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The Soft Side of Stone: Notes for a Phenomenology of Stone

I. Introduction

I have been thinking about the aesthetics of stone ever since the topic was first proposed as the theme for a conference on environmental aesthetics and even before I gave an exploratory seminar on it at the University of Joensuu.¹ As a philosopher I might be expected to talk 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 talk about the perceptual experience of stone even though the experience of stone is shrouded in meanings and associations. To fulfill both philosophical 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 between the hardness of stone and its uses. Yet at the same time meaning must be grounded in the stabilizing presence of a common world, and what could be more stable and imposingly present before us than stone?

Let me approach this intriguing domain 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. Next I shall review the variety of uses for which stone is appropriated and consider its transformative possibilities. All this will offer little that is new and it is introduced largely for the sake of comprehensiveness, for it will lead to the crux of my paper, 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 its region, a history that can be unearthed, so to speak, largely by observing the principle of uniformitarianism. This fundamental geological doctrine holds that the same processes we observe today modifying the earth's crust have been working in the same fashion throughout geological time. The erosive

forces of wind and water are constantly altering the earth's surface, and these processes observable in the present, such as the effects of erosion and the action of glaciers in collecting and depositing moraine and in forming lakes, can help explain how the same processes worked in the past and assist us in reconstructing the geological history of the earth. ² So, too, cataclysmic events like earthquakes, volcanic action, and tsunamis caused by the shifting of geological plates cast further light on how the earth's crust continues to be reconfigured as it cools. In addition, the history of the earth's surface is embedded in its geological strata. Careful study of these phenomena and the evidence they have left both on and beneath the earth's surface has led geologists, using radiometric dating methods, to estimate the age of the earth 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. These processes observable in the present, such as the effects of erosion and the action of glaciers in collecting and depositing glacial moraine and in forming lakes, can help explain how the same processes worked in the past, assisting us in reconstructing geological history.

II. 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. These include its hardness, firm and unyielding; its weight and density; its coldness in shadow and under ground 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; and stone's varying color, transformed when wet as well as under different kinds and directions of light. Perhaps 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 or simply becomes wet. 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 be surprising.

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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 may be rooted in the ground, emerging from the earth, softened or obscured by plants and decorated by their blossoms, seen under a vast sky or concealed from its eye, and sometimes even under the most austere conditions 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, its association with “mother earth.” Actually the converse, “daughter,” is the case, for it is stone itself that is the mother of earth, and with water.

Yet stone is perhaps most often combined, in thought as in nature, as well as by deliberate selection, with water, one of the most tractable of substances. Yet, at the same time, the testimony of smooth pebbles on a stream bed and granular sand at the seashore testify that the strength of water can exceed that of stone. This dialectic of opposites produces curious meanings that are as rich as they are puzzling when each invades the province of the other, water, when frozen, becoming hard and rigid as stone³ 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. But 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 mist the jets of water create. The children, their bodies an inexpressible lightness, skip from rock to rock. In the gap between the unyielding medium of the rock and the elasticity and lightness of their bones something's hidden, waiting to be found.⁴

What lies hidden here between the firm, the fragile, and the flowing? Let me pursue this from another direction.

Even more ubiquitous than its association with water is stone emerging from the earth, its bedrock, even though this inverts the order with the earlier stage from the later. 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, of plants, and of all living beings, including humans. The sculptor Isamu Noguchi must have sensed this by using stone material as the backbone of the landscape in his garden designs and landscape sculptures.⁵

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 still more 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 light comes from different directions.

Stone, in humor of its age and prevalence, exemplifies stability and permanence in the natural world, whether or not that is the case actually, 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 can be arranged into art objects, as in the work of Andy Goldsworthy.⁶ Stone is one of the oldest building materials, used in construction 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.

Stone's sense of permanence is deceptive, however. Despite being used to symbolize our hopes and desires for stability and permanence, stone reveals surprising malleability and transiency. For such meanings are thoroughly transformed and may be entirely disregarded in their social use. Not only can stone be carved, worn down, and pulverized; stone surfaces weather, crack, and crumble, inscriptions become illegible and even disappear, vertical stones fall and sculptures break. Less destructive events may also befall stone. Its surfaces may be hidden by moss, lichen, or soil, and buried by shifting earth surfaces and under profuse vegetation. Stone even has a genesis as well as a demise, for the earth gives birth to stones that emerge from the soil as a result of winter freezing and thawing.

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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, gravel, sand, and soil, it 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 malleable, and sculptors have transformed its appearance into flowing garments or even into the soft surface of flesh. Stone may be made into cement to simulate the appearance of natural rocks, emulated in stage sets, and become visual illusions in holographs. For a hard, rigid, dense substance, stone seems capable of unlimited alteration.

III. The semiotics of stone

However, stone is then, not as stable and permanent as one might at first suppose. These 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: it is 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!"⁷ He did indeed demonstrate that stone is unyielding while at the same time proving Berkeley right by the pain of a stubbed toe, ironically a sensation (ultimately) 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 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, is 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 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 or, in contrast to being soft, warm, and loving as having a heart of stone, risks the embarrassment of a cliché. The durability of stone may be why it is used for names that hopefully will impart strength and stature to its bearer: “Flint” and “Rock” as given names, and “Diamond” and “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 as well as stature to a monarch, while the May queen must be content with the beauty of a garland of flowers. 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 permanence and inviolability of a social more, 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 are 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. The pale, brass-yellow color and metallic sheen of iron pyrites, which, strictly speaking, are not stone but a mineral, have misled people into thinking they had “discovered” gold, whereas they had actually

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collected “fool’s gold.” Prospectors, it seems, are 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 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 developed to apply this power to different ailments. Stones have also had more rational uses to achieve therapeutic results: Many can attest to the calming effect of fingering worry beads, and physical tension can be dissipated by a stone massage. The strange ability of lode stones to determine direction has a scientific explanation from the fact that they have magnetic properties that exhibit polarity, whereas the ability of a kidney-shaped stone to move every day may not.⁸

It is most common today for stone to exert its influence in metaphor rather than magic. Because stone has assumed many forms and acquired many uses, its characteristics have metamorphosed into many common expressions. Here is a sampling and you can surely think of more. From its weight, mass, durability and hardness, stone has been accorded special respect. An inviolable promise is “written in stone” and “The Lord is my rock,”⁹ even though nothing is eternal since, as Lucretius commented long ago, “Continual dropping wears away a stone.”¹⁰ The strength and power of rock and stone are respected in a “monumental” boulder, and its durability acknowledged in describing a rocky coastline as rugged. “You can’t get blood out of a stone” is an acknowledgment of stone’s hardness and intransigence, and its exceptional force 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.

IV. The soft side of stone

It is now time to try and consolidate what we have discovered about stone and to draw what conclusions we may. Few will dispute the claim that stone, as we know it, displays perceptual features both directly and indirectly, and that it is taken up for many uses and found in many different settings. And few can fail to be impressed by the imaginative meanings that center around rock and stone. I have offered but a scant sample of the different appearances, forms, and images that rock and stone appear to assume, but even these offer 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 stone that enters into our ordinary, daily experience, the stone that we 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. This is the stone of the builder, who lays a foundation of stone to support structures both small and large, some of which carry that material far above ground. It is the raw stone of the sculptor who, with care and discernment, transforms a coarse and stolid block into wondrous shapes with varied sensory qualities. And it is the age-old impediment of the farmer, who dulls his plow blade on its unyielding presence. 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 can make a curious observation. From all these uses and usages it is clear that stone is actually, perhaps entirely, a human, cultural artifact. The reference point of its meanings is in large part 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 a distinctively human. The range and acuity of our perceptual experience are limited and are directed by the biological structures and capacities of our sensory organs. To add still more to the human factor, perception itself is not a purely organic event. All perceptual experience is screened through many layers of cultural values, taboos, traditions and social experiences with which we are loaded, as well as through those filters that we bear individually

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from our personal 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, sociohistorical 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*."¹¹

This leads us to a curious conclusion: If both the entire range of human perception and the rich repertory of the 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 unavoidably a human world, a world we cannot 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:

AESTHETICS OF STONE

The gods take stone
And turn it into men and women;
Men and women take gods
And turn them into stone.¹²

Kenneth Koch

Stone seems to be left, then, with just its soft side, an odd state of affairs and one that common sense finds most improbable. Doesn't stone ultimately stand free of our meanings and uses? 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 is not the same as averring 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 a myth. Like many other myths, it

may make our lives more stable and comfortable. But like the profusion of extravagant myths that we take at face value, however, it does this at the price of delusion.

The most significant issue yet remains, and it is one for which the aesthetics of stone is only an instance. This is actually an ontological rather than an aesthetic question: If all that can be said about stone is not about stone *simpliciter* but ultimately only an aesthetics of the perception, uses, and meanings that accrue to it, have we not gained the whole world but lost its reality? ¹³ Interestingly enough, this is an issue only if we insist on the unfounded "truth" of common sense, more accurately, of "common sense realism," namely that there is stone *per se*, stone in itself, not dependent on human experience at all. For philosophers it is the "form" of stone, its noumenon, its "underlying" reality. Stone here is on the level of similar philosophical and religious positings -- an Absolute, a Divine Creator, a Supreme Being, substance, the soul, spirit, fate. the gods, We "take gods and turn them into stone," the poet sings, 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?... 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. ¹⁴

We seem to have ended rather far from where we began, for it turns out that the underlying issue is ontological, not aesthetic. And for the resolution of this philosophical problem aesthetics may be the key, but it is not the philosopher's stone.

NOTES

This paper was given at the 6th International Conference on Environmental Aesthetics, the Aesthetics of Stone and Rock, held from 11-14 June 2007 at Koli, Finland webit.pkky.fi/stoneconference/english/programme.html and will be published in a Finnish translation in the conference proceedings.

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1. "Thoughts on an Aesthetics of Stone," University of Joensuu, Joensuu, Finland, January 20, 2005.
 2. The complementary theory of catastrophism has been revived also.
 3. I am grateful to Riva Berleant for observing that old glacial ice is actually a changed substance and can be thought of as metamorphic rock.
 4. Tam Lin Neville, "Early Mornings," *American Poetry Review*, 35/6 (November/December 2006), 33.
 5. Cf. Noguchi`s UNESCO garden in Paris, Billy Rose Sculpture Garden in Jerusalem, and his California Scenario.
 6. James Boswell, *The Life of Samuel Johnson*, Part 2, Ch. 13.
 7. "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 Johnson 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.
 8. Haruki, Murakami. "The Kidney-Shaped Stone That Moves Everyday," *The New Yorker*, September 26, 2005.
 9. *The Bible*, XXII, 2.
 10. Lucretius, *De Rerum Natura*, I, 313.
 11. "[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 Sep Vol 129(3) 369-398. Much research has supported 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, 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.” *loc. cit.* He argues that not only are color boundaries and focal points socially mediated but psychological functions are, in general. 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). A history of studies of color terminology, both universalist and relativist, and theories in anthropology, linguistics, psychology, etc. The author takes a modified universalist view tht a basic biological color perception exists in all human groups, with divergent cultural emphases. However, the question is not settled.

12. Kenneth Koch, "On Aesthetics, from *One Train* (Knopf, 1994).

13. Is this a philosophical parallel to the theological admonition, “What shall it profit a man if he gains the whole world and loses his own soul?” (Matthew 16:26).

14. The full text is:

“ I would fain ask those philosophers, who found so much of their reasonings on the distinction of substance and accident, and imagine we have clear ideas of each, 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.

“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 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.”

David Hume, *Treatise of Human Nature*, Bk. I, Part I, Sect. VI.

Other relevant texts by Hume:

“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, Bk. I, Part IV, Sect. V.