



Pictures in place: approaches to the figured landscapes of rock-art

Christopher Chippindale and George Nash

Pictures in place (Fig. 1.1)

Each class of archaeological material has its own character, and with each character comes the special strengths and weaknesses of that personality. Animal bones from Pleistocene sites give precise information about the biology of these ancient creatures, but leave uncertain the human role; the creatures may have occupied the caves in lives and deaths to which the human element contributed nothing. Lithics can be studied as technical objects, but they consistently prove hard to translate from their own world of stone and mechanics into realms of human meaning. Rock-art, seen as an engaging but obscure class of archaeological material, seems to offer an interesting paradox. It gives a direct record, made by ancient people, of ancient worlds as those ancient people saw and experienced them. Its central point is in the meaning of things, inviting an archaeology of human perception, of world-view and of religion. But the means to do this, starting with systematics of dealing with its shapes, are weak: 'Is this wiggly line a picture of a rattlesnake?' 'If it is, then what did a picture of a rattlesnake mean?' Its best strength may be in it being simply art on rock - an image made on an unmovable surface which is set in a certain place. Unlike portable artefacts of every kind, rock-art is fixed in landscape. These are pictures in place.

That immovability is a central strength. It is shared among archaeological materials only to a

limited extent with buildings, themselves rockart of an artificial kind and in truth movable; certainly buildings are not permanent markers within the landscape (or townscape) in the way rock-art provides pictures in place. Naturally, some aspect of location has a part in most rock-art research (e.g., among very many, Morris 1988; Swartz and Hurlbutt 1994; Bradley 1997; Nash 1997). A very few full-length studies deal with landscape and rock-art as a research question (e.g. Hartley 1992). What is lacking are good and focused studies of location as a *central* concern, addressing both specifics and the – again underdeveloped – potential of cross-cultural responses (Taçon 1990).

Immovability usually applies on a macroscale – where rock-art is placed in an expansive landscape. It can also apply on a smaller scale – for example, the area in and around the panel. Again this fixed quality of rock-art sets it apart from other kinds of archaeological material. Portable artefacts of all kinds, on the other hand, move around a landscape, to and from and within sites for all sorts of reasons; during occupation, whilst a site is going out of use, subsequent to its abandonment, or in consequence of symbolic exchange and contact (Nash 1998).

One of us entitled a preceding and companion book *The archaeology of rock-art* (Chippindale and Taçon 1998b), in order to emphasize the archaeological aspect. Likewise, we offer a matching attitude in the present volume, shown by its matching *subtitle*, *The figured landscapes of rock-art*.

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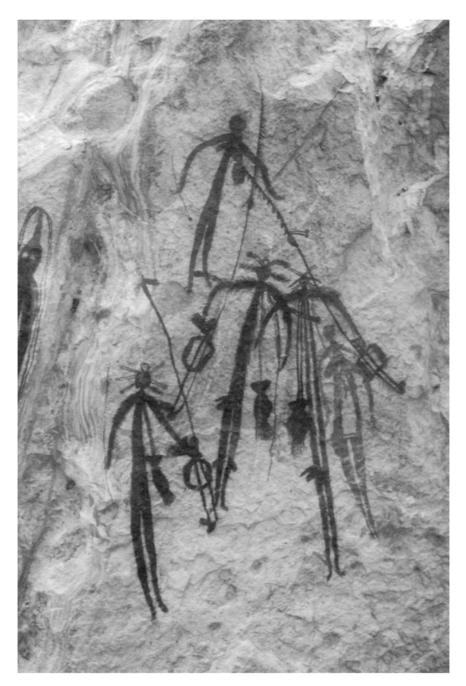


Fig. 1.1. Figures on a landscape: a defining character of rock-art is that its images are fixed in place on the land.

Ochre rock-painting on sandstone, western Arnhem Land, Northern Territory, Australia. Although these figures, characteristically for western Arnhem Land painting, are equipped with various artefacts, and painted as if standing or walking in a group of five, there is nothing painted which appears to show the landscape.

Photograph by Christopher Chippindale.

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Fig. 1.2. The 'hand on the land'.

Lily Gin.gina, Wardaman elder, holds her hand alongside a hand-stencil in a sandstone rock-shelter of her traditional country in north Australia, 1998.

Images of human hands and feet – often of adults, sometimes of children, occasionally of babies – seem to run through the long sequence of rock-painting in north Australia. The images thought to be earliest are printed, from ochre put on the hand then pressed on to the rock. Subsequent ones are usually stencilled, and the present-day bark painters sometimes put hand-stencils on their new paintings.

Photograph by Christopher Chippindale.

Again, this is an archaeological book (Fig. 1.3) but with an emphasis on landscape and the relationship landscape has with the art, the artist and the audience. Our team of contributors is aware of the beauty of these images, and we are often moved by them. Who could fail to be struck, for example, by the human force of an ancient hand stencil (Fig. 1.2), its image of a human being's hand and fingers on a smooth rock surface? However distanced is one's own life from that of the person whose hand made that mark - and there are hand-stencils in Palaeolithic old Europe as well as in ancient and in modern Australia - one feels there is common experience. At the physical level, each of us knows our own hand and each of us knows how it works and feels, and each of us can move our own thumb and fingers to make just that pattern recorded in enduring red ochre on the rock face. At the mental level, one supposes, there must be *something* held in common with that distanced human being who placed a hand against the rock, as each of us can now, and who made that ochre mark, as each of us can now.

Uncertainty in time

Change over time is so fundamental to archaeology that it is famously hard to make an effective study of undated material. Most rock-art is weakly or imprecisely dated.

The ubiquitous basis of archaeological dating for half a century now has been radiocarbon, but we know of only one body of rock-art which is now comprehensively and well dated directly by radiocarbon. This is the beeswax art of western Arnhem Land, north Australia (Nelson et al. in press), made in the unusual material and technique of appliqué dots, lines and sheets of beeswax placed on rock surfaces in designs of characteristic form (Fig. 1.4). Beeswax is a first-rate material for radiocarbon study, lasting surprisingly well: a component of beeswax is a variety of chemicals which make it resistant to biological attack and decay. The oldest of these Australian beeswax figures is dated to 4000 years ago (Nelson et al. 1995), and a suite of 142 dating determinations makes for a full picture. Another body of rock-art with some radiocarbon chronology is the painted art of the Palaeolithic deep caves in Europe, where we now have sufficient dates - a couple of score - by which to sketch an absolute chronology for such a long-enduring body of art (Clottes 1997, the work having started with e.g. Clottes et al. 1992). Those Palaeolithic dates are on charcoal, an ideal material for radiocarbon work; in the caves it unusually survives from the Pleistocene painted on a rock wall because it is in such protected places.

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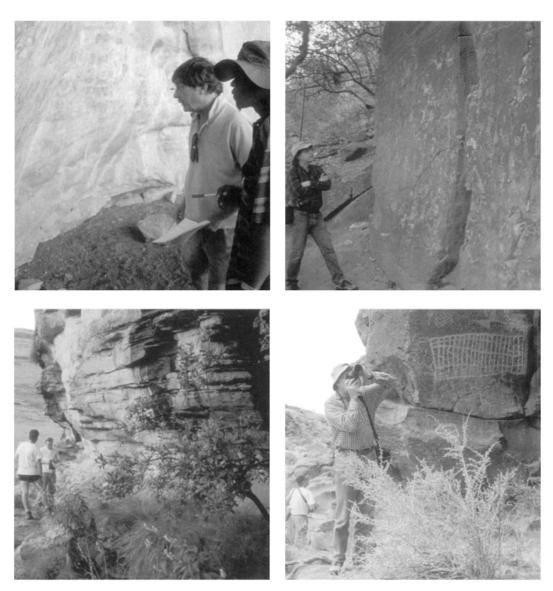


Fig. 1.3. Figures in a landscape: a defining character of the archaeologist's approach to rock-art is learning from its place on the land.

(upper left) Diepkloof Rock Shelter, on the Verlorenvlei near Elands Bay, South Africa, shelter with rock-painting; (upper right) Red Tank Draw, V-Bar-V Ranch, Coconino National Forest, Arizona, USA, shelter with rock-engraving; (lower left) Nuttall's Shelter, Drakensberg mountains, Kwa-Zulu Natal, South Africa, shelter with rock-painting; (lower right) Little Petroglyph Canyon, China Lake Naval Air Station, Coso Range, California, USA, shelter with rock-engraving.

Photographs by Christopher Chippindale.

Most rock-art is painted with an earth pigment, or engraved into a rock surface. Most rock-art is therefore not immediately datable by radiocarbon as a bone or a chunk of charcoal is; more ingenuity is required in the dating procedure, and there is more risk of error. If painted, then likely it was applied as a paint combining inorganic colour with a binder of some kind, likely



Fig. 1.4. A well-dated class of rock-art: the Aboriginal beeswax art of north Australia.

Beeswax figure from Djarrng, western Arnhem Land, north Australia.

The common design in the beeswax art is an array of dots, set in single or double lines, or extending over an area. This animal-headed being is a more unusual subject. Photograph by Christopher Chippindale.

an organic proteinaceous or other material with a contemporary carbon component: dating the organic material in the binder would date the art itself. If engraved, then often the figure has developed some kind of patina, surface coating, skin or crust, to which again a contemporary radiocarbon component contributes: that would date events subsequent to the art itself.

Since van der Merwe et al. (1987), direct carbon dates have been reported for rock-art (Ilger et al. in press), some of them gratifyingly old, and others gratifyingly consistent with researchers' expectations. But the field remains new and uncertain.

A rock-shelter wall is the interface between two physical zones: the solid rock within, stable in its conditions and often saturated with water, and the atmosphere without, often dry and fluctuating much in temperature and humidity. That frontier at the rock surface is a zone of intense biological and biochemical activity, much of it involving micro-organisms whose nature is little understood (see Soleilhavoup 1995 for a rare study of what happens on that rocky support for the art; also Dorn 2001, especially 172-3). So it is hard to know if the carbon one can extract from a pigment sample - and AMS radiocarbon dating can give a determination on a few milligrams of the element - does derive from that organic element to the original paint; it may instead derive in whole or in part from some other source, which according to its nature may give a younger date (from subsequent activity, e.g. algae on the rock face) or an older date (from earlier material, e.g. old carbon in the rock) (Rowe 2001).

The dating of engravings is yet harder, and these will be dates not for the act of engraving but of an event related to it, such as a patination or varnish that forms after the engraving is made, and so gives a minimum age for the engraving; or the dated material forms before the engraving, and so gives a maximum.

Seeing the care with which the technical problems are addressed (e.g. Watchman and Lessard 1992; Watchman 1993), and the cautious optimism expressed (e.g. Ilger et al. 1995; Rowe in press), we also notice where direct-dating studies are contradictory and confused in their findings, whether for Lawrie Creek, north Australia (Loy et al. 1990; Nelson 1993; Loy 1994), or the Foz Côa, Portugal (e.g. Bahn et al. 1995; Bednarik 1995a; 1995b; Clottes et al. 1995; Dorn 1995; Oliveira Jorge 1995; Watchman 1995; 1996; Zilhão 1995; 1997; Phillips et al. 1997; and now IPA 1999). Dismayingly, Dorn – one of the very few researchers in the direct dating of engravings – has expressed doubt about his collected results



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(Dorn 1996; see also Beck et al. 1998, for critical comment), work which is a substantial proportion of all the studies done. This caution puts into question some remarkably early dates obtained, e.g. those for engravings in the Olary province of South Australia (Dorn et al. 1988; and see now Dorn 1997) and in the far western USA (Dorn and Whitley 1984; Whitley and Dorn 1987; 1993) – dates on which much has depended.

A second approach to dating is indirect: 'bridging' across from the art to a dated archaeological or geological context. When engravings are stratified within an archaeological deposit, then the age of the covering sediment is, arguably, a minimum age for the engravings; an instance is the 'Early Man' site in north-east Australia, where engravings are thereby dated to before several thousand years ago (Rosenfeld et al. 1981). With less security - the paintings themselves on the rock walls often seem to perish when buried - one can link a distinct mass of pigment in the deposits below, to an intense episode of painting on the rock surface above (David et al. 1994). In these contexts the chronological relationship between the event to which the radiocarbon determination refers and the rock-art date which may interest us must always be kept in mind.

Also of note are the potentially insecure attempts to 'bridge' from rock-art to broader regional sequences of archaeology: for example, the paintings of western Arnhem Land, with a good relative chronology, have been linked across to the well-defined palaeo-ecological sequence in the region (Chippindale and Taçon 1998a), by thinking that the changes in ecology will be reflected in subjects of the art (and see Faulstich 1997). It has long been found that the distribution of Scandinavian rock-engravings near the sea-shore is consistent with the notion that figures were made close to the shore, even in the zone where the salt keeps the rock surfaces clear

of vegetation and perhaps the surfaces themselves are splashed by the sea; so the date of the rockart will be a close, even a very close function of changing post-glacial sea-levels, whose chronology is known with good accuracy (e.g., among many studies, Helskog 1986).

A more archaeological kind of 'bridging' relates the rock-art to the known absolute age of distinctive subjects depicted; the daggers, halberds and other characteristic objects of the early metal age in Alpine Europe are the main means by which that phase of the Alpine and of the Iberian rock-engravings is defined and dated (e.g. Costas and Novoa 1993; Lumley et al. 1995). Shared iconography will also be helpful: the boats ubiquitous in Bronze Age Scandinavian rock-engravings also occur engraved into razors and other portable bronze artefacts, whose date is reliably known (Kaul 1998), and the subjects of Palaeolithic mural art recur on the portable artefacts - art mobilier in the deposits (Bahn and Vertut 1998). Similarity in other aspects of design have also proved useful (e.g. Christensen 1994; Cole 1994).

With absolute dating itself so uncertain and often indirect, relative dating has special value, using the established and not wholly satisfactory techniques commonplace in archaeology. It is entirely premature to declare those methods obsolete or dead in the face of novel and unproved approaches to absolute dating, as has been argued for some years now (by e.g. Lorblanchet and Bahn 1993; Bednarik 1995). In that respect rock-art studies resemble the later prehistory of a generation ago, before routine radiocarbon dating determined regional absolute chronologies, and the painstaking approaches to relative chronology that are in other sub-fields out of fashion, even obsolete, remain important for rock-art (see Bradley et al. 2001 for these chronological issues and approaches to them for later prehistoric rockart in Europe). Distinctive aspects in subjectmatter and/or in the manner in which subjects are



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depicted are taken as indications that figures with those common elements will be of the same age, broadly: variability should vary in some coherent relation to time. Sequence between the entities so recognized can then be discerned by stratigraphic sequence — often not easy reliably to observe in faded paintings or in worn engravings. The more systematic approach of Harris matrices, applying that algebraic technique developed for complex stratigraphies in the ground, is proving useful (e.g. Chippindale and Taçon 1993; Mguni 1997; Chippindale et al. 2000).

Chronology is not the subject of the present volume, but it must be taken note of - along with its uncertainties. When chronology is uncertain or absent, it is barely possible to acquire any sense of change over time: this is a difficulty with our research knowledge for the southern African rock-paintings - and for many other bodies of rock-art. Often the basis for chronology is tenuous, as it is for the 'cup-and-ring' marks that amount to most of the rock-art of the British Isles; efforts therefore to report change over time cannot be more secure than the precarious dating evidence they depend on. And in the absence of independent dating evidence, overstrong and oversimple models are naturally resorted to. The painted Bradshaw figures of north-west Australia are an instance (Walsh 1994); it being supposed that their variability will be a straightforward function in time, an enormously subdivided chronology is proposed, with each small variant of these intricate human figures taken to represent a corresponding distinction in time. The Australian beeswax study and the set of absolute determinations for Palaeolithic Europe, noted above, point to a more complex relationship, in which variability is indeed a function of time but not in a conveniently simple way: figures of decisively different 'style' may be nearly or even contemporary, whilst figures of the same or decidedly similar 'style' prove to be of unquestionably different

dates. This finding, not encouraging one to have confidence in the simple model of variability in relation to time, is consistent with what has often been discovered in other archaeological studies of the 'style' concept (see e.g. Conkey and Hastorf 1990).

Arguably, if one had little confidence in absolute chronologies, one could simply consider phases - which image came first? It was probably the intention of the artist, one could think, that the art was to be a permanent fixture within the landscape. (But there has to be caution as to that, for the Australian ethnography tells one that the point may be in the act of making the image, not that once made it shall endure.) Philosophically speaking, both the landscape and the rock-art are timeless. It is the curious mind of the scientist that insists on precise dating. One could argue that the intention of the artist (and the audience) was not to produce images for scientific deconstruction, but to produce an art that would last a generation or two.

Certainty in place

This insecurity in time is compensated for by security in place. Rock-art, by definition, is made in or on a fixed surface of the earth, rather than on a portable artefact. This fact gives a secure starting-point for one theme to rock-art research, the theme which is the topic of this book. That said, there are traditions of rock-art which extend beyond fixed rock surfaces to mark boulders which may be and have been moved, and/or which are applied also to elements of monuments. The cup-and-ring rock-engravings of the British Isles are a case in point, usually occurring in earthfast surfaces but also extending to the stone lids of graves (Beckensall and Laurie 1998), as well as to the stone surfaces inside built monuments (Bradley 1998a). They share features with the 'megalithic art' (Shee Twohig 1981) on the very

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large but certainly portable kerbstones and slabs of stone-built structures. Where this is the case, dividing study arbitrarily as regards the 'fixed' and the 'movable' elements in a single tradition has no merit.

Even the rock of the Earth can occasionally move, and so can human access to rocky places. The blocking of one access-way to a cavern and the opening of another may shift a Palaeolithic painted panel from a place close by the entrance into the farthest depths. The Réseau René Clastres with modern access-ways is the remote portion of the painted cavern of Niaux in the Pyrenees, reachable only by pumping out flooded tunnels (Clottes and Simonnet 1972); but we are sure it was approached by a more direct way in Pleistocene times through an entrance now blocked and lost.

More often, the rock itself has not physically moved, nor the routes of human access to it, but the topographic landscape is transformed. We know, from falling local sea-levels, that many Scandinavian rock-art panels that now lie among the trees above flat ploughed fields of barley (Fig.1.5) were made close by the sea-shore, when those grain fields were the sandy bays of the beach and the rocks defined the coves above the beaches. Closer than just 'near the shore', they may have been splashed by the waves or submerged by the tide in the era of their engraving. And this propinquity to the sea may be a key to understanding their rationale and meaning (Helskog 1999).

At the same time, in some cases one can think of the rock-art locales as being 'stationary sites in a moving environment'. This concept also applies to south Scandinavia, where the land slopes gently: the Bohuslän sites above the barley fields are now a few kilometres from the modern shore. So one needs to go away to that present sea-shore to see a topography that echoes in its relation of sea to rocky shore to woodland what took place at the higher level some 3000 years ago.



Fig. 1.5. 'Stationary figures in a moving landscape.'
Rock-engraving panel of later prehistoric date near Tanums, Bohuslän, Sweden.

Now in a typical location, amongst the woods and between the cultivated fields, in its time it was on the rocky shore at or just by the beach and the sea shallows. The engraved figures, like the circles in the foreground, have been painted with red to make them more visible, as is customary in Scandinavian management of rock-art.

Photograph by Christopher Chippindale.

In western Arnhem Land, north Australia, the once-remote sea came decidedly closer to the rock-art regions in the later post-glacial era, and we think that dwindling distance is reflected in the subject-matter as it changes over time. Fish are depicted (Taçon 1988) more often in the recent rock-paintings than they are in the old ones. A high proportion of the fish in the older paintings are species of upper creek systems, the eeltail and salmon-tail catfishes which are tolerant of smaller streams; a high proportion of the fish



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in the newer paintings are those like barramundi, which flourish in the lower rivers and their broad swamplands nearer the sea. In the Arnhem Land bird paintings, one sees the magpie goose, whose habitat is the recent freshwater swampland, only appearing late in the art. As is the case for more direct palaeo-ecological records, offered by the bones and seeds in archaeological deposits, we are seeing in the rock-art a record of changing environment. Alongside that - and not always easy to distinguish from it - is record of how human beings responded to that environmental change. Again, in western Arnhem Land, that time when the sea-level rose and moved rapidly over an extended continental shelf is strikingly coincident both with a marked occurrence of fighting scenes showing large-scale battles (Taçon and Chippindale 1994) and with the first images of Rainbow Serpents, which in their distinctive early form have elements of a fish in their makeup (Taçon et al. 1996).

Very often, the landscape will have been transformed by modern impacts. A few rock-art sites are now under water or in towns – there is (or perhaps now, was) a rock-engraving of a fish in central Sydney, Australia, to which access is secured by a trapdoor through the floor of a city garage (Stanbury et al. 1990: 24–7) – and many are in farmland. In Scandinavia, and surely very generally across Europe, the landscape is more open now; there is much less in the way of trees than there was in the time of early prehistoric farmers.

The visibility both of a rock-art site from its surroundings and of the surroundings from the rock-art site has decisively changed. In Europe, that long-term change is in many regions nowadays being reversed: as marginal farmland in the Alps and in Scandinavia is now given up, and grazed or ploughed land reverts to woodland, so the rock-art sites are becoming less visible. On Mont Bego, high in the French Alps, timbercutting at the turn of the century took out the

large trees in the rock-art zones; now the mountain is protected within a national park, the larch trees are recolonizing the slopes. A global warming may decisively encourage that by lifting the tree-line. As this happens, the rock-engravings will begin to 'move downhill' from the rocky heights of the bare mountain and into the shelter of the larch-forest. At the same time, the dwindling of the mountain flocks means the understorey is less grazed; now the forest is rather less open below the canopy of larches. Many of the rock-engravings of Valcamonica, at a lower elevation in the Alps, are on rock slabs recently disinterred amongst the trees. They were made when the valley was more a land of bare rock than of chestnut woodland as it is today; if not kept clear, they now accumulate leaf litter and begin again to go underground. In north Australia, and in arid far western North America, different fire regimes may have decisively changed the vegetation. Our judgements of how open or how hidden rock-art sites are may be false if based on visual circumstances today. These are pictures which do remain fixed in place, but the contexts of those places are not fixed.

Very often, a rock-art pattern we can now clearly see in the landscape has much to do with differential survival alongside the original order. It was long suspected that the Palaeolithic rockart of Europe was not confined to the caves, and open-air sites were finally discovered in Iberia (Bahn 1995); but without any grounds to estimate comparative survival rates, one cannot usefully guess what proportions of the original ensemble were in each type of locale. These open-air sites are all engravings, rather than paintings; yet, since European weather is absolutely opposed to the long-term survival of rock-paintings, one cannot conclude the open-air figures were originally only and always engraved. To the handful of sites first reported have been added the many engravings from the Côa Valley - but, not atypically



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for rock-art research, doubts and debates about dating (above) make it hard clearly to see the pattern. In north Australia, where we have a reasonable chronology, one can see a striking correlation between rock-art patterns and geology. Those regions with a long sequence extending to the survival of paintings evidently over 6000 or so years old are those regions with cliffs and shelters of the harder quartzites within the Kambolgie sandstone formations on which the far northern rock-art is mostly made. Regions with a short sequence are those with the softer sandstones; one can conjecture that erosion rates are there so much greater that no surface survives now from 6000 or so years ago. That pattern of occurrence of old paintings today will be a matter of differential survival more than of original structures.

Since patterns in the landscape occupy the rest of the book, we need here only point to a few aspects in respect of landscapes for rock-art.

First, the immovability of rock-art applies not just to location of rock-art in the landscape, but to location on the smaller scales, of where rockart panels occur within a site or rock-shelter, and of where individual figures occur on a panel. A fundamental weakness in studying spatial order within an archaeological site is the way objects are moved, either by human or by non-human means, subsequent to its use. Even strong patterning may be due to those later disturbances, rather than to the spatial regularities of the site as an active and lived-in space. The immovability of rock-art is an asset in this respect. Some cautions will apply. Ground levels may change, portions of wall or ceiling may split or collapse, rock-art especially painting - may differentially perish, so that the present pattern of occurrence may not be the whole story.

Finally here in respect of location, one must remember that the first factor defining the occurrence of rock-art is the occurrence of rock! There is no rock-art in the English county of Cambridgeshire, where one of us lives, because it is a low landscape of swamp, boulder-clay ridges, sands and gravels – lacking entirely caves, rockshelters or outcrops of sturdy geology. Our nearest rock-art, across the county boundary into Hertfordshire, is predictably enough on chalk, the nearest we have to a robust rock in the region, and just strong enough as a material to support an unusual cave (perhaps natural, perhaps artificial, perhaps part each) at Royston, whose walls bear singular medieval and post-medieval rockengravings (Beamon 1992).

In north Australia, alongside the likely differential survival according to the occurrence of the robuster quartzite (above), one can see another pattern in the pattern. In the Alligator Rivers region, especially in its higher 'stone' country, the rock-art is rather dispersed, with a great many sites scattered across the areas surveyed in detail. To the south, in Wardaman country, the rockart occurrences are noticeably concentrated, with clusters of up to scores of sites in a focused patch, and large areas in between the concentrations which lack rock-art. Why so? A matter, first, of where the rock is! The 'stone' country - hence its name - is largely exposed rock; it is full of rockshelters and overhangs; the rock-art is ubiquitous. Wardaman country is less rugged, with very large areas of surface sand and alluvium. There are defined and rather restricted areas of rocky outcrops; even the more extensive do not often provide good overhangs and shelters where rockart can be made and will survive. So the striking distinction between a 'stone' country pattern of dispersed rock-art and a Wardaman pattern of concentrated rock-art no more than reflects, to start with, the foundation difference, between a pattern of dispersed rock occurrence and a pattern of concentrated rock occurrence. An exploration of human choice will need to demonstrate human patterning beyond that arising from the natural pattern of opportunity.