

ROGER CAILLOIS

THE
WRITING OF
STONES

With an Introduction by
MARGUERITE
YOURCENAR

Translated by Barbara Bray

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Preface

As this book has turned out to be a series of reflections on what I have learned from familiarity with certain stones, I have decided after some hesitation to describe and reproduce in it only those I have known well, those I have often looked at, handled, and caressed. So the specimens that figure here all belong to my own collection, with the exception of certain seventeenth-century picture stones photographed in the Opificio delle Pietre dure in Florence.

In the interests of clarity I have employed the words *agate*, *chalcedony*, and *onyx* in their current sense and not in that which they are given in mineralogy, which is not entirely consistent, anyway. Thus *agate* is the term generally used here for the various types of microcrystalline silica; *chalcedony* denotes the milky or blue grey variety, often with fine parallel stripes; while *onyx* is reserved for the black variety with white veins, never the kind of greenish or brownish calcite commonly so-called in the trade. *Jaspers* are also silicas, but without well-defined demarcations and without the translucency of *agate*.

Last, I fear I have sometimes used the term *septaria* for nodules which have only the appearance of such phenomena but which do not really contain fissures due to contraction.

INTRODUCTION

I gradually gave up regarding man as external to nature, its end," said Caillois. Far from disparaging what is human, as has been alleged, he found it all along a scale ranging from molecules to the stars. Because he claimed to observe the presence throughout the universe of a sensibility and a consciousness both analogous to our own, he has been accused of anthropomorphism. But Caillois himself has argued

passionately that on the contrary he advocated an inverted anthropomorphism in which man, instead of attributing his own emotions, sometimes condescendingly, to all other living beings, shares humbly, yet perhaps also with pride, in everything contained or innate in all three realms, animal, vegetable, and mineral. In short, there had taken place in that great intellect the equivalent of the Copernican revolution: man was no longer the center of the universe, except in the sense that the center is everywhere; man, like all the rest, was a cog in the whole system of turning wheels. Quite early on, having entered “the forbidden laboratories,” Caillois applied himself to the study of the diagonals which link the species, of the recurrent phenomena that act, so to speak, as a matrix of forms. His work on the octopus and the praying mantis showed him the relation between a creature belonging to the lowest reaches of the animal abyss and the fantasies and desires inhabiting the deeps of humanity. In *Méduse et Cie* (Medusa and Company) he meditated on the insect imagination with its extravagant and terrifying transformations, its masks for display or for battle, its nuptial ornaments or instruments of hypnotism, not all of them utilitarian but seemingly corresponding to an almost conscious need for change and elaboration. One of the working hypotheses of modern science—that nature always acts with the greatest possible economy of means and

toward the most practical of ends—finally came to appear unacceptable to Caillois. “Nature is not a miser.” He had become more aware of it as a mine of prodigality, a feast of superfluity; of the element of fantasy, the aesthetic factor whether unconscious or otherwise which is inherent in every scrap of matter and of which man’s own aesthetic may be no more than one of many manifestations, and one often distorted by our exaggerated awareness of it. . . .

Not only in his last works but perhaps even in his earliest writings Caillois shows a kind of indifference toward what is human. This feeling seems to have extended over the whole animal kingdom, with the exception of insects, which are very far removed anatomically and physiologically from our own species, and of creatures like the octopus, traditional objects of fear and horror.

Warm-blooded animals, our brothers, seem not to have interested Caillois greatly. Nor does the fish, a distant relation of ours but one we see, when it is snatched from its familiar depths, as a dying creature analogous to a dying human. Apart from the almost fossil dragon trees which, like me, he went to see in the botanic gardens at Orotava, he appears not to have been very much affected even by trees. He liked them best in the form of incorruptible fragments, transformed by millions of centuries during which all that was once juice, sap, and delicate vegetable fiber

has been transmuted or cast into amber, agate, or opal, endowed with a mineral, almost eternal, endurance.

But the usual arguments about what is and what is not human prevent us from seeing that in fact Caillois never stops being interested in man. His attitude reminds us, who have so often bored doctors with our clumsy descriptions of symptoms and our (not altogether useless) psychosomatic explanations, of a great specialist consulting his X-rays and chemical analyses and trying to make us understand that the ills attacking us, the death lying in wait for us and the life pulsing through us, exist independently of their physiological signs, and are governed by chemical combinations a thousand miles away from our consciousness and even from our senses. These combinations, separations and losses, more ancient than our own, Caillois found in the eventful history of stones.

Thus he arrived, though he was rather shy about admitting it, at a “mysticism of matter.” I think I can detect in this shyness the effect of two states of mind frequently found in intellectuals of the purely rational type, especially perhaps in France. One is an almost superstitious dread of the word *mystic*, as if it

meant something more than a believer in doctrines that are still more or less secret, or a researcher in matters still hidden. (And yet we all know that all profound thought remains partly secret because of the lack of words to express it, and that everything remains partly hidden from us.) The second of these two states of mind is a certain scorn for the word *matter*, the latter being too often regarded as substance in its crudest form, the antithesis of soul not only, as is too often believed, in terms of Christian thought, but also in that of Plato and Aristotle themselves. I would have liked to remind him (though no doubt he did not really forget it) that the pre-Socratic philosophers had preceded him along the same path, and that on the other side of the world Chuang-Tzu would have praised him for having made the transition "from the intelligence which sees differences"—and no one ever did so more subtly than he—"to the intelligence which sees likenesses." David of Dinant, who was burned in Les Halles in the twelfth century, is applauded by Giordano Bruno, who met a similar fate in Rome for "having raised matter to the dignity of something divine." And the Hermetic books tell men to listen to "the great voice of things."

But it is above all when we approach what was to be the supreme object of Caillois's study and love, when we come to the moving books he wrote on stones toward the end of his life, that we hear those

distant harmonies. Strangely enough, the symbolism of alchemy compared stone to the human body which, unstable though it may be (and as stone is itself, seen through stretches of time infinitely longer), is yet a “fixed quantity” in comparison with psychic elements, which are even more fluid and mutable. So it is not surprising that instead of choosing gold, which is merely matter transmuted, the alchemists chose the Philosophers’ Stone to symbolize transmutation. But let us hear what other great voices have had to say. First, and perhaps above all, the admonition of Jesus in the Apocryphal Gospels: “Split the tree, and I am in the wood; lift a stone, and I am there.” More explicit still is Meister Eckhart, one of the greatest mystics of medieval Christendom: “The stone is God, but it does not know it, and it is the not knowing that makes it a stone.” And there is also Piranese, who sometimes seems to cherish not so much the antique monument he is ostensibly depicting as the stone from which it was made—stone flaked away by time, devoured by vegetation, forever unaware of the great yet little human events which have taken place around it and left their mark upon it. Goethe was so diligent in the study of stones that one has been named after him (and, hoping that a similar honor may be paid to Cailliois, one imagines a list in which the Caillioise figures beside the Goethite); and, when he was growing old, Goethe seems to

have enjoyed telling people, "Let the old man play with his stones." The author of *Le Mythe et l'Homme* (Myth and man) and *L'Homme et le Sacré* (Man and things sacred) makes us think, too, of ancient Mithra, a god born out of the rock. According to what I have been told by a woman who was one of Dag Hammarskjöld's friends, that statesman, who was not only an admirer of Saint-John Perse, a poet of whom Caillois also was fond, but also one of the most impressive mystics of our age, set up a sort of oratory in the United Nations building in New York containing only a large block of iron ore in its geological state, with the mineral still there in the original rock. Hammarskjöld, a man beset by the ephemeral and recurring conflicts, at once factitious and lethal, of the age of steel and atomic weapons, used to go and conjure up for himself a little silence and serenity in the presence of the ancient block of stone, older than the uses to which it has been put, and still innocent.

Without wishing in the least to compare the two men, of whom one conversed with God right to the end while the other concentrated on the immanence hidden in the depths of things, no reader of *Pierres réfléchies* (Stone reflections), *Récurrences dérobées* (Hidden recurrences) and above all *Le Fleuve Alphée* (The River Alpheus) can doubt that Roger Caillois, like so many of us, felt terribly weary when he contemplated the restlessness of modern mankind and the world-

wide upheavals it has produced. Man's is an abnormal and "therefore precarious" situation. The future is dark. "Through knowledge and genius, man has succeeded in drawing on the energy in the nucleus of the fundamental particles that contain nature's fundamental reserves: and it is not improbable that a chain reaction, imperfectly controlled or carelessly provoked, may liberate an excessive quantity of that energy and annihilate all matter. The intersecting paths of Chance and Necessity have presided over man's prodigious destiny; but they also suggest that the miracle might happen in reverse, and return life to the impassive and immortal inertia from which a lucky statistical chance once plucked it." Caillois's devotion and emotion seem to recoil from a humanity conceived of as more precarious than ever, and from an animal and vegetable kingdom whose destruction we are hastening; he seeks a substance more lasting, an object more pure. And he finds it in the race of stones: "the dim mirror of obsidian," vitrified thousands of centuries ago at temperatures no longer known; the diamond, which while still buried in the earth already carries within it all the potentialities of its future fires; the evanescence of mercury; crystal, giving lessons to man in advance by admitting impurities which endanger its transparency and balance—splinters of iron, tufts of chlorite, threads of rutile—yet, in spite of all these, pursuing its limpid

growth, with prisms which, as Caillois brilliantly reminds us, are like souls in casting no shadows. Not only did the amazing variety of form found in stones persuade Caillois that human invention is only a development of the data inherent in things, but also in minerals through aesthetics, he found history. Those fusions, pressures, ruptures, imprints of matter on matter have left traces inside and out which sometimes almost exactly resemble writing and which actually do transcribe events from millions of years ago. "There are impossible scribblings in nature, written neither by men nor by devils," and seeming to foreshadow the insatiable human passion for meaning and recording. "Already present in the archives of geology, available for operations then inconceivable, was the model of what would later be an alphabet." Although, as Caillois knew better than anyone, this unconscious alphabet is immeasurably far away from the lines of letters we produce by a turn of the wrist, itself the slave of muscles, tendons, and neurons, yet the authorless inscriptions may be regarded as a first draft of a chronicle of stones.

Stones, like us, stand at the intersection of countless lines crossing one another and receding to infinity, at the center of a field of forces too unpredictable to be measured; and we awkwardly call the result chance, hazard, or fate.

MARGUERITE YOURCENAR



Amethyst in chalcedony (Uruguay; 65 × 190 mm)

THE IMAGE IN THE STONE

Just as men have always sought after precious stones, so they have always prized curious ones, those that catch the attention through some anomaly of form, some suggestive oddity of color or pattern. This fascination almost always derives from a surprising resemblance that is at once improbable and natural. Stones possess a kind of *gravitas*, something ultimate and unchanging, something that will never

perish or else has already done so. They attract through an intrinsic, infallible, immediate beauty, answerable to no one, necessarily perfect yet excluding the idea of perfection in order to exclude approximation, error, and excess. This spontaneous beauty thus precedes and goes beyond the actual notion of beauty, of which it is at once the promise and the foundation.

For a stone represents an obvious achievement, yet one arrived at without invention, skill, industry, or anything else that would make it a work in the human sense of the word, much less a work of art. The work comes later, as does art; but the far-off roots and hidden models of both lie in the obscure yet irresistible suggestions in nature.

These consist of subtle and ambiguous signals reminding us, through all sorts of filters and obstacles, that there must be a preexisting general beauty vaster than that perceived by human intuition—a beauty in which man delights and which in his turn he is proud to create. Stones—and not only they but also roots, shells, wings, and every other cipher and construction in nature—help to give us an idea of the proportions and laws of that general beauty about which we can only conjecture and in comparison with which human beauty must be merely one recipe among others, just as Euclid's theorems are but one set out of the many possible in a total geometry.

In stones the beauty common to all the kingdoms of nature seems vague, even diffuse, to man, a being himself lacking in density, the last comer into the world, intelligent, active, ambitious, driven by an enormous presumption. He does not suspect that his most subtle researches are but an exemplification within a given field of criteria that are ineluctable, though capable of endless variation. Nonetheless, even though he neglects, scorns, or ignores the general or fundamental beauty which has emanated since the very beginning from the architecture of the universe and from which all other beauties derive, he still cannot help being affected by something basic and indestructible in the mineral kingdom: something we might describe as lapidary that fills him with wonder and desire.

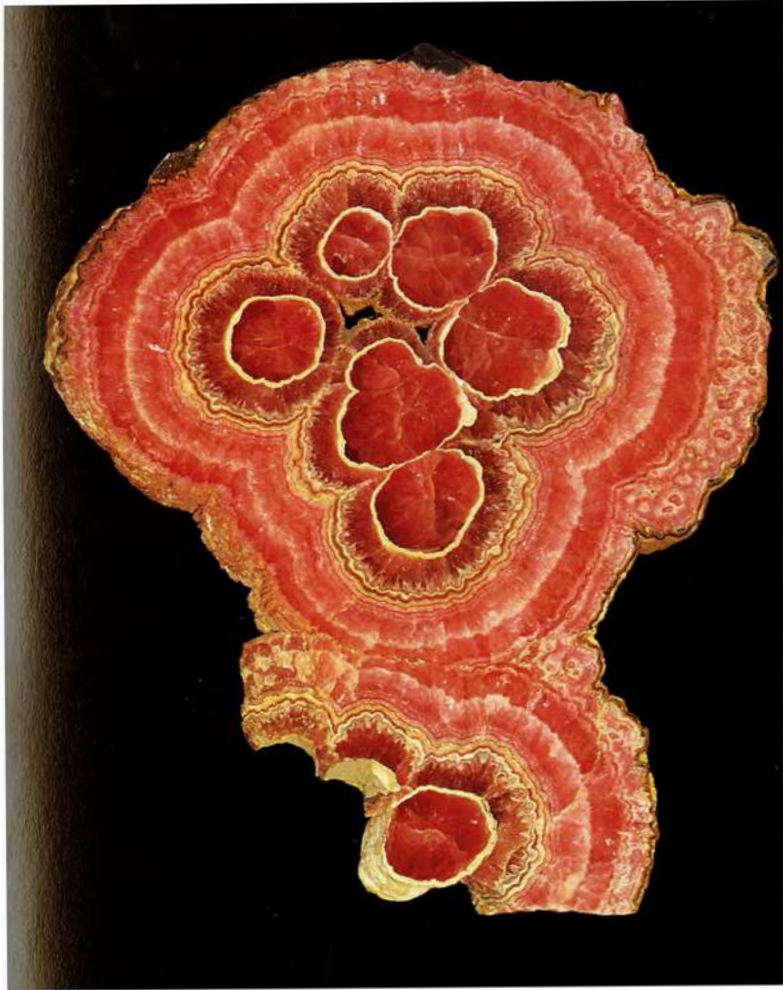
This almost menacing perfection—for it rests on the absence of life, the visible stillness of death—appears in stones so variously that one might list all the endeavors and styles of human art and not find one without its parallel in mineral nature. There is nothing surprising about this: the crude attempts of that lost creature, man, could not cover more than a tiny part of the aesthetics of the universe. No matter what image an artist invents, no matter how distorted, arbitrary, absurd, simple, elaborate, or tortured he has made it or how far in appearance from anything known or probable, who can be sure that somewhere

in the world's vast store there is not that image's likeness, its kin or partial parallel?

Even setting such similarities aside, human beings are attracted and amazed by many mineral formations: spiny tufts of quartz; the dark caves of amethyst geodes; shiny slabs of variscite or rhodochrosite agate; fluorine crystals; the golden, many-sided masses of pyrites; the simple, almost unsolicited curve of jasper, malachite, or lapis lazuli; any stone brightly colored or pleasingly marked.

Connoisseurs, in such cases, admire the qualities of a material that is constant and unchanging: purity, brilliance, color, structural rigor—properties inherent in each kind and present in every example. Their values are intrinsic, without external reference. The price a purchaser pays for them depends on weight, rarity, the amount of work involved, just as with a length of satin or brocade, a bar of refined metal, or a gem. Like such commodities, these stones are exchangeable, since there is no difference between one of them and another example of the same kind, size, and quality.

The whole picture changes when singularity is what is sought after. The stone's inherent qualities and special geometry are no longer of primary concern, perfection no more the sole or even the main criterion. This new beauty depends much more on curious alterations brought about in the stone itself



Rhodochrosite (Catamarca, Argentina; 65 × 133 mm)

by means of metallic or other deposits, or on changes in its shape due to erosion or serendipitous breakage. Some pattern or peculiar configuration appears in which the imaginative observer descries an unexpected, in this context an astonishing and almost shocking copy of, an alien reality.

Such semblances emerge from their long concealment when certain stones are split open and polished, presenting the willing mind with immortal small-scale models of living beings and inanimate things. Admittedly such marvels are the result of mere chance, such resemblances only approximate and dubious, occasionally farfetched or even arbitrary. But once perceived they soon become tyrannical and deliver more than they promised. The observer is always finding fresh details to round out the supposed analogy. Such images *miniaturize*, for his benefit alone, every object in the world, providing him with stable duplicates which he may hold in the palm of his hand, carry about from place to place, or put in a glass case.

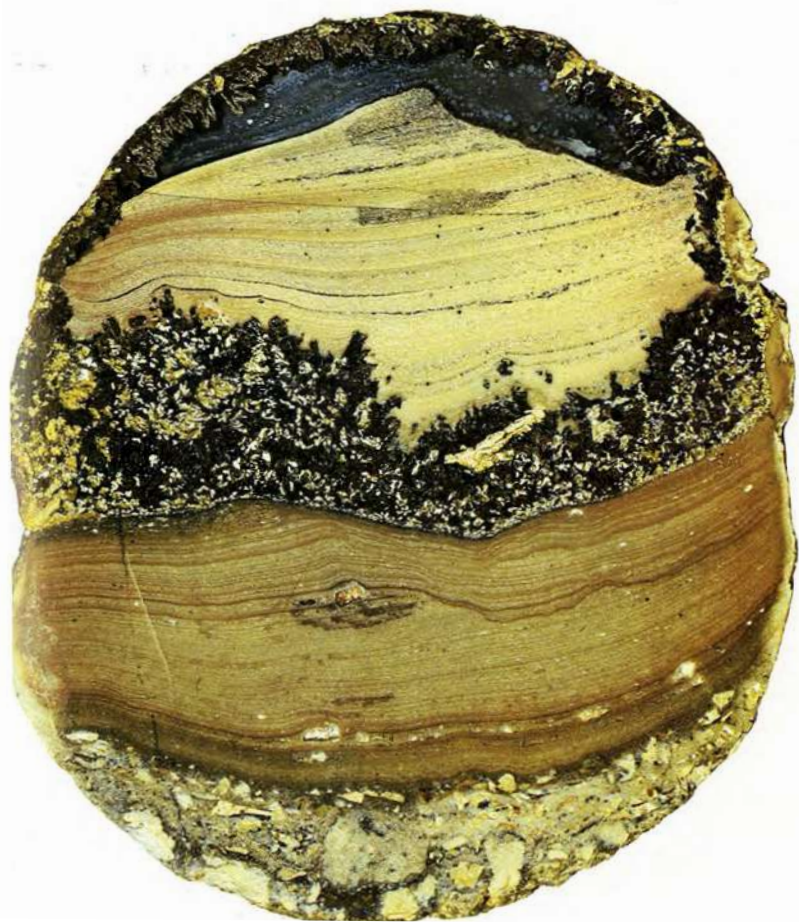
Moreover, such a duplicate is not a copy; it is not born of an artist's talent or a forger's skill. It has been there always: we only had to find our way into its presence. Ordinary rocks as well as various types of mineral specimens make up this prey of Pan. In China, poets and painters would see in a cleft stone a mountain with its peaks and waterfalls, its caves and paths and chasms. Collectors ruined themselves to



possess crystals in whose translucent depths they discerned mosses, grasses, and boughs laden with flowers or fruit. An agate may shadow forth a tree, several trees, groves, a forest, a whole landscape. A piece of marble can suggest a river flowing among hills; the clouds and lightning flashes of a storm, thunderbolts and the grandiose plumes of frost; a hero fighting a dragon; or a great sea full of fleeing galleys, like the scene the Roman saw reflected in the eyes of the Eastern queen already planning to betray him.

One kind frequently depicts a burning town, with its towers and steeples and campaniles crashing down. On the agate of Pyrrhus antiquity made out Apollo with his lyre, surrounded by the muses, each with her special attributes. In the seventeenth century Gaffarel, Richelieu's librarian and the king's chaplain, devoted a whole weighty volume to *gamahés*, healing talismans made of stones inscribed with natural astrological hieroglyphs.¹ Princes and bankers of the same period collected unusual specimens sought out for them at great expense by the numerous agents of specialist merchants. Learned men, among them Aldrovandi and Kircher, divided up these marvels into families and types according to the images they managed

¹ *Curiosités inouïes sur la Sculpture talismanique des Persans: Horoscopes des Patriarches et Lectures des Étoiles* (Curious facts about the talismanic Sculptures of the Persians: Horoscopes of the Patriarchs and Readings of the Stars) by M. I. Gaffarel, Paris, 1629.



“Peak,” landscape agate (Mexico; 92 × 80 mm)



“Monster,” quartz and chalcedony (United States; 103 × 115 mm)

to distinguish in them: Moors, bishops, lobsters, streams, faces, plants, dogs, fishes, tortoises, dragons, death's heads, crucifixes—everything a mind bent on identification could fancy. The fact is that there is no creature or thing, no monster or monument, no happening or sight in nature, history, fable, or dream whose image the predisposed eye cannot read in the markings, patterns, and outlines found in stones.

The more unusual, definite, and undeniable the image, the more the stone is prized. Stones that offer rare and remarkable likenesses are regarded as wonders, almost miracles. They should not exist, and yet they do, at once impossible and inescapable. At the same time they are treasures, the result of thousands upon thousands of chances, the winning number in an infinite lottery. They owe nothing to patience, industry, or merit. They have no market rate or price. Their value is not commercial and cannot be calculated in any currency; it laughs both at the gold standard and at purchasing power. It is not convertible into labor or goods. It depends solely on the covetousness, pride and competitiveness generated by the desire to possess or the pleasure of possessing them. Each stone, as unique and irreplaceable as a work of genius, is a valuable at once pointless and priceless, with which the laws of economics have nothing to do.

That being the case, they are frequently regarded

as amulets and talismans. The owner of such a wonder, brought into being, discovered, and delivered into his hands through an inconceivable concatenation of chances, easily comes to believe that it could have come to him only through some special intervention of fate. He grows passionately attached to it, thinks of it as a guarantee of health and success. But we are not concerned here with the magical virtues superstition attributes to stones inscribed with images, nor even with the joyful gloating of their owners.

In some Eastern traditions insight may be obtained from the strange shape or pattern in a gnarled root, a rock, a veined or perforated stone. Such objects may resemble a mountain, a chasm, a cave. They reduce space, they condense time. They are the object of prolonged reverie, meditation, and self-hypnosis, a path to ecstasy and a means of communication with the Real World. The sage contemplates them, ventures into them, and is lost. Legend has it that he never returns to the world of mankind: he has entered the realm of the Immortals, and become an Immortal himself.

I leave such fabulous emotions to their fate, concerning myself only with the present-day competition between the products of nature and the works of painters and sculptors, whether nature's offerings appear to represent something or are pure sign. Artists



“Likeness of a face,” jasper (United States, 71 × 165 mm)

have added to them or merely signed and framed them as they were, thus putting them in the same category as pictures. So they must have found some correspondence or element in common between their own creations and these works executed by no one.

The juxtaposition should be revealing. At the very least it brings out some strange reversals. We have seen modern painters first give up trying to reproduce their models exactly, then abandon models altogether and eschew any kind of representation. And those markings on stones are considered most inter-

esting which do not represent anything. Yet at the same time those rarer stones that do seem to depict something are coming back into favor. It is strange to think that nature, which can neither draw nor paint any likeness, sometimes creates the illusion of having done so, while art, which has always been successful at resemblances, renounces its traditional, almost inevitable and “natural” vocation and turns to the creation of such forms as nature itself abounds in—mute, unpremeditated, and without a model.

This inversion in the order of things seem simultaneously to reveal and to conceal a problem. To clarify the data of the problem, though I do not promise to find its solution, I shall try to define the ways in which nature sometimes gives us the impression of representing something. I should also like to explain the strange attraction of these manifestly illusory likenesses.

“PIERRES-AUX- MASURES,” OR RUIN AND LANDSCAPE MARBLES

Among the image-bearing stones which have long excited the envy of connoisseurs, likewise among the strangest specimens and thus the most sought-after for curio cabinets, two types of marble deserve special mention. They stand out first because they were frequently invoked as providing a crucial argument in favor of the theory of *lusus naturae*, or sports of nature, as against that of fossils, which ex-

plained the phenomenon involved as due to the petrification of ancient living organisms. Another reason for according them special treatment is that they were frequently polished and framed and treated like real pictures. The two types in question are the *pierres-aux-masures* (also known as ruin marbles or, internationally, as *paesine*) which come from a site near Florence, and the landscape marbles from a quarry near Catham, Gloucestershire in England, a site long ago filled in and covered with blocks of flats.

For scholars these marbles proved that nature, which through mere creative fantasy could depict ruined cities or pleasant valleys dotted with smiling groves, was even more capable of spontaneously producing images of fishes, mollusks, or ferns. They declined to take so-called imprints seriously, recalling the fact that such appearances of marine animals had often been found a long way away from the sea and sometimes even on mountain tops; moreover, they were different from known shells and fishes. This clearly meant they were whims of nature, just like the tiny ruined cities in the Tuscan marbles and the little rows of trees in those from England.

In Nuremberg in 1777 there was published, in a translation from the German, a work of great beauty and magnificence in several volumes somewhat ponderously entitled *Recueil des Monuments des catastrophes que le globe terrestre a essuyées* (Collected vestiges of the catastrophes suffered by the terrestrial globe). It is a



Ruin marble (Tuscany; 95 × 227 mm)



"Landscape" (Catham, England; 83 × 278 mm)

catalog of fossils and similar specimens and, to quote the rest of the title, “contains petrifications and other curious stones, drawn, engraved and colored after the originals, with descriptions.” The book, begun by Georg Wolfgang Knorr, was continued by Johann Ernst Immanuel Walch, counsellor at the court of the duke of Saxe-Weimar and professor of oratory and poetry at the University of Jena. This study, which firmly opposes the theory of *lusus naturae*, tracing its history and mocking its absurdities, is illustrated with plates the quality of which has never been equaled despite the technical progress made since. Some of the book’s strangely shaped fish, printed in deep rich blacks, irresistibly bring to mind certain lithographs by Braque.

The book also contains a description, significant in this context, of ruin marbles:

a kind of stone found near Florence and named after the pictures found upon them. These represent ruined cities, towers and pyramids, crumbling walls and houses. The stone is commonly grey in color, and the marks, which are slightly darker, imitate a bird’s-eye view. The ruins are brown, shaded darker brown in places. Between the ruins and especially near their base are little dendrites, as if the ruins were covered with moss. These stones vary in beauty and in degree of likeness to the subjects they represent. According to some authors such stones split very easily into layers; they are fine-grained and therefore take an excellent polish. The pictures go right through the thickness of each layer. Such

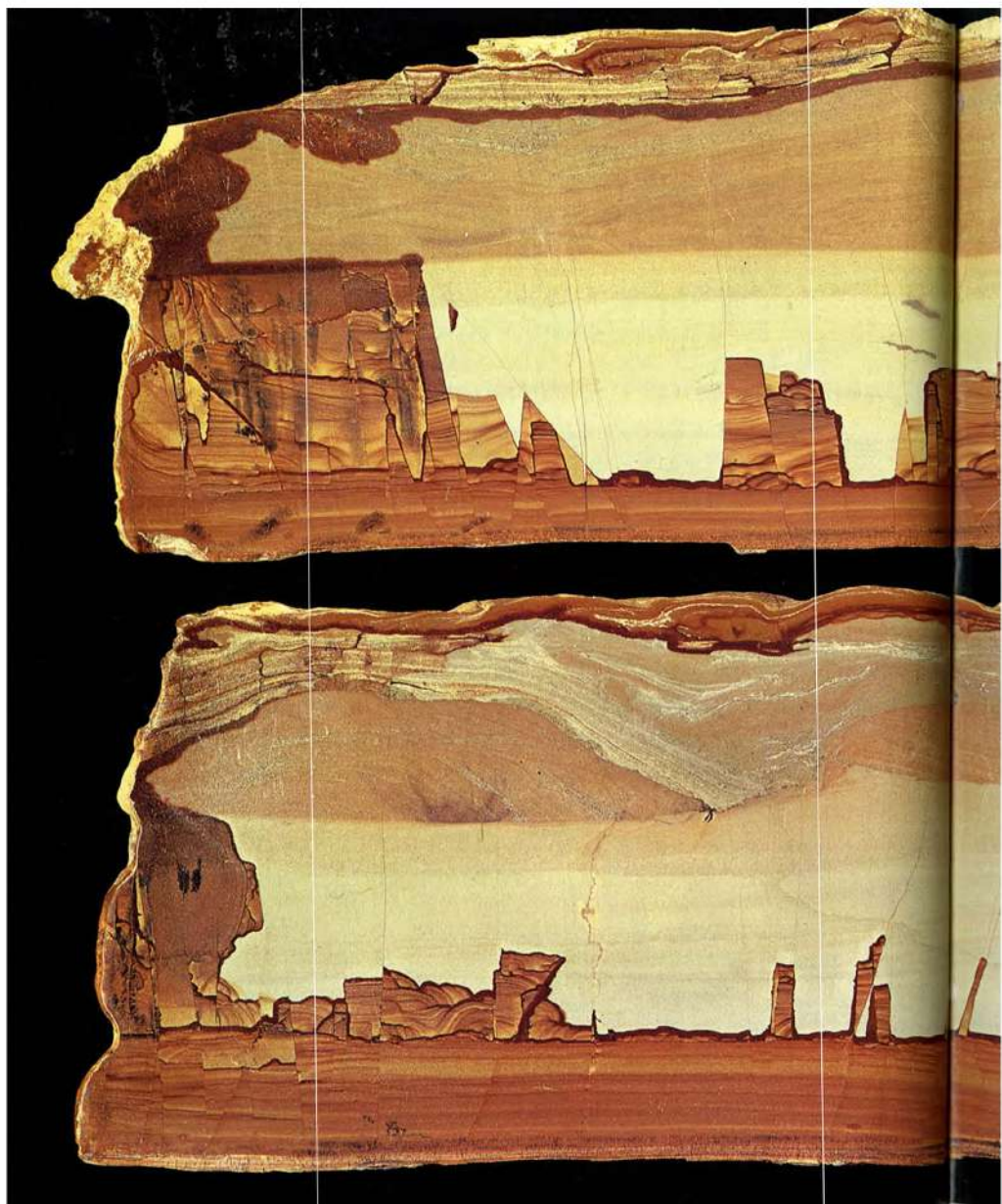
stones must not be confused with the arborized marble of Florence. . . . The Italians call this latter pietra emboscata, and call the stone depicting ruins pietra cittadina. Lachmund's *Oryctographia Hildesheimensis* was the first to make this stone known in Germany, though by means of a very poor illustration. It was subsequently mentioned by Wormius, Valentini, Besler, Kundmann, Davila, and several others. But most of them failed to give an exact description or inquire into the origins of the specimens. Brückmann had something to say about them, and this should be collated with Jean Elie de la Faye, Keysler, and an anonymous article in the *Berlin Magazine*.²

In 1733 Brückmann, who tried to explain the miracle and came down in favor of freaks of nature (rightly, in this case), appealed to some fluid mineral substance of various colors, converted into marble solidity through the action of a "coagulant and gorgonic" spirit.³

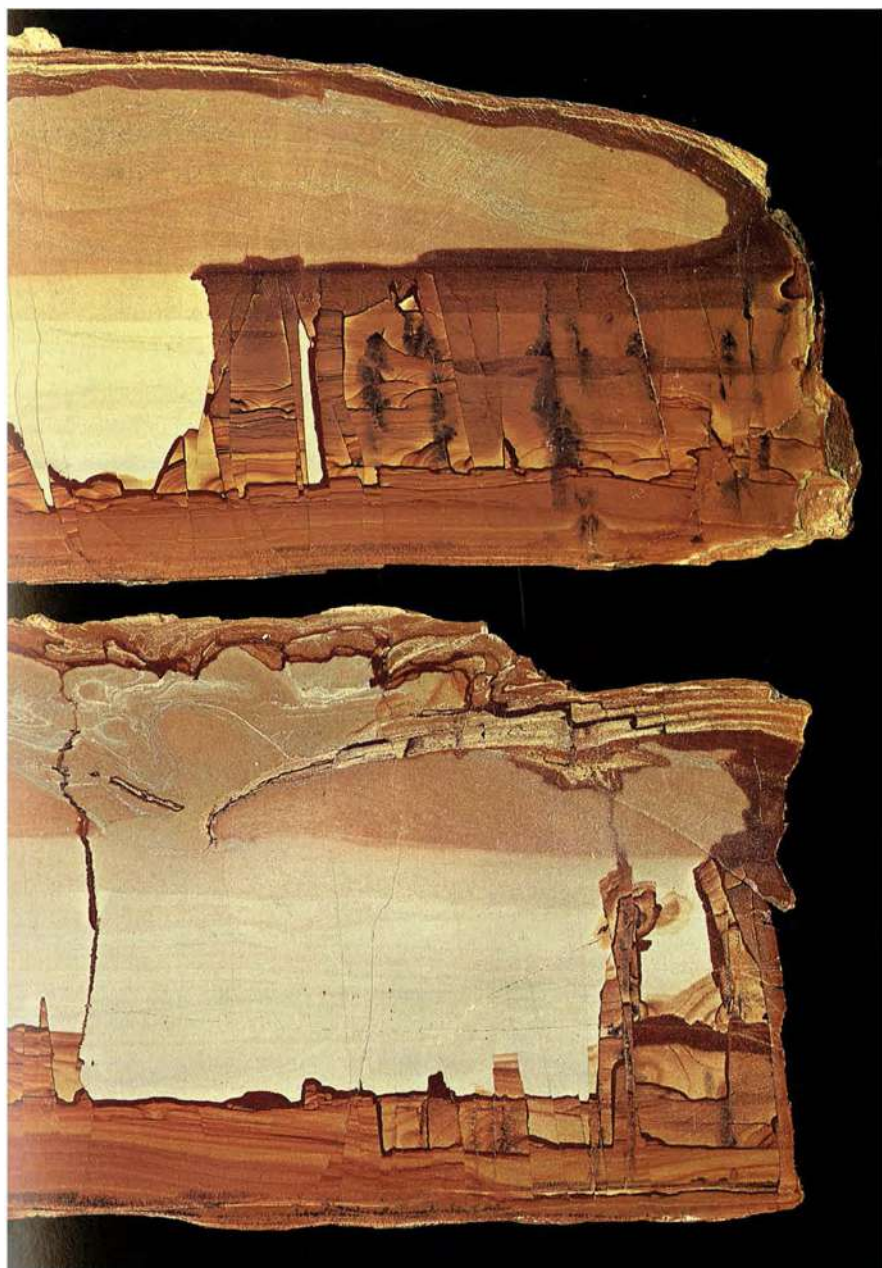
But these were not the absurd yet revealing ramblings of a science in search of its principles. In the late eighteenth century people were really only interested in explaining what was considered merely an odd phenomenon. The learned authors of the *Recueil* pointed out that cliff-strewn deserts, rocks, and debris

² *Recueil des Monuments*, 1:116.

³ *De marmore variorum locorum in specie Florentino*, quoted *ibid.*: "Hae ruinae sunt lusus naturae ex coalitu fluorum terreorum variorum colorum, qui olim liquidi et molles fuerunt, demum vero, successu temporis, accedente spiritu, terram subtilissimam coagulente et gorgonico, petrificati et in marmoream soliditatem mutati."



Ruin marbles (Tuscany; *above* 90 × 296 mm, *below* 95 × 293 mm)



of cities came into the category of “accidental figures, ciphers, and suchlike marks, by which formerly people set great store, but which have now lost all their credit because these Sports of Nature are regarded as no more than a curious amusement.”⁴

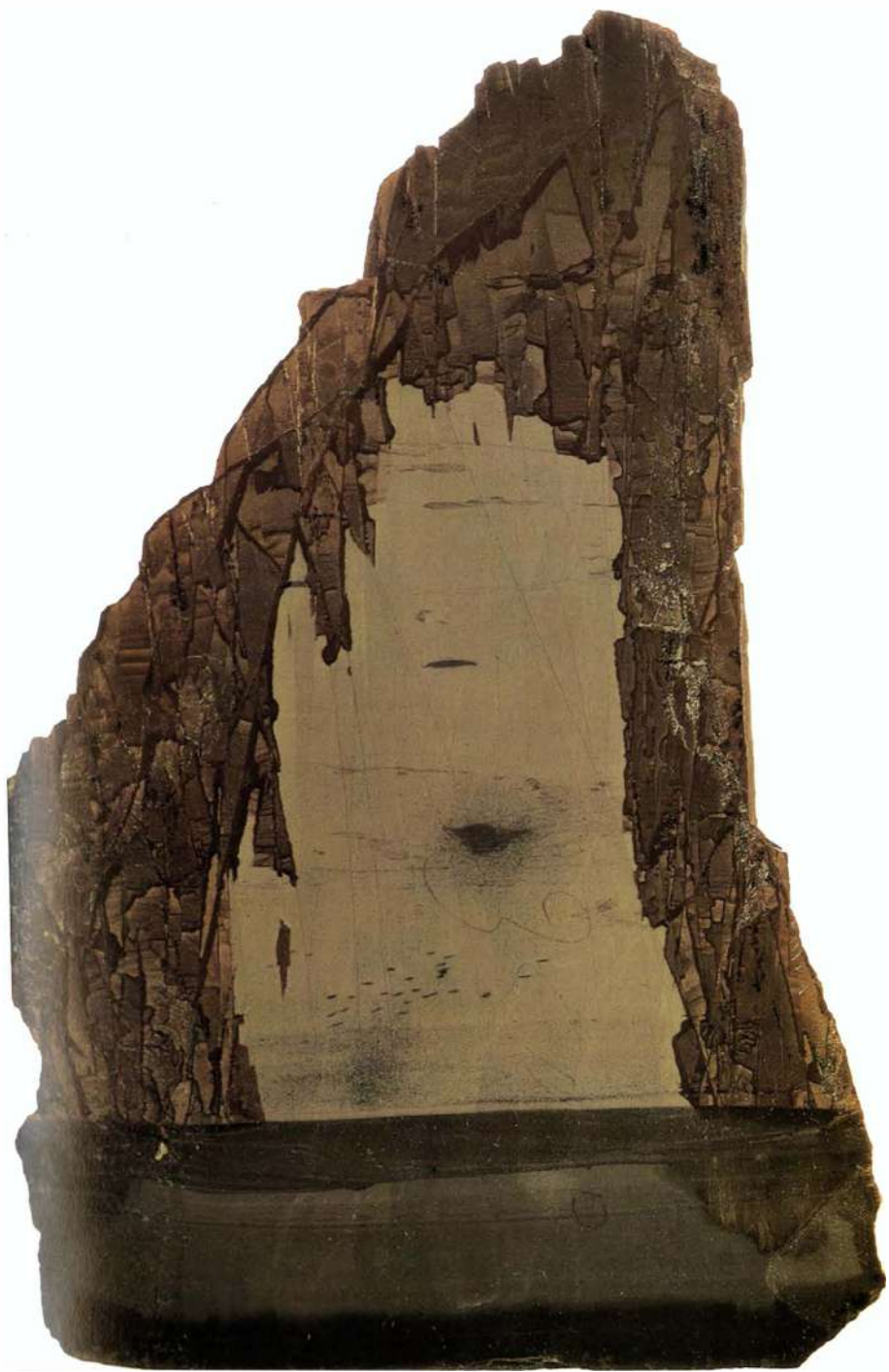
The scholars had spoken. But the similarity between the Florence marbles and the works of painters still went on troubling men’s minds, as is shown by the following extract from, paradoxically enough, a *Natural History of Minerals*, which was commonly appended to early nineteenth-century editions of Buffon and in which the art critic’s attitude almost eclipses that of the mineralogist. Some of these stones, writes the author,

show, against a yellowish-white background, black dendrites in the shape of trees and shrubs arranged in several rows and in different planes, pleasantly imitating a landscape. This has caused this kind of stone to be called alberese, or marmo paëfino: it is hard, compact, and takes a very fine polish.

The other variety also has pictures of landscapes, but these represent ruins. They show ramparts, towers, steeples, obelisks, buildings of all kinds, but half in ruins and surrounded by debris.

These ruins are dark in color like a bister drawing; the background or sky is lighter, being yellowish or bluish grey, against which the ruins stand out the more clearly because they are surmounted by a white band that makes them seem

⁴ Ibid, p. 117.



to be lit by the setting sun. This white band sometimes forms long points tipped with a reddish hue, a very good likeness of the flames in a conflagration.

The sky has vaguely wavy, twisted lines which resemble clouds, and is often dotted with round black marks, like bombs launched against a besieged city.

In the foreground of these pictures, especially when they are of some size, there is commonly what painters call a terrace, a strip of ground strewn with shrubs and undergrowth which completes the resemblance to a painted landscape.

All these charming accidents, in which nature so well imitates the productions of art, please by their singularity even those who are least interested in mineral productions. But they especially interest the naturalist, and above all arouse his curiosity to discover their causes.⁵

In fact, we know now, but only now, that the images on these stones could be more accurately described as a geological anticipation of the lofty machicolations of Manhattan, or, more precisely, of Bernard Buffet's stark New York panoramas with their dominant verticals.

There was a considerable trade in Florence marbles in the sixteenth and seventeenth centuries. Philipp

⁵ *Histoire Naturelle des Minéraux*, by E. M. L. Patrin. Year IX, 3:280–82; plate p. 280.

Hainhofer, an Augsburg merchant, was involved in it and supplied Philip II, duke of Pomerania, in 1617, and Gustavus Adolphus, king of Sweden, in 1632, with cabinets decorated with that kind of stone. The cabinet belonging to Rudolph II, in Prague, was, according to his physician Anselm Boetius de Boot, decorated with admirable specimens, which looked “like paintings rather than stones.” In his book *Aber-rations*, Jurgis Baltrusaitis gives many examples of public and private collections which contained such items, polished, mounted on slate, and set in often luxurious frames.⁶ There is no doubt that they were regarded as genuine works of natural art. Thus catalogs of the period record that the Settala Museum in Milan possessed two slabs taken from a stone sawn through the middle and showing the burning of Troy “in so natural a manner that Zeuxis could not have painted it better.” The Cospi Gallery in Bologna had a marble depicting the same subject: “a white marble veined with red, dark and other colors so disposed by Nature that they call to mind the woes of Troy, with the city and the rocks in flames.”⁷ Nowadays this type of “picture” has emigrated from the art gallery to the museum of natural history. But examples are still sometimes found in antique dealers’ shops, in their original frames.

⁶ Paris, 1957, pp. 47–72; figs. 30, 31, 35, 39.

⁷ Quoted in Baltrusaitis, p. 56.

Some artists could not resist the temptation offered so generously by these sports of nature and set about turning them into complete and complex pictures by adding trees, animals, and human beings. Baltrusaitis reproduces a large number of compositions in which artists like Johann König, Matieu Dubus, Antonio Carracci, and others pressed into service the bands and luminous depths of agate or the twists and turns of alabaster. When treating religious subjects, the painter drew from the stones' inner, translucent clouds a mysterious, supernatural, milky brightness: if he was depicting the crossing of the Red Sea, all he had to do was add terrified victims to the backwash of the dreadful wave suggested by the veins in the stone itself.

But it must be admitted that agate, alabaster, and jasper do not generally give the artist much to go on. In most examples the stone provides only a monotonous motif that cannot be used to portray much else but the curves of the clouds or the billows of the sea.

The *paesine*, with their suggestions of cities or rocks, are quite another matter. Here the painter may supplement the buildings hinted at by the stone itself with little black rectangles representing doors and windows. He may also introduce trees, though he need not put in grass or undergrowth: the fine dendrites of manganese provide an excellent illusion of these. Human figures, of course, are due to the artist

alone. Two contrasting techniques are used. The first consists of filling the space available—the “sky” in the case of a ruin marble—with a single large figure. Baltrusaitis cites for example a specimen in the catalog of the Settala Museum in Milan in which St. Jerome and the lion are depicted by the artist in a cave supplied by the stone itself. I myself possess a likely parallel to this in a stone, probably dating from the middle of the seventeenth century, which represents St. Francis praying to a crucifix while a death’s head looks on from a rock. Only the saint, the cross, and the skull have been added by the artist. All the rest is the work of nature.

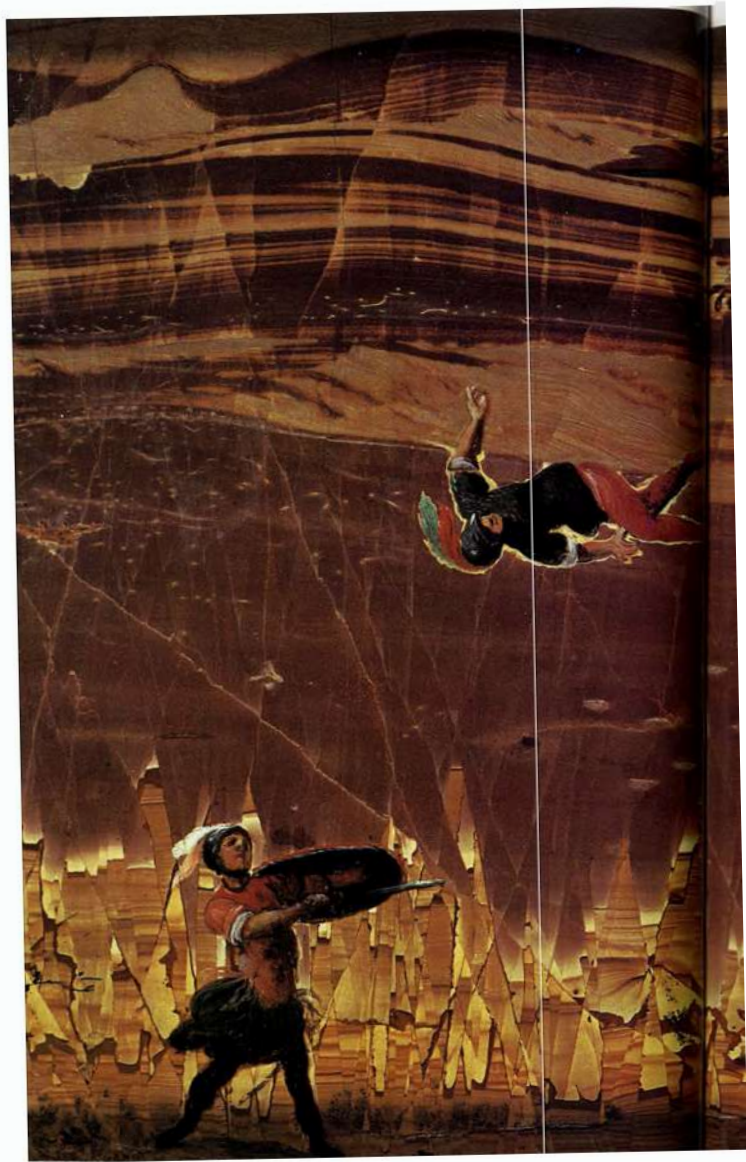
The second of the two techniques involves a closer alliance between the skill of the painter and the fantasies of geology and involves a number of figures and other more minor additions. In extreme cases the artist scatters them about so freely that it is difficult to distinguish the figments of his imagination from the contributions of the mineral itself. This type is represented by a cleverly touched up *paesina* in the National Museum in Havanna, where it is incorrectly cataloged as a painting on *agate* of the sixteenth-century German school. A huge disheveled pine tree, bereft of most of its main branches, stands on a steep rock where a donkey is grazing. The tree divides the scene into two halves contrastingly treated. The painter has made a considerable contribution to the

right half, which shows luxuriant and varied foliage and other vegetation, together with two small figures engaged in animated conversation. The left half, on the other hand, has scarcely been modified at all, except for a square tower flanked by a couple of dark and slender yews. There is an urban panorama, made up of the broken lines characteristic of ruin marbles: the artist has done no more than pick out the bright edge of terraces and the dark curves of arcades. In the foreground some cliffs, by a natural symmetry, are reflected in a calm expanse of water; the sky above them and the river lapping at their feet are supplied by the ample curves which are almost always found in the mauve or turquoise part of this kind of marble. These undulations contrast with the straight verticals and obliques in the dark brown section of the stone, which suggest houses and palaces.

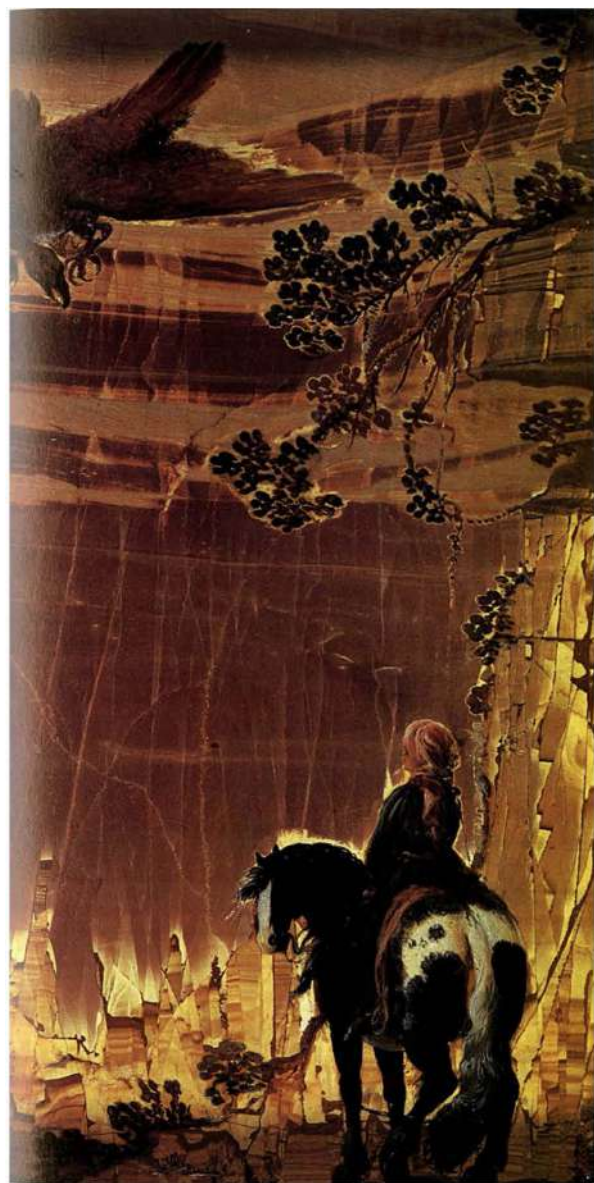
The finest examples of such works, in my opinion, are those hidden away in a small and little-known museum in Florence, aptly called the *Opificio delle Pietre dure*, for it is at least as much a workshop as a gallery. The exhibits in question are small pictures—*paesine* are rarely more than fifty or so centimeters long—painted with energy, precision, and skill, all of them belonging to the first half of the seventeenth century. Four of them illustrate episodes from Ariosto's *Orlando Furioso*. Another represents Mary Magdalen in the desert. The most skillful of all is inspired



Episode from Ariosto's *Orlando Furioso*, painting on *paesina*
(350 × 280 mm; Florence, Opificio delle Pietre dure)



Episode from Boiardo's *Orlando Amorofo*, painting on *paesina*
(250 × 200 mm; Florence, Opificio delle Pietre dure)



by Dante's *Divine Comedy* and shows Dante and Virgil visiting Hell: red flames stand out against a dark ocher background seamed with black arborescences and dotted with pale blurs—the naked bodies of the damned. There seems to be a clear case of complicity here between the subterranean levels of suffering and the genesis of a stone that itself comes from the depths of the earth, roasted in the heat of some non-human furnace. It is no longer a matter of a painter's whim exploiting a strange material. Instead we have an encounter between a subject and a medium which might be called a demonstration of that subject.

As well as these six *paesine*, room 4 of the Opificio contains a painting on lapis lazuli which depicts the Lycian peasants being turned into frogs by Zeus for refusing to let Latona drink from the pool where they were cutting reeds. Against the intense blue background of the stone, the goddess watches impassively as the impious rustics undergo their metamorphosis.

In such cases the painter cooperates with nature. Whether by just cutting out and framing the picture or by exploiting the pattern in the stone, he implicitly admits that nature, with or without an artist's collaboration, can produce arrangements of shapes and colors that may be accepted as works of art. In other words, it is as if nature not only provided a stock of models but also directly created works worthy of admiration—works capable of competing on equal



Dante and Virgil in Hell, episode from the *Divine Comedy*, painting on *paesina* (330 × 310 mm; Florence, Opificio delle Pietre dure)

terms with human achievements without having to pass through the alchemy of human art.

The interest in Florence marbles is now practically a thing of the past. What used to make them attractive was not their intrinsic aesthetic qualities but their resemblance to certain aspects of the external world, the closeness of this likeness or their apparent representation of some model. This last, this illusion of reproducing the manner of a painter, would be their chief attraction nowadays. But in the past it was as curiosities, as strange and marvelous objects, that they were prized. Even when they were polished and framed and treated as pictures, they were still sports of nature without any artistic value as such. The collector was impressed by a fortuitous parallel—the result of some obscure physical and chemical reactions—between the patterns in the stone and a vague vision of half-ruined walls and towers. Similarly, in agates the connoisseur looked for specimens with veins suggesting the mansided outlines of contemporary fortifications. In short, what he sought was an analogy, not a masterpiece of plastic art. This fact eluded people because in those days it was impossible to conceive of a painting that did not reproduce some



Latona and the Lycians, episode from Ovid's *Metamorphoses*, painting on lapis lazuli (230 × 330 mm; Florence, Opificio delle Pietre dure)

object. Pascal could condemn the whole art of painting by writing: "What a vain thing is painting, which evokes admiration through a resemblance to things of which we do not admire the originals."⁸

A modern connoisseur, however, is more likely to be attracted by ruin or landscape stones in which the alleged resemblance is imperfect or rudimentary: photographic likeness merely takes him aback. It is what may be called the style of the stone that interests him: the simplifications, the broken lines that separate the different colors and seem to break up the light. A resemblance that used to be regarded as rough or imperfect now appears the deliberate result of some bold or inventive stroke or felicitous transposition.

This reversal of taste reflects a general evolution in the attitude toward picture stones. But let us now examine some other curious examples in this field.

⁸ *Pensées*, frag. 134, Bruschwig.

DREAM STONES

In China in the mid-nineteenth century an artist might select a slab of marble with marks or veins that appealed to him and then proceed to trim and frame it, give it a title, and engave his seal on it. He thus took possession of the stone, turning it into a work of art for which he was henceforth responsible. I have published a study and reproduction of one

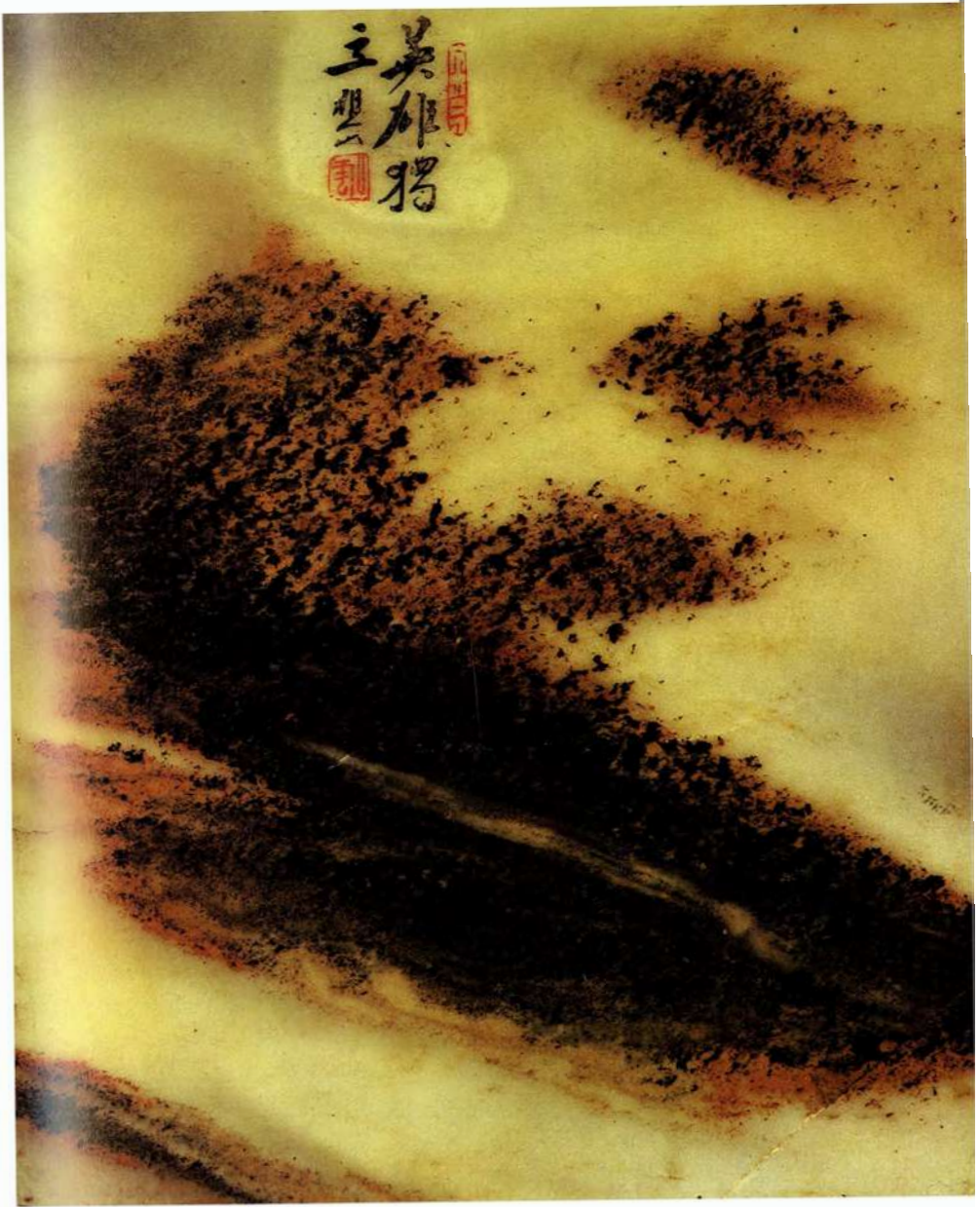
such specimen; the Chinese called them dream stones.⁹

The example in question is called *The Solitary Hero* and bears the seal of K'iao Chan. It shows a shape in yellow, sepia, and black which may just about be taken for a human being crouching against a whirlwind. I have since seen many other stones of this kind, and shall here consider two of the larger ones, representing landscapes.

They show wooded ravines with lakes and pools reflecting nearby cliffs, or else with flat shores vanishing into the distance in one direction and in the other blocked by sloping hills apparently bent in the direction of the prevailing wind. These marbles, like my first example, are signed, but instead of a title each one bears a little poem in keeping with the scene, wild or peaceful, that it depicts. The first poem runs as follows:

*Amid the greymost mountains
The clouds come and go
Like so many great men:
None reaches the heights,
For that is too difficult.*

⁹ *Cahiers du Musée de Poche*, no. 1, March 1959; *Arts*, no. 788, July 21–27, 1960; *Méduse et Cie*, Paris, 1960, plate 2. The texts which accompany the reproduction form a whole, on the theme of nature as a painter.



"Solitary hero," dream stone, titled and signed marble
(China, nineteenth century; 270 × 225 mm)

The second:

*In its ring of mountains
An ancient temple looks new.
Here the spirit seems as keen
As the wind, the air, the trees.
How can such a feeling be expressed?*

The description of a luxurious Chinese interior in a novel by Lin-Yu Tang shows that the love of dream stones was widespread:

Everything was grandiose, simple and severe. Against the Northern wall stood a high mahogany table, massive yet sober in design, on which there was nothing but three objets d'art. In the middle was an ancient three-legged vessel in cloisonné inlaid with gold. Then came a slab of rare marble sixty centimeters square, with natural pictures suggesting a landscape enveloped in rain and mist, with almost invisible mountain peaks, woods and two fishing junks, all incredibly lifelike. The natural patterns on the other slab of marble suggested a large duck: the head, beak and neck were almost perfect, while faint lines seemed to depict the body, and brown marks the bird's webbed feet.¹⁰

Admittedly resemblance is still the criterion, but now the preferred likeness is evasive, allusive, even ambiguous. At all events, the figurative factor has given way to a plastic quality. Though I have sometimes put the theory forward, on reflection I am not sure that the artist only affixed his seal to a rectangle

¹⁰ Lin-Yu Tang, *Chinese Childhoods*, 2:120 in French trans., Paris, 1960.

of marble selected by himself: I wonder whether he did not in fact allow himself to add imperceptible improvements to the natural picture.

He may have used some unknown but easily imaginable process that so to speak “mineralized” the coloring agent employed, making it take on the grain and polish of the stone itself and become an integral part of it. I can think of no other way of accounting for the fact that the veins and marks and motifs in the Chinese marbles are visible on one side only of the slab, whereas normally they would go right through the stone, varying somewhat on the two faces, as in ruin and landscape marbles and agates.

Whether or not some subterfuge is involved, the point is that unlike the Western artist, starting from a recognizable resemblance in the stone and emphasizing it in order to change it into a picture, the Chinese painter uses his art to put the connoisseur on a false scent, trying to make him think the picture a natural, untouched up marble which the artist has only given a title, that is, merely interpreted and signed.

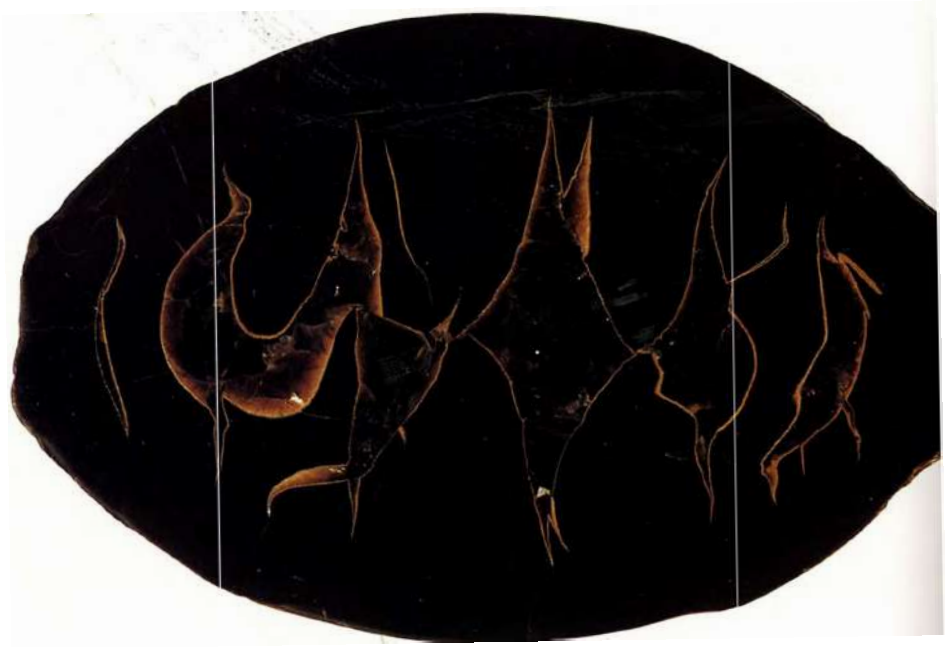
The two methods are diametrically opposed, but they both reveal significant connections between art and aesthetics, if I may call art the beauty deliberately produced by man and aesthetics the appreciation of all beauty, both what derives from art and what is met with accidentally in the universe.

Language does not distinguish between the two or-

ders of beauty. We speak indiscriminately of a beautiful cloud and a beautiful statue, a beautiful tree and a beautiful line of poetry, a beautiful landscape and a beautiful picture; and while the last may represent a beautiful landscape, it is not considered beautiful for that reason. Yet what is admired in each domain is, or appears, fundamentally different (the nuance hardly matters, for here being and seeming tend to coincide). And when we bracket the two realms together we confuse the results of two unrelated if not contradictory methods. The fact that the beauty created by the artist imitates or reproduces what is found in nature makes possible and even encourages a common vocabulary.

In theory this situation ought to change when painting deliberately, even systematically, turns aside from the forms offered by the external world, and the painter takes care not to set down on canvas anything that may be recognized or identified. In these circumstances, if I wish to find some natural object, some stone that may be compared to a picture, I shall no longer look for a possible resemblance but for an equivalent of the effects which are now being sought after and which are entirely plastic and without reference to the forms in the visible universe. To juxtapose with works representing the new style of art I shall choose a new kind of mineral, bearing scars equally far removed from both geometry and mean-

ing and with lines less linear than the veins in marble, less circular than the whorls in agate. These messageless hieroglyphs for the most part evoke no memory of any appearance. I refer to the stones known as *septaria*.



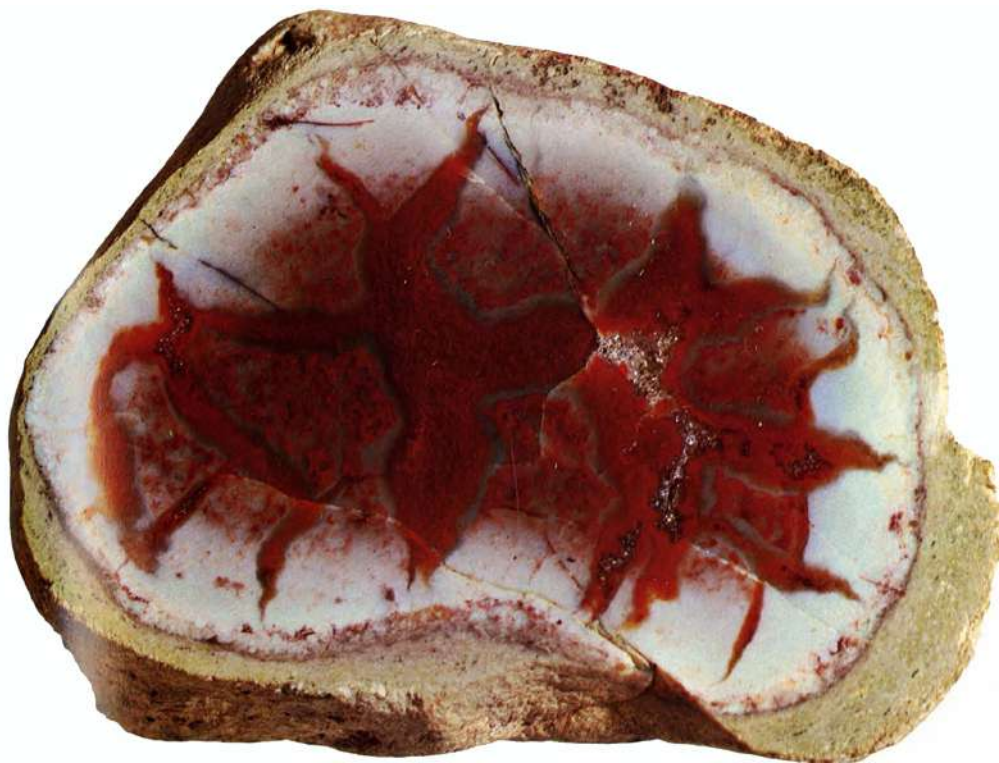
Septaria (Spain; 63 × 112 mm)

SEPTARIA

Septaria are siliceous nodules crisscrossed with cracks filled with calcite. They appear to be little known, though there seems no reason to suppose they are rare. Septaria are quite varied, since the name applies not to a particular species of mineral but to a structure which may occur in several. The most common ones on the market come from Spain and the Dakotas, and it is these I prefer to concentrate

on. English septaria show rough, even confused patterns, sometimes very large, and are either round or long and almost rectangular. In the last case the markings are independent of one another and look like runes. Septaria from Saint-Wendel in Germany have the most delicate markings, with the finest lines; they are often outlined in pink. From northern Bohemia, where many small agates like jasper in appearance and color are found, I have been sent a specimen with the quartering structure characteristic of septaria: the markings resemble a chrysanthemum whose short, rosy, flamelike petals edged with blue writhe against a background of white. At the other extreme, among the soft rocks, similar motifs occur in the large cracks to be found in certain septated marls.

But whatever their provenance and composition, septaria never exhibit the same pattern twice, and it would be impossible to divide their markings up into categories. One nodule alone contains potentially many and various motifs, depending on the different angles at which the stone might be cut. The cross section taken of the nodule, which is a kind of elongated and flattened disk, may be made lengthwise, crosswise, diagonally, or equatorially, and the choice determines what aspect the inner maze of crevices will present. Even patterns situated on the same axis change so fast that at first sight there seems to be



Agate resembling septaria (Bohemia; 30 × 43 mm)

little in common between the two sides of one thin slab or the motifs in a couple of adjacent sections, though the eye can easily supply the transition for itself.

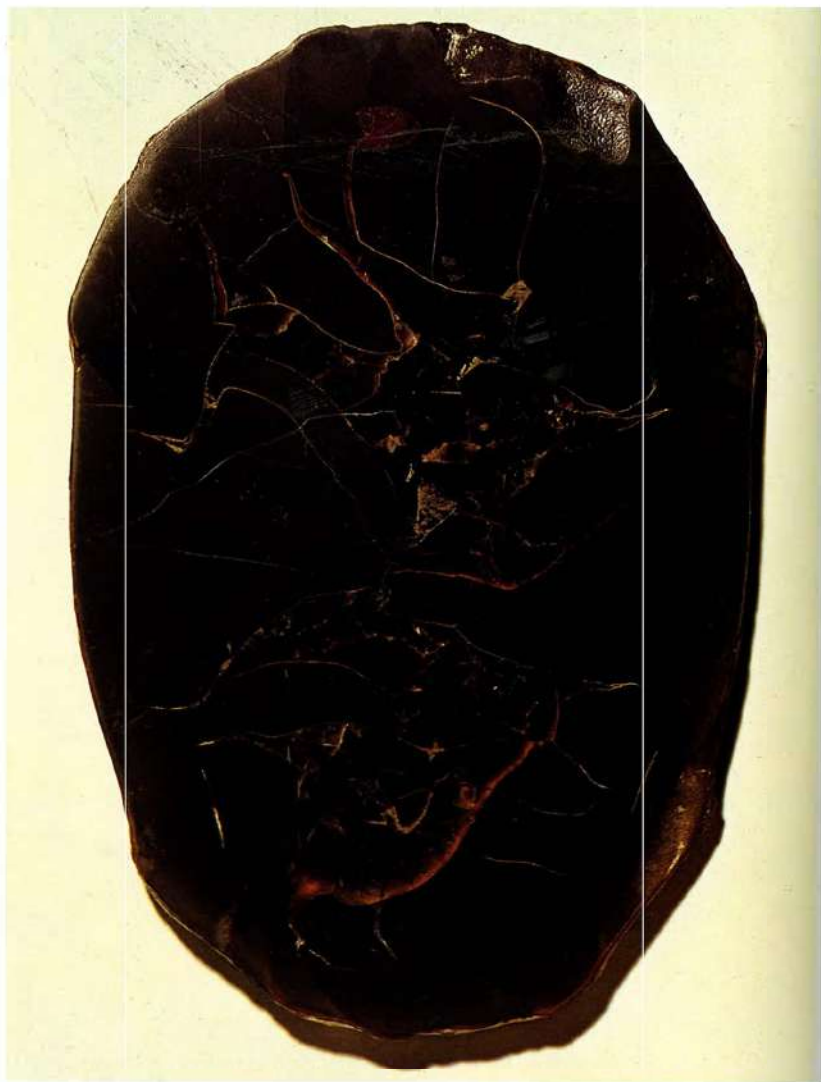
As for the style, the motifs may be simple or elaborate, ordered or tangled, symmetrical or chaotic, made up of thin lines or large patches; they may be all in one color or range through every shade of sepia, ocher, milky white and, in the metallic parts, burnished steel. Sometimes the patterns emerge through the surface of the nodule, so that a ridge of sharp spikes prolongs the hidden pattern externally.

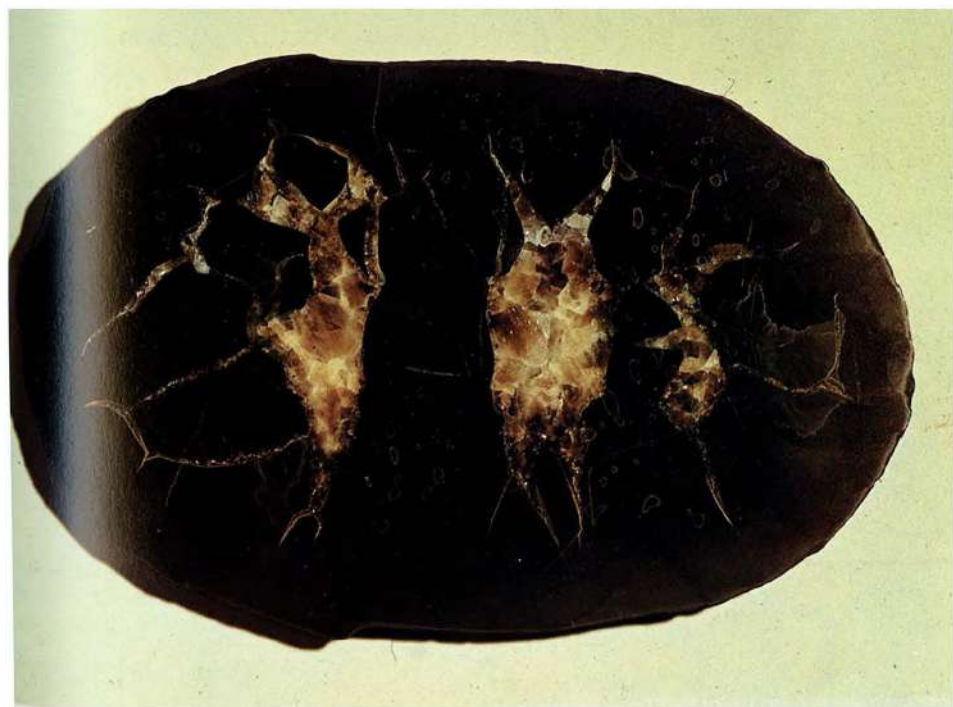
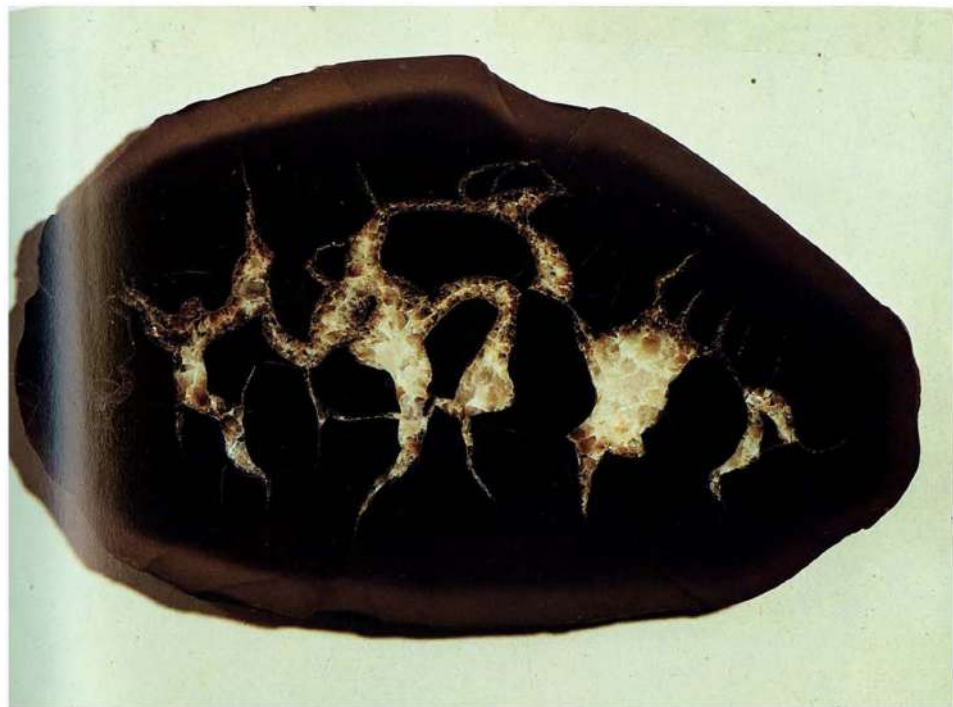
The smallest and simplest septarium I have ever handled is about the size of an aspirin and has at its center a pattern like a tiny four-pointed star, or rather the deep blue flower of certain dwarf mountain crucifers with its narrow, almost threadlike petals. Sometimes the tips of the petals are black, edged with the same white as that in the center of the flower; rays growing ever thinner trace the sparest of images. But the pattern may become more complicated. The branches end in hooks or fingers, or are joined together with almost invisible rigging. Webs and nets start spreading over larger surfaces, some as fine as the hair cracks counted a defect in fine porcelain even though they can scarcely be seen. The lines are sometimes lighter and sometimes darker than the stone they run through. More rarely they are rust-colored.

Occasionally they open out into ravines lined with little crystals. They form patterns which explode; showers of manysided cells; sprays of dodecahedra all on one plane; irregular veins branching out in all directions then suddenly tapering away; steelyards weighing a large object which is yet so light that the arm of the balance is unmoved; cobwebs spun in the void, attached to no point and containing no lurking spider; cross sections of murexes, with the helix in the middle and the spines on the outside; the waving tentacles of sea anemones; the filaments of jellyfish, ending in a whiplash. Out of the dark of the stone, between the beams of an incandescent star, shine bright streaks and points like dandelion seeds blown from the stem, fixed in their flight and forming a kind of halo around their original center.

Such specimens always exhibit a geometry that is both capricious and harmonious, airily combining rigor and ease. The nucleus of the composition seems to be the center of the nodule itself; the pattern looks as if it is fleeing wildly from that center, then fading out and vanishing before it reaches the periphery of the stone. But it divides up the space unequally, according to an easily detected rhythm. The bold, flowing lines print on the unyielding silex the idea of, the recipe for, a freer and more complex motion than that of waves spreading outward from a disturbance in the surface of a liquid. What we have here is a sharp-

Three septaria (Spain; *below* 76×130 mm, *right top* 70×115 mm, *right bottom* 84×120 mm)





angled craquelure making its way through a solid medium and soon brought to a halt by the strength of the stone.

In some exceptionally large specimens the cracks seem to radiate from two adjacent centers. The wide-meshed webs approach one another without overlapping, explore one another without joining, brush like antennae, like anxious or voluptuous feelers. It is as if the two systems were really conscious organisms trying to get to know one another by cautious touches. They are still only diagrams, closer to the blueprint than to life, but their polarized substance seems to stir. They might be two ameobas about to fight or mate, but because they are frail, perhaps soluble, they feel the need to get acquainted first, though they fear the first contact may prove to be corrosive.

The examples we have considered so far have been no more than stars, rosettes, lines, and curves arranged in almost regular structures based on a pattern which though secret may probably be calculated. But there are other nodules free of all rhythm. No arithmetic may be divined in them. Large patches broaden into shining or glittering expanses dotted with shapes like tadpoles or little fishes, salamanders, alchemists' retorts with enormously long necks, strips of seaweed suddenly burgeoning into huge square bladders or volcanic bolts writhing upward and breathing eruption. Sometimes the markings take the form of drag-



Septaria (Germany; 85 × 95 mm)



“Bony monster,” septaria (United States; 113 × 112 mm)

ons like those depicted on the silks of Asia, or spectral acrobats doing entrechats or attempting the splits. Priestesses in sparkling robes sheathing the mystery of their bodies take part in slow ceremonies and almost motionless processions.

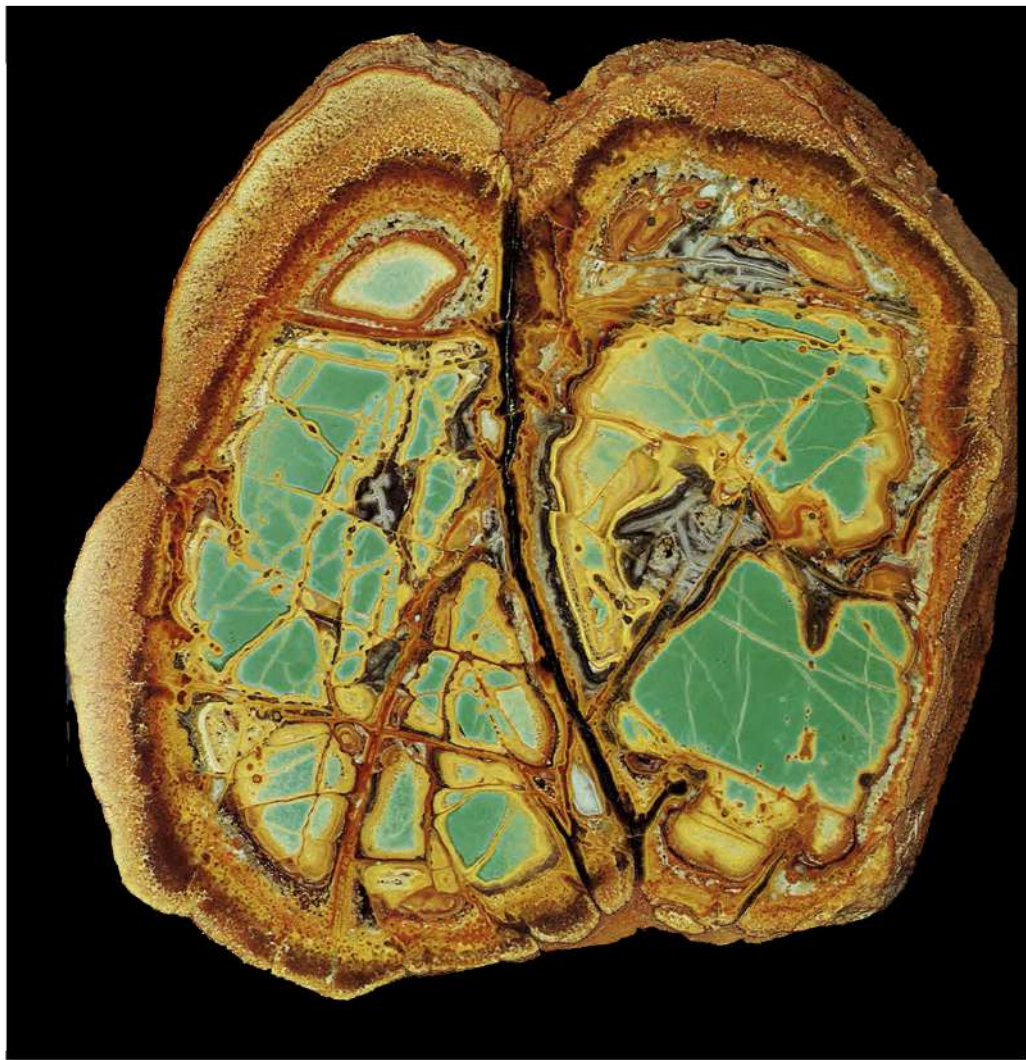
Partly metallized deposits suggest underwater fishermen in harness and helmets brandishing the catch still transfixed on their harpoons; floating phantoms; tightrope-walking demons with eyes on stalks; a whole chilly sabbath of spirits, harpies, and bacilli. Narrow spindles with point downward, sometimes wide apart and sometimes joined together at the fullest of their curves, are divided at the top like the two-headed birds on imperial banners, and part halfway down like mandragoras displaying their sexual organs. They seem both welded and extensible, like the folds of an accordion. You could easily think them about to expand, as if painted on some elastic material just going to be stretched. Long balloons full of grainy sap are joined together and fed through tubes.

The calcite crevices have sometimes been broken up by encountering knots or obstacles and having to find a new path. Fangs, horns, flakes of fire, sickles—all these may supplement or maim them, may either scarify or prolong. By a miracle these tortured effigies are entirely elegant. They produce scenes resembling tournaments, bullfights, and processions; also ele-

mental columns of chromosomes, protozoa, and centipedes.

With the aid of chance or fancy, some of these images recall more precise and familiar forms. These make less demand on the imagination, echoing as they do images in the memory. One specimen undeniably presents a bull, its head turned awaiting the attack, penis tumescent, horns aggressive and eye sockets hollow, cheekbones suggesting the skull beneath the living skin. In another stone a catfish, with moustache bristling and a dorsal fin like a cleaver, has such a swollen head its body looks like a mere appendage. Instead of a tail it waves two diverging streamers, one of which turns absurdly, as if in a dream, into a kind of bird, which in turn is extended by a vast proboscis like that of a hawkmoth.

Nearly all these animals and ghosts and stiff ungainly figures are merely conjectural. The same markings could just as well be identified, as in the onyxes, as the downstrokes and upstrokes of some elaborate calligraphy, or a subtle semblance of writing invented by some mad scribe, in love with shape but above meaning. And indeed the shapes themselves, whatever category they belong to, whether interpreted by the imagination or merely accepted by it as they are, whether they make use of symmetry, rhythm, or repetition, remain essentially forms, possessing what seems an inevitable harmony. Moreover



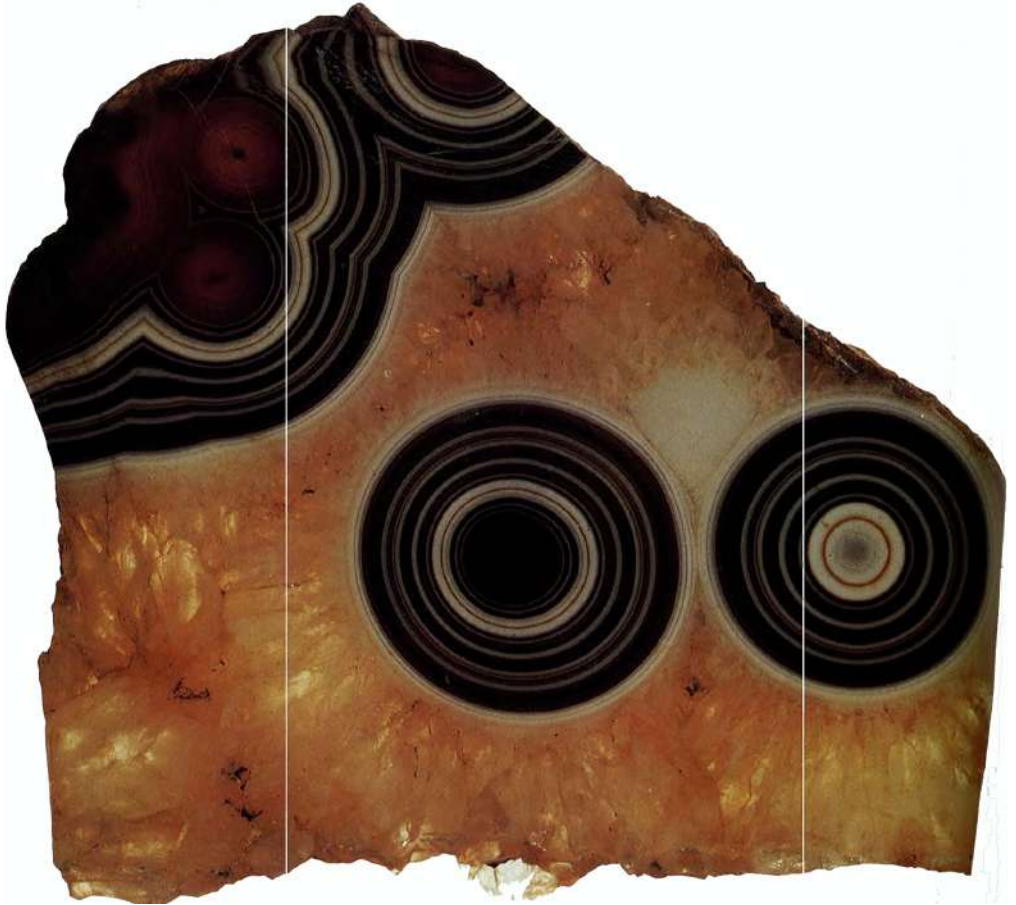
Variscite (Utah, U.S.; 162 × 150 mm)

they occupy the middle of the nodule, with its surface around them like a frame, just as a painter arranges his composition around the center of the canvas which he is careful to separate quite visibly from the surrounding space.

The patterns in septaria consist of strictly plastic equipoises in which nothing is regular, and each of which is as unique and, in a manner of speaking, as personal as a deliberately executed work of art. While in the days of figurative painting connoisseurs used to frame landscape and ruin marbles as parallels to real pictures, nowadays they should certainly choose septaria from among all the other natural forms to compare with many features of contemporary art.

JASPERS AND AGATES

Because they exist in such variety, agates present a great multitude of different images, though all of them are ambiguous and vague like patterns in the clouds. In order to fix them, the imagination has to play its part and cling to the image it has settled on. Moreover, the markings differ according to the kind of mineral they are found in. Similar motifs occur in agates from the same place, so that an experienced



Eye agate (Uruguay; fragment)

connoisseur may deduce the provenance of a specimen from the topography of veins, patches, pockets, and strata revealed by cut and polishing.

The image is often almost abstract and is at its most powerful when based on the elementary geometry of the circle. But—admittedly this caprice is a rare one—an agate will sometimes offer resemblances, suggestions: a hummingbird with an amethyst tail drinking from a flower as it hovers in motionless flight; tracks emerging on to the desert between the sheer sides of a mountain pass; lightning zigzagging across a stormy sky like a caliph's signature or a torturer's whip; green waves or scales or tiles, like the skin of a snake, like the roofs of markets and almshouses in Burgundy, or like the surface of the sea; or again, like a sea of clouds in a Japanese print, with rows of partly overlapping arches shadowing forth an infinity of white horses, the trembling of an aspen, an ebbing, flowing, breathing peace.

Another agate has an image of perfect simplicity: a single white shape on a background of sooty black, a rounded form suddenly rising to a point at the top, on the left. It looks like a little bird coming out of the egg, its body, with the wings still clamped to its side, not yet free of the shell but the young sightless head raised eagerly into the new dimension. As it struggles for its liberty it discovers space, transparency, an invitation to flight. It would have taken a painter of



Scaled jasper (Madagascar; 190 × 154 mm)

genius to invent the marvelously delicate edge of grey that shades the body just where it emerges from its prison, aspiring to the light and divining that it will be able to move through it. This immutable effigy in solid stone depicts a birth that is vain but fixed in a moment, a form and a color that stir the emotions. The strong white shape is echoed in the wider curves, dark, almost imperceptible, in the body of the agate, as if the ambient air were disturbed by the sudden arrival of the new presence. Here is a creature quitting the stony oval which held it captive, crouched in upon itself and at once becoming keen, expectant, avid of the void. It knows it is about to burst forth and glide unaided through the air. And an almost colorless patch, defined by a few sober lines, has been enough to make us witness the miracle.

But likenesses remain farfetched. In most cases the markings to be found in agates provide only a rather unconvincing pretext for reverie. The imagination might just as easily refuse the bait altogether and decline to find a dubious solution to a false enigma. But experience soon shows it is not easy to maintain this aloofness.

However much I tell myself I am only looking at some irregular blue streaks crossing the amazed agate like the tracings made by a seismograph or a barometer gone mad, they still seem to splash up almost to the outer surface of the nodule with the transparency

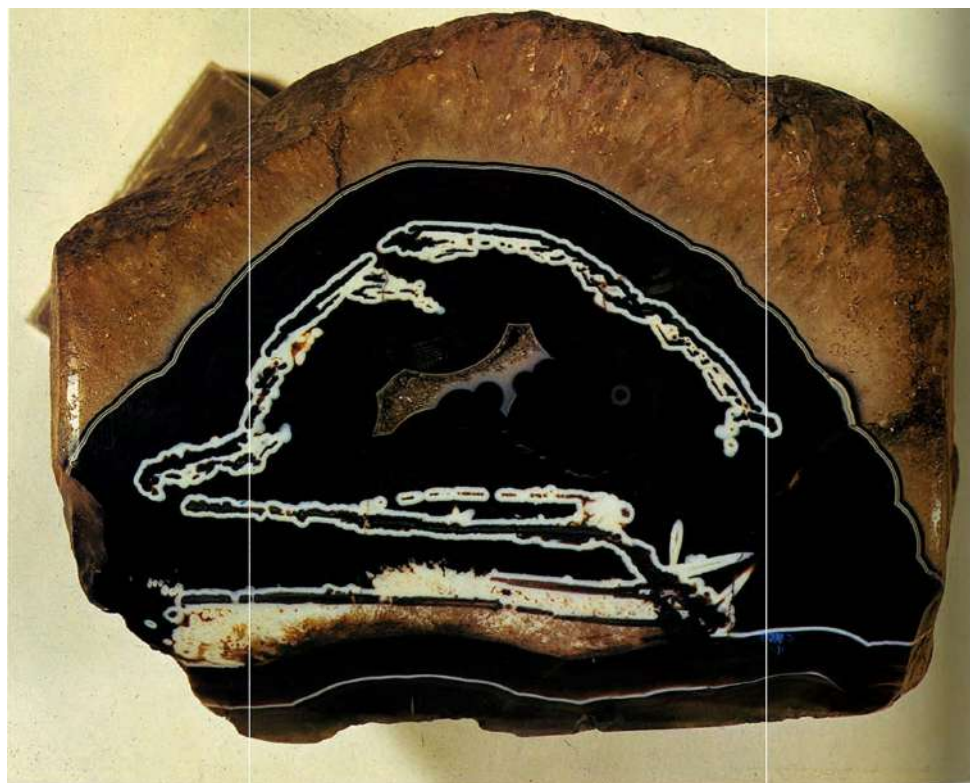
of mead or urine. However often I remind myself that the black undergrowth in the lower part of the cross section is only the usual ramification produced by dendrite of manganese, even while I am reducing things to their chemical constituents I cannot help descrying swathes of arctic light shining meagerly on inky lichens, a puny, struggling vegetation exhausted by rough winds and burned by frost.

Probably no images are utterly silent. Here a thin white line drawn by the finest possible point traces the outline of a perfectly round kidney of onyx: in its night of polished jade it imprisons, sparkling brighter than its own somber surface, the crystals of a frost instinct with darkness. Impossible to say what symbol haunts this primitive diagram, yet the sophisticated allegories from Florence, invented to express a complex relationship beyond words, are far less eloquent.

Onyx, with its dense deep black, is a special substance. It lacks the rich and glassy brilliance of obsidian, and I can well understand why it was not of obsidian but of onyx that an ancient lapidary said it reflected the shadows rather than the images of things. The grain of onyx is so fine that the veins it contains, utterly free though they are, can follow their whims with impeccable precision. In the best examples the lines are so regally sure of themselves that the need to seek for models is abolished. They



"Birth of a bird," chalcedony (Minas Gerais, Brazil; 163 × 132 mm)



“Royal calligraphy,” onyx (Brazil; 115 × 133 mm)

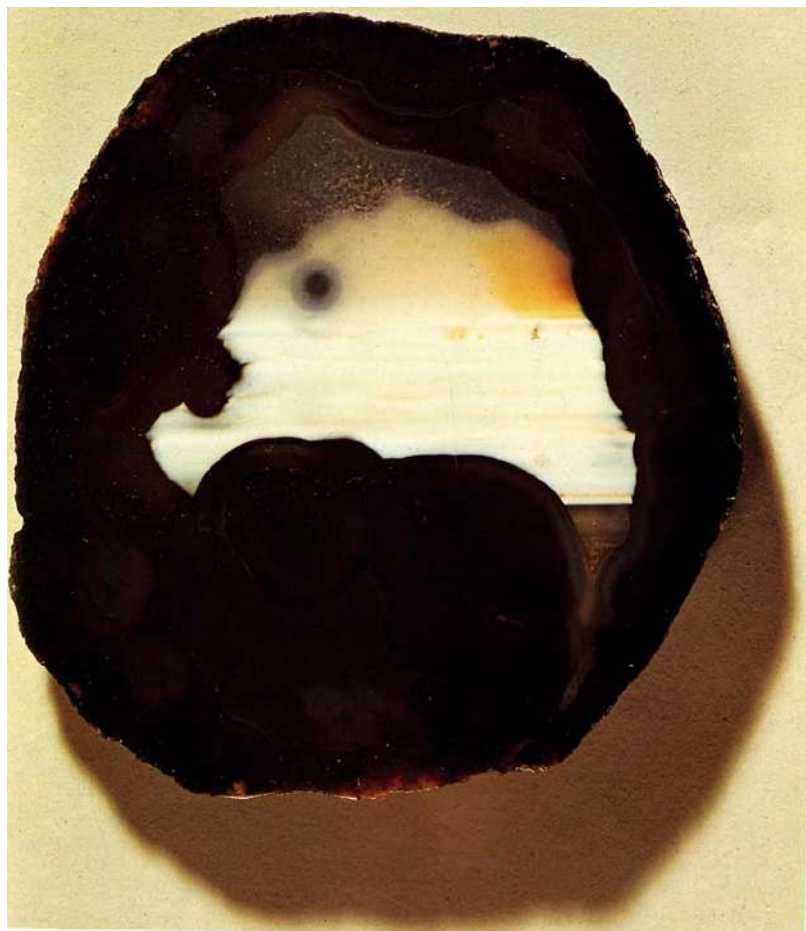
“Calligraphy,” onyx (Brazil; 119 × 138 mm; *top* obverse,
bottom reverse)



express, they represent nothing but their own clarity. Without precedent, without meaning, they simply are—grandly adding to a world of appearances that does not contain their like.

One onyx may resemble, though, a votive stela like those that celebrate the fame of kings. Its shape, emphasized by a double border, is that of an irregular semicircle, set in an ample casket of quartz spines. Standing out against the shimmering dark of the stone, and following the shape of the containing nodule, there are marks like embroidery, suggesting ornamental writing. There are two breaks in the inscription, as if spacing out a brief dedication. The writing is so ornate as to be unrecognizable, like the Arab or Persian calligraphy traced on tiles to proclaim the greatness of God over the gates into the high mosques of Samarkand and Ispahan. But here the script is fluid, inscrutable, furtive, smoothing out the characters instead of sharpening their features: instead of spreading them out in bristling symmetries, panoplies of swords or fans of scimitars, twining them into coiling and uncoiling reptiles.

Suddenly you wonder whether this might not really be writing instead of images of a thousand other things: decorated snakes with gaping jaws as in Aztec fables; pale caterpillars swollen with lymph and latex and eaten up with gangrene; the sinuous, maze-like seams of the skull or in the whorls of the larger



“Ghost,” chalcedony (Brazil; 100 × 95 mm)

ammonites; or, closest comparison of all, the network of thin spikes which makes the king crab's carapace both light and strong.

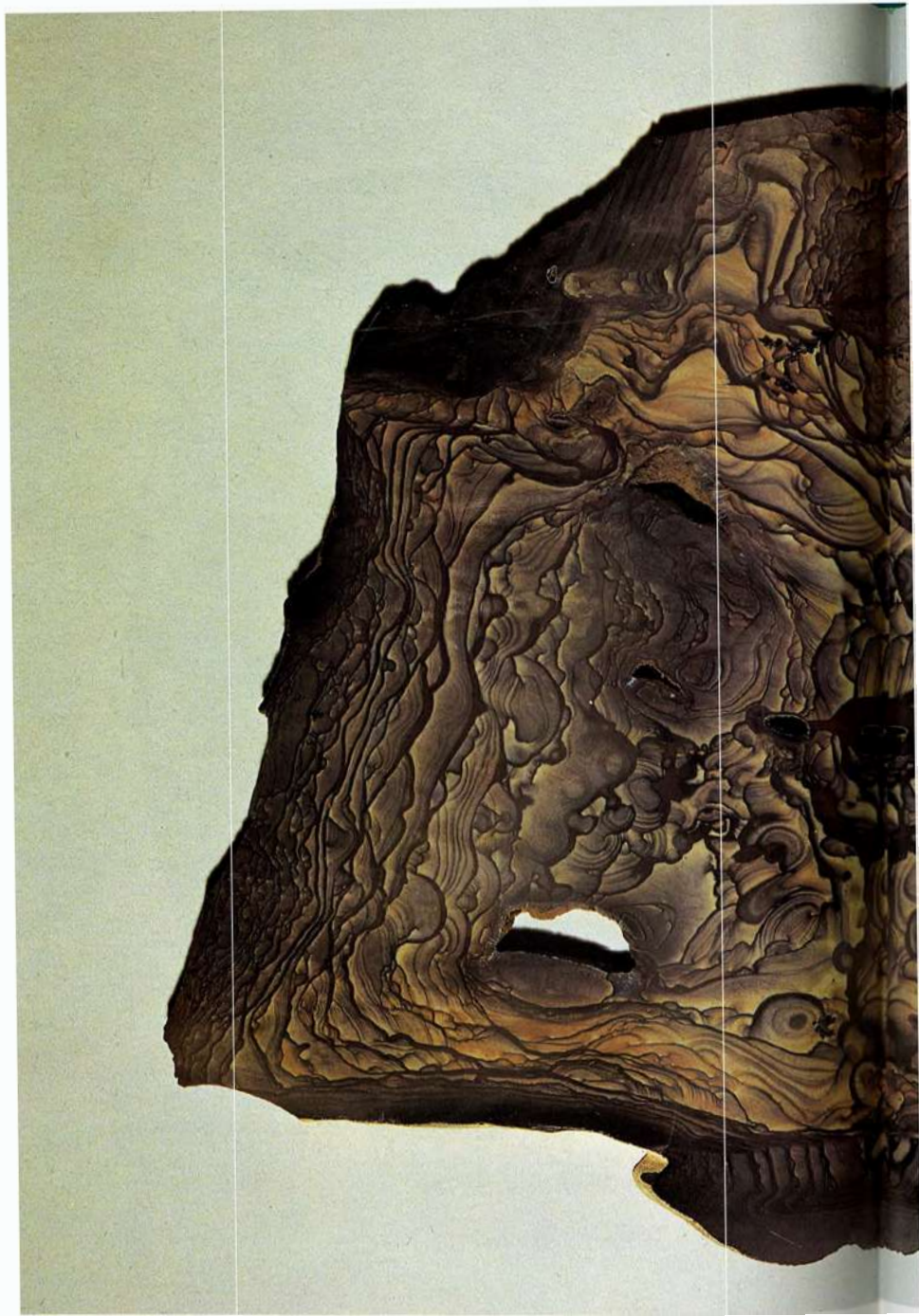
To decipher such writing, if writing it is, would not mean trying to unravel an inextricable mass of lines and loops, but rather endeavouring to interpret anew some oft-repeated signs so turned in upon themselves that they refer only to their own form. In the middle is a larger, plainer motif, perhaps the name to whose hidden splendor the surrounding flourishes, titles, and complimentary epithets bear witness. Between the inscriptions the dark surface of the stone is covered with a tiny intricate pattern of meandering lines, which fill an unfathomable mineral grief with a mysterious shifting life.

But it is not an alphabet: it is a pattern without a message, like the wormholes made by insects in dead wood. One example is the almost closed chink formed by a pair of thin lips, insipid yellowish white against an intensely dark background, like the pale, anemic, reluctant vagina said to have opened in the womb of the Abyss at the beginning of time.

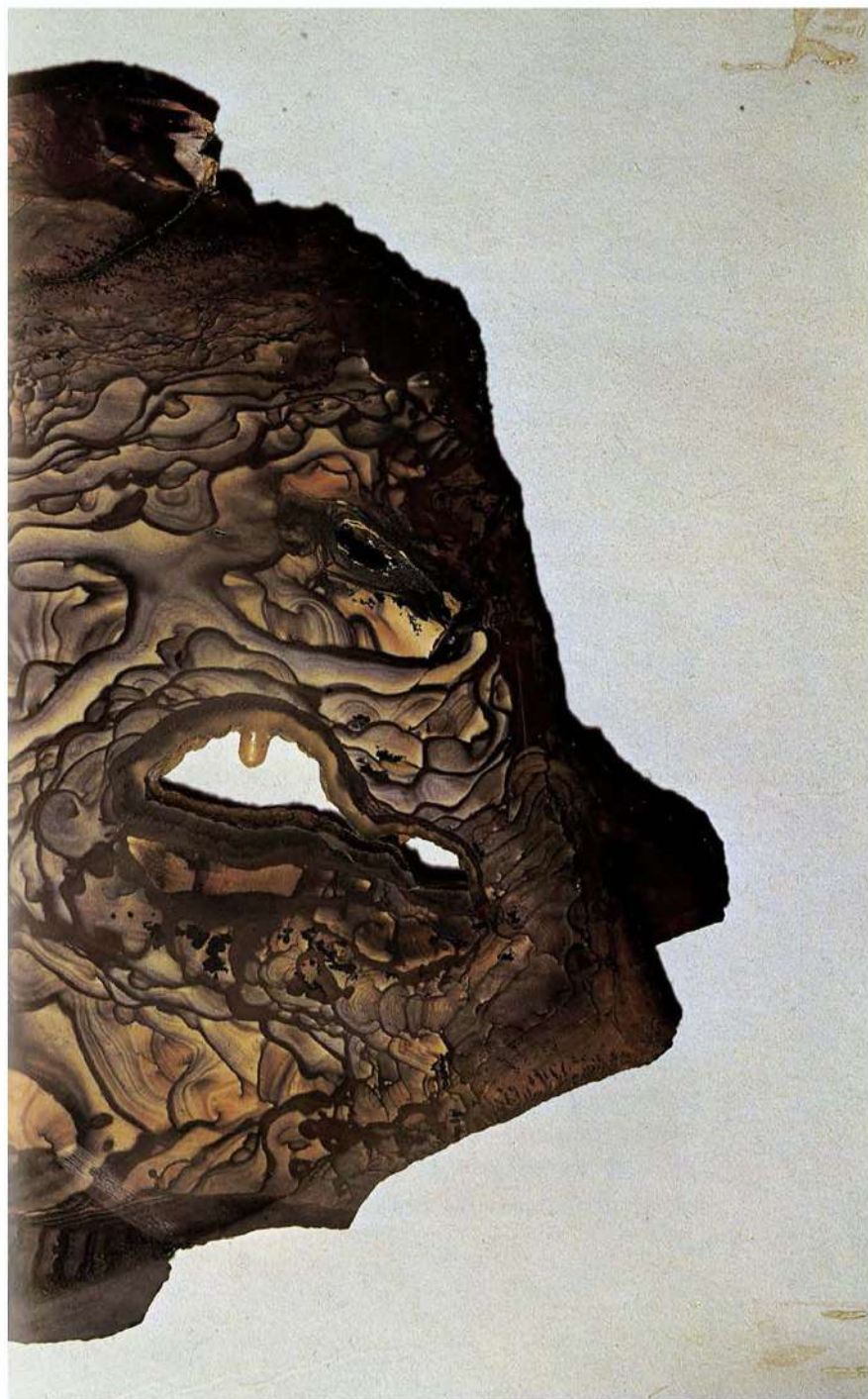
The jaspers of Oregon are probably unrivaled for the almost morbid complexity of their curved designs and their range of contrasting or merging colors: a graphic madness attained by no other mineral. Each one, however small, looks like a colored lithograph, crammed and tumultuous as a picture by a schizo-



"Cleft," onyx (Brazil; 140 × 87 mm)



Jasper (Oregon, U.S.; 195 × 145 mm)



phrenic. There is a continual movement to and fro between pattern and background, background and pattern, though the two are difficult to separate for the shapes in both are similar, the same purplish red predominates in both, and not even the smallest space is left unoccupied. It is the ultimate pin's head, suitably caparisoned.

We have here a universe of scrolls, branches, pleura; from them flayed countenances emerge, muscles laid open in their cavities of bone. There are lopped-off breasts, the mutilation twisting the raspberry nipples aside; there are the bodies of frogs, crucified by the galvanic current, their limbs splayed out by the shock, their skin turned blue and flabby by the violence of the spasm. Elsewhere we find a loose array of small tools, toys, and useful objects: bobbins, spools, shuttles, tops, drawer knobs. In the distance, but still quite near, are dunes, stretches of sand rhythmically modulated by the wind, a screen of hills, a host of weathered peaks with the geological strata bared, fleecy towers as still as tropical clouds. The stone may be purplish blue, lilac colored; yellow turning green; the complete range of a bruise. It may be like a swollen sea of thick, almost solid bubbles, resembling an upsurge of sinister seaweed or an eruption of boils or buboes on an infected skin.

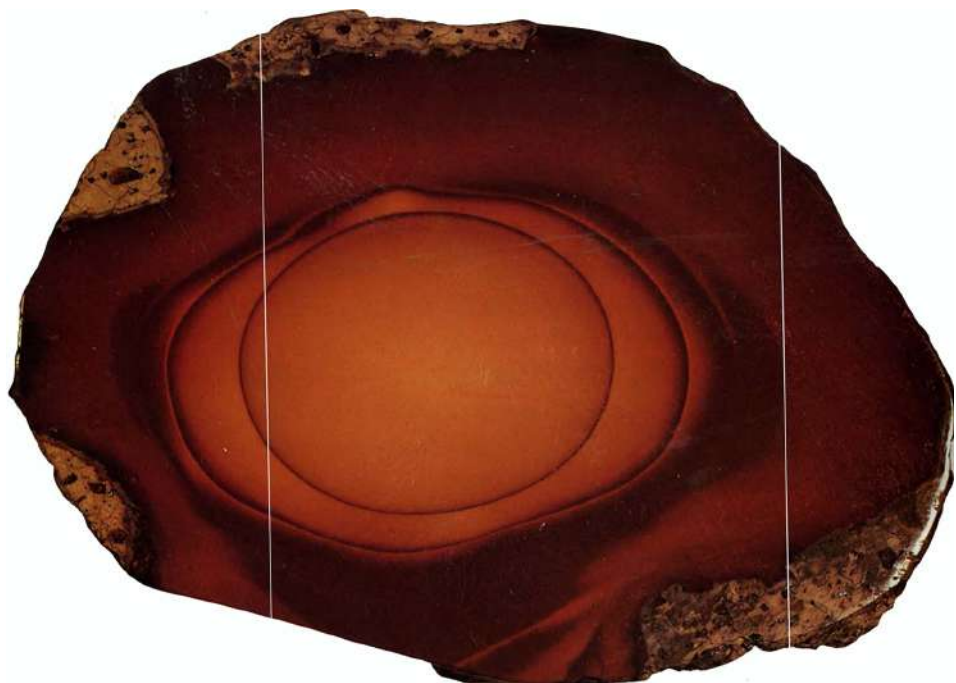
Then again, as if by the adjustment of a viewfinder, the scattered elements let themselves be iden-

tified: we see an eye devoid of lid or lashes, or an empty socket with the freshly removed orb dangling like a wet rag or an oyster torn from its shell; gnarled and ringed phalluses, swollen and purple, without their foreskins, the glans all wrinkled; rotting shell-less mollusks, the color of lichen or of gobs of spit; kneecaps and knuckle bones softened by acid to a cloudy, wobbling jelly; intestinal worms glistening with the biles and juices digesting them; a jumble of passages, rumbling innards, excited vulvas, striated tendons; pale partial globes jointed like the knees and elbows and hips of celluloid dolls.

A mauve and lunatic life, proliferating without law or limit, feverishly breeding tumors and goiters; a ravenous, shifting universe in which details are so clear it is almost endless. Wounded flesh shows how this monstrous realm works, idly limned by imperturbable stone which neither feels nor knows.

Still, it is a charming image, full of invention and surprises, for the easy-going connoisseur who confines himself to color and composition.

At the other extreme the wonder stones of Idaho, a different kind of jasper, are remarkable for their sobriety. In these the pattern often consists of concentric ellipses swelling out on either side of a vertical axis. Where these ellipses seem to overlay one another they are paler, as if superimposition made them fade. The wider they spread, the darker ocher they



“Orbits,” jasper (Idaho, U.S.; 84 × 123 mm)

become, until the outer edges are almost brick red. There are streaks in them which appear even deeper in color than the reddish brown of the background. They proclaim the circuits of planets or electrons around their invisible centers or nuclei; they are an image of the fundamental yet simple law of gravity that links physical bodies together at every level of the universe. They are like the rings of armillary



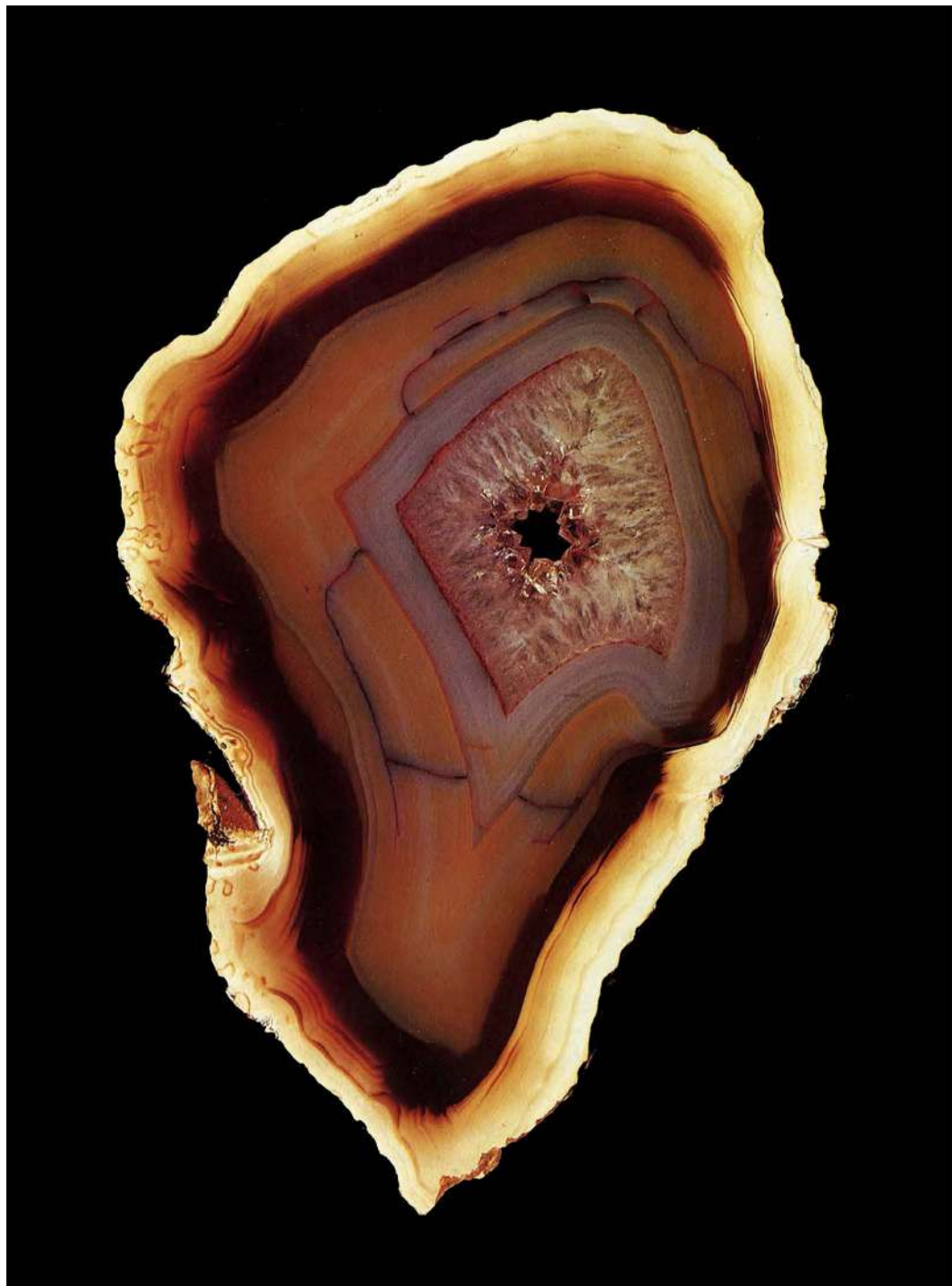
'funeral monument,' agate (Brazil; 70 × 55 mm)

spheres, with their zodiacs and ecliptics and equinoctial zones—bracelets for cosmographers or nuclear physicists. They reflect the phantom revolutions which, alike on a vast and on a microscopic scale, unflaggingly repeat the same pattern. This is the blueprint of nature itself, both hidden and revealed in a nodule of silica, making known the blazon of the universe, the constant figure which governs it in its

entirety. But in order to be moved by the pattern ironically inscribed thus in the heart of a stone, one needs to know already the secret it unveils or recalls, one needs to have learned from scientific works of the thousands of patterns which this one brings together, and without which it would remain what it really is—chance curves providentially assembled by another chance and randomly colored by metallic deposits.

The vision the eye records is always impoverished and uncertain. Imagination fills it out with the treasures of memory and knowledge, with all that is put at its disposal by experience, culture, and history, not to mention what the imagination itself may if necessary invent or dream. So the imagination is never at a loss when it comes to making something rich and compelling out of a subject that might almost seem an absence of all life and significance.

Just as I am about to leave this world of signs, of pretenses, of solicitations either subtle or urgent, one last agate with complex and unusual markings leads me yet further along the road of reverie. The translucent interior of the specimen is enclosed in a shell that is rough and opaque, with the pale beige, hazel, and walnut coloring of silicified wood. Slightly to one



side of the middle of the cross section is a window of quartz needles: these spines are mauve toward the tip, and form around a central hole a sort of diamond, three of whose sides are convex while the last is concave. The scintillating prisms of the quartz are in turn surrounded by a wide band of azure chalcedony, itself edged by a border of red or orange. The diamond seems to emerge somewhat battered: one of the corners is drawn out to a peak, another twisted into a kind of pouch. Around it on all four sides lie a series of closed quadrilaterals outlined thinly in cherry red and royal blue alternately. They never touch the points of the central diamond but proliferate outward briefly and then die out, their lower extremities prolonged by luminous strokes that are swallowed up in the warm confusion and amber smoothness of the agate. They are like rough and broken reflections, among which it is impossible to say which is the original and which the derived image. They simultaneously balance and differ from each other, like the deliberate irregularities in an oriental carpet. The lines that bound them suddenly stop, while the bands in the stone, which they now no longer enclose, go on echoing and relaying the shape of the main diamond until they reach the stone's ligneous periphery. They gradually blur the shape of the central lozenge, but throughout it still governs the quivering symmetry of the whole composition.

It is impossible not to admire the riot of colors, the

magnificence of the material itself. But these are not exceptional in agate. What is surprising is the tortured symmetry, the broken system of angles and polygons striving to achieve an overall pattern: a geometry without the strength to finish what it has begun, an attempt at organization which finds fulfillment only in the structure of the septaria.

The image which results from the combination of those shimmering colors and which ambition, pathetically striving against a substance that thwarts and engulfs it, induces in the beholder the same surprise, almost warning, as that produced by a sea louse, a water scorpion, an anteater, or any other creature left behind at some crossroads of evolution.

One day some bold being invents—or has invented in him—a form which may be valid at the time but which is soon set aside in favor of a simpler and more elegant solution. The brave discovery survives through inexplicable negligence on the part of those stern powers that usually eliminate the fantasies of a moment, even though that moment may last thousands of years. Such forms endure only to bear witness to life's mistakes, to remind nature of its monsters, its botched jobs, its blind alleys.

The strange markings in an agate lead me suddenly into wild extrapolations, seeking, in the obscure workings taking place within a stone at the dawn of time, traces of similar abortions. By their very strangeness the failures they perpetuate become

for me so many speaking portents, or at least emblems. They somehow announce the coming, in the distant future, of a species that makes mistakes, a being in whom freedom and imagination, together with their necessary disappointments, will be more important than successes due to infallible and inevitable mechanics. They presage new powers, imperfect but creative.

Such aberrations exert a special fascination on man. They seem to be manifestations par excellence of what I have ventured to call *natural fantasy*. Perhaps their undeniable, unfailing, and yet mysterious attraction lies in the fact that, through some dim reversal, they assert the right a doomed nature has won to the gratitude of its latest, grudging heir.

Man has unknowingly inherited a capital made up of immemorial audacities, unsuccessful risks, and ruinous wagers, an endeavor which though for long persisted in vain was one day to foster in him a new, rebellious grace, combining hesitation, calculation, choice, patience, tenacity, and challenge. I can conceive of some divinity, some total intelligence that is panoramic in the widest sense of the word, capable of contemplating in one purview this infinity of vicissitudes and their inextricably complex interactions. Such hypothetical cosmic consciousness would not be surprised at the existence of a lasting and inalienable collusion between this series of fertile abortions and



Chalcedony (Rio Grande do Sul, Brazil; 94 × 92 mm)

their ultimate beneficiary. It would seem to it inevitable that a secret affinity should allow the heir to recognize, among the daunting mass of nature's ventures, those which, though they did not succeed, opened up for him, through their very failure, a glorious way ahead.

LIMESTONES FROM TUSCANY

The whole surface of this specimen of graphic limestone is crisscrossed with long, tapering triangles and quadrilaterals of extraordinary clarity. Of every shade from buff to brick, they suggest great polygonal grasshoppers packed close together and intermingled, wing cases whirring and long legs splayed, the head of one clinging to the abdomen of another. The voracious swarm of tangled insects

Limestone (Tuscany; 60 × 170 mm)



looks like a wallpaper design, recalling those carved ivory balls from Japan, covered with a mass of rats or crabs devouring one another in a perfect, spherical and horrid continuity. But here all is flat, angular, and diagonal.

Running across the welded heap of bodies, sometimes separating them with a bold stroke, then suddenly piercing them right through, is a web of thin lines like nerves or stiffened arteries, the thinnest metallized, the others made up of tiny crystals. They are mat and dull so long as they do not reflect light, but as soon as the stone is placed so that it catches a beam, the network of lines lights up. Among those crickets, packed like sardines, speeds hair-fine electricity. A cat-o'-nine-times-nine-tails laps them in its supple lashes, its darts of mercury. The whole surface flashes. So, in mountain country when the snow

Graphic limestone (Tuscany; 254 × 236 mm)



melts, meadows are streaked with springs rushing down from the shadowy hollows where the névé forms. It is a fiesta of droplets and foam, a wild rush of silver in a panic rush downward, leaping, wearing itself out, soaked up slowly at last by an already saturated earth. But on the polished surface of the stone no exhaustion lies in wait for this multitude of fiery rills. One gesture sends them to sleep, another re-awakens them: the spring sparkles and splashes anew, an incandescent lava fretting its ardent way through tenuous furrows yielded by the stone's fine resistance.

Above this tissue of light, in a small space sheltered from the oblique rain, is a distant disk, a minute spot of dull leaden hue imaging a melancholy Saturn.

The surface of the stone is not always striped in this way with violent diagonals like stinging showers driven by hostile gusts, and weirdly polarizing the light. Other types of Tuscan limestone, also related to ruin marbles, sometimes depict what look like elaborate landscapes. They show misty forests of tall pines like those in the paintings of Böcklin, but half obscured by the vapors of dawn, dimmed by a magical, ghostly haze. Others show wild and withered

“Scrub,” limestone (Italy; 124 × 265 mm)



clearings invaded by scrub, with short tufts of scrawny grass growing up between the pebbles. Above these stubborn thickets a desolate sky is flecked with slanting black hail. Other examples have only languid patches slowly spreading and changing color as they do so, like tars or mineral oils of different densities. Sometimes stones with triangular markings or patterns resembling vegetation present extreme examples of the tricks minerals play on the imagination. I shall try to describe an example of each of these two kinds, in which the image is a kind of mirage. The illusion—in the one case, of a castle; in

the other, of a portrait—is so precise, detailed, and compelling, yet at the same time so improbable, that the beholder feels drawn to try to analyze the mechanism that produced it.

THE CASTLE. The outline of a huge, shining brown castle stands out against a pale sepia background. This background becomes mat in an oblique light, while the building shimmers with an almost metallic brightness. The values change, but the shapes remain the same. Deep ramparts link the different parts of the edifice, in the middle of which a stepped tower dominates the rest. What we see is a cross section, without thickness or perspective, a mere elevation of the imaginary building. Whatever height one attributes to it, it is still looked down upon, overshadowed, by the broad, drooping leaves of great tree ferns, unfurling their lovely lace high above the towers. The beholder wonders what tropical vegetation can have grown such enormous foliage, making a palace look like a doll's house. The eye hesitates; not knowing which scale to choose, it alternately magnifies the fern and diminishes the building. Some birds are eddying about in the right-hand part of the sky; to the left there is only one bird, but a huge one,

with wings outspread and neck pointed earthward, about to swoop down on the irregular parapets and the strange figures moving among them.

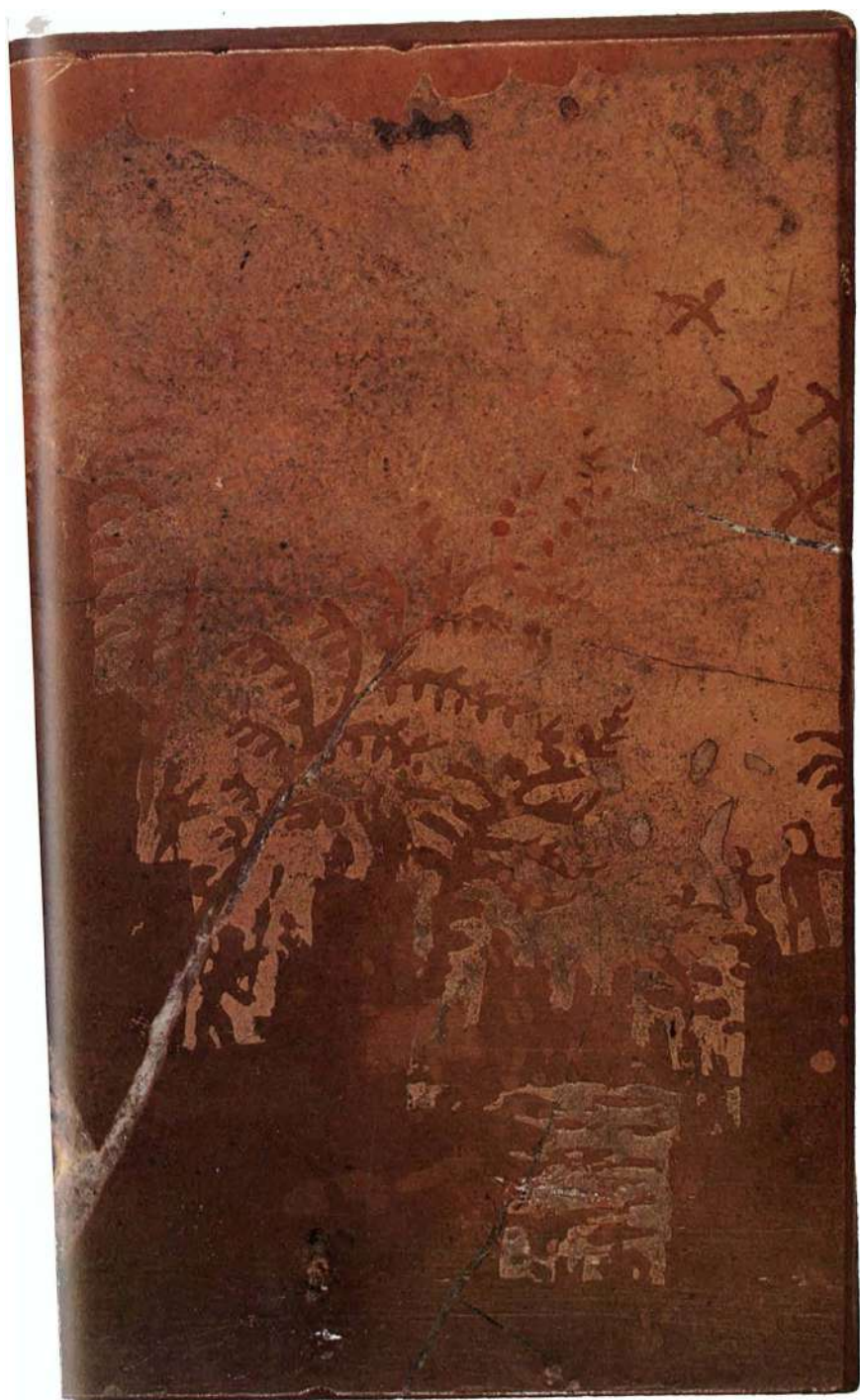
For the castle is inhabited: on every parapet, in every moat and window, climbing up the walls, are parallel shapes all facing in the same direction and frozen in the same attitude. These clearly defined though clumsy figures, like the little men children draw, all stand in silhouette, facing to the right, stretching their arms out in front of them as if they were blind, reaching into space or toward the nearest wall. They too are only cutouts, as in a shadow show, and their lack of depth adds to the unreality of the scene. What are these flat creatures looking at? Where are they going? Is their attitude one of pro-



“The castle,” limestone with dendrites (provenance unknown; 47 × 52 mm), original size

“The castle,” limestone with dendrites (provenance unknown; 47 × 52 mm), enlargement





rection or of prayer? On the far right there is a kind of bridge, and beyond it the only figure different from the rest seems to be waiting for them. This shape is not seen in profile, and a patch of white gives it the rudiments of a face. The whole scene is rent three times by heaven's bolt, as the crazy universe is struck through by a white zigzag of lightning.

This stone looks just like a picture. Everyone to whom I have shown it has at first taken it for the work of some naive or unskilled painter, a child or a tyro. Only when you examine it closely do you perceive that it is a kind of natural picture. Some people even then find it hard to accept and think it must be a cheat, so inconceivable does it seem that chance alone could produce something so similar to the work of man. But in fact there is nothing, or almost nothing, prodigious in the elements that make up the image here. The "giant ferns" are merely dendrites (though admittedly in an unusual form) such as may be found in abundance in many minerals. The "birds" may be reduced to cruciform markings. The lines suggesting broken façades are not so precise and evocative as those recalling ruined cities in the Florentine marbles.

Only the little men are really astonishing. Simultaneously alike and different, all of them stand solidly on both feet, head high, arms either exploring space or bearing some invisible offering. Their shape is well defined and can only suggest a human form. The strangest thing about them is perhaps that the silhou-

ette is repeated, and that every time its feet are on the ground, while the body stands out entirely vertical in the middle of an empty rectangular space like a window or a door.

This is really the only truly amazing coincidence here, and even it is not inexplicable: for it is never impossible, it is even inevitable, that one form should resemble another. Admittedly in this case the form—the human body—gets special treatment: it appears not once but ten times, always in the same attitude and always enhanced by a frame. It is this that gives rise to doubt, to the persistent idea that only deliberate design could explain such a pattern.

We have now pinpointed the oddity around which the rest of the interpretation has organized itself: the ferns, the palace, the birds, and the lightning, this last just an ordinary veining that might be found in any piece of marble.

Here is neither miracle nor mystery, just an extraordinary combination of signs which have no meaning but which are swiftly given a meaning that the ensnared imagination finds it hard to withhold.

THE PORTRAIT. Diverging lines fragment the surface of the stone without impairing its continuity, breaking it up into sections that juxtapose different shades

of the same color, usually beige, green or black. As the lines emanate from several different points and are contained in a very small space, they soon intersect, making an irregular web of triangles, trapeziums, and diamonds, some slightly darker and some slightly paler. It is as if light were an artist, subtly yet capriciously trying out the range of its own intensities.

Nature usually contents itself with a chaos of lines and angles overlapped and overlapping. Their thrust, at once parallel and athwart, suggests the idea of sea waves or mountain peaks, as represented in simplified form by a geometrician trying to understand the laws governing their rhythm—a kind of diagram, as of a man walking, a horse galloping, or a *Nu descendant l'escalier*.

Sometimes the lines are scarcely visible. Confused patches of green lining valley slopes depict mist-shrouded forests beneath a grey sky. As the structures are always rectilinear, a rarer chance may bring forth human faces, like those portraits in which the painter has tried to disassemble his model's features in order to reconstruct a resemblance in terms of straight lines, salient and reflex angles, and simple polygons. It is an unlikely phenomenon, but it does occur. It only remains to see how.

I have before me, captured in stone, a face that attempts the exploit described above. It stands out in



three-quarter profile, grey against an ochre background. The slab is thin, yet on the other side the image has already started to grow dim and indistinguishable. But on this side the face, beneath its hood or felt hat, is crude, sharp, rough hewn as if by some rustic image maker. The semblance of a portrait is the result of a complex cross-hatching of the available space. Some unbroken lines cut right across the width, most of them veering slightly to the right. The highest one divides the lower part of the headgear from the shadow it casts over the eyes. The lower ones enclose the bust, between the shoulders and the waist, where the grey pigmentation stops. Between the two zones thus delimited, diagonals outline the steep planes of a haughty visage. The only areas pigmented with grey are those lying between on the one hand the almost parallel lines marking out the different levels of the portrait area and, on the other, the slanting lines coming up from the base and cutting across the others like the spokes of a fan.

A third set of lines come from the four sides of the stone, thrusting strange beveled tracings right into the central grey area. It is this finer, encroaching network which, by inserting its spears into the ash-colored part, suggests the contours of a face. A bright yellow streak thus separates the square chin from the line of the shoulders, stiff under starch or armor. Another of these secondary lines emphasizes the prominence of the nose; another darkens the eyebrow and

socket above the only visible eye; a fourth indicates the near right angle between the slope of the cheek and the terrible lower jaw, the quintessence of obstinacy and disdain. Others, less clear, suggest the meager white shape of bloodless lips. Together these lesser lines mark out the lights and shades that give the dust-colored countenance modeling and life.

Here again, no miracle. The portrait is the result of a composition formed by several series of straight lines variously oriented. Their random intersections form cells of different shapes and sizes. A second chance complements the first, and the central boxes are colored grey by metallic salts suspended in the limestone and compartmented by delicate seams in the stone. Hence the contrast between the colors on either side of the bolder lines defining the main motif. The third and by no means the least chance, infinitely improbable though much less so than that of the monkeys typing out the *Odyssey*, is that which makes the image resemble a person in some sort of hat and ample cloak.

The shape is impressive, of course, but hardly more so than those one suddenly identifies in the clouds, where the eye recognizes one after the other giants, animals, and battles. So far, then, nothing out of the ordinary. But at this point two new factors intervene. First, in the clouds and elsewhere the likenesses, as I have said, are elusive. The incalculable chance that produces them is never more than a fast

or slow succession of unstable states, shifting shapes which fade away as soon as seen. The beholder who catches them on the wing knows they are going to escape. The appearance he was beginning to identify changes, dissolves, and in the time it takes to recognize one image a second and a third, as vague as the first, are born and in their turn disappear. It was all a dream. The insubstantial marvel was impossible to grasp; it was not a marvel at all. Its brief manifestation was too fleeting for it to make an impression on the memory. It lacked duration, presence, existence even. Is it certain it was ever there at all? It remains a dream or an illusion, like a fleeting reflection on watered silk. Wonder can only arise and increase when a spectacle endures, survives perception, and is ultimately seen to be less transient than the ephemeral being who came upon it.

But in a stone the image—every image—is fixed, as if the thickness of the mineral preserved the cloud, the flame, or the waterfall at every moment of its kaleidoscopic metamorphosis. Each image is an immortal witness, recorded for a long period of time: forever, measured against the brief human season. So all one has to do is get hold of an outstanding example, by trial and error or the favor of fate. The flowing currents have suddenly become motionless, all of them paralyzed, indestructible, though within reach of the cutting diamond or the polishing wheel. Now the stone has only to be cut and buffed, though

this must be done along the best axis and just to the point where the marking yields its utmost.

A careful Florentine craftsman divided the stone I am now thinking of—the portrait stone—into thin layers so as to be able to follow the changes in the markings. Just once the saw went through in the right place. Just once it revealed on either side the phantom portrait which had been hidden for thousands of years and which is only a portrait, or even a sign, if the beholder collaborates. Before and after it is but an indistinct image in the process of becoming another image, another portrait or perhaps, as in the previous specimen, a hallucination of palaces, ferns, birds, and Lilliputians.

What we are dealing with is an illusion not merely of a human face but of a picture, that is, of a human creation depicting a human face. The impression that what we are looking at is a picture derives from the presence of a kind of frame, perfectly represented by an almost regular fringe of dendrites. Although they are uneven and interrupted their fine sprays nevertheless border the unyielding shape of the rectangular stone as if they were meant to enclose and enhance a real painting. A further refinement is that almost all the way round a thin line separates them from the background of what one is tempted to call the work itself.

This is no supreme coincidence or revelation. Between the angular effigy and a human face as per-



ceived by the eye there is a distance: the so-called portrait is composed entirely of intersecting straight lines. But this only reinforces the analogy with works by such painters as Villon, Picasso, Braque, Juan Gris, Marcoussis and many others who, at one point at least in their careers, set themselves the task of dismantling the objects they perceived, and especially faces, and reconstructing them in terms of volumes and elementary planes. Just as, during a truce, nego-

Limestone (Tuscany; 116 × 140 mm)

tiators meet in no-man's-land, so here a network of rigid lines comes together after a thousand anonymous and indifferent hazards to depict a face, echoing a structure deliberately invented by an artist so as to rebuild a living countenance in terms of abstract laws.

This sort of coincidence is not an illusion; it is a warning, a signal. It bears witness to the fact that the tissue of the universe is continuous, and that in the vast labyrinth of the world there is no point where apparently incompatible paths, from antipodes much farther apart than those of geography, may not intersect in some common stela, bearing the same symbols and commemorating unfathomable yet complementary pieties.

The face is merely an accident. Yet another kind of sign would not have been so eloquent. I meditate upon its furtive, shimmering lights and shades; on the interplay of parallels and obliques; on the geometry first set forth and discovered by an ancient caprice. A chance created it, this unpredictable precursor of what would one day be the fragile human face, itself not at all indispensable to the world's variety: by another chance, it too might never have emerged from the infinite reservoir of forms. Who knows whether this tumult of triangles inscribed in stone, first brought about by nature and then invented by art, does not contain one of the secret cyphers of the universe?

At such moments it seems to me I see why these

images exert such a powerful fascination over the mind; I seem to detect the underlying reasons for the unwearying and irrational zeal that makes man give a meaning to all appearances devoid of it, to look for parallels everywhere, and to create them where they do not already exist. I see the origin of the irresistible attraction of metaphor and analogy, the explanation of our strange and permanent need to find similarities in things. I can scarcely refrain from suspecting some ancient, diffused magnetism; a call from the center of things; a dim, almost lost memory, or perhaps a presentiment, pointless in so puny a being, of a universal syntax.

ENTER LIFE: THE OTHER WRITING

Life appears: a complex dampness, destined to an intricate future and charged with secret virtues, capable of challenge and creation. A kind of precarious slime, of surface mildew, in which a ferment is already working. A turbulent, spasmodic sap, a pre-sage and expectation of a new way of being, breaking with mineral perpetuity and boldly exchanging it for

"Enter life," belemnites (112 × 190 mm)



the doubtful privilege of being able to tremble, decay, and multiply.

Obscure distillations generate juices, salivas, yeasts. Like mists or dews, brief yet patient jellies come forth momentarily and with difficulty from a substance lately imperturbable: they are evanescent pharmacies, doomed victims of the elements, about to melt or dry up, leaving behind only a savor or a stain.

It is the birth of all flesh irrigated by a liquid, like the white salve that swells the mistletoe berry; like the semisolid in the chrysalis, halfway between larva

and insect, a blurred gelatin which can only quiver until there awakens in it a wish for a definite form and an individual function. Soon after comes the first domestication of minerals, the few ounces of limestone or silica needed by an undecided and threatened substance in order to build itself protection or support: on the outside, shells and carapaces, and on the inside, vertebrae that are immediately articulated, adapted, and finished down to the last detail. The minerals have changed their employ, been drawn from their torpor, been adapted to and secreted by life, and so afflicted with the curse of growth—only for a brief spell, it is true. The unstable gift of sentience is always moving from place to place. An obstinate alchemy, making use of immutable models, untiringly prepares for an ever-new flesh another refuge or support. Every abandoned shelter, every porous structure combines to form, through the centuries and the centuries of centuries, a slow rain of sterile seeds. They settle down, one stratum upon another, into a mud composed almost entirely of themselves, a mud that hardens and becomes stone again. They are restored to the immutability they once renounced. Now, even though their shape may still occasionally be recognized in the cement where they are embedded, that shape is no more than a cipher, a sign denoting the transient passage of a species.

Unceasingly the microscopic roses of diatoms, the minute lattices of radiolaria, the ringed cups of corals

like tiny bony disks with countless thin spikes resembling circles of converging swords, the parallel channels of palms, the stars of sea urchins—all sow seeds in the depths of the rock: the seeds of symbols for a heraldry before the age of blazons.

Meanwhile the tree of life goes on putting out branches. A multitude of new inscriptions is added to the writing in stones. Images of fishes swim among dendrites of manganese as though among clumps of moss. A sea lily sways on its stem in the heart of a piece of slate. A phantom shrimp can no longer feel the air with its broken antennae. The scrolls and laces of ferns are imprinted in coal. Ammonites of all sizes, from a lentil to a millwheel, flaunt their cosmic spirals everywhere. A fossil trunk, turned jasper and opal like a frozen fire, clothes itself in scarlet, purple, and violet. Dinosaurs' bones change their petit-point tapestries into ivory, gleaming pink or blue like sugared almonds.

Every space is filled, every interstice occupied. Even metal has insinuated itself into the cells and channels from which life has long since disappeared. Compact and insensible matter has replaced the other kind in its last refuge, taking over its exact shapes, running in its finest channels, so that the first image is set down forever in the great album of the ages. The writer has disappeared, but each flourish—evidence of a different miracle—remains, an immortal signature.

