Thirty years since its first publication in English, French philosopher Gaston Bachelard's *Poetics of Space* remains one of the most appealing and lyrical explorations of home. Bachelard takes us on a journey, from cellar to attic, to show how our perceptions of houses and other shelters shape our thoughts, memories, and dreams.

"A magical book. . . . *The Poetics of Space* is a prism through which all worlds from literary creation to housework to aesthetics to carpentry take on enhanced—and enchanted—significances. Every reader of it will never again see ordinary spaces in ordinary ways. Instead the reader will see with the soul of the eye, the glint of Gaston Bachelard."

—From the new Foreword by John R. Stilgoe

Gaston Bachelard (1884–1962) was one of Europe's leading philosophers. He is also the author of *The Psychoanalysis of Fire* and *The Poetics of Reverie*.

John R. Stilgoe is professor of visual and environmental studies at Harvard University and author of *Borderland: Origins of the American Suburbs*. 
The concept that corresponds to a shell is so clear, so hard, and so sure that a poet, unable simply to draw it and, reduced rather to speaking of it, is at first at a loss for images. He is arrested in his flight towards dream values by the geometrical reality of the forms. And these forms are so numerous, often so original, that after a positive examination of the shell world, the imagination is defeated by reality. Here it is nature that imagines, and nature is very clever. One has only to look at pictures of ammonites to realize that, as early as the Mesozoic Age, mollusks constructed their shells according to the teachings of a transcendental geometry. Ammonites built their homes around the axis of a logarithmic spiral. (A very clear account of this construction of geometrical forms by life may be read in Monod-Herzen's excellent book.)

A poet naturally understands this esthetic category of life, and Paul Valéry's essay *Les coquillages* (Shells) fairly glows with the spirit of geometry. For Valéry: "A crystal, a flower or a shell stands out from the usual disorder that characterizes most perceptible things. They are privileged forms that are more intelligible for the eye, even though more mysterious for the mind, than all the others we see.

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indistinctly."¹ For this poet, whose thinking was essentially Cartesian, a shell seems to have been a truth of well solidified animal geometry, and therefore "clear and distinct." The created object itself is highly intelligible; and it is the formation, not the form, that remains mysterious. As to the form it would eventually assume, a vital decision governed the initial choice that involved knowing whether the shell would coil to the left or to the right. This original vortex has provoked endless commentary. Actually, however, life begins less by reaching upward, than by turning upon itself. But what a marvelously insidious, subtle image of life a coiling vital principle would be! And how many dreams the leftward oriented shell, or one that did not conform to the rotation of its species, would inspire!

Paul Valéry lingered long over the ideal of a modeled, or carved object that would justify its absolute value by the beauty and solidity of its geometrical form, while remaining unconcerned with the simple matter of protecting its substance. In this case, the mollusk's motto would be: one must live to build one's house, and not build one's house to live in.

However, in a second stage of his meditation, Valéry becomes aware of the fact that a shell carved by a man would be obtained from the outside, through a series of enumerable acts that would bear the mark of touched-up beauty; whereas "the mollusk exudes its shell" (loc. cit. p. 10), it lets the building material "seep through," "distill its marvelous covering as needed." And when the seeping starts, the house is already completed. In this way Valéry returns to the mystery of form-giving life, the mystery of slow, continuous formation.

But this reference to slow formation is only one stage of his meditation, and his book is an introduction to a museum of forms. The collection is illustrated with watercolors by Paul-A. Robert who, before he started to paint, had prepared the object by polishing all the valves. This delicate polishing laid bare the roots of the colors, which


made it possible to participate in a will to color, in the very history of coloration. And at this point the house turns out to be so beautiful, so deeply beautiful, that it would be a sacrilege even to dream of living in it.

II

A phenomenologist who wants to experience the images of the function of inhabiting must not be subject to the charms of external beauty. For generally, beauty exteriorizes and disturbs intimate meditation. Nor can a phenomenologist follow for long the conchologist, whose duty it is to classify the immense variety of shells, and who is looking for diversity. However, a phenomenologist could learn a lot from a conchologist, if the latter were to share with him his own original amazement.

For here too, as with nests, enduring interest should begin with the original amazement of a naïve observer. Is it possible for a creature to remain alive inside stone, inside this piece of stone? Amazement of this kind is rarely felt twice. Life quickly wears it down. And besides, for one "living" shell, how many dead ones there are! For one inhabited shell, how many are empty!

But an empty shell, like an empty nest, invites day-dreams of refuge. No doubt we over-refine our daydreams when we follow such simple images as these. But it is my belief that a phenomenologist should go in the direction of maximum simplicity. And therefore I believe that it is worthwhile proposing a phenomenology of the inhabited shell.

III

The surest sign of wonder is exaggeration. And since the inhabitant of a shell can amaze us, the imagination will soon make amazing creatures, more amazing than reality, issue from the shell. In Jurgis Baltrusaitis's fine volume entitled: Le moyen âge fantastique, we find reproductions of antique jewels in which "the most unexpected animals: a hare, a bird, a stag, or a dog, come out of a shell, as from
indistinctly."^ For this poet, whose thinking was essentially Cartesian, a shell seems to have been a truth of well solidified animal geometry, and therefore "clear and distinct." The created object itself is highly intelligible; and it is the formation, not the form, that remains mysterious. As to the form it would eventually assume, a vital decision governed the initial choice that involved knowing whether the shell would coil to the left or to the right. This original vortex has provoked endless commentary. Actually, however, life begins less by reaching upward, than by turning upon itself. But what a marvelously insidious, subtle image of life a coiling vital principle would be! And how many dreams the leftward oriented shell, or one that did not conform to the rotation of its species, would inspire!

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out of a magician's hat."¹ This comparison with a magician's hat will be quite useless to anyone who takes up his position in the very center where images develop. When we accept slight amazement, we prepare ourselves to imagine great amazement and, in the world of the imagination, it becomes normal for an elephant, which is an enormous animal, to come out of a snail shell. It would be exceptional, however, if we were to ask him to go back into it. In a later chapter, I shall have an opportunity to show that, in the imagination, to go in and come out are never symmetrical images. "Large, free animals escape mysteriously from some small object," writes Baltrusaitis, and he adds: "Aphrodite was born in these conditions."² Beauty and magnitude cause spores to swell. As I shall show later, one of the powers of attraction of smallness lies in the fact that large things can issue from small ones.

Everything about a creature that comes out of a shell is dialectical. And since it does not come out entirely, the part that comes out contradicts the part that remains inside. The creature's rear parts remain imprisoned in the solid geometrical forms. But life is in such haste when it comes out that it does not always take on a designated form, such as that of a young hare or a camel. Certain engravings show strangely mixed creatures, as in the case of the snail shown in this work by Baltrusaitis (p. 58), "with a bearded human head and hare's ears, wearing a bishop's mitre, and with four animal feet." The shell is a witch's cauldron in which bestiality is brewing. According to Baltrusaitis, "Les Heures de Marguerite de Beaumé" are full of grotesque figures of this kind. Several of them have discarded their shells and remained coiled in the form of the shell. Heads of dogs, wolves and birds, as well as human heads, are attached directly to mollusks." And so, unbridled, bestial daydream produces a diagram for a shortened version of animal evolution. In other words, in order to achieve grotesqueness, it suffices to abridge an evolution.

And the fact is that a creature that comes out of its shell suggests daydreams of a mixed creature that is not only "half fish, half flesh," but also half dead, half alive, and, in extreme cases, half stone, half man. This is just the opposite of the daydream that petrifies us with fear. Man is born of stone. If in C. G. Jung's book Psychologie und Alchemie, we examine closely the figures shown on page 86, we see Melusines, not the romantic Melusines that spring from the waters of lakes, but Melusines that are symbols of alchemy, who help us to formulate dreams of the stone from which the principles of life are said to come. Melusine actually comes forth from her scaly, gravelly tail, which reaches back into the distant past, and is slightly spiraled. We have not the impression that this inferior being has retained its energy. The tail-shell does not eject its inhabitant. It is rather a matter of an inferior form of life having been reduced to nothing by a superior one. Here, as elsewhere, life is energetic at its summit. And this summit acquires dynamism in the finished symbol of the human being, for all dreamers of animal evolution have man in mind. In these drawings of alchemical Melusines, the human form issues from a poor, frayed form, to which the artist has devoted little care. But inertness does not incite to daydreaming, and the shell is a covering that will be abandoned. The forces of egress are such, the forces of production and birth are so alive, that two human beings, both wearing diadems, may be seen half emerged from the formless shell, in figure 11 of Jung's book. This is the "doppelköpfe," or two-headed Melusine.

All of these examples furnish us with phenomenological documents for a phenomenology of the verb "to emerge," and they are all the more purely phenomenological in that they correspond to invented types of "emergence." In this case the animal is merely a pretext for multiplying the images of "emerging." Man lives by images. Like all important verbs, to emerge from would demand considerable research in the course of which, besides concrete examples, one would collect the hardly perceptible movements of cer-

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² Jurgis Baltrusaitis, loc. cit. p. 56. "On the coins of Hatria, a woman's head, with her hair blown by the wind, perhaps Aphrodite herself, is seen coming out of a round shell."
tain abstractions. We sense little or no more action in grammatical derivations, deductions or inductions. Even verbs become congealed as if they were nouns. Only images can set verbs in motion again.

IV

On the shell theme, in addition to the dialectics of small and large, the imagination is stimulated by the dialectics of creatures that are free and others that are in fetters: and what can we not expect from those that are unfettered!

To be sure, in real life, a mollusk emerges from its shell indolently, so if we were studying the actual phenomena of snail “behavior,” this behavior would yield to observations with no difficulty. If, however, we were able to recapture absolute naïveté in our observation itself, that is, really to re-experience our initial observation, we should give fresh impetus to the complex of fear and curiosity that accompanies all initial action on the world. We want to see and yet we are afraid to see. This is the perceptible threshold of all knowledge, the threshold upon which interest wavers, falters, then returns. The example at hand for the purpose of indicating the fear and curiosity complex is not a sizable one. Fear of a snail is calmed immediately, it is an old story, it is “insignificant.” But then this study is devoted to insignificant things. Occasionally they reveal strange subtleties. In order to bring them out I shall place them under the magnifying glass of the imagination.

These undulations of fear and curiosity increase when reality is not there to moderate them, that is, when we are imagining. However let’s not invent, but rather give documents concerning images which have actually been imagined or drawn, and which have remained engraved in precious and other stones. There is a passage in the book by Jurgis Baltrusaitis in which he recalls the action of an artist who shows a dog that “leaps from its shell” and pounces upon a rabbit. One degree more of aggressiveness and the shell-dog would attack a man. This is a clear example of the progressing type of action by means of which imagination surpasses reality. For here the imagination acts upon not only geometrical dimensions, but upon elements of power and speed as well—not in an enlarged space, either, but in a more rapid tempo. When the motion picture camera accelerates the unfolding of a flower, we receive a sublime image of offering; it is as though the flower we see opening so quickly and without reservation, sensed the meaning of a gift; as though it were a gift from the world. But if the cinema showed us a snail emerging from its shell in fast motion, or pushing its horns toward the sky very rapidly, what an aggression that would be! What aggressive horns! All our curiosity would be blocked by fear, and the fear-curiosity complex would be torn apart.

There is a sign of violence in all these figures in which an over-excited creature emerges from a lifeless shell. Here the artist precipitates his animal daydreams. Since they belong to the same type of daydreams, we must associate abbreviations of animals that have their heads and tails fastened together—the artist having neglected to show the intermediary parts of their bodies—with these snail-shells from which emerge quadrupeds, birds and human beings. To do away with what lies between is, of course, an ideal of speed, and thanks to a sort of acceleration of the imagined vital impulse, the creature that emerges from the ground immediately assumes its physiognomy.

But the obvious dynamism of these extravagant figures lies in the fact that they come alive in the dialectics of what is hidden and what is manifest. A creature that hides and “withdraws into its shell,” is preparing a “way out.” This is true of the entire scale of metaphors, from the resurrection of a man in his grave, to the sudden outburst of one who has long been silent. If we remain at the heart of the image under consideration, we have the impression that, by staying in the motionlessness of its shell, the creature is preparing temporal explosions, not to say whirlwinds, of being. The most dynamic escapes take place in cases of repressed being, and not in the flabby laziness of the lazy creature whose only desire is to go and be lazy elsewhere. If we experience the imaginary paradox of a vigorous mol-
lusk—the engravings in question give us excellent descriptions of them—we attain to the most decisive type of aggressiveness, which is postponed aggressiveness, aggressiveness that bides its time. Wolves in shells are crueler than stray ones.

By adhering to a method which seems to me decisive in a phenomenology of images, and which consists of designating the image as an excess of the imagination, I have accentuated the dialectics of large and small, hidden and manifest, placid and aggressive, flabby and vigorous. I have also followed the imagination to a point well beyond reality, in its task of enlargement, for in order to surpass, one must first enlarge. We have seen how freely the imagination acts upon space, time and elements of power. But the action of the imagination is not limited to the level of images. On the level of ideas too, it tends towards extremes, and there are ideas that dream. For instance, certain theories which were once thought to be scientific are, in reality, vast, boundless daydreams. I should like to give an example of a dream-idea of this type, which takes the shell as the clearest proof of life’s ability to constitute forms. According to this theory, which was propounded in the eighteenth century by J. B. Robinet, everything that has form has a shell; ontogenesis, and life’s principal effort is to make shells. It is my opinion that at the center of Robinet’s immense evolutionary table there was a vast dream of shells. Indeed the title alone of one of his books: *Vues philosophiques de la gradation naturelle des formes de l’être, ou les essais de la nature qui apprend à faire l’homme* (Philosophical views on the natural gradation of forms of existence, or the attempts made by nature while learning to create humanity, Amsterdam, 1768), describes the orientation of his thinking. Those who have the patience to read the entire work will discover a veritable commentary, in dogmatic form, on the type of drawings I mentioned earlier. Here too *partial animal forms* appear on every side. Fossils for Robinet are bits of life, roughcasts of separate organs, which will find their coherent life at the summit of an evolution that is preparing the way for man. We might say that the inside of a man’s body is an assemblage of shells. Each organ has its own causality, that has already been tried out during the long centuries when nature was teaching herself to make man, with one shell or another. The function constructs its form from old models, and life, although only partial, constructs its abode the way the shell-fish constructs its shell.

If one can succeed in reliving this partial life, in the precision of a life that endows itself with a form, the being that possesses form dominates thousands of years. For every form retains life, and a fossil is not merely a being that once lived, but one that is still alive, asleep in its form. The shell is the most obvious example of a universal shell-oriented life.

All of this is firmly stated by Robinet. ¹ “I am persuaded that fossils are alive,” he writes, “if not from the standpoint of an exterior form of life, for the reason that they lack perhaps certain limbs and senses, (I should hesitate to assert this, however), at least from that of an interior, hidden form of life, which is very real of its kind, even though quite inferior to that of a sleeping animal or a plant. But far be it from me to deny them the organs necessary to the functioning of their vital economy. And whatever their form, I consider it as a progress toward the form of their analogues in the vegetable world, among insects, large animals and, lastly, among men.”

Robinet’s book goes on to give descriptions, accompanied by very fine engravings, of Lithocardites (heart stones), Encephalites (which are a prelude to the brain), stones that imitate a jaw-bone, the foot, the kidney, the ear, the eye, the hand, muscles—then Orchis, Diorchis, Triorchis, the Priapolites, Collites and Phalloyd, which imitate the male organs, and Histerapetia, which imitate the female organs.

It would be a mistake to see nothing in this but a refer-

¹ *Loc. cit.* p. 17.
ence to language habits that name new objects by comparing them with other commonplace ones. Here names think and dream, the imagination is active. Lithocardites are heart shells, rough draughts of a heart that one day will beat. Robinet’s mineralogical collections are anatomical parts of what man will be when nature learns to make him. A critical mind will object that our eighteenth century naturalist was a “victim of his imagination.” A phenomenologist, however, who avoids all criticism on principle, cannot fail to recognize that in the very extravagance of the being given to words, in the extravagance of his images, is manifested a profound daydream. On all occasions Robinet thinks of form, from the inside out. For him, life originates forms, and it is perfectly natural that life, which is the cause of forms, should create living forms. Once again, for such daydreams as these, form is the habitat of life.

Shells, like fossils, are so many attempts on the part of nature to prepare forms of the different parts of the human body; they are bits of man and bits of woman. In fact Robinet gives a description of the Conch of Venus that represents a woman’s vulva. A psychoanalyst would not fail to see a sexual obsession in these designations and descriptions that enter into such detail. Nor would he have any difficulty finding, in the shell museum, such representations of fantasms as that of the toothed vagina, which is one of the principal themes of Marie Bonaparte’s study of Edgar Allan Poe. Indeed, if we listened to Robinet, we should be inclined to believe that nature went mad before man did. And one can imagine the diverting reply that Robinet would make in defense of his system to the observations of psychoanalysts or psychologists. With simple gravity he wrote: “We should not be surprised at the assiduity with which Nature has multiplied models of the generative organs, in view of the importance of these organs.” (loc. cit. p. 73).

With a dreamer of scholarly thoughts such as Robinet, who organized his visionary ideas into a system, a psychoanalyst accustomed to untangling family complexes would be quite powerless. We should need a cosmic psychoanalysis, one that would abandon for a second human considerations and concern itself with the contradictions of the Cosmos. We should also need a psychoanalysis of matter which, at the same time that it accepted the human accompaniment of the imagination of matter, would pay closer attention to the profound play of the images of matter. Here, in the very limited domain in which we are studying images, we should have to resolve the contradictions of the shell, which at times is so rough outside and so soft, so pearly, in its intimacy. How is it possible to obtain this polish by means of friction with a creature that is so soft and flabby? And doesn’t the finger that dreams as it strokes the intimate mother-of-pearl surface surpass our human, all too human, dreams? The simplest things are sometimes psychologically complex.

But if we were to allow ourselves to indulge in all the daydreams of inhabited stone there would be no end to it. Curiously enough, these daydreams are at once long and brief. It is possible to go on with them forever, and yet reflection can end them with a single word. At the slightest sign, the shell becomes human, and yet we know immediately that it is not human. With a shell, the vital inhabiting impulse comes to a close too quickly, nature obtains too quickly the security of a shut-in life. But a dreamer is unable to believe that the work is finished when the walls are built, and thus it is that shell-constructing dreams give life and action to highly geometrically associated molecules. For these dreams, the shell, in the very tissue of its matter, is alive. Proof of this may be found in a great natural legend.

vi

A Jesuit priest, Father Kircher, once asserted that on the coast of Sicily “the shells of shell-fish, after being ground to powder, come to life again and start reproducing, if this powder is sprinkled with salt water.” The Abbé de Valle-
mont\(^1\) cites this fable as a parallel to that of the phoenix that rises from its ashes. Here, then, is a water phoenix. However, the Abbé de Vallemont gives little credence to the fable of either one of these phoebixes. But for me, whose outlook is governed by the imagination, there can be but one conclusion: both phoebixes were products of the imagination. These are facts of the imagination, the very positive facts of the imaginary world.

Moreover, these facts of the imagination are related to allegories of very ancient origin. Jurgis Baltrusaitis recalls (loc. cit. p. 57) that "as late as the Carolingian epoch, burial grounds often contained snail shells—an allegory of a grave in which man will awaken." And in Le bestiaire du Christ, p. 922, Charbonneaux-Lassay writes: "Taken as a whole, with both its hard covering and its sentient organism, the shell, for the Ancients, was the symbol of the human being in its entirety, body and soul. In fact, ancient symbolics used the shell as a symbol for the human body, which encloses the soul in an outside envelope, while the soul quickens the entire being, represented by the organism of the mollusk. Thus, they said, the body becomes lifeless when the soul has left it, in the same way that the shell becomes incapable of moving when it is separated from the part that gives it life." A wealth of documentation could be assembled on the subject of "resurrection shells."\(^2\) There is no need, however, given the simplicity of the problems treated in this work, for us to insist on very remote traditions. All we have to do is to ask ourselves how, in the case of certain naïve daydreams, the simplest images can nurture a tradition. Charbonneaux-Lassay says these things with all the simplicity and naïveté one could wish. After quoting the Book of Job with its invincible hope of resurrection, he adds, (loc. cit., p. 927): "How did it happen that the quiet, earth-bound snail should have been chosen to symbolize this ardent, invincible hope? The explanation is that at the gloomy time of year, when Winter's death holds earth in its grip, the snail plunges deep into the ground, shuts itself up inside its shell, as though in a coffin, by means of a strong, limestone epiphragm, until Spring comes and sings Easter Hallelujahs over its grave . . . . Then it tears down its wall and reappears in broad daylight, full of life."

I shall ask readers who may be inclined to smile at such enthusiasm, to try to imagine the amazement of the archeologist who discovered in a grave in the Indre et Loire department "a coffin that contained nearly three hundred snail shells placed about the skeleton from feet to waistline." Such a contact with a belief places us at the origin of all beliefs. A lost symbolism begins to collect dreams again.

All the proofs that we are obliged to present one after the other, of capacity for renewal, of resurrection or reawakening of being, must be taken as coalescence of reveries.

If we add to these allegories and symbols of resurrection the synthesizing nature of dreams of the powers of matter, we understand the fact that profound dreamers are unable to rule out the dream of a water-phoenix. The shell itself, in which a resurrection is being prepared in the synthesizing dream, is subject to resurrection. For if the dust in the shell can experience resurrection, there is no reason why the pulverized shell should not recapture its spiraling force.

Of course, a critical mind will scoff at unconditioned images; and a realist would soon demand control experiments. Here, as elsewhere, he would want to verify the images by confronting them with reality. If he were shown a mortar filled with crushed shells, he would say, now make a snail! But a phenomenologist's projects are more ambitious: he wants to live as the great dreamers of images lived before him. And since I have underlined certain words, I shall ask the reader to note that the word as is stronger than the word like, which as it happens, would

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\(^1\) Abbé de Vallemont, Curiosités de la nature et de l'art sur la végétation ou l'agriculture et le jardinage dans leur perfection. Paris, 1709. First Part, p. 189.

\(^2\) Charbonneaux-Lassay quotes Plato and Iamblichus. He also refers the reader to Les Mystères d'Eleusis, VI, by Victor Magnien. Payot, Publisher.
omit a phenomenological nuance. The word *like* imitates, whereas the word *as* implies that one becomes the person who dreams the daydream.

And so, we shall never collect enough daydreams, if we want to understand phenomenologically how a snail makes its house; how this flabbiest of creatures constitutes such a hard shell; how, in this creature that is entirely shut in, the great cosmic rhythm of winter and spring vibrates nonetheless. And from the psychological standpoint, this is not a vain problem. It arises automatically, in fact, as soon as we return to the thing itself, as phenomenologists put it, as soon as we start to dream of a house that grows in proportion to the growth of the body that inhabits it. How can the little snail grow in its stone prison? This is a *natural* question, which can be asked quite naturally. (I should prefer not to ask it, however, because it takes me back to the questions of my childhood.) But for the Abbé de Vallemont, it is a question that remains unanswered, and he adds: "When it is a matter of nature, we rarely find ourselves on familiar ground. At every step, there is something that humiliates and mortifies proud minds." In other words, a snail's shell, this house that grows with its inmate, is one of the marvels of the universe. And the Abbé de Vallemont concludes that, in general, *(loc. cit., p. 255)* shells are "sublime subjects of contemplation for the mind."

VII

It is always diverting to see a destroyer of fables become the victim of a fable. At the beginning of the eighteenth century, the Abbé de Vallemont believed no more in the fire phoenix than he did in the water phoenix; but he did believe in palingenesis, that is, in a sort of mixture of both. If we reduce a fern to ashes, which we dissolve in pure water, then allow the water to evaporate, we obtain lovely crystals that have the form of a fern frond. And many other examples could be furnished of dreamers meditating in order to discover what I should call saturated growth salts of formal causality.3

But closer to the problems with which we are concerned just now, one feels in the Abbé de Vallemont's book the effect of a contamination of the nest images and those of the shell. At one point, this author speaks of the anatifère plant, or the anatifère shell-fish, that grows on the wood of ships *(loc. cit. p. 243)*. "It is an assemblage of eight shells," he writes, "that looks rather like a bunch of tulips... all of the same substance as mussel shells... The entrance is at the top, and it is closed by means of little doors that are joined together in a most admirable way. All that remains is to find out how this sea-plant, and the little inmates that occupy these artistically created apartments, are formed."

A few pages on, the contamination of the shell and the nest is presented quite clearly. These shells are nests from which birds have flown *(p. 246)*. "I say that the different shells of my anatifère plant... are nests in which the birds of obscure origin that, in France, we call *maceruses* (scoter-ducks), form and hatch."

Here we have a confusion of genres that is quite common to the daydreams of pre-scientific epochs. Scoter-ducks were supposed to be cold-blooded birds. If it was asked how these birds hatched their young, a frequent reply was: why should their hens set since, by nature, they can warm neither the eggs nor the nestlings? The Abbé de Vallemont adds *(p. 250)* that "a group of theologians, assembled at the Sorbonne, decided that they would withdraw scoter-ducks from the bird category and put them into the fish category." This being the case, they can be eaten in Lent.

Before it leaves its nest-shell the scoter-duck, which is half-bird, half-fish, is attached to it by a pedunculated beak. Thus a learned dream collects legendary hyphens. Here the great daydreams of nest and shell are presented in two perspectives that could be said to be in reciprocal anamorphosis. Nest and shell are two great images that reflect back

their daydreams. Here forms do not suffice to determine such affinities. Indeed, the principle of the daydreams that welcome such legends goes beyond experience. For here the dreamer has entered into the domain in which convictions that originate beyond what we see and touch, are formed. If nests and shells were without significance, their image would not be so easily or so imprudently synthesized. With eyes closed, and without respect to form and color, the dreamer is seized by convictions of a refuge in which life is concentrated, prepared and transformed. Nests and shells cannot unite as strongly as this otherwise than by virtue of their oneirism. Here an entire branch of "dream houses" finds two remote roots that intermingle in the same way that, in human daydreams, everything remote intermingles.

One hesitates to be too explicit about these daydreams, which no memory can either clarify or explain. And if one takes them in the resurgence manifested in the above-mentioned texts, one inclines to think that imagination antedates memory.

VIII

After this long excursion into the more distant regions of daydream, let us return to images that seem closer to reality. Yet I wonder if an image of the imagination is ever close to reality. For often when we think we are describing we merely imagine. We believe that we have achieved a description that is at once instructive and amusing. This false genre overlies an entire literature, as, for instance, in a certain eighteenth century volume that purports to be a textbook for the instruction of a young knight,1 and in which we find the following "description" of an open mussel attached to a pebble: "With its cords and stakes it could be mistaken for a tent." Naturally, the author doesn't fail to mention the fact that these tiny cords can be woven into fabric, and it is true that at one time thread actually was made from the mooring-cords of mussels. The author's philosophical conclusion is presented in a very common-

1 Le spectacle de la nature, p. 251.
this paragraph, in which we seem to be victims of the commonplace.

Robinet believed that it was by rolling over and over that the snail built its 'staircase.' Thus, the snail's entire house would be a stair-well. With each contortion, this limp animal adds a step to its spiral staircase. It contorts itself in order to advance and grow. The bird building its nest was content to turn round and round. Robinet's dynamic shell image may be compared with Michelet's dynamic image of the nest.

Nature has a very simple way of amazing us—through exaggerated size. In the case of the shell commonly known as the Grand Bénitier (Great Baptismal Font), we see nature dreaming an immense dream, a veritable delirium of protection, that ends in a monstrosity of protection. This mollusk 'only weighs 14 pounds, but the weight of each of its valves is between 500 and 600 pounds, and it measures from a yard to a yard and a half in length.'1 The author of this book, which belongs in the famous Bibliothèque des merveilles (Collection of Marvels), adds: 'In China . . . certain rich mandarins own bathtubs made of one of these shells.' A bath taken in the abode of such a mollusk must be very mollifying indeed. And what capacity for relaxation must be felt by a 14-pound animal that occupies this much space! Being myself a mere dreamer of books, I know nothing about biological realities. But when I read this account by Armand Landrin, I sink into a vast dream of cosmicity. And who would not feel cosmically cheered at the thought of taking a bath in the Grand Bénitier's shell?

The Grand Bénitier's strength is on a par with the height and bulk of its walls. Indeed, according to one observer, it would take two horses hitched to each valve to force the Grand Bénitier 'to yawn, in spite of itself.'

I should love to see an engraving that represented this


exploit. I can imagine it, however, by recalling an old picture, which I have looked at long and often, of horses hitched to the two hemispheres, between which nothing existed but space. Here this image depicting the 'Magdeburg experiment,' which is legendary in elementary scientific culture, would have a biological illustration. Four horses to overcome fourteen pounds of limp flesh!

But however exaggerated in size nature's creations may be, man can easily imagine things that are bigger still. In an engraving by Cork, based on a composition by Hieronymous Bosch, known as: Shell navigating on the water, we see an enormous mussel shell in which some ten persons are seated, with four children and a dog. There is an excellent reproduction of this mussel shell inhabited by men, in the fine book on Hieronymous Bosch, by André Lafon (p. 106).

This hypertrophy of the dream of inhabiting all the hollow objects in the world is accompanied by ludicrous scenes peculiar to Bosch's imagination. In the mussel-shell, the travelers are feasting and carousing, with the result that the dream of tranquility we should like to pursue when we 'withdraw into our shells,' is lost because of the insistence upon frenzied joy that marks the genius of this painter.

But after hypertrophic daydreaming we always have to return to the type of daydreaming that is designated by its original simplicity. We know perfectly well that to inhabit a shell we must be alone. By living this image, one knows that one has accepted solitude.

To live alone; there's a great dream! The most lifeless, the most physically absurd image, such as that of living in a shell, can serve as origin of such a dream. For it is a dream that, in life's moments of great sadness, is shared by everybody, both weak and strong, in revolt against the injustices of men and of fate. As, for instance, Salvin,1 a weak, sad creature, who takes comfort in his narrow room precisely because it is narrow and permits him to say: 'What would

1 Georges Duhamel, Confession de minuit. Chap. VII.
I do if I hadn’t this little room, this room that is as deep and secret as a shell? Ah! snails don’t realize their good fortune.”

At times, the image is very unobtrusive, hardly perceptible, but it is effective nonetheless. It expresses the isolation of the human being withdrawn into himself. A poet, at the same time that he dreams of some childhood house, magnified in his memory to become

La vieille maison où vont et viennent
L’étoile et la rose
(The old house where star and rose
Come and go)

writes:

Mon ombre forme un coquillage sonore
Et le poète écoute son passé
Dans la coquille de l’ombre de son corps
(My shadow forms a resonant shell
And the poet listens to his past
In the shell of his body’s shadow.)

At other times, the image acquires its force through the effect of an isomorphism of all restful space. Then every hospitable hollow is a quiet shell. The poet, Gaston Puel, writes:2

Ce matin je dirai le simple bonheur d’un homme allongé au creux d’une barque.
L’oblongue coquille d’un canot s’est fermée sur lui.
Il dort. C’est une anande. La barque comme un lit épouse le sommeil.
(This morning I shall tell the simple happiness
of a man stretched out in the hollow of a boat.
The oblong shell of a skiff has closed over him.
He is sleeping. An almond. The boat, like a bed,
chases sleep.)

1 Maxime Alexandre. La peau et les os, p. 18, Gallimard, Paris, 1936.
2 Gaston Puel. Le chant entre deux astres, p. 10.

A man, an animal, an almond, all find maximum repose in a shell. The virtues of repose dominate all of these images.

Since it is my endeavor to multiply all the dialectical shadings by which the imagination confers life upon the simplest images, I should like to note a few references to the offensive capacity of shells. In the same way that there are ambush-houses, there exist trap-shells which the imagination makes into fish-nets, perfected with bait and snap. Pliny gives the following account of how the pea-crab’s mussel finds its sustenance: “The blind shell-fish opens up, thus exposing its body to all the small fish playing about. When they sense that they can enter with impunity, they become emboldened and fill the shell. At this moment, the crab, which is on the alert, warns the mussel by means of a little bite, upon which the latter closes the shell, crushing everything that is caught between the valves, then divides the prey with its partner.”

In the way of animal stories it would be hard to do better. To avoid multiplying examples, therefore, I shall repeat this same fable, since it is borne out by another great name. In Leonardo da Vinci’s Notebooks, we read: “An oyster opens wide at full moon. When the crabs sees this, it throws a pebble or a twig at the oyster to keep it from closing and thus have it to feed upon.” Da Vinci adds the following suitable moral to this fable: “Like the mouth that, in telling its secret, places itself at the mercy of an indiscreet listener.”

Extensive psychological research would be needed to determine the value of the moral examples that have always been drawn from animal life. I only point this out

1 Armand Landrin, loc. cit., p. 15. The same fable is quoted by Ambroise Paré (Œuvres complètes, vol. III, p. 778). The little crab aid is “seated like a porter at the entrance of the shell.” When a fish swims into the shell, the bitten shellfish shuts the shell, “then, together, they nibble and eat their prey.”
in passing, however, since our encounter with the problem is quite accidental. But there are names that tell their own story, such as the name of the Bernard l’Ermité, or hermit crab. This mollusk does not build its own shell but, as everyone knows, goes to live in an empty shell. It changes when it feels too cramped for space.

The image of the hermit crab that goes to live in abandoned shells is sometimes associated with the habits of the cuckoo, which lays its eggs in other nests. In both cases, Nature seems to enjoy contradicting natural morality. The imagination, whetted by exceptions of all kinds, takes pleasure in adding resources of cunning and ingenuity to the characteristics of this bird squatter. The cuckoo, we are told, after making sure that the setting mother-bird has gone, breaks an egg in the nest in which it plans to lay. If it lays two eggs it breaks two. In spite of its identifying call, the cuckoo is also past master in the art of concealment, it loves to play hide and seek. And yet no one has ever seen it. As often happens in real life, the name is better known than the bearer. Who, for instance, can distinguish between the russet and the blond cuckoo? According to Abbé Vincelot (loc. cit. p. 101) certain observers have maintained that the russet cuckoo is simply the gray cuckoo when it is young, and that if some “migrate northward and others southward, with the result that the two species are not to be found in the same locality, it is because among migrant birds, old and young rarely visit the same country.”

Is it any wonder, then, that this bird, with its instinct for secrecy, should have been credited with such powers of metamorphosis that, for centuries, according to Abbé Vincelot (p. 102), “the ancients believed that the cuckoo became transformed into a hawk.” Musing upon a legend of this kind, and recalling that the cuckoo is an egg thief, I suggest that the story of its turning into a hawk might be summarized in a scarcely altered version of the French proverb: *Qui vole un œuf, enlève un boeuf.* ¹ (He who steals an egg will carry off an ox.)

¹ The correct version, of course, is: *Qui vole un œuf volera un boeuf* (He who steals an egg will steal an ox).

There are minds for which certain images retain absolute priority. Bernard Palissy¹ was one of these and, for him, shell images were of enduring interest. If one had to designate Palissy by the dominating element of his material imagination, he would fall quite naturally into an “earthly” group. But since the material imagination is a matter of nuances, Palissy’s imagination would have to be specified as that of an earthly being in quest of a hard earth that must be further hardened by fire, but which also has the possibility of attaining natural hardness through the action of a solidifying, self-containing salt. Shells manifest this same possibility and, in this respect, the limp, sticky, “slimy” creatures that inhabit them, play a rôle in their hard consistency. Indeed, the principle of solidification is so powerful, the conquest of hardness is carried so far, that the shell achieves its enamel-like beauty as though it had been helped by fire. Beauty of substance is added to beauty of geometrical form. For a potter or an enamelist, a shell must indeed be a subject for infinite meditation. But there are many animals beneath the eamed glaze of this gifted potter’s plates, that have made the hardest possible shells of their skins. If we relive Bernard Palissy’s passion, in the cosmic drama of different sorts of matter, or in the struggle between clay and fire, we can understand why the humblest snail that secreted its own shell should have provided him with food for infinite dreaming.

Among all these daydreams, I shall note here only those that furnish the most curious images of the house. The following, entitled: “About a fortress city” (*De la ville de forteresse*) is included in Palissy’s *Recepte véritable.* ² In summarizing it I shall try to retain the amplitude of the original.

Faced with “the horrible dangers of war,” Bernard Palissy

¹ Sixteenth century scholar, potter and enamelist. One of the creators of the ceramic arts in France.
contemplated a design for a "fortress city." He had lost all hope of finding an existing plan "in the cities built today." Vitruvius himself could be of no help in the century of the canon. So he journeyed through "forests, mountains and valleys to see if he could find some industrious animal that had built some industrious houses." After inquiring everywhere, Palissy began to muse about "a young slug that was building its house and fortress with its own saliva." Indeed, he passed several months dreaming of a construction *from within*, and most of his leisure time was spent walking beside the sea, where he saw "such a variety of houses and fortresses which certain little fishes had made from their own liquor and saliva that, from now on, I began to think that here was something that might be applied to my own project." "The battles and acts of brigandry" that take place in the sea being on a larger scale than those that take place on land, God "had conferred upon each one the diligence and skill needed to build a house that had been surveyed and constructed by means of such geometry and architecture, that Solomon in all his wisdom could never have made anything like it."

With regard to spiralled shells, he wrote that this shape was not at all "for mere beauty, there's much more to it than that. You must understand that there are several fish with such sharply pointed beaks that they would devour most of the above-mentioned fish if the latter's abodes were in a straight line: but when they are attacked by their enemies on the threshold, just as they are about to withdraw inside, they twist and turn in a spiral line and, in this way, the foe can do them no harm."

Meanwhile, someone brought Palissy two large shells from Guinea: "A murex and a whelk." The murex being the weaker must be the best defended, according to Palissy's philosophy. As a matter of fact, the shell having "a number of rather large points around the edges, I decided that these horns had been put there for a purpose, which was for defense of the fortress."

It has seemed necessary to give all these preliminary details, because they show that Palissy was looking for *natural inspiration*. He sought nothing better for constructing his fortress city than to "take the fortress of the above mentioned murex as an example." With this idea in mind, he started work on his plan. In the very center of the fortress city, there was to be an open square on which the governor's house would be located. Starting from this square, a single street would run four times around the square; first, in two circuits that espoused the shape of the square; then, in two octagon-shaped circuits. All doors and windows in this quadruple winding street were to give onto the inside of the fortress, so that the backs of the houses would constitute one continuous wall. The last of the house-walls was to back up against the city wall which, thus, would form a gigantic snail.

Bernard Palissy enlarged at length on the advantages of this *natural* fortress. Even if part of it fell to the enemy there would always remain a possibility of retreat. In fact, it was this spiral movement of retreat that determined the general line of the image. Nor would enemy cannon be able to follow the retreat and "rake" the streets of the coiled city. Enemy artillerists would be as disappointed as the "pointed-beaked" marauders had been when they tried to attack a coiled shell.

In this summary, which may seem too long to the reader, it has nevertheless been impossible to enter into the detail of mixed images and proof. A psychologist who followed Palissy's text line by line would find images used as proof, images that are witnesses of a reasoning imagination. This simple account is psychologically complex. But for us, in this century, the "reasoning" of such images is no longer convincing. We no longer have to believe in natural fortresses. And when military men build "hedgehog" defenses, they know that they are not in the domain of the image, but in that of simple metaphor. It would be a great mistake, however, if we were to confuse the genres and take Palissy's snail-fortress for a simple metaphor. This is an image that has inhabited a great mind.
As for myself, in a leisurely book of this kind, in which I enjoy all the images, I was obliged to linger over this monstrous snail.

And in order to show that, through the simple play of the imagination, any image may be increased in size, I should like to quote the following poem, in which a snail assumes the dimensions of a village:  

*C'est un escargot énorme
Qui descend de la montagne
Et le ruisseau l'accompagne
De sa bave blanche
Très vieux, il n'a plus qu'une corne
C'est son court clocher carré.

(It's a giant snail
Descending the mountain
With at its side
The brook's white foam
Very old, only one horn left
Which is its short, square belfry.)

And the poet adds:

*Le château est sa coquille....

(The manor is its shell....)

But there are other passages in Bernard Palissy's works which accentuate this predestined image that we are obliged to recognize in his shell-house experience. As it happens, this potential constructor of a shell-fortress was also an architect and landscape gardener, and to complement his plans for gardens, he added plans for what he called "chambers." These "chambers" were places of retreat that were as rough and rocky on the outside as an oyster shell: "The exterior of the aforementioned chamber," wrote Palissy, "will be of masonry made with large uncut stones, in order that the outside should not seem to have been man-built." Inside, on the contrary, he would like it to be as highly polished as the inside of a shell: "When the masonry is finished, I want to cover it with several layers of enameling, from the top of the vaulted ceiling down to the floor. This done, I should like to build a big fire in it... until the aforesaid enameling has melted and coated the aforesaid masonry..." In this way, the "inside of the chamber would seem to be made of one piece... and would be so highly polished that the lizards and earthworms that come in there would see themselves as in a mirror."

This indoor fire lighted for the purpose of enameling bricks is a far cry from the "blaze" we light in our time to "dry the plaster." Here, perhaps, Palissy recaptured visions of his potter's kiln, in which the fire left brick tears on the walls. In any case, an extraordinary image demands extraordinary means. Here a man wants to live in a shell. He wants the walls that protect him to be as smoothly polished and as firm as if his sensitive flesh had to come in direct contact with them. The shell confers a daydream of purely physical intimacy. Bernard Palissy's daydream expresses the function of inhabiting in terms of touch.

Because dominant images tend to combine, his fourth chamber is a synthesis of house, shell and cave: "The inside masonry will be so skilfully executed," he wrote (loc. cit., p. 82) "that it will appear to be simply a rock that has been hollowed out in order to cut stone from the interior; and the aforesaid chamber will be twisted and humped with several skewed humps and concavities having neither appearance nor form of either the chiseler's art or of work done by human hands; and the ceiling vaults will be so tortuous that they will look as though they are about to fall, for the reason that there will be several pendant humps." Needless to say, the inside of this spiraled house will also be covered with enamel. It will be a cave in the form of a coiled shell. Thus, by means of a great sum of human labor, this cunning architect succeeded in making a *natural* dwelling of it. To accentuate the natural character of the chamber he had it covered with earth "so that, having planted several trees in the aforesaid earth, it would not seem to have been built." In other words, the real home

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2 *Loc. cit.* p. 78.
of this man of the earth was subterranean. He wanted to live in the heart of a rock, or, shall we say, in the **shell of a rock**. The pendant humps fill this dwelling with a nightmare dread of being crushed, while the spiral that penetrates deep into the rock gives an impression of anguished depth. But a being who desires to live underground is able to dominate commonplace fears. In his daydreams, Bernard Palissy was a hero of subterranean life. In his imagination he derived pleasure—so he said—from the fear manifested by a dog barking at the entrance of a cave; and the same thing was true of the hesitation, on the part of a visitor, to enter further into the tortuous labyrinth. Here the shell-cave is also a “fortress city” for a man alone, a man who loves complete solitude, and who knows how to defend and protect himself with simple images. There’s no need of a gate, no need of an iron-trimmed door; people are afraid to come in.

In any case, an important phenomenological investigation remains to be made on the subject of **dark entrance halls**.

**XII**

With nests, with shells—at the risk of wearying the reader—I have multiplied the images that seem to me to illustrate the function of inhabiting in elementary forms which may be too remotely imagined. Here one senses clearly that this is a mixed problem of imagination and observation. I have simply wanted to show that whenever life seeks to shelter, protect, cover or hide itself, the imagination sympathizes with the being that inhabits the protected space. The imagination experiences protection in all its nuances of security, from life in the most material of shells, to more subtle concealment through imitation of surfaces. As the poet Noël Arnaud expresses it, being seeks dissimulation in similarity. To be in safety under cover of a color is carrying the tranquility of inhabiting to the point of culmination, not to say, imprudence. Shade, too, can be inhabited.

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**XIII**

After this study of shells, we could, of course, tell a number of stories about the turtle which, as the animal with the house that walks, would lend itself to much facile commentary. However, this commentary would only illustrate with new examples themes that have already been treated. I shall therefore forego writing a chapter on the turtle's house.

But since slight contradictions to primal images can occasionally stimulate the imagination, I should like to comment upon a passage from the Flemish travel notes of the Italian poet, Giuseppe Ungaretti. At the home of the poet Franz Hellens—only poets possess such treasures—Ungaretti saw a woodcut "depicting the fury of a wolf which, having attacked a turtle that had withdrawn into its bony carapace, went mad, without having appeased its hunger."

These three lines keep coming back to my mind, and I tell myself endless stories around them. I see the wolf arriving from a distant, famine-stricken land. It is lean and hungry looking, its tongue hanging out, red and feverish. At that moment, what should come out from under a bush but a turtle, considered by epicures the world over to be a particularly delicate morsel. With one leap, the wolf seizes its prey, but the turtle, which is endowed by nature with unusual acracy when it wants to withdraw head, limbs and tail into its house, is quicker than the wolf. For the famished wolf, it is now nothing but a stone on the road.

One hardly knows which side to take in this dramatic incident of hunger. I have tried to be impartial. I don't like wolves. But, for once, the turtle might have refrained from action. And Ungaretti, who had thought lengthily about the engraving, said explicitly that the artist had succeeded in making “the wolf likeable and the turtle odious.”

A phenomenologist would have many comments to make on this commentary! Of course, the psychological interpretation exceeds the facts, since no drawn line can interpret...
pret an "odious" turtle. The animal in its box is sure of its secrets, it has become a monster of impenetrable physiognomy. The phenomenologist, therefore, will have to tell himself the fable of the wolf and the turtle. He will have to elevate the drama to the cosmic level and, from there, meditate upon world-hunger. To put it more simply, the phenomenologist would need to have, for one moment, the entrails of the wolf, faced with a prey that has turned itself into stone.

If I had reproductions of an engraving of this kind, I should use them to differentiate and measure people's views and the depth of their participation in hunger dramas throughout the world. Almost surely, this participation would manifest a certain ambiguity. Some would give in to the drowsiness of the story-telling function and leave the play of the old childish images undisturbed. They would take pleasure in the wicked animal's resentment and laugh up their sleeves at the turtle that withdrew into its shell. Others, however, having been alerted by Ungaretti's interpretation, might reverse the situation. Such a reversal of a fable that has long lain dormant in its traditions, could have a rejuvenating effect on the function of story-telling. For here the imagination makes a fresh start, which could be of advantage to phenomenologists. Reversals of this kind may seem to have only slight documentary interest for the all-of-a-piece school of phenomenologists who take the World as their next-door neighbor. They are immediately conscious of being of and in the world. But the problem becomes more complicated for a phenomenologist of the imagination constantly confronted with the strangeness of the world. And what is more, the imagination, by virtue of its freshness and its own peculiar activity, can make what is familiar into what is strange. With a single poetic detail, the imagination confronts us with a new world. From then on, the detail takes precedence over the panorama, and a simple image, if it is new, will open up an entire world. If looked at through the thousand windows of fancy, the world is in a state of constant change. It therefore gives fresh stimulus to the problem of phenomenology. By solv-