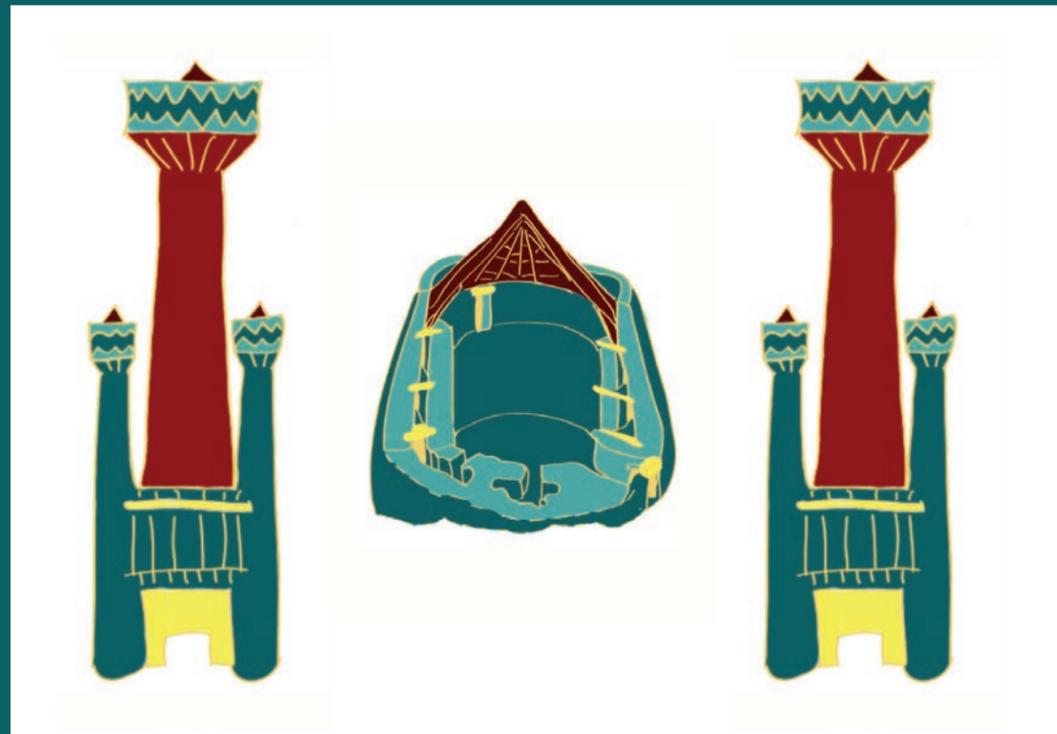




Gardening time

Monuments and landscape from
Sardinia, Scotland and Central Europe
in the very long Iron Age

Edited by Simon Stoddart, Ethan D. Aines
& Caroline Malone





McDONALD INSTITUTE CONVERSATIONS

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with contributions from

Ian Armit, John Barber, Lindsey Büster, Louisa Campbell, Giandaniele Castangia, Graeme Cavers, Anna Depalmas, Matthew Fitzjohn, Mary-Cate Garden, Andy Heald, Luca Lai, Robert Lenfert, Mary MacLeod Rivett, Hannah Malone, Phil Mason, Megan Meredith-Lobay, Mauro Perra, Ian Ralston, John Raven, David Redhouse, Tanja Romankiewicz, Niall Sharples, Alfonso Stiglitz, Dimitris Theodossopoulos, Carlo Tronchetti, Alessandro Usai, Alessandro Vanzetti, Peter Wells & Rebecca Younger

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On the cover: *Cut out reconstruction of a broch flanked by two reconstructed Nuraghi, reconsidered by Lottie Stoddart.*

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Simon Stoddart

A tribute in honour of Giovanni Lilliu (1914–2012)

Anna Depalmas

Remembering Giovanni Lilliu may seem an easy task. One might think that it is only necessary to list his rich scientific bibliography and to describe his great work over the course of nearly a century, as a university professor and archaeologist. However, a simple listing of his achievements would not transmit the true importance of his work. He not only illuminated the prehistoric archaeology of Sardinia, but also used it to establish the idea of a Sardinian epic which he connected to the modern world.

Prehistory was the choice of his field of study – rather than the predominant exaltation of the Roman era and classicism of the time –, and this had its origins in his study under Ugo Rellini at Rome. He graduated in 1938 and worked as Rellini’s assistant until 1942, when he returned to Sardinia to take up the position of Professor of Historical Archaeology and Geography at the University of Cagliari. From 1942 to 1958, he taught various subjects – Paleolithic, Geography and the History of Religion – and in the latter year became a Full Professor and was appointed to the Chair of Sardinian Antiquity at the University of Cagliari. From 1944 to 1955 he also worked for the Superintendency of Sardinian Antiquity.

He held many posts in his long academic career. He was for a long time, and on various occasions, dean of the Faculty of Letters, Director of the Institute of Archaeology and Arts, Director of the School of Specialization in Sardinian Studies and Editor of the Journal carrying the same name (*Studi Sardi*), and, in 1990, he was elected a fellow of the Academy of Lincei of Rome. In his later years, he remained a very active Professor Emeritus at Cagliari University.

In 1936, while he was still a student, he published his first work on Su Nuraxi di Barumini. This was his birthplace, and throughout his life he maintained a close and almost embodied connection with the village. This also led him to carry out his most important

archaeological work in the landscape of his birth. Indeed, between 1951 and 1956, he worked on excavating an artificial hill there, which was found to cover the nuragic complex of Su Nuraxi di Barumini. This was the first excavation conducted in Sardinia using a stratigraphic methodology to establish a time-line for the nuragic period, and it became a benchmark for later investigations and chronological research. His work at Barumini formed the basis for a series of fundamental papers on Sardinian proto-history, from *I nuraghi. Torri preistoriche di Sardegna* (The Nuraghi, prehistoric towers of Sardinia) in 1962 to *Civiltà nuragica* (Nuragic civilization) in 1982.

He was the first to study many of the themes that he investigated in depth during his long scientific career and many of these were only studied for the first time in the first half of the twentieth century. The chronology of proto-Sardinian civilization was one key field that he developed, modified and changed in the course of his long academic career. At the same time, Lilliu published a brief essay in which he attempted to identify certain constant factors in the history of Sardinian art, and this was developed in the catalogue for the exhibition of Sardinian bronzes in Venice in 1949. Following the theories of Ranuccio Bianchi Bandinelli on how to classify the art of the ancient world, Lilliu assessed the coexistence of the ‘anti-naturalistic’ art of the barbarian world and the ‘naturalistic’ art of the classical world within which he inserted Sardinia as a ‘land of pure expression’, and defined as anti-classical and barbaric. This line of thought became the nucleus of a theme which he studied from various angles and which helped him to define key concepts in his field of study.

At the beginning of the 1960s, he published his wide-ranging synthesis of Sardinia, *La civiltà dei Sardi dal Neolitico all’età dei nuraghi* (1963) (Sardinian Civilization from the Neolithic period to the nuragic

era). This work was later reprinted, expanded and revised in various editions until 1988. Apart from incorporating the results of later research, the later editions also allowed him to reassess some of his earlier observations with a critical eye, which was always one of his great strengths as a researcher and academic. The book proposed that a single unifying thread ran through Sardinian prehistory from the Neolithic period, even starting in the Palaeolithic period, until the Phoenician conquest. It established elements of the historiography of the island using data obtained from his work as an archaeologist. Many of the principal Sardinian monuments were described in an elegant style which alternated with detailed, creative and lyrical descriptions. The book was aimed at not only archaeologists and students, but also at a wider public, and indeed the book was dedicated to 'the shepherds of Barbagia'. Generations of archaeologists have studied the manual and found themselves cited in later editions, in agreement with Lilliu's global historiographical approach which aimed to unite past archaeological research with his experience of teaching Sardinian Antiquity in a university context. This book also gave birth to a national and popular history of prehistoric Sardinia, and expanded the work of archaeologists and their research from being only something studied in university lecture rooms and solely of interest to academics to its status as part of the common heritage of all Sardinians.

This social dimension, this impact, can be clearly seen from Giovanni Lilliu's popularity, which came from having shone a light on the national history of Sardinia and giving life to a Sardinian historiographical tradition, i.e. one with a strong sense of identity. His fame led to him being consulted, even in the later years of his life, on current events in Sardinia not necessarily related to culture or archaeology and being seen as a kind of prophet or even as the 'father of his country'. One of the many lessons that he taught us, and in which he himself was an expert, was the importance of intellectuals being able to discuss, communicate and talk about complex historical themes in a way which was both comprehensible and of interest to laymen.

He showed a total but clear love for his land by taking on civic responsibilities, which he fulfilled in a way which was never dull but rather vigilant and acute, despite his soft tone. As a cultured man, he worked for the Regional Council of Sardinia, drafting the Special Statute of Autonomy. He was also involved in politics, first as a member of the Christian Democrats and later as a supporter of initiatives which promoted the independence of Sardinia and of progressive positions which were

close to the Centre-Left. In practice, he was active in actions which were designed to give greater value to Sardinian identity and culture.

The ideological basis for these activities were elaborated by Giovanni Lilliu at the start of his intellectual life, and were made completely clear in the 1970s when he developed the concept of 'constant Sardinian resistance'. At the beginning of the first prehistoric phase, the Sardinians were characterized by their resistance to foreign invaders and any attempts at acculturation. This characteristic did not disappear in ancient times, but has been a constant theme of Sardinian history and ethnicity, and is still present today. In this sense, Sardinian culture is not a fossil, but rather displays an extraordinary historical continuity with the past. This is an analysis which never became an idealization of aspects of Sardinian society and behaviour, but rather provided a clear and realistic picture through also identifying its negative aspects and its limitations. Nuragic civilization in particular became a symbol of a polycentric society, always in conflict with itself, the land and foreign invaders.

However, it is certainly limiting to supply a rigid definition of what Lilliu meant by nuragic civilization, given that he saw it as a dialectical relationship between its various dimensions, and worked on a reconstruction of it that was complex and multifaceted. He proposed an interpretation of nuragic civilization that saw it not as local but Mediterranean. In this, he was greatly influenced by his direct experience of excavations in the village of Ses Paisses in Majorca, where he found ethnic roots which were common to all the large islands of the West Mediterranean, the Balearics and Corsica, although there were also differences connected to the independent developments drawing on their insularity.

The fact that he found writing easy as can be seen from his some 330 publications. The last of these was in 2010, and was a detailed description of the excavation of the Giant's Tomb of Bidistili in Fonni. It is worth saying that many of the present arguments about certain elements and problems of prehistoric and proto-historic Sardinia were originally raised by him.

I would like to end this brief and partial memorial to Giovanni Lilliu by mentioning his work as a university professor of prehistoric and proto-historic Sardinia (and not only those subjects – with great versatility he also taught Geography and Christian archaeology). What I will personally remember is his little figure in jacket and pullover (he seldom, if ever, wore a tie), typewritten sheets in hand, and always punctual. He never postponed a lesson and was never

absent. As an examiner he was always courteous and understanding. But you had to be very well prepared for his exams. The end of the course every year was the moment that we all waited for. Then there were the one or two day excursions that he led us on to various parts of Sardinia. We students would present

our explanations of the monuments and he would listen with great attention as if it were his first visit, and then sometimes add some of his own memories, making it ever more clear how he was the creator of our view of prehistoric Sardinia.

He really was the memory of Sardinian history.

Tributes to Dr David Trump, FSA, UOM (1931–2016), and Dr Euan MacKie, FSA (1936–2020)

Caroline Malone & Simon Stoddart

David Trump was best known for his important work on the islands of Malta (Malone 2020), but his contribution to the prehistory of Sardinia is also worthy of record in the context of this volume.

David Hilary Trump took his first class BA in Arch and Anth at Pembroke College, Cambridge in 1955, and was a scholar of both the British School at Jerusalem, where he dug with Kathleen Kenyon, and the British School at Rome, where he excavated the key site of La Starza.

After Malta, Trump held the post of Staff Tutor in Archaeology at the University's Board of Extra-Mural Studies until retirement in 1997, when he was succeeded by Caroline Malone. He not only contributed to the teaching of Mediterranean Prehistory in the Department of Archaeology, but also had a large following in the wider, continuing education community, engaging mature students in all aspects of Archaeology in the region and beyond. It was during this period that he made a major contribution to the archaeology of Sardinia, uncovering once again unsuspected phases of prehistory at Grotta Filiestru (Trump 1983) and completing the survey of Bonu Ighinu. At Grotta Filiestru, he characteristically invested all the resources he could muster into constructing an effective chronology (Switsur & Trump 1983) and some of the first faunal studies undertaken in Sardinia (Levine 1983). This work was, in its way, as equally pioneering as his work on the island of Malta. The Grotta Filiestru produced a new scientifically dated sequence of Sardinian prehistory, identifying the fifth-millennium *bc* Filiestru Neolithic phase for the first time. In earlier fieldwork he also excavated the cave site of Sa 'ucca de su Tintirriolu (Loria & Trump 1978). His work around Bonu Ighinu (Trump 1990) is, however, closest to the

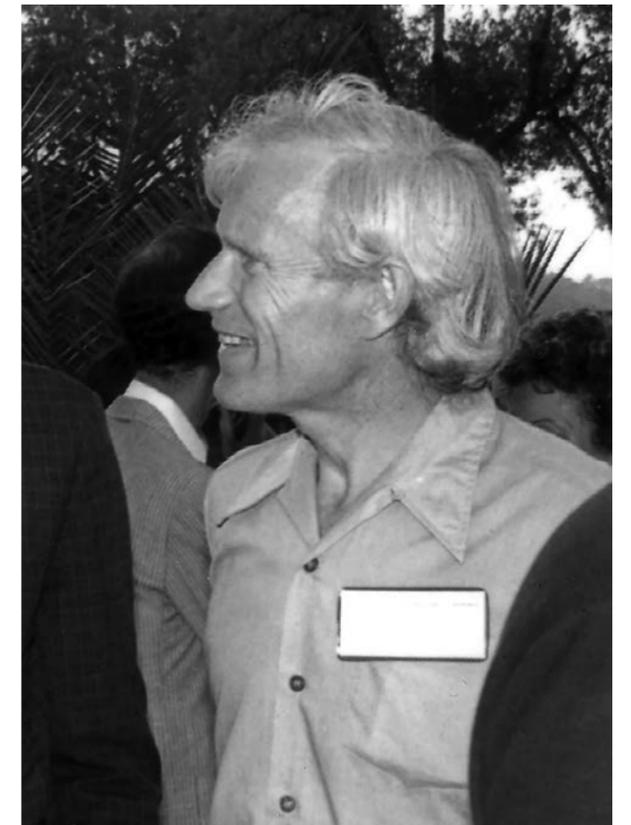


Figure 0.1. *David Trump.*

theme of this volume since, in typical energetic style, Trump also provided one of the earliest studies of a nuragic landscape, once again demonstrating a pioneering role, now followed by many others.

Euan MacKie was a central figure in the study of brochs, as is shown by the very high level of citation in this volume (Mackie 1965 ... 2008). In several ways the contribution of David Trump and Euan MacKie run in parallel, one journeying south, the other journeying north also from Cambridge beginnings, both Fellows of the Society of Antiquaries of London, engaged in seminal fieldwork, on a shoe string generally with volunteers, providing the first chronological foundations for monuments in the landscape and addressing synthesis of the results. Both were pioneers of their generation who retained their own intellectual independence in museums (both) and in continuing education (Trump), rather than a department of archaeology or a heritage organization.

MacKie graduated in Archaeology and Anthropology from St. John's Cambridge in 1959 and took his PhD from the University of Glasgow in 1973, becoming, after a brief period at the British Museum, Keeper and Deputy Director (1986) of the University Hunterian Museum. As a graduate he took part in an expedition to British Honduras, directing the excavation of the Maya site of Xunantunich, leading to an interest in Mesoamerican archaeology throughout his life.

His excavation of brochs such as Dun Mor Vaul on Tiree, published in 1975, Dun Ardtreck on Skye published in 2000 and Leckie in Stirlingshire published in 2008, were fundamental in uncovering the sequence, material culture and chronology of these monuments. He gathered information for his important three-volume compendium on brochs from his own excavations and the investigations of others, undertaking research well into retirement (1998), publishing the final volume in 2007. These volumes are landmarks of data on the subject, a resource which provides a platform for all broch studies. His achievements were also celebrated in his Festschrift, *In the Shadow of the Brochs* (2002), showing the respect shown to him by younger generations.

He ventured far and wide in his more interpretative work. Some of his interpretations of broch builders and their monuments are no longer widely held and the chronologies are currently being reconsidered, but his stimulating approach to ideas endures. He



Figure 0.2. Euan MacKie on Mousa broch in the Shetlands in 2000 at the Tall Stories conference.

was passionate about many other subjects including his seminal work in prehistoric metrology and archaeoastronomy. The volume *Science and Society in Prehistoric Britain* (1977) was a central work for Glyn Daniel's teaching in Cambridge, and he made the valid point that the sophistication of prehistory is not to be underestimated. His interest in ethnography, no doubt drawing on his Arch and Anth undergraduate career at Cambridge, gave him a great respect for other ways of thinking and for the architectural and political achievements of prehistoric Britain, most notably for the builders of the brochs themselves in the Iron Age.

Chapter 1

Introduction

Simon Stoddart, Ethan D. Aines & Caroline Malone

Gardening may seem worlds away from *Nuraghi* and *brochs*, but tending a garden is a long process involving patience, accretion and memory. Scholars argue that memories are also cultured, developed and regained. The monuments in Scotland and Sardinia are both testament to the importance of memory and its role in maintaining social relations.

The main goals of the conference on which this volume is based were to facilitate dialogue between European scholars on the common theme of memory, monuments and history; to explore the use and reuse of prehistoric monuments; to focus on new interpretations of monuments in Sardinia and Scotland that go beyond architecture; to highlight the rich heritage of memory in Europe and offer new methods of conceptualizing memory; and to disseminate the latest thinking on memory and monuments to the wider academic community. In common with previous conferences in series dedicated to the long Iron Age (Cifani *et al.* 2012; Popa & Stoddart 2014), the conference also accommodated case studies beyond the main regional focus of Sardinia and Scotland. The volume follows a format similar to the previous volumes, edited with invaluable assistance of an early career scholar, in this case Dr Ethan Aines. A short introduction opens the volume and a longer thematic endnote closes it.

Gardening Time is a title that draws on many memories of texts read and monuments observed. In essence, it may be seen as a wrapping of Marilyn Strathern with Richard Bradley, linked into a five-year physical experience of the Great Garden of Lismore in Scotland, and informed tourist visits to Sardinia. It is a title that provides a great metaphorical envelope for the collected chapters that follow, apparently disparate, but linked together by the presence of strong, physical forms that provide context for memories, both from the Past and in the near Present.

The metaphor of the Garden provides a rich analogy for the cultivation of time (cf. Street and Copeman 2014): designing, clearing, digging, planting, drilling, mulching, weeding, growing, trimming, pruning, dead heading, tending, cutting, harvesting, composting, fertilizing, burning and sitting (at least in the modern garden). Prehistoric societies probably generated similar metaphorical associations and allusions, one of the major lessons of social anthropology. Gardening is the imposition of order, but that very order is constantly changing in a way that requires constant attention. The monuments in this volume may provide stability for memory. Nevertheless, an unattended garden or monument, even an English garden, soon becomes a wilderness or a ruinous folly. The garden provides a tension between unregulated nature and degrees of imposition of culture. A garden is also a place that has sensory associations. Memory has many similar qualities, particularly in terms of the relationship to the gardener or the visitors to that garden. The idea also draws on Bradley's *Regained Time* (1987) and *Altering the Earth* (1993), in terms of introducing a strong element of materiality to the processes of memory formation.

The introduction of the material brings the most visible prehistoric monuments (mainly but not exclusively brochs and *Nuraghi*) of Scotland and Sardinia into focus with a small foray into comparative European worlds (Mason and Wells). These may seem an improbable conjunction of elements, but the combination worked surprisingly well in the original conference, and the reviewers confirmed the success of the unlikely combination in focusing on two sets of prominent monuments, in implicit comparison. Both brochs and *Nuraghi* are prominent features of the modern landscape, even if chronologically and conceptually separate. The *Nuraghi* have their origins in the Bronze Age (Usai this volume; Depalmas this volume; Barber *et al.* this volume). The brochs have

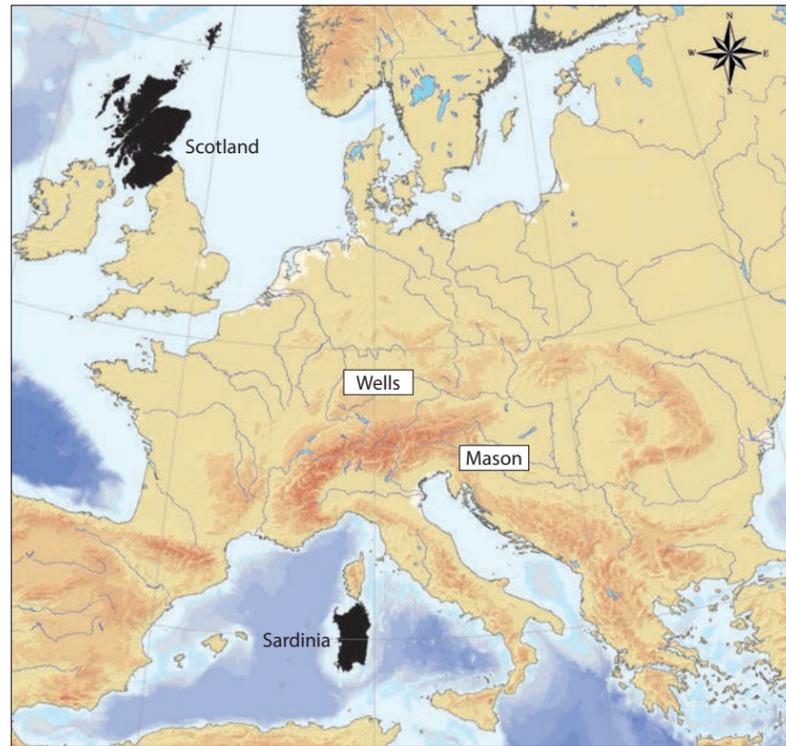


Figure 1.1. The two principal areas covered in the text and the location of the two other articles.

their origin in the Iron Age (Barber *et al.* this volume) and are largely contemporary with a different Roman world. Superficially they look similar, and they share some generalized typologies of simple and complex, but their constructional techniques are distinct and separate. In our editing, we have respected the varied views of the different authors, illuminating the differing memories that scholars as much as the general public have of these monuments. As in common with this series of Iron Age volumes, we have provided a unified bibliography and index, but also given some freedom to each chapter to stand in its own right, leading to some overlap in coverage.

In spite of these separations, the similarities between Scotland and Sardinia, are more numerous than one might initially expect. Both are proud nations with an aura of military prowess that have grown up under the heel of colonialism, both have rich linguistic and musical traditions, both have cuisines declared distinct, and both, importantly for this volume, share similar drystone monuments, brochs and *Nuraghi*. Nevertheless, many of the differences between both Scotland, Sardinia and their colonial oppressors have been exaggerated particularly in reaction to that colonization.

In Scotland, these differences became most pronounced in the period after the Act of Union in 1707. As Trevor-Roper traces, tartan, as we think of it today,

a cloth woven in a geometrical pattern and one of the major symbols of Scotland, seems to have come from Flanders sometime in the sixteenth century (1983, 19). However, its popularity first dates to a pageant devised by Sir Walter Scott. Although Scott rejected the authenticity of the epics of Ossian, written almost entirely by James Macpherson, and another important source of a created, golden age in Scotland (Shanks 2012, 59), he noted that the ancient Caledonians had undoubtedly worn tartan 'philibegs' (Trevor-Roper 1983, 18). Only later did the different clan differentiations of tartan really become established. As Hobsbawm (1983, 7) remarks, nationalism was 'so unprecedented that even historic continuity had to be invented, for example by creating an ancient past beyond effective historical continuity, either by semi fiction or by forgery'.

Cuisine has an important function in emphasizing differences between nations (Murcott 1996, López-Rodríguez 2014) and even within nations (Bourdieu 2010). Porridge (known as oatmeal in America), an icon of Scottish cuisine along with haggis, may have more definitive roots in the past, and it was used, particularly by the English, as a derisive emblem of the Scots in songs during the Jacobite Risings (Hutton 2004). Samuel Johnson noted in his dictionary that porridge was 'a grain, which in England is generally given to horses, but in Scotland appears to support the people' (Johnson 1755). Johnson, who suffered from obesity and

gout (Rogers 1986), could have used a bowl of oatmeal or two, and today, porridge has global appeal, touted by cardiologists as a low-glycemic health food perhaps better for cholesterol levels than statins (Seal 2017).

Likewise in Sardinia, Pecorino, seen as one of the emblems of local cuisine, has a complicated past in regard to colonialism. It was produced in bulk on the island following the Roman conquest in the third century BC, though this tradition greatly diminished following the collapse of the Empire. Yet in more modern times, fromagers (or perhaps more properly *formaggiari*) produced Pecorino predominantly in Latium until the 1880s when, in response to a milk shortage and local prohibition on salting cheese in shops, much of the industry moved *back* to Sardinia (DOOR European Commission 1996). Thus, the cheese became an important local icon during the period following the Unification of Italy, in a time when emphasizing regional differences gained greater urgency. Therefore, while Pecorino has ancient roots, having been celebrated by Cato and Pliny (DOOR European Commission 1996), once again a disjuncture with the past may be observed. These traditions, although lacking what we might think of as direct continuity, are no less important in forming the bases of the imagined communities that comprise nations (Anderson 1983). Further, many of Sardinia's traditions, as in Scotland, such as its rich musical heritage may date back to prehistoric times.

One key issue is how much the monuments under consideration here are part of the public imagination. Clearly the state authorities, Historic Scotland and the Soprintendenza di Sardegna declare them to be so. Is this merely a top down strategy? There is evidence, albeit largely anecdotal, that the approach is more successful in Sardinia than in Scotland (Stoddart this volume).

The articles that follow were invited to reflect on these themes. Some (Hannah Malone, Raven/McLeod, Vanzetti; Stoddart/Malone/Redhouse) reflect with some gusto on the cultivated layers of memory. Others focus on the built monument (Barber *et al.*, Cavers *et al.*, Buster/Armit, Campbell, Lenfert, Perra, Romankiewicz/Ralston, Stiglitz, Tronchetti, Younger). The remainder reflect on landscape (Castangia, Depalmas, Lai, Mason, Meredith-Lobay, Sharples, Usai, Wells).

The volume opens ahead of this chapter with two short tributes to two leading scholars who have worked in Sardinia: Lilliu and Trump. The first was a figure who towered intellectually over the interpretations of Sardinian prehistory, eloquently and sympathetically memorialized by the words of Anna Depalmas. The second is better known for his fundamental work on the smaller central Mediterranean island of Malta, but his contribution to Sardinia, and more particularly

to *Nuraghi* in their landscape was also considerable. What perhaps binds them together was a realization that the public reception and memory of monuments was crucial to their understanding. We have added a tribute to Ewan MacKie who died at the beginning of the year, and who pioneered much of recent modern work on brochs, including their chronology.

The next section considers Built Time. It starts with an explicit comparison between Scottish and Sardinian monuments. Barber *et al.* concentrate on the structural comparison between the two classes of builds, but stress that memory resides in the place rather than the structure itself. Cavers *et al.* see brochs as fluid points in the fluid political landscape. Buster and Armit construct a biography of the memories of Broxmouth, aided by new radiocarbon dating. Campbell examines the depositional strategies, particularly of Roman objects, in reinforcing traditional social concepts. Lenfert transfers the idea of monumentality to island dwellings in Scotland, where practices of reuse may be compared to those of brochs. Perra takes the analysis back to Sardinia, providing an overview of the entangled internal and external memories implicit in the Sardinian monumental sequence. Romankiewicz and Ralston address the question of the timber resources within broch construction and the implication that this holds for long term use. Stiglitz investigates the long-term use of *Nuraghi* after their *original* use, showing another dimension of their entanglement in Sardinian history. Tronchetti addresses the role of the *Nuraghi* in the Iron Age, a period of continued use after the time of their original construction. The final contribution to this section by Younger examines the commemorations in Neolithic henge monuments of Scotland.

The following section places monuments in their landscapes that range outside Sardinia and Scotland into a broader definition of central Europe. Castangia opens the section with a GIS exploration of how *Nuraghi* are linked to visibility and movement, both contributing to memory construction. Depalmas outlines the full ritual context of the *Nuraghi* which must have formed foci for recounting ancestral memories. Lai takes the analysis to the study of the funerary realm redressing some common misconceptions and thus addressing new dimensions of memory. Mason takes the analysis to the hillforts of early Iron Age Slovenia where memory and movement were entwined. Sharples by contrast looks back in time from the Iron brochs at how the tombs of the Neolithic ancestors were a resource for the people of the Iron Age. Usai follows with a survey of the landscape development of the *Nuraghi* and how that interacted with memory in a series of cycles that has similarities to recent research on Malta

down to the detail of protected horticulture (French *et al.* 2020). Wells concludes the section by providing a grand narrative of monuments, material culture and memory in the central European Iron Age.

The final section closes the volume with the layers of time created by monuments. It starts with

a study of the modern Cagliari cemetery (Malone), passing through layers of historical memory in Scotland (Raven/MacLeod and Stoddart *et al.*), and ending with a powerful and wide ranging metaphorical account of nuragic memories (Vanzetti), inspired by this volume's title.

Part I

Built time

Chapter 2

Memory in practice and the practice of memory in Caithness, northeast Scotland, and in Sardinia

John Barber, Graeme Cavers, Andy Heald
& Dimitris Theodossopoulos

The concept of social ‘memory’ (see Shackel 2003; Thomas 2007) as applied to multi-period monuments runs a great risk of being simply teleological. A broch may contain remains dated to the Bronze Age, Iron Age and Early Medieval Periods, presenting the temptation simply to join the dots and produce a teleological narrative linking these potentially unrelated points in a pseudo-history of continuous settlement. This writer, and others (Barber & Crone 2001; Halliday 2007; Cowley 2003) have shown that continuity of settlement even in simple structures is not a first principle, but more often, a desired conclusion masquerading as a first principle, a common logical fallacy (see Mill 1947, Chapter VII). Much prehistoric settlement is of short duration and sequential settlements on the same locus are commonly separated by intervals of abandonment. Where the evidence survives to test this assertion, as in the Alpine lake dwellings (Suter & Schlichtherle 2009, 32–3) or Scottish crannogs (Crone 2003, 110) or settlements in sand dunes (Barber 2011, 50), it is abundantly clear that settlement is intermittent in nature and that the settlement locus reverts to nature in the *inter regna*. It may be argued that these waterlogged or, rapidly sedimenting sites are in some way special but similar evidence exists for the ubiquitous Bronze Age hut circles of the Scottish uplands (Barber 1997, 8–10; Barber and Crone 2001, *passim*: see also Halliday 2007; Cowley 2003). It would require special pleading indeed simply to dismiss the weight of this evidence.

If, for the moment it be accepted that the settlement of brochs may have been of this type, i.e. sequential and episodic, and that the monumental broch structure was not visible during the later settlement episodes then the scope for memory may be embedded in the location or locus, rather than the monument itself (below).

Cultural Landscapes are defined in the operational guidelines to the UNESCO World Heritage

Convention (UNESCO 2008, Clause 47) in the following way:

Cultural landscapes are cultural properties and represent the ‘combined works of nature and of man’ designated in Article 1 of the Convention. They are illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both external and internal (UNESCO 2008).

The interplay of people and their physical environment specifically as defined in UNESCO’s operational guidelines is referred to here as the ‘people/place relationship’. Settlement on a given locus occurs when the people/place relationships available at that locus favour the exploitation of that place by those people at that time. A naturally defensive position may have been repeatedly, but intermittently, reused as a place of refuge in difficult times because the underlying people/place relationship (here, defensibility) fosters long term if intermittent occupation (with intermittent anthropic deposit formation). The rationalization for reuse, over longer timescales, may lose sight of the pragmatic reasoning for its initial selection and focus instead on a social memory of the traditional use of the place as a refuge in troubled times.

Episodic resettlement on a locus can thus reflect an autocorrelation of people and place *via* some fundamental people/place relationship. It does not, *de facto*, provide evidence of continuity of settlement, on the one hand, nor, on the other, does it demonstrate a causative role for invested memory in predicating reoccupation of the locus.

Concepts and meanings: architecture and engineering

John Ruskin (1989, [facsimile reprint; recté 1880], Chapter 1, 8–9), the great Victorian art critic who had relatives in Perth, defined ‘architecture’ as the elements in a structure that are not essential for its structural integrity, and this is the sense in which the term is used here. The modern term ‘structural engineering’ (Ruskin called this ‘building’) encompasses those elements that are essential for the structural integrity of the building. Engineering differs from architecture in the degree to which it constrains the freedom of the designer/builder to express culturally significant choices. Structural elements constrain the builders’ freedom of choice to those possibilities achievable with the contemporaneous building technologies. For non-structural, architectural elements, the designers’ freedom is relatively unconstrained and they can deploy culturally determined choices to a far greater extent. This distinction between architecture and engineering is perhaps clearer in ancient drystone built structures than in modern buildings. Nonetheless, it is not possible to make an absolutely clear divide between architecture and engineering and indeed, their interplay is the conceptual arena in which architectural tectonics hold sway. As Patrik Schumacher (2012) noted:

If we define tectonics as the strategic utilization of an element’s technically induced morphology in order to address social functions in the articulatory dimension, then tectonics can be redeemed and integrated within contemporary notions of handling form-function relations. We might call this strategy of utilizing technical details tectonic articulation.

Schumacher’s ‘tectonic articulation’ is a useful concept for the consideration of structures and society in the remote past.

The scale of a structure is an architectural factor, used to convey social meanings. Small structures e.g. individual domestic dwellings, display very restricted structural variation within their genre, for example, hut circles are found in almost all periods and in many lands and they were the dominant Scottish built form for over 2,000 years. Ruskin argued that the exploration of cultural choice is naturally restricted to large buildings because small quotidian structures are architecturally too bland to carry much burden of cultural meaning. Archaeologists have long accepted that the scale and monumentality of the brochs and

Nuraghi elevate them to that category of large buildings; Ruskin’s ‘public’ or ‘communal’ buildings. Large buildings are capable of bearing a considerable burden of social meaning which may, in principle, be rediscoverable.

Drystone building technologies

The term ‘building technology’, as used here, refers to the techniques, tools and methodologies deployed in all stages of a drystone-built construction project, from the bedrock quarrying of the stone to the completion of the structure. They influence the scope for structural sophistication as well as for architectural expression, limiting the tectonic articulation of these structures. The morphological and tectonic similarities between *Nuraghi* and brochs arise from their common deployment of a dry stone building technology that relies on horizontal arching, corbelled *tholoi* and cantilevered sub-structures. All of these in turn rely on the natural incompressibility of stone and the immobilization and positional stability of the individual building stones.

Horizontal arching (Fig. 2.1a) creates ring beams, when a circuit of compressed stones is continuous, like the layers within a *tholos*, or beehive-shaped corbelled structure. The stone must not crumble at the contact points and no stone must move out of position (Barber 1992, 24). Segmental horizontal arches (Fig. 2.1b) used as revetments in rectangular floor plans, exploit the same technology, but do not resolve all the forces acting on them and require abutments at either end to contain the unresolved lateral thrusts. Like corbelled *tholoi*, they also require incompressible stone fixed in place with near absolute positional stability.

Corbelling (Fig. 2.1c) is the systematic and sequential superimposition of horizontal arches that reduce in diameter as they rise to achieve a vertical closure which, because it is self-sustaining at every point in its creation does not need scaffolding or centring for its construction.

Cantilevering (Fig. 2.1d) is used to achieve partial closure of a roof space, reducing the span to be covered, by corbelling its margins inwards. Its existence does not necessarily imply that the final closure was by stone; wooden roofing with short beams would have been made easier by this technique.

Incompressible stone was widely used in the construction of *Nuraghi* (mainly volcanic and metamorphic rock types) and of brochs (mainly volcanic and metamorphic on the west coast and mainly hard sedimentary sandstones on the east coast). These are all sufficiently robust not to crumble at the edges at which they adjoin the ring beam.

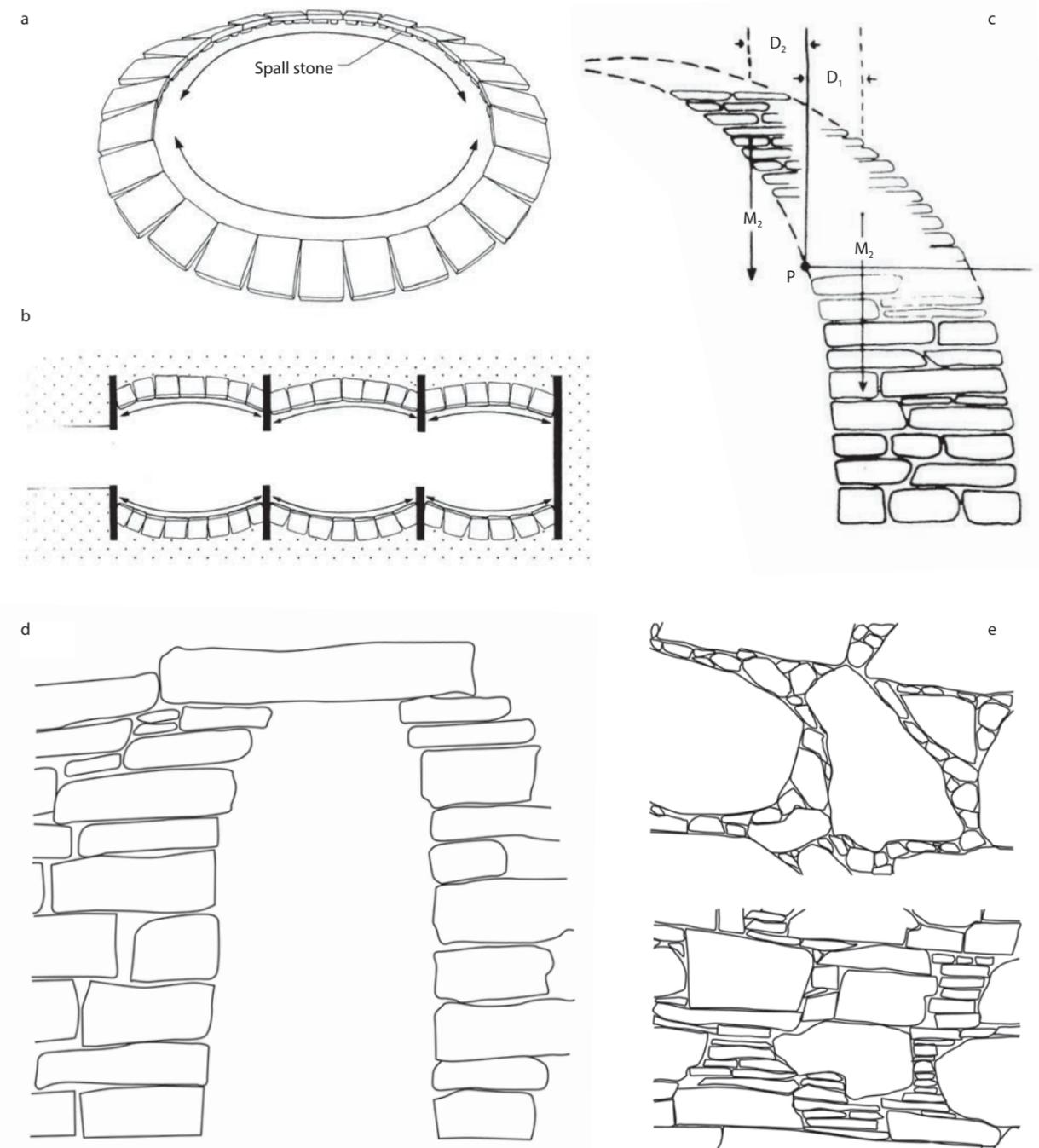


Figure 2.1. Drystone building techniques: a) horizontal arches; b) segmental horizontal arches; c) corbelling; d) cantilevering; e) dense stone packing.

Positional stability of the building stones is a *sine qua non* for the creation of the ring beam effect because structural integrity is lost if its individual components are free to move out of the compressed circuit, even by

small amounts. In brochs, this is secured by panels of pinnings infilling voids between building stones, whilst, in *Nuraghi*, dense stone packing between the large constructional blocks achieves the same end (Fig. 2.1e).

Canonicity and mutability: canonicity

The term ‘canonicity’, is defined by the OED as ‘... authoritative; orthodox; standard...’. In this chapter we explore the consequences of architectural canonicity in prehistoric dry stone built structures by which is meant the tendency for structures, especially prehistoric structures to conform to some orthodox or standard design. In historical societies with no, or restricted literacy, architectural canonicity ensured consistency of design by requiring simple initial inputs and deploying known proportionalities to facilitate the transmission of the design concept from client to architect to builder (Schofield 2009, 66–9). Early Christian churches and domestic buildings in Ireland were sometimes specified by a single dimension (Murray 1979, 82–3). The simple wooden oratories of the earliest church in Ireland were so idiosyncratically standard that they became iconic of ‘The Church’ itself (Bede refers to churches on Lindisfarne constructed of oak, with a roof ‘...thatched with reeds after the Irish manner...’) and are represented in vellum (Book of Kells; Meehan, 1994, 11), metal (House shaped shrines, e.g. Monymusk Reliquary, Eeles 1934, Plate VI) and in the stone capitals of high crosses (e.g. Muiredach’s Cross, Clonmacnoise, Richardson & Scarry 1990, 128–9). In the transition to stone built churches the canonicity of the wooden churches yielded to that of simple stone built forms (O’Carragain 2010, 113, *et seq.*). Canonicity facilitated church building because, given one dimension (typically the length) all of the structure’s other dimensions could be derived from known proportions of this quantum according to a canonical scheme comprehended by the builders.

Architectural canonicity is perhaps best exemplified in the layout of more complex buildings like medieval cathedrals (Stalley 1999, 117–19; Kostof, 1995, 281; Fernie, 1976, 77–86 and Hahn, in Stalley 1999) and whilst some element of *post factum* analysis is detectable in some superficial studies of earlier structures (see Rossi 2003, 2–6 for discussion of the ‘Egyptological’ phenomenon) the existence of Classical and early proto-historic references to proportional schemes removes any possible doubt about the existence and universality of the process in the construction of large and complex buildings.

Canonicity is a conservative force, ensuring that the complexities of a design (once derived from first principles or from accumulated experience) could be disseminated to less expert workers and still reproduce the design in a safe and usable form. Canonicity resists the introduction of random variation in style or form but, within the canonical framework, some degree of variation is necessarily possible (see for an

extreme example the non-standard form of the Lomello church plan, altered to fit an irregular site, Stalley 1999, 117). Robert Ousterhout (2008, Chapter Three, 58–85), attributes the standardization of church buildings in the Middle and Late Byzantine to the replacement of architects with master-mason equivalents in the building programmes.

Mutability

Humanity’s requirements of built spaces vary over time and structures have been modified on scales ranging from minor internal rearrangements to major alterations of the building fabric, in response to socially driven requirements. ‘Mutability’ as used here, describes a structure’s capacity for change.

The radiocarbon dating programme from the excavations at Thrumster broch reveals a complex construction history at odds with the simple appearance of the monument. The latter had been identified by MacKie (2007a, 448) and, pre-excavation, by these writers, as a probable solid based broch. However, the broch’s fabric underwent changes of considerable magnitude between c. 400 BC and AD 400 (Fig. 2.2). MacKie has reported clear evidence for reconstruction in the fabric at Clickimin, Shetland (2008) and at Midhowe and Gurness, Orkney (1995). Direct observation of many other sites indicates the probability that their fabrics have been reworked but founding significant conclusions on masonry patterns alone would be rash indeed.

Thrumster broch’s fabric was readily modified because it comprises stones of modest sizes. These, unfortunately, are ideally suited for building anything from a stone wall to a large house. It seems very likely that in the Regency refurbishments, stone from Thrumster broch was used during the Regency extensions to the adjacent Thrumster House. Tait (2005, 254–8) has recorded the reduction and loss of many Shetland brochs and their systematic use as quarries. Anderson similarly lamented the erosion of the prehistoric resource base (1883, 184–5). Despite their apparent massiveness as completed structures, brochs were and remain highly mutable during the various periods of their use and vulnerable to down-taking for building materials thereafter. Thrumster, *inter al.*, demonstrates that socially driven changes formed part of the early broch biographies also.

Scales of desired social change and of corresponding physical changes

Large scale social change does not always require large scale structural change and the cumulative impacts of many small scale changes can result in large structural

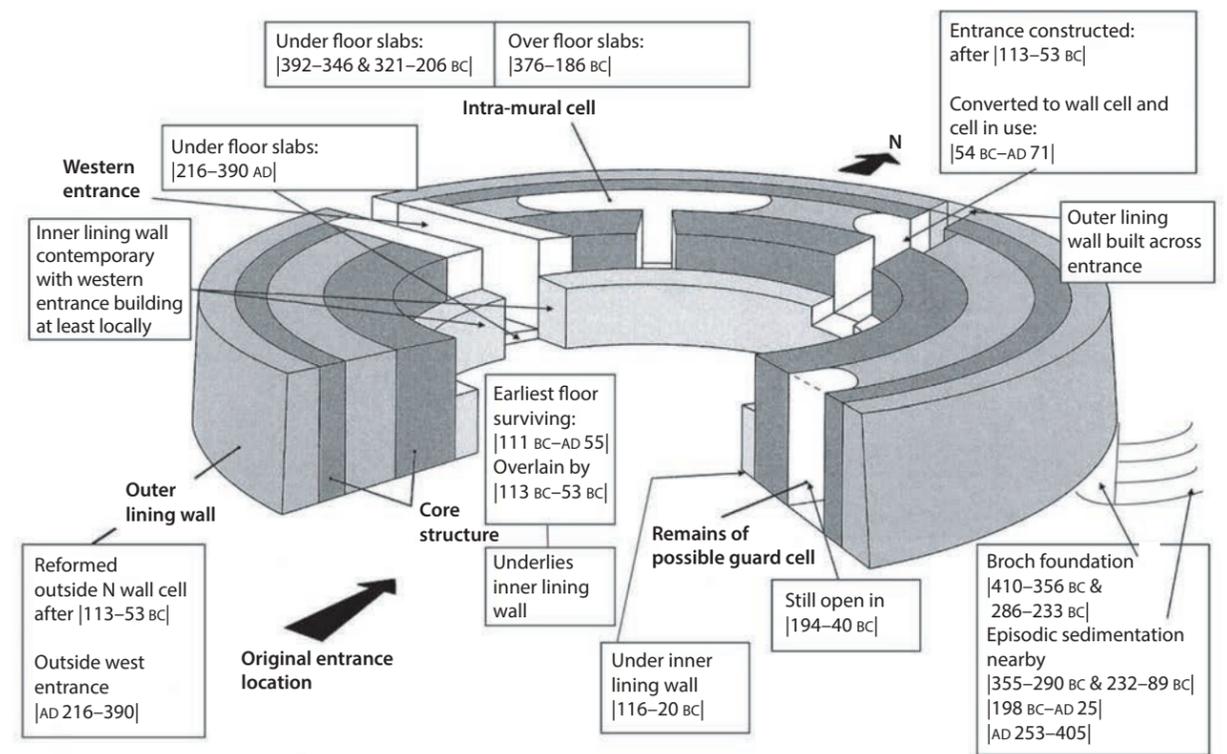


Figure 2.2. Thrumster broch skeletal chronology.

alterations. The relationship between structure and the constituent elements of ‘cultural memory’ is neither obvious nor direct (Thomas 2007, 260–6). For example, changes in the use of churches at the Reformation often required only a switch of focus from the high altar to the pulpit, even though the theological change was of the highest possible order (well-illustrated in dreary seventeenth-century paintings by de Witte). The economic investment in the existing structures and the cost of their replacement were also sufficient to deter wholesale change but social factors reinforced this conservatism. In Britain, for example, the process of reformation crystallized around the breeding programme of Henry VIII and was sustained by the collective greed of his ruling elite for church assets. Retention of the old structures to which a bemused populace could turn for spiritual comfort, as they traditionally had done, no doubt tempered potentially destructive responses to divisive and disruptive changes. Thus, theology demanded change, economics counselled conservation and social uncertainty reinforced the drive for conservation of the old forms. It would clearly be unwise to assume that archaeological evidence for great changes in structures demonstrates great changes in social processes or that small changes may be equated with social stasis.

Perhaps all large structures exist in a dynamic equilibrium between the forces of canonical conservatism, augmented by social and economic inertia, and the forces generated by evolving social expectations of the buildings. As the many currently abandoned churches attest, a time is reached in the evolution of the people/place relationship of a structure when the existing fabric is not capable of further modification. At that point the force of social demand exceeds the capacity of the structure for change and the structure is abandoned or demolished.

The monuments: brochs

Brochs are drystone built monuments found only in Scotland and there, concentrated in Atlantic Scotland, a zone that also includes the North Sea littoral. Brochs are widely spread throughout land of arable, if now marginal, quality (see surveys of, for example, brochs in Shetland Fojut (1982) and Caithness, Swanson 1989, 48–9, fig. 6).

Figure 2.3 sets out the terms used here to describe broch features. Brochs are commonly represented as tall structures (up to 13 m high), thick walled (3.5–5.5 m thick) circular structures with external diameters ranging up to 21.5 m with an enclosed area, up to

11.5 m in diameter open to the sky. An enclosed area or 'garth' is contained within a dry-stone-built complex wall. The complex wall, at ground level, contains small cells and is pierced by a single, low, narrow entrance passage usually furnished with door rebates or closing faces, bar-holes and guard cells (Fojut 1981; MacKie 1991, 150–1; Armit 2003, 55–78; Harding 2004, 109–23). Above this level, the complex wall is in fact two walls, separated by up to five lintelled galleries. The inner wall of the complex wall is usually vertical and of uniform thickness (typically about 0.8 to 1 m). The outer wallface of the complex wall reduces in diameter as it rises and the outer wall simultaneously corbels in over its footings, finally to meet with the inner wall just below the wallhead. This differs a little from the standard artist's impression of a completed broch tower (Armit 1996, 126) with wooden internal mezzanines and other features is based on the form of Mousa broch but, while Mousa is a broch, no other broch is a Mousa (Fojut 1981).

A projecting stone ledge forms a scarcement, to support a floor structure. These may have been mezzanine floors, given the common observation of large hearths in the centre of the ground floor and the absence of alternative ingress for daylight. Some broch excavations have revealed traces of post holes in the garth whose erstwhile posts may have supported the mezzanine floor (MacKie 2002, 6). No broch wallhead survives and there is no direct evidence for the nature of their roofing (but see Romankiewicz (2011) for reasoned speculations).

Competing taxonomies of the brochs (see Hedges 1987, Vol III for discussion) were, in the 1990s abandoned and all 'broch types' were subsumed within the general category of 'Monumental Atlantic Roundhouse' (Armit 1992, 22–51; and see Armit 1996, 109–36; and Armit 2003, 13–17 for overviews). Armit (2003, 16), argues that the term 'broch', *sensu* 'broch tower' can be usefully applied only to those structures exhibiting physical remains of a high hollow wall containing superimposed galleries. MacKie (2007a, xlix–lx), however, has identified 78 specific monuments to which he attributes at least a second storey. While the NMRS records some 573 actual, possible and probable 'brochs', structural details can only be observed at about 150 examples. MacKie's list therefore suggests that over 50 per cent of those monuments for which some level of observation is possible were in fact broch towers. The absence of 'Duns' from this listing does not invalidate this statistic, but should be noted.

The spectrum of forms in which Monumental Atlantic Roundhouses exist places the classic broch tower at the more complex extreme, the other extreme being occupied by Simple Atlantic Roundhouses,

like Bu (Hedges 1987, i), Pierowall (Sharples 1984), Quanterness (Renfrew 1979), Tofts Ness (Dockrill 2007), St Boniface, Orkney (Lowe 1998) and Crosskirk (Fairhurst 1984). These low-walled structures have no known intra-mural features or stairs and it is argued that some or all of them were probably built in the first half of the first millennium BC, i.e. pre-500 BC; a view whose confirmation is not helped by the impact of the Hallstatt Plateau Effect on their radiocarbon dates. These, apparently non-tower structures amount to 6 examples, or around 4 per cent of those c. 150 monuments for which some level of structural detail can be observed.

In the current 'standard model', Monumental Atlantic Roundhouses, divide into three significant sub-sets; Simple, Complex and Broch Towers. It further suggests that the Simple form progressed to Complex forms between 500 and 200 BC. The broch towers are viewed as a specialized form of Complex Atlantic Roundhouse which may have emerged around 200 BC (see Armit 2003, 51). Excavations in Caithness (Heald *et al.*, forthcoming; Cavers *et al.*, this volume) and Orkney (e.g. Carruthers 2013, 23–4) suggest that broch towers were often reused, in truncated form, as roundhouses, in the fourth and later centuries, probably by peoples conventionally described as Picts.

Village-type settlements were built around broch towers and other complex Atlantic roundhouses in Orkney and the northeast mainland (see Armit 1990c, 438–40; Foster 1989). Traditionally believed to be Pictish in date, Cavers *et al.* (elsewhere in this volume) present evidence that some at least were contemporaneous with the main period of broch use. In the Western Isles, nucleated settlements are unknown and isolated Complex Atlantic Roundhouses remain the Hebridean norm.

Nuraghi

The *Nuraghi* of Sardinia are described and discussed *in extenso* by our Sardinian colleagues elsewhere in this publication where authoritative descriptions can be found (but see Lilliu 1988, and Moravetti 1998a & 2000 for detailed plans, sections and descriptions of the *Nuraghi* of central-west Sardinia; see also Depalmas & Melis 2010 for their environmental context). Instead, only those features of *Nuraghi* on which the thesis of this chapter relies are presented here. As aliens to Sardinia, the writers are conscious that their observations and conclusions may be superficial and we look to our Sardinian colleagues to correct us where necessary. Much of the following account is derived from the works of the last named scholars, Lilliu, Moravetti and Depalmas & Melis, to whom we acknowledge our

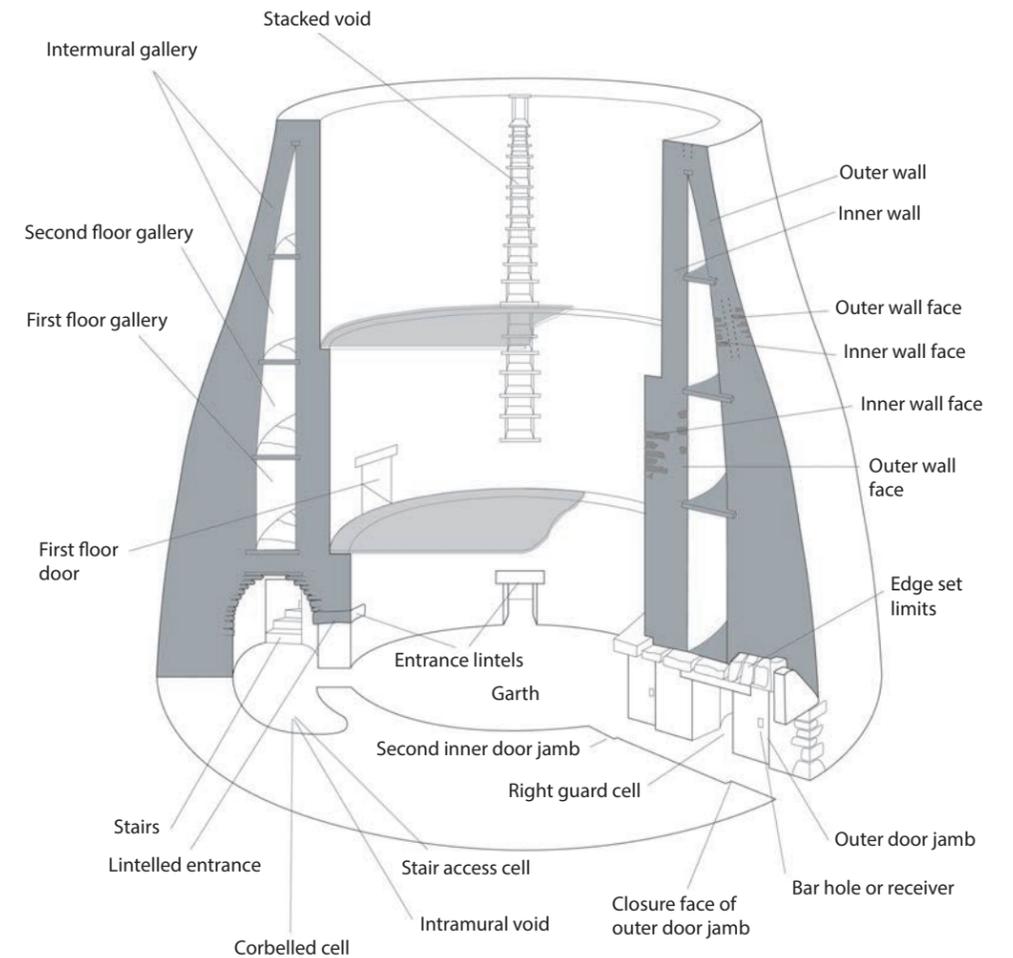


Figure 2.3. Broch terminology.

debt. One of us [JB] has visited and observed some 35 *Nuraghi*, including all of those referred to here.

Depalmas & Melis (2010) suggest that nuragic towers were first built as single, truncated cone shaped monuments in the period 1700 to 1600 BC. The local agglomeration of isolated towers began in the interval 1600 to 1350 BC and culminated, between 1350 and 1200 BC, in nuragic complexes with up to 6 (more usually 3, 4 or 5) nuragic towers enclosed within a curtain wall. At all stages, the nuragic towers were surrounded by a village-like arrangement of small, mainly domestic structures. While the towers persisted, it is extremely unlikely that any towers were built after 900 BC and the villages continued in use well into the Iron Age.

Nuraghi are taller than the brochs with which they have been compared, by Anderson (1883, 193) and by many others. *Nuraghi* are, in some cases, twice as tall as brochs but single nuragic towers, in general, have smaller external radii, so that the total volume enclosed by the outer wallface of a *Nuraghe* may, on average, exceed that of a comparable broch by only about 30

per cent of the volume of the broch. However, whilst the broch encloses a large garth which is not roofed in stone, the *Nuraghe* is massively built and contains up to three superimposed *tholoi* (Depalmas & Melis 2010, Fig. 11.5), reducing in scale with height. The *tholoi* are accessed by a helical stair, running between the external wallface and the inner *tholos* constructions. The massive nature of the build of *Nuraghi* gives values of up to 50 tonnes of masonry per square metre (tpsm) of enclosed floor space for single *Nuraghi* and perhaps twice as much for the nuragic complexes. In comparison, an average broch required some 35 tpsm (including the garth amongst the enclosed spaces).

Unlike brochs, some *Nuraghi* survive to wallhead height and the architecture of the wallhead arrangements are elaborate. They are machicolated, with a battlement wall carried on projecting machicolous stones, many of which survive (see Depalmas & Melis 2010, Figs 11.5 & 11.6, for examples). In addition, replicas and models of *Nuraghi* were manufactured in stone and metal and these replicate the wallhead

arrangements. These models are associated with ‘meeting huts’ which are usually the only circular village structures whose interiors are composed of cut and ground stone. The model nuragic tower stood within a shallow but well-made stone basin raised on a plinth. In later nuragic Period structures, altars are found, the corners of which are skeuomorphic representations of nuragic towers. It is suggested that the use of these representations of *Nuraghi* are late in, or post-date, the main periods in which the *Nuraghi* were built, and were possibly used in the Iron Age when the *Nuraghi* had ceased to function as domestic residences.

Post-construction biographies of brochs

Thrumster broch underwent a high level of modification and reuse within the envelope of the original building and during the first Broch period, i.e. between 400 BC and AD 200. The estate history records the removal of what was most probably a settlement around the broch during the Regency remodelling of the monument as a garden feature (Barber *et al.* forthcoming). Circum-broch settlement in the northeast mainland and Orkney were in intermittent use until the end of the first millennium AD. During these reuse periods, the broch was generally reduced in height to one or two storeys and the interior, if not filled and built over, was often reconfigured for use as a domestic residence. Finally, isolated burials were inserted into the mounds of decomposing broch and settlement in the Pictish and Norse periods, and new, rectangular structural forms were built from the displaced stone.

Modern archaeological claims that brochs were iconic can only have been true when their massive structures were still visible. Those involved in the later reuse of broch sites probably had no conception of the broch tower when they reused the locus; which in many cases would have been reduced to a mound of loose stone, or even grassed over by then.

No original or authentic legend, tradition or myth regarding brochs survives to us and they are not mentioned in any early texts (in contrast with, for example Irish ringforts and some Scottish hillforts) and the names by which their builders knew them are unknown to us (‘broch’ being of Norse origin). Therefore, the original cultural relevance of brochs was lost for a period, after which successive societies created false etymologies to embody broch remains in their own cultures.

The Pictish reuse of brochs was probably an attempt to legitimate the territorial claims of newly emerging princlings by association with the major residences of an earlier and possibly by then a heroic age. Monumental even in decay, their reuse for burial

may have been founded on the perception of that derived monumentality with which association was sought for the dead. This exercise in ‘manufactured memory’ is a consequence, possibly an unintended one, of a false etymology deployed to explain the monumentality of the remains.

In essence, the broch tower may have been iconic in its own time, but being highly mutable its native iconicism was lost, as its mutability facilitated its progressive degradation, the monument gradually being subsumed within its altered social roles, until the iconic tower monument was finally forgotten. Impressive in decay, it attracted adulatory reuse following its abandonment and elicited a reassessment of its social meaning, based on false etymology, when, its garlands dead and its Gods fled, it was deemed an appropriate burial mound for the occasional Pictish, Viking or Norse burial. It was the locus of the broch rather than the broch itself that retained access to social relevance over the greater part of this period. Sadly, many modern Scots seem never to have heard of a broch and consciousness of the broch’s contemporary iconicism seems largely restricted to archaeologists.

Post-construction biographies of *Nuraghi*

As noted above, the massiveness of the *Nuraghi*, and of their individual building stones, render them highly immutable, resistant alike to social and natural vectors of change. The inherent stability of the nuragic structure and the high cost of deliberate down-taking have militated against the loss of *Nuraghi* over time. Depalmas (2012, 172; referencing Contu), suggests that some 7,000 of the 9,000 *Nuraghi* originally built still survive, and records exist for a further 1,000. Their massive numerical and structural presence in the living Sardinian landscape has ensured that they have served as icons of Sardinian local, regional national and international identities, from their construction to this day. When their immutability eclipsed their social functionality, society pointed to their iconic status rather than their pragmatic functionality as the social validation of the nuragic form. For a time, they were venerated in effigy and even when this tradition passed, nuragic ruins continued to act as icons throughout the more recent past, even as they do for contemporary Sardinians.

Conclusion

Drystone building technologies limited tectonic expression, required canonicity and reinforced conservatism in large and or complex structures. Roofing by corbeling the internal space was not technically feasible for

brochs and was possible with *Nuraghi* only by massive building.

The people/place relationship on the sites of brochs continued to refocus upon broch sites even when the broch was forgotten. However, the *Nuraghe* was so dominant and powerful a symbol that it created around itself a ‘nuragic landscape’ that restricted the people/place relationship to a people/*Nuraghe* relationship; it became its own cultural landscape and persisted in that respect to this very day.

Canonicity implies a guiding mind. The idea that individual communities could each arrive at a canonical form independently is improbable in the context of a large and complex structure. A social mechanism that shared information and influence above and beyond the local and even regional level is strongly implied.

Mutability, as evidenced at Thrumster broch facilitated frequent changes which may have owed their inspiration to individual whim, evolving architectural fashion or the coercion, moral or physical, of more powerful neighbours. The undoubtedly complex relationships between social pressures and the physical organization and reorganization of brochs may yield to further field work. The immutability of *Nuraghi* rendered them immune to social pressures whose existence may be more easily explored in the surrounding settlements and the rich artefactual assemblages they contain.

Memory was embodied in the construction of brochs and *Nuraghi* and modulated in the mutability of

the former but crystallized in the permanence of the latter. Brochs were forgotten and subsequently reinvented (after AD 400) for other uses in which disparate acts of memorialization, founded on false etymologies, may have included aggrandisement of new polities, creation of appropriate burial sites for the ‘special dead’, Christian efforts at liturgical sterilization of ancient respected places, quarries for new constructions on site and elsewhere, and so on. *Nuraghi* encapsulated memory and by their dominance, formed and constrained it, restricting evolution to agglomeration into complexes. The term ‘*Nuraghe*’ is thought to be a Bronze Age survival and since then, the monumental form has retained its cultural significance as an icon of *Sardo* identity.

Large structures, perhaps all structures, exist in a dynamic equilibrium between the forces of canonicity and conservatism on the one hand and those of mutability and differential social pressures on the other. Drystone built structures may prove more highly mutable that at first appears but if massively built, remain immutable. But social pressures for change need not manifest themselves in the physical realities of the monument. Economic pressures rather than structural tectonics abbreviate the lives of modern structures when their inability to mutate to higher revenue-generating forms falls below a rate commensurate with the burgeoning greed of their owners. It will be hard to detect social mechanisms like this from site studies unless more, and more extensive, excavation is undertaken.

Chapter 3

Monuments and memory in the Iron Age of Caithness

Graeme Cavers, Andrew Heald & John Barber

Scotland's brochs, and particularly the broch village complexes that typify the later prehistoric settlement record of the north mainland, Orkney and Shetland, are often thought of as enduring monuments of Iron Age society: towers of prehistory that are relevant in discussions of archaeology from the mid-first millennium BC to the early medieval period. Recent research in Caithness (Fig. 3.1), however, is beginning to demonstrate the nuances of development and reconfiguration that are attested in the drystone construction of broch complexes, suggesting a dynamism in the development of broch settlements that is often masked by the impression of their longevity. This chapter considers how the revision of sequences based upon surface survey has brought about a change in our understanding of the role of brochs in Iron Age society, and may lead to a more nuanced view of the development of Iron Age society in the north.

It is now nearly 20 years since the publication of Heald and Jackson's paper, 'Towards a Research Agenda for Iron Age Caithness' (Heald & Jackson 2001). That paper reviewed evidence for Caithness and considered a range of scenarios in explanation for the remarkable arrangement of brochs found there. Many of the questions posed by the Caithness Iron Age could be exemplified by the Keiss cluster, where three quite different broch settlements, with apparently overlapping occupation sequences are found in very close proximity. Should the close proximity of these sites be attributed to chronological succession, varied function or varied status?

Heald and Jackson considered the bases upon which our judgements on these issues were made, and suggested that 'status' of individual settlements was assessed on flawed criteria, such as access to imports and sizes of structures (2001, 142). They stressed that, given the complexity and close juxtapositioning of many Caithness brochs, if we were ever to reach a

fuller understanding of Iron Age Caithness, then we would have to broaden our methodological approach and consider more than one site: it would be necessary to consider issues of structural complexity, location, inter-site patterning, and the fluid and developing nature of the Caithness landscape. By taking such an approach it may be possible to model the dynamic and changing character of contemporary social and political arrangements. Focussing on one site, they stressed, would only lead to a partial and simplistic view of Iron Age Caithness.

The broch 'icon': a creation of archaeological historiography or the reality of Iron Age political geography?

Heald and Jackson were attempting to clarify the apparently monolithic impression of Iron Age Caithness presented by simple distribution maps: the area has almost 200 brochs, a far greater density than any other area of Atlantic Scotland. This is the crux of the issue in Iron Age Caithness: the tension between the apparently very large numbers of brochs and their interpretation as symbols of power and authority (e.g. Barrett 1981, 215; Hingley 1992, 40). The examination of this conventionally accepted view of brochs (and to some extent Iron Age monumentality more generally) is one of the key issues considered by our research in northern Scotland.

The implication of endurance and longevity, exemplified in the title of the monograph report of the Howe (*Four Millennia of Orkney Prehistory*, Ballin-Smith 1994) is recurrent in descriptions of Iron Age settlement, particularly in northern Scotland, establishing brochs as physical and iconic landmarks in the landscape of prehistory. The concerted efforts of numerous campaigns of excavation, largely in the 1990s by Edinburgh (Harding 2000) and Sheffield

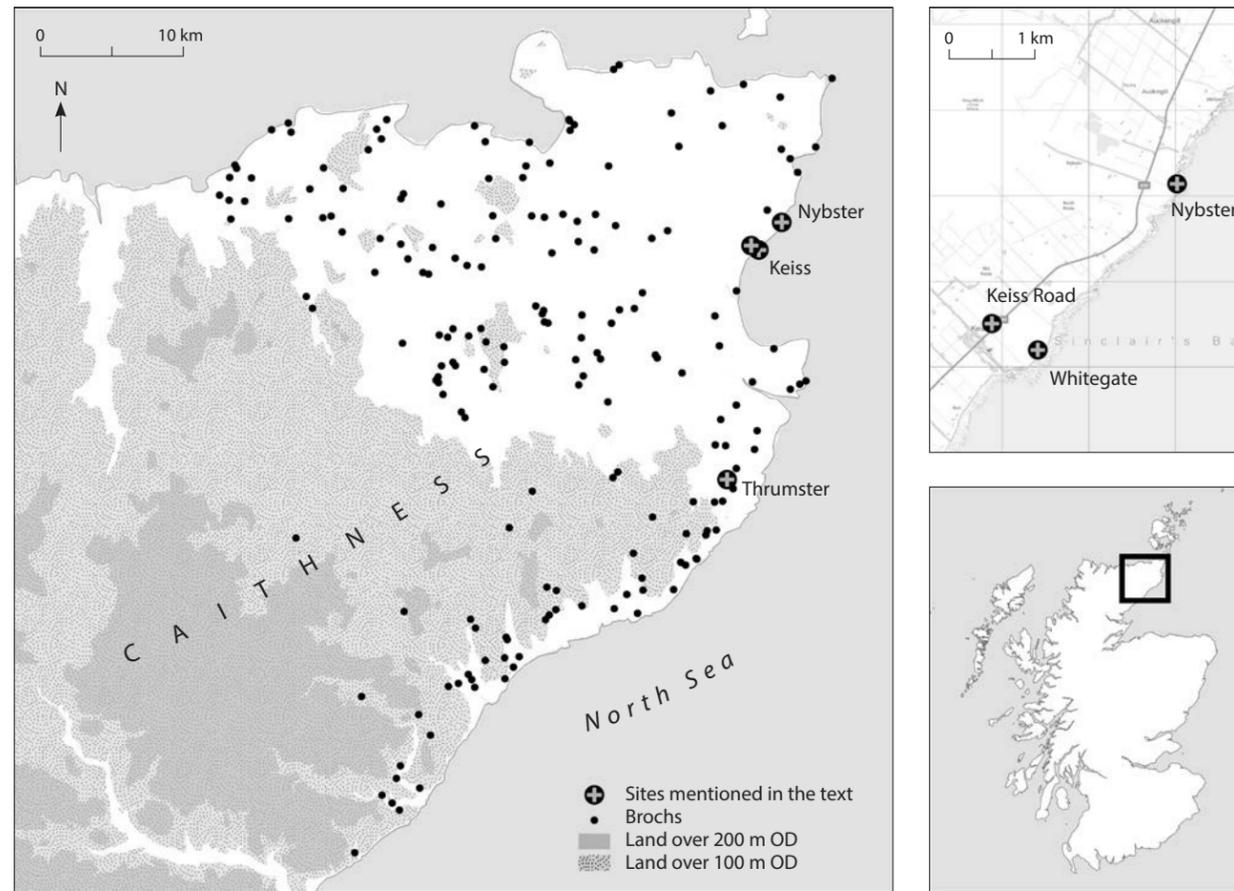


Figure 3.1. Location of Caithness and distribution of broch sites.

(e.g. Parker Pearson & Sharples 1999) Universities and latterly by Bradford at Scatness (Dockrill *et al.* 2010) have pushed beyond reasonable question the origins of broch towers well into the middle third of the first millennium BC, demonstrating clearly that broch settlements were indeed relevant in Iron Age society for a remarkably long time: at least three or four centuries and very probably longer. Studies of brochs and broch landscapes have always struggled, however, to reconcile convincingly the variability of design in brochs and broch-like structures across geographical space and through time, and while problems of chronology inherited from twentieth-century diffusionist agendas compressed the currency of brochs into an improbably brief historical horizon, other geographical studies have perhaps been guilty of the opposite mistake, uncritically taking broch distributions as representative of the complete configuration of the settled landscape.

One of our principal research aims in our Caithness work, therefore, has been to try to understand the

socio-political context that gives rise to the brochs, and how that changes through time. As is often reiterated, Caithness has more brochs per square kilometre than any other region of Scotland, and a fair percentage of the overall total. Several of the larger broch settlements of the county were certainly on the scale of Gurness, Midhowe and Lingro in Orkney, but it is clear from careful examination of these sites that their histories were long and complex, and that radical reconfiguration, rebuilding and reorganization was the norm rather than the exception. At face value, then, Caithness offers an opportunity to evaluate the interrelationships between Iron Age settlements, to explore their relative status within society and to examine the definition of the broch icon within the societies that created them.

From the offset, however, we are faced with the dilemma of the fluidity of broch settlement configuration and the density of the apparent nodal points of Iron Age activity in Caithness. Ongoing excavations at brochs in Caithness are beginning to demonstrate



Figure 3.2. Survey of Nybster broch 'village'.

that what appear to be static and unchanging monuments in the prehistoric landscape were in fact highly plastic in both form and function, with individual structures regularly undergoing radical redesign over short periods, changes that must surely be seen as direct responses to changes in the social and political context of the area.

Surveying the foundations in Caithness

The unique experience of the antiquarian period in Caithness, and in particular the enthusiastic efforts of the mining entrepreneur Francis Tress Barry (e.g. Anderson 1901), has meant that a large number of sites are open and clear of rubble, meaning that the wall faces of roundhouses and their external village-like settlements are exposed and visible. Detailed surface survey of such sites, inspecting build characteristics and stratigraphic relationships has allowed us to arrive at broad relative chronologies for the development of substantial roundhouses and associated cellular

'village' phases on these settlements, even in the absence of modern excavation. At Nybster, Keiss Road and the Keiss foreshore brochs investigated by Tress Barry it was possible to identify phases of construction and build a relative chronology as the hypothesis to be tested by excavation (Fig. 3.2).

Sequences built on superficial survey alone can only provide relative chronologies, however, and the net effect of this is the simplification of the biographies of what we now know are extremely fluid configurations of settlement. The use of comparanda from other settlements to provide chronological 'hooks' to hang the sequences on contributes to the impression of continuity: by matching morphological characteristics of buildings to cherry-picked examples from better-dated settlements, the characteristic arrangements of dated horizons recognizable on model broch complexes creates the temptation, unjustifiably, to envisage an uninterrupted developmental evolution of settlements like Nybster and Keiss Road over the course of some 800 years.



Figure 3.3. Aerial view of the broch at Nybster, Auckengill, Caithness (photo: RCAHMS).

Excavation at three Atlantic roundhouse sites – Nybster, Thrumster and Whitegate – have led us to question the impression of continuity given by the face value of the evidence. Where we have looked closely, and tested sequential hypotheses, we see that far from the enduring monuments of prehistory, the brochs settlements of Caithness were plastic and malleable to the changes of prehistoric society, and that the function (and therefore very likely the perceived meaning) of thick walled circular buildings was far from static over the centuries of their use.

Nybster: a study in Iron Age settlement development

Nybster broch is one of the most substantial broch settlements known in Caithness (Fig. 3.3). It was clearly a major settlement of the Iron Age centuries, with an extensive external ‘cellular’ village centred around a massive-walled roundhouse. The rabbit-warren effect of Sir Francis Tress Barry’s excavations have left us with an incomplete jigsaw puzzle to be interpreted by survey and trial excavation, but on the basis of observable physical relationships and alignment with wider paradigms a relative chronology and bracketing

absolute chronology for the development of the site was constructed.

Our hypothesis of the site’s chronology was tested by excavation of what we anticipated were the two ends of the site’s chronology: the phase 1 enclosing rampart (considered to represent the early enclosure of the promontory, perhaps similar in style to Midhowe’s primary rampart; Hedges 1987; MacKie 2002, 239) and the phase 3 cellular or ventral roundhouses (similar in form to ‘Pictish’ structures investigated in Orkney and the Western Isles (Neighbour & Burgess 1996; Ritchie 1979)). Several of our assumptions were disproven by the results, and we were forced to re-examine the impression of longevity presented by desk-based study of building forms.

Our working hypotheses for the investigation of Nybster was that the site comprised an early to middle Iron Age enclosed promontory containing a broch tower (albeit of peculiar type, since it appears to lack any of the complex architectural features associated with complex Atlantic roundhouses) and subsequent ‘Pictish’ period cellular-style settlement of the type familiar from many other excavated settlements in the north. Our investigations, however, of the so-called ‘Pictish’ figure-of-8, or ventral buildings



Figure 3.4. General view of the cellular building, OB2, at Nybster, during excavation.

have encountered well preserved occupation deposits that have been radiocarbon dated and that show that these buildings were probably well established by the later first century AD (Fig. 3.4). The previously simple picture is furthermore complicated by oblong stalled structures, of the type identified and dated to Howe’s phase 8 in the fifth and sixth centuries AD (Ballin Smith 1994), but also to late phases of other sites like the Wag of Forse (Curle 1950). OB3 at Nybster had been taken as an example of this class of building, but it shares a wall with a cellular roundhouse which can now be stratigraphically tied to a construction horizon in the first or second centuries AD.

The defences

The enclosure defences at Nybster further complicated the sequence. Again, on the basis of surface survey, this structure seemed stratigraphically secure in the earliest phases of the site, probably contemporary with the Atlantic roundhouse and possibly even stylistically similar to the blockhouses of Shetland, now generally agreed to relate to the earlier phases of broch chronology (see discussion by Harding 2004, 150). Excavation of the rampart demonstrated, however,

that the Nybster rampart was very much a composite structure, the latest and most monumental phase of which involved a major remodelling of the entrance to create a massive complex-walled rampart (Fig. 3.5), accessed via a causeway over a ditch that was at least 3 m deep. Radiocarbon dates place the construction of this massive, second-phase rampart in the first to third centuries AD, while dates from the collapse were returned in the fifth/sixth centuries AD.

Nybster: discussion

The results of this excavation not only give us cause to review the sequential position of massive walled enclosures of Iron Age settlements in the north, but also raise very interesting questions over the concept of settlement monumentality in the post-broch period. From a methodological point of view, it is worth stressing that our understanding of this sequence could only have come from our decision to excavate trenches placed over the walls of these structures, not between them.

The Nybster experience in the first instance illustrates the care that needs to be taken in the application of general sequences across large areas of northern



Figure 3.5. General view of the Nybster rampart during excavation.

Scotland. Excavations very quickly demonstrated that the impression of longevity given by surface survey was misleading, and that there was no need to pull the chronology of the ventral roundhouses into the middle centuries of the first millennium AD as might have been tempting based on parallels with other sites. These structures, as well as the most monumental phase of the enclosing rampart's use, were probably well established by the first century AD.

The Nybster sequence, furthermore, sounds a clear warning against the simplistic assumption that domestic monumentality declined in the centuries following the peak of broch building activity, perhaps in the period following the turn of the millennium. As we have seen, the settlement would have been an imposing fortification, with the undeniably monumental rampart positioned above a deep rock-cut ditch creating an imposing structure. Again, this most monumental phase of enclosure probably occurred in the post-broch period, in the first or second centuries AD, and must surely indicate that the concept of domestic monumentality went far beyond the broch tower alone.

The Phase 1 rampart and roundhouse remain undated, but pre-date the first/second century reconfiguration and both are placed on a plough soil 20 cm

deep, implying they were planned contemporaneously and as the primary structures on the promontory. A reliable *terminus post quem* remains to be demonstrated, but is certainly in the earlier Iron Age, and may be comparable for those obtained from Gob Eirer, a coastal promontory fort on the Isle of Lewis, spanning the ninth to fourth centuries BC (Nesbitt *et al.* 2011, 47–8). The well known broch villages of the north, then, might tend to lead us towards a view of continuity that may not be represented by the excavated evidence. Where relative chronology is tested, the impression is of constant reconfiguration and rebuilding, perhaps reflecting short term ebbs and flows of the significance of these sites in the local political landscape.

Thrumster broch

Similarly, the excavations at Thrumster broch brought into focus just how malleable the Atlantic roundhouse structures of the northern Iron Age really are. Like Nybster, Thrumster broch had been cleared out by antiquarian investigators in the nineteenth century (MacKie 2007a, 448), meaning that our excavations were able to investigate all phases of the site's construction evident in the readily exposed stonework.



Figure 3.6. View of the galleries at Thrumster broch, during excavation.

The results demonstrate a long and complex history of construction, modification and alteration over the course of several centuries.

Like the Nybster roundhouse, on the basis of surface survey, Thrumster was peculiar, lacking many of the key characteristics that are taken to denote the presence of a broch tower, and there was nothing unequivocal to indicate the presence of intramural galleries or other complex architectural features prior to excavation. A confusing arrangement of multiple visible wall faces and apparent revetments meant that pre-excavation analysis was unhelpful in clarifying the structural history of the site, a situation that was further complicated by the unknown extent of Victorian excavation, rebuilding and gardening (Fig. 3.6).

The Thrumster sequence

It was unclear, then, whether Thrumster represented a solid-walled roundhouse, perhaps a simple Atlantic roundhouse, or something more closely related to a true broch structure. The reality was none (or perhaps all) of these things. The Thrumster settlement was seen to have had a highly complex history of construction and modification, beginning with the establishment

of the site as a relatively slight-walled roundhouse in the early Iron Age, very likely in the third century BC and probably established on the site of an even earlier enclosed settlement which was overwritten by later building. After this date (but before a hiatus in activity in the second century BC) the site was converted to a complex-walled, monumental roundhouse designed on the 'broch' template, and almost certainly with tower-like proportions. Following a period of little detectable activity the broch was reused for what may have been a relatively short-lived episode in the period 194 to 40 cal. BC.

Following a second hiatus in activity and very probably a catastrophic collapse, the structure was again radically reorganized in the third or fourth centuries AD, including a major modification of the entrance to the structure and possibly even involving its relocation to a modified wall cell. Structural analysis of the wall remains has shown that the 'broch' style roundhouse was certainly capable of supporting a structure of tower-like proportions, but it is very probable that by this later phase the structure was no longer tower-like, with the wall configuration no longer capable of supporting the weight of a structure taller than perhaps 3 or 4 m in height.

Thrumster: discussion

This simplistic description of the complex Thrumster sequence has several implications for our interpretations of broch structures more generally. Firstly, the results demonstrate very clearly the futility of founding broad-brush interpretations of broch structures in Caithness based on surface survey, since the visible configuration should be expected to represent only one episode, possibly palimpsest in nature, in what is very probably a complex history. The implications for the interpretation of material culture and its chronological (and therefore social) significance are similarly clear, with major reworking of soft deposits likely to accompany structural modifications. It is also important to reiterate that these results could only have been obtained through excavation of the walls of the structure themselves: these major structural changes were simply not recognizable in associated soil deposits.

The Thrumster broch went through multiple constructional phases, sometimes involving rearrangements so radical that the earlier phase was barely distinguishable, and the site apparently grew and receded in monumentality over time. Radiocarbon dates suggest that the site underwent these reconfigurations repeatedly from the earlier Iron Age through to earlier first millennium AD.

In the latest phases of activity, Thrumster ultimately followed a similar trajectory to other Caithness brochs, finally ending up as a burial mound of the early historic period (see Batey 2002, 188). It is possible that the tendency for repetition of characteristics in Caithness broch sequences has in the past led to assumption of similarity across the board, and that what we are missing are the nuances of social change which, far from being solidified in drystone monuments, are reflected in their extreme plasticity.

Whitegate: a warning

One further site excavated as part of this programme gives further cause for warning, and demonstrates how Iron Age structures probably changed radically in both form and function. At Whitegate, one of the Keiss cluster (Anderson 1901, 127–30), excavation in 2006 and 2007 demonstrated that the site comprised a massive walled roundhouse, with the large number of animal and human bones deposited in the mural cells, probably in the early centuries AD, one of several characteristics of this site that raise serious questions over the domestic function of the building (Fig. 3.7). Again, pre-excavation survey had suggested that Whitegate fell into the simple walled roundhouse category, while antiquarian finds seemed to support an early dating of the structure. The reality demonstrated



Figure 3.7.
Excavation of human and animal remains in the Whitegate mural cells.

by excavation further underlines the consistency with which Iron Age settlements in the north were radically redesigned, but also warns against any simplistic equation of roundhouse with domestic structure, at least in every phase of the site's use. In lacking a typical domestic assemblage and containing unusual structured deposits, Whitegate may raise questions over how buildings with ritual or other non-domestic functions would be recognized in the Atlantic Iron Age, and how different a shrine or similar building might look to the evidence recovered here.

Like the other sites discussed here, Whitegate went through repeated phases of reconfiguration, but several objects, such as a complete pot of Early Iron Age date, not to mention the mix of human and animal bones deposited in the wall cells, survived within the building throughout the later activity. Aside from this single exceptional pot and the remarkable bone assemblage, there was very little else in the way of domestic material culture recovered from that excavation. The warning that Whitegate gives us is that there was clearly more to the landscape of Caithness than brochs and broch-like settlements, and it is disingenuous to characterize Caithness as settled by brochs to the exclusion of all other settlement forms.

Discussion

Our experiences in Caithness raise several key issues with ramifications for the interpretation of Iron Age settlement more generally, and specifically for the interpretation of brochs.

Firstly, the concept of settlement location was extremely durable through later prehistory. Taking into account the probable ratio of archaeological survival of broch settlements (see Tait 2005) and the possible percentage of false identifications, Caithness still has such a large number of brochs that modern survey must be able to make some informed estimate of the original number. Without exception, the excavated examples demonstrate a history that is to be measured in centuries, rather than decades. While the form and layout of the settlements changed (and therefore, perhaps the *meaning*, in the iconic sense that has been discussed in the past by Armit (e.g. 1996, 131), Hingley (1992, 14–15), Sharples and Parker Pearson (1999), then, the locations stayed relatively constant as nodal points of activity in the landscape. This fact must have a considerable impact on the collective memory of the local populations.

These patterns hint at flexibility of Atlantic Iron Age settlement that may tend to be disguised by the physical stature of the settlements. There is growing evidence for seasonality of settlement in the Iron Age record of southern Scotland and certainly for the

intermittent and repetitive occupation of defended enclosures, but the perceived monumentality of broch settlements in the north and west tends to lead to an assumption of continuity that may be more imagined than real. Discussions of the duration of occupation of later prehistoric settlements have tended to emphasize the probability of short occupation of individual roundhouses (e.g. Barber & Crone 2001), a pattern that has direct implications for the arrangement of agricultural and pastoral regimes (and so presumably land division) in the local area, and the bulk of recent research on the timber-built settlements of southern Scotland continues to support the view of relatively fleeting, but repeated occupation of settlement locations. Caithness flagstone has long been recognized as the timber of prehistory in the north; its resistance to decay should not, and properly interrogated, does not disguise the patterns of reconfiguration, abandonment, and reoccupation that are plotted in intersecting post holes and ring-grooves elsewhere.

Thrumster broch demonstrates clearly, however, that the freedom of expression in Iron Age architecture was not unbound by parameters of design, and it is perhaps here that we can introduce a concept that we have found useful in our discussions of broch settlement development: that of the *canonicity* of the 'broch' form (see Barber *et al.*, this volume). That the form and layout of a 'broch' was a recognized template to be emulated is reflected in the reworking of the existing Thrumster roundhouse into something that fitted the socially accepted concept of a broch, long after its original layout as a settlement. It may be possible to see this as illustration of the way that the broch symbol was employed at different stages in the development of different sites, as the broch tower became relevant to the social conditions, or social standing of the occupants at the time.

Numerous interpretations have been offered for the logic behind broch building, the currently prevailing preference is that the broch was a statement of authority of the occupant group (see Armit 2002, 2005, for example). The meaning of such buildings was unlikely to have been static through time, however, while variability in concept of the monumental round 'house' in the Atlantic Iron Age is perhaps hinted at by the results from Whitegate, the latter does not easily fit the definition of a domestic structure by any standard definition of the term.

Conclusion: brochs and the architecture of society

Our derivation of social models for the Iron Age must account for the appearance, modification and reconstruction of architecture that is apparent in the

excavated evidence. Other writers have explored the idea of the iconic status of broch towers, perhaps playing a role in demonstrating the autonomy and legitimacy of the occupants in periods of territorial pressure. Our experience in Caithness demonstrates that the development and decline of domestic monumentality was not a linear process, and that the requirements of domestic architecture changed dramatically over the lifespan of any individual settlement.

Armit, Sharples and others have discussed the impact of the construction of brochs on the patterns of inheritance and the continuity of communities in Atlantic Scotland (e.g. Sharples 2005), arguing that, in contrast to the more transient cellular structures of the Atlantic Iron Age, brochs remain resistant to modification and stand as metaphors for the occupant community and their relationship to the local environment. As such, they are memory monuments. Several authors have taken this view of the broch as the enduring monument of Iron Age society, closely associated with the ancestors and lending legitimacy to the occupant group. The evidence from Caithness leads us to believe not only that this metaphor was not consistent in its meaning on individual sites through time, but also that settlement monumentality took different forms in different stages of a site's development. The changes written in the reconfiguration of broch settlements in Caithness may reflect a much more heterogeneous and fluid settlement configuration than is often recognized, and may imply the importance of other elements of the settled landscape that are less frequently studied (cf. Cowley 1999, 73–4). Memory is as malleable as the monuments themselves.

Monuments and memory: brochs as physical and conceptual raw material

Brochs constitute raw material for the architecture of Iron Age society. Far from enduring and unchanging, they were plastic and highly sensitive to the prevailing socio-cultural conditions. Locations, however, retained significance to the extent that broch mounds were seen as suitable places for burial in the late Iron Age and early Historic periods, even when all recognizable traces of the settlement and its structures must have been lost. In contrast to the monumental impression given by broch structures, it was in fact the locations of broch settlements that were most enduring, with

the physical forms of the structures themselves being highly fluid and susceptible to change. The repeated decision to use the same locations must reflect a perceived importance that went beyond the practicalities of convenient sources of stone. It is possible that the repeated use of the same locations reflects the coalescence of the landscape into territorial or administrative units; the comparison of later medieval land division to the distribution of long-lived broch settlements may be illuminating (cf. Halliday 2002).

What has always been troubling in the interpretation of the Atlantic Iron Age is the dichotomous tension between the view of brochs as symbols of independence of the occupant group and pinnacles of tyrannical elites. One alternative – if controversial – hypothesis might be to see the broch phenomenon as relatively short lived, with the tower-like phase of many broch settlements occurring within the same relatively short horizon in a competitive political landscape, after which these established nodal points became the canvas onto which the rise and fall of localized elites were written. It is possible that few broch towers survived far beyond the original constructional generation, with the ever-changing political landscape determining that some grew and developed, while others were dismantled and reconfigured as cellular settlements. In this model, broch settlements would physically and conceptually provide the raw material for later arrangements, and it is possible that rebuilders attempted to key into the perceived power of the location by reusing brochs. By the Norse period, this may have translated into the desire to bury the deceased with the ancestors of an heroic age, as suggested by the recurrent appearance of early historic burials on abandoned broch mounds.

Our research may help to move us towards a more sophisticated view of architecture in the Iron Age: rather than seeing brochs as enduring statements of authority, they can be seen as representative of the wax and wane of localized authority through time. It is possible that this view of brochs as fluid and responsive to change helps to reconcile the dichotomy of power and community represented in areas densely populated by brochs. We believe that these conclusions bring us closer to an understanding of the nature of broch settlement development in northern Scotland, and closer to the complex reality of Iron Age political geography in areas like Caithness.