A Report on the Value of Land Art and Biophilic Design to Draw Students into the St. Olaf College Natural Lands and Enhance an Environmental Ethos on Campus

by

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Abstract

Land art, though originally a means by which to break the barrier of the gallery space, has developed into a diverse art classification that can serve both aesthetic and social agendas. This report calls for an experiment in a new environmentally minded use of the land art genre applied to the St. Olaf context. In addition to promoting an aesthetic of environmental engagement, these proposals serve to increase campus sustainability, encourage interdisciplinary thinking, and increase direct engagement with nature. The report argues for the value of land art in the college setting as well as a description of biophilic design principles and how they could be used to inform the college's development of the natural lands sites in light of recent environmental initiatives. Included is an explanation of land art in general, its relation to the higher education setting, and an explanation of the benefits, both direct and indirect, of applying design that prioritizes aesthetics and environmentalism.

Acknowledgements

Several years ago, the Margaret A. Cargill Foundation approached St. Olaf College asking how it might do even more than it had in the environmental realm if the college had more funds. Much of the discussion that resulted in a successful proposal to the foundation centered on sustainability and integrating activity on St. Olaf lands more with curricular and broader environmental interests on the hill. One possibility initially considered was to fund land art. While this did not make it into the final proposal, we are grateful to the Margaret A. Cargill Foundation and those who brainstormed the proposal for initiating a conversation we rekindle and expand in this report.

The Art 370, "Issues in Art Criticism: Land Art" class this past Spring dedicated many discussions and the culminating research papers and projects to exploring how land art might profitably draw students into the St. Olaf natural lands and increase environmental awareness on campus. As readers of this report will only partially discover, the efforts of that entire class have fruitfully informed our research and thinking.

A number of people have given generously of their time. We would like to thank various individuals for clearing up confusion we had about certain things, for offering us insights and leads, and for sharing their knowledge. We thank in particular: Judith Cichock of Judith Cichock Landscape Architecture; Paul Jackson, St. Olaf College Environmental Studies Department Chair; Motti Larissa, Biological Field Station Manager, Conard Environmental Research Area & Center for Prairie Studies, Grinnell College; Elaine Lorenz, Program Director at River Bend Nature Center, Faribault, Minnesota; Lee Emma Running, Assistant Professor of Art, Grinnell College; and, Sandy Tanck, The University of Minnesota Landscape Arboretum Program Director.

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Introduction

This report argues the value of incorporating land art into the St. Olaf College natural lands and pursuing biophilic design. These strategies should be used to better integrate campus proper and the natural lands and to draw students and visitors out more into the natural lands. We call for an aesthetic of sustainability in support of the college's efforts to change individuals' perspectives about the environment. While St. Olaf has historically promoted the value of nature for the well being of students and society, it has even more followed the lead of modern, American society at large in constantly pushing nature to the margins of what so many regard as civilized realms. The academic buildings set on manicured lawns have always represented the center of a civilized world, ringed by student dormitories, beyond which a student first encounters contact with the outdoors and leisure through the disciplines of sport, and only then might venture into the natural world.

The college in its recent push for greater environmental awareness has sited more gardens and some native planting near the center of campus and has simultaneously developed prairie and Big Woods habitats on what was previously farmland surrounding campus, yet the culture/nature divide remains intact. For St. Olaf to live out the ethos of sustainability society so desperately needs now, the institution needs to tear down this divide while simultaneously cultivating natural lands and having students contemplate the natural world there more. We at St. Olaf have begun to pursue these objectives some through newer ideals we profess and some actions we have begun to take, but we have tended to do this more in words and pictures than as part of a fully lived reality. Students discussing the campus in Matt Rohn's Fall, 2011 ENVST 270, "Nature and the American Landscape" course lamented that their encounters with the natural lands seldom involved a true engagement with nature. They mostly went there to carry out tasks such as doing science class assignments as quickly as they could treating the natural lands as if they were in a laboratory. Many went into the natural lands to run but did so concentrating on disciplining their bodies and improving their running skills by following

their coach's or a runner's magazine's exhortations to concentrate on technique and not let their minds wander to the natural world surrounding them.

Students pursuing scientific experiments and outings on the natural lands will only engage in the fullness of nature if they have been socialized to do so, have discovered the value of this over other demands in life, and will give themselves over to nature in ways Ralph Waldo Emerson exhorts in his essay "The American Scholar": "The scholar is he of all men whom [the] spectacle [of nature] most engages…her splendors shine, system on system shooting like rays, upward, downward, without centre, without circumference" (Emerson 227). But, as Richard Louv has articulated so well in his bestselling book *Last Child in the Woods: Saving our Children from Nature-Deficit Disorder*, fewer young people in this generation than ever before will likely do this without prompts.

> Our society [within the past 2 decades has been] teaching young people to avoid direct experience in nature. That lesson is delivered in schools, families, even organizations devoted to the outdoors… Our institutions, urban/suburban design, and cultural attitudes unconsciously associate nature with doom – while disassociating the outdoors from joy and solitude. Well-meaning public-school systems, media, and parents are effectively scaring children straight out of the woods and fields (Louv 2).

The correctives that we recommend in this report are not cure-alls. They show ways that aesthetics can help with this situation. They even employ the paradoxical idea of using decidedly human creations to lure people into the natural lands through land art, and they urge the college to insert nature's values back into an expanding campus through biophilic design. We follow the lead of promoters of land art and biophilic design who have pursued a conversational approach between culture and nature rather than the older, modernists' dialectical debate about the virtue of either realm over the other.

People find sculpture to be fascinating. We believe that St. Olaf College can lure students (and others) into the natural lands and orient them to a contemplative mood receptive to the fullness of

nature more readily if those have something human made, deemed interesting to venture out and see. A wonderful sculpture alone might serve the purpose, but many sculptures stand at odds with nature, and they could spoil the sanctity of the natural lands. Land art and biophilic design can provide the benefits of good sculpture and teach people about natural systems. A limited number of land art and design elements thoughtfully conceived and strategically sited on the edges of the natural lands and within them could enhance engagement with nature.

One such creation might well be all that is needed. This report does not propose a single genre of art or a favored solution. We set forth possibilities and chronicle benefits and challenges for each option while simultaneously sketching a larger vision regarding the value of land art and biophilic design in relationship to the St. Olaf campus. Stakeholders with needs and funds will likely make any decisions about these possibilities, and the report makes available options, reasons why those making the decisions might pursue one option over another, and ideas for how and why more than one option might be pursued if feasible.

The report begins with a brief discussion of terms and basic concepts for the many who will read it unfamiliar with the relatively new field of land art. We argue why an aesthetic approach involving encounters with the natural world is needed over the proliferation of photographic images increasingly creating a false sense of campus ecological concern. We then speak about larger aesthetic issues involving the wisdom of land art intended for the heart of campus rather than the natural lands, biobphilically designed furnishings in the natural lands and landscape and building design where the wind turbine is and extending toward the center of campus. We consider different ways of approaching the issue in terms of the possibility of holding a competition and establishing workshop opportunities prior to our conclusion. Two appendices direct readers to land art that has been pursued by other institutions with similar interests and provides a list of regional artists and designers doing this type of work. We have attempted to structure the report and use bold-face headings and subheadings in such a way that different readers with different interests and knowledge can readily locate what they might

need without having to read everything.

Now is an opportune time for St. Olaf to consider land art and biophilic design activity. Both serve the college's and society's sustainability needs and aspirations. Those aesthetic forms can enhance and make visible what the college has begun doing in various areas of sustainability, while offering guidance for extending these aesthetic and environmental values into the future. While each involves costs, resources readily at hand can meet them. While biophilic design can have greater upfront costs than conventional processes, savings over the long term in resource usage can fully offset upfront costs. Thanks to visionary philanthropists in this region, St. Olaf may be able to turn to outside funders to shoulder much of the expenses and some of the planning costs if the college can develop inspiring land art and biophilic design proposals. Forecast Public Art, founded by C. R. Fuller and Constance Cowles has promoted, facilitated and helped fund such art throughout Minnesota, and the Margaret A. Cargill Foundation has designated arts and culture in the Midwest as a realm that it plans to start funding. The Boldt Company and the extended Boldt family has a close relationship with St. Olaf and has shown a leadership interest in green design and construction, most notably in the role family members have played in the Leopold Center. These are just a few of many potential funding sources that we believe might cover the costs of good, land art and biophilic design projects in and adjacent to the St. Olaf College natural lands.

Land Art and Related Concepts and Terms

Land and Site-Specific Art

We are following Ben Tufnell's lead in using the term "**land art**" throughout this report to encompass a variety of terms that have been used over the past four decades in conjunction with a host

of related art forms appropriate to the St. Olaf natural lands. Using just land art saves the reader from negotiating specialists' arguments about terminology and advocates' narrow interests. In his book titled *Land Art*, Tufnell says, "Land Art is characterized by an immediate and visceral interaction with landscape, nature and the environment. …Land Art [unlike landscape painting] is primarily physical and non-representational… It is not simply sculpture placed in the landscape but encompasses an attitude to site and experience that goes beyond the object, emphasizing the landscape in which it is sited, often…[as] an active component rather than merely a setting" (Tufnell 15-16). He acknowledges that the term land art encompasses a wide umbrella of aesthetic and ideological interests named by a host of terms still employed today.

The origins of land art lie in "site specific" art and earthworks. These closely related enterprises were first and foremost art challenging the gallery space and traditional art forms. **Site-specific art** proposed that art could never exist for its own sake. The setting, even a museum or gallery setting, was part of its very nature. While artists initially interested in this proposition did not have environmental concerns in mind, the degradation of the environment by 1970 produced by the growth of modern, industrial cities where art flourished prompted a number of artists to explore this contrast. Robert Smithson's *Non-Sites* (fig. 1) paved the way for this and helped him venture into earthworks. As land art has developed, the idea of site-specificity has continued to be important and can be seen in the

FIG. 1. Robert Smithson, *Line of Wreckage,* 1968. Metal

FIG. 2. Roy Staab, *Tongued Mandala*, 1996. Found bamboo,

structure, rubble, diagrams and photographs of rubble site. Castelli Gallery, New York City Conservatory. Image from artstor.org.

18'' high and 28' in diameter. Taeyama, China. Image from greenmuseum.org.

work of many artists. Site-Specific sculpture varies greatly from traditional sculpture set into nature because it is directly informed by the area surrounding it. Many examples of site-specific, land art sculpture, such as Roy Staab's creations (fig. 2), work to set up a conversation between the art and its immediate context and unlike most gallery art is not meant to function autonomously.

Earthworks

These originated with the impulse of site-specific artists to test where art might reside and what happens to it in the unconventional context for art of nature itself. They appropriated the term "earthworks" used to denote the creations of pre-historic cultures, be they by Mound Builders or the creators of Stonehenge -- creations used for some purpose moderns cannot fully fathom. The

FIG. 3. Robert Smithson, *Spiral Jetty,* 1970. Mud, salt crystals, basalt rocks, earth, water. 15'x1500' path. Erected in the Great Salt Lake, Rozel Point, UT. Image from artstor.org.

earliest, modern earthworks done around 1970 such as Robert Smithson's *Spiral Jetty* (fig. 3 and 14a

and b) were not informed by environmentalism but rather were meant to challenge the idea of where high art belonged and if art had to be made to fit in a gallery. This art was often very large in scale and celebrated the triumphs of the artist over so much including nature itself by showing the drastic and sublime ways in which the natural landscape could be altered.

Ecological and Reclamation Art

As environmentalism grew in the 1970s, a number of artists began questioning earthworks' domination of land. Regardless of whether or not these artists set out to promote environmental values, they recognized how the placement of art in nature forced artists and viewers to attend to that context and its growing degradation. This produced fairly early on an ecological impulse, and artists who both unconsciously and consciously started creating work called **ecological art**. These artists have sought to make creations, both permanent and ephemeral, which through both direct messages and undertones ask viewers to question the human history of environmental destruction and negligence. Some of these

FIG. 4. Andy Goldsworthy, *Rivers and Tides*, 2000. Found chunks of ice. Image from artstor.org.

FIG. 5. Patrick Dougherty, *Twigonometry,* 2002. Found branches and twigs. Erected at Carleton College, Northfield, MN. Image from carleton.edu.

artists, such as Andy Goldsworthy (fig. 4) and Patrick Dougherty (fig. 5, 15 and 47), have made ecological principles a latent dimension of their work. They employ materials found directly in the natural areas surrounding their sculptures to explore the incredible forms and qualities nature can take

and remind us through the impermanence of what they create the temporal and cyclical character of the natural order. A few, such as Hamish Fulton, have taken the opposite tack (fig. 24 and 25). They create gallery art and pictures to foreground important distinctions between nature and culture. Some figures devoted to ecological art as environmentalism above all else, such as the Helen and Newton Harrison, who have been quite explicit in their environmentalism, have preferred the term "ecoventions" for this type of work (fig. 6). That was the title of an exhibition, book and website dedicated to promoting

FIG. 6. Helen and Newton Harrison, *Full Farm*, 1974. Soil, plants, wooden planters, fluorescent light, water. Temporary installation at the Houston Museum of Contemporary Art, Houston, TX. Image from aworldtowin.net.

artists dedicating themselves to environmental action, though this term has tended to fade from use.

One prominent subset of ecological art has been **reclamation art**. The Surface Mining Control and Reclamation Act of 1977 played a major role in fostering this. Earthworks artists with and without explicit ecological interests perceived an opportunity to have surface mining interests fund earthworks, though land artists seeking environmental betterment quickly took over this genre. Artists who specialize in reclamation art do not usually restore spaces to a point where the human hand is absent, but usually prefer to showcase the way in which humans can coexist with the natural world and natural resources can be maintained with the proper thought and design. They often work with teams of experts in diverse fields of water management, hydrological engineering, biology, etc. Patricia Johanson has played an important role in showing how valuable sharing expertise could prove. Her restoration of Fair Park Lagoon in Dallas, Texas (fig. 7 and 19a) made visible the success in the public realm

FIG. 7. Patricia Johanson, *Fair Park Lagoon,* 1981-86. Restored lagoon and built concrete structures. Dallas, TX. Image from patriciajohanson.com.

reclamation art could achieve. The "lagoon" prompts visitors to interact with the habitat, learn about what makes it flourish, and view it in a different way. While this reclamation art usually shares qualities with landscape architecture, the intention and desired meaning behind these creations lies far deeper than solely in function and working to accomplish aesthetic enhancement of the land. A number of restoration art works have cultural significance and tie cultural renewal as well as cultural memory to ecological renewal. Betsy Damon has accomplished this by creating restoration art that incorporates forms and patterns that are commonly seen in the area of China where she has began working.

An Introduction to Biophilic Design and its Application to St. Olaf

Going beyond the realm of high art, **biophilic design** encapsulates architecture, furniture and landscape design, etc. informed by what biologist Edward O. Wilson proposed in his 1984 book *Biophilia* to be the inherent human connection with nature. He worried that moderns were growing increasingly disconnected from this powerful and important biological impulse. He has subsequently endorsed the proposition that modern design has played a role in this, and design can also be a powerful corrective. Biophilic design encourages the idea that design does more than prettify things governed by practical needs (i.e., form follows function) above all else. Design should express the core organic values that have guided evolution and can reveal to people sustainable patterns nature and natural systems have produced over millennia. Biophilic design puts aesthetics and sustainability in conversation with each other. It builds on the idea that nature is humanity's most basic connection and

that humans have a much longer history with the natural world than the industrialized world; they desire nature and the natural order and require affirmations with the values of those realms in order to flourish.

Throughout this report, we champion the cause of biophilic design and call toward the end for it to be employed in the development of the wind turbine area. Up to that point, we survey the wide variety of land art forms and concepts mentioned above without advocating one over another. Those who fund one or more project should make those choices, and even they may need to respond to directions dictated by funding opportunities. We will point out certain strengths and weaknesses inherent in various particular approaches but gladly fall back on the much broader concepts "land art" and "biophilic design" to address the core ideas we believe should govern creations in and near the natural lands.

Why Can't the Wealth of Natural Lands Photographs at St. Olaf Serve the Goals of This Project?

The Wealth of Imagery

Admissions brochures and mailings lead prospective students to believe that St. Olaf is a very environmentally-minded, beautiful campus and the wealth of natural lands photographs on the St. Olaf Website and appearing around campus re-enforce this among students. While St. Olaf has made serious strides in the area of environmentalism, these images also mislead people. They create a collective, virtual sense of a campus focused on its natural lands. It's the publicity department's statement about our institutional environmentalism, and it's at odds with reality, including by misrepresenting the length of time we have been pursuing sustainability. Through images of Regents Hall of Natural Science, STOGROW, the Wind Turbine, Environmental Studies courses and cross-country runners in

FIG. 8a and b. Cross country runners in the St. Olaf natural lands, and Regents Hall, St. Olaf College, Northfield, MN. Images from stolaf.edu.

the prairie (fig. 8a and b), viewers gain the impression that environmentalism is already well-integrated into the school. While these images are of activities and actual places, individual photographs show the extremes of the environmentally minded activities and reinforces and desired narrative that does not represent common practice the photographs also imply they offer or the full, less flattering story of environmentalism on campus.

These images make it easy to feel environmental by association with the college because they make it appear that the school is already functioning with those values. Students enter the school with the images of STOGROW and Regents Hall in mind, and these relatively limited examples of sustainability seem even more impressive than they are as newer students learn about Bon Appetit's composting, the Environmental Coalition and anti-paper cup campaigns. For many students, composting and environmentalism in general may be new concepts but ones that easily begin to comfort them as they project themselves into being a cog in the wheel of larger institutional change personified by imagery rather than assessing their situation, personally leading sustainability efforts, and actually stepping into nature much.

The problem with the amount of environmental imagery St. Olaf produces is that these images serve as representations for the way students see environmentalism on campus. While objectivity is impossible in representation, it is also impossible in memory. Images and stories are the way people

remember and organize thoughts. When the most prevalent images are those of positive environmentalism, these snapshots begin to take the place of images such as those of food waste or trash left in Norway Valley behind Larson Hall or elsewhere in the natural lands. Neither of these extremes can or should serve as the representative of St. Olaf environmental thought, but the wealth of imagery favored produces over saturation of the positive end of the spectrum. To the extent that the college is interested in deep, honest, personal, environmental reflection, it needs to help students perceive why many more changes are still necessary, and it needs to induce them to experience nature more.

Because such a relatively small percentage of students venture in any meaningful way into the natural lands, natural lands imagery creates a vicarious way of experiencing nature. The images that are available in publications, on campus and on the website present this realm in a way that very much

FIG. 9a and b. Photographs of the St. Olaf natural lands, St. Olaf College, Northfield, MN. Images from stolaf.edu. Contrast the typical photograph of the wind turbine with figure 39 and the wind turbine site itself at the present.

conforms to the standards of traditional picturesque landscape imagery (fig. 9a and b). This includes landscape shots of beautiful horizons, seemingly untouched vegetation, and rolling topography. While these images are beautiful and work to show how the local landscape is beautiful and inspiring, they also idealize the natural lands to a level that is not representative of the way it would normally appear first-hand.

This is problematic because of the way such idealization can produce a let down on the part of the

visitor, who experiences the natural lands as a vast area of space and not a carefully framed snapshot. Photographic representations of nature show nature the way we are used to seeing it pictured and in a way that has been historically aesthetically pleasing. Landscape painting long depicted beautiful, sublime nature, and traditional landscape photography followed this path. The imagery can be inarguably beautiful and function to show the wonders of the natural world, but such pictures make it so that it is difficult for actual landscapes to live up to their own representations.

That produces something of a distance between the common man-made world and nature. Nature represented in sublime and breathtaking imagery makes it seem to be something beyond existence -- something of a destination. Nature as destination works against the initiative of nature and daily life integrated with one another the way Transcendentalists and environmentalists have taught us produces an environmentally sustainable existence. The natural and man-made worlds are inextricably intertwined, but the different ways nature photography tends to portray the world makes it difficult to see the connections. While there is some St. Olaf imagery that shows students outside on campus (fig. 10), there is a clear distinction between the images of on-campus nature and natural lands

FIG 10. Class being held outside, St. Olaf College, Northfield MN. Image from stolaf.edu..

nature. The on-campus nature photos seem more like candid snapshots while the natural lands is more dramatic and technically refined images.

A further problem of nature as destination is that it makes it easy to disregard the nature that is most present in the built world as well as makes experiences with nature take on something of a formal

quality. Individuals with little experience with nature can be intimidated by the idea of going out into designated nature realms. But, in order for all students to gain awareness and respect for nature, they first need to have interactions with it, which requires breaking the image barrier between natural and built space. The notion of nature as a prescribed experience through running, hiking, and other activities needs to be deconstructed. Awareness and protection of nature needs to go beyond common shots of nature and wildlife reserves, and include the natural world in all forms.

Many of the images of the natural lands make it appear to be a timeless, untouched wilderness, but this leaves out the fact that much of this space is not natural at all. The prairie is a restoration effort on the part of the school to recreate native landscapes of a variety that might have given rise to the farmland predating the area and still surrounding much of the designated natural lands. While this particular land may have been prairie more than 150 years ago, it more likely was Big Woods. The ponds and prairie we currently see are all man-made. Even though they fit the image of Midwestern prairie, they were created to look this way, and this is largely unknown on the part of the student body.

It is wonderful that the college has pursued land restoration and the promotion of a native landscape but ignorance of the history of the land promotes false conceptions about the term “natural”. Later in this report, we will propose the inclusion of cultural history and memory as one of the important elements land art and biophilic design can provide. With the level of human impact now part of the natural world, it takes effort to preserve a natural landscape and this level of work and dedication is something the student body should know. If individuals were aware of the many levels of artificiality and interference, which is commonly considered natural, they would be equipped to understand and interact with the world around them better than they do now.

Issues of Framing and First Person Viewing

The over saturation of photographic imagery in culture produces a propensity to begin trying to frame all places and experiences. This phenomenon can be seen in designated “views” at tourist

destinations. People adjust where they look based upon prescribed "views" derived from a camera's viewfinder. This demonstrates the problem of simulacra in the post-modern era and the level to which the representation of the experience often carries more significance than the experience itself. In the context of experiencing the natural lands, this type of imagery needs to be deconstructed so that significance can arise from experiences and interactions with nature and not just the picturesque representation of the experience.

Adding to this problem is the issue of what is being left out of the frame in attempts to recreate traditional representations. For the natural lands, this can mean leaving out what seems un-natural such as telephone poles or trenching, when in fact the natural lands themselves are man-made constructions set in an area filled with towers, cables, etc. The human hand is present in all natural areas. While leaving this out has aesthetic merit, it encourage a false sense of the present state of the natural world or the responsibility we have in creating a healthy environment by working with nature rather than reinforcing a culture/nature divide. We conjure up the myth of an Eden to which our photographs entice us to believe we can return.

While there is value in having photo-contests and such that work to draw students out into the natural lands, even those students have a tendency to spend that time in nature looking for the scenes that fit best into the traditional frame. They disregard the nature that lies outside of traditional aesthetics and perpetuate this attitude in other students. In addition, this need to represent through snapshots devalues the idea of a holistic experience because it is cuts up the nature experienced into individual frames. These issues are on some level unavoidable, but they present cautionary warnings about the extent that imagery serves as memory. Photographs can serve to inspire people and offer direction, but they do not substitute for experiencing nature, which we believe the three-dimensional, real-time, kinesthetic experience of biophilic design and land art in the natural lands can promote.

Could a Small Sculpture Garden Suffice?

The simplest approach to attracting students onto the St. Olaf College natural lands with art would be to create a small sculpture garden out on the natural lands that might contain professional or student work. Over the past few decades, a proliferation of sculpture gardens has taken place. Probably the most notable example is Storm King Art Center, Mountainville, New York (fig. 11), though

FIG. 11. Storm King Art Center Sculpture Garden, Mountainville, NY. Image from pbs.org.

numerous examples exist in our region from the very formal, urban, Walker Art Center Sculpture Garden in Minneapolis to the playful Franconia Sculpture Park in Franconia, Minnesota.

The Value of Placing Sculpture in a Natural Setting

Art enthusiasts have discovered that bucolic settings create excellent backdrops for modern sculpture, and curators of botanical gardens, parks, corporate campuses, natural lands, etc. have discovered that the whimsy and aesthetic richness of modern sculpture draws people out into the lands. We suggest consideration of a small sculpture garden on the natural lands mostly for that latter reason. A core value behind the project this report addresses is the proposition that sculpture can draw people out no matter how deep or limited their interest in nature is, and put them in a contemplative state of mind that prepares them to attend to nature.

Such a proposal raises a number of issues germane not only to the option of a sculpture garden but to many of the other major options this report will survey. One of those issues involves scale and the extent to which the natural lands should define and define the experience. As we will have occasion to return to at various points in this report, any plans will need to be sensitive to the desire for the

natural lands to be preeminent in both sensibility and in practical ways. The college has already been nibbling away at the major domain of the natural lands with the creation of the composting site, the creation of the dirt road to it, and the leasing of lands for the Northfield Hospital and the Mayo Heart Clinic and Radiation Therapy facility. Certain flora and fauna need extended natural lands to flourish, but the eye and mind also require an extended encounter with the natural order to achieve the sense of its fundamental immensity that philosophers like Ralph Waldo Emerson have explained are so important. Interrupting those vistas, even though the natural lands themselves are mostly a human construct and a relatively recent one, could destroy that salutary effect.

Our project also relies on a paradox that human-created spectacles will draw people out to experience and turn busy people in the direction of a very different sensibility. Those curating any site will need to be thoughtful about how much spectacle any creation out on the natural lands should exhibit before it is counter-productive and sullies the character of the natural lands. Certain brightly colored, whimsical or interactive sculptures may be popular (fig. 12) but may not be appropriate.

FIG. 12. Mark DiSuvero, *Grace a Toi,* 1992. Metal L-Beams. Displayed quite appropriately in the urban setting of the Western Sculpture Park, St. Paul MN, but not suitable for sparking contemplation of nature. Image from artstor.org.

What does work, though, may depend on circumstances (e.g., what sculpture is available and appeals to those who choose it) and siting (i.e., how visible or secluded its placement is). These concerns pertain not only to conventional sculptures but also to land art.

Additional practical considerations also need to be taken into account. Much of the natural lands are prairie, which require periodic burning. Any sculpture or sculpture garden would need to be situated

so fire would not harm or destroy the sculpture. Sculpture on the natural lands does not enjoy the same protection from vandalism, natural elements, etc. that it does in more inhabited campus settings or in the extreme, protected environment of the museum. The placement of a sculpture or a set of sculptures out on the natural lands would need to take matters of durability and risk into account.

Professional Art in the Sculpture Garden?

A strong case can be made that the better in quality and complexity a sculpture is, the more it will succeed in drawing viewers to it and will reward them with rich experiences. This provides good reason for the college to obtain sculpture by professional artists for the natural lands. The college even already owns work that could serve this purpose well, including a number of bronze sculptures by Kaare Nygaard, which might be wonderfully sited throughout the natural lands just as his "Cancer III" has functioned well in a quasi-natural setting on campus (fig. 13).

FIG 13. Kaare Nygaard, *Cancer III,* 1959. Exhibited at St. Olaf College, Northfield Minnesota. Image from Matt Rohn.

Student Work Populating a Sculpture Garden?

Another option would be to create a sculpture garden for student work. This could be a spot where certain student sculpture of merit could reside on a rotating basis or it could become a display area for work done by a specific class. This option should be considered not only for a sculpture garden but also for any proposal involving land art. Work by fellow students and sculpture that rotates might

succeed as well as professional art, if not better, in attracting students to the location so they can see what peers have created. At the very least, this process can engage the creators of this work with the site and the natural lands.

Earthworks and Beyond

While conventional sculpture on the natural lands could achieve many of the goals we set forth in the report, land art because of its engagement with natural materials, environmental processes and concerns would likely do more and teach and inspire viewers in additional ways. The best-known form of land art in the United States, earthworks, might serve those purposes particularly well. Certainly the best known individual earthwork, Robert Smithson's, 1970, *Spiral Jetty* at Rozel Point, Great Salt Lake Utah (fig. 14a and b and 3), has been successful in this way.

FIG. 14a and b. Robert Smithson, *Spiral Jetty,* 1970. Mud, salt crystals, basalt rocks, earth, water. 15'x1500' path. Erected in the Great Salt Lake, Rozel Point, UT. Images from artstor.org.

Much of its attraction has arisen from the way people flock to it as a rich spectacle. Even though Smithson created it partially as a prop for a film he made and prepared for it to exist mostly as a photographically documented creation, *Spiral Jetty* has become a major pilgrimage site for a variety of reasons, including because of the ways he used the materials and setting to produce the visceral lessons about time, space, and culture in relationship to nature that viewers learn through experiencing it. The

man-made form created from the detritus of mining materials and eroded wash force one to contemplate time on at least the geologic scale and consider the status of human existence separate from our normal anthropomorphic perspective. This has a sobering effect in environmental terms.

The St. Olaf natural lands do not have room for a *Spiral Jetty*. Nor can we commission Robert Smithson, who died young and tragically in an airplane accident, to do an earthwork here, but we can ponder some of its attributes that could inform what might be placed or created on the natural lands. Whether that work is a sculpture, example of land art, or a landscape-designed setting, it needs to be aesthetically rich enough to draw viewers to it and to get them contemplating the work and from that the setting. Any public art proves unusually tricky in this respect. Mediocre work (either because it's done by a poor artist or is a weak creation by a good artist) has more of an impact on its context than gallery-conceived art and can't be shuttled to storage or another location so easily. Quality matters and so do the lessons that well-conceived, thoughtfully sited land art can teach about place and many other environmental matters.

Temporality Relative to Permanence

One of the more important concerns that prompted Smithson to create *Spiral Jetty* was his interest in entropy and the way this fundamental aspect of physics (and hence, reality) called for a steady state of change and progression toward randomness relative to humans' more parochial sense of existence. Smithson knew that change would become evident as natural forces went to work on the loose dirt, crystals formed on the rubble's edges, and the spiral form might disappear under rising water levels and would eventually emerge from the water as this inland sea dried up (though Smithson had no inkling of how climate change would hasten some of these transformations). Conventional art has long aspired to the illusion of being "time-less," and museums exist as institutions largely dedicated to the preservation of art in what people want to believe is its original state. We speak of the "illusion" of timelessness and of "what people want to believe" because of the fictive, anthropomorphic basis of this quest. It

proposes that humans have the capacity to create perfected, god-like creations so perfected that they are "pure" and separate from all other existence. This even assumes that God or gods would want to do the same, when both reality and many religions around the world and over time have rejected this concept and have even found it to be dangerous. To maintain this belief, viewers of art need to pretend that oxidation never chemically changes pigments, and conservators work hard to reverse the effects of a different reality. Society spends extensive resources on museums; these exist as special, climate-controlled chambers cut off from the rest of the world, including the real world of churches or actual landscapes that originally gave life to so much art. A distinctly modern and Western conception of the timeless nature of these human creations has been produced by some of the same unhealthy culturally derived ecological attitudes that fail to address processes, transformation, death and renewal as the finite mass and energy of the universe rearranges itself in a wealth of different forms.

Much land art, including *Spiral Jetty*, has explicitly addressed the transformative and interrelated character of existence and has done so by making explicit the impermanent nature of these creations and their ties to the other elements and forces in their surroundings. This poses special challenges on both practical and philosophical grounds that we will continue to address throughout this report. Just in practical terms, purchasing or commissioning land art can be daunting if an institution knows that it is paying for something that will decay and might not exist for long. This philosophically contrasts with not only the conventional Western notions of aesthetics and metaphysics we just briefly sketched but related conceptions of property moderns prize when it comes to purchasing precious goods such as art. Any decisions to pursue land art will want to take this into consideration, and we provide some suggestions about a range of possibilities in what follows.

Land Art that Functions Beyond the Original Nature of Earthworks

When John Beardsley wrote the first book on land art, he titled it *Earthworks and Beyond* because of the primacy of earthworks in the United States in launching land art, but his "Beyond" recognizes

how artists had begun reacting to the pioneering earthworks and had started to show different sensibilities. These works were less grounded in formalist investigations and rejected the assaults on nature and the earth that so many earthworks exhibited. While many of these artists producing this newer work set off in this direction informed by the growth of environmentalism during the 1970s, not all have viewed themselves as explicitly ecological artists as we have already noted when we introduced Patrick Dougherty and Andy Goldsworthy.

Many colleges have commissioned Patrick Dougherty to make creations, including Carleton College, which commissioned him in 2002 to create *Twigonometry* (fig. 15 a and b, 5 and 47; see the "Colleges and Universities" appendix for more on him). The primary, generative force behind his work is an aesthetic one, though the kinships with place, communities, and nature he develops in each project also sustain his work. He conceives of them as large, three-dimensional drawings, and the twigs, vines, saplings, etc. are his lines. Their varied thicknesses, differing pliability and tonalities impose constraints common to all art media but are delightful to Dougherty and viewers of his work in

FIG. 15a and b Patrick Dougherty, *Twigonometry,* 2002 and the start of construction of it. Found branches and twigs. Erected at Carleton College, Northfield, MN. Images from carleton.edu.

their derivation from the natural world. In the case of the Carleton commission, he readily embraced the college's desire that he use materials collected from the culling of invasive species or unwanted foliage in parts of their natural lands. His creations visibly change over time, and he makes as a condition of his doing these creations a requirement that they be dismantled once they have reached a certain state of decay, which usually happens within a few years. Both the spectacle of his works and some of their richness derives from the materials he uses, the efforts people at the institution put into helping create them, and the experience people have of entering physically into these drawings and contemplating the relationships worth pondering at the borders among drawings and structures, natural elements and man-made realms, and the like. The ritualistic and event-centered nature of the works as well as their wonderful forms and the stories some initiate help them live long beyond their physical existence, though his work is also of such a sufficiently transitory nature that it challenges conventional thinking about "permanence".

Andy Goldsworthy's creations can do this even more so and in quiet profound ways, though some of what he regards as temporal art will likely last as long as many conventional sculptures. Even though he does not profess any ecological agenda, he has since his graduate student days created art created with an astonishingly light ecological footprint because of the materials he chooses and where he makes his creations. He works with natural materials he encounters and these may be as ephemeral as leaves set in a pattern (fig. 16). His studio has long been the outdoors. He likes the way this forces

FIG 16. Andy Goldsworthy, *Japanese Maple Leaves,* 1987. Maple leaves stitched together, woven briar ring, shallow water. Image from artstor.org.

him to come to terms with the realities of existence, including a sense of place rooted right down to its existence in nature and natural processes. He has since the beginning of his career documented his creations photographically. The photographs are sometimes the ultimate tangible aspect of what he does, but he also challenges himself and viewers to grapple with the contingencies of existence and what we make of the world in the limited time we exist in it. He enjoys that some works exist only until a breeze scatters the leaves, and this aspect of his work teaches important, collateral ecological lessons.

In 2001, he undertook a complex creation, *Three Cairns*, that involved a large installation of stone cairns and their negative forms at the Des Moines Art Center and three other smaller cairns, which he sited at different points of the continental United States. One was on the Atlantic coast, one on the Pacific coast, and the third was in the middle of the continent at the Grinnell College CERA prairie lands (fig. 17). Tidal forces quickly tore apart the coastal cairns as he knew they would, but

FIG 17. Andy Goldsworthy, *Prairie Cairn,* 2001. Found Iowa Limestone. Erected at Grinnell College, Grinnell, IA, shows as the artist photographed cairn in a prairie burn. Image from Grinnell.edu.

visit the prairie cairn, as you can today, and you will find it fully in tact. That makes it no less a temporary structure, and the conceptual framework he created for it makes it an object marking natural processes rather than standing out as a discrete object unto itself. In May following his creating it, he filmed it in its first encounter with the regular set of prairie burns he knew constantly take place to maintain the prairie habitat, and he has put together time-lapse photographs of it through different seasons showing how it stands in constantly changing relationship to greening, prairie foliage sprouting around it and then almost hiding it by summers end, only to fall around it as winter sets in. Even though he did not conceive of this or other work as teaching ecological lessons, it is a good example of how much non ecological land art can force artists and viewers to become engaged in the natural world and could serve that purpose on the St. Olaf natural lands.

There exist a wide range of artists from the highest professional ranks to newly emerging artists in this region creating earthworks and modes informed by earthworks aesthetics. Works by them could be purchased or commissioned that could be striking, much talked about creations drawing viewers into the St. Olaf natural lands and directing them to aspects of nature and natural phenomena in the process.

Ecological Art

From almost land art's inception, concern about environmental degradation has motivated artists to address environmentalism in their creations. Some of these artists, as we have noted, went in this direction with a special passion in reaction to the modern art-for-art's sake ethos and the way that had given license to various earthworks artists to make huge scars in the landscape. A number of these early ecological artists and their followers, often informed by feminism, believed that artists should be doing more than aesthetic experimentation when questioning galleries and museums as the *de facto* site for art. Artists should join others in asking questions about their own and society's broader moral and social responsibilities when it comes to all facets of life. They have felt an urgency to act responsibly in their own sphere of activity and make use of their talents to correct problems in part out of guilt for having been so involved in modern heroics and having been shocked to realize the serious environmental consequences this era of progressive reform had produced but also because of their concerns about the speed and gravity of impending environmental problems.

Environmental art has taken many different forms from highly conceptual, urban-based works to both conceptual and physical interventions in the wilds. Some of the land art we have already discussed shows characteristics of ecological art, but in this section of the report, we will sketch a direction land art on the St. Olaf natural lands might take if work by ecological artists were favored. Given our and the college's objective of developing the natural lands as a means of nurturing an ethos of environmentalism among students, serious consideration should be accorded ecological art. We want to stress, though, that ecological art is not the only, or always the best, way of achieving this end. Some examples in certain settings can prove too limited or didactic, creating a backlash among some key viewers or narrowing their focus and not helping them commune with nature and natural processes the way some more broadly conceived land art does. What largely defines environmental art is the way its differing mechanisms orient people toward environmental issues and toward ideas and resources largely outside of the art world needed for producing change.

Agnes Denes has long been a practitioner of this genre, and her 1992-'96, *Tree Mountain – A Living Time Capsule* in Ylöjarvi, Finland (fig. 18a, b, and c) offers a good example of ecological art of

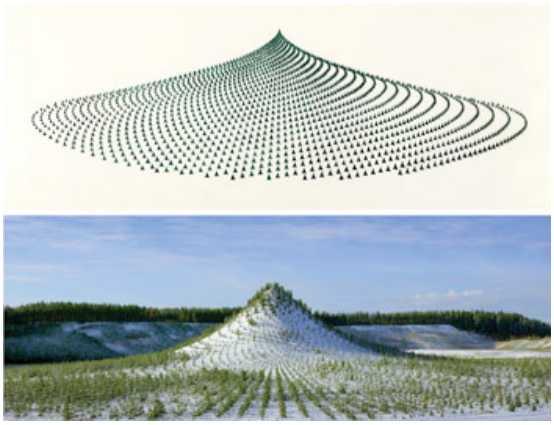

FIG. 18a, b and c. Agnes Denes, *Tree Mountain- A Living Time Capsule,* 1992-96. Her drawing for it and trees planted in Ylöjärvi, Finland according to her geometric pattern as well as a photograph taken later. Images from eflux.com.

a type relevant to the St. Olaf natural lands. Agnes Denes had already won fame as an ecological artist when she received the commission that led her to create *Tree Mountain*; she had hatched the idea as early as 1983. The commission and her eagerness to mine its ritualistic potentials are what make this work unequivocally ecological art. In 1992 the Finnish government participated in the world's first Earth Summit held in Rio de Janeiro, and Finland's president, Martti Ahtisaari, decided to mark the occasion and his country's dedication to the summit's "Forest Principles" by commissioning ecological art related to this initiative. Agnes Denes initially turned for inspiration to the very formal art she had begun her career doing steeped in scientifically conceived patterns. She wedded that to a conceptual and ecologically based process. She overlaid the pattern on a barren stretch of land the government chose to reforest and then preserve for at least 400 years. She arranged to bring together 10,000 people for each of the 10,000 points in the image. Each person became the owner of a tree planted on one of the points. Individuals signed a contract allowing them to change ownership over generations, but the trees can never leave the forest. This means, as Ben Tufnell notes, "*Tree Mountain* itself 'can never be owned or sold'" (Tufnell 104).

Denes used the beauty of the design to seek amends for what humans have done in damaging the

environment. While the handsome pattern created an initial human imprint on a nature preserve, the pattern entails beauty, as a pattern provokes thought over time about what people do, but already has begun to disappear as the trees grow and natural successions impose their own patterns. The initial endeavor produced a ritualistic celebration of the Earth Summit's and Finland's new dedication to environmentalism. It also produced a ritual experience for the 10,000 people and people close to them tied into the reforestation effort. Because of the pattern it produced, a ghost of that ritual lingers for viewers and future generations. While St. Olaf has no occasion to commission anything on this scale, *Tree Mountain* allows us to see how environmentalism and a land ethos can inform art, and how artistic tools can deepen, enrich, and make visible for an extended period of time ecological thinking and action.

Reclamation Art

Largely through chance circumstances involving the ways that the 1977 Surface Mining and Control Reclamation Act made short-lived strange bedfellow of mining companies and earthworks artists, a subgenre of ecological art, reclamation art, came into existence almost a step ahead of ecological art itself. Mining concerns hoped that they could use aesthetics to green-wash the activity that had finally provoked the 1977 legislation, and even the most environmentally disinterested earthworks artists salivated over the opportunity to have access to vast tracks of land, earth-moving equipment and money to work on swaths of soil. But over time, reclamation art has evolved in the direction of ecological thinking and has also been shaped by challenges that make it worth its own attention.

One of the most remarkable reclamation artists has been Patricia Johanson. Her most famous reclamation work remains one of her earliest, Fair Park's Leonhardt Lagoon in Dallas Texas, which she

FIG. 19a, Patricia Johanson, *Fair Park Lagoon,* 1981-‘86. Restored lagoon and built concrete structures. Dallas, TX. Image from patriciajohanson.com.

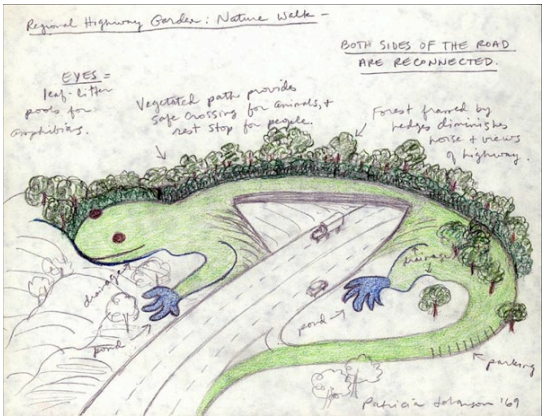

FIG 19b Patricia Johanson, *Sketch for Regional Highway Garden,* 1969. Image from db-artmag.de.

worked on from 1981-’86 (fig. 19a and 7). This was a catch basin abutting an entertainment and cultural complex that includes the city’s natural history museum. The body of water had completely atrophied so there was essentially no living matter in it and its shoreline had eroded. Johanson was hired as a landscape architect through a process that the director of the Dallas Museum of Art had cleverly engineered to favor her selection by those involved who thought they were getting someone to simply make the lagoon area look better. Johanson had a bigger vision that defined good design as the creation of a healthy, rich environment in a biological sense relating to an equally inspiring visual sense of good design rooted in what we have already called biophilic imagery. This involves organic shapes, serpentine lines derived from drawings based upon images of snakes, salamanders and the like (fig. 19 b). Her image vocabulary is not random but favors metamorphic creatures, ones sensitive to the aquatic world and its health.

Most significantly, she realized that she did not have the expertise to engineer the restoration of the life forms in the pond, and she would need to enlist other experts for this. In taking this step, she instigated the type of cross-disciplinary thinking and action that defines environmentalism. She not only managed to direct a sustained biological restoration of this habitat but through the pathways she designed weaving about the lagoon’s edge and her sensitivity to the lagoon’s location near the natural

history museum, she has made it a place where children are enticed to explore that natural world and learn about it through what they see, smell and can touch as well as through what was learned from the studies of how the body of water atrophied and could be restored. She has subsequently taken the lead in multi-million dollar water treatment projects tied into wetland and natural preserve projects that involve vast teams of experts. She has also continued to do much smaller and less elaborate projects and almost all of her work starts with drawings she has always done based on natural forms.

While we don't know of any reclamation needs in St. Olaf's natural lands produced by horrible past abuses, nearly all of the "restoration" of the natural lands, even decisions about things done in Norway Valley, involve a "reclamation" of property once farmed and often altered from a healthier natural state in the process. While the college has learned to live with such changes, including the drainage of wet lands into fields and a series of largely man-made ponds through which the watershed flows, the college may want to consider how the commissioning of an artist schooled in ecological and even reclamation art, such as University of Minnesota artist Christine Baeumler, could orchestrate a land art project that not only helps remediate a habitat but draws attention to this process and produces an inspirational, visual reminder of what was done and how it could be pursued by others (fig. 20a and

FIG 20a and b. Christine Baeumler, *Eastside Rain Garden.* St. Paul, MN. Images from Matt Rohn.

b). Such sites can draw people to the natural lands through their interesting forms and then inspire additional thinking and sometimes provoke it in quite concrete ways. While the college's own ecologists can oversee restorations and an more environmentally sound natural lands, partnership with

ecological artists can enrich this process and make results that engage people both more broadly and more deeply than what an ecologist alone might do.

Land Art Situated Partially or Exclusively in the Heart of Campus and Even Indoors

We have thus far been discussing sculpture or land art that would be sited in the natural lands as a means of drawing students into that realm in good measure to view it and in the process to experience the natural lands and contemplate it. Good arguments can be made for work situated partially or exclusively in the heart of campus and housed indoors or in virtual realms instead and for a variety of different reasons. Some individuals contend that one must prime the pump and have some on-campus connection or trigger to lure students out into the natural lands. Some ardent environmental artists, meanwhile, worry about land art creating an illusion of an encounter with the natural world and believe that land art should be experienced in the same cultural spheres as all art to deconstruct the artistic process and remind viewers of what they are not experiencing. These artists wish to prod viewers to encounter nature in a fuller and more experiential way than art allows. And, another group of environmentally minded artists bring the natural world into the cultural realm and deploy artifice in ironic and quite effective ways to confront viewers with what these artists worry is quickly becoming a nature/culture divide.

Priming the Pump and Creating Bridges between the Heart of Campus and the Natural Lands

Several students in the Spring 2012, Art 370 “Issues in Art Criticism: Land Art” class persuasively argued that students on campus need prompts appropriate to their lives on campus and in mainstream American culture to push and pull them out to the natural lands. Xiaojing Yang proposed that the natural lands have a cartoon character style mascot. This quite stylized and artificial figure

would reside in a physical form in the natural lands and could be designed to function as a natural lands viewing and information center, but would appear in different places on campus, including in social media forms (fig. 21a and b). Students would become intrigued by the mascot, come to adore

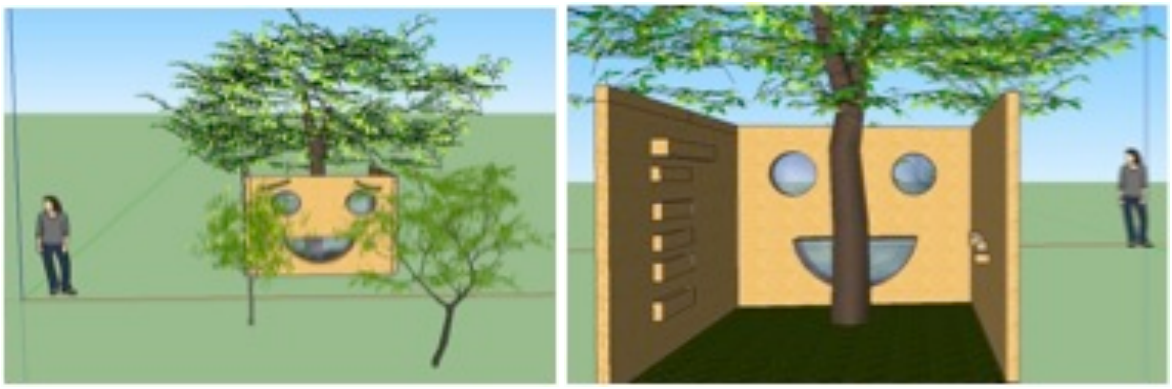

FIG. 21a and b. Xiaojing Yang, *Ola: Mascot for St. Olaf Natural Lands,* 2012. Computer rendering of how it would look fronting a path by Skoglund Pond and then from the other side as an enclosure and information booth with the mouth providing a seat and compartments for field guides, etc. on each side. Images from artist.

him. The school could create more curiosity than otherwise might exist by using him in something of an ad campaign and entice students out to the natural lands to find him in his built form. While such an artificial design out in the natural lands and such a cartoonish figure repreenting the natural lands on campus may upset those most passionate about nature, this concept need not clash with the natural lands ethos and could be a successful way to create interest in the natural lands among a large number of students by raising the profile of the natural lands through something bridging the on-campus pop culture world and nature.

Conceiving of land art this way reaches out to students were they spend most of their time rather than hoping that they hear about art out in the natural lands and go to look for it. Some artists, such as Peter Fend, have effectively drawn attention to the natural world and have encouraged exploration of it through the framing and monitoring of a natural space in the built world. In his project *Ocean Earth*

FIG. 22 Peter Fend, *Ocean Earth: Europa,* 1991. Maps, board, plexiglass, television monitors. Installation at Kunstraum Daxer, Munich. Image from creativemapping.blogspot.com.

FIG. 23 Nicolas Lampert, *Mud Stenciling Workshop,* 2009. University of Wisconsin Oshkosh, Oshkosh, WI. Image from uwosh.edu.

(fig. 22), he uses the gallery as a space to project satellite footage of ocean basins in Europe, showing the environmental changes taking place. By combining tools of graphic design with the contemplative practices of art, he draws attention to critical matters and spreads them about the realms people usually inhabit. Work such as this might more effectively provoke engagement with environmental concerns and the natural lands than art sited in it. This can also be achieved with very low-tech means, as Nicolas Lampert has demonstrated with his 2009 mud stencil installation at the University of Wisconsin, Oshkosh. He stenciled on the sidewalks going into buildings the tracks of animals native to that realm that would "normally" roam those grounds (fig. 23).

Using Art in a Cultural Setting to Question its Inadequacy as Intermediary to Experiencing Nature

Artists such as Hamish Fulton argue that in order for individuals to have deep, meaningful experiences with nature, the time in nature needs to be prioritized over seeking aesthetic simulations of nature. While landscape imagery is currently present on campus in the form of paintings and photographs, in contemporary culture this imagery so inundates us that it is easily overlooked and at its most successful can substitute illusion for reality. Fulton and others have devised new imagery and

contexts for gallery art that forces the individual to consider both the gallery space itself as something more than a neutral space and the natural realm in a different way than if they had no familiarity with the space "art" inhabits, nature itself or the nature of photographic imagery.

In some works he showcases technically beautiful photographs of things in nature that are overlooked, such as pebbles, sticks and road kill among other objects (fig. 24). He, or someone with a similar approach, could be commissioned to explore the St. Olaf lands. In this type of work, Fulton questions not only what should be considered worthy of artistic representation but also the power of representation and the propensity of framing to aestheticize scenes. By choosing to photograph outside of the mainstream subject matter many have become socialized to look for in nature, he emphasizes beauty in mundane natural objects and provokes the viewer to question the authenticity of sublime nature imagery.

FIG. 24. Hamish Fulton, *Beaver Sticks: Four Days Walking by a River,* 1980. Photograph and Text. Image from artstor.org.

FIG. 25. Hamish Fulton, *Road Dust,* 1976. Photograph and Text. Image from artstor.org.

He also sometimes teases the viewer through his imagery to think that they will experience through a semblance of the sublime in a photographic image he takes hinting at the grandeur of nature, but he undermines this and his other imagery with his text about his own, much more remarkable experience (fig. 25). He goads us to seek such an experiences by journeying Thoreau-like into a place such as the St. Olaf natural lands. His British countryman, Richard Long, does some work of a similar

nature but also sometimes employs the physicality of natural elements – stones, mud, etc. – in the highly refined realms of culture, such as museum spaces, to again force us to think about what we are missing with our attachments to the cultured, built environment (fig. 26). The success of much indoor-based land art is contingent on viewership.

FIG 26. Richard Long, *Museum Installation,* 1976. Photo of museum installation. Image from britishcouncil.org.

In addition to challenging the assignment of beauty to the gallery, artists like Long and Fulton open up the opportunity for anyone to be an artist by celebrating the wonder of experience itself. In the case of St. Olaf, subtle boundaries exist between the campus and the natural lands. While art can serve as a platform for engagement with nature, art production can seem very intimidating. For individuals who are not affiliated with the art world, these artists help viewers see that nature can be represented through many forms and itself can be as rich an experience as "art" without the cache´ of property and wealth so often sanctioning a rich experience in cultural terms.

The Natural World More Honestly and Better Understood through its Loss

As these last examples help us see, indoor and gallery spaces can be effective in drawing physical elements of the outside world inside to show contemporary culture's growing distance from nature and how culturally determined, and thus relative, a term like "natural lands" is. Students constantly spend

most of their time learning indoors, including about nature, and most often see nature through a window or lens. In addition, architecture and design have redefined what it means to have "development" and "nature" coexisting. Buildings such as Regents Hall have been created to conform to the standards of sustainable design, yet they function in ways that hardly resemble the natural world at all.

A number of artists who bring nature directly into the built world draw attention to how large of a separation exists between the two spaces, even if they are only separated by a piece of glass. One of the best of these artists, Mark Dion, has done this very well and particularly in his installation *Neukom Vivarium* at Seattle's Olympic Sculpture Park (fig. 27). He had the remains of a large, fallen tree from a

FIG 27. Mark Dion, *Neukom Vivarium,* 2006. Decomposing tree, greenhouse, lights, watering equipment. Installation at the Olympic Sculpture Park, Seattle Art Museum, Seattle, WA. Image from active18.net.

nearby rainforest transported to a terrarium he specially designed and had built for the tree. Complex equipment activated by computers simulate the rain forest conditions and allow the fallen tree and all the mosses, insects, etc. that he carefully collected with it to continue their cycles of life through the trees' decay under the astonished and watchful eye of visitors. Because the sculpture park is in a very urban setting, constructed on an abandoned industrial waste site near the harbor, the traditionally natural tree seems to be out of place yet no less wondrous. Dion emphasizes that in an urban setting, we tend to visit museums to see what should be natural.

Dion is a master at using installations to deconstruct artificial systems of thought and experience that cultures have long imposed on the natural world. His materials and specific themes have been quite

diverse. He, or an artist working in this same vein, could be commissioned to explore the St. Olaf setting and create an installation relating to the St. Olaf natural lands that might be viewed by more students because it is on campus than any art in the natural lands would and provoke more exploration of the natural lands themselves than other land art might.

Each of the artists we have reviewed in this section of the report use contrasts between the cultural and natural realms and between experiencing art and experiencing nature to awaken viewers to the primacy of culture in modern life – even as that extends to our longings for nature and rare rich, deep experiences of it. While these related approaches among these diverse creators differ greatly from the direct engagement with the natural world we have surveyed with most of the artists discussed in the report, the common attitude shared by these artists serves as a valuable reality check about contemporary student attitudes and how art in their midst might reach a good number of them and engage them more than they are now in the natural realm that we keep pushing to the margins.

Functional Sculpture

One approach to the siting of land art in the natural lands, and even within the development of the wind turbine site, that the college should consider would be use of functional sculpture appropriate to the setting. A number of sculptors and designers, including several outstanding ones working in this region of the country, such as Kinji Akagawa, do impressive work of this nature (fig. 28).

Functional sculpture pursued in the spirit of biophilic design can achieve some of the qualities of wonder and contemplative reflection, including about nature-culture interface, that some of the sculptural and land art forms we have discussed and at the same time provide additional benefits. They can create spots that encourage individuals to sit and contemplate the natural lands or gather in small

FIG 28. Kinji Akagawa, *Garden Seating, Thinking, Reading,* 1987. Granite, Basalt, Cedar. Minneapolis Sculpture Garden, Minneapolis, MN. Image from Matt Rohn.

groups and commune with one another, nature, and possibly natural and cultural heritage informing the site itself. Occasional benches currently appear in a couple of spots near ponds in the natural lands (fig. 29a and b), but artistically conceived functional sculpture, including "pods" (small ensembles of elements) could serve this purpose better along with other interests that we will sketch in what follows. These include disrupting the frame conventional benches usually employ, sparking interdisciplinary thinking about the relationship between culture and nature appropriate to environmentalism. These create an active space that can draw students out to contemplate nature but also learn about the historical roots of a place.

FIG. 29a and b. Views of the natural lands benches at in the St. Olaf College natural lands, Northfield, MN. Images from Sage Cichock.

Disrupting the Frame

Conventional benches encourage visitors to pause and contemplate the natural environments but

mostly at select sites and looking out at the world in a fairly set way as our photographs of a bench in the St. Olaf natural lands help illustrate. The better examples of functional sculpture offer a much more holistic view and a sensitivity to forms and materials in keeping with nature and the variety and freedom it offers. A bench, such as one Kinji Akagawa designed for the Walker Sculpture Garden does not have a predetermined direction one must face even though it was well designed to fit the corridor space it inhabits. It functions much better than a conventional bench by creating a platform that either one or more persons would gladly sit and look in the variety of directions their eyes and minds might wander. Some functional sculpture, such as the stone "benches" Philip Rickey deployed at the Highland Park, Two Rivers Overlook (fig. 30a and b) offer different places at different heights for sitting. The

FIG. 30a and b. Philip Rickey, Rock Seating Areas in the *Highland Park Two Rivers Overlook,* 2004. Eroded Rock. St. Paul, MN. Images from Matt Rohn.

varied depressions acknowledge differences among people and their interests and don't ask viewers to conform to a much more singular vision of nature, people and their interests in response to a site.

Merging Art, Culture, Nature and Functional Construction

One of the largest benefits of incorporating non-traditional artistically informed seating into the spaces such as the natural lands is that it encourages interdisciplinary thinking. Through the materials and forms themselves viewers can experience clear distinctions between such realms as nature and culture but also instances when they become almost indistinguishable depending on how the artist/designer works elements. Take the Highland Park, Two Rivers Overlook as an example of this.

Philip Richey etched the decidedly cultural information about the natural and cultural histories of the area on brushed stainless steel stanchions, while the boulder benches (which rise out of the ground much like the large outcroppings of rock one looks across the Mississippi river to view) were formed by flowing river water that sculpted the surfaces into the forms we see. A viewer may not make that connection until they touch or get close enough to touch the inviting surface, and it is then that they realize how the artist turned the rock forms on their sides so that the eroded edges became welcoming seats. All of this creates a cascade of thoughts, which in this case are magnified by the setting, involving complex interplay among the nature of nature, the nature of culture, and a multitude of interactions between the two. (The overlook directs the viewer to the confluence of the Minnesota and Mississippi Rivers, which have cut fairly steep gorges in the limestone of that area. This has long been a sacred place for various Native American people who have inhabited it and you look directly at Fort Snelling, the first White, military outpost constructed in what was then the Minnesota Territory. Just visible up the Mississippi is the now shuttered Ford Motor factory at a hydroelectric dam constructed there.) Traditional benches serve their functional purpose but without adding deeper value to the larger space. Their materials also only minimally relate to the setting and include little, if anything, in the way of natural contours, surfaces or history – cultural or natural. A well conceive functional sculpture created just for a natural lands site can activate all of these elements and put them in conversation with each other and the viewer experiencing the object and its setting.

Creating an Interactive Space

While some functional sculpture is relatively inert and operates as something to look at much like other sculpture, all functional sculpture provokes some degree of interactivity. Some can be quite dynamically interactive. These types of structures make both art and nature seem more approachable because they are created in a way that is physically intriguing and inviting. We have cited the intellectual complexity of sculpture as a reason why sculpture of various forms can entice students out

into the natural lands, but also need to acknowledge how traditional sculpture has long intimidated many. Functional sculpture often breaks down the intimidating awe of sculpture through whimsy and by combining things of interest to people.

Music composer Philip Blackburn provides wonderful examples of this alternative approach. He loves to create "sound sculptures" and at the Phalen Poetry Park in St. Paul, Minnesota he created *Marimba Benches* (fig. 31). They invited usage by old, but especially young, and by people who

FIG 31. Philip Blackburn, *Marimba Benches,* 2001. Wood, metal pipes, mallets. Phalen Poetry Garden, St. Paul, MN. Image from philipblackburn.com.

knew something about music as well as those who knew nothing. They broke down disciplinary boundaries between visual art and music, "art" and function, "art" and play, and between "concert" spaces and public space where the mind and soul could wander freely. His sound sculpture concept has particular relevance to the St. Olaf campus given how much music plays such a significant part of many students' lives. On campus, music and art reside in separate buildings, though there is a great deal of similar thinking that takes place between the two disciplines and efforts have been made to bring these and the other realms of creative arts together more. It should be noted in this context that some artists concentrating on land art but not functional design have also incorporated sound, and with it, music, in their inquiry into the natural order and human perceptions of it. These works make use of recorded sounds or wind moving across an opening.

While much of the art and design that we favor makes use of natural materials and forms that

awaken the human need for linkage with nature that Edward O. Wilson has termed "biophilia", quite artificial design can as effectively draw people into the natural lands, engage them in a playful response to the world that can ultimately serve environmental ends quite well through processes of contradiction. Artist Jeppe Hein demonstrates this potential well in his benches commissioned for the Indianapolis Museum of Art's "100 Acres" natural lands, sculpture park. These benches (fig. 32a, b and c), which

FIG. 32a, b and c. Jeppe Hein, *Benches Around the Lake,* 2010. Powder-coated galvanized steel. Commissioned and Installed at the Indianapolis Museum of Art, Indianapolis, IN. Images from imamuseum.org and Matt Rohn.

include seats, forms to climb and slide down and to look at as well as sculptures, work in multiple ways often in the same work in opposite ways such as spaces for rest and play. A growing problem in the educational sphere is that spatial learning needs are often overlooked. Citing studies by Howard Frumkin, director of CDC's National Center for Environmental Health, Richard Louv in *Last Child in the Woods* says, "over a year's time, the children who played in natural areas tested better for motor fitness, especially in balance and agility [than those who played on a typical flat playground]" (Louv 49). Physical play spaces serve as spaces for physical release and exercise, but also engage the brain in a different and important way than sitting down and reading. Though play spaces are often thought of as appropriate only for the very young, institutions limit learning potential by keeping educational environments sterile and separate from the realm of play. This problem exists far beyond the scope of primary education as Spring, 2012, Art 370, "Issues in Art Criticism: Land art" student Anders

FIG 33. Anders Neinstadt, *Playground Model for the St. Olaf Natural Lands,* 2012. The walls of the open mound would have different praire plants with their root systems etched on the walls and the disks would spin if activated.

Nienstadt argued persuasively. He proposed a quite organically conceived play space (fig. 33) for the natural lands based upon the earthwork-inspired playgrounds famed sculptor Isamu Noguchi designed back in the 1940s. Giving St. Olaf students a chance to use nature as both a place for learning and stress release could encourage a deeper appreciation of the importance of nature in a healthy fulfilling life.

In this segment of the report we have gone back and forth between discussing individual design elements – functional sculptures -- and social spaces, or "pods". Either approach could serve St. Olaf well, and the choice may depend on circumstances, the artist(s) selected, and the interests of the stakeholders who make the final decision. A bench favors the solitary visitor and a more contemplative approach to the natural lands. Pods favor interactivity among people venturing out into the natural lands but also interactivity among what can be rich spheres of interests. Philip Blackburn's *Marimba Benches* reside at the entrance to Phalen Poetry Park (fig. 34). It is a small space populated with a

FIG 34. Phalen Poetry Park, St. Paul, MN. Image from Matt Rohn.

variety of sculptures, including some functional sculptures that assume the forms of books. Poetry can be found inscribed on all of these sculptures but the site, located near the Minnesota Humanities Center, is designed to be a place to read poetry and where poetry is posted on a sculptural kiosk near the entrance. A well-designed poetry pod in the St. Olaf natural lands, including in Norway Valley, would be a wonderful addition and a good means of fostering contemplation of the natural lands.

Using Text and Design to Help Visitors in the Natural Lands Contemplate Cultural Heritage There

Even though thinkers have long attempted to couple humans ("visitors") with history ("heritage") and nature ("natural lands") lands with purity and a timeless existence, environmentalists and others have begun to realize how misguided and environmentally dangerous this idea can be. Humans and nature have long been in dialog. This has intensified over time to the point where in his book *The End of Nature* Bill McKibben makes the case that there exists no part of nature untouched by humans. The mythical, Edenic quest for a pure unadulterated existence in nature has been one of the factors that has helped encourage Westerners, in particular, to view themselves as separate from nature and avoid the conversations they should have cultivated about history and the entanglements that have always existed between human activity and the environment.

Nowhere is this more evident than in the St. Olaf "natural lands" themselves. As we have noted, there is relatively little that is "natural" about the natural lands, though few current students realize this. The prairie lands were all planted starting about twenty-five years ago and need to be cultivated constantly through controlled burns, mowing, additional plantings, etc. Some of the woodlands are younger and still, even the oldest of them, Norway Valley, was planted after its former owner cut down all of the trees just before selling the land to the college. The ponds and wetlands are mostly the product of efforts pursued decades ago to drain acreage to make more available for farming and then control the water to minimize flooding downstream in Northfield. The small ponds on the south side of

Regents Hall were created to control and filter run-off. While elements of the natural lands mirror habitats that once existed in the area and provide relatively small pockets of new "natural" habitats, all are human artifacts to some extent and mask land use throughout the college's history including the planting of Norway Valley to make amends in part for the tracts of trees cut in that direction of campus for firewood. We presently desire natural lands in part to erase the full extent of the farming that has taken place in this realm, its ties to industrialization through the flour milling done and then other food processing. The natural lands seek to wipe the slate clean and in the process erase once again the history of Native American cultures the farming and the culture of industrialization nearly eliminated earlier.

The natural lands can be valuable as "natural lands," but functional furnishings can also usefully inform people about the history of the lands in inspiring ways that serve sustainability well. The Highland Park Overlook does this reasonably well (fig. 35) as does the nascent entry to the Bruce

FIG 35. Philip Rickey, *Highland Park Two Rivers Overlook*, 2004. St. Paul, MN. Image from Matt Rohn. Note the stainless steel stanchions that tell different histories of the site as does the plaza design, which is a map with rectangular labels.

Vento Nature Sanctuary. But the Culture Garden by Cliff Garten, Armando Guiterrez G., Ta Coumba

Aiken and Xiaowei Mei in St. Paul serves as an even better model (fig. 36a and b). It is tucked into an

FIG. 36a and b. Cliff Garten, Armando Guiterrez G., Ta Coumba Aiken and Xiaowei Mei, *St. Paul Cultural Garden,* 1993. Functional sculpture, etched pavers, stone sculpture. St. Paul, MN. Images from Matt Rohn.

awkward urban setting yet through the design and its inviting look out over the Mississippi River, the site creates an oasis for reflection, including about the river and the lands there through time. It was commissioned to commemorate the 150th anniversary of the naming of St. Paul and does so through an intelligent and honest set of reflections in various voices on the topic of racism in America. Most of that is poetry that wends its way around mounds, over winding stone pathways, etc. Landscape architect Cliff Garten has used good design, a sensitivity to creating a dialog between nature and culture through good, economical design and the density of poetry, that provides a model for the type of a sculptural pod that could create a respite for people where the St. Olaf natural lands teach visitors about the combined cultural and natural environmental history of the area.

As relatively small as it is, the St. Paul Cultural Garden is still a fairly complex endeavor. A simpler, single, functional sculpture out in the natural lands can also have information inscribed on it or accompanying it that allows people to ponder the cultural and natural history of the area and the sustainability lessons that can be derived from that information – lessons often avoided because names and stories are absent. At the same time, we recognize that a simple, functional sculptural component with a biophilic character to it may be all that can be obtained and put in place under certain circumstances. We believe that a well designed example of functional sculpture could draw some

students out to the natural lands, provide them with an oasis, and orient them in healthy ways to the natural wonders placed in dialog with culture and history.

A Pressing Need for Good, Biophilic Design with the Development of the Wind Turbine Site and Other Areas Adjacent to the Natural Lands

St. Olaf College has just begun developing the site where its wind turbine now resides as a potential locus for enhanced inquiry into Environmental Studies because of the wind turbine itself, the location of the site adjacent to the natural lands and because the STOGROW farm could also be moved to this area and be integrated even more than it has been used in the college's curricular and co-curricular environmental pursuits (fig. 37). We strongly urge those overseeing development of this

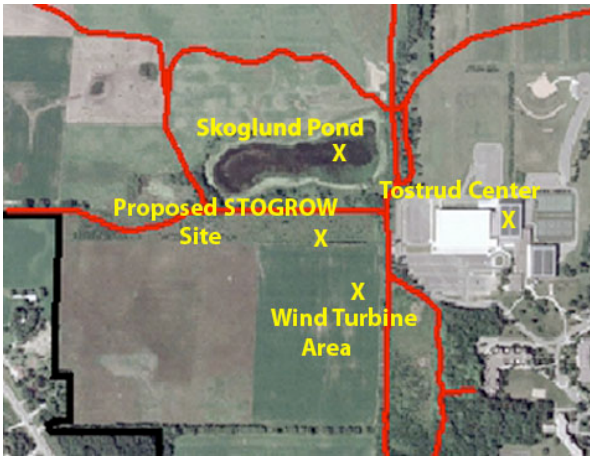

FIG 37. Map of the St. Olaf Natural Lands, St. Olaf College, Northfield, MN.

land to pursue best sustainability design practices and a biophilic aesthetic in its development because of its ties to the natural lands, the way activities there will make this a showcase for St. Olaf environmental practices, and because those make this a location where St. Olaf can teach sustainability through design as well as other means. Designers face both a challenge and opportunity here because over time the land won't be developed just into an environmental center. The site not only abuts the natural lands but also property presently used for athletic and recreational purposes, including parking, and much of this parcel of land will eventually be developed for more athletic and recreational uses.

We believe that those challenges offer wonderful opportunities for the college to use good environmental design practices in ways that set examples for the future and introduce all who go there for whatever reasons ways that good practices initiated in the design process can guide an institution in transitioning from older, unsustainable practices to newer, sustainable ones.

The new uses for this area began to take clear shape with the decision to relocate the picturesque Art Barn near the wind turbine. Structures may also be built to provide gathering places and shelter for activities in this area, to house STOWGROW equipment, equipment used in the care and study of the natural lands, and to house equipment for the care of athletic and recreational fields. More development could take place over time including such things as a kiosk, roadways or paths relating to athletic and recreational activity, etc. We believe, however, that the prominent role farming and the natural lands already play in this area should set the tone for the look and feel of the design elements in this realm. Biophilic design can help assure this. Ecologist Stephen R. Kellert, one of the foremost experts on this subject explains: "biophilic design is the deliberate attempt to translate an understanding of the inherent human affinity to affiliate with natural systems and processes – known as biophila ([E. O.] Wilson 1984, Kellert and Wilson 1993) – into the design of the built environment" (Kellert 3). Biophilic design combined with best practices when it comes to design of a site in general, and sustainability design practices in particular, can allow St. Olaf to meet the practical objectives it has for this area while pursuing sustainability goals, and we believe that these objectives grow all the more valuable at the edge of the natural lands.

When people encounter a place, they often learn much through what they see: the materials surrounding them, how they experience realms, and the relationship of things in space relative to their surroundings. The area adjacent to the wind turbine presently speaks volumes about some troubling deep-seeded American values found at St. Olaf as well as elsewhere. Some have arisen from American car culture, which St. Olaf has questioned but in a way that has also pushed the problems to the edge of campus. The result is a vast parking lot next to its natural lands. The parking lot along with the design

of the major building currently in this area, the Tostrud Center, produce hard surfaces for water to run unfiltered. Water streaming off the hill and across the parking lot carries sediments and pollutants from the cars directly into the storm drains (fig. 38). They empty into the wetlands, which are an origin point of the Cannon, hence, Mississippi, River watersheds. And, when many environmentally minded

FIG. 38. Skoglund Parking Lot Drainage. St. Olaf College, Northfield, MN. Image from Matt Rohn.

FIG. 39. Wind Turbine Lot Construction Site. St. Olaf College, Northfield, MN. Image from Matt Rohn.

visitors to campus go to marvel at the wind turbine itself, they are shocked to see it standing in the midst of a construction equipment storage site (fig. 39). They have no knowledge of how temporary this usage might be or the set of factors that made the area convenient to function this way for a while. As St. Olaf begins developing the area surrounding its wind turbine, we urge those involved to be mindful of good principles of environmental aesthetics and design.

The area in and around where the wind turbine stands should become a place that ‘by design’ encourages creativity, sustainability and makes visible what defines healthy relationships with nature. The area should serve ideally as a model for how St. Olaf College and people in general can develop sites. This area should become a model where visitors who come to the area and students doing things in it learn about biophilic design. When developing new areas, it is easy to construct in such a way that the final product draws attention to man's domination of the landscape rather than demonstrating a respect for it. Sustainable design is a relatively new concept and requires thinking contrary to well-established principles of modern design. Fortunately, a variety of resources can help St. Olaf shift

paradigms. The college's own efforts in environmentalism, sustainability and green design can be helpful. David Orr's efforts in this area, and particularly his book *The Designing Mind*, derived from his work on Oberlin's Environmental Studies complex, provide good philosophical and practical ideas. There is the SITES website and handbook discussed below. The newly built Leopold Center in Baraboo, Wisconsin (fig. 40a and b) offers a model for what St. Olaf can do. David Orr, the Boldt

FIG. 40a and b. Aldo Leopold Center, Baraboo, WI. *LEED Platinum* Certified Building. The water flows into a rain garden courtyard. Images from homedesignfind.com. and Matt Rohn.

Construction Company and members of the Boldt family were deeply involved in the development of that project meant to uphold the values of Aldo Leopold. (Consult the "Leopold Center" webpage at "The Aldo Leopold Foundation" website for an introduction to the environmental thinking and design activity that went into this remarkable site.)

While the St. Olaf natural lands setting and the wind turbine itself can be quite awe-inspiring, that alone does not encourage environmentalism. The turbine itself can be viewed as a technological wonder yet the parking lot and roadway leading to the site express the need even St. Olaf has to acknowledge and contend with the role the automobile has assumed in American culture. Good master planning should encourage a conversational approach between culture and nature. These conversations in their final, built realities, let alone in the initial phase, can take many forms, as we will touch upon later. In our efforts to promote biophilic and sustainable design for this area, we believe that it is important for those involved to make sure that the complex does not become an isolated utopia, cut off

from campus. It should serve as a sustainable design exemplum informing future design on campus and be developed so that pathways from it to campus and from campus down to it connect in spirit and look as much as possible. The area should serve as an appropriate gateway -- swinging both ways -- with the natural lands. A setting that promotes environmentalism and a positive human relationship with nature is not difficult to promote with intentionality. This is one of the powers of planning in landscape and design; the process can instill values and encourage mindfulness about certain qualities just through intentionality in the way design elements fit with the surrounding space. As the 2009 SITES handbook notes, "Understanding the features and configurations that create vibrant public places is critical to the success of a sustainable site that promotes social equality" (Calkins 430). Construction and development have an inherent relationship with nature because they always use it as a foundation and build from it. Though this relationship can be manipulated or ignored, it is of the utmost importance in this particular setting that the accord be managed carefully so that the space surrounding the wind turbine becomes a site for construction in direct contact with nature in its least mediated form and in a spirit that honors rather than dominates natural assets.

Master Plans Informed by a Sustainability Ethos Are Important

There are many ways to approach projects of this nature. While the urge to break ground and take care of just an individual need with a limited amount of money available can often start the process in an *ad hoc* way, there is something to be said for beginning with a firm grasp of end results. Although the end goal of landscaping and design projects might seem as simple as finding places to put structures, adding walkways, putting in the finishing touches of plantings surrounding new construction, etc., the significance of master planning for hardscape layout, construction and landscaping should come first and guide all subsequent designs and construction. The master planning should start with those involved determining a clear concept of the values governing the development of this area. While for some time only architecture had guidelines for environmental goals through the

LEED system, national guidelines, recommendations and performance benchmarks for sustainable land design, construction and maintenance are currently being piloted through the SITES initiative and have been made public through "The Sustainable Sites Initiative" website and *The Sustainable Sites Handbook*, both of which we have consulted in developing this report. A master plan can help people develop a site so basic elements of light, water, land relative to paths and built elements are used in the most efficient and inspiring ways when it comes to sustainability. Take water as an example. If a master plan orients structures appropriately, water can be collected from roofs, channeled through well-designed systems such as the aqueduct at the Leopold Center and stored so that it can be used at the STOWGROW farm. Storage can involve "rain barrels" – closed containers that can be of varying sizes and locations and collect a surprising amount of water off of roof surfaces for later use in gardens. Similar savings in resources can be achieved in the ways that structures are clustered, service roads and paths through the built environment have been planned and even in the way the area is oriented to the rest of campus and interfaces with it.

The Layout as a Sustainable Aesthetic as Well

Nature exists with individual elements in very complex webs and relationships to each other. Much design has long resisted this and utilized forms and elements whose harsh, straight lines, right angles and formal plantings signify human domination of nature (fig. 41a and b). This attitude

FIG. 41a and b. Formal landscape demonstrating landscape not reflecting biophilic thought relative to a biophilically and environmentally-minded design. Images from comparequotes.net and stopwaste.org.

dates back to at least the ancient Greeks and became the central design principle informing modern, industrial design and the industrial era's disdain of environmental concerns and sustainability. Biophilic design seeks to orient people in the direction of respecting nature's indigenous forms. It favors curving lines and soft transitions. Because the wind turbine site is already intertwined with alternative energy, the Art Barn's call for an aesthetic in tune with agrarian respect for nature, and the surrounding farm and natural lands still dominate the area, the site should be laid out in ways that maintain and even enhance the biophilic ethos rather than resist it.

To create an atmosphere in which the area flows well into the natural lands, structures could be placed so they encourage visitors to orient themselves to the surrounding natural area, both as a way to encourage natural lands usage and to connect the two worlds. This could be accomplished through designing outside of a grid pattern, planning walkways that work within the natural topography and maybe fan out among the necessary structures similar to the way veins on a leaf branch. While there are clear restrictions on where structures can be placed in this space due to regulations and land allocation, this does not hinder the potential for the space to be developed in an intentional way taking biophilic thinking into account. Additionally, some of the spaces that could be thought of as separate due to usage (such as the environmental studies components relative to the recreational and athletic components) can be designed so that they mingle, encouraging interdisciplinary thought driven by environmental thinking.

Materials and Basic Systems

While design is incredibly important in accomplishing sustainability goals, there are many simple material and construction choices that can also help to achieve these ends. Materials of a sustainable and eco-friendly nature can be used instead of traditional supplies. Those include permeable pavers, recycled materials when possible and native plants that are zone and condition appropriate. While much of what we sketch in this section references materials oriented to a very rich conception of

biophilia, we applaud the application of high technology and modern design to the extent that it supports a coherent, biophilically conceived design and it enhances sustainability. The wind turbine itself stands as an icon of this and other elements can be oriented to it being so prominent. There will be a need for hard surfaces, yet their look and also their functionality can make a difference in the tenor of biophilia the site exhibits as well as the actual, environmental sustainability the built environment achieves. In our brief sketch of representative materials and systems that should be considered for this area, we hope that those involved achieve success with both the biophilic look and their sustainable functionality.

This is an area where permeable pavers should be considered (fig. 42). Their use can show

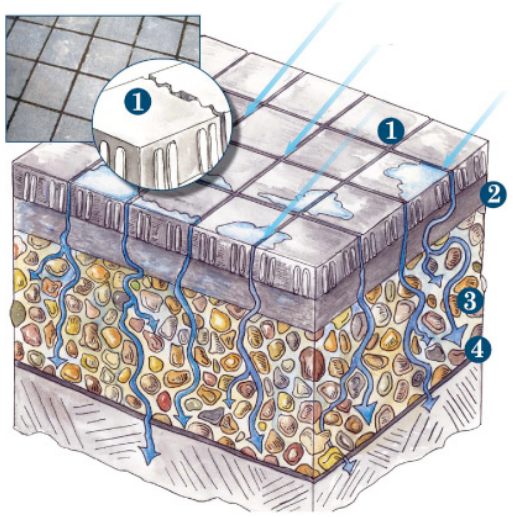

FIG 42. Cross Section of Permeable Pavers. Image from urbanwaters.org.

mindfulness about the environment by utilizing innovations in landscape construction. While these can be used in the construction of retaining walls and raised beds, they best work as an alternative to concrete and asphalt for sidewalks and entryways. Though concrete is something of a default choice for outside surfaces, “production of Portland Cement accounts for about 5% of worldwide anthropogenic CO2 emissions both through energy use in processing and from the chemical conversion in the calcination of limestone” (Calkins 396). Permeable pavers permit water to penetrate some of the hard surfaces and allow the ground to filter certain pollutants and grit so that less of this flows into watersheds and more filtered water returns to the water table. They also permit more water to filter

down to root systems of trees and plants. They represent one of many ways the choice of materials can inform sustainable thinking and practice. These pavers come in many forms and sizes so that they can be applied in many different ways. They can also come in interlocking forms for ease of installation.

In order to protect the watershed and existing water flow conditions, it is necessary to be mindful to reduce the amount of impervious surfaces in the space as the SITES manual notes (Calkin 105). This can be accomplished by a combination of materials and attention to basic systems so that you: reduce the lengths and widths of new roads relative to standard practice; use the aforementioned pervious pavements; direct runoff across vegetated areas; substitute turf in open spaces with natural vegetation; and reduce the amount of re-grading that takes place during construction, etc..

Rain-gardens demonstrate a great use of resources in that they take advantage of water abundance by capturing water and even replenishing some of the ground water. As we mentioned before, the water flowing across the parking lot in this area currently runs into drains at the edge of the parking lot or into drainage ditches and other drains along the edge of the parking lot (fig. 43a and b). The water

FIG. 43a and b. The Skoglund Center parking lot drainage ditch, St. Olaf College, Northfield, MN versus the parking lot rain garden, University of Minnesota Landscape Arboretum, Chaska, MN. Images from Matt Rohn

directed to the ditch could flow into a rain garden instead the way it does at the University of Minnesota Landscape Arboretum's parking lot. By capturing the water in rain garden systems near the

parking areas, water and all suspended in it is prevented from flowing into undesirable areas. Rain gardens can also be located where rainwater settles the most throughout the site itself and be tended by STOGROW. These gardens can nurture varieties of plants that would otherwise dry up and filter water. This combination demonstrates to students that while resources are not always abundant in the most convenient location, through proper usage they can be fully utilized and supplemental water is not always necessary.

Rain gardens prevent some of the damage that can be caused by excessive erosion and show natural ways of counteracting problems caused by development. They also work to reduce flooding and improve safety conditions in areas of heavy water flow. The complex world of plants and gardening can often be overlooked, and countless plants die every year due to placement in improper locations. The rain garden can show how location and heeding planting specifications is important. They diversify the monocultures that tend to dominate most plantings in built environments. While various flora can be planted in rain gardens, it is wise to put in native plants in the rain gardens as well as elsewhere on the grounds. These reduce maintenance needs because the plants are naturally more suited for the region. They can create good habitats and food for native animals and restore a sense of native place to the area, which even at the wind turbine site may have been changed by decades of farming and then the more recent construction activity. Native plants and the addition of rain gardens produce beauty that adds aesthetically to an area while synergistically contributing to functionalities of biophilic design and environmental sustainability.

Mindfulness to Natural Conditions

When developing this space, it is important to consider that since it is functioning adjacent to an existing natural area. Even if wasn't, planning should make sure that pre-existing conditions be assessed and goals for the final natural components relative to other things be determined. Root structures, proper soil makeup, availability of sunlight, etc. must all be taken into account. Landscaping

opportunities should be pursued with these issues in mind. As we have already stressed, the drainage routes and water distribution are of the utmost importance in developing this space. As the SITES manual suggests, when creating drainage solutions and erosion control designs, one of the most effective ways of going about this is to mimic nature because this is where it naturally takes place (Calkin 165). In addition, it is important that the existing nature be cared for during development. This includes supplemental watering during construction and protective fencing and wrapping of certain plantings or areas as needed.

The development of the wind turbine area is the most recent instance when St. Olaf has been involved in construction at the edges of the natural lands, but this is by no means the only instance of this nor is it likely to be the last time, so this could establish sound criteria for future projects. The developments at the north edge of the natural lands, the compost site and Mayo facility generally employ standard, modern design attitudes, as has expansions of the athletic and recreational facilities, which were carried out before the creation of Regents Hall educated the college so extensively in green design. The design and building of parking for the new Tompson Hall admissions needs was done much more thoughtfully so that we showcased to prospective students our environmental ethos by relating parking to Norway Valley and its landscape and made that a core institutional aesthetic.

It is important to keep in mind that while there is a somewhat unusual juxtaposition between untamed nature and the machine-based harnessing of nature to produce sustainable energy through the wind turbine, these values are not mutually exclusive. Navigating this characteristic of the space requires intentionality, but through proper design, this relationship can be enhanced in such a way that the entire space reflects a value of environmentalism, progress and conservation of resources. Developed areas that are constructed with mindfulness to sustainability do not necessarily result in an aesthetically pleasing, inviting space. For any development to be fully successful, good design in general and environmental design must join together.

Good design centered on a mixture of goals including sustainability can ensure that specific

components succeed well beyond basic functionality. When earth was being moved for the Art Barn foundation, there was talk of creating an amphitheater, which, if well designed, could serve a variety of purposes and integrate sustainable thinking with academic and artistic interests. As an outdoor space for performances and lectures, this space could be created to work within the location it is set in to enhance awareness of the setting and space. It could help to break down the barriers than exist between indoor education and the outside world. Since the space could be used for both lectures, class discussions and performances, it could be used by many different disciplines. Bringing performance into the outdoor realm helps to challenge what is perceived as the traditional space in which art belongs. This can demonstrate to students that art can be created outside of the gallery and theater spaces and that art can take a wide variety of forms.

As with other design elements, the final form of the amphitheater could take on any of a variety of appearances, all of which have the potential to add to both the overall aesthetics and to environmental thinking. The book *Asphalt to Ecosystems* illustrates a number of amphitheaters created in schoolyards to foster sustainability and creativity. They avoid simple, relatively sterile geometric design through a variety of means from using recycled materials to having users create mosaics or to using fieldstones from the construction site (fig. 44a and b). This type of approach could help to

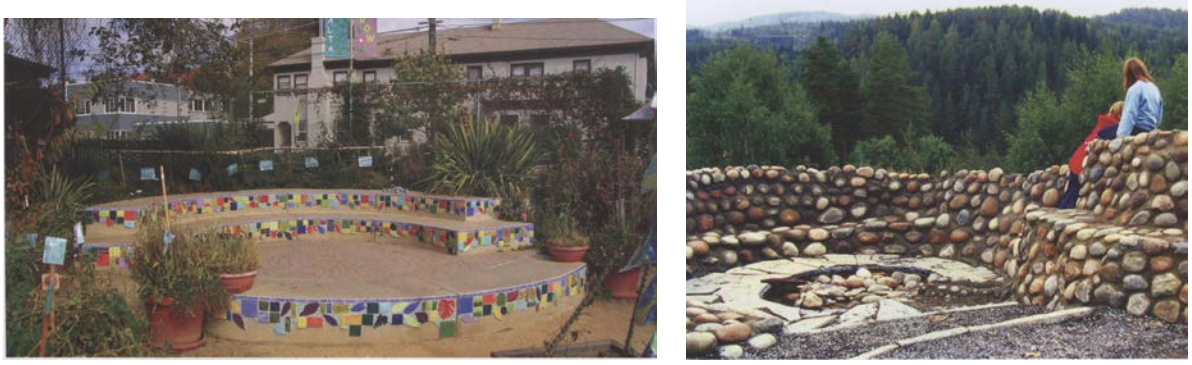

FIG. 44a and b. Tile mosaic amphitheater, Peralta Elementary School, Oakland CA. and the fieldstone amphitheater with fire pit, Lorenskog Steiner School, Oslo Norway. Images from *Asphalts to Ecosystems.*

emphasize the sustainability efforts underlying this project as well as anchor a cohesive, aesthetically pleasing space.

There has also been talk about a kiosk being included in this area at some point. This could inform people about not only the athletic and recreational realm but also the natural lands and environmental aspects of this part of campus. This could include, but is not limited to, providing paper trail maps, historical information about the land and places of interest within the natural lands, etc. Through this approach, integration would be furthered between athletics, the natural lands and environmental education. Brochures with maps presently exist for the natural lands trails but have not been readily apparent near the trails or entryways. If students and visitors had a clearer idea of where paths led and where they begin, it would be less intimidating for them to begin to use them more. Encouraging use of the natural lands at junctures where they abut other campus activity can help break down the divide that has traditionally separated realms and attitudes about culture versus nature.

The SITES manual recommends that stories and history be used in signage and in naming pathways. This should be considered at the wind turbine site and throughout the natural lands. This practice can teach people about the cultural and natural history of a place, and people remember places and items better when they relate them to a story. This can also enhance sustainability. Carefully chosen names can differentiate athletic realms from the environmental study realm from the natural lands while creating ties that bind.

Because the area may have a number of sustainability features and a ready audience eager to learn about them as well as casual visitors, we recommend that additional "signage" be included to help explain a number of elements. Some of the signage may just involve an icon or phone number enabling someone to learn more online, but the signage could involve brief information about topics. A rain garden, for example, can look just like any garden. It would be helpful if visitors could learn something about the good work that rain gardens do and be directed to sources of information about rain gardens so the visitors can learn how to create their own in other locations.

Breaking Down the "Campus" versus "Nature" Divide

We have mentioned already that a strong heritage of distinguishing cultural realms from nature and pushing nature to the margins of culture (and environmentalism with it) has long informed thinking and planning in modern culture and at St. Olaf. Our last set of suggestions about specific elements that might be included in future development at St. Olaf in general speak to our interest in kneading together culture and nature, and this attitude should pervade the design of this realm and the lessons it teaches for the future. Because this wind turbine area abuts against agricultural and natural lands, there is an inherent risk that this area could become something of a satellite campus. There needs to be strong consideration given to developing the area in a way that connects it to both the traditional campus and the natural area that surrounds it. Careful thought should be given to creating design elements where each realm echoes the other over a long distance (i.e., the way the native plantings on the central, north area of Regents Hall calls to the prairie lands and the building itself projects into Norway Valley). Efforts should also be made, as James Wilson in the Art 370, "Issues in Art Criticism: Land Art" class this past Spring suggested, to create paths and gateways from central campus to the back lawns of several dorms and then into the wooded natural lands behind the dorms. Some of those paths and gateways, if well conceived, could better connect segments of campus and include good bike paths to the wind turbine site and the extended natural lands.

The Infectious Nature of Good Design

One of the benefits of effective master planning is how it may initially go unrecognized on the part of the viewer but works on deeper levels over time. A viewer might visit a space and initially experience the informal nature of its beauty as comforting, and only later develop a realization of the comfort and satisfaction biophilia itself produces.

This can happen on the macro-level of good design but also the micro-level where the specific design elements of all the little things can integrate art, nature and other values as the Art Barn itself has long taught. Good, biophilic design should surface in the form of wall hangings, floor designs, and

decorative structures. Such elements informed by values of sustainability affirm connections produced by healthy relationships among art, nature and education. As we discussed in the last major section of this report, furnishings in the wind turbine site should also be governed by biophilic design principles.

Cost- benefit Considerations

Initial up-front costs to master planning and higher costs for some of the less conventional materials we have recommended often dissuade people from pursuing good, sustainable, biophilic design. What they overlook is the savings realized over time in a variety of ways and the full set of benefits these approaches achieve. Knowing all of the elements of the design ahead of time allows for money saving in supplies and labor as well as materials. Some things can be purchased in larger quantities and farther in advance this way. Additionally, labor costs are not wasted on altering areas that are later taken out or interfere with other design elements. Furthermore, intentionality in design can reduce the cost of after-effects such as excessive erosion, pest control, tree removal, etc. Most of all, good, thoughtful, biophilic design contributes to core educational interests and the long-term objective of sustainable living. This minimizes the often hidden costs that polluting and abusing land produce and the debilitating effect on the human spirit and our relationship to God's creation that unsustainable design habituates. St. Olaf has a wonderful opportunity to develop the wind turbine area as a model of sustainable design. The setting calls for this but does not guarantee it as current circumstances show. The college should use sound, sustainable and biophilic design means to make this an unusually strong sustainable realm and integrate what it achieves there to the realms adjacent to it and in future design, landscape and building endeavors.

Ways of Obtaining Land Art for the Natural Lands and Things to Consider

As has been detailed throughout the report, land art has been produced through many means that include purchasing works, commissioning artists to do site-specific projects, commissioning an artist and others to do a community-based project, and so on. We will sketch a wide variety of approaches that the college might consider for obtaining sculpture, land art or functional sculpture. We favor no singular way. Opportunities and structures of grants may dictate certain means over others, and the stake holders involved in the final decisions should decide this based on the objectives governing the decision to pursue the work and constraints and opportunities they encounter when they move forward. While we strongly urge the college to use land art to enrich students and for drawing students into the natural lands in a contemplative way, we do not feel that there one best means to accomplish this.

In fact, the many ways of approaching this make it all the more feasible to accomplish this goal. Art, like many reflections of taste, is widely subjective. So while certain ways of obtaining it may favor land art that appeals to some, there might be additional approaches to consider that would hold increased significance to particular populations within the St. Olaf community. There may also be some methods of approaching this project that may appear to be a better fit for St. Olaf College than others, but may not touch and move the community in healthy new ways that other methods foster. The college should consider not only what makes most sense when the decision will be made, but also what transformative possibilities art and the way it is created produce.

The various methods of approaching land art can be largely organized into the following categories, but these categories are by no means mutually exclusive. Qualities derived from each way often show in some other way of obtaining lands art and the methods can be combined in different combinations.

Purchase or Site Work the College Already Owns in the Natural Lands

If the college decides to create a sculpture garden, it will want to purchase appropriate work, situate work it already owns (such as a number of its Kaare Nygaard sculptures), or place student work

in the sculpture garden. Care should be taken in the design of any sculpture garden to see that the sculptures sit well where they will be placed, and that particular needs are met. Some locations and works, be they sculpture, functional sculpture or land art, may expose this work more to vandalism or theft than other art and locations. Periodic prairie burns must be done to large swaths of the natural lands, and work must be located far enough into the natural lands to draw students into becoming engaged with it if the art serves our major objective.

Commission Land Art Taking into Consideration All its Variations

Rarely does one purchase land art as an object, but much more often a patron commissions someone who has a particular approach or look to create a work at the location. St. Olaf should consider commissioning either a national or regional artist to create a work specific to the St. Olaf College site. Whether the college buys art or commissions it, the process used in commissioning the sculpture for the science library in Regents Hall should be considered. A committee comprised of stakeholders who had obtained a grant for this, the director of Flaten Art Museum, a scientist interested in art, and an art history as well as a sculpture professor was convened. They schooled themselves in options and discussed the space and the purposes the sculpture might serve. They then hired a consultant familiar with St. Olaf and the art world, who presented information about several artists and their work and made the initial follow-up contacts to the favored artist's gallery and the artist once the committee showed interest in one artist over others.

One of the considerations people selecting land art will likely need to discuss will be how long-lived the work might be. As we noted earlier, some land artists have made extraordinary environmental art by building the demise of the art into the work as part of the lessons it teaches about cycles of existence, but some patrons do not want to pay tens-of-thousands of dollars for a work that vanishes in a year or so and lives on only in the form of documentation, if it continues to exist even in this way.

Another consideration may need to be made whether St. Olaf should turn to a nationally

renowned artist (which in the United States means an internationally renowned artist) or a regional artist. Nationally renowned artists, such as Patricia Johanson or Maya Lin (see Appendix A, University of Michigan), could design an installation that carries the aesthetic and conceptual excellence that has made these artists famous, and work by these artists more likely would attract publicity and attention and thus draw students to the natural lands. Their work will probably involve a greater literal cost, though, and major artists can be ill-informed about the setting, disinterested in the circumstances of the commission and high-handed, forcing the institution to live with a work of art that isn't appropriate or up to expected standards. The two artists we just mentioned do not have these reputations, though the demand for their work can make it difficult to commission them. They are unusually interested in local circumstances, and the cost of commissioning them can be lower than one might expect if they find the commission rewarding because of the institution and the project's mission.

The area's better regional artists possess many of the virtues of national artists with a benefit of a lesser-known reputation for less cost. Artists such as Christine Baeumler (see Appendix B) or Kinji Akagawa (see Appendix B) work within this regional setting and its ecological and cultural habitats, creating designs relevant to each site. They knowingly employ local materials. A number of the area's funding agencies also limit their support only to artists from Minnesota and prefer artists like Baeumler or others who have a track record and interest in addressing the cultural heritage or natural habitats of this region.

There are many artists, nationally and regionally known, who have extensive experience doing installations on college campuses (see Appendix A). Our lists in the appendices are in no manner comprehensive. They offer a sampling of artists whose work we have encountered and whose work and reputations show promise for art that could benefit St. Olaf. A few, such as Patrick Dougherty, consistently receive commissions from colleges and universities because of the quality of their art and their exceptional rapport with people at institutions of higher learning.

Hold Competitions for Land Art

One often used way St. Olaf could find the most appropriate work or artist would be to hold a competition. Through this approach, multiple artists would submit their vision for a specific project in the natural lands based upon certain parameters involving such things as objectives, cost, etc. and then the submissions could be weighed to reach a decision. The Minnesota Landscape Arboretum uses the competition approach for their annual art commissions based on a yearly theme. In this model, artists must attend a workshop detailing the general theme and goals for the works. Their attendance ensures that the artists who enter the competition (or at least a representative of a team) see the sites where the works will be located and know the habitat. The artists then submit their designs for selection by a jury comprised of people knowledgeable about art and staff at the arboretum. By basing the competition on a theme and hosting a number of entries, they aren't limited to the isolated vision of one artist (though sometimes they also invite a noted national artist to create a work appropriate to the theme). A competition can be employed to chose a single work that will remain where it is well into the future, but the arboretum has generated publicity it desires and visitors' increased interest in visiting it by changing works and themes yearly, and they only occasionally purchase a work for permanent display. The arboretum has also found that soliciting art through a competition has produced a platform by which more traditional artists could translate their art into environmentally-minded work and young, emerging artists can explore this genre of art without taking the risks involved in producing a finished work when it comes to costs, etc.

Workshop Land Art with Students

Many institutions of higher education have awarded artists residencies for them to create works in collaboration with students and others or for the professional artist to teach students through workshop means students aspects of land art, and the students create the finished works. St. Olaf has done this in the past with artist Zoran Mojsilov in 1989 and alumnus Jim Proctor, who in 2007 had students and

others work with him in erecting the section of *The Buckthorn Menace* that snaked onto campus (fig. 45a and b). In the traditional artist residency setup, the artist stays at the institution for a short while

FIG. 45a and b. Jim Proctor, *Buckthorn Menace,* 2002. Found Buckthorn branches and twigs. These photographs are of the Carleton College section of the installation, which had segments on both the Carleton and St. Olaf campuses. It was a collaborative commission sponsored by St. Olaf College, Carleton College and the Environmental Quality Commission of the City of Northfield. Image from Carleton.edu.

and during that time creates works that will either be put on temporary display or will be potentially purchased by the institution. The artist interacts in a variety of ways with faculty, students, and the public (e.g., does public presentations, meets and eats with people, exchanges ideas with a variety of people from artists to environmentalists, visits classes, etc.). This situation is mutually beneficial for the artist and the college because the artist gets a space in which to create and display art and incubate ideas, and the institution gets a chance to expose students to a professional artist and a set of fresh, exciting ideas and ways of working usually new to the institution because they come from the outside.

Many artist workshops involve the chance for students not only to learn about the artist's career and journey into the art world, but also for students to assist the artist in creating art. In the St. Olaf residency with Zoran Mojsilov, students, faculty and staff helped assemble a set of five sculptures throughout campus, as part of an interdisciplinary exploration of art and environmentalism. They

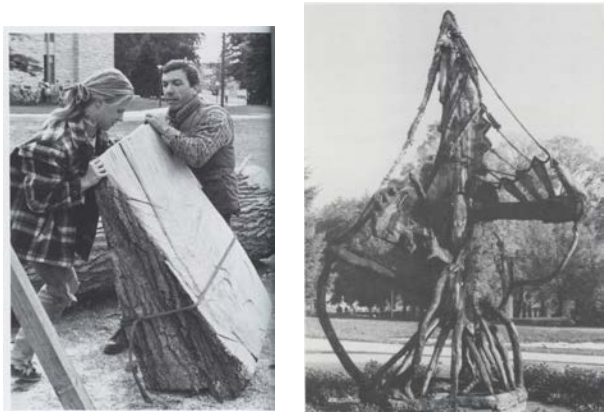

FIG. 46a and b. Zoran Mojsilov, *St. Olaf College Residency,* 1989. He worked with students and others assembling fallen trees and limbs into a set of 4 sculptures, including *Bash Chelik*, above. The endeavor "celebrated both the human community of St. Olaf and the larger community of nature to which each of us belongs." Images From stolaf.edu.

collected the natural materials needed to build the sculptures and then worked under Mojsilov's instruction to help fabricate the creations (fig. 46a and b). This gave the students a chance to experiment with a medium new to them as well as work in a collaborative manner appropriate to the field of public sculpture and to environmentalism but not common in most art classes, where students are used to working individually.

Patrick Dougherty (see Appendix A) also likes to work collaboratively with students assisting him in creating large, outdoor temporary installations that are almost always site-specific to the school in form and material. In many cases, the volunteers helping with the installation are art students, but they have also been environmental studies students as was the case when Carleton College commissioned him to create *Twigonometry* and use invasive species and other materials that they wanted to cull from their natural lands (fig. 47a and b, 5 and 15). These collaborative sculptural

FIG. 47a and b. Patrick Dougherty, *Twigonometry,* 2002. Found branches and twigs. Erected at Carleton College, Northfield, Minnesota. Images from carleton.edu.

installations, even when temporary, can be valuable to the institution from both an art and environmental standpoint because they encourage direct engagement with nature and natural materials, as well as collaborative work, learning, and discussion in both the creation of the work and among those who view it talking to those who created it. People have a stronger catalyst to push them into nature if they have directly participated in some outdoor activity or have a significant outdoor destination. In addition, building community ties through a channel of activities in nature promotes a stronger appreciation for nature among the people while both the works of art and the processes involved in creating them often channel this experience into a meaningful ritual sustained over time in the work itself and its relationship to the setting.

One of the qualities that makes land art so beneficial is that it can function in a collaborative, interdisciplinary way. Unlike plop art or traditional gallery art production, land art provides an opportunity for not only wide participation, but also education through direct engagement with art, construction and the environment. The St. Olaf natural lands surround the college itself, but they are also integrated into the larger Northfield community. Whether land art is pursued by a commission, a competition among artist or otherwise, the process can be approached in such a way that it involves larger initiatives of the college and introduces new ways of connecting to nature at St. Olaf, in Northfield, as well as in conversation with the larger natural world.

Conclusion: All of the Above?

We hope we have persuaded the reader that sufficiently interesting sculpture in the St. Olaf lands could function well to draw more students than normally visit the natural realms to them. Both the wonder and contemplative character of contemporary sculpture can generate such interest and turn the person's mind toward a state of meditating on nature's profound questions about our relationship to existence. Land art in particular offers a variety of sculptural options oriented to thinking about environmental concerns. We are concerned that not enough students actually venture into the natural lands as would be healthy for the college's sustainability objectives, and many who venture into them now do so with a purposefulness that thwarts the contemplative spirit. Art and design could draw even those venturing into the lands for other purposes reasons to go back out to them for contemplative purposes or farther and more contemplatively into the natural lands. This art can also help such viewers reflect on natural processes relative to culture, history and what humans can learn from communing with nature.

We also hope we have persuaded the reader that people learn from what they see and experience venturing through the spaces surrounding them. When the college places furnishings such as benches and kiosks out in the lands or near them, much can be gained by selecting well designed and biophilically conceived objects. Any design for buildings at the wind turbine, as well as plans for the site itself, should employ sound design processes informed by the SITES standards now in development and biophilic design concepts. These should be used not only with the wind turbine site but these design principles should creep up the hill, creating a greater integration of the natural lands with the places where students play (the athletic and recreational ring) and live (the dorms) and learn to focus their attention about knowledge, culture and life (the current heart of campus).

All of the Above

The goals outlined above could be met if a single example of land art or a sculpture garden were erected in the St. Olaf natural lands and if SITES values and biophilic design practices end up informing future development of the wind turbine site, future construction done on campus and small design elements, especially those situated in or adjacent to the natural lands. The more these aesthetic and environmental principles are deployed, the better, and this has led us to devise an even bolder proposal still of situating a number of examples of land art and related functional sculpture throughout St. Olaf's lands.

St. Olaf could use its land as something of a large sculptural park for land art and biophilic design. Land art and biophilically conceived functional sculpture would dot the lands St. Olaf owns. There would not be many, and all would be carefully situated. Detailed and well thought out plans would be developed for their selection and the overall project. Works would probably be deployed only slowly, but enough would eventually populate the lands so that someone heading out in any direction would be rewarded with coming across at least one. Some visitors might well come to campus (and Northfield as an arts town) just to see this set of works, and land art and functional sculpture would generate rich conversations about environmental concerns.

As we noted earlier, there exist a number of sculpture parks. Some are autonomous entities such as Storm King Art Center or Franconia Sculpture Park. Others are affiliated with museums or cultural centers, such the Walker Sculpture Garden (which is a joint venture between the Walker Art Center and the City of Minneapolis Parks Department) or the University of Minnesota Landscape Arboretum, and a few populate corporate campuses such as the General Mills headquarters in Golden Valley, Minnesota. While a good many of these have at least one land art example, we know of only one location devoted to the land art aesthetic, the Centre for Contemporary Art and the Natural World, and it is in Great Britain.

Sprinkling the St. Olaf lands with a critical mass of art and design themed around land art values

could prove exciting and valuable. Minnesota has a heritage and a set of philanthropists and funding organizations, including the Margaret A. Cargill Foundation, Constance Mayeron-Cowles and C. F. Cowles, and their foundation, as well as others, who would likely be enthusiastic about a well conceived vision linking art to environmentalism. These individuals and organizations would be capable of contributing significantly to the funding and development of such an endeavor.

Such a land art and biophilic design initiative on campus might incorporate any of a variety of the elements put forward in this report. A very few works might be obtained from major artists and placed throughout the lands based on a master plan. Sites might be designated and artists' concepts for those sites might also be solicited over time with artists responding in a variety of ways to other works, issues (which might be spelled out), etc. Sites might be designated and works might be solicited for temporary creations involving residencies and workshops with art students and/or students and faculty in other fields related to environmental matters. There could be works obtained through competitions. In short, any individual or combination of means for acquiring land art and biophilic design could be pursued, and we leave the development of such a process up to stakeholders,

We want to stress, though, that care would need to be taken with this or any of the proposals we have made in this report. Any sculpture, land art, functional sculpture or the like must not undermine the value of the campus's diverse lands, and the natural lands in particular, with respect to philosophical and other needs. Encounters with art and design should be rare enough that walks in nature can always lead to walks in nature. While some works can be environmentally effective through their dissonance with what one expects out in nature, those types of work should be rare and thoughtfully sited with respect to their impact on the natural lands experience as a whole. The means of getting to works should be carefully conceived. No work can conflict with maintaining the lands, conservation activity, scientific research and the like.

Much thought and planning will also be needed for philosophical and practical considerations related to individual works or for the development of a land art and design park throughout the

grounds. These are similar to concerns caretakers of art constantly face. As we mentioned earlier, public art and design can face harsher conservation issues than other forms of art and be subject to greater risk for vandalism or total destruction. Some land art raises complex, profound aesthetic and environmental concerns when it comes to their care as well as a host of complicated, new practical issues involving conserving a work of art or recognizing decay and regeneration of matter and energy in different forms over time. Some people may find these issues daunting and an obstacle to situating sculpture, land art or functional sculpture anywhere on the St. Olaf lands, let alone turning the grounds into a land art and design park, but these are solvable dilemmas and often pose healthy challenges we should embrace rather than ignore.

Land art and biophilic design can enrich the St. Olaf College campus and imaginatively draw people out into the campus's natural realms. The right works of art and design thoughtfully situated can provoke healthy thinking about nature to a greater degree than presently takes place. This and the very character of some of this art and design has the capacity to augment the growing environmental and sustainable thinking that the college has increasingly been seeking to instill in students, faculty, staff and the world at large.

Annotated Bibliography

What follows is a select set of resources. It includes material we have cited in the report, and remarks for readers of this report on the nature and value of each entry.

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"The Center for Land Use Interpretation." *The Center for Land Use Interpretation*. N.p., n.d. Web. 31 July 2012. <http://clui.org/>. The Center for Land Use Interpretation is an organization dedicated to exploring and cataloging the ways in which humans interact with and impact the landscape. The CLUI indexes land areas throughout the country that have been touched in some way by the human hand, some of which are art, some are built structures, some restorations, some sites of destruction. The wide variety of spaces cataloged shows the many ways in which humans alter the landscape. While the CLUI can serve as a reference source for land formations, it can also serve as a resource for discovering altered spaces that can otherwise go overlooked.

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pursued throughout the country, reading about ideas, etc.
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"Public Art Saint Paul." *Public Art Saint Paul*. N.p., n.d. Web. 30 July 2012. <http://publicartstpaul.org/>. This website is a great resource for viewing and learning about the many public art projects that have occurred in St. Paul recently as a result of this not-for-profit. For a number of years it has supported public art projects and educational initiatives tackling environmental issues.
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Appendix A: College and University Land Art Examples by Institution

The following is an appendix of colleges making efforts to enrich student lives by utilizing some form of land art to promote the integration of art, nature and environmental studies. This is not a comprehensive list but a select one. It includes noteworthy examples we discovered in the course of our research and a sampling of the variety of activity and things that could be of interest at St. Olaf because of the nature of the projects or the institutions. While the initiatives differ in terms of size and focus, they are all useful examples of how this kind of interdisciplinary thinking has been put into action at a variety of institutions of higher education. We have listed them in alphabetical order by institutions' names followed by the names of 2 artists who have done work at numerous institutions.

Allegheny College, Center for Economic Development, Meadville, PA. It has a remarkable "Arts & Environment Initiative" that can involve students in several classes over more than a single year pursuing a land art project in the community. This initiative recently won a major award from Imagining America. Here is a thumbnail sketch of noteworthy activity:

- Art and Environment (http://ceed.allegheny.edu/A&EI/) is a branch of the Center dedicated to strengthen community economic and environmental sustainability.
- Community-based programs seek to raise environmental awareness and improve public space while teaching students skills in doing this they can use later. The program believes that art makes places unique and more significant to individuals so they use art in the context of the surrounding land and community.
- The initiative draws on the significance of place, emphasizing the importance of local nature appreciation.

Land Art projects, which are part of the college course "Art and Environment," done so far have included:

- *In Praise of Land and Water*, Allegheny students and community 2009. An initiative creating solutions for a local highway water runoff problem and in 2010 received the Diamond Honor Award for excellence with water resources.
- *Shadybrook Park*, Allegheny students and community, 2009-2010. A compilation of student capstone projects focused on restoring a neglected park. Projects included mural painting, trail restoration, and improved entryways.
- *Market House Garden*, Allegheny students and community, 2007. A storm water garden installed in a park near Allegheny College meant to prevent excessive erosion and draining in heavy water-flow areas.

Carleton College, Northfield MN. It has hosted a couple of land art projects of late in an effort to use art to raise awareness about environmental matters and to address the management of its natural lands:

- *Twigonometry*, Patrick Dougherty, 2002. A commissioned, temporal work created in the fall along with volunteer help by Carleton students and community members. The material for the project consisted of unwanted Buckthorn, Willow and Dogwood collected from the Arboretum surrounding the college. Photographic documentation of its creation and the work itself can be viewed at http://www.carleton.edu/campus/gallery/exhibitions/2002/twigonometry.
- *Buckthorn Menace*, Jim Proctor, 2007. The Northfield Environmental Quality Commission partnered with Carleton and St. Olaf Colleges in the creation of this temporary buckthorn sculpture meant to raise awareness about buckthorn. It brought to Northfield the Buckthorn Menace concept St. Olaf alum Jim Proctor had first done in St. Paul, Minnesota. Students and community members pulled buckthorn and helped the artist create the sculptural elements and

outdoor installation. See: http://apps.carleton.edu/campus/gallery/buckthorn/.

Carnegie Mellon University, Studio for Creative Inquiry, Pttsburgh, PA (http://studioforcreativeinquiry.org/ and view "Projects" for information on the specific projects listed below). This was created to develop creative collaborations between artists and scientists. The projects vary in medium and social agenda, though many of them are environmentally informed, including:

- *Performance and Ecology*, Carnegie Mellon students and faculty, 2011. This focused on the opportunities in theater and performance art to raise awareness in environmental issues. Includes lecture and discussions on theater and the environment, the performance of pieces from the Eco-Drama festival and the compilation of a book of Eco-Theater.
- *Community Forest Project*, Thomas and Constance Merriman in 2006 created a gallery exhibition based on a study of a local forest. The exhibit asks the audience to question their own perceptions of energy and power in the conversation between humans and nature.
- *The Ohio River Life Boat Project*, Stephanie Flom and community, 2003. The garden in a park also functioned as an installation and as community exchange space where the people contributed plants of this project than the Studio for Creative Inquiry provides can be found at the greenmuseum.org: http://moncon.greenmuseum.org/papers/persephone1.html.
- *Acid Mine Drainage and Art Project*, 1994. This was an elaborate investigation and redesigh of a badly disturbed and polluted watershed.

Grinnell College, Grinnell, IA. It has sponsored a number of projects using land art to address environmental concerns and to raise student awareness. Most of these have involved the Center for Prairie Studies (http://grinnell.edu/academic/cps), the Conard Environmental Research Area (CERA), Faulconer Gallery, and Art Department faculty (http://www.grinnell.edu//news/gno/gno/12_19_2008_1 details some of the student work done at CERA). Faculty member Lee Running has developed the studio major capstone course to focus on "sites" with 1 of the 3 sites students respond to being the CERA prairie. Noteworthy examples at Grinnell include:

- *Prairie Cairn*, Andy Goldworthy, 2003. The existence of CERA and the Center for Prairie Studies positioned Grinnell to be part of a major installation by Andy Goldsworthy that spanned the continent. He created 3 "temporary" stone cairns and a large memorial to them at the Des Moines Art Center. There was a cairn on each coast fairly quickly destroyed by each tide and one at CERA that will deteriorate over time and that he photographed in each season, including a prairie burn. This project has helped inspire some of the other environmental art inquiry subsequently pursued at Grinnell (see: http://web.grinnell.edu/faulconergallery/CampusArt/goldsworthy.htm).
- *Hat Trick*, Patrick Dougherty, 2003-10. A temporary stick sculpture built by the artist, students, and community members in the campus's Holden Sculpture Courtyard using found, local, natural materials. (See: http://web.grinnell.edu/faulconergallery/CampusArt/dougherty.htm for details.)

Kent State University, Kent OH, *Partially Buried Woodshed*, Robert Smithson, 1970: Smithson is a major pioneer in land art who happened to have an artist-in-residence at Kent State and was working on this when the Kent State shootings took place. Its destruction later and arguments about a fitting memorial to the shooting ahs raised important issues on the campus about land art and the lessons it teaches. For more on this work see: http://clui.org/ludb/site/partially-buriedwoodshed.

Miami University of Ohio, Oxford, OH, *Star Crossed*, Nancy Holt, 1979: An installation by a pioneer

of land art consisting of a mound of earth with cement pipes throughout which align with constellations. Intended to show the astrological significance of Oxford, OH as well as the significance of ritual. It also pays homage to the Mound Indian creations so prevalent in this region that inspired so much land art. For more information on this work see: http://clui/ludb/site/star-crossed.

St. Olaf College, Northfield, MN. St. Olaf College has hosted a couple of land art projects:

- It was co-host to the *Buckthorn Menace* done by alumnus Jim Proctor. See: http://apps.carleton.edu/campus/gallery/buckthorn/.
- *Bash Chelik*, *Battering Ram*, *Do Not Pass*, and *Gypsy Dance*. Zoran Mojsilov with the assistance of St. Olaf students, faculty and staff, 1989 as part of the Robert Andrew Lerass Interdisciplinary Lecture Series. Sculptures fashioned out of limbs and fallen trees found on St. Olaf natural lands "celebrat[ing] both the human community of St. Olaf and the larger community of nature to which each belongs." St. Olaf purchased *Bash Chelik*, which was later destroyed by an act of vandalism.

University of Michigan, Ann Arbor, MI: Francis-Xavier Bagnoud Building of Engineering, *Wave Field*, Maya Lin, 1995 (http://www.plantext.bf.umich.edu/planner/sculpture/north/wave.htm). A 90' square of grass formed into waves inspired by research that was being done by engineers. It led to her pursuing a number of land art investigations of wave patterns.

University of Minnesota, Minneapolis and St. Paul, MN, has sponsored a number of land art projects, many of which are on public view. A good number have involved the institution's percent-for-the-art, public sculpture program (http://wam.umn.edu/the-collection#public-art-on-campus) and initiatives on the part of individual departments and institutions. Many have been environmentally informed and land art projects. Specific land art examples include:

- *Seeds of Knowledge*, Seyed Alavi, 2005- This seed-shaped sculpture enclosing a tree is meant to serve as an arrival marker for the university and takes this form because trees symbolize growth and knowledge.
- *Rhythmics*, Athena Tacha, 1995-97. A concrete and plantings installation into the hill outside of the gymnasium on the St. Pual campus.
- *Eco-rhythms*, Athena Tacha, 1993- Etched granite tiles built into the walls of the Ecology Building. Designs were taken from research done at the university and show connections between research and the outside world.
- Also of value is the exhibition *Women Investigating Water Rights*, 2010. This exhibition and symposium was grounded in demonstrating the value of women involved in water restoration. The exhibition included environmental artists such as Betsy Damon, Alis Olsen, Christine Baeumler, and Cheri Sampson. Many of the pieces were temporal and site-specific. See: http://womenandwater.net/ for more details.

Williams College, Williamstown, MA (http://wcma.williams.edu/module_item/715-molecules/?module_item=715-molecules):

- The college designated a portion of its nature preservation land to being a "Field Farm", or a sculpture park on a farm setting, for showing large public art sculptures. See: http://wcma.williams.edu/files/2011/09/WilliamsPublicArt_FieldFarm.pdf.
- *715 Molecules*, Jenny Holzer, 2011. This stone table and benches, which resides outside of the interdisciplinary science center, is covered in molecular diagrams to spark conversation and reflection.
- *Williams College Project*, Alice Aycock, 1974. A mound formed from the surrounding earth

with a chamber inside into which visitors could crawl. Meant to have a primal and ritual significance; it helped launch new, feminist-oriented land art activity but was later accidentally destroyed by the grounds crew.

College Land Art Examples by Artist

Because certain artists have specialized in land art in its many forms and have received numerous commissions especially at institutions of higher learning, we make special note of them and the creations they did at the institutions above as well as a sampling of other creations that may be of interest:

Patrick Dougherty (http://www.stickwork.net/):

North Carolina-based, internationally renowned artist specializing in "stickworks". These temporary sculptures are created entirely form twigs and branches found in the local area. His outdoor pieces stay on exhibit until they naturally deconstruct to the point at which he deems they need to be disassembled and removed. Dougherty sculptures typically involve volunteer help from the local community and are intended to synthesize art, landscape and architecture. The following is a selected list of his installations:

- St. Johns University, 2012- Installation to be installed this upcoming fall outside of the Arboretum.
- *Twisted Sisters*, Wheaton College, 2008- Installed on a corner for public view, this installation was meant to serve as a gateway for the campus (http://wheatoncollege.edu/news/2008/09/03/dougherty/).
- *Creature Comforts*, Colorado College, 2008 (http://blog.coloradocollege.edu/ideaspace/2009/06/06/patrick-dougherty-sculpture/).
- *Simple Logic*, DePauw University, 2007 http://www.depauw.edu/news-media/latest-news/details/20360/).
- *Hat Trick*, Grinnell College, 2003 (http://web.grinnell.edu/faulconergallery/CampusArt/dougherty.htm).
- *Twigonometry*, Carleton College, 2002 (http://www.carleton.edu/campus/gallery/exhibitions/2002/twigonometry/).

Athena Tacha (http://oberlin.edu/faculty/atacha/):

An environmental, public and conceptual artist with installations throughout the country often incorporating a theme of rhythm. Tacha has done many sculptures for colleges and universities, both inside and outside and many of which are environmentally informed. She was long a professor at Oberlin College until her retirement. The following is a selection of her institutional pieces:

- *Rhythmics*, and Eco-rhythms. See University of Minnesota above.
- *Corral*, University of Nebraska-Lincoln, 1987-90- This work outside of the Animal Science Building consists of a grouping of slate tiles in something of a broken grid pattern. The tiles are sandblasted with images of farm animals native to Nebraska.
- *Merging*, Case Western Reserve University, 1986. This red granite sculpture is made up of step-like pieces that form a structure reminiscent of a waterfall. The sculptures is interactive in that it can be used as a sitting area.
- *Twist*, Case Western Reserve University, 1980-81- Unpolished sandstone sculpture in the shape of a twist. The stones are stacked in such a way that they create a gentle curving structure.

Appendix B: Regional Artists

Akagawa, Kinji- Public/Functional Artist, Minneapolis, MN. Akagawa is an artist specializing in functional public art often informed by environmentalism. Though he is based out of the Twin Cities, he is internationally renowned, particularly for his benches that work as non-traditional, interactive seating areas. He is very interested in creating site-specific art, art that works in relationship to the space and community in which is resides so he uses many local materials. His work has relevance to the St. Olaf project because his designs provoke visitor interaction with an outdoor space. He has received many awards for his pieces including the McKnight Foundation Distinguished Artist Award and the Minnesota State Arts Board Cultural Collaborations Grant. Pieces of relevance include:

- *Peace Garden Bridge,* Lyndale Peace Garden, Minneapolis MN.
- Pergola at Normandale Community College, Bloomington MN.
- *Garden Seating, Thinking, Reading,* Minneapolis Sculpture Garden, Minneapolis MN.
  - More information: http://www.mnoriginal.org/episode/mn-original-show-223/kinji-akagawa/

Baeumler, Christine- Environmental Artist/Restoration Designer, Minneapolis, MN. Baeumler specializes in community-based environmental restoration projects and environmental art. She has done work worldwide but is based out of the Twin Cities where she is also a professor of art at the University of Minnesota. She worked with Betsy Damon on her *Living Water Garden Project* in 2005, but has also worked on many other public projects in years since, including work on the Bruce Vento Sanctuary in St. Paul as well as in Swede Hollow Park. Her experience with both landscape architecture and traditional art make her projects stand out as they incorporate biophilic design. Her projects serve as a great model for how community, education and restoration can work in tandem and she has shown that environmental engagement is very possible on a local level. (For more about her art: More information: http://www.formandcontent.org/chris.htm and http://phippsart.wordpress.com/2010/05/04/an-interview-with-artist-christine-baeumler/**,** Works of relevance include:

- *Swede Hollow Park,* St. Paul MN.
- *Bruce Vento Nature Sanctuary,* St. Paul, MN
- *Reconstituting the Landscape A Tamarack Rooftop Restoration* (Northern Spark 2012), Minneapolis MN.

Dysart, Aaron- Environmental Sculptor, St. Paul MN. Dysart is very interested in the relationship humans have with the natural world around them and this is reflected through his sculpture. He is fascinated by the way in which humans view the natural world as an "other", so his art aims to promote an awareness of the complexities of the natural world as well as its ambiguities. In 2007, he was awarded a fellowship for sustainable art making throughout St. Paul. His sculptures are often outdoors and are directly in contact with nature, often in a way that forces strange juxtapositions. Many of his pieces involve coating natural objects or altering them in some way while leaving them in their natural context. Dysart has been exhibited nationally and presented at the 2008 Nobel Peace Prize Forum. He has a collection featured at Macalester College as well as Franconia Sculpture Park and was featured Silverwood Park in Minneapolis. He has also of late pursued a Public Art St. Paul project and become part of the Twin Cities creativity organization gymnasium. For more information about his work see More information: http://www.aarondysart.com/index.htm and http://mnartists.org/artistHome.do?rid=115111; examples of relevance include:

- *Black Walnut,* Franconia Sculpture Park, Franconia MN.
- *Celebrate* (Northern Spark 2012), Minneapolis, MN.

Jones, Seitu- Public and Environmental Artist, St. Paul MN. Jones specializes in large-scale public works and was formerly the artist in residence for St. Paul. He is interested in blending art with nature and utilizes many mediums such as vegetable-based pottery or sculptures in natural areas. Some of his permanent public installations are in the Nicollet Mall as well as in the St. Paul Farmer's Market. Jones has an interest in incorporating community involvement into the production of his public art and has by aided by student volunteers in some of his projects. He is also interested in doing work focusing on under-funded and low-income areas as well as working within the Black community. He works with many mediums but his work most often takes the form of wood sculptures and murals. More information: http://www.mnartists.org/artistHome.do?action=info&rid=12768 and http://www.mnoriginal.org/episode/mn-original-show-201/seitu-jones-and-hunter-powell/. Works of relevance include:

- *The Amazing Mother Earth Composter* (Dirt-O-Rama), Minnesota Landscape Arboretum
- *Lambert's Landing,* St. Paul MN

Leicester, Andrew- Land/Public Artist, Minneapolis MN. Leicester is a sculptor who specializes in large-scale public art. His art can take many forms ranging from promenades to earthworks and landmarks. Leicester believes his art should form connections between place and community, and he strives to make all of his work relevant to those who interact with it on a daily basis. His art is informed by extensive research regarding the social, historical and environmental characteristics of each location, making it something personal and site-specific. His works traditionally aim to create community ties, and many address larger social issues as well such as wind, solar power and reclamation. Andrew's works can be seen throughout the Twin-Cities area and around the world. His website is http://andrewleicester.com/; works of relevance include:

- *Cloverleaf,* Highway 52, Minneapolis MN.
- *Centennial Plaza* (with solar powered pavilions), University of Central Arkansas
- *Bicentennial Park,* Cincinnati, OH.

Mojsilov, Zoran- Sculptor/Public Land Artist, Minneapolis MN. Mojsilov is a sculptor who works frequently in the outdoor, public realm with stone being his most common medium. Most of his works are very large scale, but he also has worked in smaller settings such as wall hangings and interior designs. His sculpture can be for strictly aesthetic delight or functional and has created many stone forms serving as benches and sitting areas. He says that as an artist, his is primarily interested in the relationships between humans and the world around them, more specifically humans and nature. While he has done installations and exhibits all over the globe, he has had many installations in the Twin Cities area and was the visiting artist in residence at St. Olaf in 1989 where he created 4 sculptures using found materials from Manitou Hill. For more information see http://mnartists.org/artistHome.do?rid=173749 and http://www.zoranmojsilov.com/outdoors.htm. Other works of relevance include:

- *Roast Beef,* Franconia Sculpture Park, Franconia MN.
- *Pig's Eye,* Walker Art Center, Minneapolis MN.
- *Watcher,* High Bridge Park, St. Paul MN

Proctor, Jim- Land/Environmental Artist, Minneapolis MN. Proctor is an environmentally minded artist out of the Twin Cities who is also a St. Olaf alumnus. While most of his work is it the form of

small shadow-boxes containing manipulations of nature elements, he has also done work in St. Paul and Northfleld involving the larger installation of a Buckthorn project he calls the *Buckthorn Menace*. As an artist he explores the idea of how varied plant material can be combined to form new fantastical species that ask the viewer to consider nature in a different way. This curiosity developed as the form of his art shifted from traditional paintings to his current 3-dimensional creations. He notes that he seeks to draw attention to energy and synergy of the botanical world as well as to address our dislocation with nature. While some of his work resembles that of more traditional surrealist artists, his focus is on considering nature reflecting upon the complexities of the relationships it encompasses. For more information: http://www.mnartists.org/artistHome.do?action=info&rid=7438 and http://apps.carleton.edu/campus/gallery/buckthorn/.

- *Buckthorn Menace,* St. Olaf College and Carleton College, 2005.

- **Rickey, Philip-** Sculptor/Public Artist, St. Paul MN. The son of renowned sculptor George Rickey, Philip Rickey is most well known for his Highland Park Two Rivers Overlook and the Paul and Sheila Wellstone Memorial. The majority of his sculptures are of stone but he also has worked on some smaller-scale wooden sculptures that he intends for audience interaction. While his father was famous for his kinetic sculptures, the younger Rickey says that he makes sculptures that are only kinetic when physically walked through, around or by their multi and serial shapes. His main interest is in public sculpture but he has created a strong presence in the Twin Cities area. For more information see http://www.communityreporter.org/ArtistProfiles and http://www.publicartstpaul.org/placemaking_pos_tro.html. Works of relevance include:
  - *A Gathering Hand,* Minnesota Academy for the Deaf, Faribault MN.
  - *Two Rivers Overlook,* Highland Park Overlook, St. Paul MN.
  - *Public Street Sculpture* (in progress), University of Minnesota, Minneapolis MN.
  - *Paul and Sheila Wellstone Memorial,* Eveleth MN.

Stabb, Roy- Land Artist/Sculptor, Milwaukee WI. Roy Staab is land artists specializing in ephemeral art. He is both nationally and internationally renowned. His works are not pre-planned and are site-specific, using the land as inspiration and provider of materials. Staab's pieces are temporary and also change throughout their exhibitions as he rejects the idea of static art and does not want his art to carry just one meaning. Sculptures made by Roy Staab can be seen on land, interacting with air or situated in water, with the reflection of the water also becoming part of the art. He has done commissions around the world in places such as New York, Canada, the Netherlands and Japan, but resides in Milwaukee. Staab has won many awards for his art such as the Milwaukee Arts Board Achievement Award and the Japan/American Artist Exchange Creative Artist Fellowship. For more information see: http://greenmuseum.org/artist_index.php?artist_id=68 and http://www.uwec.edu/newsreleases/10/sept/0921RoyStaabFosterGallery.htm. Works of relevance include:

- *Bluebird,* Wisconsin River, near Blue River WI.
- *Golden Ring Dance,* Evanston Art Center, Evanston IL.
- *Elements: Earth, Air, Fire and Water,* UW-Whitewater, Whitewater WI.