

# *The Soft Side of Stone*

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## **Introduction**

This chapter is a study of cultural meaning. It examines how stone, a material that is matter-of-fact, firm, dense, and obdurate, is layered with meanings in striking contrast to this conventional understanding. As a philosopher I might be expected to write about meaning and leave the hard side of stone to the geologists and other practitioners of earth science. And as a phenomenologist I might be expected to think about the perceptual experience of stone, a material that, shrouded with significance and associations, is infinitely malleable. To fulfill both expectations, I shall glance quickly over the perception and appropriations of stone but give most of my attention to exploring some of the significance embedded in that experience and to pursuing its implications. For a multiplicity of diverse meanings lies hidden in the space between the hardness of stone and its cultural applications. Yet meaning, one expects, must be grounded in the stabilizing presence of a common world, and what could be more stable and insistently present than stone?

Let me approach the sphere of meaning gradually, briefly considering the role of stone in the geological history of the earth, and then describing some of the sensory qualities, direct and indirect, commonly associated with stone. Then I shall review the variety of uses for which stone is appropriated and consider its transformative possibilities. All this is introduced for the sake of comprehensiveness, but it will lead to the crux of the issue here: the kinds of meaning we can find in stone, its soft side, so to speak.

To begin with the obvious, stone embodies the history of the region in which it is found, a history that can be unearthed, so to say, largely by observing the principle of uniformitarianism. This fundamental doctrine of geological science holds that the processes we observe modifying the earth's crust today have been at work in the same fashion throughout geological time. Similarly, present day earthquakes, volcanic action, and tsunamis caused by the shifting of geological plates cast light on how the earth continues to be reconfigured from the effects of its cooling. Geological strata, of course, literally embody the history of its surface. Careful study of such phenomena and the evidence they have left both on and beneath the earth's surface has led geologists, using radiometric dating methods, to estimate its age to be about four and a half billion years. Finally, the erosive forces of wind and water are constantly working to alter the earth's surface. We can observe these processes, such as the effects of erosion and the action of glaciers in collecting and depositing moraine and in forming lakes. They illustrate how the same processes worked in the past, and such observations assist us in reconstructing the geological history of the earth. In a similar way, the effects of global warming cast light on major climatological shifts in planetary history.<sup>1</sup>

### **Description and Appropriation**

Of course, the operation of these forces is rarely visible to the naked eye. What we see, what we directly encounter with our bodies as we move on the earth's surface, are the directly perceived sensory qualities of stone, its derivatives, and their uses. These include stone's hardness, firm and unyielding; its weight and density; its coldness in shadow and beneath the soil and its warmth under the sun; the insistence of the dampness of stone over its dryness; the roughness of its surfaces over its smoothness and configurations; stone's varying color, usually transformed when wet as well as under different kinds and directions of light. Per-

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[1] The complementary theory of catastrophism has been revived also.

haps most insistent is our physical apprehension of the size, massiveness, weight, and distribution of stone in particular locations. To these we must add its indirect sensory features, such as the color or grain that emerge when stone is polished. Stone has an interior, too, that is revealed when it is split. While all this is well known, the large number and broad range of these sensory qualities may still be surprising.

Further complexity comes from the fact that stone rarely stands in noble isolation. It is usually found under conditions that complement or contrast with it. Stone is often encountered, sometimes by deliberate design, in combination with water, one of the most tractable of substances, in thought as in nature.<sup>2</sup> Yet at the same time the strength of water can exceed that of stone, as pebbles worn smooth by a mountain brook and sand at the seashore will testify. This dialectic of opposites produces curious meanings that are as rich as they are puzzling, for each invades the province of the other, water, when frozen, becoming hard and rigid as stone<sup>3</sup> and evanescent as dust when vapor.

The association of stone and water has long attracted visual artists as well as travelers, for there is drama inherent in their juxtaposition. There is also poetry, as this passage by the poet Tam Lin Neville conveys:

Yesterday, children were leaping rocks that surround a fountain in my neighborhood. These are real rocks brought in and placed here in the city, to gleam in the jets of water create. The children, their bodies an inexpressible lightness, skip from rock to rock. In the gap between the

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- [2] Water, no less than stone, is a social material. The meanings associated with bottled water, for example, are transformative. “[W]e can observe an extensive taxonomy and nomenclature emerging with the proliferation of technologically processed and purified bottled water that suggests the fluid is not an objective or singular thing-in-itself, but a physically and culturally mediated product—a conceptually contested substance with a plurality of forms and social associations involving status, health, safety, and a desire for the pristine.” David Macauley, “The Domestication of Water: Filtering Nature through Technology”, *Essays in Philosophy*, Vol. 67 No.1, January 2005, p. 13.
- [3] I am grateful to Riva Berleant for noting that old glacial ice is actually a changed substance and can be considered metamorphic rock.

unyielding medium of the rock and the elasticity and lightness of their bones something's hidden, waiting to be found.<sup>4</sup>

What lies hidden here between the firm, the fragile, and the flowing? Let me pursue this question from another direction. For even more ubiquitous than its association with water is stone rooted in the ground, softened or obscured by plants and decorated by their blossoms, seen under a vast sky or concealed from its eye, and sometimes even in the most austere circumstances covered with the delicate pastels and occasionally the intense color of lichen. Perhaps most prevalent and powerful of these, though, is the description of stone as bedrock, the association of stone with its "mother earth". Actually this inverts the order, with the earlier stage coming from the later. The converse, "daughter", is more truly the case, for it is stone itself that is the mother of earth. And an image waiting to be discovered may be that of stone as nature's bones, the bones of the earth. As with the children's bones, the bones of the natural world constitute its skeleton, giving structure and support to its flesh of soil, plants, and all living beings, including humans. The sculptor Isamu Noguchi must have sensed this by using stone as the backbone of the landscape in his garden designs and landscape sculptures.<sup>5</sup>

Moreover, some of the sensory features of stone are disclosed only when stone is split into cross-sections and polished. I have already mentioned how this reveals its colors and grain, but even dramatic qualities may emerge. The hollow center of geodes is often jewel-like, dense with multi-colored crystals, and exotic fossils are frequently embalmed in limestone. The appearance of stone can change under various kinds of light and when the light comes from different directions.

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- [4] Tam Lin Neville, "Early Mornings", *American Poetry Review*, 35/6 (November/December 2006), 33. Used by kind permission of the author.
- [5] Cf. Noguchi's UNESCO garden in Paris, Billy Rose Sculpture Garden in Jerusalem, and California Scenario.

In honor of its age and prevalence, stone exemplifies stability and permanence in the natural world (whether or not that is actually the case), and people have exploited these characteristics through many different uses. Stone may be gathered, quarried, and cut. As fieldstone or slate it may be carefully stacked into walls or embedded in the soil for walkways and roads, and it can be arranged into art objects, as in the work of Andy Goldsworthy.<sup>6</sup> Stone is one of the oldest building materials, used for support, for walls, as facing, and for floors. Nothing has a longer history than the use of stone for monuments and markers for the dead in the form of statues and gravestones, or using stone to construct an interior, sealing the body in a sarcophagus, stone crypt, dolmen, mausoleum, or pyramid.

The sense of permanence we assign to stone is, however, deceptive. Permanence is a cultural meaning, not a physical fact. Despite being used to symbolize a desire for stability and permanence, such meanings are thoroughly transformed and may be entirely disregarded by the social uses of stone. For stone reveals surprising malleability and transience. We could actually emphasize its impermanence by noting its cracking, breaking, and crumbling. Stone steps become deeply grooved from continued use, and parts of religious statues are worn smooth from the kisses of worshipping lips or the caress of fingers. Not only can stone be carved and pulverized; stone surfaces weather, inscriptions become illegible and even disappear;<sup>7</sup> vertical stones fall over and sculptures break. Sometimes one can experience the hardness and instability of stone simultaneously. The warning sign "Falling Rock Zone" recognizes the capacity of stone both to crumble and at the same time damage a vehicle or injure a person. Less destructive events may also befall stone. Its surfaces may be hidden by moss, lichen, or soil and buried by shifting earth surfaces or under profuse vegetation. Stone even has a kind of genesis as well as a

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- [6] Andy Goldsworthy even gives stone biological properties when he says that the process of putting one stone on another is akin to the process of growth.
- [7] Shelley's "Ozymandias" gives poetic immortality to this transience.

demise, for the earth gives birth to stones that emerge from the soil from the action of winter freezing and thawing.

Stone possesses many possibilities for transformation: into jewelry, into sculpture, and into light and shadow in photographic art. Usually solid in the form of boulders, rocks, and small stones, stone emerges molten from the earth's core during volcanic eruptions and becomes gaseous in the intense temperature of stars. Solid as it usually is, stone is sometimes malleable, and sculptors have transformed its appearance into flowing garments and even into the soft surface of flesh. Stone may be molded as cement to simulate the appearance of natural rocks, emulated in stage sets, and turned into visual illusions in holograms. For a hard, solid substance, stone seems capable of unlimited alteration.

### **The Semiotics of Stone**

Stone is, then, not as stable and permanent as one might at first suppose. Its many possible transformations suggest that stone possesses a certain fluidity of appearance and use. But when we move to the other side of the equation and shift our focus from the substance of stone to its meanings, their multiplicity is awesome. For meanings are cultural constructions, and rock and stone embody rich lodes of cultural meaning that range in many directions. Let us follow some of these and see where they lead.

A rich variety of metaphors is based on the perceived properties of stone. Perhaps the property most commonly appropriated for symbolic purposes is its stability, its presumed permanence. Stone, too, has a definite materiality as the bedrock of the earth, hard, unyielding, obdurate. This is what led Samuel Johnson to blithely dismiss Berkeley's claim that everything is ultimately a sensation in the mind by kicking a stone, exclaiming, "I refute it thus!"<sup>8</sup> He did

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[8] "After we came out of the church, we stood talking for some time together of Bishop Berkeley's ingenious sophistry to prove the nonexistence of matter, and that every thing in the universe is merely ideal. I observed, that though we are satisfied his doctrine is not true, it is impossible to refute it. I never shall forget the alacrity with which John-

indeed demonstrate that stone is unyielding while at the same time proving Berkeley right by the pain of a stubbed toe, ironically a sensation in the mind! Indeed, stone's durability is exemplified by diamonds, the jewel of choice for wedding rings. People have long used stone as a symbol of eternity. Gravestones and other memorials are nearly always made of stone, which perversely leads the curious visitor to old graveyards to read the weathered, often illegible inscriptions. Something that is decided irrevocably is "written in stone", probably not the best metaphor for an absolutely fixed decision.

Stones that dispense with carving altogether are more enduring memorials. Prehistoric standing stones: stone circles, henges, menhirs, and dolmens are human orderings of natural stone. Like pyramids, some are clearly burial crypts, but the purpose of others, such as those at Stonehenge, remains a matter of speculation, while the fields of standing stones on Easter Island and at Carnac have long outlasted the cultures that built them and their purposes remain hidden.

The omnipresence and availability of stone is probably the basis for such common expressions as "a stone's throw away" and "leaving no stone unturned". Metaphors derived from stone's hardness are probably the most frequent and have become trite. These evoke associations that are thoroughly social in meaning and use. Describing a person as stony-faced or flint-faced in contrast with being soft, warm, and loving, or as having a heart of stone have become embarrassing clichés. The durability of stone may be why it is used for names that hopefully will impart strength and stature to their bearers: "Flint" and "Rock" as given names, and "Diamond", "Stone", and the German "Stein" in surnames. Moreover, the beauty of stone is appropriated in women's names such as "Ruby", "Esmeralda", "Sapphira", "Opal", and "Jade", and in using rubies, emeralds, diamonds and other precious stones in crowns to bestow glory

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son answered, striking his foot with mighty force against a large stone, till he rebounded from it—'I refute it thus.' " James Boswell, *The Life of Samuel Johnson*, Part 2, Ch. 13.

as well as stature on a monarch, while the peasant May queen must be content with the transient beauty of a flower garland. On the darker side, stone may become a weapon, from the stone that David used to slay Goliath to throwing stones as a means of battle. When stoning is the punishment for transgressing the inviolability of social mores, who is innocent enough to throw the first stone? The cultural meanings of stone may be more durable than the material from which they are derived.

The mystery associated with stone and the magical properties ascribed to it may be the most fascinating of its cultural appropriations. What comes first to mind is the transformative power attributed to the philosopher's stone—the "holy grail" of alchemy. This is a substance, usually a powder made from a mythical philosopher's stone, that supposedly could turn inexpensive metals such as lead into gold or could create an elixir that would make people younger and so delay death. Philosophers have not been the only ones seeking gold in a stone. The pale, brass-yellow color and metallic sheen of iron pyrites, which, strictly speaking, are not stone at all but a mineral, have misled people into thinking they had discovered gold, whereas what they had actually collected was merely "fool's gold". Prospectors, it seems, may be no wiser than philosophers. The worship of gold has led to valuing still other stones. The meaning of a touchstone, originally a black siliceous stone similar to flint that was used to test the purity of gold and silver, has been elevated into a general criterion of genuineness.

Perhaps to compensate for the failure to find fortunes through its use, stone has been given other magical properties. Some believe that quartz crystals store natural energy and possess magical healing power. In fact, the study of this has been given the honorific name of 'crystalology,' and therapies have been devised to apply this power to different ailments. Stones have also had more rational applications to achieve therapeutic results: Many can attest to the calming effect of fingering worry beads, and physical tension can be dissipated by a hot stone massage. The strange ability of

lodestones to determine direction has a scientific explanation from the fact that they have magnetic properties that exhibit polarity, whereas, as one journalist noted, the ability of a kidney-shaped stone to move every day may not.<sup>9</sup>

It is most common today for stone to exert its influence more in metaphor than in magic. Because stone has assumed many forms and acquired many uses, its characteristics have metamorphosed into many common expressions. Here is a sampling and one can easily think of more. From its weight, mass, durability and hardness, stone has been accorded special respect. It is used to confer security when “The Lord is my rock”,<sup>10</sup> even though it is not eternal, for as Lucretius commented long ago, “Continual dropping wears away a stone.”<sup>11</sup> The strength and power of rock and stone are respected in a “monumental” boulder, and its durability is acknowledged in describing a rocky coastline as rugged. “You can’t get blood out of a stone” is an acknowledgement of stone’s hardness and intransigence, as is its implicit violence in “killing two birds with one stone.”

It is no surprise that the uses and meanings that rock and stone have acquired owe their origin to cultural needs and practices. Although these will vary with the culture, some of the usages I’ve mentioned occur in numerous cultures, such as having a heart of stone, leaving no stone unturned, and being a stone’s throw away.

### The Soft Side of Stone

It is now time to consolidate what we have discovered about stone and draw what conclusions we may. Few will dispute the claim that stone, as we know it, displays perceptual features directly and indirectly, and that it has been taken up for various uses and found in many different settings. And few can fail to be impressed by the imaginative meanings that center around rock and stone. We have seen here only a sample of the different appearances, forms, and images that

[9] Haruki, Murakami. “The Kidney-Shaped Stone That Moves Everyday”, *The New Yorker*, September 26, 2005.

[10] *Samuel II*, 22.2, 3.

[11] Lucretius, *De Rerum Natura*, I, 313.

rock and stone assume, but even these are powerful evidence of the important place that stone occupies in understanding and enriching our experience.

From all this it would seem that stone has two sides. One is the object that stands before us, the stubborn reality on which Sam Johnson bruised his toe, the rigid substance that enters into our ordinary experience, the stone that we seem to perceive. This is the hard side of stone: the stone of the geologist who, hammer and chisel in hand, studies the distribution, the types, and the history of the rock and stone that constitute the solid outer layer of the Earth. It is the stone of the builder, who lays a foundation of stone to support structures both small and large, and may raise that material high above the ground. It is the stone of the sculptor who, with care and discernment, transforms a coarse and stolid material into wondrous shapes with varied sensory qualities. And it is the age-old impediment of the farmer, who dulls his plow blade on it. The other side of stone is the rich range of meanings that stone holds for us, the values we find in it, the metaphors by which stone figures in our understanding, its influence on our imagination, and the powers we attribute to it. This is its soft side.

But now we come to a curious observation and the principal significance of this discussion. From all these uses and usages it is clear that stone is perhaps almost entirely a human, cultural artifact. The references of its meanings are in large part to the language, values, conventions, and practices of a culture. Moreover, it is still more important to recognize that our descriptive accounts of stone rest on perception that is distinctively human. The range and acuity of our perceptual experience are limited and directed by the biological structures and capabilities of our sensory organs. To add still more to the human factor, perception itself is not a purely organic event. As I have already noted, all perceptual experience is screened through many layers of cultural values, taboos, and traditions, as well as through those personal filters that we acquire from our individual experience, habits, and conditioning. The perception of color is typical. Studies of cultures that use stone tools show

that color categories are not universal. In fact, studies of color perception offer considerable evidence of the social origin of color boundaries. "Sociohistorical psychology emphasizes the fact that sensory information is selected, interpreted, and organized by a social consciousness. Perception is not reducible to, or explainable by, sensory mechanisms, *per se*."<sup>12</sup>

This leads us to a curious conclusion: If both the entire range of human perception and the rich repertory of social appropriation of rock and stone are not only informed, influenced, and even constituted by our biological capacities but are perceived, shaped, and understood through the social and cultural layers that enfold us, then it turns out that stone does not have two sides. The world in which we live is necessarily a *human* world, a world we cannot avoid or evade. We are led to conclude, therefore, that stone has only one side, a soft side. It is not surprising that a poet can say it all, succinctly but cogently:

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[12] "[P]ossession of linguistic color categories facilitates recognition and influences perceptual judgements, even in a language whose terms are less abstract than English." Roberson, D., Davies, I. & Davidoff, J. (2000) "Color categories are not universal: replications and new evidence from a Stone-Age culture." *Journal of Experimental Psychology: General*, 2000 Sept., Vol. 129(3), 369-98. Much research supports the hypothesis that the categories of the language we use influence the way we perceive the world. Among the ways in which culture influences perception are by addition, omission, organization, sharpening, and transformation.

Carl Ratner cites the seminal work of Sapir, Whorf, Vygotsky, and Luria, all of whom maintained that "sensory processes are subordinated to and subsumed within 'higher' social psychological functions." He argues that not only are color boundaries and focal points socially mediated but psychological functions in general are. Carl Ratner, "A Sociohistorical Critique of Naturalistic Theories of Color Perception", *Journal of Mind and Behavior*, 1989, 10, 361.

See also Dedrick, Don, *Naming the Rainbow: Colour Language, Colour Science, and Culture* (Dordrecht: Kluwer, 1998). This is a history of studies of color terminology, both universalist and relativist, and of theories in anthropology, linguistics, psychology, etc. The author takes a modified universalist view that a basic biological color perception exists in all human groups, with divergent cultural emphases. However, the question is not settled.

*Aesthetics of Stone*

The gods take stone  
 And turn it into men and women;  
 Men and women take gods  
 And turn them into stone.<sup>13</sup>

Stone is left, then, with only a soft side, a seemingly odd state of affairs and one that common sense finds most improbable. Doesn't stone ultimately stand free of our meanings and uses? But to posit an entity independent of our perception, which we seem to do so readily, is just that—pure assumption. Recognizing that our transactions with stone show us something not dependent on our will or our perception does not establish that they are *independent* of them. The first of these, the obstinacy of things, is part of all experience in the world of everyday life; the second is purely an assumption, more often, perhaps, a myth. Like many other myths, it may serve to make our lives more stable and so more comfortable. But like myths that we take at face value, it does this at the cost of delusion.

The most significant issue yet remains, and it is one for which the aesthetics of stone is only an instance. And it is actually an ontological more than an aesthetic question: If all that can be said about stone is not about stone *simpliciter* but ultimately only an aesthetics of the uses and meanings that accrue to it, have we gained the whole world but lost its reality?<sup>14</sup>

This is an issue only if we insist on the unfounded "truth" of common sense, more accurately on what is known as

[13] Kenneth Koch, "On Aesthetics", from *One Train* (Knopf, 1994).

[14] "What shall it profit a man if he gains the whole world and loses his own soul?" (*Matthew* 16:26). "The theoretical formulations of reality, whether they be scientific or philosophical or even mythological, do not exhaust what is 'real' for the members of a society. Since this is so, the sociology of knowledge must first of all concern itself with what people know as reality in their everyday, non- or pre-theoretical lives. In other words, commonsense 'knowledge', rather than 'ideas' must be the central focus for the sociology of knowledge. It is precisely this 'knowledge' that constitutes the fabric of meanings without which no society could exist." Peter L. Berger and Thomas Luckmann, *The Social Construction of Reality* (1966) (Doubleday, Anchor ed., 1967),

"common sense realism", namely that there is stone, itself, not dependent on human experience at all. For philosophers it is the "form" of stone, its noumenon. Stone here is on the level of similar positings, philosophical and religious, in the form of an Absolute, a divine Creator, substance, the soul, and gods. We "take gods and turn them into stone", and we take stone and turn it into gods. Hume realized this long ago:

I would fain ask those philosophers ... whether the idea of substance be derived from the impressions of sensation or of reflection? If it be conveyed to us by our senses, I ask, which of them; and after what manner? If it be perceived by the eyes, it must be a colour; if by the ears, a sound; if by the palate, a taste; and so of the other senses. But I believe none will assert, that substance is either a colour, or sound, or a taste. The idea, of substance must therefore be derived from an impression of reflection, if it really exist. But the impressions of reflection resolve themselves into our passions and emotions: none of which can possibly represent a substance. We have therefore no idea of substance, distinct from that of a collection of particular qualities, nor have we any other meaning when we either talk or reason concerning it.<sup>15</sup>

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[15] Other relevant texts by Hume include: "Where then is the power, of which we pretend to be conscious? Is there not here, either in a spiritual or material substance, or both, some secret mechanism or structure of parts, upon which the effect depends, and which, being entirely unknown to us, renders the power or energy of the will equally unknown and incomprehensible?" David Hume, *An Enquiry Concerning Human Understanding*, Section VII, Pt. I.

"Thus neither by considering the first origin of ideas, nor by means of a definition are we able to arrive at any satisfactory notion of substance; which seems to me a sufficient reason for abandoning utterly that dispute concerning the materiality and immateriality of the soul, and makes me absolutely condemn even the question itself. We have no perfect idea of any thing but of a perception. A substance is entirely different from a perception. We have, therefore, no idea of a substance." *Treatise of Human Nature*, Sect. V.

"The idea of a substance as well as that of a mode, is nothing but a collection of Simple ideas, that are united by the imagination, and have a particular name assigned them, by which we are able to recall, either to ourselves or others, that collection. But the difference betwixt these ideas consists in this, that the particular qualities, which form a substance, are commonly referred to an unknown something, in which they are supposed to inhere; or granting this fiction should not take place, are at least supposed to be closely and inseparably

We seem to have ended rather far from where we began, for it turns out that the underlying issue is ontological, not aesthetic. But perhaps these are never far apart. And for the resolution of this ontological problem aesthetics may be the key and display the need for a new philosopher's stone. In *The Rules of Sociological Method* Durkheim stated that "the first and most fundamental rule is: *Consider social facts as things.*"<sup>16</sup> A comparable philosophical rule would be, *Consider things as social facts.*

Sample chapter

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connected by the relations of contiguity and causation. The effect of this is, that whatever new simple quality we discover to have the same connexion with the rest, we immediately comprehend it among them, even though it did not enter into the first conception of the substance." *Treatise of Human Nature*, Section VI.

[16] Emile Durkheim, *The Rules of Sociological Method* (The Free Press, 1938), p.14.