

The Ontology of Robert Buelteman's Photographic Images: *Through the Green Fuse*

Allan Langdale

*I photograph what I do not wish to paint
and I paint what I cannot photograph.*

--Man Ray

The most recent photogramic images of the California photographer Robert Buelteman, exposed by high voltage currents passing through plants, are particularly provocative in terms of how they exemplify, in their form, technique, and content, several key issues on the history and nature of the photographic image; discourses which have been revived somewhat since the onset of digitalization. His images provide an instance, moreover, of the problems surrounding photographic art and the ontological boundaries of photography itself. My title is a conscious reference to Andre Bazin's famous essay of 1963, *The Ontology of the Photographic Image*,¹ in which Bazin established the analogical basis of his aesthetic of Realism in film. Herein, I shall occasionally refer to the work of film theorists, my objective being both to elaborate the issues generated by Buelteman's work and also to exercise some notions from film theory that illuminate them. Recent scholarship on the nature of the digital image will also come into play.

The phrase "Through the Green Fuse," borrowed by Buelteman from a Dylan Thomas

poem of 1937 entitled “The force that through the green fuse drives the flower,” is the artist’s title for the series of plant photograms that I shall be discussing herein (Fig. 1). More will be said later about the metaphoric aspects of this poetic reference.



Figure 1—Robert Buelteman, *rosa, sp.*
From the series *Through the Green Fuse*, 1999-2000
Chromogenic print

Buelteman’s earlier photographs were mostly conventional black and white landscapes that recall Ansel Adams in their loving appreciation of Californian locales. Unlike Adams’ starkly grand images of the Sierras, however, Buelteman most often trained his lens on the softer lines and moister atmosphere of coastal California, specially the north coast where he makes his home. Soft shades of grey predominate,

and his images were often intimate portraits of lonely places of tranquility and calm, at times suffused with melancholy and a sense of loss (Figs. 2-3).²



Figure 2—Robert Buelteman, *Stagecoach Road*,
from the series *The Unseen Peninsula*, 1994



Figure 3—Robert Buelteman, *Dawn*,
from the series *The Unseen Peninsula*, 1994

Buelteman's "Through the Green Fuse" photograms, all of plants and flowers, represent a significant departure, both technically and aesthetically, from these earlier works, primarily because no cameras or lenses are used and they exhibit vibrant colors. The exposure of the photographic plate is only partially to light. Rather, the primary exposure is made by sandwiching the living plant, often sliced into paper-thin sections (Buelteman, tellingly, uses the term "sculpt" to describe the process) between a metal plate and plexiglass, buffered by liquid silicon, and running a current of 40,000 volts through the specimen. This method, some will recall, was invented by the Russian scientists Seymon and Valentina Kirilian, who believed that electro-exposures laid bare the hidden "aura" of life (Fig. 4).



Figure 4—A Kirilian photograph of a Leaf

They thought that they had discovered a process of imaging, later to become known as "Kirilian Photography," which functioned as a revelation of a life force, which could be used for diagnostic purposes.³ The Kirilian "aura," as it came to be known, was thought to give graphic form to variable emotions, illnesses, or states of mind. Some believed

then—and many still believe today—that Kirilian photography of humans revealed the soul.⁴ Buelteman's flowers and plants also leave traces of their auras on the photographic plates, but this aura provides only the ground for the final image, which is thence literally photo-graphed: written on with light. Buelteman takes fiber optic pens and "paints" on the plate with the light they emit, sometimes also using xenon strobes. The manual manipulation of the exposure thus takes place on many levels, especially if one also considers the surgical preparation and the arranging of the vivisected plants, which must still be alive when the current runs through them to produce a Kirilian effect. All of this, to be sure, runs counter to the Bazinian concept of the realist photographic image, where an unbroken analogical relationship exists between the photographic plate and physical reality. Thus the question arises as to the exact relationship of Buelteman's photography to reality and to the plants that he exposes.

Buelteman's images are largely characterized by an eschewing of the objective nature of photography, first by treating his real subjects, the plants, as material for plastic manipulation: his "sculpting" of the plants with surgical tools to facilitate their translucence during electrocution. The "painting" of the images with fiber optic "brushes," which also include color, are further instances of the photographs being treated as media rather than objective, impassive reproductions of a piece of reality. Yet the plants are real, and their physical reality still remains as a large portion of their

form. And even while the exposure of the photograph does not maintain a luminary contiguity with the real objects, this does not undermine either their reality or the fact that electricity is as physical as light and thus of a similar status as regards physical transmission. In fact, by proximity, the real subject's intimacy with the photographic plate in Buelteman's processes breaks down the objective distance normally present in conventional photography (Buelteman's earlier compositions conveyed just such a distancing effect). Buelteman also sees his process of contact imaging as harkening back to the very birth of photography, since Henry Fox Talbot first used the process in 1834 in the first photographs/photograms. Indeed, there are many similarities to Fox Talbot's botanical pieces: each giving a sense of pressed flowers or plants, their shadows enduring after their materiality has long disappeared (Figs. 5-6).

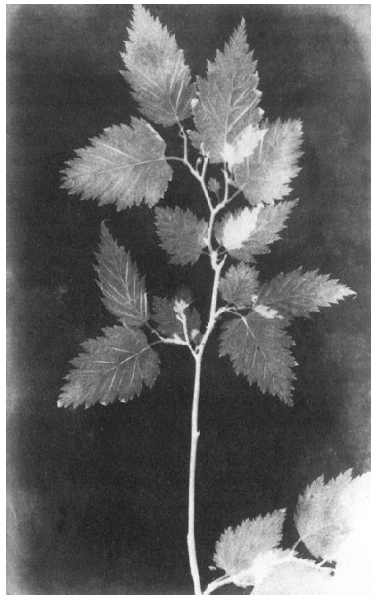


Figure 5—William Henry Fox Talbot
Botanical Specimen, 1839
Photogenic drawing, Royal Photographic Society, Bath, England

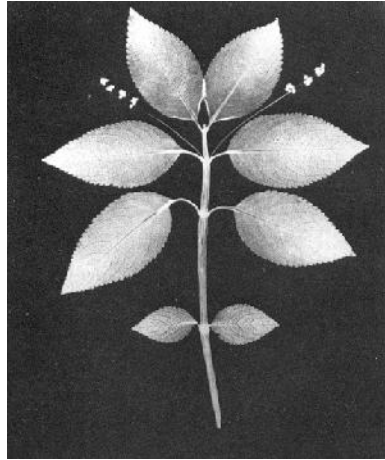


Figure 6—William Henry Fox Talbot
Botanical Specimen, 1839

Photogenic drawing, Print room, University of Leiden, Netherlands

Other such experiments come to mind as well, such as Anna Atkins' and Bertha E. Jaques cyanotypes (Figs. 7-8) and Edwin Hale Lincoln's platinum botanical images (Fig. 9). But Buelteman's large-format close ups are also reminiscent of some of Edward Weston's work, especially when Buelteman's photogram of a sliced artichoke, for example, is seen alongside Weston's treatment of the same subject in conventional black and white (Figs. 10-11).

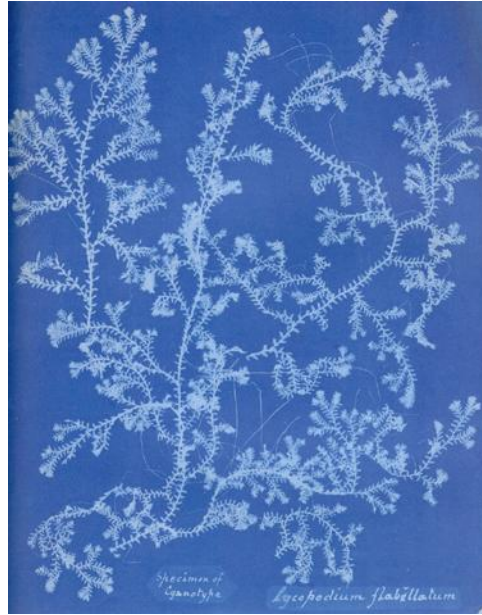


Figure 7—Anna Atkins, *Lycopodium Flagellatum* (Algae), 1840s-50s
Cyanotype, Humanities Research Center, University of Texas, Austin



Figure 8—Bertha E. Jaques, *Goldenrod, Gone to Seed*, ca. 1906-08

Cyanotype



Figure 9—Edwin Hale Lincoln, *Stone Clover*, 1906
Platinum Print



Figure 10—Edward Weston, *Artichoke Head*, 1930
Gelatin-silver print
Museum of Modern Art, New York

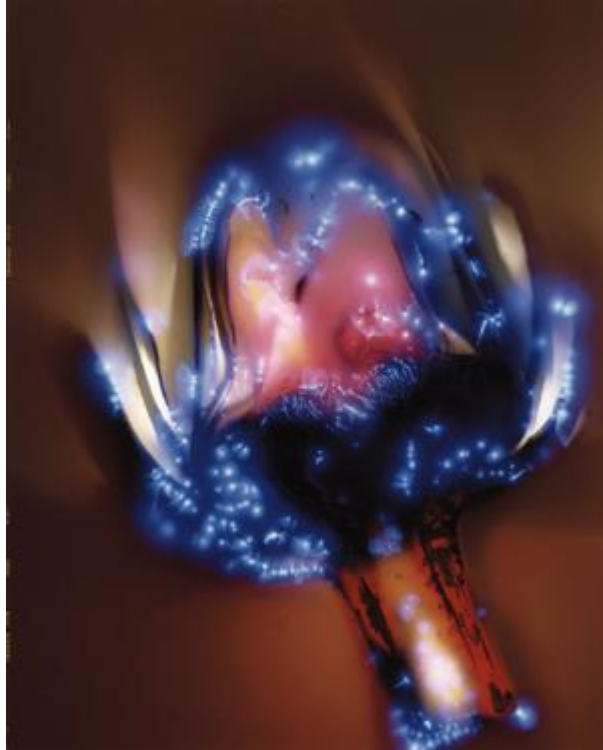


Figure 11—Robert Buelteman, *Artichoke*
 From the series *Through the Green Fuse*, 1999-2000
 Chromogenic print

Just as Fox Talbot's early botanical images had both aesthetic and scientific value, so too are Buelteman's images both visually impressive art objects and, at the same time, investigations into the hidden structures of life offered by a novel imaging technology. Buelteman's work evokes a collision between art and science in other ways. The early psychologist and film theorist Hugo Munsterberg developed a theory of art based on a contrast between art and science. He believed that science shows us how things are connected in the natural world, while he believed that the function of art was to encourage isolation from the world by absorbing the spectator in rapt contemplation of an aesthetic object.⁵ Munsterberg's theory of aesthetic isolation is challenged by

Buelteman's embracing of science (the technological, the botanical) and artistry both.

Buelteman himself uses a quote from Arthur Koestler that illustrates his position regarding the relationship between science, art, and reality:

Einstein's space is no closer to reality than van Gogh's sky. The glory of science is not in a truth more absolute than the truth of Bach or Tolstoy, but in the act of creation itself. The scientist's discoveries impose his own order that always refers to limited aspects of reality, and is always based on the observer's frame of reference, which differ from period to period as a Rembrandt nude differs from a nude by Manet.⁶

Buelteman's work seems to navigate between these two shoals of art and science and the realities that they refer to. But they also evoke contemporary ways of seeing: the natural pictures ironically suffused with technology.

The predominance of the Kirilian aura in Buelteman's work reminds us to recall Walter Benjamin's concept of the aura as articulated in his famous essay "The Work of Art in the Age of Mechanical Reproduction". Of course, these are very different auras, but in some ways they play off on each other interestingly. Benjamin believed that original works of art, like paintings, had an aura. Not a glowing light emanating from them, but a nature that was related to the fact that they were unique objects imbued with their own originality, authenticity and history. Benjamin believed that the genesis of the aura lay partially in the fact that the earliest art objects represented gods or had magical, occult functions, and thus images were imbued with paranormal power and wonder (namely his notion of ritual or cult value). This carried through into secular

painting in the modern age. The mechanically reproduced image was, on the other hand, by virtue of its manufacture, non-auratic. It, by contrast, had exhibition value that diminished cult or ritual value. For Benjamin, the photograph—and the moving picture film—stood at the end of a long history of technologies dedicated to mechanically reproducing images: founding, stamping, woodcutting, etching, engraving, and lithography. Mechanically reproduced objects had negligible aura because they were not unique objects. But the invention of the photograph realized the pure objectivity of mechanical reproduction even more than these earlier reproductive technologies because the making of the image was also mechanical. No artist's hand played any role in the making of the image. The mechanically reproduced photograph was, by its very nature, auraless: it had no artist, was not unique since endless copies could be made, and new prints could be made at any time. In his famous phrase: "aura is that which withers in the age in mechanical reproduction." At a couple of points in his essay, Benjamin discusses instances where aura is artificially re-inserted into the photograph in an attempt to make up for its essentially un-auratic nature. Buelteman's photographs certainly try to do this, avoiding, or at least moving away from the objectivity of the photograph and easing it towards the plasticity of painting and sculpture. At first glance the most singular way in which the photogram resists Benjamin's proposal that photography is auraless is that the photogram, unlike the photograph, is indeed a unique work of art. Though produced mechanically, it is not normally reproducible

except at a reproducing remove (one can take a picture of it, then reproduce that image). But Buelteman's last step in the process wrenches his work from the auratic realm of uniqueness: with digital scanning he re-inserts the image into the dominion of mechanical reproducibility. In the end, his works—the ones we see in galleries—are not photograms, precisely speaking (though one does exist), but are digital prints adapted from that unique original.

Buelteman's artifice both reasserts the photograph as a medium of artistic self-expression and as an embodiment of subjectivity. In this way, his photographs address head on the problem of artistic representation: the giving of form to that which is invisible, to develop a personal visual language that nonetheless conveys and communicates to others. Buelteman thus attempts to reinsert an aura into photography both literally and figuratively: first, by using the Kirilian aura as a ground for the production of an original work of art, which is then, secondly, significantly manipulated as a medium by the artist's subjective expressions. One might recall Man Ray's letter of 1922, in which he communicates his new process of the Rayogram to Ferdinand Howald: "I have freed myself from the sticky medium of paint and am working directly with light itself." For Buelteman, the quote might be reconfigured to read: "I have freed myself from the cool, distant objectivity of photography and am now painting with light."

For Buelteman, however, the work that is done is craftsmanship as much as art. He makes no vaunted or transcendental claims for his creative process. His language describing the method is tinged with adjectives denoting manual labor and a sort of workshop integrity. His actual workshop, though “technological,” is devoid of computers, screens, and digital scanners; the markers of the contemporary, refined, digitizing machines of the visible that now define photographic practices. This discourse on artistic production is, for him, a reply to the tendency for heavy technological intercession in present-day photographic production and the use of computers and software in the image-making process. While others use programs to manipulate the digital image, Buelteman, despite the impressive apparatus of his electrical exposure equipment, reveals himself to be a traditionalist in the sense of manually painting, with his fiber optic “brushes” and his luminescent palette, directly onto the plate. Unlike oil painting, however, the light brushstroke, once made, cannot be undone. His “brushwork” seems to have more in common with Asian theories and practices of calligraphy than painting in the western tradition.

Buelteman’s procedure, it seems to me, raises issues germane to sight, visuality, and modern imaging technologies. The privilege given to the visual sense over the other senses and the ocular-centrism resultant from that focus, was based on the concept that, simply, “seeing is believing;” that is, that vision is the sense that reveals the most to us about the truth of the “actual,” and “real” world. Sight provided the

primary test of reality and was thought to give us a complete picture of the world. But from the invention of the telescope and microscope four centuries ago, human vision has been expanding into the realms of the invisible. The film theorist Jean-Louis Comolli has suggested that the camera, with its great range of potential to record the unseen (and here we should consider the camera as co-extensive to other lensed instruments like the telescope and microscope) de-centers human sight and haunts human vision with a "series of doubts," since the range of "seeing" of machines is so much greater than our own natural vision.⁷ In our time we might consider, on the one hand, the electron microscope which is capable of "seeing" individual atoms, and, on the other hand, the Hubble Space telescope which, in the Hubble Deep Field, has revealed several galaxies in the heart of the emptiest pinpoint of space. But it is not simply a case of microscopic and macroscopic scales, since various new imaging technologies also go beyond human vision in their sensitivity to wavelength: X-Ray, ultraviolet, infrared, CatScan, PETScan, Magnetic Resonance imaging, to name just a few of a rapidly growing list. Bulteman's images seem to relate directly to these kinds of technologies that reveal the otherwise invisible to human viewing. The technologies re-present the invisible to natural human vision, which is thus revealed to be, in the modern age, not very natural at all. In Comolli's famous line, these technologies signal both "the triumph and the grave of the eye." A triumph because these machines of the visible allow us to produce images and "see" well beyond the confines of natural vision;

a grave because these machines now see more surely than we do. Clearly, Buelteman's Kirilian pictures allow us to see beyond the realm of our natural vision, and in this sense they find themselves in a worthwhile dialogue with a contemporary world of visuality where imaging technologies dominate our thinking about the limits of natural vision and the wonder of hidden worlds. In fact it is sometimes uncanny when images of the macrocosmic and microcosmic seem to converge. Some of Buelteman's *Through the Green Fuse* images are strongly reminiscent of the images produced by the aforementioned Hubble Space Telescope, where gaseous clouds coalesce into nebulae that create strings of brilliant new stars along their edges (Fig. 12-13 and 14-15).

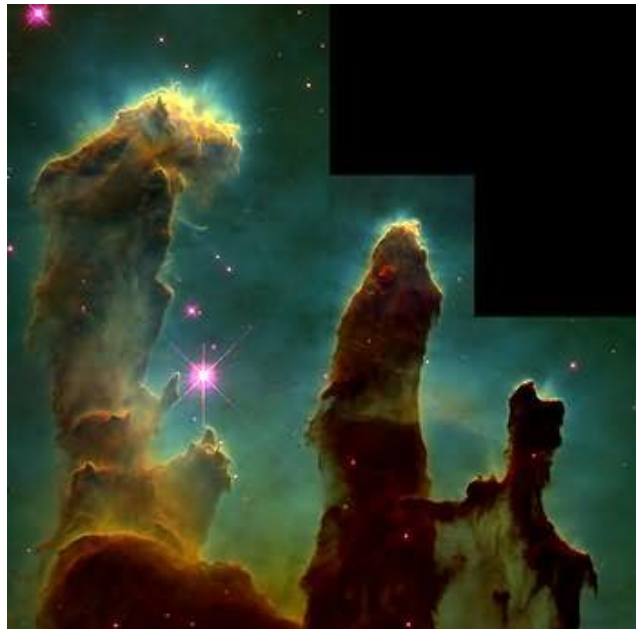


Figure 12—The Eagle Nebula (“Pillars of Creation”)
Image from the Hubble Space Telescope

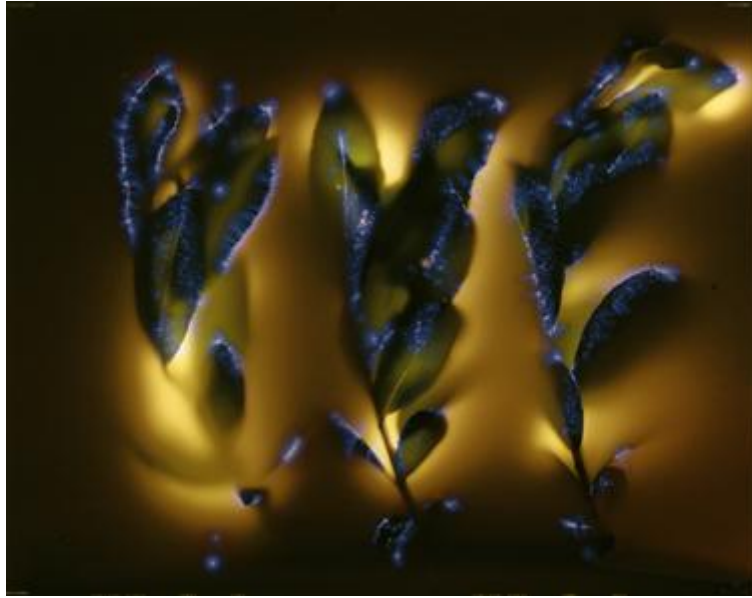


Figure 13—Robert Buelteman, *Salix lasiolepis* (Arroyo Willow) 1999-2001
Chromogenic development print, AP 1



Figure 14—*Cat's Eye Nebula*
Hubble Space telescope image.

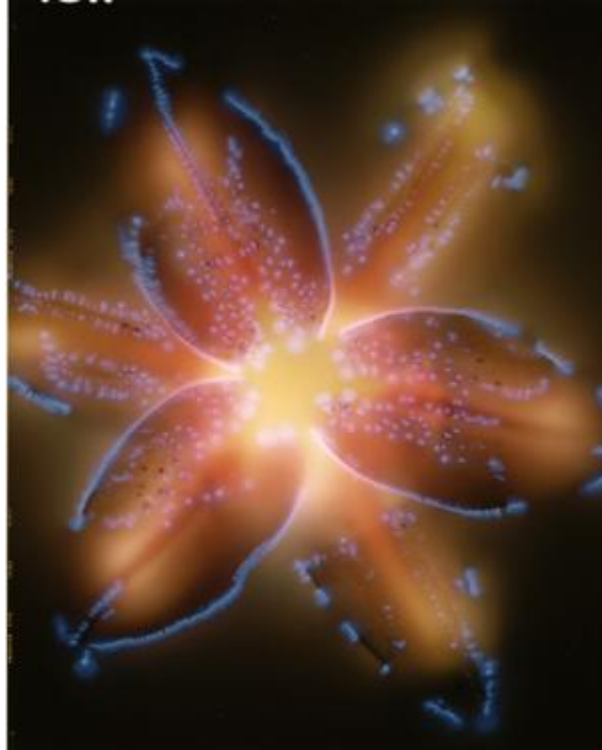


Figure 15—Robert Buelteman, *Lilium sp. (Star Gazer Lily)*, 1999-2001
Chromogenic development print, AP 1

As mentioned above, the issue of digitization plays a role in Buelteman's printing of his images. While eschewing digital technologies during the formative phases of production, he relents to scanning the final image for the final printing of the photograph. But he makes clear that by that point the *work* on the image is complete. The digitization is merely a nod to the practicalities of contemporary printing. The image is not altered after digitization. Buelteman's insistence on this point indicates an almost journalistic sense of social contract. Digitization, as Rudolf Arnheim has argued, puts the veracity of the image in doubt, because it can be manipulated and that manipulation can be absolutely indiscernible, where analogue manipulation can be

traced.⁸ This concerns Arnheim, and he proposes that with digitization the trustworthiness of the photojournalist is more important than ever. It seems that Buelteman also wants to reassure his audience about what exactly the parameters are. But as Stuart Minnis points out, the concerns over the trustworthiness of the photographic image in the age of digitalization, shared by Realists and Conventionalists alike, are modified by an Instrumentalist position, where images are presented to spectators in “rhetorical bundles” rather than in some contextual void.⁹ These “bundles” are comprised of contextual information which cue spectators as to the function and parameters of the photographic image: family album, art museum, advertising image in magazine, and so on. While greater concern is reserved for the journalistic photographic image and its veracity, an Instrumentalist would be especially unconcerned about the “art” image, where the context of viewing alerts any viewer to the constructed, artificial, and subjective nature of the image. And this would be particularly true of Buelteman’s work where the manipulation of the medium is so obvious. Still, it is significant that Buelteman attempts to make clear to his public the exact role of digitization in his process.

There are several metaphors at work in Buelteman’s work, mostly surrounding the issues of life, death, and the role of art. Returning to Bazin, he claimed that the representational arts were invented because of a “mummy complex” which haunted human beings: the fear of death engendered a desire to create images which lasted

beyond life, preserving the image of reality for all time. For Bazin, the photograph was the best medium for this representational operation since it, more than any other process captured the reality of the subject. Flowers, a conventional symbol of the passage of time and the brevity of life in western art, are in Buelteman reconfigured even while borrowing from this tradition. The flowers, their beauty fleeting and ephemeral, are caught and fixed by the photographer. But Buelteman is not so interested in capturing the analog of the flower and its beauty, rather he aims to express his specific relationship to the particular essence of that plant or flower. The objectivity championed by Bazin is in Buelteman made abstract and subjective, even while the plants are "real" even if, in their reality, the qualities of their existence that are revealed are beyond the reach of normal human vision. In another section of Benjamin's aforementioned essay on mechanical reproduction, Benjamin works a pair of analogies into a comparison. He likens the cameraperson to the surgeon and the painter to the faith healer. He contends that the surgeon, who need not have any personal knowledge of the patient, nevertheless cuts intimately into their body. In contrast, the faith healer must have an intimate knowledge of his or her patient for the treatment to succeed; yet the faith healer will only pass hands over the patient. While one, the surgeon, is spiritually distant (objective), yet penetrates into the physicality of the patient, the other, the faith healer, is physically more distant but emotionally much closer (subjective). The cameraperson is like the surgeon, objective and mechanical, yet penetrating into the

deep reaches of reality. The painter, while remaining distant from nature, yet has an intimate relationship to it, like the faith healer's relationship to the patient. Buelteman is doubly like the surgeon, since he actually uses surgical tools to vivisect the plants before electrocution, literally penetrating into the physical structures of nature. In this sense, he operates, as Bazin would have him, representing something to rescue it from the flow of time. But Buelteman is also like the faith healer, who in the darkness, blind to the ultimate effects of his process, makes gestures with fiber optic light.

The "green fuse," in Dylan Thomas's poem, seems to connote chlorophyll, the life blood of the plant which is also the way in which the energy for life on earth is created, since the energy of light is translated into life—the sun's energy into nutrients which sustain life—thus the term "fuse" which is a regulator of energy. The metaphoric relation to photography is obvious. It is worth quoting the opening stanzas of the poem to get a sense of its meaning and how Buelteman may be using its central metaphor:

The force that through the green fuse drives the flower
 Drives my green age; that blasts the roots of trees
 Is my destroyer.
 And I am dumb to tell the crooked rose
 My youth is bent by the same wintry fever.

The force that drives the water through the rocks
 Drives my red blood; that dries the mouthing streams
 Turns mine to wax.
 And I am dumb to mouth unto my veins
 How at the mountain spring the same mouth sucks.

The electrical energy that Buelteman shoots through his plants seeks to reveal this function in all its profound mystery. But in Buelteman's pictures the term "fuse" might also have another meaning, of fusion, since the contact of the plants to the fixing medium of the photographic plate fuses the plant onto its image. Like the message in Thomas's poem, these images balance on the ultimate contradiction, that only death gives life meaning, and that the celebration of life can only happen with an affirmation of its brevity. And, moreover, that art too plays a role in this, for the artist's traces of existence remain only in the work they produce; markings indicating their passage through a brief moment of time. But the natural imagery of the poem also links human life with the life of Nature and its cycles, and this profound connectedness of the human spirit with Nature is something that links Buelteman's earlier black and white and more recent *Green Fuse* images, however else those two bodies of work might otherwise contrast in technique and form. One might even characterize Buelteman's *Green Fuse* series as "telluric." The telluric current, also known by its more popular term as "the earth current" is a low grade electric field that flows over the surface of the earth. Buelteman's awe for the energy forces of Nature (again, in a sort of spiritual contiguity with Ansel Adams) is a defining feature of his work.¹⁰ It is tempting to see in this yet another potentiality for the metaphor of the fuse: that the Kirilian photograph reveals the aura of the telluric current which flows over and through all life, as components of the Earth which is both clothed by and generates the telluric field.

I had mentioned above that Buelteman's earlier photographs were black and white pictures mostly of landscape scenes. Buelteman often placed his camera far from his subject, using the square format of his images to give large elements a compositional balance between the horizontal and the vertical. The *Through the Green Fuse* images are drastically different, not only in the ways previously mentioned, but in their explosive close up format, where small objects are enlarged to fill the frame. The choice to monumentalize these intimate contact portraits of flowers into 40 by 50-inch images creates a very different phenomenal and spatial relationship between the viewer and the image. Many of Buelteman's earlier black and white images are composed with deep perspectival spaces with deep focus, inviting the viewer to penetrate into the fictive dimensions of the settings. Roland Barthes has characterized the photographic image as having a sort of past tense: a "has been there" of the subject. There was an illogical conjunction, then, in the photographic image, according to Barthes, since the physical photograph was here and now, but the subject of the photograph was experienced by the viewer as having existed in the past. Susan Sontag has also noted the sense of past time that photography evokes, and, in particular, the nostalgia that permeates American photography in particular.¹¹ Buelteman's earlier black and white work certainly evokes this sense of time past; a mystical past time tinged with longing. No such melancholy exists in the *Green Fuse* images, and while the earlier images seem to lend credence to Barthes' characterization, these images effectively deconstruct it.

Indeed, the flowers seem defiantly present in time. One might even argue, given their highly “technological feel,” that they invoke a virtually science-fictional future.

Earlier theorists of the photographic image concentrated their attentions on the black and white photograph, which, indeed, especially today, might evoke a time past. But color photography is experienced by the spectator as being more present. Taking an Instrumentalist point of view I would suggest that we experience photographs in various tenses, in various contexts and types. In the case of Buelteman’s oeuvre, this temporal shift is yet another phenomenal marker of his new directions. This is where the subject matter becomes most important. Photographs can be seen to exist along a line running from private to public, even if the exhibitionary life of any photograph can travel this line; its fate falling, ultimately, beyond the power of the intentions of the photographer. For example, a man may take an erotic picture of his wife for the sole purpose of their mutual delectation and private consumption. But that same photograph (or its negative) may yet surface at some later time and in an entirely new context. Indeed, it could become “art,” or an important social or historical document. Buelteman’s *Through the Green Fuse* images are strongly reminiscent of flowers that have been pressed in books. It is an old habit, having been a popular pastime generations ago. Thus the subject itself and its connotation has a particular relationship to time and privacy. When coming upon an old pressed flower in some dusty book from an earlier era, one comes upon the traces of someone’s temporally distant, private life. In addition,

it may be significant that flowers and plants are sexual in nature and have long been symbols for the erotic, thereby increasing the semiotic charge of their image. Having alluded to a taxonomy of photographs along an axis of public and private, one must also consider the ramifications of the range that it implies, for there is a rough correlation between the private qualities of a photograph and its fetishistic nature. As a photograph tends towards the private end of the spectrum, its voyeuristic and fetishistic potentialities increase, while as it moves towards the public end of the scale its documentary value increases. Similarly, the poles reflect another binary that contrasts the documentary with the aesthetic object. Put in more strictly Benjaminian terms, the aura increases towards the private end and decreases towards the documentary end. Buelteman's *Through the Green Fuse* images are powerful because they partake of both of these seemingly irreconcilable elements. On the one hand they are documents of plants and flowers, while on the other they evoke a private collection and a personal relationship to the world. Even while evoking the privacy of flowers folded away for preservation and private retrieval, they are here shown in a very public exhibitionary context displayed in the most gregarious of formats. Like the still vivid flower discovered in the old book, marked by time, the artifact stands as an affirmation of some person's intimate life with nature and beauty, a moment of apprehension stolen and preserved for another's revelation years hence. At once a verification of the joy of

life and its connectedness, it is also, at one and the same time, a *memento mori*, a reminder of death: detritus.

It is here, too, where the stark two-dimensionality of the images comes into play. The flowers and leaves exist out of space, their neutral backgrounds denying any sense of a third dimension. Thus we are forced to attend to the surfaces and the lines of composition. A photograph that proves an illusion of a third dimension (as so many of Buelteman's earlier images did) also provides a scene for action, a narrative either denoted or connoted. Such an image opens up the space of the photograph for the viewer to enter, to search, to attach a story to, since contiguity of space implies linear time (space-time continuum). A photograph that is insistent upon its two-dimensionality provides no such scene, but merely a focus for contemplation, the flat space of the aesthetic object freed from space and, by extension, time.

When Buelteman "paints" with his fiber optic pens, after the Kirilian exposure has been made, he must do so in darkness. There is thus a highly aleatoric facet to the final stages of the process, a fact that makes only a few of the images that he works on "turn out." This aspect of "painting blind" (or, at least, painting with compromised control) brings a serendipitous and improvisatory aspect to the work. Buelteman himself claims that he listens to jazz while he "paints." This is a compelling assertion, because, just like some abstract expressionists' work, Buelteman's images do seem to evoke, particularly since they are shown in series, a jazz-like exuberance and

improvisatory nature. Perhaps, just like the abstract expressionists, Buelteman is making his contribution to an American Sublime.

Endnotes

¹ Andre Bazin, "The Ontology of the Photographic Image," in *What is Cinema?* Vol. I, trans. Hugh Gray (Berkeley: University of California Press, 1967).

² Most notably in his collection *The Unseen Peninsula*, edited by Robert McDonald, Oracle Publications, 1994.

³ Its efficacy is still debated today, though it has for the most part been relegated to New Age theories about life force and chakras.

⁴ Most scientists, skeptical of the value of Kirilian photography, think that the aura is caused simply by moisture.

⁵ Donald Laurence Fredericksen, *The Aesthetic of Isolation in Film Theory: Hugo Münsterberg* (New York: Arno Press, 1977). Hugo Münsterberg, "Connection in Science and Isolation in Art," in *A Modern Book of Esthetics: An Anthology*, 3rd edition, Melvin Rader ed. (New York: Holt, Rinehart, & Winston, 1960): 436. This piece was adapted from Münsterberg's *Principles of Art Education* of 1905. For a provocative account of some of Münsterberg's other views on science, art, and aesthetics see his "Psychology and Art," *Atlantic Monthly* 82, n. 493 (November, 1898): 632-643. See Introduction to *Hugo Munsterberg on Film: The Photoplay, a Psychological Study and Other Writings on Film*, ed. Allan Langdale (New York: Routledge, 2001).

⁶ From Robert Buelteman's studio web site at: <http://www.buelteman.com/intro.html>.

⁷ Jean-Louis Comolli, "Machines of the Visible," in *The Cinematic Apparatus*, eds. Teresa de Lauretis and Stephen Heath (New York, London, Oxford: Oxford University Press, 1976): 121-142.

⁸ Rudolf Arnheim, "The Two Authenticities of the Photographic Media," *The Journal of Aesthetics and Art Criticism* 51, 4 (Fall, 1993): 537-540.

⁹ Stuart Minnis, "Digitalization and the Instrumentalist Approach to the Photographic Image," *Iris* 25 (Spring, 1998): 49-59.

¹⁰ And, one might add, a defining feature of Buelteman's life, as he is very socially active with environmental issues.

¹¹ Susan Sontag, *On Photography* (New York & London: Doubleday Anchor Books, 1990): 66-67. Quoting Kerouac, who characterizes American photography as “a mournful vision of loss.”