeological finds in open-air museums. Tourism, pedagogy, and above all regional support awarded through the European Union were responsible for the booming of these institutions during the last two decades. In Germany alone, this type of support caused open-air sites to double in number, from about 50 to 100 over the past ten years (Schöbel 2008). The growth trend continues, primarily affecting installations built according to prehistoric models.

Current development points in different directions. Eastern Europe in the beginning reacted cautiously, and in contrast to Germany did not develop any new museums. Italy and France, like all southern European countries, started late with this development. The reason could be that still-standing original classical-era monuments and a concentration of the traditional form of museum delayed any need for reconstructions for illustrating history to the public. Nevertheless, changes within the museum scene are noticeable. Boario Terme has been dedicated to pedagogy for quite some time (Priuli 1999). 'Ötzi's everyday life' is presented

successfully in the city museum of Bozen and in the archaeological park at Schnalstal, Italy (www.archeopark.net). Montale-Rangone (Pelillo 2009: 26) at Modena in Italy, built with EU funding, has meanwhile become the most complex museum of its type on Italian soil. It offers a combined site of open-air museum and Middle Bronze Age *terramare* settlement.

The museum offers an exhibit of original finds, reconstructions of archaeo-technics, and pedagogical programmes under scientific supervision. At the same time it serves as an extension of the city museum at Modena, only 20km distant. Concepts of connecting the traditional museum design with a reconstructed building of original size on the lake shore are also visible at the Laténium on the Lake Neuchâtel in Switzerland. 'Pfahlbauland' ('Lake-Dwelling Land') in Zurich 1990 was a successful attempt to display results of more than 100 years of excavation and research beyond the walls of the National Museum. It was located on an island on Lake Zurich with a view towards the spot of Keller's original lake-dwellings, well away from the city centre. In Biskupin, Poland, a museum displaying original finds is developing in addition to the existing open-air museum (Schöbel 2004a: 228).

Probably 95 per cent of the open-air museums built since the end of the 19th century are still in existence today. However, quantity does not always equal quality. Today, financial resources are often lacking or scientists are not always available. For the most part, however, the reason for decreasing quality is lack of support by those large associations and museum organizations which have not yet equally acknowledged all developments in the museum landscape. The reason for this is not clear. They are not competitors. They could in fact complement these sites with their own exhibitions. In a changing society with a leisure and entertainment industry always hungry for history, this kind of museum would certainly be viable.

It is not easy to understand why wetland archaeology lags behind the classical cultures with its museum presentations, and why, as in the case of the British Museum or in St Germain-en-Laye, wetlands are addressed only marginally. Is this related only to the lack of monumentality, or is it because previous generations of archaeologists such as Stuart Piggott did not attribute any cultural significance to wetland archaeology, while at the same time the famous British archaeologist Vere Gordon Childe in 1940 had recognized that crannogs were significant elements in the archaeological inventory (Dixon 2004: 33)? Was it a false mythos when Luigi Pigorini, at the 5th International Congress for Archaeology and Anthropology in 1881 in Bologna, formulated his new theory about the emergence of Rome based on the *terramare* and the Danube-country culture? Was it because, for example in Switzerland and Germany, nationalistic exploitations of the past in the 20th century caused too much harm (cf. Kaeser, Chapter 49 this volume)? Or was it maybe because too many amateurs organized the collecting and exhibiting? Did science want to distance itself from an 'exposition of amateurs', as could be seen in 1867 in Paris (Rückert 2004: 176)? These questions must be clarified, so that the rich archives and their possible interpretations may take their proper place. On a more positive note, new networks have been created by archaeological open-air museums (www.exarc.org).

An ideal archaeological wetland museum?

What does an ideal archaeological wetland museum—one that wants to fulfil the requirementsof its visitors as well as those of science—look like? Despite all current tendencies, the ideal archaeological wetland museum needs the archaeological excavation as its foundation.

The finds or the ground plans and their origin must be identifiable as the basis for the modeling. Since they were often built with perishable material existing only millennia ago, which are often are no longer intact, they can only be exhibited as touchable reconstructions (Fig. 51.7) (Saraydar 2008; Cunningham et al. 2007; Windl 2001; Experimentelle Archäologie 2009). These objects must be carefully produced by the best and most appropriately skilled craftpersons, and comply with high quality standards. The object must be shown within its historical context. This central task is find-oriented archaeological reconstruction.

At the same time, there must be sufficient space for possible forms of presenting the results of experimental archaeology. According to the requirements of ICOM and UNESCO, the intangible cultural heritage resources, technological processes, life knowledge, skills, and environment side by side with the originals should be more in the foreground. For example, if in the Araisi Lake Fortress open-air museum, Latvia, a folklore group appears in costumes of the Iron Age, woven in the same way as the original finds, then the requirements of authentically conveying history are fulfilled. If school groups at the Museum Montale at Modena, Italy, learn at an artificially constructed excavation site about the methods of digging up and reconstructing finds, then the principles of archaeological interpretation by the 'hands-on' method are sufficiently explained.

A museum requires a scientific management and supervision. Only if these components are present is a well-founded, correct, and interdisciplinary interpretation of the connections possible. Touristic theme parks cannot substitute for an educational establishment. The quality criteria of experimental archaeology and the traceability of the processes must be warranted (Cunningham et al. 2007: preface; Mathieu 2002; Kelterborn 2001: 21). They have to be the basis for shows, live experiments, or the display of technical processes, which demand—as in all scientific work—analysis, defined measurement methods, and publication, so that the results can be compared and utilized. In these ways, experimental archaeology can inform about prehistoric knowledge, technology, and conditions of daily living, and thus expand the historical resources.

Finally, an open-air museum needs the best didactic methods. The term 'target group oriented' must not remain foreign to its designers. An open-air museum must address young people and adults simultaneously; it must address families and groups (Hooper-Greenhill 2007: 86–7; Lord 2007). At the same time, it must address handicapped people or persons with learning disabilities, as well as individuals with a migrant background. Barriers for certain parts of society have to be broken down by employing curators and museum staff. This requires a well-trained staff, varied programmes, and annual evaluations of the

FIGURE 51.7 Dialogue with the visitor during guided tours at the open-air museum takes the individual into consideration. (Pfahlbaumuseum Unteruhldingen, Müller.)

didactic methods. The applied pedagogy in an open-air museum must attempt to close the circle between the original find and the reconstruction in an understandable way (Weschenfelder and Zacharias 1992; Black 2008; Zipsane 2008). Only then will it be possible to provide a high-quality transmission of historical knowledge in compliance with educational aims. All these components are present at the lake-dwelling museum in Unteruhldingen, Germany. They are reflected in the realistic Bronze Age setting created by the British artist Gerry Embleton, in the 14,000 guided tours for 300,000 visitors per year at the open-air museum itself, and in museum projects for those young people who rarely visit a classic exhibit (Fig. 51.8).

The goal is a broad cultural education that reaches as many people as possible. Problematic developments, such as the misuse of history for commercial or personal benefit, must be opposed. Re-enactment in its true sense as a war game or a re-creation of battles often serves as an end in itself, and has little to do with the mission of an archaeological open-air museum. The difference between LARP (Live Action Role Playing), Re-enactment, and Living History must be recognizable. There should be no space for improvised theatre with fantasy characters (LARP) in an open-air museum. Re-enactment is only an acceptable method if the role play serves the authentic demonstration of historical epochs, and if it is conducted with the utmost professionalism. As a part of the museum pedagogics (Collingwood 1993; Carstensen et al. 2008, 103), living history or living archaeology is clearly concerned with serving science (Fig. 51.9). Where a historical or educational mission cannot be recognized, the term

FIGURE 51.8 The integration of different target groups through 'hands-on' exhibits is important. (Pfahlbaumuseum Unteruhldingen, G. Schöbel.)

FIGURE 51.9 Learning by experimenting at the open-air museum creates new methods of conveying knowledge. (Pfahlbaumuseum Unteruhldingen, G. Schöbel.)

'museum' or 'archaeology' should not be used. Archaeological open-air museums should separate do-it-yourself theatre from the teaching of well-founded history. These boundaries should be followed by everyone. Archaeological open-air museums, in their role as playgrounds, have the responsibility of separating idealized presentation from historical hocus pocus, and above all of ensuring the quality of information conveyed. First- and third-person interpretation are methods of ensuring the integrity of the scientific statements. Mark Willis, one of the living-history experts in Britain, rightly demands training for costumed interpreters in order to ensure the quality of information.

In future, archaeological open-air museums should aim to present living history in a dialogue on a 1:1 scale, presented by people for people, and thus also allow greater scope for creativity in the arts, the media, and indeed in the visitor. The development of museums will ultimately lead to intensification of the necessary interaction between the visitors and the museum. This will require extensive efforts on our part. However, after almost 100 years now, open-air museums have the experience to allow them to communicate knowledge effectively to broad sections of the population. The conferences based on 'living history' that are held at open-air museums and universities in Cloppenburg, in Kiekeberg near Hamburg, in Freiburg,[2] and in Unteruhldingen, Cologne, and Bonn, Germany, exemplify the need for a discussion within the historical sciences. To reach the desired goals, these conferences are an essential and long-overdue step in the right direction, which should be paid attention not only in Europe but also in all countries throughout the world. The museum, just as in the 18th and 19th centuries, needs quality above all. It needs sufficient suitable learning methods to create an interested public. It needs exciting stories—and wetland archaeology can offer these stories in abundance.

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[2] For Cloppenburg, see Carstensen et al. (2008); for Kiekeberg, see Duisberg (2008); Carstensen et al. (2008); for Freiburg, see www.hsozkult.hu-berlin.de/tagungsbericht/id = 2699; for Unteruhldingen, see http://www.pfahlbauten.de/impressionen/2009-h8-living-history-bericht.html. Many of the British approaches to successfully combining creativity and authenticity are documented on the website www.livinghistory.co.uk.

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