

starting at zero

**Black
Mountain
College 1933-57**

with essays by

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Arnolfini, Bristol and Kettle's Yard, Cambridge

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Experiment, Expression, and the Paradox of Black Mountain College

Eva Diaz

In the years 1948-1952, Black Mountain was the place to be, at least during its renowned summer institutes if not through the academic year. In this period, faculty members included Josef and Anni Albers, John Cage, Merce Cunningham, Buckminster Fuller, Clement Greenberg, Willem de Kooning, and Ben Shahn; among the students were Ray Johnson, Kenneth Noland, Robert Rauschenberg, and Cy Twombly. This for an unaccredited college that could usually offer little other than train fares for its faculty, and that seldom had more than a few dozen students enrolled at a time.

The college was founded in the outskirts of a small Western North Carolinian mountain town of the same name in 1933.¹ Twenty-four years after its founding, in 1957, the college closed its doors, having dwindled by 1956 to less than half-a-dozen paying students. In spite of its short life, Black Mountain has assumed a prominent place in the genealogies of widely disparate fields of thinking. It has been heralded as one of the influential points of contact for European exiles emigrating from Nazi Germany, as a seminal site of American postwar art practices, as a standard bearer of the legacy of intentional communities such as Brook Farm,² and as an important testing ground for proponents of progressive education. The breadth of famous participants has garnered the college a wide reputation but a generally uneven historical treatment.

Throughout discussions about Black Mountain a single idea recurs: the notion of experiment.³ 'Experiment,' whether it be in the context of education, community, or art, has on the whole been treated in the Black Mountain literature as a generically positive appellation, lumping diverse practices under a single category that comes



work

The work—five hours a day, six days a week—is of two main kinds: modern building construction and farming. The construction, designed and supervised by A. Lawrence Kocher, well-known architect, includes ground-clearing, drafting, stone and brick masonry, concrete, carpentry, and interior finishing. The farm program, besides routine operation, entails truck gardening, landscaping, land-clearing, and farm expansion. Each camper is expected to do his share of the more unskilled tasks, but, in so far as ability and strength permit, everyone will have an opportunity to engage in different types of work.

study

Classes, lectures, and discussion groups, conducted by members of the Black Mountain College faculty and by guest professors, will center around current world problems in their social, economic, and political character. Open to those interested, there will also be a course in Field Biology, a Seminar in Philosophy, a series of lectures on Music, and a choral group.

Access may be had to books from the College library and to records from the music collection.

Players of musical instruments who are interested in informal ensemble playing should bring their instruments with them.

Common intellectual and artistic pursuits—as well as work and play—act as a cohesive force in community life. Daily informal contact between all members of the camp community provokes discussion and stimulates thinking; and the mingling of people from different regions of the United States and from abroad creates a cosmopolitan atmosphere.



Learning and Living

Black Mountain College is a small cosmopolitan community of students and teachers living together an education stressing democratic co-operation. Through participation in the life of the community, through study and discussion of the past and present, through the discipline of the studio, the laboratory, and a comprehensive campus work-experience program, it is preparing citizens with the understanding and the maturity to play a constructive part in the world at war and in the post-war world.

Black Mountain differs in many respects from traditional liberal education. It rejects the required curriculum, the report card, the board of trustees. It finds that intensive and independent work under faculty guidance, discussion classes, continual contact with teachers, are more conducive to learning than the syllabus and the weekly quiz. It finds that participation in the operation and maintenance of the College and its community are better guides to a democratic way of life than fraternity politics or organized athletics. It finds that eager students living, studying, working with interesting people in a stimulating community, discover themselves and the world as they never could through the academic formality of a more traditional college.

This booklet is intended to show you something of the way in which Black Mountain people live and work; what they believe in, and what they do.

above
Black Mountain College
Work Camp brochure

left
Black Mountain College Bulletin,
vol. 1, no. 3, February 1943

Both Black Mountain College Papers,
North Carolina State Archives,
Raleigh, N.C. USA

unproblematically to signify both artistic avant-gardism and political progressiveness. Yet the concept of experiment to which key Black Mountain personnel themselves appealed was deeply contradictory. In large part this contradiction reflects the compound meaning of experiment, and its historically shifting relation to concepts such as innovation and tradition.

Experiment shares with *empirical* and *experience* a common root in the Latin *experiri*, 'to try or to put to the test.' Until the eighteenth century, 'experience' and 'experiment' were interchangeable in English usage, though subsequently *experience* came to indicate that which has been previously tested, a past accumulation of knowledge or skill – 'lessons as against innovation or experiments' in the words of Raymond Williams.⁴ Yet *experience* continued to carry a second meaning, that of a full and active consciousness or awareness, an experimenting with, testing, or trying of something. The complexity in the definition of experience as either the past (tradition), or that which is freshly experienced (innovation), had the effect of splitting the meaning of experiment to include both 'testing under controlled circumstances,' and 'innovative acts or procedures' more generally. Although experiment is sometimes associated with systematic procedures such as the scientific method, which imply previously formulated hypotheses under test, experiment is also invoked in trials of new or different experience in which results are not forecast beforehand. Discussion of the degree of innovation or control inherent in, or permitted to, experimental practices as debated at Black Mountain turns on this ambiguity in its etymology.⁵

This essay focuses on rival methodologies of experimental art as elaborated and practised by three key Black Mountain teachers: Josef Albers, John Cage, and Buckminster Fuller. All laid claim to a practice of experimental production that stressed innovation without personal expression, but simultaneously excluded competing conceptions; all viewed their experimental procedure as interrelating art and life and therefore imbuing art with crucial relevance. For Albers, experiment 'embraces all means opposing disorder and accident.'⁶ It represents a careful procedure of testing socially and historically constructed perceptual understandings in art against deceptive optical registrations. To Cage, experiment ruptures patterns of reasoning which hypothesize testable limits. As he stated, 'The word "experimental" is apt, providing it is understood not as descriptive of an act to be later judged in terms of success or failure, but simply as an act the outcome of which is unknown.'⁷ In Fuller's model, experimental procedures are those by which the 'valid data' of 'what is really going on in nature' can be formulated conceptually



Josef Albers teaching
photo: Hazel Larsen Archer
The Estate of Hazel Larsen Archer. Courtesy Jan van der Donk



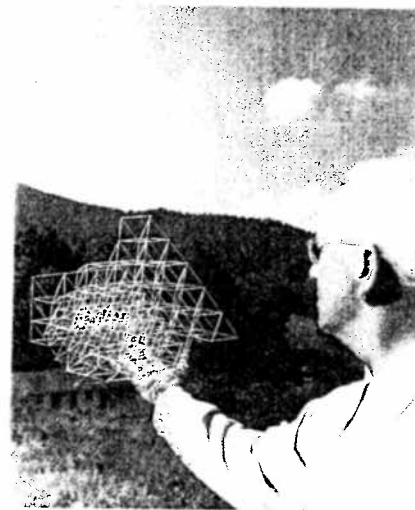
John Cage at Black Mountain College, 1948
photo: Clemens Kalischer
Courtesy the artist

by artists (also known as 'comprehensive designers') thereby exposing the conventionalized knowledge claims ('myths') of an overly specialized society.⁸

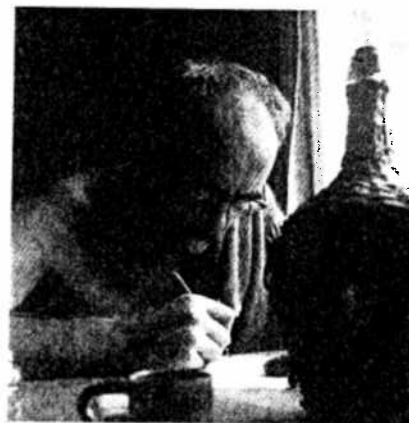
These three models of experiment – the methodical testing of the appearance and construction of form in the interest of designing new visual experiences (Albers), the organization of aleatory processes and the anarchical acceptance of accident (Cage), and 'comprehensive, anticipatory design science' that propels, teleologically, current limited understanding towards a finite totality of universal experience (Fuller) – represent important incipient yet disparate directions of post-war art practice, elements of which would be sampled, if not wholly adopted, by Black Mountain students and subsequent practitioners.⁹

Yet in spite of their different proposals towards experimental art practice, the cases presented here were all attempts to establish experimentation in opposition to self-expression or direct immediacy. To explore this, these case studies will be set into relief by a fourth, that of Charles Olson. Expressionism at the college, embodied in visual art practices such as those of de Kooning, Franz Kline and Robert Motherwell, and paralleled in expressive literary modes such as those of poets Charles Olson and Robert Creeley, counterposed the experimental models represented by Albers's work with contingency in design, Fuller's scientific tests in coordinating structure to effects, and Cage's indeterminacy. Charles Olson, the college's final rector and its guiding influence in the 1950s, advocated a quixotic form of collaboration in the interest of immediacy, spontaneous production, and self-expression. His student at Black Mountain, the poet Jonathan Williams, quotes him as saying (and one could similarly imagine de Kooning, Pollock or any number of post-war expressionists stating), 'You've got to take hunches, you've got to jump and then see what – you've got to operate as though you knew it. Take chances, jump in there and see what happens.'¹⁰ Discussions at Black Mountain about the complicated nature and effects of experiment must be seen as themselves in dialogue with such counter-tendencies towards expression.

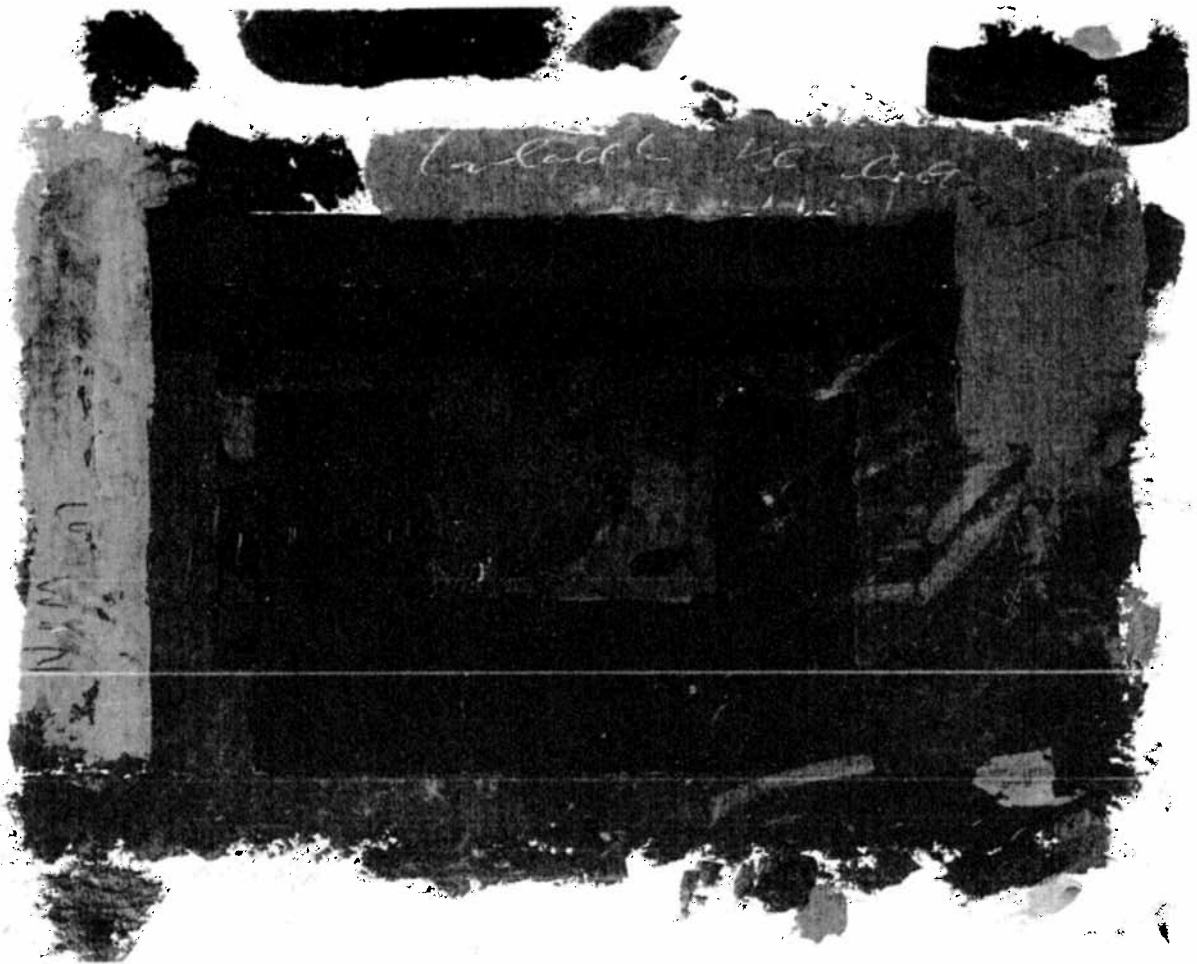
Upon his arrival in Black Mountain in 1933, Albers famously responded to his welcome ceremony at the college by stating, 'I want to open eyes.'¹¹ Seemingly guileless, Albers's statement indicated not only a strong pedagogical commitment, but also revealed a desire to create an audience for his art which would be tutored in new perceptual strategies. In his *Werklehre* and other courses at the college (taught from 1933 until his departure in 1949), Albers proposed an ordered and disciplined



Buckminster Fuller with model
at Black Mountain College, Summer 1949
photo: Masato Nakagawa
Black Mountain College Papers,
North Carolina State Archives, Raleigh, N.C, USA



Charles Olson at Black Mountain College, 1951,
writing *The Maximus Poems*
photo: Jonathan Williams
Courtesy the artist

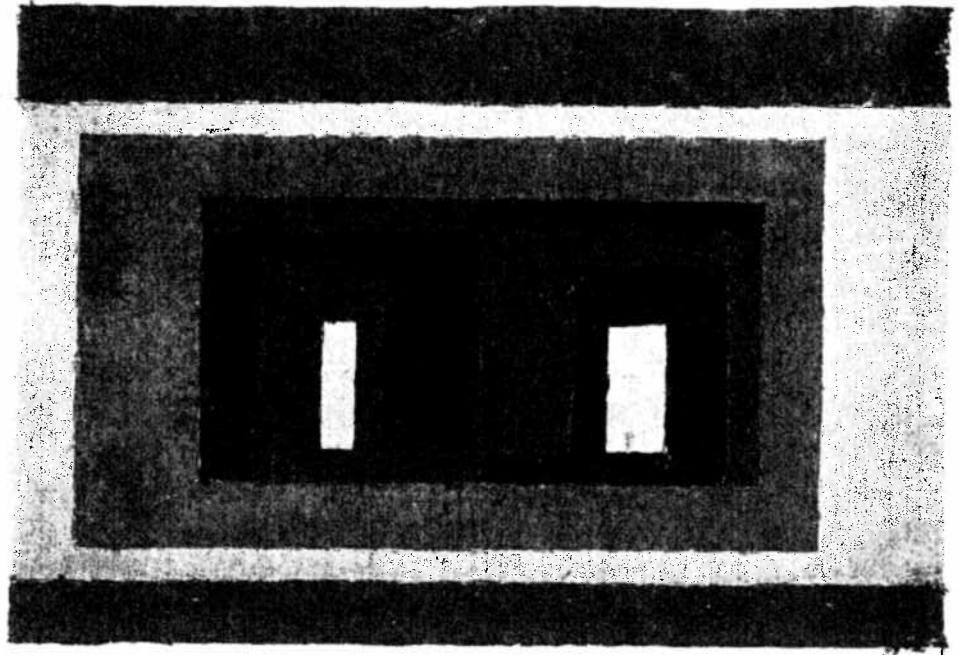


JOSEF ALBERS *Study for Variant (IV)* c.1947

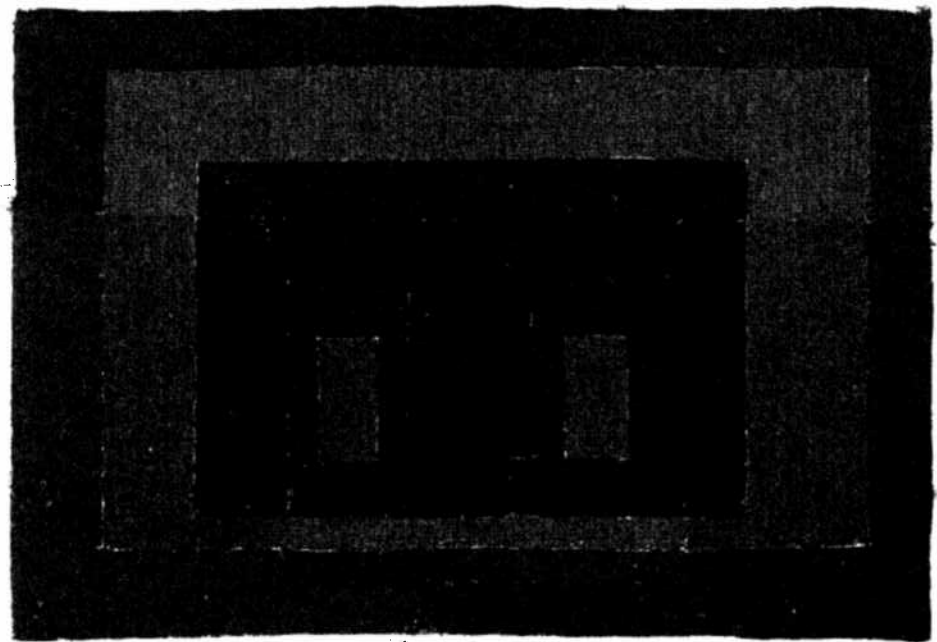
oil on paper

The Josef and Ann Albers Foundation

© 2005, The Josef and Ann Albers Foundation/VG Bild-Kunst, Bonn and DACS, London



above
JOSEF ALBERS
Study for Variant (I) c.1947
oil on paper



right
JOSEF ALBERS
Study for Variant (II) c.1947
oil on paper

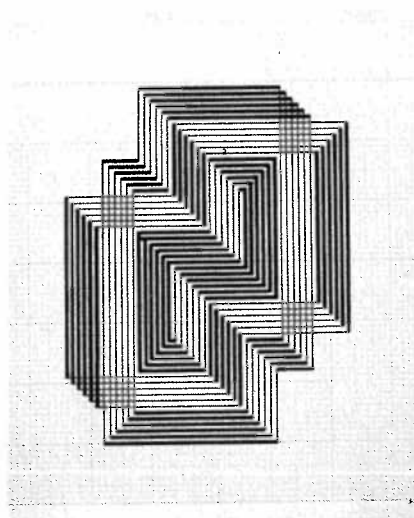
Both The Josef and Anni Albers Foundation
photo: Tim Nighswander
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The Josef and Anni Albers Foundation /
V6 Bild-Kunst, Bonn and DACS, London

testing of the various qualities and appearances of everyday materials such as construction paper and household paint samples, in which the correlation between formal arrangement and underlying structure was emphasized, and economy of labour and resources underscored.¹² He stressed the 'experience' of a laboratory environment, and promoted a form of experiment and learning in action which could dynamically reappraise routine habits of seeing.¹³

Albers's own work at the college reflected a deliberate experimentation with the constitutive elements of form, particularly the colour and geometric relations organizing the appearance of forms on a plane. The scheme of each construction produces internal frictions and instabilities and must be provisionally extricated from multiple and contradictory dimensional readings. For instance in Albers's drawing *Untitled Graphic Tectonic IV* (c.1941-42), at first glance two interlocking forms are shown demarcated in a regular pattern of lines in contrasting widths. As one follows the intensifying vortex of concentric lines to find a third half-perceived object in the centre, the impossibility of extracting such an illogical form – a form both receding and projecting – from the matrix of surrounding lines summons once again an overall flatness to the image. The contingent structure of the overlapped composition in *Untitled Graphic Tectonic IV* – is it more 2-d than 3-d? is it a unified shape or several intersecting or even disparate forms? – generates optical challenges (though Albers disdained association with the later Op Art moniker) and exposes the rudimentary material conditions necessary to construct spatially ambiguous images.

Albers's sketches and studies reveal the systematic trial and error process that each work underwent to completion, and how in fact the 'finished' works themselves are composed of systematic variations and production in series. In his studies, careful calculations of surface area determined alterations in the balance of forms and their spacing in relation to the edges of the work. Minute adjustments and transpositions of certain elements of repeated forms were then worked out in subsequent iterations. Often he represented a series of similar forms and subjected them to methodical procedures of modification and recombination. Albers distinguished between the casual attitude he termed 'variety' and the experimental rigour of what he referred to as 'variance':

The word variety, although recently a favored design term, has become discredited because of increased abuse. It has become a pretentious recommendation for designs of questionable merit. It is applied to protect hurried changes, to excuse poor alterations, or to defend any accidental and



JOSEF ALBERS

Untitled Graphic Tectonic IV c.1941-2

pencil, pen and ink on wove graph paper, ruled in orange

The Josef and Anni Albers Foundation

photo: Tim Nighswander

© 2005. The Josef and Anni Albers Foundation/

VG Bild-Kunst, Bonn and DACS, London

meaningless whim... Thus the excuse "for variety's sake" remains a warning signal.

To replace this negative criterion, we are in favor of a related word of better reputation, the design term "variant." As variety usually concerns changes of details, variant means a more thorough re-doing of a whole or of a part within a given scheme. Although variant may remind us slightly of imitative plagiarism, normally it results from a thorough study. Because of a more comprehensive comparison forth and back, it usually aims at a new presentation. On the whole, variants demonstrate, besides a sincere attitude, a healthy belief that *there is no final solution in form; thus form demands unending performance* and invites constant consideration – visually as well as verbally.¹⁴

In his c.1947 *Study for Variant (III)* the appearance of depth is illusionistically suggested in certain areas but refuted in others. Here Albers was interested in the perception of proximate or adjacent areas of darker or lighter colour as either transparent overlays or areas of opacity. Through a meticulous and methodical process of colour and compositional studies (for example, *Study for Variant (IV)*, c.1947), Albers applied bands of colour to contiguous sections of the concentric rectangles, confusing the optical impression that the various forms are either embedded in or superimposed upon one another. Areas of translucency and overlap, and hence suggestions of spatial recession, for example the appearance of the orange horizontal band in *Study for Variant (III)*, are contradicted by coloured zones that project over and around the ostensibly covered over section, such as the bright elevation of the area of grey.

In his many studies for the *Variants*, Albers devised tools and techniques to assist his tests of possible colour arrangements and orientations in the series. Careful preparation studies functioned as 'experimental tryouts' for paintings that were themselves intelligible only within a schema of experiments in formal possibility, rather than discrete and final entities.¹⁵ In a sequence of templates, for example, Albers painted concentric borders in alternating colours on several different cardboard mats. He then overlaid these 'frames' around various central arrangements, testing the possible colour and scale organization of the work by changing the different panels. Varying the interrelated borders by alternating the order of the panes, Albers used the visual 'data' to assess the most appropriate contrasts.

For Albers the most determined process of logical experimentation produced results whereby contingency – the carefully tested permutations of a form's appearance that can continually be subjected to new variations – could be most clearly maintained. The understanding of contingency as 'a trial and error experimentation'¹⁶ with the endless possibilities of methodically tested differences, was both a pedagogical practice and a methodology guiding his own work. His rational exploration of the subtle mutations and variations of form attempted to construct new modes of visual perception. To Albers, this form of experimentation was also an important impetus to perceptual and possibly cognitive change; indeed, he advocated it 'can lead to illusions, to new relationships, to different measurements, to other systems.'¹⁷



In the late 1940s experiment at the college shifted from Albers's emphasis on a rigorous testing of the contingent variations of form to Cage's proposition of what I phrase a 'chance protocol,' in which indeterminate outcomes were sought in a 'purpose to remove purposes.'¹⁸ Two of Cage's events at Black Mountain exemplified this move toward stochastic process. The first involved the recovery of early-century absurdist performances in his 1948 production of Erik Satie's play 'The Ruse of the Medusa,' which alerted Cage to the possibility of random relationships between actions within a performance. This precipitated the second of the events, the turn to chance processes in his 1952 'Untitled Event,' subsequently proclaimed the first 'Happening.'

In 1948 Cage arrived at the college with nearly all 18 extant scores by the French composer Erik Satie and a copy of Satie's 1913 play 'The Ruse of the Medusa.' Cage proceeded to antagonize many of the German émigrés, Albers included, by exclusively performing Satie's oeuvre throughout his stay; particularly infuriating was a prefacing speech denouncing Beethoven's harmonic tradition in favour of Satie's emphasis on rhythm and duration. He managed to redeem his standing at the college with an innovative production of the once-performed but since ignored Satie play. Student Arthur Penn directed Buckminster Fuller as the Baron Medusa, Elaine de Kooning as his daughter Frisette, and Merce Cunningham as the 'costly mechanical monkey' with sets by Bill and Elaine de Kooning. The production continued a style of avant-garde theatre at the college emphasizing intentionally unnaturalistic and stylized acting, and a lack of demarcation between the spaces of performance and audience. However, Satie's absurd monologues and unrelated





CLEMENS KALISCHER

Photographs of *The Ruse of Medusa* 1948

above left

Elaine de Kooning and Merce Cunningham

left

Elaine de Kooning and Buckminster Fuller

above right

Buckminster Fuller and Merce Cunningham

right

Group including John Cage

behind Buckminster Fuller

All courtesy of the artist



musical interludes set the groundwork for explorations of the possibly arbitrary connections between events in a production.

To begin with Satie in 1948 already gave part of the game away, that is, his self-avowed 'amateur's' interest in Dada that contrasted with the largely Bauhaus-influenced theatrical tradition practised at the college, exemplified by Xanti Schawinsky's productions. Schawinsky, a student of Bauhaus theatre master Oskar Schlemmer, taught at Black Mountain for several years in the late 1930s. Schawinsky had staged several productions of a non-narrative theatre of 'total experience,' including 'Spectodrama: Play, Life, Illusion' with music by Kurt Schwitters. Schawinsky's theatrical staging, unlike in the Satie play, emphasized elaborate costumes modelled on abstract shapes and masks, dramatic light and shadow shows, and heavily symbolic characterization.

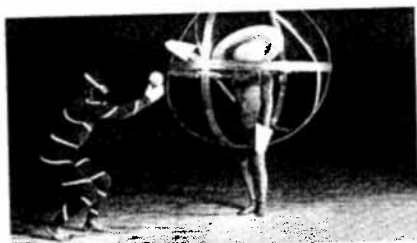
Cage's 'The Ruse of Medusa' performance was still, in spite of its departure from the Bauhaus model, the production of a scripted play. It was on his visit in 1952 that he radically disrupted previous incarnations of performance and inaugurated a dispersal of attention and a radical fragmentation of narrative. By the time Cage returned, he was utilizing pseudo-chance compositional methods derived from parameters provided by the *I-Ching*. But it was faculty member M.C. Richards' translation of Antonin Artaud's *The Theatre and Its Double*, with its call for a medium of theatrical performance beyond the scriptures of literature, that provided most fertile ground for the 1952 'Event.'

Cage and pianist David Tudor formulated an idea for a performance with multiple participants who would perform during various overlapping time segments totaling forty-five minutes. According to Cage, he proposed that Charles Olson and M.C. Richards read their poetry, student Robert Rauschenberg display his paintings and play records, and Merce Cunningham dance. Tudor was to perform on the piano, and Cage would read from a previously prepared lecture on Zen Buddhism. To Cage, the event represented the fairly specious possibility of events taking place without being causally related to one another, although he had in fact established strict time brackets and organized the event with particular temporal and location parameters.

The event went on as scheduled, with the addition of upside-down slides projected on tilted surfaces (a cruciform arrangement of Rauschenberg's 'White Paintings') to one side of the central concentric arrangement of chairs, which were organized as 'a square composed on four triangles merging towards the centre, but not meeting.'¹⁹ The seating arrangement allowed performers mobility throughout the



Xanti Schawinsky
Stage Study (The Paper Ballet), Performance II
Spectodrama: Play, Life, Illusion, Spring 1937
photo: Helen M. Post
Courtesy Estate of Xanti Schawinsky



Xanti Schawinsky and the Stage Studies class.
The Danse Macabre:
A Sociological Study, performed May 14 1938
Courtesy Estate of Xanti Schawinsky

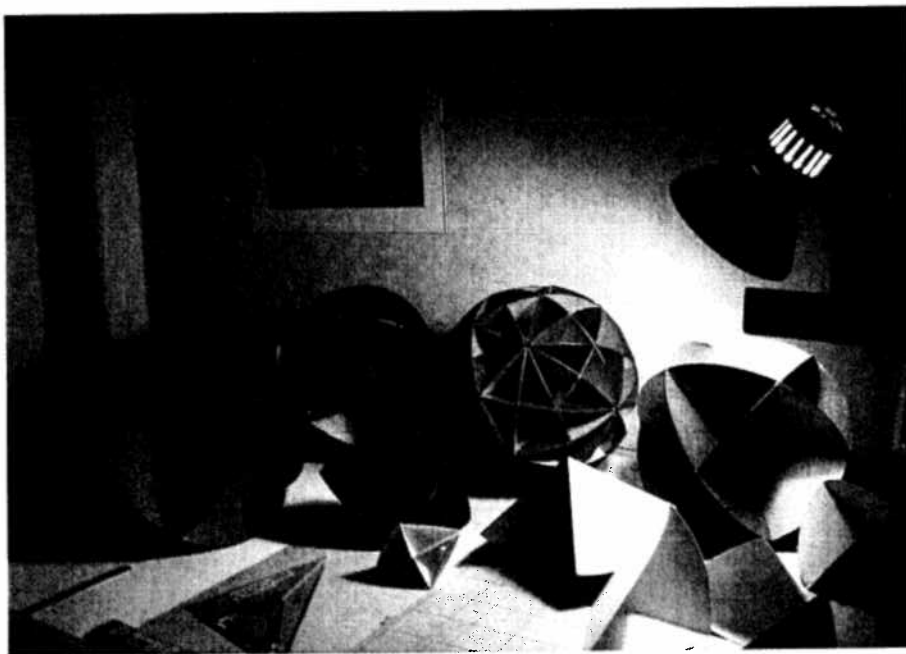
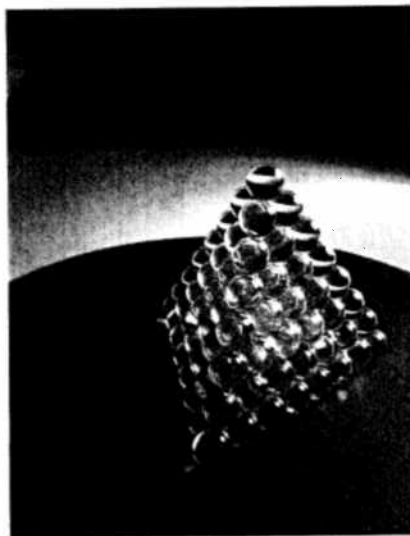
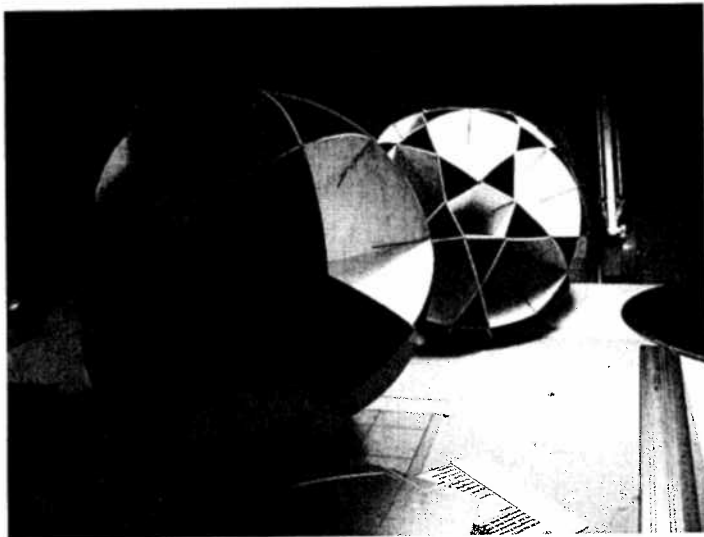
audience seating, and followed Artaud's pronouncement that 'the spectator, placed in the middle of the action, is engulfed and physically affected by it... immerse[d]... in a constant bath of light, images, movements and noises.'²⁰

Cage in this second event was mining other theatrical legacies, those as varied as Dadaist simultaneous performance and Shakespearean theatre-in-the-round, previously explored at Black Mountain college by the Light-Sound-Movement Workshop organized by Betty and Peter Jennerjahn in the late 1940s and revived by choreographer Katherine Litz and M.C. Richards in summers prior to the Cage event. The Jennerjahns, in collaboration with about a dozen college students and faculty, improvised short theatre pieces, sometimes 'limited to a minute, or so,'²¹ over projected slides, improvised music, and incorporating dance elements. M.C. Richards, in 1950, staged a production of Jean Cocteau's 'Marriage on the Eiffel Tower' as theatre in the round, and over a decade earlier Schawinsky's 1938 production of 'Danse Macabre: A Sociological Study' had likewise been staged with the audience centrally 'on display.' Yet unlike these precursors, Cage's 'Event' eschewed extensive rehearsals and previously arranged scripting, costuming, music, and characterization.

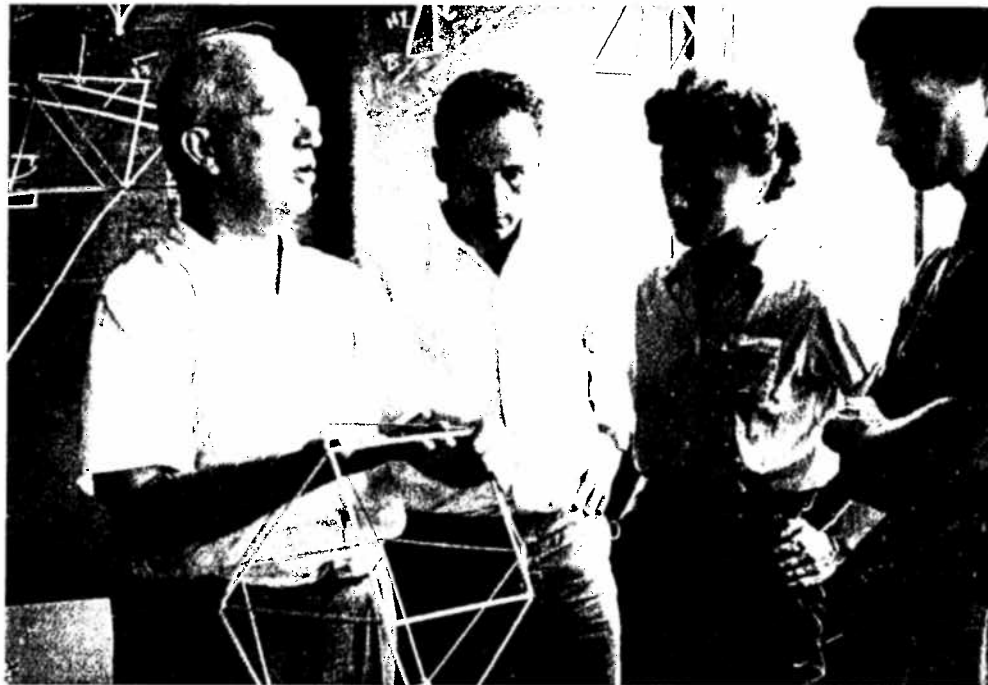
The employment of a chance protocol in 'Untitled Event,' one of particular parameters (duration, assignment of specific tasks to performers, or an agreed-upon use of certain tools or instruments) governing the execution of the work, represented an attempt to sever experimentalism from determining factors such as artistic intention or argumentation. Cage broke friendship with Albers around the issue of chance, and Cage later reconstructed this argument as ratifying a uniquely American, as opposed to European, aesthetic, thereby pushing form beyond intention or determination.

Cage praised Buckminster Fuller's experimental practices as an American individualist 'utilitarianism' as distinguished from purposeful and collective (read European) political practices. Fuller attempted to move beyond specialization, artistic, political or otherwise, toward a unity of technological progress and industrial design. He termed his project of rendering technology less specialized and more efficiently and humanely distributed 'comprehensive design,' by which he intended to reason deductively from 'generalized principles into unique experimental control patterns.'²²

In 1927 Buckminster Fuller had an epiphany: as he later described it, he 'set about deliberately to be a comprehensivist in an era of almost exclusive trending and



Facsimiles of R. Buckminster Fuller's models
made for the exhibition
by Philip O'Farrell and Philip Shelley
Photographed in their studio, 2005



Buckminster Fuller teaching at Black Mountain College, 1948
 photos: Kenneth Snelson
 Black Mountain College Papers,
 North Carolina State Archives,
 Raleigh, N.C., USA



"Bucky ... whirled off into his talk, using bobby pins, clothespins, all sorts of units from the five-and-ten-cent store to make geometric, mobile constructions, collapsing an ingeniously fashioned icosahedron by twisting it and doubling and tripling the modules down to a tetrahedron; talking about the obsolescence of the square, the cube, the numbers two and ten (throwing in a short history of ciphering and why it was punishable by death in the Dark Ages); extolling the numbers nine and three, the circle, the triangle, the tetrahedron, and the sphere; dazzling us with his complex theories of ecology, engineering, and technology. Then, he began making diagrams on a blackboard. He drew a square, connecting two corners with a diagonal line. "Ah," he said affectionately, "Here's our old friend, the hypotenuse."

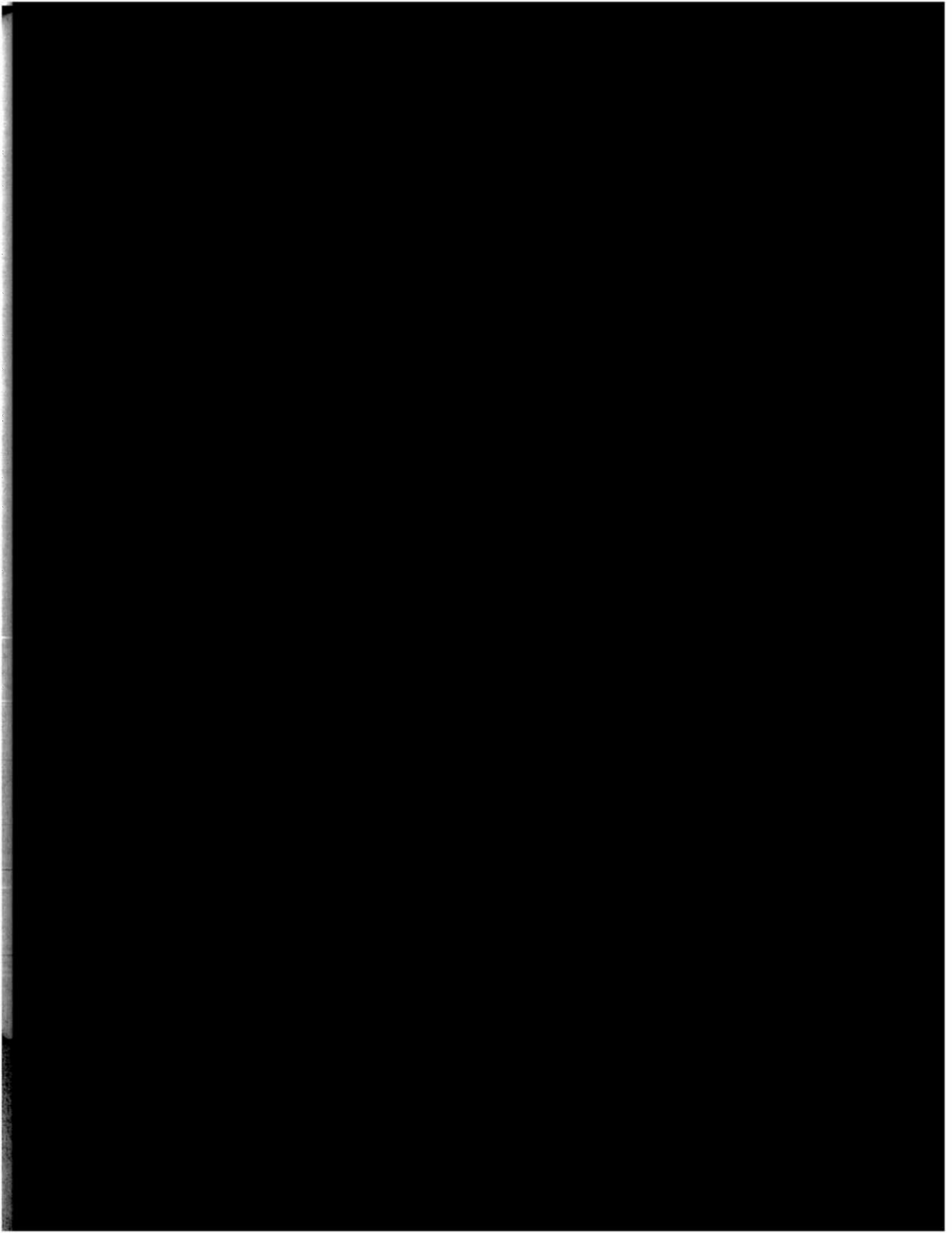
*Black Mountain College: The Art of Black Mountain College
 (1949-1956) by Kenneth Snelson, Black Mountain College Papers, 1948, and photo: 2002
 p. 22*



'Buildings are being built as fortresses, historically really, the heavier, bigger the better. You can't make many experiments with big stone blocks, they're going to kill you ... I was doing the mathematics of the geodesic dome, spent great hours at night working on that ... there were no electric calculating machines to help me ... I designed this thing so it would deliberately fall down, would not stand. I called it the Supine Dome ... So I told them, I want to build a building that they're not afraid of having it collapse because it's so light it can't hurt anybody, it's like confetti ... I was dealing in a new technique which was so delicate, so light that you couldn't get hurt anyway. So you start with this supine thing, and then keep fortifying until now ... it's standing up ...'



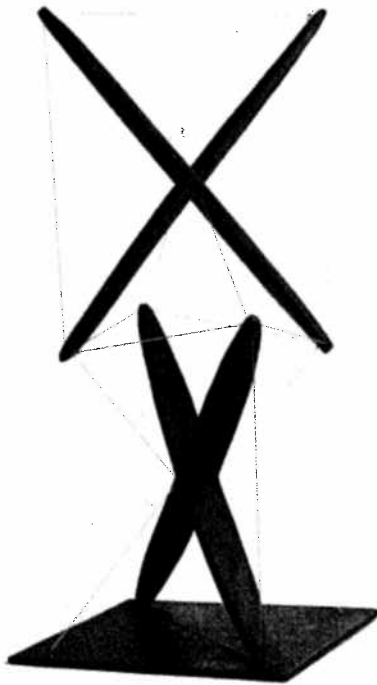
From an interview by Martin Duberman with Buckminster Fuller, June 26 1969, in Black Mountain College Papers, North Carolina State Archives, Raleigh, N.C.



formal disciplining towards specialization' and 'gave up forever society's general economic dictum that every individual who wants to survive must earn a living, substituting instead a search for the tasks that needed to be done that no one else was doing or attempting to do, which if accomplished, would physically and economically advantage society and eliminate pain.'²³ Lofty ambitions no doubt, but practicable by an elite cadre of what he later termed 'comprehensive designers' or 'artist-scientists' who are 'an emerging synthesis of artist, inventor, mechanic, objective economist, and evolutionary strategist.'²⁴ The contribution of artistic practice toward this hybrid role would be to 'formulate conceptually... all of the as-yet unknown or unproven'²⁵ in preparation for a process of experimental verification.

Before coming to Black Mountain, Fuller had created what he termed 'Dymaxion' constructions, in which portable, mass produced shelters efficiently delivered 'the maximum gain of advantage from the minimal energy output.'²⁶ When he arrived at the college in 1948, he collaborated with sculpture student Kenneth Snelson in further developing what Fuller termed 'tensegrity', an engineering principle of discontinuous compression and continuous tension. This innovation, combined with Fuller's long-standing interest in geodesics (defined as the arc of a great sphere), resulted in an attempt to construct a large-scale, 22 feet high geodesic dome at the college. After a long series of (pre-computer era) calculations, one damp morning Venetian blind slats were assembled as the dome's armature. The dome spectacularly failed to rise, and was good-naturedly termed the Supine Dome. According to Fuller, though he was aware that the Venetian blinds needed to be doubled-up in order to have sufficient tensile strength to elevate the dome, he decided to push ahead with insufficient materials so as to demonstrate that structures could be gradually built up to the point of standing in order to create materially and economically efficient buildings. To Fuller failure was inextricably part of any experimental method – 'you succeed when you stop failing.'²⁷

His presence had so electrified the campus that upon Josef Albers's resignation in 1949, Fuller was offered the vacant rectorship of the college.²⁸ Though Fuller refused the position, he returned that summer with a newly manufactured prototype dome, this one of a more modestly-scaled flexibly-constructed metal tubing. The dome was erected successfully, and a plastic weather insulating skin was tested. The success of the dome reflected the achievement of 'synergetic' processes in which a whole system (in this case the theory of tensegrity) was experimentally validated. The success of synergetic thinking, was to Fuller, an indication of the 'inherent success'²⁹ of humanity, or what he termed as human beings role as 'the most comprehensive



KENNETH SNELSON
Wood X Piece 1948
photo: Kenneth Snelson
Courtesy the artist

anti-entropy function of the Universe.³⁰ Experiment, to Fuller, was the process of aligning specific failures of method or theory with the regularities of holistically-conceived systems, a process not unlike a deductive application of the scientific method, in which a hypothesis is offered and then its merits tested.

Experimentation as practised by Fuller at Black Mountain should be understood as co-extensive with a mid-century cultural lexicon that emphasized scientific procedures in a spirit of technological optimism and American exceptionalism. The role of design, to Fuller, was to convert reactive and compensatory thinking to what he termed 'an anticipating and laboratory experimenting.'³¹ Design would henceforth be the central element of social planning, superceding political processes; a design towards the telos of efficiently distributed technology.

In 1951 Charles Olson, together with dancer/choreographer Katherine Litz, artist Ben Shahn, and composer Lou Harrison, staged a so-called 'glyph' exchange emphasizing spontaneity and interdisciplinary collaboration. Hieroglyphs and ideograms fascinated Olson, much as they had his mentor Ezra Pound, who distinguished between the routinized associations of arbitrary phonetic systems and the multiplicity of meanings attributable to ideogrammatic images.³² Pound termed the glyph a 'vortex, from which, and through which, and into which, ideas are constantly rushing.'³³ To Olson, however, the glyph was not quite as semantically unfixed as Pound suggested, but rather proliferated meanings with only a condensed (and often stylized) material referent.

Sergei Eisenstein, who like Pound was metabolizing structural linguistics' first wave of influence, had also pointed to such an expansion of the possibilities of signification in the glyph. He stated that the combination 'of two hieroglyphs of the simplest series is to be regarded not as their sum, but as their product, i.e. as a value of another dimension, another degree; each, separately, corresponds to an object, but their combination corresponds to a concept. From separate hieroglyphs has been fused – the ideogram. By the combination of two "depictables" is achieved the representation of something that is graphically undepictable.'³⁴ Thus, to Eisenstein, the combination of separate pictograms together generate a new meaning, a third term, in a process akin to montage. The glyph to Olson was similarly 'productive' material – he was attracted to words with multiple meanings, homonyms, and *double entendres* whereby a single word yielded various associations. Olson had travelled to the Yucatan to study Mayan glyphs and returned to Black Mountain proclaiming



BEN SHAHN

A Glyph for Charles Summer 1951

tempera on paper

Whereabouts unknown, formerly collection of Katherine Olson

©Estate of Ben Shahn/VAGA, New York and

DACS, London 2005



JONATHAN WILLIAMS

Portrait of Lou Harrison at Black Mountain College 1951

Courtesy the artist

the instantaneity and direct immediacy of the material glyph-image a means of short-circuiting the 'stereotype,' as he described, of easy instrumentalization that endangered Western abstract, arbitrary language systems.³⁵

The 'glyph' exchange was directly precipitated by an encounter with Southern racial politics. Olson, in the town of Black Mountain with Alvin Lipsey, the young nephew of the college's black cook, came upon a local auction. The boy exclaimed, 'It's like a race.' Olson, startled by the allusion to slave auctions, wrote a brief, purportedly spontaneous poem about the scene. He dedicated it to 'Alvin and the Shahns,' and gave it to the painter Ben Shahn who was at the college for the summer. Returning the gift, Shahn painted *A Glyph for Charles*, produced, like several other works he completed at the college, in what he termed a 'palimpsest' style without erasures of any kind. Olson was struck by the mutability of the various signs in the image, functioning both denotatively (the ribs of the chest of a figure), but also describing panes of glass in a frame, or the bars of a cage. The central black lines in the figure also indicated calligraphic writing; as Olson wrote, 'A combo of a Mayan glyph & a Chinese written character: the pectoral muscles a black cross with short t to shoulder, the rib case bones flying off like signs of morning (Chinese) and the stomach sac, the draw-in, like moon rising in trees,...he... used these heavy black lines as the leading for windows.'³⁶ Lou Harrison, an associate of Cage's hired in his absence, composed a work entitled 'The Glyph' for the 'prepared piano, 2 bells, claves, pitch fork, &, perhaps, gong' which he gave to Katherine Litz. She then choreographed a dance using the Harrison score and an enlarged version of the Shahn painting as primary set design.

Why did Olson associate the perceived semantic transparency of the Mayan glyph with the fundamentally arbitrary relation of the material referent 'race' to its various homonyms? Perhaps the rigidly policed definition of such a category in Southern racial politics triggered a play on its ostensibly self-evident meaning, especially given the difficult climate of prejudice the college struggled against in its immediate surroundings. That it created a synergetic attitude of collaboration amongst his colleagues at the college speaks to an eagerness to employ a practice responsive to improvisatory change and immediacy. Each collaborator produced their contribution separately but rapidly, overlapping in the word-image 'glyph' a palimpsest of multiple practices much as the referent 'race' contained multiple meanings. As Litz stated, 'The common idea of a Glyph expressed by the different art forms was simply a compound image contained in a single work.'³⁷

The velocity of the exchange reflected Olson's hope that the individual become

the prime agent for exploration of what he termed the 'kinetics of experience... the kinetics of themselves as persons as well as of the stuff they have to work on, and by,' in order to 'release the person's energy word-wise, and thus begin the hammering of form out of content.'³⁸ In his 1950 essay 'Projective Verse' Olson praised poetic composition emphasizing spontaneity. Believing that spontaneity presented an unmediated path to unconscious thought, he was reluctant to revise his work and claimed that speed effected the direct transcription of the purer material of the unconscious. As he proclaimed: 'It is spontaneous, this way... [a]t all points (even, I should say, our management of daily reality as of the daily work) get on with it, keep moving, keep in speed, the nerves, their speed, the perceptions, theirs, the acts, the split second acts, the whole business, keep it moving as fast as you can, citizen.'³⁹ Spontaneity was a process of unveiling deeper truths in a quest for an essential expression of subjectivity; Olson was verifying the fidelity of words to the 'truth' of the unconscious.

It is a testament to Albers, Cage and Fuller that they attempted to generate models of experimental process, however conflicting, that sidestepped the tendency to abridge the project of art to one of self-expression and immediacy. The deliberate deployment of experimentation by Albers, Cage and Fuller to very different ends signals an important yet relatively underanalyzed episode in the history of American art practice and modernism generally. In spite of their different ambitions in defining experimentalism, the intensity of these Black Mountain dialogues and the intersection of their various efforts at an arts education institution necessarily mapped debates onto artistic practice, in ways that made non-visual artists like Fuller and Cage influential in art discourses of the 1950s and 1960s. Yet disputed practices of experiment at Black Mountain in the late 1940s and early 1950s should always be seen as situated within the larger historical context of artistic experiment or laboratory-based production (of the Bauhaus, in Albers's case; Francophone Dada in Cage's; and interdisciplinary applications of the scientific method in Fuller's).

In this study of Black Mountain, the category of experimentation has been treated critically and differentially rather than descriptively, in order to elucidate a conflict around American artistic purpose in the late 1940s to which its frequent and contested invocation alludes. In proposing experiment as a model for understanding art practices at Black Mountain College, it is in the hope of understanding the college's role in generating new methods and objects of artistic production, new ways

of generating avant-gardist critiques about the construction and representation of reality, and developing working means to effect those critiques. Black Mountain participants' ambitions to transform habits of perception, systems of intention, and patterns of tradition have critical implications for understanding modernist and subsequent art practices.

Notes

This essay emerges from my larger dissertation project titled 'Chance and Design: Experimental Art at Black Mountain College' undertaken at Princeton University.

1. Black Mountain College was founded in the aftermath of a faculty governance dispute at Rollins College, a small Florida college. The ejected parties, which included the College's first rector, John Andrew Rice, went before an AAUP mediation panel that vindicated their actions but ultimately could not reinstate them as faculty. They decided to found an educational institution that would avoid the pitfalls of an autocratic chancellor. Black Mountain College was established with the aim of providing an education in life and pedagogy, loosening or altogether abolishing the types of distinctions between student and faculty, and faculty and administration, that usually served to specialize roles and bolster hierarchical distinctions. With minimal structure, born of both ideological inclination and economic necessity, Black Mountain's experiment in education would prove innovative, yet provisional and ultimately untenable.

Black Mountain College's institutional organization was peculiar and problematic. It was wholly owned by the faculty and students, with a governing Board of Fellows (headed by an elected rector) composed of eight faculty members and one student member culled from their respective constituencies. Non-binding recommendations were made by an external Advisory Board that met infrequently. A work programme was required of all college members, although in practice students executed many of the duties.

2. Brook Farm was an experimental community near Boston, Massachusetts. Founded in 1841, it was associated with Ralph Waldo Emerson and American Transcendentalism.

3. For example, from a selection of the literature from and on the College: 'Black Mountain: An Experiment in Education'; 'Report from the Academy: The Experimental College'; *Black Mountain College: Experiment in Art*; 'Art as Experiment.' Louis Adamic's essay 'Black Mountain: An Experiment in Education' is from his book *My America* (New York: Harper & Bros., 1938). An earlier version of the essay was published as an article in *Harper's* in April 1936. College faculty member Eric Bentley's article on the college, 'Report from the Academy: The Experimental College,' *Foreign Perspective Review*, 11, 2 (1971), 1-11.

exhibition catalogue, *Black Mountain College: Experiment in Art*, was recently published (2003) by MIT Press. 'Art as Experiment' is a chapter title from Mary Emma Harris' *The Arts at Black Mountain College* (Cambridge, Mass.: MIT Press, 1987).

4. Raymond Williams, *Keywords: A Vocabulary of Culture and Society*, New York, Oxford University Press, 1976 (1983 edition p.126).

5. My larger study of Black Mountain traces this relation by charting the historical epistemology of the concept of experiment, positioning it within College sympathizer John Dewey's early- to mid-century philosophical discussions about experiment and experience.

6. Albers quoted in Eugene Gromringer, *Josef Albers* (New York: George Wittenborn, 1990), p.171.

7. John Cage, 'Experimental Music: Doctrine,' in *Silence* (Hanover, NH: Wesleyan University Press, 1961), p.13.

8. What Fuller termed the 'experimentally unprovable myths.' *Buckminster Fuller: Anthology for the New Millennium*, Thomas T.K. Zung, ed. (New York: St. Martin's Press, 2001), pp.107,120.

9. Fuller, 'Bulletin of the Fuller Research Foundation: Exhibit 1- Airocean World Plan,' June 1955, p.4 (Fuller Papers at Stanford University). Fuller writes that the march to what he terms 'right-makes-right' is a 'teleologic processing of experience-into-design,' that is to say, a process that proceeds towards an inevitable resolution. James Meller, ed., *The Buckminster Fuller Reader* (London: Jonathan Cape Ltd., 1970), p.55.

10. Olson, in Martin Duberman, *Black Mountain College: An Exploration in Community* (New York and London: W.W. Norton, 1972), p.406.

11. This phrase is a frequent refrain in the Albers literature. Albers quotes himself saying this in Martin Duberman's interview with Josef and Anni Albers on November 11, 1967, p.13 [NC State Archives].

12. Albers, first at the Bauhaus and continuing at Black Mountain, developed a trio of foundational art courses. Basic Design (the *Werklehre* course) was concerned with explorations of the material constitution of form. It was divided into two components, what he termed *matière* and *material*, stressing discovery using commonly found materials assisted by the fewest possible tools. *Matière* studies concerned the *appearances* of materials, distinguishing between structure, facture, and texture, and representing materials by their tactile or optical perception. *Material* studies concern the immanent *capacities* of materials. Studied structurally and analyzed according to features such as compression, elasticity, and firmness tested through folding and bending. The second course, drawing, emphasized shape through exact observation and transcription of form in space. The final course, colour study, was conceived of as the foundational technique of painting. It underscored that colour is always relational. Together the courses stressed that the understanding of and reflection upon visual data – that is, perception – must be carefully trained through observation.

13. Albers stated it was necessary to see 'action as the aim of education.' 'Tradition and Experiment in Art,' n.d., p.10 (Albers Papers, Yale University).

14. Josef Albers, *Interaction of Color* (New Haven and London: Yale University Press, 1971), p.74 (emphasis added).

15. *ibid.*, p.69.
16. *ibid.*, p.70.
17. *ibid.*, p.42.
18. Cage quoted in Richard Kostelanetz, *Conversing with Cage* (New York and London: Routledge, 2003), p.231.
19. *ibid.*, p.109.
20. Antonin Artaud, *The Theater and Its Double*, M.C. Richards, trans., (New York: Grove Press, 1958), p.96 p.125.
21. Pete Jennerjohn quoted in Vincent Katz, *Black Mountain College: Experiment in Art* (Cambridge, Mass.: MIT Press, 2003), p.187.
22. Fuller, in Meller, *Reader*, p.43.
23. Fuller, in Zung, *Anthology*, p.120, p.118.
24. *ibid.*, p.71, p.75.
25. *ibid.*, pp.114-115.
26. *ibid.*, p.119.
27. *ibid.*, p.201.
28. The Alberses' departure was due in large part to disputes about the mission of the college as it pertained to the importance of art education, although a complicated set of factors which often could be reduced to the college's financial difficulties contributed.
29. Fuller, in Meller, *Reader*, p.48.
30. Fuller, in Zung, *Anthology*, p.120.
31. Fuller, in Meller, *Reader*, p.56.
32. A glyph is a carved ideogram. A pictogram is derived from literal pictures, and combinations of pictograms create ideograms. An arbitrary phonetic system is one in which a linguistic sign has no relation to its referent, that is to say, a system in which words have no relation to the objects they describe. For example, in English the word 'tree' has no relation to the thought-image-object of a plant with roots, leaves, and bark. The arbitrariness of the sign was structural linguistics' basic assertion.
33. Pound, in Daniel Belgrade, *The Culture of Spontaneity: Improvisation and the Arts in Postwar America* (Chicago: University of Chicago Press, 1998), p.84.
34. Sergei Eisenstein, 'The Cinematographic Principle and the Ideogram,' in Gerald Mast, et. al., eds. *Film Theory and Criticism*, 4th ed. (New York and London: Oxford University Press, 1992), p.128.
35. Yet paradoxically, to Olson, the material inscription of Mayan glyphs in stone demanded attention and became what he termed a measure of 'resistant time'. Olson, in Belgrade. *Culture of Spontaneity*, p.90.
36. Olson, in Harris. *The Arts at Black Mountain College*, p.221.
37. Katz, *Black Mountain College*, p.186.
38. Olson, in Duberman, *Black Mountain*, p.393.
39. Olson's 'Projective Verse' as quoted in Belgrade. *Culture of Spontaneity*, p.29.