Pebble statistics and pebble poetics

The account provided in Chapter 4 is an abstract ‘objectivist’ standpoint that in fact may not tell us all that much that is important about the pebbles and their characteristics used in cairn construction. The intention of this chapter is to present an alternative perspective going far beyond measurable and quantifiable parameters that may be statistically analysed. We cannot understand a pebble adequately by isolating each of its qualities and thinking about them.

A pebble is a whole; it is its different features altogether and, at the same time, none of them. A pebble refuses to be divided into variables or classified according to labels. You name it yellow and it may appear brown. You say it is round and it will seem irregular. Yes, it can be between 5.1 and 15 cm long – but long in which way? Triangular (I mean, irregular) or oval? Is it heavy? It depends on how strong you are or how used you are to handling stones. Is it ordinary or boring or does it catch your attention? Then it is a ‘special’ one. But are all ‘specials’ equally special or are some more special than others? The point is that it is imprecise and desperately limited and inadequate to try and define pebbles in terms of their physical properties without simultaneously referring to subjective values and symbolic meanings. The two together – the physical properties of these stones and human interactions with them – make pebbles what they are.

We can make more sense out of them if we ‘translate’ their physicality into sensibility – how do we humanly sense pebbles? In which ways can our senses be stimulated by different kinds of pebbles? What matters...
is not how much they weigh, but how we carry their heaviness or lightness around; it is not how long they are, but how they fit into human hands. Although relevant, scientific precision, in this case study, does not communicate the properties of the objects in a better manner than a more humanized description. It doesn’t make much sense thinking about the cairns as a sequence of pebbles layered according to their length. The information we have about the pebbles will generate a robust interpretation only when combined with our own accounts of the way we interact with them. And this is possible only because we have been there, because the past has become present through the process of excavation and analysis and because other people in this landscape interact with pebbles on a daily basis and have a sensibility for them.

The intention of this chapter then is to provide some phenomenological reflections on this data in order to offer an alternative humanist perspective and understanding of the material. In doing so we weave back and forth between the past and the present, from interpreting the pebbles in terms of their prehistoric contexts and understanding them in relation to how contemporary people, including ourselves, relate to the same material. We first provide some general observations on pebbles and their many synaesthetic qualities and then consider in more detail sensory aspects of touch and visual appearance.

**Synaesthetics of pebbles: initial observations**

A first and fundamental property of pebbles that is of great importance is their tactile properties: the manner in which they are smooth and rounded to the touch. The contrast with the coarseness of a stone such as granite is absolute, but they even feel smooth compared with fine-grained sandstones or chalk. Pebbles possess a quality of smoothness unmatched by any other kind of small stone in its natural state found in the UK. Quartzites are sandstones cemented together with silica which are incredibly hard and dense. This unyielding hardness and sheer density of the stones is an important quality that makes them so distinctive and contributes to their tactile effects.

These quartzite pebbles when struck tend to shatter and break in all directions, producing surfaces which both are shiny but also then feel greasy to the touch: an important tactile property that remains hidden within the pebble.

Going beyond the feel of pebbles, they have a definite smell. On the beach they smell and taste of salt. Inland they take on the odours and
tastes of the streams and soils and vegetation in which they are embedded. Quartzites are also known in folklore as firestones. They produce orange sparks and smell like gunpowder when struck or violently rubbed together. They produce far better and bigger sparks than are emitted from struck flint. In darkness there is an orange flash and even when struck under water they emit a flash (Ellis 1971: 69). Some of the pebbles used in cairn building may also have been used as hammer stones. This is unlikely to have been purely for practical reasons in making things but as part of fire ceremonies taking place at them (see Chapter 3), in which flashing light together with a distinctive sulphurous smell was released from the pebbles.

Pebbles have a definite voice. Usually found solely in the littoral zone between land and sea, they mark the point of transition between the two domains. They constantly roar as they are rolled back and forth by the waves along the beach. Inland they chatter and clatter in the streambeds. Pebbles make a crunching sound when you walk on them. Sometimes you can hear movement by somebody along a winding pebble path before you can see anyone coming. Pebbles are exceedingly difficult to walk on, as anyone who has walked along a pebble beach knows. They slow movement down and tire the body in motion, an important kinaesthetic effect.

Pebbles are ready-mades. They are ‘finished’ stones and because of their inherent completeness of form, seem to almost naturally lend themselves to sorting and counting activities in terms of colour or shape or form or a combination of all of these. Visually pebbles vary in shape and size. They are inconstant in colour. Importantly pebbles are inherently transformative materials. Unlike other kinds of stone their colours do not remain the same. The colour of the outer skin can be very deceptive. Being exposed to the elements and to the rolling action of the waves, the outer surface is typically bleached a dirty white or grey. Dry pebbles on a beach or elsewhere can all look the same: dull and grey. Water dramatically transforms them: the colours, obscured when dry, leap out in a magical fashion. What was dull and grey matter becomes vibrant, differentiated forms infused by the latent colours within the stone itself that the water brings forth (see Figure 4.2). Pebbles are activated by rain or water that brings out and intensifies their colours. The brightest of the pebbles on the beach are always those washed by the waves of the sea. Conversely pebbles dry very quickly compared with other kinds of stones because of their lack of porosity. They lose their colours as rapidly as they acquire them. Pebbles disguise themselves. They have a skin which reveals its true colour only when wet. When struck pebbles produce fire
and smell utterly different. They are thus transformed by both water and fire: an elemental opposition.

Considered in this way it is evident that pebbles have definite qualities and effects from the visual to the kinaesthetic in relation to which people may react and respond. In the following section we present an anthropological study of the relationship between people and pebbles located in the vicinity of the Pebblebed heathlands to further investigate some of the general points made.

**People and pebble structures**

This group of people were selected because they lived in towns or villages in the vicinity of the heathlands and had pebble structures in their gardens: paths, driveways, walls, outbuildings, etc. that were recorded during a comprehensive survey of pebble structures in the area (see Chapter 13 for a discussion of this). Interviews were conducted with 23 informants in their homes and gardens. Of these 13 had always lived in the area. The others had moved or retired here, anything up to 20 years or more ago. Eight were male, the rest female. Their ages ranged from 17 to 90 and of these eight were under 65. Only a few of them currently visited the Pebblebed heathlands frequently or knew them well. All, of necessity, drove across or around them but that was the limit of their knowledge apart from the odd short walk, usually in the vicinity of Woodbury Castle, located next to the main road running along the western edge of the heathlands. This reflects a much more general trend in the area: that most local residents do not go to visit the heaths except on a very occasional basis and their knowledge of them and their geology is slight (see Tilley and Cameron-Daum 2017). The heathlands remain a hidden and almost invisible landscape. All informants had, however, visited the beach at Budleigh Salterton and experienced the pebbles there.

All the people interviewed were owner-occupiers. Of these seven had built pebble structures in their garden or created something out of pebbles or curated them in various ways. The rest had inherited and maintained them after moving into their property. All were aware of the presence of pebbles insofar as they constantly encountered them when doing anything in their gardens. Only a minority, when asked, were aware that pebbles constituted a significant part of the vernacular architecture of the area and could remember memorable pebble structures elsewhere that they had seen, such as walls or paths, guttering and decorative edging. Most took them for granted and in this sense did not see or think
about them. They were very much an unremarked and taken-for-granted aspect of everyday life. Keith, who has lived and farmed in the area all his life, remarked: ‘We have never really studied them you see. They’re just pebbles, we don’t notice them because they have always been with us.’

**Photographs of pebbles**

Seventeen of the 23 informants were asked to take two photographs of their pebbles, anything that they wished. Of the 36 photographs, 7 were of individual large pebbles, close-up photographs of pebbles in walls and, in one case, of pebbles collected from the beach. The remainder were of walls, yards, patio features, outbuildings, path edging and water features, reflecting the wide range of structures commonly encountered in the area. When asked why they took these photographs there were a range of responses:

‘The big rugby ball and the little egg there: obviously the size and showing the remarkable possibilities of colour, that if you dig long enough you will find remarkable little treasures like that.’ (Michael)

‘It is a great collection of pebbles. I like the ones in the courtyard. They were put there by garden designers and it’s just a lovely contrast, we have the brick, we have artificially made flagstones … and we have gravel so it adds contrast; different size, different texture, and I love it.’ (Bonnie)

‘It was the variation in them, the colour and the shapes … natural stone … I suppose also it’s the size. Some of them are huge.’ (Patricia)

‘They’ve got all shapes and sizes and colours. And not just plain, they’re veined as well, some of them.’ (Alan)

Size, shape, colour and contrasts with other types of building materials were the properties of pebbles that people regularly identified as being important to them, together with the fact that they were natural building materials that had been historically important and therefore were appropriate to the locality. Many were proud to have these structures in their gardens and to have maintained them. Most people remarked how uncomfortable it was to walk on pebbles and that paths, courtyards, etc. needed weeding in order to maintain them. When
asked to choose up to five words to describe pebbles the most frequent responses were ‘colourful’ (eight) and ‘smooth’ (eight). Eight people also referred to shape – ‘round’, ‘oval’ – and a further five to ‘tactility’ as being important. If pebbles were regarded as being difficult to walk on, they were nevertheless regarded as good to hold in the hand: pebbles were said to feel comfortable. Five people also used the word ‘hard’. To some they were ‘warm’. Others referred to pebbles as being attractive, individual, variegated, different and decorative, as being like eggs. They were described as being useful, traditional, local, historical, travelled, noisy, water-worn and reminding one of the beach and the sea:

‘They come in all shapes and sizes. You have the big ones and the little ones, and all the different colours, a huge variety so visually its really quite exciting to look at pebbles. And I love the sound, the crunching sound. And people are just moved to make things with them. So you find the little piles and structures that people produce spontaneously [on the beach].’ (Bonnie)

The emphasis put on shape and tactility, that it felt warm and comfortable to hold pebbles, was clearly as important to some people as their colours and decorative nature. Pebbles felt warm because they were smooth and comforting to hold; the smoothness was associated with water and the sea:

‘They’re just so smooth, they’re silky. You couldn’t grind anything to that perfection could you?’ (Geoff)

‘You just feel like you want to touch them and you can just hold pebbles and each pebble you held would feel different.’ (Brian)

The sheer hardness of these pebbles was a quality that keen gardeners had noticed. This mitigated against any attempt to shape pebbles or cut them to size in building anything. Unlike other kinds of building stone they had to be used as found. In people’s gardens, pebbles were felt particularly appropriate to use as water features, placed next to ponds and fountains. Curating pebbles was commonplace; once dug up in the garden they would be saved in piles to be used in future construction projects, and building walls or paths of pebbles was one way of using up what was a ready-to-hand and free building material. Each project produced its own harvest of pebbles. Some people had collections of pebbles or individual pebbles displayed as decorative items in their houses.
or used ‘practically’ as doorstops, paperweights, to keep windows open, etc. Some of these had been picked up on the beach and were said to be irresistible despite the recent and signposted ban imposed by the local council on removing pebbles from the beach:

‘You pick one up and think you’ll keep it, find another one, I’ll keep that. Keep going on and on. And if you are not too careful you have a pocket full of them.’ (Susan)

Virtually everyone mentioned this pebble picking ban (mainly imposed to prevent commercial exploitation by builders) and it made some of them feel mildly guilty, but the attraction of the pebbles was too great. A number showed me polished pebbles or painted pebbles that they had bought or been given as gifts (Figure 5.1). Painting pebbles was a widespread practice in the 1960s and 1970s among local artists and also among school children during the Budleigh Salterton Gala week, with pebble painting competitions taking place in the day centre of the local hospital.

Wendy had retired to East Devon with her husband in 1986. They bought an old farmhouse with a paddock and started transforming it into

Figure 5.1  Painted beach pebbles from the 1970s (Source: author)
a garden. Wherever they dug they found pebbles and started creating structures out of them: walls, paths, patio and courtyard areas, pebbles to line the vegetable patch. Having dug a large pond they created a pebble beach with the excavated material on one side, with the pebbles graded in size from larger to smaller ones at the water’s edge (Figure 5.2). Like other people in the area who have constructed structures out of pebbles, they have an intimate knowledge of them: their different shapes, sizes and colours. Building these structures required careful selection and grading of the pebbles and choosing the right one to maintain an even and attractive surface. Building things out of pebbles requires one to gain a craftsperson’s skill and knowledge of how to work the materials to the best advantage. Those who had not attempted to build anything from pebbles were largely unaware of the potential they offered as a building material and, more importantly, the problems faced by anyone trying to construct something out of such smooth and slippery stones without any straight edges except when they were broken and you could get a flat face.

The act of building things from pebbles substantially altered both people’s knowledge of them and the manner in which they thought about them, reinforcing the significance of the Heideggerian link between
building, thinking and dwelling (Heidegger 1962). Nigel, who had recently restored a dilapidated pebble pigsty, remarked:

‘Oh if you pick a pebble up you can feel it’s something different, every one you pick up is different, has a different feel because you’ve got years and years of erosion where they have been washed in the sea and each one is individual no matter what size they are, they’re individual as opposed to something stamped out on a machine.’

As I walked around with people in their gardens and was shown things made of pebbles this often brought back strong memories of the event of their construction and the labour involved. The biographies of these people and those of the pebbles were intertwined and entangled. More generally pebbles themselves brought back people’s memories of beaches, particularly beautiful beaches in different parts of the world that they had visited during their lives, since pebbles were always associated with the sea. Some had souvenir pebbles from these trips, others from the beach at Budleigh Salterton. Bathrooms were regarded as particularly appropriate places to display these pebbles, thus maintaining the association with water and its enlivening effects on pebble colour.

Alan was born on a farm situated on the edge of the Pebblebed heathlands, moved as a boy to the adjacent farm and has been cultivating the land ever since, having taken over the tenancy from his father. His photographs were of a cowshed constructed out of pebbles and a huge broken pebble, one of many large pebbles displayed in his garden (Figure 5.3). This pebble when weighed by me was found to be no less than 52 kg and was 40 cm long and 26 cm broad. Given that it was broken at one end it must have originally weighed 60–70 kg and been up to half a metre in length: the mother of all pebbles! His father had started deep ploughing, about 18 inches deep in the 1960s. One of the unintended consequences was the unearthing of pebbles everywhere: the family spent the next three years removing them from the fields, because pebbles wreck ploughs, and placing them along hedge banks. This was one of those pebbles that was important enough to be brought back to be placed in the garden beside the farmhouse.

Alan has strong memories of pebbles from childhood, of collecting them off the fields, the orange sparks that flashed when you hit them, and the strong smell of gunpowder, but also of how he imagined this landscape of pebbles to be:
I’ve always thought since I was young that this [the ridge of higher land running behind his farmhouse] was the edge of the beach. I always thought when I was younger I could imagine Ice Age man sitting on the edge of the beach and that ridge there which I’ve always been aware of was the ridge of the beach … and water would have lapped up to here [the farmhouse], that’s how I always imagined it.’ (Alan)

He described his pebbles as being ‘historic’ and ‘well travelled’ because he now knows that they had come all the way from France. Even if some people could not say much about the pebble structures in their own gardens, almost all had strong memories from childhood of pebble beaches and beachcombing: finding and collecting pebbles, building castles out of pebbles, skimming pebbles across the water. Pebbles were invariably strongly associated with childhood and happy times. On Budleigh Salterton beach a favourite childhood activity for some was to attempt to throw pebbles so that they landed onto ledges on the red sandstone cliffs running out into the sea to the east of the mouth of the river Otter, and onto the rock stacks at Ladram Bay to the east.

These interviews reveal how deeply connected local people feel in relation to pebbles and also that this had a deep somatic and habitual
basis. Pebbles were part and parcel of their daily experience, something usually taken for granted rather than consciously noticed and discursively discussed unless except prompted to do so. Below we discuss in more detail the tactile qualities and visual characteristics of pebbles that were undoubtedly most important to the people we interviewed.

The feel of pebbles

We have demonstrated in Chapter 4 that the majority of the pebbles used to build the cairns fall within fairly restricted weight and length parameters. There are comparatively few small pebbles or very large and heavy pebbles. Only a few would require lifting and putting into place while building the cairn with two hands. The size of the pebbles is such that few could be picked up and put on the cairn together. So the construction of the cairn involved placing the pebbles side by side and in layers on top of each other, one by one. The excavations showed that most pebbles were placed side by side along their horizontal or long axis. The fact that most are of a similar weight and size indicates pebble selection and sorting prior to building the cairn. The cairn builders must have been working with piles of pebbles brought to the site that had already been sorted. Collecting material to build the cairns was therefore not a matter of shovelling unsorted material into baskets and carrying it to the site. The pebbles that were chosen were invariably those that could easily be grasped and fitted comfortably into the palm of the hand. The construction of Tor Cairn involved at least 31,000 individual acts of placing individual pebbles on the cairn surface side by side and pebble after pebble. The pebbles in any particular layer do not overlap with each other. They were placed in relationship to each other with a minimum of distance between them, a bit like building a jigsaw puzzle. The size and shape of one pebble required choosing another pebble of a suitable size and shape to put next to it from the collected material to hand. We might regard the whole process as thinking through the body involving the collection, transportation, selection and individual placement of pebbles. Knowledge of the sizes and shapes of the pebbles was grounded in the activities of those building the cairns, a process of thinking and perceiving through the body, of gripping the pebbles, an internal kinaesthetic relationship. Pebbles, because they have a ready-made form (they are naturally pre-shaped) and do not require fabrication into a suitable size or shape unlike quarried stone, seem to almost naturally lend themselves to sorting activities in terms
of shape and size or colour or a combination of all these. They invite the creation of form and pattern. The grip (involving size and shape, visual perception and colour) of one pebble put in place determined the suitability of the next. The cairn builders would have worked side by side, utilizing their piles of building materials in a routinized fashion. Most probably they worked from the perimeter of the cairn to the middle and then, a pebble layer having been completed, filled in the gaps and covered the pebbles with a thin layer of sandy soil to create an even and uniform surface before starting to construct the next layer. Building the cairns involved a rhythmic process of moving from the outside to the inside and back again, starting at a distance and coming closer, meeting at the middle, something that was intimate, given the small size of the cairns, and intensely social. Building the cairns was part and parcel of the body habitus, a habitual understanding of the right way to do things. The resulting cairn was a material expression of these techniques of the body.

Most of the pebbles used to build the cairns are irregular in shape. Few are perfect oval or round forms and there is a gradation in shape between irregular, oval and round pebbles. In other words, some pebbles are more irregular than others. The irregularity of pebbles, of course, makes them distinctive, so that no two pebbles are exactly alike. The feel and grip is different. That which remains common to all the pebbles is the smoothness of their surfaces. Informants (as discussed above) say that they like to feel pebbles in their hands. To many of them, indeed, the feel of a pebble is its most significant aspect. A slipping, sliding, sleeky smoothness: there is something comforting and deliciously satisfying in experiencing holding a pebble that makes it very different from other kinds of stone. Because the pebbles have a surface patina they also look old, contrasting with the fresh surfaces of quarried stone. They are pre-formed or pre-made. Smoothness and age commingle in the tactile grip of the stone. Most note that these pebbles (quartzites) feel very dense and hard. The tactile experience combines these two qualities – smoothness and hardness – in an interesting way and in a very different manner from, say, a hard stone with a rough surface. A smooth, hard pebble does not cut or abrade the hands. Some also say that the pebbles feel warm. This ‘warmth’ of the pebble seems to stem from the smoothness of touch. Things that are smooth, like the human body, feel warm and one is comforted by them. It is clear that feeling a pebble thus creates an emotional reaction of well-being in the body subject, a harmonious relationship with the stone. From this point of view building a pebble cairn, irrespective of the labour involved, must have
been an intensely satisfying tactile experience. Through the process of collective cairn construction people were building both themselves and their relationships with others.

**Colour**

We first describe the physical characteristics of differently coloured pebbles and then further consider our use of abstract colour categories as a basis for classification (outlined in Chapter 4).

**Brown pebbles**

Brown pebbles are variable in shape and size. Some have a very smooth and rounded outer surface, others feel coarser. They are the softest of the pebbles, with a relatively high sand content, and tend to split in a regular fashion along bedding planes in the acidic soils of the Pebblebeds. Some have fine parallel bands across their entire surface creating a subtle wood-grain-type appearance. Others have broader darker and lighter bands that are very distinctive, forming special pebble category 12 (see discussion below). There is much colour variation, from darker to lighter tones of brown through to red-brown. Some possess a rough surface.

**Red pebbles**

Red pebbles are very similar in their physical characteristics to the brown pebbles and are also prone to split in a regular fashion along bedding planes, but far fewer have a wood-grain-type surface and none have distinctive darker bands. Some red pebbles have a very distinctive hue, others shade into browns and greys to various degrees. According to sand content some are harder and smoother to the touch than others.

**Yellow pebbles**

These pebbles lack a wood-grain appearance and tend to be considerably harder than red or brown pebbles, with a higher silica content. They lack visible bedding planes and bands. There is considerable colour variation, with many merging into shades of brown and grey. All have smooth surfaces. These are frequently fissured with networks of very fine surface cracks. Unlike red and brown pebbles they tend to break vertically rather than horizontally because of the absence of bedding planes. A few
have shallow surface holes and indentations. Unbroken pebbles feel very smooth.

Black pebbles

These are rare and infrequent. They invariably have many quartz veins and inclusions running across their surface. They break irregularly and feel rough in comparison with other pebbles. Some of these pebbles probably originate from Dartmoor, being carried east into the ancient Triassic river bed by feeder streams.

Grey pebbles

Some of these, like brown pebbles and some red pebbles, have a wood-grain surface appearance and they tend to split along their bedding planes. There is much variation in terms of colour, merging into shades of brown, red and yellow to various degrees. Most have smooth surfaces but others have a distinctively rougher surface texture. Harder pebbles have small surface cracks like yellow pebbles.

Quartz (white) pebbles

These are the most easily recognizable and distinctive of the basic pebble categories recorded. They are harder than the other pebbles and always break and fracture in an irregular way. They vary considerably in colour, from almost pure white through shades of white-grey, white-brown, white-pink and white-yellow. Some are perfectly smooth, others have a surface entirely covered with fine cracks and fissures and feel rougher. Others have larger and fewer surface cracks. Many have a mottled or multicoloured surface.

Carter Blue Stones

Prior to the 2008 excavations undertaken by the Pebblebeds project, Chris Tilley had been looking out for blue stones while carrying out field research on the heathlands. He never found any – not helped by the fact that he didn’t know what they looked like. Carter had not published photographs of any of his blue stones nor drawn any of them, and he did not seem to have kept any from his excavations. The garden of Carter's house was searched for them but he had evidently not brought any back from the heathlands and put them there. As discussed in Chapter 2, the blue stones that Carter found were primarily significant to him because...
of their blue colour — sacred in Indo-Aryan mythologies and associated with Indra the great father-god.

There are a number of specific features of these blue stones that Carter does not mention which are potentially very important indeed in their interpretation. These pebbles are hard, with smooth external surfaces and all are irregular in form, 10–15 cm in size. They are almost always found broken (90 per cent of those recovered from Tor Cairn) and unbroken examples are irregular in shape (Figure 5.4). Only a very few are perfectly water-rounded on all faces. In contrast to the other pebbles, these blue stones lose their blueness when wet, becoming much darker. Their blueness is intensified when dry. This in an interesting manner inverts the situation found with other pebbles, whose colours are always intensified and enhanced when wet.

Roger Taylor examined the blue stones recovered from Tor Cairn and reported that they are quartzite, just like the other pebbles, but that they are highly unusual because they have not been subjected to the same water attrition processes and have a different transport history. Their source, in contrast to that of the other pebbles, may be quite close to East Devon, perhaps from rock outcrops now submerged under the English Channel. As a consequence the rocks have not been rolled and ground down into pebble forms as much as the other stone material.

Figure 5.4 Examples of blue stones from Tor Cairn (Source: author)
by the ancient Triassic river. This accounts for the irregular shape and form of many of these blue stones – they are not like the other pebbles. What was the importance of these stones? These stones were significant because of the manner in which they were noticeably different from all the other pebbles in form, colour and the manner in which they react to water.

**Classifying colour**

As has been discussed in Chapter 3 and above, we recorded the pebbles from the cairns in terms of basic colour categories: red, brown, grey, etc. This was an attempt to avoid the kind of confusion and uncertainty that would inevitably arise if we attempted to record shades of brown or yellow or red or grey, etc. or use a much more extended range of categories, for example pink pebbles, olive-green, orange, mauve, etc. What this meant in practice was that a decision had to be made whether a pebble was, for example, more red than brown, in which case it was recorded as red, or more brown than red, when it would be recorded as brown. Using a colour chart such as the Munsell system (Munsell 1912) to ‘objectively’ record the colour of the pebbles was ruled out at the outset since one of the things that we do absolutely know for certain is that such a system would not have been used by the Bronze Age people constructing the cairn, and the numerical colour codes arising would have been as meaningless to them as a description or categorization of colour as they are to us. In practice, anyway, using the ‘objective’ Munsell chart is a subjective enterprise – we make a subjective judgement between a number of possible alternatives. More seriously such a way of categorizing colour gives us no insight into meaning. Their colour categories would have been culturally constructed in the same manner as our own modern classification system, using abstract colour categories.

Archaeologists generally use abstract colour categories in discussions of stratigraphic sequences and the colours of materials, such as clay and stone, as if they are unproblematic. So they do not ask how red is this red and how different is this red from brown. In many cases this may be justified when the materials being discussed are obviously different and contrasting. So for example some of the prehistoric stone circles on the Isle of Arran are composed of grey granite and red sandstone and there is no problem describing them as such (Jones 1999 and see discussions in Jones and MacGregor 2002). However, in the case of the pebbles of the Budleigh Salterton Pebblebeds this is far from easy since there are so
many shades of red, brown, grey, etc., sometimes even on different parts of a single pebble. Having recorded pebble colours as a team we carried out a series of tests in order to ascertain how much individual variability there was in our own colour classifications and how this might affect the interpretations of the results.

**Test results**

We selected 50 pebbles, 10 from each of five colour-contrasting categories – red, yellow, grey, brown and white (which accounted for the quartz pebbles) – and numbered them accordingly. These particular colour categories were chosen because we knew from our own experience of recording colours that these were often problematic, except for ‘white’ or quartz pebbles, where there was good general agreement as to what white was (the same applied to black pebbles and blue pebbles that were not included in the analysis). We interviewed 57 people. Eleven of these were members of the excavation team who had colour-coded pebbles during the excavations, and had some experience of doing so, and 46 were students at University College London, who had none. We told the informants that there was no right or wrong answer, and asked them to group together ten pebbles under each of the five categories of colours. From the 2,850 answers given (570 answers for each colour), 1,908 (66.9 per cent) matched our classification. All the pebbles in the tests were wet so that their colours would be enhanced.

Among the 942 pebble categorizations that did not match our colour classification, brown was the colour which had the most ‘divergent’ answers (332 in total, of which 43 per cent were yellow pebbles, 33 per cent were grey, and the rest, red), followed by grey (a total of 299, of which 87 per cent were brown pebbles), yellow (195 in total, of which 74 per cent were grey pebbles), red (111, with 45 per cent being brown) and white (5 in total, 40 per cent being brown) (see Table 5.1).

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<td>–</td>
<td>–</td>
<td>2 white</td>
<td>2 white</td>
<td>1 grey</td>
</tr>
</tbody>
</table>
There was no appreciable difference between the results of the students and the members of the excavation team. We can conclude from this that there is in general a high level of agreement between the manner in which different individual colours were classified by different persons, but up to 30 per cent level of disagreement. As a consequence, in the interpretation of colour statistics for the pebbles in the cairns discussed in Chapter 4 this has to be allowed for.

**Special pebbles**

As discussed previously, a category of special or extraordinary pebbles was first formulated mid-way through the first season of excavations at Tor Cairn in 2008. These pebbles are distinguished from others by having a far more complex and less uniform visual appearance. They may have multicoloured or mottled surface colours rather than being uniformly grey, brown, yellow, etc., and/or possess a wide variety of different quartz veins or inclusions of different forms. Each of these pebbles has its own unique characteristics. Figure 5.5 shows a general classification system identifying 13 basic categories. Any individual pebble may possess up to four of these categories somewhere on its surface. Frequently the same pebble may appear completely different according to which side or area is seen. The quartz veins and inclusions criss-crossing some pebbles vary from bright white to various shades of cream, pink or red, yellow or black.

Class 1 are pebbles with a mottled or variegated surface with two or more different colours. Such pebbles are seriously underrepresented in the cairns compared with the test beach samples because of erosion and iron staining in the acidic soils affecting the pebble surface. Only pebbles left exposed to the sun, wind and rain for two years following the excavation of Tor Cairn began to resemble the beach pebbles in this respect and it was evident that many special pebbles of this category had not been possible to recognize during the course of the excavations.

Classes 2 and 3 are pebbles with a single narrow or broader quartz vein running across their surface. Usually these veins are white but sometimes they may be grey to pink to red.

Classes 4 and 5 are pebbles with multiple narrow or broad quartz veins running across their surfaces. Sometimes these may be broad and roughly parallel bands. In other cases pebbles may be criss-crossed with such thread-like or broader veins in an almost infinite number of forms.

Class 6 are pebbles with quartz inclusions or surface areas made up by quartz of variable form and extent.
Figure 5.5  Schematic diagram of categories of ‘special’ pebbles: (1): pebble with mottled surface of different colours; (2): narrow quartz veins; (3): broad quartz veins; (4 and 4a): multiple thread veins; (5 and 5a): broad quartz bands; (6): quartz inclusions; (7): quartz rings or ovals; (8): multiple quartz rings/ovals; (9): conglomerate/spotted; (10): pebble with two or more distinct surfaces/colours; (11): blue stones; (12): distinctive bedding planes/stripes; and (13): other – any combination of the above categories (Source: author)
Class 7 are pebbles with oval rings resembling eyes. These are invariably found around the end of the long axis of the pebble, only rarely occurring elsewhere on its surface (Fig. 5.6). The shape of some bear a striking resemblance to a human eye. Once looked at by Bronze Age eyes, they now look at us.

Class 8 pebbles are those with multiple oval rings.

Class 9 pebbles are conglomerates with a conspicuously spotted surface that may take a variety of forms. Class 10 pebbles are those with two distinct surfaces; class 11 are Carter Blue Stones already discussed. Class 12 pebbles have distinctive broad bands or stripes running along bedding planes. Class 13 pebbles are a small number of examples of pebbles that have none of the above characteristics, possessing instead such features as black veins or unusual holes on their surface.

Figure 5.6 Examples of pebble ‘eyes’: (a): Little Tor Cairn north quadrant square N4 level 2; (b): Tor Cairn north quadrant square 4 level 3; (c): Tor Cairn south quadrant square 9 level 2; (d): Tor Cairn north quadrant square 3 level 1; (e): Tor Cairn south quadrant square 4 level 3; (e) Tor Cairn south quadrant square 6 level 2; (f): Tor Cairn south quadrant square 6 level 2 (Source: author)
Any pebble may possess any combination of these characteristics up to a maximum of four, for example a single pebble might have a mot-tled surface, narrow quartz vein, multiple broad bands and a quartz oval.

Given that we know that special pebbles were differentially selected to include in the cairns, an important question to ask is whether this process of selection shows any preference for the different categories of ‘motifs’ or ‘patterns’ on these pebbles as outlined above. Table 5.2 shows the statistics from the excavated sites (both the cairns and the pebble platforms) and from the 15 test squares. For ‘motifs’ see Figure 5.5.

<table>
<thead>
<tr>
<th>Classes recorded</th>
<th>Tor Cairn (NW quadrant) percentage</th>
<th>Little Tor Cairn (W side) percentage</th>
<th>Little Tor Cairn (E side) percentage</th>
<th>Twin Cairn A (NE quadrant) percentage</th>
<th>Aylesbeare platforms sections percentage</th>
<th>Test squares percentage</th>
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</thead>
<tbody>
<tr>
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</tr>
<tr>
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<td>4</td>
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<td>3</td>
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<td>4</td>
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<td>Number of pebbles</td>
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<td>29</td>
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<td>10</td>
<td>0.04</td>
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<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Four classes percentage</td>
<td>0.1</td>
<td>3</td>
<td>0.01</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
sculptures discussed in Chapter 6) and the 15 natural test squares. The frequencies of mottled pebbles, as expected, are lower in the excavated sites compared with the test squares but the great majority of these were recorded in the beach samples. Otherwise there is little difference in the relative frequencies, except for cairn TCA where positive selection seems to have taken place. Class 2 is overrepresented in the pebbles recorded in the three platform sections on Aylesbeare Common discussed in Chapter 7 and TC and LTC but underrepresented at cairn TCA. Class 3 is slightly overrepresented in the cairns but not the platforms compared with the natural test samples. Class 4 is more common in the platforms than in the natural test samples but not the cairns. By contrast Class 5 is more frequent in the natural samples and is underrepresented everywhere except at cairn TCA. Class 6 is similarly less frequent in TCA and the platforms than in the natural but occurs in similar frequencies in TC and LTC. Class 7 is underrepresented at all sites compared with the natural and especially in TCA, as is class 8, except in the western half of LTC. Class 9 is underrepresented at all the excavated sites, while Carter Blue Stones are dramatically overrepresented compared with the natural samples, most especially at TC. Class 12 is overrepresented in all excavated sites. The relative frequencies of combinations of the different classes on the pebbles differs little from the natural, except at TC and the western half of LTC, where they are far more frequent than in the natural samples.

While we already know that there is very strong evidence for the preferential selection of Carter Blue Stones in all excavated sites, there also appears to be positive selection for classes 2, 3, 4 and 12 in the excavated sites, that is to say pebbles with single thin or thick quartz veins and multiple thin quartz veins running over the surface and multiple bedding plane rings. The platforms differ from the cairns in preferential selection of classes 2 and 4 and 12 as opposed to 3, the latter being more frequent in the cairns. Special selection differs somewhat from cairn to cairn and between the two halves of LTC but varies from case to case.

It is important to note that all the special pebbles are absolutely unique. Not only is this the case but many look very different from side to side or viewing angle. The same pebble is not one but many. The classification system for the special pebbles is necessarily very generalized and inevitably subsumes difference. Although we have identified certain broad preferences for different categories of special pebbles compared with the natural test samples these are only generalized trends. What was probably far more significant to the prehistoric populations was the individual form and unique characteristics of the individual ‘motifs’ and the ‘patterns’ and the ‘motif’ combinations on the special pebbles, which
were almost certainly not conceived in terms of being, or not being, members of a particular class as in our analysis.

**Describing specials**

We have discussed above different broad categories of special pebbles. Here we want to instead stress individual differences. No two pebbles are exactly alike. Each has its own personality and integrity of form. Six special pebbles from three cairns are discussed in the following.

**LTC 2010 square 4 level 7 (Figure 5.7)**

This pebble is from the middle of the basal level of Little Tor Cairn in the SE excavated quadrant. It was therefore deposited at the outset of cairn construction. This small pebble is brown and perfectly oval in form. It is identical in form and size to many of the smaller pebbles found on Budleigh Salterton beach today and this might be its likely origin. One side is plain, the other has a striking quartz oval covering half of the pebble. The quartz is pinky-white and contains a number of black thread veins forming an irregular honeycomb-like pattern over part of the outer surface at one end.

![Figure 5.7](image-url) Special pebble from Little Tor Cairn S4 L7 (Source: author)
TC 2009 N6 level 2 (Figure 5.8)

This pebble is from the uppermost level of square 4 in the centre of Tor Cairn. Irregular in form and grey in colour, the surface of the entire pebble is criss-crossed with thread-like white quartz veins and inclusions. These form a fine mesh across the pebble surface. They run parallel to each other diagonally across the pebble on one side together with others that curl around and across the pebble. On the other side they run parallel to each other with thicker veins cutting across the centre. The pointed and smaller end of the pebble has another thicker oval or eye-shaped quartz vein running around it, seen in Figure 5.8 at the top. This can only be seen in its entirety by holding the pebble upright. As one rotates the pebble in the hands the patterns of quartz veins alter and change in a kaleidoscopic manner. This pebble, like so many others found in the cairns, is both one and many. The patterning running and changing across its surface changes radically giving a sense of unfolding dynamism and fluidity of form (Figure 5.8).

Figure 5.8 Special pebble from Tor Cairn N6 L2 (Source: author)
LTC 2010 SE quadrant level 3

This irregular pebble found in the second pebble layer of the cairn on its western periphery has a mottled and slightly pitted surface with an irregular coverage of grey, pink and brown areas, all with merging surfaces and irregular outlines. It is crossed by a single broad and bold quartz band that stands out from the rest of the pebble in a striking manner (Figure 5.9).

Figure 5.9 Special pebble from Little Tor Cairn S4 L3 (Source: author)

TCA NE quadrant level 1

This striking irregular brown pebble has one face covered with pink quartz inclusions. These wrap themselves over the pebble surface in an extraordinary manner, creating meandering folded masses, sometimes broad, in other places narrow, creating a plethora of forms running across the surface. The other, ‘back’ surface of the pebble is almost uniformly brown, except at one end, where the quartz inclusions from the ‘front’ side continue and wrap themselves around it in a bold but broken band, revealing the brown surface beneath enclosing a series of irregular geometric shapes (Figure 5.10).
TCA NE quadrant level 1

This pebble from the surface of the cairn has a complex mottled surface. Across the brown ‘front’ surface run broad involuted and indented meandering yellow bands. Other areas of the ‘back’ of the pebble surface are flecked and splashed with yellow highlights (Figure 5.11).

TCA NE quadrant level 6

This is a conglomerate pebble spotted or flecked over its entire surface, with larger and smaller white and pink quartz inclusions, larger at the centre, smaller towards the ends of the pebble. It was found in a middle layer of the excavated NE quadrant. The perceived surface patterning differs considerably as one rotates the pebble in the hands. Quartz flecks are absent from small areas (Figure 5.12).

It is exceedingly difficult to either adequately describe these special pebbles or indeed to photograph them. They need to be physically experienced, held and moved in the hands to appreciate the sheer complexity of their forms and patterning. No two pebbles are exactly alike. Each has
Figure 5.11  Special pebble from Twin Cairn A NE L1 (Source: author)

Figure 5.12  Special pebble from Twin Cairn A NE L6 (Source: author)
its own personality and integrity of form. We have demonstrated that there are far more of these special pebbles in the cairns than are found in the natural. This suggests that their striking and unusual character was recognized and that they were picked up individually by different people and brought to the cairns during their construction rather than simply being shovelled into a basket as a bulk collection. Such an activity might appeal to children, in particular, who could be taught to recognize unusual and striking ones.

This may have been over a considerable period of time. As argued in Chapters 3 and 4, the pebble layers on the cairn might have been added to seasonally or annually as part of the rhythm of life or after a number of years. We undertook an experiment with beach pebbles, taking some away and leaving them exposed in a pile inland. After a period of six or seven years their surface begins to dull and go grey. This is the result of lichen growth. So adding fresh layers of pebbles to the cairn surface would in effect renew the vibrancy of its colours and the individual character of the specials.

Infinitely variable, these special pebbles invite and attract, compel one to examine their surfaces that flow and change as the pebble is rotated in the hands. Different patterns and images appear and disappear in the process, emerge and fade away. The meandering white quartz veins on some twist and turn, widen and narrow. Others have multicoloured patterns. Nobody made these pebbles, created their shapes and forms and patterns, but the inherent beauty and intricacy of their forms is nonetheless quite remarkable. Although this is, of course, a modern aesthetic response we can still ask how prehistoric people may have responded to them. Might they not have thought about them too as wonderful or magical, regarded them as talismans and emotionally responded to their forms? Most of the patterning on the pebbles is ‘abstract’ in character; sometimes they are strikingly geometric in just the same way as the motifs that occur on Early Bronze Age/Beaker pottery. On some one can read into the patterning representational forms. A considerable number of these pebbles have quartz ovals on their surfaces resembling the shapes of eyes observing the observer (Figure 5.6). As noted above, these are usually found on the ends of the pebbles. Usually there is only one, but sometimes two; more rarely, multiples. Other pebbles resemble in shape and form internal body organs: kidneys, livers, brains, etc. On others the patterns of quartz veins create forms analogous to sinews and binding. On some we can find ‘depictions’ of plants and animals such as the fronds of ferns, fugitive outlines of animals or birds, lobsters and prawns (Figure 5.13).
Figure 5.13  Pebble with a ‘prawn’ (Source: author)

In case the reader has not noticed, there is an intended irony in the illustrations: they juxtapose the pebble with a measuring scale in centimetres. What does the objectivity of the scale tell us about these pebbles? Does it capture their essence? We assume there is no need to provide an answer.

**Contemporary tests**

Fifty informants were asked to select their 10 favourite pebbles from a sample of 20 collected from the beach. Ten of these were plain pebbles of different colours, the others the kind of intricate pebbles with mottled and patterned surfaces and/or distinctive quartz veins that we had recorded as special from both the cairn and the test samples.

The first thing we wanted to verify with this test was whether our own classification for specials would be reproduced in the informants’ choices. Nearly 70 per cent of the pebbles chosen by the 50 informants...
indeed matched our classification. Eighty per cent of the pebbles that we considered special were chosen (see Table 5.3). Only two pebbles from the ‘ordinary’ group were picked out as being more important than our specials: the completely white and the completely black pebbles.

We also wanted to know the criteria guiding the informants’ selection of specials. Each informant gave us his/her reasons for that. Although their answers varied a lot, we could identify some patterns in their choices, and have grouped their answers under 51 different categories. The colour of the pebbles was the most mentioned category (66 per cent of informants mentioned it), followed by their smoothness (52 per cent), patterns (44 per cent), their regular or round shape (34 per cent), the presence of lines or stripes on their surface (34 per cent), their solid blackness or whiteness (34 per cent), and the presence of spots (quartz inclusions) on the surface (26 per cent). Another characteristic that caught the informants’ attention was that the shape or the surface of the pebbles reminded them of something else, such as an egg (24 per cent), a semi-precious stone, jewellery or a gem (four people), the moon or a planet (three people), a heart (three people), a face (two people), a kidney (two people), a pasty (two people), a map, a coral, a whale, a tool, a fish, a cow, a snake, the Super Mario video game, a liquorice ice cream or a dinosaur egg (each of these mentioned just once).

The mineral properties of the pebbles also made them special for some informants: 20 per cent mentioned this characteristic. The fact that a pebble seemed to have been attacked, damaged, had creases or scars caught the attention of 16 per cent of informants. Fourteen per cent mentioned the different or interesting textures of the pebbles. Memories or remembrance of pebbles they had found in the past was also a point that cropped up – five people mentioned it. Prettiness was mentioned five times also. Among the less popular characteristics we have: ‘it could be a piece of decoration’, the marble or onyx effect, and the uniqueness (four responses each); the fact that it has quartz in it (mentioned three times); it looks like metal (two responses), it is humble/simple/natural (two responses). The power of bringing forth emotional responses was mentioned five times: ‘I feel sorry for this pebble’, ‘it is calm’, ‘it is mystical’, ‘it is funny’ and ‘it is disturbing’.

<table>
<thead>
<tr>
<th>Pebble number</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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</thead>
<tbody>
<tr>
<td>Number of choices</td>
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<td>33</td>
<td>38</td>
<td>36</td>
<td>21</td>
<td>21</td>
<td>45</td>
<td>41</td>
<td>22</td>
</tr>
</tbody>
</table>
Special pebbles were also regarded as powerful/intense (mentioned twice). Features that were mentioned just once were design; alien; man-made; different sizes; form of a triangle; skipping stone; camouflaged pebble; it is alive: it is sick, and it is perverse.

Choosing specials seemed to be an introspective exercise for most of the informants. Pebbles were looked at individually, not collectively, and it was very interesting to see informants holding and rubbing them as if they owned them. Some informants wanted to take the pebbles home. The way they connected with the specials was quite different from the way they manipulated the pebbles used in the colour tests – they did not show much interest in or care for these pebbles. With the specials, on the other hand, they were invited to talk – not by us, but by the pebbles themselves. For some it seemed to be therapeutic to choose a pebble: they held it with both hands, turned it round, grabbed it to feel its heaviness, looked very carefully at it, ‘felt in love’ with a particular one, ‘felt sorry’ for another one, remembered their past or their mother. One informant licked some pebbles to check their mineral properties.

Another exercise confirmed individuals’ preference for pebbles that we have regarded as specials. A group of 35 UCL students on a fieldtrip in February 2012 were taken to Budleigh Salterton beach and asked to pick up one or two pebbles that appealed to them. All but two, who again chose black and white pebbles, picked up special pebbles with multiple veins or mottled colours, confirming the pattern we have found in the tests carried out with the 50 informants. At the very least these tests showed that our classification of special pebbles was not just a personal whim and that there was a high degree of agreement that these were indeed different from ordinary or plain pebbles.

**Colour and its significance in prehistoric cairn building**

Owoc (2002, 2004) has observed that for several southwestern cairn sites in the UK, the use of contrasting coloured materials has a significant role to play in understanding cairn construction and meaning. The most striking feature of the pebbles found in the Pebblebeds is their bright and varied colours. From our analysis we have demonstrated that the pebbles in the cairns were not selected or arranged and placed in the layers of the cairn in terms of these colours, that is, by grouping them together to make patterns using pebbles of the same colour. Throughout the different levels of the cairns we consistently find a mixture of pebbles of
different colour, resulting in an architectural structure that was multicoloured throughout from top to bottom and directly reflecting in a mimetic way the natural colours of the Pebblebeds themselves.

None of this suggests, however, that pebble colour was insignificant to the builders of the cairns. Rather the reverse: the colours of the pebbles used to construct them had a mimetic relationship to the landscape out of which they were constructed. The cairns objectify this relationship. This suggests that we need to consider colour and its relationship to the body in a material way rather than in terms of abstract and idealized colour categories (red, brown, etc.) that are effectively dematerialized in our own thought because they remain aloof and separate from the things of which they form a part (Young 2006). In other words, colours require contextualization in terms of both landscapes and things, events and activities. They are part and parcel of all this, primary rather than secondary in significance. Colour is what makes things and landscapes what they are. We cannot describe the colours of a landscape or the colours of a pebble in an abstract way. The redness or the yellowness of a pebble is that of a certain kind of stone, with its shape, textures, qualities, and is different from the redness or yellowness of a flower. It cannot be abstracted from the thing itself (Merleau-Ponty 1962: 323). In other words, colours cannot be separated from that which they colour. Concomitantly, perceiving colour is more than visual perception but relates to all the bodily senses. Colour can be sound or smell or taste or texture: ‘a thing would not have this colour, had it not also this shape, these tactile properties, this resonance, this odour’ (319). As Merleau-Ponty concludes: colour ‘in living perception is a way into a thing … The Maoris have 3,000 names of colours, not because they perceive a great many, but, on the contrary, because they fail to identify them when they belong to objects structurally different from each other’ (305).

‘A way into a thing’: in the prehistoric world the multicoloured nature of the pebbles would be quite extraordinary, as well as their permanent nature in the landscape. Other colours in that landscape such as the colours of flowers and vegetation were by contrast transient and linked to seasonal change. They did not endure throughout the year or over the centuries. Today our culture is saturated with artificial colour in all aspects of everyday life, in the clothes we wear, the cars we drive, the houses we live in, in books, magazines, films and TV. We take colour for granted and in this sense its power and its effects have been anaesthetized. The abundance of colour has diluted our material, bodily relationship to it and its intense spiritual power, the manner in which colour may excite all the senses and not just sight alone. Yet as Taussig (2009) has argued,
colour for us is inherently problematic. It both repulses and attracts. Goethe in his *Theory of Colours* ([1840] 2006), much cited by Taussig, felt it worth noting that ‘savage nations, uneducated people, and children have a great predilection for vivid colours; that animals are excited to rage by certain colour; that people of refinement avoid vivid colours in their dress and the objects that are about them, and seem inclined to banish them altogether from their presence’ (Goethe [1840] 2006: 30). Vivid colour in contemporary Western culture seems to requires containment and display only in appropriate contexts; it both repels and attracts: ‘who of you reading this text would even dream of painting the living-room wall bright red or green, or any color than off-white? Then, safe in your whiteness, you can hang a wildly colored picture on the wall, secure in its framed being’ (Taussig 2009: 14).

It is a notion of colour as inherently and materially part of doing and acting, possessing magical potency and spiritual power that seems to be most appropriate in interpreting the colours of the pebbles in the cairns and those of the East Devon landscape in general. ‘Colour is the most sacred element of visible things’, wrote Ruskin. ‘Drawing gives shape to all creatures’, says Diderot, but ‘colour gives them life. Such is the divine breath that animates them’ (Ruskin and Diderot cited in Taussig 2009: 254). Taussig, in a richly nuanced account, documents the demise of the power of bodily or visceral colour in the West, with the development of industrial pigments in the mid-nineteenth century. In the process things became effectively stripped of their colour. Colour became dematerialized and disembodied. Only vestiges remain today in the contemporary languages of colour nuances (sky-blue, olive-green, etc.). The names remain substitutes for what has gone, the notion that things have their own colour and that this is a non-transferable part of what they are. Taussig’s project and ours is one of re-embodiying colour phenomenologically, entertaining the possibility of producing a history of colour through entangling it with the bodies producing, perceiving and using it.

Goethe’s comments, stripped of their negative connotations, suggest another prehistoric world of untamed colour, colour as something wild, visceral, stimulating the body, producing powerful effects, linked with ritual and the emotions, inhering in things and the landscape and making them what they are, something dynamic and intimately connected with the bodily practices of everyday and ritual life. Colour as an active hybrid part of things is perfectly suited to emphasize and employ in liminal places, transforming bodies interacting with the flows of colour.
The first point requiring emphasis is the transformational nature of the colours of the pebbles. When dry most appear to be the same somewhat dull ‘greyish’ colour. Their colours vanish by being exposed to the elements and the rolling actions of sea waves or river currents. As anybody who walks along the beach knows, the colour in pebbles is activated by water. If it is not raining the most colourful pebbles are those washed by the waves. The perception of pebbles is quite different depending on whether they are wet or dry. When we asked 50 informants to categorize pebbles in terms of different colours (red, yellow, brown, etc.) in their dry state, most remarked that they were all the same colour. When wet the pebbles become instantly and spectacularly transformed, glistening and differentiated into a myriad of different hues; then our informants found it relatively easy to assign colour categories. So we might ask, in an empiricist manner, what the ‘true’ colour of a pebble is: wet or dry, bathed in sunlight or drenched with rain? The answer would seem to be that the perception of colour is always conditional in relation to the context and the situation. There is no true or proper or constant colour of a pebble. Instead, the constant fluidity of colour transformation is part of what pebbles are, their essence, their material effects on human perception.

The essence of a pebble is that it is a transformative, polymorphous coloured entity. Pebbles, collectively and individually, have powerful sensory effects as a result of their multivalent and changing colours. It is the vibrancy of their contrasting colours in general that seems to be important, rather than any artificial modernist categorization in terms of abstracted colour categories discussed endlessly in the literature (e.g. Berlin and Kay 1969; Gage 1995, 1999; Jones and McGregor 2002; Turner 1967). While all other kinds of things, such as tables or beds or other kinds of rocks, may be regarded as changing somewhat in whatever primary colour term is attributed to them according to the conditions of the light or the time of the day or whether they are wet or dry, pebbles change colour quite dramatically or violently when wet, more so than the vast majority of other materials and certainly far more than any other kind of stone. This gives them an especial and magical significance. The transformation is not slow or continuous but instantaneous. Pebbles transform, become brilliantly multicoloured, in a flash. They ‘lose’ their colours when drying out more slowly. The transformation from brilliant to dull is more protracted and scarcely perceptible until the change has already occurred. The effects of the sun are at the expense of the colours of the pebbles. The magical, transformative and polyvalent colours of the cairns thus fluctuate or flow and alter according to whether it is wet or
dry, in accordance with the metamorphic powers of water in relation to the qualities of the stone.

The second fundamental point is that the cairns also alter in the constant fluidity of the act of perception itself, in relation to the body of the observer, foreground and background, the part of the cairn that is being observed, and from pebble to pebble. In this sense the cairn becomes a constantly mobile thing in which colour flows from pebble to pebble and from one part of the cairn surface to another. Built with layer after layer of pebbles superimposed on one another, archaeological sections through the cairns reveal a kaleidoscopic depth of transforming colour in the cairn confined to its outer surface in normal circumstances, the visible external surface colour concealing the invisible colour of that which lies beneath. Building a cairn can be conceived as acts of layering colour upon colour, condensing colour in the process and creating an architectural form that of course concealed colour beneath the surface but at the same time sedimented, concentrated, magnified, animated and trapped it, giving the cairn fabulous power and potency. Colour thus pervades the cairn, is a fundamental element of its being, volubly concentrated in its mass and depth. The amassing of pebbles to build the cairns was simultaneously an amassing and concentration of colour, layer after layer, pebble beside pebble. The transformational colours of the cairn form part of both the visible and the invisible sacred world. Colour both is of this world, visible on the surface, and is sedimented in the depth of the cairn lying beneath the surface, part of another world. The cairns in turn conceal the pebbles on which they were built, geological depths of superimposed colour, layer upon layer descending beneath the surface of the land.

The Pebblebed landscape was above all a coloured landscape when compared with the dull and relatively colourless geologies of the surrounding hills and ridges of greensand and chert to the north, west and east. Humanly induced changes to the colours of the vegetation of the landscape further highlighted the vibrant colours of the cairns. The formation of heathland on the Pebblebeds transformed its colour. The dappled greens of a relatively open oak and hazel forest merging into the denser deciduous forest of the surrounding lowlands were replaced by gorse, heather and bracken. During most of the year the vegetation of such a landscape appears bleached, lacking vibrant colour. In winter it is only enlivened in patches by the yellow flowers of the common or European gorse. In spring and early summer in particular it appears grey-brown, barren and dead in contrast with the vibrant greens and the flowers of the surrounding lowland landscape. It is only in late summer
and early autumn that this landscape comes alive with colour, with the purple blooms of heather and the yellow flowers of the shorter Western gorse. Thus throughout much of the year the vibrancy of the colours of the pebbles is effectively highlighted and accentuated through this contrast. The multicoloured pebbles were always there in the landscape.

During the excavations we were constantly spraying the pebbles with water in order to observe their colours. The pebble layers were transformed from dull to brilliant and the effect was magical but within a few minutes was lost. The action of rain has, of course, the same effect. In the prehistoric Pebblebed landscape the exposed cairn surfaces would thus gain and lose their vibrancy on a seasonal and daily basis that could be observed in everyday life.

The rainbow serpent is a mythological creature of immense spiritual power and potency to Australian Aboriginal populations (Radcliffe-Brown 1926; Mountford 1978). As the name suggests it has a vibrant, multicoloured skin. It lives in holes in creeks and comes out or is ‘activated’ when the rain falls and the desert turns green – a time of renewal and plenty. Its wanderings create the rivers and creeks. It is pre-eminently associated with the cycle of the seasons, water, human social relationships and fertility. It can be a giver of life with protective powers or potentially malevolent. The colours of a rainbow form when the rays of the sun pass through rain, and the serpent is associated with the rainbow in art and numerous mythological stories.

A rainbow is a kind of miracle that activates the sky. Just as the colours of pebbles are inconstant and only activated by water, a rainbow eventually fades and is lost in the sky. Water brings forth the colours of pebbles that are otherwise disguised beneath a pale skin. The notion that a pebble has a skin, an inside and an outside, activated by water, may also have been considered an essential element of their spiritual power and magical potency by prehistoric populations. We cannot of course draw any direct analogies with serpents or rainbows. But the suggestion that we can make is that multicoloured objects such as the Pebblebed heathlands themselves, at a macro scale, and the cairns, at a micro scale, had power and spiritual potency precisely because of their multivalent and changing colours.

The angular gravels found on the ridges and hills surrounding the Pebblebeds look pretty similar whether it is wet or dry and are not significantly different. In comparison, the colours of the pebbles are in a continual state of process and transformation. Young (2005) has discussed the manner in which surface colour changes in the land are indexical of the enormous power that ancestral forces exert from beneath and below
the ground among Aboriginal populations. The surface changes of land and sky are created by the ancestors who are present inside the landscape, present beneath the surface. There is a whole ontology of colour that is a central part of the way people conceive of the potential in coloured things. In particular, highly coloured things and things that change colour are regarded as energetically charged. The image of fecund land is one of colourful flux, while a loss of colour is associated with a loss of vitality and life force. This idea may be linked to Rowland’s argument that an understanding of materiality can be linked to processes of materialization such that some things and some people are more material and thus powerful than others (Rowlands 2005).

This perspective enables us to understand the deposition of the mushrooms in the central part of TCA (see Chapter 3) in a new light. Wild mushrooms (contrasting with the tasteless, uniform cultivated varieties), like pebbles and rainbows, are miraculous. They are activated by the autumn rains, spring up out of nowhere and appear overnight. They are spectacular both in terms of their varied forms and their bright colours. No other kind of plant takes on so many forms and has so many colours, from reds to yellows to browns, blues, whites, purples and so forth. Their caps, like pebbles, are smooth to touch, and like pebbles they may be round, oval or irregular in form. These direct and material metaphorical analogies between pebbles and mushrooms provide a parsimonious way of understanding why they should be deposited in the cairn.

To sum up, building the cairns required the gathering together and the layering of the multicoloured pebbles: they condensed and amassed and concentrated colour in potent and powerful constructions that marked rather than monumentalized sacred places and social identities in the Pebblebed landscape. They accentuated an already sacred landscape by creating nodes of power within it and tapping into spiritual powers inherent in the colours of the land itself. Trapped in the cairn itself, individual special pebbles with their intricate colours and quartz inclusions may have been considered to be magical stones with an especial potency.