CHAPTER 1

PIGMENT TO PIXEL

I n modern times, four historical conditions characterize the emergence of visual arts practice. The first is critical vision. Artists continue to inquire into issues of everyday life and to disrupt our perceptions through studio art practices. The second is reflexive action. This is characterized by the way artists and theorists influence, and are influenced by, the changing dynamics of experience and knowledge. The third is technological agency. This describes how studio art practices get absorbed into the visual culture around us by the expansion of image-making technologies. The final historical theme is art instruction. Over the years, the cultural and educational basis upon which the visual arts was grounded shifted in response to ways that artist-teachers varied their pedagogical practices. As these conditions took effect, an ambivalent sense of art learning was set in place as new ideas clashed with the desire to forge a canon on which instructional programs could be built. Lines of authority were drawn as radical practices created in the garret competed with pursuits crafted in the academy. Yet binding these uncertain traditions was a passion for practice that glorified the mind for its imaginative and intellectual power.

This chapter reviews some of the practices used by artists in modern times as they responded to the challenge of the "new." These innovations are tracked alongside patterns of teaching in higher education as the training of the artist and the artist-educator became institutionalized. A range of models of practice evolved as history moved from the academy to the café, from the classroom to the studio, and into the virtual world. Particular periods changed ideas about the role of the artist. In the early years of the Enlightenment,

the idea of the artist-as-analyst, or artist-as-technologist, flourished. By the middle of the 20th century the artist-as-teacher was prominent and the vision and voice of the creative iconoclast held sway. In recent decades, the giddy theoretical landscape uncovered by postmodernism all but ambushed studio art teaching as the canon crumbled and the tradition of the new was seen to be mostly a fiction for the few. And throughout all these periods debate continued about the purpose of the visual arts in educational settings. In his early 1990s critique of ever-complaining postmodernists, Robert Hughes eviscerated his mates in the art academies for the way they resided over a crumbling artifice that promoted "theory over skill, therapy over apprentice-ship, strategies over basics" (1993, p. 193).

Yet there is resilience about art practice as a form of inquiry that is evident in the way it continually adapts to the demands of the various "artworlds" (Young, 2001), be it the artworld of contemporary art, or the art-world of educational institutions. There is also a resistance in the way the visual arts continue to give form to new ideas and images within the aesthetics of cultural practice (Carroll, 2001). The contemporary artist these days is part theorist, performer, producer, installer, writer, entertainer, and shaman, who creates in material, matter, media, text, and time, all of which takes shape in real, simulated, and virtual worlds. These characteristics of contemporary art practice change the way we think about the visual arts, which influences what we do in educational settings.

Approaches to visual arts inquiry in higher education institutions in several countries is variously labeled *arts-based research, arts-informed research,* or *practice-based research*[1] and highlights the capacity of the field to respond to the challenge of change. Developments like these are part of a rich historical legacy that can be traced through modernism to postmod-ernism and beyond. This helps position contemporary art as the critical and creative basis upon which artistic, cultural, political, and educational argu-ments can be made in support of a fresh conception of visual arts research.

● THE ENLIGHTENMENT AS A RESEARCH PROJECT

The ideas of the Enlightenment set in place a grand research project that sought to explain the workings of nature in a way that confirmed human ascendancy. The new paradigm reflected a worldview that saw the emer-gence of rational philosophy, among other things, as a form of knowing that revolutionized theory and practice in all disciplines. Radical views in the nat-ural sciences about empirical inquiry and social theories challenged medieval conceptions of the mind and the place of humans in the world. The need

to "know" meant that the Enlightenment project became a collaborative enterprise where methods had to be invented in order to answer the kinds of questions then being asked, and this required the imaginative insight of both the thinker and the doer. And the legacy of this time meant that theory held sway and shaped the arc of practice. Yet what some saw as impressive human progress, others mulled over as a loss of heart and soul.

The critical vision advanced by the philosophers of the 17th and 18th centuries touched almost all forms of human understanding. Radical dichotomies wrestled the mind and body apart, and debates saw experience come to overshadow authority. These were elegantly argued battles where skepticism challenged certainty as the basis for reasoning. The sense of doubt introduced by René Descartes into discussions about truth and reality was one of the most important insights to emerge at the time. The strategy of considering how something might be false, rather than trying to confirm it to be true, became a key tenet of both scientific inquiry and critical theorizing. And the implications were profound. The universe was within reach and truth could be found through the use of rational processes and empirical methods.[2] Not only was the natural world seen to be rule-governed, predictable, and able to be controlled, but also so were humans. And the same could be said for art, which was seen to be governed by its own rules. The template that described what it was to be human was drawn with mechanical precision but the explanatory power of what it was like to feel, think, and act eluded complete capture.

The patterns of practice that emerged during the Enlightenment saw the scientist and the artist share a common goal where ideas informed actions. The scientist of the day saw an ordered visible universe rendered in fine representational detail of points, planes, and perspective. Being able to deploy a prescriptive practice meant that the scientist could readily claim a place within a community of inquiry. The artist, on the other hand, was not so comfortable seeing the world through the crosshairs of the new age. For many artists who watched what was happening around them the human condition could not be partitioned into life slices of reality neatly seen through a lens. Yet from this uncertainty came intense personal visions that did, indeed, help us understand the life and mind of the times.

The ongoing question of *how* nature is designed and *who* is responsible occupied the best philosophical, scientific, and artistic minds. The ideas and images produced obviously reflect conceptions of the time. This debate has been going on for a long time. Presenting his aesthetic and moral convictions in an earlier century, Vasari for instance, was unequivocal in his causal explanation. In the preface to *Lives of the Artists* (1568/1993),[3] his reality-based Renaissance documentary, Vasari presents his version of the origin of the

creative process. For Vasari, artistic thought was an act of divine providence and artists had "nature for their guide, the purest intellects for their teachers, and the world as their beautiful model" (p. 9). The images created thus mirrored this world of godly design through the use of newer technologies that gave full perspective to visual truth and idealized form. Charged with this lofty inspiration, the 15th century Italian artist personified an approach to teaching that saw the revered artist set forth as the model to emulate. The task of imagining what surrounded us, however, was ultimately found not to be adequately explained by theology, but by formalisms of encyclopedic scope. As Diderot and d'Alembert (1751/1965)[4] show in the allegory at the beginning of the volume on surgery, what it was to be human could be learned by studying nature, and this inspired the design of techniques and tools that became part of new systems of knowledge.

Mindful Inquiry in Art and Science

New methods of inquiry meant that conceptual systems were best seen in dichotomous terms: Reality existed within a split mind-body world of objective and subjective states, of idea and image, of theory and practice. So by the time the research agenda of the Enlightenment was fully enacted, the way knowledge could be conceived, perceived, and visualized gave rise to a new religion of rationality. Patterns of practice meant that the artist and scientist shared a common goal in the quest to better understand nature and the place of humanity within it. In many instances this capacity was found within the genius of the individual who could create knowledge, giving the artist status and authority within the social order. The sophisticated new visual practices and image-making technologies meant that art, like science, expanded its disciplinary scope as new forms of production, exhibition, and interpretation emerged.

The changing mindset of the European Enlightenment gave rise to different roles for the artist, especially in relation to technological advances and the institutionalization of knowledge. In this era of progress where individual liberty was constitutionally proclaimed, new social responsibilities and opportunities for art teaching arose. With access to education seen as a right for all citizens, at least in theory, this gave new importance to the arts as well as the sciences as agencies for human understanding. Patterns of art teaching continued to be built on the model of the academy. Efland (1990) describes this in its original conception as a setting "where knowledge of the theory and philosophy of artistic practice, based on the search for universal
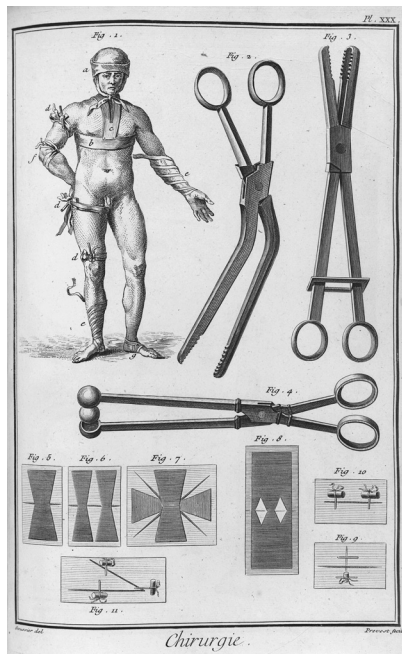
Denis Diderot (1713–1784) and Jean Le Rond d'Alembert. Entries from *Encyclopedia*, or *A Systematic Dictionary of Science, Arts, and the Trades. Surgery* (Chirurgie). Avery Architectural and Fine Arts Library, Columbia University in the City of New York. Courtesy of Columbia University.

Origin of the arts and sciences. In pursuit of his needs, luxury, amusement, satisfaction of curiosity, or other objectives, man applied his industriousness to the products of nature and thus created the arts and sciences. The focal points of our different reflections have been called "science" or "art" according to the nature of their "formal" objects, to use the language of logic. If the object leads to action, we give the name of "art" to the compendium of the rules governing its use and to their technical order. If the object is merely contemplated under different aspects, the compendium and technical order of the observations concerning this object are called "science." Thus metaphysics is a science and ethics is an art. The same is true of theology and pyrotechnics.

Speculative and practical aspects of an art. From the preceding it is evident that every art has its speculative and its practical aspect: The former consists in knowing the principles of an art, without their being applied, the latter in their habitual and unthinking application. (Diderot & d'Alembert 1965. *Encyclopedia* [Nelly S. Hoyt & Thomas Cassirer, Trans.], 1:713)

knowledge of the science of art, could be developed and shared by teachers and students working in concert" (p. 29). The practice of formalized instruction in art around canonical content meant that art knowledge was codified, and although it was based on nature, it was sifted through the theories of master teachers.

Within the influential tradition of the French Academy of the 17th century art lectures and studio teaching, especially life drawing classes, not only clearly defined what content was discovered, but also who already had it, and who could access it. Even the depiction of human emotion and passion through facial expression was indexed to standards of practice.

Drawing the Passions, from *The Elements of Drawing in All Its Branches*, Plate IV, etching after Charles LeBrun. Yale Center for British Art, Paul Mellon Collection.

The onset of the machine age saw the academic tradition become more of a service agency for the new manufacturing industries where drawing became aligned with design skill. Art techniques, therefore, were much like writing and could be taught to everyone as a life skill and not be seen as merely a cultural pursuit. This vocationalism saw artistic practice broaden considerably to embrace new roles such as the artist-as-technologist, analyst,

illustrator, communicator, and researcher. As a visual recorder the artist used new techniques, such as engraving, aquatint, and printing, to document and order the wonders of new discoveries as well as depictions of antiquities and mythic histories. These detailed dioramas were didactic as they also described a way of thinking and helped others get a sense of the inductive world of newly classified things. In discussing the extraordinarily detailed etchings of Giambattista Piranesi, Barbara Stafford (1996) explains that

> he [Piranesi] trained the observer, as he trained himself, in the fine art of probability, that skill in estimating the unknown by knowledgeably judging a maze of seemingly isolated and dispersed objects. The architect-etcher began by anatomizing, or visually separating, parts, and ended by organically synthesizing what he dismembered into a heroic span of views. (pp. 32–33)

Stafford makes similar connections in the way that artistic practice mirrored the mindful activity of these times. For instance, the study of anatomy saw the artist-as-analyst at work in much the same way as the rational philosopher where "dissection interrogated the inert body by violently laying it bare—much like the deductive dismembering of a coherent thought by a syllogism" (pp. 36–37). So art was a visual tool for reasoning.[5] And as the range of artistic practice expanded, the relationship among the art object, artist, and the viewer also changed. Those in control of the cultural production promoted the social and educational function of art whereby viewing, collecting, and contemplating, art enjoyed a new status. As Stafford explains, "eighteenth century technology encouraged the privatization of pleasurable beholding" (1996, p. 24). This privileged-class belief in the cultural capital of art from the past differed from the practices of the journeyman artisan who satisfied local utilitarian needs. As a result, the distinction between art as a scholarly study, versus art as practical pursuit, was further ruptured.

The fledgling mindset that emerged during the Enlightenment as an exploring, explaining, and expressive icon of the times radically changed the way we saw our place in the grand scheme of things. The *procedural* mind became habit-forming yet constrained by the unerring belief in a rule-governed world. The *probing* mind, on the other hand, was sharpened by intellect and intuition and expanded the idea of what inquiry was all about. The *provincial* mind traveled and trekked around the globe but was mostly blind to the perspective of others. And while the *pious* mind sought refuge in the safe haven of moral certitude, its zealous cousin, the *polemical* mind, often confused argument with blind faith. Yet it was this diversity of dispositions that propelled us toward modernism.

● PROMISE OF PROGRESS

By the 19th century, a legacy of cultural practices, institutional procedures, and individual passions created a kind of bipolar world of ideas, images, and ideologies. The excitement of modernity and the pursuit of progress by European ambition were muted by social upheaval and dispossession experienced by non-Western cultures on an unprecedented scale. The triumph of science was tempered by moral campaigns that often featured denial rather than debate. New alliances continued to be forged between scientific and artistic inquiry, yet these later became unstable when they were institutionalized educational practices. The evolving modern age of ideas therefore can be seen as a time of competing canons. Even within the visual arts, pivotal distinctions became reified as art was variously seen as an individual gift, a cultural collectible, a social nicety, a vocation, or a profession in need of a home.

Identity Crisis in Art and Culture

An insight into the uncertainty facing artists and social commentators in the mid-19th century can be discerned from the popular commentary of the time, as well as from textbook descriptions that rationalized topical issues for general education. In the eastern United States, small-scale newspapers such as *The Independent* and *The Christian Union* captured the dilemmas faced as modernism challenged conceptions previously seen to be immutable. Reflecting this breadth of discussion were educational texts of the time. On the one hand, scientific treatises such as Draper's *Text-Book on Chemistry: For the Use of Schools and Colleges*[6] (1852) presented a comprehensive exposition of current knowledge in lecture and question format where the primacy of the scientific method was exalted. On the other hand, *Paley's Moral and Political Philosophy* (Valpy, 1838) continued to be popular, yet it took a different stance. This was a standard theological text used in schools and colleges for classes in philosophy and civil debates where the predominant feature was the use of the authority of the Scriptures as the basis on which to guide reasoning. Of interest is the way philosophy was defined as a science based on logical reasoning, yet the principles of ethical human behavior were based on religious doctrines and integrated into laws of the land as systems guiding moral and political action.[7]

Debates about morality, society, and education, and the impact on foundational knowledge as explained by science and represented by art were as deep as they were divisive. In discussing the moral nature of belief, *The Independent*[8] newspaper (1875) editorialized that logical reasoning and

skeptical inquiry were incapable of adequately defining the basis of truth. Argument was seen to have its place, but the resolution of doubts and debates could only be found in an appeal to the conscience, not in logical critiques. The Church took a leading role in exploring and explaining phenomena, whether scientific, philosophical, or spiritual, by claiming the moral high ground. The editor of *The Independent,* Henry C. Bowen, put it this way:

> Speculatively, religion is in no worse plight than the most assured of the sciences; and if it prove itself powerful to cast out devils and reform the devilish it will need no other defense. And this it can never do by argument; but only by direct appeal to the moral nature, which is always on God's side. (December 30, 1875, p. 15)

This moral stance that posed a dilemma of sorts for religion was seen as both conservative in its obvious invocation of the past, yet liberal in the necessity to deal with the realities of the day. But for some, it was not a problem at all. The Reverend Julius H. Ward of Massachusetts[9] found fault, not with liberalism's aim of seeking truth, but with the method he described as "free inquiry," which ignores the creeds and doctrines of the church and as such discounts the past as a way to inform the present and the future. The use of a moral imperative to support arguments about the role of the arts in coming to understand everyday life was, of course, a central theme of the times and loudly proclaimed by many. For instance, the impact of the views of leading advocates such as John Ruskin is easy to underestimate. His particular passion and rhetoric traveled far, and while his advocacy for the moral function of art slowly ebbed under the iron weight of mechanization, his scrupulous faith in nature never did.[10]

The austerity and provincialism of Victorian views toward art gave rise to broader perspectives ushered along by an inquisitive middle class. This was brought into focus in part by exhibitions of collections and other curiosities and the popularity of public lectures. The widespread availability of books, newspapers, and magazines also brought to prominence images to match the ideas and did much to unite and divide popular opinion on all sorts of topics. The role of artists as reporters and recorders of events, and respondents and advocates of wider visions, placed them well within social and cultural debates.

Discipline Dilemmas

Although the model of the art academy popularized in Europe was only adapted in a few places in the young American republic (Hubbard, 1963),

later industrialization and cultural seepage did prompt the development of formalized education. As Howard Singerman (1999) points out, the fine arts entered higher education in the form of art history and often in association with disciplines such as anthropology and classical studies.[11] Even when introduced as drawing in elementary schools, art served mostly an instrumentalist role where its value lay in the expected impact on the design of manufactured goods.[12] As the concept of higher education became more readily established within American society, the role of art became less clear amid the competing interests. Whether it was the ideals of a broad knowledge base provided by liberal arts colleges, the more technical and professional scope of state institutions, or the fundamental knowledge sought by the research-oriented private universities, artists and art educators could not quite decide what they should be doing.

The prevailing attitude around the mid- to late 19th century that had a tenacious hold, and generally still does, proclaims that because artists cannot be "made," all that can be taught is method or other professional pursuits. In some contexts this meant the standardization of theory and practice as enacted in the academies (Pevsner, 1973). For others the structure of formalized art history made it relatively easy to graft the study of art onto the institutional frameworks of classical inquiry that variously focused on the art object or the experience of it (Minor, 1994). Then there were those who saw studio practice as a form of cultural expression and the opportunity to bring the art studio onto the campus was a way to broaden its relevance beyond the usual roles as a solitary pursuit, or a social nicety, or as a form of technical training. But despite the many forms by which visual arts were introduced into educational institutions, the profession remained hung up on the old question about whether art was something that was learned, or made.

At issue here is the question of how visual arts contributed to the cultural production of knowledge. The vexed question of the provisional status of knowledge was precisely what was worrying the theorists at the time, whether in theology, science, technology, or art, and this meant that no discipline could ignore the relentless challenge to the most basic of assumptions. Daniel Dennett (1995) gives one such example with his reminder of the value of the systematic and rigorous search for alternative hypotheses, the classic example being Charles Darwin. At the time of Darwin's musings over his collections it was believed that only a God could be responsible for such impressive design as that found in nature. But, as Dennett notes, by looking at the *same* dataset, Darwin came up with a highly plausible, but distinctly *different* explanation: natural selection. Darwin's insight confirmed the ideas of like-minded scientific observers and the impact across disciplines was dramatic. Cultural theorists took claim over this model of development

whereby individual growth was believed to "recapitulate" that of the species, yet this gave rise to spurious views when linked to developmental profiles of races (Gould, 1981). Education also gained a sequential model of human development so that by the end of the 19th century, Herbert Spencer was able to articulate the view that educating children should proceed from the "simple to the complex . . . from the indefinite to the definite . . . from the particular to the general . . . from the concrete to the abstract . . . from the empirical to the rational" (cited in Egan, 1999, p. 86).[13]

Nineteenth Century Artworld

Although the presence of influential advocates such as John Ruskin and others had a naturalizing impact on art education, the heavy hand of authority was also felt in other areas. The ubiquitous voice of Ruskin was also used as a warranty to convince provincial minds of the importance of innovative cultural practices. Arthur Danto (2001a) describes how the Pre-Raphaelite Brotherhood, a small group of American artists and supporting critics active around the 1860s, made expert use of Ruskin's ideology of moral and visual truth as a marketing strategy to advance their position as innovative artists of the time. Their actions set in place many of the practices that would later come to characterize the artworld. According to Danto, the Victorian artworld "more or less invented the idea of the hot artist, the art movement, the breakthrough, the press release, the manifesto, the buzz of sensational openings, and the idea that art must be set upon a new path" (2001a, p. xxii).

The idea of the art connoisseur as an artistic dilettante was not new, but the idea that an art critic not only had a review role, but also could help direct trends was a modernist conception that endured well into the next century. The art reviews published in *The Nation* (Meyer, 2001), a weekly magazine that began publication in 1865 and is still being printed, serve as a documentary that maps how art struggled to define itself amid the onslaught of so much new art that appeared in the latter part of the 19th century. Once the yoke of the reactionary mindset was revoked, the task of addressing issues of value made it hard to assess what art was good and not so good. The tendency not to be able to see beyond rather simplistic dichotomies persisted for a long time so that a critic, when confronting an unusual image or object, could only ever see it for its lack of skill rather than consider it, perhaps, in terms of innovation. A case in point is the way Rodin confounded the Paris critics in 1898 with the monumental simplicity of his sculpture of Balzac, which, for many, could only be seen for what it was *not:* it was *not* a skillfully modeled representation.

Some critics, however, really did take a close look. In a review of a large exhibition of the French Impressionists shown in London in 1905, the critic "N. N.," which was a *non de plume* for Elizabeth Robins Pennell, gave a new sense of how the art of a new age might be considered. Seeing the work on view with the benefit of brief historical distance and her insightful eye, she was able to reassess the innovative contribution of this loose group of artists in a way few other critics of the time could. In particular, she sought to dispel the myth that the Impressionists were incompetent artists. Elizabeth Pennell pointed out other, larger issues, and it is worth quoting her at length:

> But the most defiant Impressionists, in their eagerness to see Nature for themselves, to avoid known types, to express their own personality— in their determination never to compose a picture, never to arrange Nature—rebelled against everything that had gone before, in theory at least. . . . To see Nature for themselves meant inevitably to record it for themselves in their own way, and the methods they evolved in the attempt to put upon canvas effects no one had before attempted, bewildered the critics, who could not look below the method, and the then startling results, to underlying principles. That was why Impressionism was denounced as a short cut, a labor-saving device for the artist who was too indolent or conceited to go through the usual training and apprenticeship as student. That such a reproach should have been made against it seems incredible, now that the excitement has calmed down. In an exhibition like the present, nothing strikes one so much as the fact that knowledge, experience, and technical skill are the solid foundation for the most daring experiments of the men who wanted to use their eyes for themselves, and to say what they had to say in their own fashion. (Cited in Meyer, 2001, p. 82)

In an article in the *New York Times* in 1999, Richard Panek nicely captures the mood of this time when art and science seemed to be indistinguishable in their empirical explorations using the senses. Yet their methods differed, and "to the scientist fell the purely objective, the masses and motions that led to universal laws; to the artist, the purely subjective, the individual responses that spoke to universal truths" (p. 1). By the late 19th century it seemed the inevitable deterministic conclusion was in sight: Artists were focusing on irreducible elements such as Seurat's pixels of paint, Cezanne's underlying structures, and a little later, Malevich's squares and Kandinsky's lines, points, and planes. In science, the microscope and telescope were tracking and cracking basic structures and later Ernest Rutherford's splitting of the atom took us

further than ever into the new world of pure form. This followed a pattern where "for hundreds of years, scientists had been investigating the natural world and artists interpreting those results on a human scale" (Panek, 1999, p. 39).

But knowledge was making uncertain progress. The physicists followed the mathematicians to search out abstract theoretical worlds. They were looking to construct theories that might correspond to the increasingly uncertain observations of the natural world that had previously been able to be quantified. This was a world where

> a wave could be a particle, mass was energy and space was time. Music lost its melody, literature its linearity, painting—once again providing the most revealing illustration—its perspective. . . . When scientists abandoned sense evidence for the pure ether of theory, they left the rest of us behind. (Panek, 1999, p. 39)

The parallel quest of artists and scientists sought to see the world in new ways, but when science turned to theory, art could not keep up, and things split.

FRACTURED REALITIES ●

The indecision about inquiry in the 19th century that shook faith in the old and saw uncertainty in the new was eclipsed by an aggressive confidence that sharpened the conceptual, creative, and cultural divides in the 20th century. Embedded in this was the unresolved role of the artist as a professional and an academic along with the uneasy relationship between the artworld of commercial interests and the institutional artworld. Even at the beginning of the 20th century, those teaching in colleges and art schools were barely beginning to apply the insight about art expressed so eloquently by Ralph Waldo Emerson in 1841.

> Because the soul is progressive, it never quite repeats itself, but in every act attempts the production of a new and fairer whole. . . . Thus in our fine arts, not imitation but creation is the aim. . . . The artist must employ the symbols in use in his day and nation to convey his enlarged sense to his fellow-men. Art is the need to create. . . . Art should exhila- rate, and throw down the walls of circumstance on every side, awaken- ing in the beholder the same sense of universal relation and power which the work evinced in the artist. (cited in Logan, 1955, p. 43)
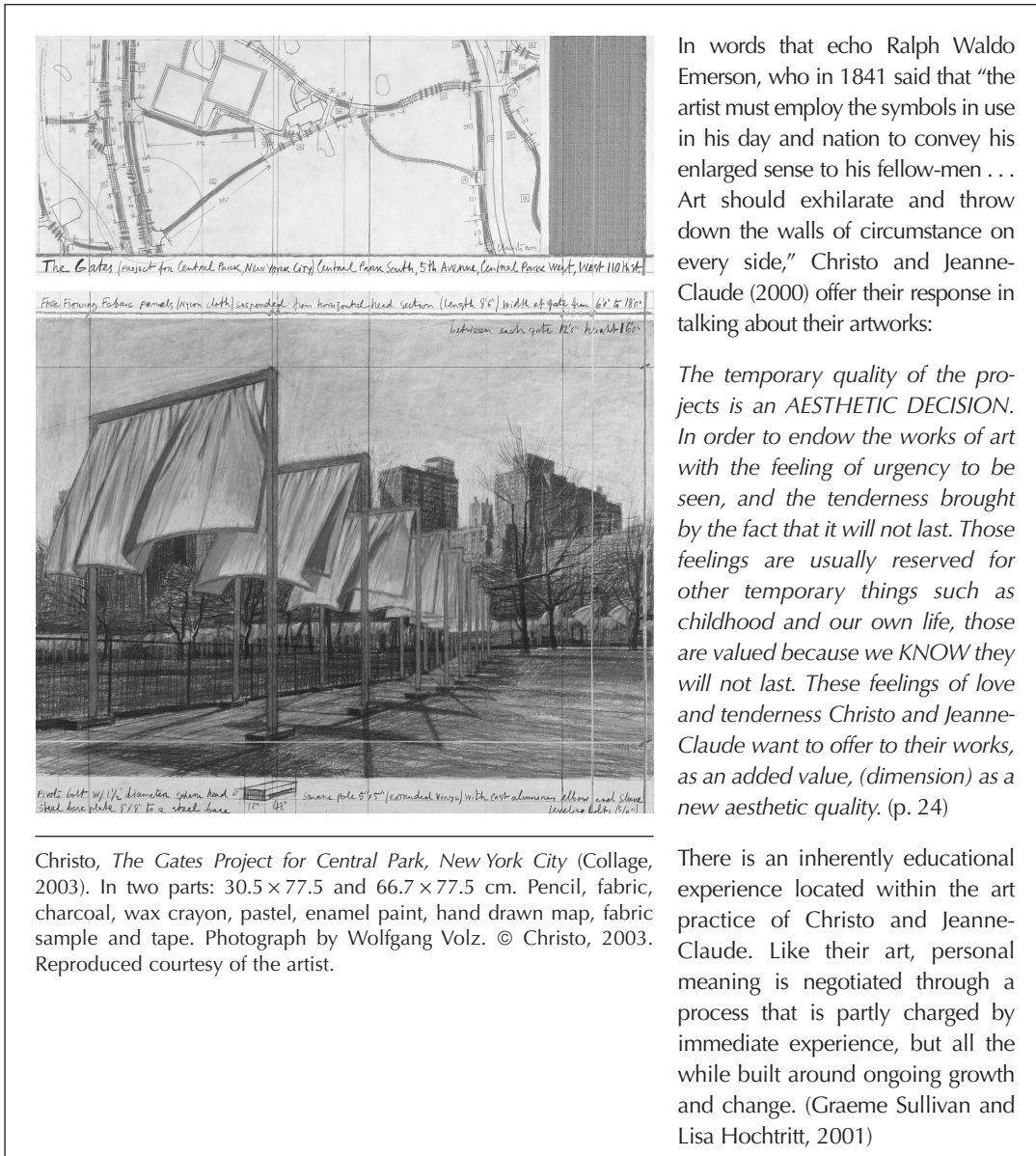
An ongoing quest that shaped the way visual arts was formed into institutional regimes was the professionalization of the field during the 19th century. As had been the pattern observed in the past, the consolidation of views around agreed visions meant a nod in the direction of standardization of theory and practice. The early efforts at finding a space within higher education often meant the visual arts were variously seen as a place to practice art history, a hamlet in the humanities, a technical vocation, or a form of cultural cleverness that carried with it a moral signature. Even as a curriculum subject in schools, art education could never quite rid itself of its instrumental appeal as drawing first became industrialized, pictures had the capacity to move morals, and art was an activity for the hand and not the mind. It was not until the innocence of vision found among the art of children and non-Western cultures was aligned with the need for artists to see the world anew that expression challenged impression as a favored educational philosophy. Eventually the relentless quest among artists and scientists to get to the heart of the matter meant that the new formalisms of vision had an essence of their own.

Artists Are Found, Not Made

Debates among art factions in the early decades of the 20th century could not quite resolve how best to define art learning. For the art historians, art practice meant learning about art, while artists needed to make art. Lurking just below the surface, however, was the imponderable problem that remains in the minds of many: Artists are found, not made. Consequently any attempt to institutionalize art learning could at best offer technical and professional training, or broaden the liberal sprinkling of art historical awareness, or open pathways seen as less creative such as art teaching. For professional organizations such as the College Art Association (CAA),[14] the choice was clear: The educational future of visual arts study at the university level lay in the contribution to be made to knowledge and thereby adapted the conventions of scholarly practice. The college survey course in art history became the signature imprint of what it was to study art. To train those who made art, on the other hand, was best left to art schools and liberal arts colleges.

What was obvious to advocates that sought an active role for artists within the burgeoning field of higher education was that the practicing artist had the necessary expertise to cover content that bridged studio experience, art historical themes, and philosophical issues. This, after all, was what the contemporary artist was seriously engaged in; therefore the preferred pedagogical approach was to surround the artist-teacher with aspiring students who would benefit from substantive exchanges on topics about art and life. This version of the expert-novice model relied on the image of the artist as a social outsider

The Gates (project for Central Park, New York City) Central Park South, 5th Avenue, Central Park West, West 110th St

Free Flowing Fabric panels (nylon cloth) suspended from horizontal head section (Length 8'6" width of gate from 66' to 180')

between each gate 12'0" high Nr 160°

Pivots bolt W/ 1½" diameter sphere head O
Steel base plate 8"x8" to a steel base   12"   48"   square pole 5"/5" (extruded Vinyl) with cast aluminum elbow and sleeve
Leveling bolts 15/10"

Christo, *The Gates Project for Central Park, New York City* (Collage, 2003). In two parts: 30.5×77.5 and 66.7×77.5 cm. Pencil, fabric, charcoal, wax crayon, pastel, enamel paint, hand drawn map, fabric sample and tape. Photograph by Wolfgang Volz. © Christo, 2003. Reproduced courtesy of the artist.

In words that echo Ralph Waldo Emerson, who in 1841 said that "the artist must employ the symbols in use in his day and nation to convey his enlarged sense to his fellow-men . . . Art should exhilarate and throw down the walls of circumstance on every side," Christo and Jeanne-Claude (2000) offer their response in talking about their artworks:

The temporary quality of the projects is an AESTHETIC DECISION. In order to endow the works of art with the feeling of urgency to be seen, and the tenderness brought by the fact that it will not last. Those feelings are usually reserved for other temporary things such as childhood and our own life, those are valued because we KNOW they will not last. These feelings of love and tenderness Christo and Jeanne-Claude want to offer to their works, as an added value, (dimension) as a new aesthetic quality. (p. 24)

There is an inherently educational experience located within the art practice of Christo and Jeanne-Claude. Like their art, personal meaning is negotiated through a process that is partly charged by immediate experience, but all the while built around ongoing growth and change. (Graeme Sullivan and Lisa Hochtritt, 2001)

engaged in an intense pursuit of a personal vision. As such, curriculum content could not be specified in any formal way, nor techniques introduced as prerequisites for creativity; teaching became conversation, and learning focused on individual aesthetic problem solving. Consequently the criteria for "newness" was not seen in relation to past or existing image banks or stylistic brands, but by the extent of radical difference. The drive toward the illusion of "things never

seen" reached mythical status that kept the social constructedness of art practice at bay, at least until the theoretical onslaught of postmodernism.

By the mid-20th century the image of the artist-teacher was being battered on several fronts and yet the place of the visual arts in higher education continued to expand, even if the studio spaces remained mostly far removed from mainstream academic life. In the wake of regular reviews of the cultural and educational role of visual arts, the CAA saw the necessity to control the professional profile of artists amid the rapid expansion of campus programs. The image was built on the basis that the artist was indeed an autonomous professional who possessed cultural capital that could be traded in educational settings. The association monitored peer practices so as to maintain accreditation responsibilities and political patronage. Part of the stipulation governed the teaching qualifications of university bound artist-teachers whereby the master of fine arts (MFA) was deemed the entry credential into university teaching, while any form of educational degree was a distinct liability. Even by the latter decades of the 20th century, artists were still believed to be "found" in bachelor of arts (BA) and MFA programs, but certainly not among the general art education crowd, so the role of teaching in any strict sense of the term was irrelevant. To assume that teaching might be a requirement for viable institutional programs in visual arts was an anathema for many who saw the elusive language of the "crit" and the art of writing an artist statement as about as formal as instruction could get (Kent, 2001). In terms of inquiry, the student in this setting became a "searcher" seeking artistic identity, rather than a "researcher" in any broader way. Other theoretical, cultural, and political changes, however, further challenged the reified practices surrounding institutionalized art education.

Art Meanings Are Made, Not Found

Several metaphors characterize the patterns of change that occurred as the visual arts responded to modernist moves, and later to postmodern perspectives. These images chart the elusive impact of theory as paradigm principles and discipline links were first secured, and then separated. Three dominant themes relate to conceptions of *seeing,* notions of *structure,* and the discourse about *context*, and these map how visual arts expanded as a profession, as a site for cultural production, and as a discipline.

From Seeing to Knowing

Seeing, of course, has always been central to the sensory-based traditions of the visual arts and arguments about educational purpose. For instance,

changing notions about seeing moves from ideas about the "innocent eye" to the "trained eye" to the "knowing eye." This transition might be described as a move from a time when vision involved seeing things in new and fresh ways, to a period where the process of visualization could be formalized and educated, and on to the present where it is necessary to know how vision is mediated and constructed.

The notion that the eye was capable of capturing innocent visions that could be expressed in artistic abstractions took many versions. For some, childhood was a site of profound cultural symbolism as might be seen in the art of Marc Chagall; or a universal language as described by Wassily Kandinsky; or as an ideographic form as explored by Paul Klee; or later as a liberating creative process as modeled by Jean Dubuffet.[15] Many of these conceptions, however, were as much a product of the social attitudes of the time as they were believed to be radical ways of seeing. For instance, early interest in the naïve simplicity and exuberant essence of child art was linked to the expressive power of non-Western image making. Yet this convenient coupling merely satisfied the view that child art, like that produced by "primitive" cultures, was shaped by a compulsive urge to create in ways that were innocent and imaginative. This version of ethnocentrism took its dubious moral warrant from recapitulationist theory that saw the pattern of individual growth as mirroring the development of the species. As such, the innocence of childhood matched the simplicity of non-Western cultures and both were presumed to occupy a space at the low end of a stagelike model of progress. The impact of such views on artistic mythology and educational practice cannot be underestimated and was felt well through to the mid-20th century as various explanatory psychological theories were drafted into service to ground the expressive paradigm.[16]

The pervasive interest in all things visual that was part of historical, empirical, and artistic inquiry saw the emergence of the artist as a cultural lamplighter. In his text, *The Mirror and the Lamp,* Abrams (1971) describes the modernist artist as an innovative change agent whose imaginative practice illuminates in ways that encourages others to see things differently. This model of the visual artist was used to claim a new professional status that linked modern art to notions of innovation and progress. Whereas the characteristic stance of those interested in the historical traditions of the fine arts by necessity involved looking back, those creating art amid the heady days of modernism were excited by the prospect of seeing ahead. Insights into the physiology of vision and the psychology of perception meant that the science of sight and the creativity of the eye were related, as were the practices of the scientist and the artist. Therefore by aligning the process of artistic inquiry with the reductive methods of science, elements of the visual arts could be identified, structured, and formalized, and the title of influential texts clearly

defined how *composition* (Dow, 1899/1998) and *design and form* (Itten, 1964) came to constitute a *language of vision* (Kepes, 1944).

The linking of fine arts with art historical inquiry, and the visual arts as a term to describe studio practices, made it easier to maintain distinctions among institutional programs in universities, colleges, and art schools. The prominence of formalist aesthetics taking hold in classrooms and studios gave new impetus to theory and practice. Conceptualizing art as a language of forms meant that content could be defined and curriculum designed. What became internalized was a framework of art knowledge based on a formalist language of art that everyone could learn. Aesthetic principles were explicit. As professionals steeped in studio experience, the artist-teacher, working in studio classrooms, could engage students in visual explorations and problem solving. Teaching principles were also clear. The dual demands of formalist inquiry and expressionist insight could be resolved in the studio classroom whereby the structure and language of form served as a vehicle for individual discovery. In a paradoxical way, it was asserted that principles and formalisms could be used to give voice to individual vision, as captured in Paul Klee's image of the artist as a natural creator of new forms.

Paul Klee on Modern Art

May I use a simile, the simile of the tree? The artist has studied this world of variety and has, we may suppose, unobtrusively found his way in it. His sense of direction has brought order into the passing stream of image and experience. This sense of direction in nature and life, this branching and spreading array, I shall compare with the root of the tree.

From the root the sap flows to the artist, flows through him, flows to his eye.

Thus he stands as the trunk of the tree.

Battered and stirred by the strength of the flow, he moulds his vision into his work.

As, in full view of the world, the crown of the tree unfolds and spreads in time and space, so with his work.

Nobody would affirm that the tree grows its crown in the image of its root. Between above and below can be no mirrored reflection. It is obvious that different functions expanding in different elements must produce vital divergences.

But it is just the artist who at times is denied those departures from nature which his art demands. He has even been charged with incompetence and deliberate distortion.

And yet, standing at his appointed place, the trunk of the tree, he does nothing other than gather and pass on what comes to him from the depths. He neither serves or rules—he transmits.

His position is humble. And the beauty at the crown is not his own. He is merely a channel.

. . . The creation of a work of art—the growth of the crown of the tree—must of necessity, as a result of entering into the specific dimensions of pictorial art, be accompanied by distortion of the natural form. For, therein is nature reborn. (1948, pp. 13–19)

Making Connections

The transition of ways of conceiving visual imaging that moved from notions of the innocent eye, to the trained eye, to the knowing eye was confirmed by two different sources in the later decades of the 20th century. Evidence from clinical studies in cognitive science gave a fuller picture of the science of vision. And insights from literary discourse and cultural inquiry gave a more comprehensive understanding of how the interpretation of visual images as texts is framed and mediated by personal and social contexts.

The outcomes of neuropsychological and behavioral studies of visual cognition rejected the concept of isomorphism, which maintained that images were perceived holistically as a "gestalt." This principle influenced the way vision was seen as a process of perceptual organization that was adopted by art teachers who saw visual training as exercises in the language of vision. However, the brain gives meaning to what the eye sees. For those who study connections among the senses, thoughts, and feelings, perception is a cognitive process of active, mindful, meaning making (Arnheim, 1969; Scheffler, 1991). As Nelson Goodman (1978) reminds us, "conception without perception is merely *empty,* perception without conception is *blind*" (emphasis in the original, p. 6). Therefore, the world we see is given meaning by the world we know. But rather than the serial processing of visual forms as symbols that deploy some neural structural software, the process is much less rule governed and more dynamic as networks of potential meanings are sourced. This "connectionist" (Bechtel & Abrahamsen, 1991) model of information processing is activated by an encounter with sensory input where a problem is perceived, and interpretations produced from an array of parallel neural activity as meanings are made. Robert Solso (1994) explains:

> If our brain knows the external world—the world that exists outside of human cognition and imagination—through sensory experiences (among which vision is very important), then our impressions are funneled through the narrow band of electromagnetic energy to which the eye is sensitive . . . our cognitive life—the life that exists within the mind—is largely a composite of sensory experiences and the unique way those experiences are combined through the exchange of neurological signals by the brain. (p. 45)

Other scientists, who John Brockman (1995) defines as "third-culture thinkers" (p. 18),[17] also describe the dynamic way that information is processed and speak to ideas and images that cut across discipline boundaries, not only in the content covered, but also in the flexible way interpretations and meanings are made. In most of these cases, the scientists could well

be talking about the visual arts. For instance, the computer scientist Roger Schank says that information processing is about surprises and it is from the unexpected that we learn. When Marvin Minsky and Seymour Papert were looking for images to conceptualize their ideas about artificial intelligence, they realized there was no single structure on which they could model their smart machine. Their "society-of-mind" theory made use of multiple structures and variable resources. As Minsky says, "Maybe you can't understand anything unless you understand it in several different ways, and that the search for the single truth—the pure, best way to represent knowledge—is wrongheaded" (cited in Brockman, 1995, p. 163). According to Minsky you need several different ways to represent something in order to understand it and to be able to apply it because things around you change all the time. Using mathematical examples, Ian Stewart's book, *Nature's Numbers* (1995), discusses how mathematics goes beyond "rigid laws" to embrace "flexible flux" (p. 47). The implication is that knowing laws and formula about how something might work is not enough. As Stewart would say, "fix and flux" coexist.

Framing Interpretations

Another area that gives credence to the knowing eye as a contemporary conception of how visual images are produced and understood comes from language-based theories of interpretation. Along with the neuropsychological construct of the seeing brain, and psychological descriptions of cognitive scripts (Schank & Abelson, 1977) that highlight the importance of prior knowledge as an agent that shapes meaning, similar notions are used in literary criticism and cultural discourse to explain how interpretations are framed. Scripts, schemas, or "frames" are available and accessible in meaningful chunks that help join the dots in coming to understand an event, action, or artifact. The principle at play is the flexible flux that Ian Stewart describes whereby meaning making is negotiated as interpretations are formed. In other words, meanings are made, not found. To explain the elegant economy in how we make judicious use of what we know to help make sense of what we see, literary and cultural theorists reframe the boundaries that influence how interpretations are made. By drawing attention to the varying ways that meanings can be recognized within textual sources and the references and contexts that surround them, the dynamic, interactive nature of the interpretive process is revealed. This differs markedly from a more modernist perspective that sees interpretation as an explanatory process that assumes meaning is inherent to a text or artifact and can be revealed if the reader or viewer has the requisite knowledge and perceptive skill.

Let me give an example from visual arts. One of the distinctions argued by the New Critics in literary theory around the middle of the 20th century that had such an impact on art criticism was that it was a fallacy to judge a work of art according to the meaning intended by the artist, be they poet or painter. Described and debated as the "intentional fallacy" (Wimsett & Beardsley, 1946/1971), the views suggested that meaning is invested in the capacity of the work itself and is inherent in its form and structure, which is independent and self-validating. In art circles, judgment of this kind in the eyes of astute and knowledgeable critics and teachers could be summed up in the authoritative claim, "It works!" But this instance of moving the interpretive focus away from the artist to the viewer remained mired in the mud of privileged reading. It wasn't until the formalist legacy was nudged aside that the full ensemble of meaning-making agencies and informing contexts could be appreciated. This dynamic view of interpretation is based on the assumption that the contexts that influence the way meanings are made are not a passive set of coordinates that situate an artwork in any prescribed time or place or point of view. Rather than being a "given," contexts themselves change according to the perspectives, connections, and settings surrounding the interpretive encounter. MacLachlan and Reid (1994) explain it this way:

> A text does not have a single meaning determined by a single context; given the interplay of different framings, contexts and therefore meanings are multiple. Thus the term "context" is often unsatisfactory, not only because it is too broad and imprecise to be of much use in clarifying what is at issue in interpreting texts, but also because its static connotations tend to obscure the dialectical nature of the text-context relationship. (p. 8)

Invented Realities

A similar distrust of the principle that contexts are static and meanings are found embedded within a phenomenon and able to be retrieved by astute analysis is evident in cultural theory. Changes in the positionality of those who study the human sciences reveal how cultural representations are constructions that rely as much on politics and poetics as they do on dispassionate descriptive accounts (Clifford & Marcus, 1986; Said, 1978). The rationalist model that sees cultural inquiry, even when enlivened by the view of the participant observers, is unable to maintain the myth of the insightful recorders who can see without themselves being seen. Instead, those who consider the field encounter as a site of problematic relations recognize "the

centrality of the subjectivity of the researcher to the production and representation of ethnographic knowledge" (Pink, 2001, p. 19). These are dialogical accounts that give voice to the observed as well as the observer, and transform the research artifact "into a speaking subject, who sees as well as is seen, who evades, argues, probes back" (Clifford & Marcus, 1986, p. 14).

Conceptions of how inquiry needs to "speak back" are clearly evident in arguments presented by indigenous cultural theorists. Historically, those working with indigenous First Nations, Native Peoples, and Aboriginal cultures were unable to free research from the specter of colonialism and imperialism. In asking the basic question, "Whose research is it?" indigenous cultural theorists set in train a process of "decolonizing" Western research traditions in order to "escape the gaze" and to recenter the interpretive lens on indigenous conceptions. In doing so, the purpose is to take control of the survival of peoples, cultures, and languages. Linda Tuhiwai Smith (1999) explains:

> From an indigenous perspective Western research is more than just research that is located in a positivist tradition. It is research which brings to bear, on any study of indigenous peoples, a cultural orientation, a set of values, a different conceptualization of such things as time, space and subjectivity, different and competing theories of knowledge, highly specialized forms of language, and structures of power. (p. 42)

In reviewing an agenda of research projects undertaken by indigenous communities Linda Tuhiwai Smith identifies a pattern of practice that is action oriented, inclusive, and dynamic and that combines elements of mainstream methodologies and indigenous practices. The themes investigated, however, are decidedly invested within indigenous perspectives and present with eloquent power conceptions that deal with claiming, naming and remembering; negotiating, reframing and restoring; discovering and envisioning; creating, representing, and narrating; gendering, democratizing, and protecting; and connecting and networking.

The way knowledge might be visualized is now unable to be contained within the conceptual frameworks of rationalistic inquiry. The elusive scope of the digital landscape offers an intriguingly complex conceptual space that captures part of the metaphysical possibilities known to indigenous cultures, and the theoretical imagination for new ideas in science and art (Wilson, 2002). On the Internet many of the intriguing problems identified in postmodern discourse become more manifest as, for example, is the case with body politics, the de-centered self, cultural ruptures, and transdisciplinary excursions (Turkle, 1995). Digital technology serves as a site for inquiry where information is clearly no longer a form within which knowledge is found, nor a unit
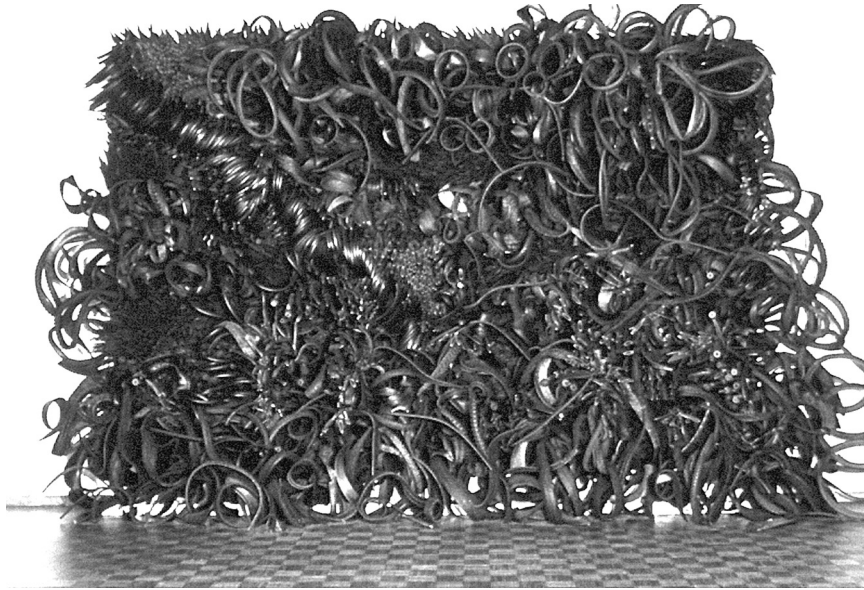
Chakaia Booker uses old rubber tires to give form to social commentaries that address issues from black identity to urban ecology . . . Booker, however, extracts an intense concentration of meanings from the tires. Their black color signifies African skin, while their patterned treads resemble tribal decorations and the welts of ritual scarification. The tires' resilience and versatility represent, to Booker, the "survival of Africans in the diaspora" . . . Booker engages in a resourceful act of recycling, transforming one of today's most indestructible waste products into things of furious beauty. (Anderson, Auping, Cassel, Davies, Farver, Miller-Keller, & Rinder, 2000, p. 65)

In making meaning from the tires, their black color creates images of African skin while their patterned treads resemble tribal decorations and the essence of ritual scarification. (Chakaia Booker, personal correspondence, June 21, 2004)

Chakaia Booker, *It's So Hard to Be Green* (2000). 150 × 252 × 288 inches. Rubber tires and wood. Exhibited: The Whitney Museum of Art Biennial 2000. Reproduced courtesy of the artist and Marlborough Gallery. Photograph by Nelson Tejada.

of analysis that lends itself to neat manipulation or interpretation. Yet this uncertain realm of investigative opportunity is just the kind of place where artists, scientists, researchers, cultural theorists, and community activists are speaking to each other in a fresh language of images and ideas.

The radical mix of cultural, political, technological, and economic change now influencing research practice is therefore challenging visual artists, art teachers, and students in higher education to look more closely at

what they do. No longer can the practices of the past that see the art studio as an isolated place in the academy be maintained. While cultural critics such as Robert Hughes (1993) can rail against the damaging ascendancy of theory over skill in art schools, these domains cannot of course be seen as mutually exclusive. Artists such as Chakaia Booker wrestle figuratively and physically with visual forms that embrace cultural and situational contexts as readily as they project formal skill and imaginative zeal. For Booker, the painter's multicolored palette has an inherent energy, and she sees tires as her palette. "On my palette," she says, "instead of having colors, it's the texture of tires. These textures, whether from the treads of the tires or how the tires have been ripped or torn, are my sources of energy to create my works of art." This idea that form could be content that goes beyond artistic areas helps extend our understanding of the challenge of living in a world beyond cultural borders, between debates about social roles, and within expressive technological means.

● CONCLUSION

The institutionalization of visual arts practice has a long and checkered history. In each era the formal training of the artist and art educator invariably created a schism between those within institutions who saw a need to uphold a canon, and those from without who challenged it. Many advocates of the training of artists see the marketplace of the commercial artworld as the arbiter that offers professional success, with institutions being mostly responsible for technical training. Those who seek academic status for the profession invariably have to respond to the challenge of setting creative practice on a more solid discipline foundation. As such, the university exerts its own agenda and in doing so helps shape an institutional artworld. The challenge is how to accommodate these demands yet also maintain a degree of integrity about what constitutes visual arts as a field of study. Yet questions surround the status of visual arts faculty within the academy, and this can be linked in part to a lack of credibility for the credential used to admit artists into higher education and the ambivalence in how they fulfill their role as teachers and researchers. For many, this is a perennial issue that continues to shape arguments about the relevance of the visual arts within institutions. The politics of what constitutes research in the visual arts lies at the heart of these dilemmas. The uncertainty of these times and the questions being asked about how the visual arts contribute to new knowledge suggest that there is no better time to act.