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## TONY SMITH

TEN ELEMENTS AND THROWBACK

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Untitled, 1953-55, Wood

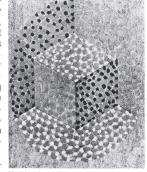


## THE SCULPTURE OF TONY SMITH BY SAM HUNTER

Tony Smith's long and somewhat obscure apprenticeship as a painter, designer and confidant of members of the New York School before he emerged with dramatic suddenness as a major independent sculptor in the sixties is an unusual but by no means unique Odyssey in American Art. Introducing Smith's first one-man show at the Wadsworth Atheneum in Hartford in 1964 Samuel Wagstaff, Jr. wrote: "The sculptor-painter-architect Tony Smith ... is one of the best known unknowns in American art." In his formative years, he

studied painting at The Art Students League during the early thirties (with Vytlacil and Grosz. among others). He later spent two years working in various capacities on buildings designed by Frank Lloyd Wright. By the mid-1950's he found himself moving with gathering momentum along two diverse tracks, in architecture and painting, and they only attained a unified, if augmented, expression when he made his first sculptures in the next decade.

Although active as an architect and designer, he was proba- Untitled A, 1933



bly best known in the late forties and fifties as a member of The New York School's community of artists and their fervent intellectual supporters. In 1946 Mark Rothko turned over to Smith his 35 East Eighth Street studio, replete with space heaters and fluorescent illumination-a legendary address where The Subject of the Artist School had conducted classes. Smith used the studio for his teaching as a member of the faculty of New York University's School of Education. Over the next decade, and more, Smith designed dwellings for Stamos and Betty Parsons, a studio for Cleve Gray and the French and Company Galleries, where Clement Greenberg staged so many memorable shows in the late fifties. He established a strong but ambiguous identity in the Abstract Expressionist avantgarde. Gifted with a silver tongue, a passion for ideas and a keen Jesuitical intelligence, he fit perfectly into the complex tangle of art

politics, ideology, high spirits and late hours that fueled the New York art world of that period. Only his best friends, Rothko, Newman and Reinhardt, realized that he had serious intentions as a painter. and worked continuously at his avocation on the side.

One suspects that his close ties with these strong personalities held him back as much as his hesitation between the conflicting claims of making art and designing buildings. It is curious that although he was a valued professional colleague of the major artists, he felt inhibited and compelled to stand aside until they had finished stating their mature personalities. His situation is related somewhat to that of Hans Hofmann, as Clement Greenberg has described it. If we but substitute an affluent and protective middleclass family for the word "patron" and The New York School for the Paris movements and personalities of early twentieth-century modernism in Greenberg's statement, the similarities are striking:

Hofmann himself explains the lateness of his development by the relative complacency fostered in him during his Paris years by the regular support of a patron, and by the time and energy he needed, afterwards, to perfect himself as a teacher. But I would suggest, further, that his Paris experience confronted him with too many faits accomplis by artists his own age or a few years older; that he had to wait until the art movements of those and the inter-war years were spent before making his move; he had first to "get over" Fauvism and Cubism, and over Kandinsky, Mondrian, Arp, Masson, and Miro as well. (Clement Greenberg, Hofmann, Paris: Editions George Fall. 1961. p. 14.)

Only in 1960, when he was 48. did Smith give his attention fully to sculpture and begin to work with cardboard maguettes. He had his first metal sculpture fabricated two years later after an episode that in retelling has the character of an epiphany. The title he gave that work. The Black Box. accurately describes the object and event that inspired its cre-

ation. He had been sitting with the



The Black Box, 1962, 221/2" x 33" x 25

art historian Eugene Goosen in his office at Hunter College where they both taught while Goosen was writing a catalogue foreword at his desk. Smith occupied a low arm chair and as Goosen read passages aloud to him, he became increasingly conscious of a three by five inch black-painted oak index card box that loomed up on the desk between them. When Smith returned to his South Orange home that night, he couldn't get the index file out of his mind. The next day he made a working drawing of it, multiplying the dimensions by five, took it to the Industrial Welding Company in Newark, and asked them to make it up for him.

He feels his routine teaching exercises at Hunter College also contributed significantly to his experiment in large-scale object making:

Hunter is a subway college, and it was hard to get the students to make anything large. So I would get them to make little things of cigarette packs and enlarge them. In those days Parliament and Benson and Hedges were the only cigarettes that came in stiff boxes, so we used them. I had the students make them up five times larger, and they did it, although they were furious with me. Since I had my students do it, I thought I might as well do it myself. I decided to take my own medicine. So I took the filing box and made it five times larger. I really saw it as a joke on myself. Then I took it down to the fabricator, who has done all my work, and asked him if he would object to doing it. He said, "no, we're a jobbing shop and we do anything anyone wants."

Soon after, Smith translated the axial coordinates of The Black Box into an open cube, called Free Ride (p. 16), in relation to Scott Carpenter's orbital flight, and then into the six by six foot cube Die (p. 19). His first highly simplified forms became, of course, uncannily prophetic of the reductive geometries of the Minimalist sculpture that immediately followed in New York. Smith's sculptures are also rooted in his clinical history and biography, one might say, and they are charged with special emotional meanings for him. Isolated and bed-ridden with tuberculosis as a child, he was segregated from his family for many years and lived in his own little prefabricated house on the family property. He vividly remembers even now that his "medicine came in little boxes." and he "would construct pueblo villages out of them." He also recalls from those lonely vigils the rather malign presence of a black stove which kept him transfixed for hours on end. He had said: "If one spends a long time in a room with only one object, that object becomes a little god." But perhaps even more relevant than either psychobiography or cultural factors in the genesis of his obsessive modular forms was their direct relationship to his paintings—an area of his development that has not yet been adequately explored.

For those unfamiliar with Smith's painting activity, who knew him solely as the newly annointed father of Minimalist sculpture, there was a sense of shock at Eugene Goosen's Art of the Real exhibition at the Museum of Modern Art in 1968 where a nine by eleven foot wall space was reserved for ten of his abstract paintings dating from the fifties. Smith based his modular paintings of barbell, or "peanut" forms, set in a grid, on varied permutations of connected and isolated circle shapes which were treated as color units. He called the group and related paintings in the series The Louisenberg, after the name of a geological site near Bayreuth, Germany where he and his wife Jane lived when she was performing with a German opera company in 1953. Smith remembers that he changed the ground on one painting to a particularly virulent red after Ad Reinhardt visited him over the Good Friday weekend at a time, apparently, when Reinhardt was just launching his monochrome paintings in green, blue and red, but had not yet broached the visibility problems of his black paintings.

Smith's flattened aggregates of multiform shapes were all essentially derived from paired circular color disks, which Lucy



Untitled painting, 1955, oil on canvas

Lippard perceived as "testicular forms." They produced a surprising formal diversity even within their grid system, and seemed responsive to an internal motive of growth as they subtly linked and chained in eccentric but balanced arrangements. Two faintly modulated, shaded cloud forms, brushed thinly with luminous effect, crowded a rectangular

field in a way reminiscent of Rothko's tiered and expansive rectangles. Some of the undulant squares, and teardrop quatrefoils were distinctly prophetic of Paul Feeley's sculptures that emerged shortly after Smith's three-year teaching stint at Bennington between 1958 and 1961

By the late fifties, Smith began to experiment alternately with his modified grids and with a new series of automatist, biomorphic black and white paintings that also grew out of his German resi-

dence period. He painted with spray cans, too, returning to his archetypal peanut configuration but blurring their edges and coupling and uncoupling his circular shapes to form even more unusual combinations. The metamorphic energies of his forms were now abundantly evident, and the tandem shapes began to look like the raised silhouettes and outflung limbs or chevrons of his current sculpture rather than an architectural ground plan, conceptualized from above. Lucy Lippard has noted the forms were "free" in appearance but "systematically" generated. These striking organic/geometric shapes form the most intelligible evidence of continuity between his paintings and sculptures, and prophesy the future to an even greater degree than his most rigorous black and



Untitled, 1962, oil on canvas

white abstract paintings of the early sixties. His softer compound forms directly predict, on an intimate rather than a public level, the shape, activism and shifting silhouettes of the rigorous geometries of his first steel sculptures of 1962.

Smith has alternately described his sculpture in purely formal terms and as "germs capa-

ble of spreading growth and disease." His rather somber etiological description reminds us that some viruses are living crystals, and that one of his interests has been crystallography, with its balance of a strict ordering principle and irregularity and disorder within the system. In his youth, his family encouraged him to study engineering at Stevens Institute. Smith was attracted to mathematically definable systems of growth as exemplified particularly in the biologist D'Arcy Thompson's book, *Growth and Form*. He read and acknowledges the importance for him of Jay Hambidge's *Elements of Dynamic Symmetry*. He undoubtedly took note in that influential book of Hambidge's declaration that the "material for the study of dynamic symmetry" was to be secured "from three sources: from Greek and Egyptian art, from the symmetry of man and plants, and from the five regular geometric solids... the cube, the tetrahedron, the octahedron. "

A knowledge of Smith's highly original pictorial experiments in the fifties lends an entirely new credence and coherence to his development, and dispels the romantic notions that his implacable black steel boxes or more complex tetrahedral forms emerged ex



Semi-Architectural Structure, 1961, Bennington College, Vermont

nihilo, in a moment of inspirational transport. They had, in fact, been gestating for decades. Their complex genesis goes back to his abstract Mondrian-derived painting of the thirties as well as to standard architectural schoolroom exercises with three-dimensional form, and the adoption in his later executed architecture of Frank Lloyd Wright's diamond and hexagonal modules. During his Bennington sojourn, Smith had his students erect a huge semi-architectural structure based on a complex of close-packed geometric solids, or tetrakaidecahedrons, at a time when his architectural ventures were in his words, taking him "further and further from considerations of function and structure towards speculation in form."

At a propitious moment, his space frames, which were instinctive by the fifties as a result of his designing experience and skills, merged with the intuitive sense of spatial flow and a new formal configuration capable of evoking emotional responses in his paintings. An unprecedented and powerfully expressive structural hybrid came into being which the ever resourceful Barnett Newman had the presence of mind to immediately designate as a 'sculpture.' Smith himself admits he wasn't quite sure what kind of objects he had created in 1962 when he set his first large-scale forms out in the South Orange backyard.

His new sculptures were almost exclusively based on regular geometric solids, with the exception of his Ten Elements (pp. 34-36) in the current show. Despite his primary reliance on combinations of the tetrahedral and octahedral form, Smith has managed, it is universally agreed, to endow his constructions with mysterious "presence." Deeply immersed in the intellectual and artistic life of the New York avant-garde, and fortified by his own theological education and a deep love of Joyce and literature, his mind was instantly receptive to the heady brew of art, ideology and polemics

that shaped the work of his particularly close friends Rothko and Newman. Smith shared a conviction with them, and with Pollock and others that abstract art required an articulate universal content to rid itself of the Bauhaus 'good design' mentality. They all sought their symbols alternately in Surrealism, Freud, Jung and primitive cultural artifacts. When Smith later made his quantum leap into sculpture, he remained loyal to his first psychological and esthetic convictions which were formed in the atmosphere of the emerging New York School. Within his mathematically predictable systems, utilizing for the most part regular geometric solids, he managed to erect unpredictable constructions with an animistic soul and emotive powers. They transposed metaphors from his own past for organic life and growth that he had first discovered in the sequence of boldly original experimental paintings of the early fifties.

Smith's working methods today are unique, as practical as they are conceptually demanding. Invariably, he conceives and carries out even his monumental works without the benefit of mediating drawings, working from small pasted mock-ups, which he once painstakingly made by hand. After his participation in the Osaka '70 exposition (pp. 30-33) under the auspices of the Container Corporation of America, however, the company charitably spared him the tedium of cutting out his own paste-ups by making "thousands of flats" of his favorite tetrahedrons and octahedrons for him. His daughters conveniently assembled and taped them together in solid form, creating a vast reservoir of sculptural building blocks. He now stores them in a vacant pantry of his ample Berkeley Avenue house, stacked and jammed in Altman shopping bags. Most of them are the dismembered, recycled husks of abandoned formal ventures, waiting to be renewed in yet untried combinations that may reach the stage of a permanent imagery, to be then enlarged in plywood mock-ups and finally preserved in steel.

Smith experimented with modular components with the simple triaxial structure of such unitary forms as Die and The Black Box, while he also explored the open cube and its basic three axes in Free Ride. He settled on the components of the tetrahedra and octahedra in the mid-sixties when he made Willy (p. 17) and Amaryllis (pp. 20-22), but he had already begun to experiment somewhat earlier with tetrahedral exercises in the construction of Spitball, a pyramidal structure made of a series of paper cut-outs of three-dimensional, triangular forms. When he added the octahedron, he found a new and more promising close-packed pattern of four and eight-sided figures. His complex mathematical specular

tions within his now accustomed formula have produced a new kind of equation of logical form and strong corporality. The powerful configurations of his sculptures have often startled him in large scale when they are completed. His perception of the work Amaryllis, for example, reveals the twin pulls in his sculpture of expressive eccentricity, or emphasis, and balanced structure. In an interview with the author he stated:

When I did the sculpture **Amaryllis**, I had the sense that it looked so ungainly and unbalanced. It also seemed rather classical from one view, but then taken from another, it seemed some kind of caricature of form. We're all born with a sense of rightness of form, and this seemed to be some kind of desecration of all that, just as the amaryllis plant seems to me a kind of orchid made out of wood or some terrible aberration of form... When it was actually built, I was quite terrified by it. You know I have such a Hellenistic view of things that when I see something that strikes me as abortive, it terrifies me. That's how I thought of **Amaryllis**, but then, after a while I began to see that it had some kind of presence. The qualities which I thought so strange actually pulled themselves together into a kind of contemporary expression of form which although novel wasn't just frivolous. I think now of it as a somewhat formidable piece of sculpture.

The stabilizing balance that pulled the sculpture together was undoubtedly supplied by the hidden logic of the space lattice from which it had been extracted. The invisible order of his spatial grids exert a moderating constraint even on Smith's most ungainly or chance configurations that may arise from his explorations of his systematic alternatives.

Smith does not draw his models because drawing would falsify his vision of his work in three dimensions, and afford him no idea "how his piece is going to turn." To hear him discuss his working methods, one has the impression that the system described is the simplest imaginable, until confronted with the unimaginable chaos of his stored tetrahedral and octahedral components in their pantry home. The preparatory forms seem only remotely related to his finished sculptures because their triangulated surfaces and taped edges give them a strangely pictorial quality, and disrupt the continuities of that "paced unfolding of form" which his uniform, black-painted surfaces in plywood mock-up and large scale convey as one striking, wholistic gestalt of vision. When he begins to dismantle and recombine his component solids, as if to demonstrate how geometric regularity can become irrational, his hands seem to potentiate his modular system as vividly as one imagines Rodin's

might have breathed the spirit of living form into a mound of shapeless clay.

His figures form awkward and symmetrical configurations by turns, seeking expressive thrust and a stabilized arrangement that will order the disarray of abandoned blocks in the direction of clarity, simplicity and that "wholeness" which Joyce discovered in St. Thomas Aquinas as the requisite of the ennobled work of art. When he arrives at "stability," Smith says, the model is considered finished and ready to be tested in larger scale.

Smith is both puzzled and amused by the number of letters he receives, now that he is well-known and so many of his sculptures grace communal spaces, with requests to see his 'studio.' Pointing to a coffee table at the side of a worn and comfortable armchair in his study, he says, apologetically, "I don't have any studio. I just do these little paper things on the coffee table—I always use the same ones. I tear them apart and put them together again."

Remembering how he used to cut out each module painstakingly and paste his complex tetrahedrons together by hand, until the Container Company came to the rescue, he remarks: "My fingers aren't the nimblest in the world, and it really was very boring." Although he has occasionally digressed and used irregular combinations and "capricious" systems, he finds that after some fifteen years he has yet to exhaust the inventive possibilities of his basic forms, the combined tetrahedrons and octahedrons. He remains steadfast in the same position he took some years ago in an interview when he noted that he does not yet feel "sufficiently acquainted with them to say when their usefulness for me would come to an end." These particular units of design allow him an almost unlimited expressive range of four and eight plane surfaces which can move in oblique directions and compose themselves in unexpected combinatory wholes of emotional power. His final configuration often surprises even the artist at his moment of discovery. Smith himself forms a particularly responsive audience for his work and elaborates readily on its evocative power.

He has described, often with ill-concealed delight, the startling impression individual pieces make upon him. He named Willy, a gangling, lopsided, two-legged form at Paul Feeley's suggestion, after a pitiable and comically passive character in Samuel Beckett's play, A Happy Day. Willy's day consisted in crawling slowly about a stage set designed like an immense bed. Willy the sculpture, says Smith, "resembled a crawling thing that hadn't been designed for crawling."

Of Cigarette (pp. 12-13) he wrote: "I had set out to make a serious piece of sculpture" but he found the smooth plaster model "redundant, with the look of a war memorial." Stripping away everything but the spine, he wound up "with a cigarette from which one puff has been taken before it was ground out in the ashtray." The title for Gracehoper (pp. 10-11) came from Finnegan's Wake ("the sillybilly of a Gracehoper had jingled through a jungle of love and debts and jangled through a jumble of life indoubts afterworse..."). The massive, long-limbed, graceful hopper is a Detroit landmark on the grounds of the Art Institute. Smith's post facto elucidation of its possible symbolism is as extravagant as it is disarming, and culturally fundamental:

It comes from the central passage in *Finnegan's Wake* called the "onet"—corresponding to the "ant"—and the "gracehoper." The onet represents the spatial orientation of the classical world, the Greek world. The gracehoper represents the modern world of, say, Bergson and Einstein, the world of dynamics rather than statics.

Only Barnett Newman's Hassidic metaphors and spiritual rationale for his abstract paintings can match Smith in fancifulness and unabashed invention. This is not to say that their interpretations of their own work are to be treated lightly, either. Smith, like Newman, consciously invests geometric form with an emotional and spiritual resonance. Harold Rosenberg's claim for Newman applies to Smith as well, if qualified by a certain degree of healthy scepticism, namely that such quantities as measurement, proportion and shape awaken ideas about God, man and destiny.

As a long-time practicing architect and skillful designer, Smith's grasp of formal systems, essentially the interaction of geometric solids, gives his forms an architectural presence guite unlike any other contemporary sculpture. His mathematical configurations and calculations have a way of seeming at once simple and extremely intricate. Making sculpture can almost be child's play, on the one hand, given a viable system and shopping bags conveniently crammed with cleverly devised building blocks. Yet there is a touch of pataphysical lunacy in the complex description by the artist of his sculpture Smoke (pp. 24-25) as a "rhomboidal dodecahedron topologically stretched beyond recognition." The statement is true and demonstrable, but it also takes revenge on a world of increasingly specialist language and technological mystification. Like the "abstract sublime" of his friends Newman and Rothko, Smith's formalized language often seems a trap for the unwary, and a joke at the expense of the gullible who are determined to find an elevated or esoteric content in modern art which can only be marginally present at best.

Smith is keenly aware of the problem of emotional content in his work, and alert to the varying reactions that his sculptural configurations elicit from an audience. He constantly refers to his geometric forms in primitivist and animistic terms, or compares them to architectural sites and dwellings from early cultures—to menhirs, earth mounds, and diagrams he has found in books of building and town plans of the ancient Near East. When he was asked to try to pinpoint the origin of the emotional aura of his work, he speculated surprisingly on his close contacts in the mid-forties with the sculptor Jacques Lipchitz:

I used to lunch regularly with Lipchitz when we were both making engravings in Bill Hayter's class at Anne Ryan's Studio. I became interested in his mythological sculptures of that time, where a bird will emerge from an animal, and these pieces had a very profound effect on me. I thought of them as related to geometric form, but at the same time as having a potency for organic flow. The large Prometheus sculpture in front of the Walker Art Center is an example. Those forms had a very strong and lasting impact on my mind. I suppose that at a very deep level which I am not entirely able to summon, they have a kind of eroticism. And there is something erotic in all my work. It all has a great deal to do with my early view of the world, because until I was seven, and confined to bed. I had practically no muscle. If I have done a great deal of work on houses. it was really through sheer will power, not through actual strength. In my childhood I was never allowed to engage in sports, and while people think of me as strong, I am actually very fragile. As a child I was obsessed with sporting equipment, and with tools-I wanted axes!-because I couldn't have either. Things like that affected me. and I still have a very deep romantic feeling about people's physical make-up. When I see those tangled bodies in Lipchitz' sculptures. they strike me as very animal and very powerful and I respond. I don't really know how to get much closer to this idea, since it seems so deep in my unconscious. If my work has possibly more appeal than it deserves, I imagine it probably affects people at an animal level for all those reasons.

In his new work Smith has returned to two primary formal sources. His major piece, Throwback (pp. 39-42), is based on the regular geometric solids of his familiar combination of tetrahedrons and octahedrons, the basic space frame for all his ambitious, conjoined sculptures. Although it is less eccentric or fanciful in its

spatial sprawl than some of his complex monumental sculpture, its shifting silhouettes and planar configurations can still dazzle the eye of the circulating spectator. Its power as an agglomerate of interactive and linked masses contrasts with a sense of weighty calm. Tippy but stabilized, expansive and self-contained, Throwback shows all the hallmarks of Smith's ponderous yet graceful and versatile formal constellations. He named the work in a retrospective mood. He explains:

In a certain sense the piece is unique. I did not have the prospect or opportunity of making a large architectural sculpture so I decided to do something more conventional. I made an object that recalls an earlier period.

Smith envisions a final scale of sixteen feet in length, and he anxiously awaits the moment when he can see his monumental twisting surface realized in steel. The translation of an ephemeral object of plywood planes to the permanence of steel gives his sculpture a special emotional resonance and gravity.

The other major grouping of related sculptural forms in his current exhibition are Ten Elements (pp. 36-38). They relate to an earlier series of dispersed, more flexible and fragmentary solids which were conceived for an outdoors setting and inspired by the Japanese Garden: The Wandering Rocks. Unlike Throwback, with its invisible but understood space lattice, these elements belong to no known system of regular solids, nor do they fit a predetermined structural scheme. Smith made each piece singular, with its own



Wandering Rocks, 1967

idiosyncratic identity, and yet he has arranged them as a loosely related grouping with something of the randomness of nature. While the pieces do not have the visual complexity of his larger and more ambitious constructions, they are actually more novel and unpredictable in invention. With their sheer faces, abrupt truncations and sharply angled planes, they resemble leaning cubes, tippy steles and warped pyramids. All sense of hierarchal order has been dissolved. Smith says of them:

Each piece is unique. I use angles that are derived from different solids. When they go together, they do not follow any internal system. They are parts that I know will go together from their different solids, and I assemble them, you might say, in capricious ways rather than systematic ways. You have to take each plane as it comes and find out in what way it will join the other planes. There isn't even any regularity of height.

To determine their appropriate position and spacing, Smith laid the glued and fragile paper structures on his ample dining room table, and had his wife trace their edges on a plastic sheet, to guide the later gallery installation of their enlarged plywood mock-ups. He notes: "I put them on the table without any predetermined plan whatever, and left them just the way they landed." Nonetheless, as in the case of The Wandering Rocks, the individual elements are controlled somewhat by a sense of order, for they line up on the same axial grid either parallel or perpendicular to the room architecture. They are thus to be viewed both as self-contained objects and in the context of a continuing spatial experience, rather than as a purely arbitrary or haphazard arrangement.

Although Smith's sculpture has been associated with Constructivist geometries, it can only be properly read and appreciated within the framework of a contemporary psychology of perception. Ten Elements are riddled with illusionistic paradoxes. The slanting planes of a parallelepiped (Webster defines it as "a solid with six faces, each a parallelogram") actually appears to be a cube in perspective. Optical ambiguities activate all of Smith's sculptures, and the shifting shapes they present to the circumambulating viewer. In contradiction to the assumption that one view of a sculpture must lead logically to the next, what is seen as a sharply receding plane may flatten out as we approach it, or turn on us menacingly from another angle of vision—an unsteady, leaning monolith crowding our space. One has the sense that Smith's gallery sculpture deliberately poses a challenge to the human presence, and outdoors, to any competing architectural forms.

Few modern sculptors and no architect other than Buckminster Fuller have shown a more fanatical devotion to the art of structures than Tony Smith. Yet his sculpture also alludes to historic monuments. He speaks frequently in conversation of his deep regard for farmhouses of primitive simplicity in the French countryside and of the dwellings and site plans of the ancient Near East, and of Macchu Picchu. Inescapably, his forms also associate themselves with modern metal fabrication, and with an industrial landscape of super highways, oil storage tanks, airport runways, parking lots and windowless buildings, if not precisely in configuration then in scale and atmosphere. His sculpture forces upon the viewer a complex experience outside its simplicity for it demands both a receptive modern sensibility and an appreciation of historical continuities.

Professor Sam Hunter Princeton University

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