It is a great honor to receive the 2001 Cosmos Prize, for its purpose — to promote the harmonious coexistence of nature and humankind — is one of the most urgent issues of our time.

Human survival depends upon adapting ourselves and our landscapes - cities, buildings, gardens, roadways, rivers, fields, forests - in new, life-sustaining ways, shaping contexts that reflect the interconnections of air, earth, water, life, and culture, that help us feel and understand these connections, landscapes that are functional, sustainable, meaningful, and artful.

My career as landscape architect and planner, teacher, scholar, author, and photographer has been dedicated to advancing this goal. I once thought that the obstacle to achieving it was lack of knowledge, and I wrote my first book, The Granite Garden: Urban Nature and Human Design, to fill that void. After its publication in 1984, I was surprised by how many people, including scientists and naturalists, resisted or ignored the evidence that human settlements, including cities, are part of the natural world. I have come to realize that ideas of nature and what is natural stem from strongly-held feelings and beliefs. These views are highly personal and varied, and changing them is not simply a matter of marshaling compelling verbal arguments, but of reaching both mind and heart. Photography and landscape design are powerful aids for helping people to feel, as well as reflect upon, the place of humans in nature.

I now believe that promoting the harmonious coexistence of nature and humankind depends upon more than knowledge alone. Equally important are a sense of empathy - the projection of one's own consciousness into another being, thing, or place - and the power of imagination. My recent book, The Language of Landscape, and the one I am currently writing, Telling Landscape, aim to help people read landscapes as products of both nature and culture and to inspire them to envision new landscapes that restore nature and honor culture.

The great poet Basho said the first lesson for the artist is to be one with nature throughout the seasons of the year. This lesson is important not just for the artist, but for everyone, especially those who live in cities. Here, along the shoreline near the city of Boston, looking east after sunset, you can see the twilight arch, the shadow cast by the Earth, a reminder of the eternal processes of nature, which encompass all life.

Earth’s shadow rising,
blue into rose, tide turning -
October twilight.

And here, in early summer along the Ridgeway, a prehistoric trade route across southern England:

See cloud’s path in ancient track -
earth, sky, a mirrored flowing.

I have a very rudimentary understanding of Basho and Japanese linked poetry, renga or haikai, but it seems to me that this tradition offers important insights for shaping human settlements in accord with natural processes. Haruo Shirane, in his book Traces of Dreams: Landscape, Cultural Memory, and the Poetry of Basho, describes haikai as a chain of many short poems or haiku, usually written by two or more different poets, where "each poem takes up the suggestion of the preceding poem and yet opens up a new world of its own." This open-ended, collective, creative process is like that of shaping landscape. All landscapes, whether gardens, farms, or towns, have co-authors, in dialogue with one another and with nature. They embody their builders’ responses both to the cultural traditions of a region and to its natural conditions. The High Plains of the western United States, for example, are dry and open; trees are rare, a sign of water or human settlement. Each farmhouse is planted round with trees, source of shelter and fuel:

Trees hug a homestead,
mark its place on open plains -
sound of winter wind.
In every landscape are ongoing dialogues, there is no "blank slate"; the task is to join the conversation. Every act of making landscape, like each verse in the haikai that Basho wrote with his fellow poets, should be an expression that respects and extends existing dialogues and inspires the next act. Like each short haiku in a chain of poems, it should seek to reinforce the particular of time and place and make connections among seemingly disparate things.

We all can learn to read landscape, to understand those readings, and to speak new wisdom into life in city, suburb, and countryside, to cultivate the power of landscape expression as if our life depends upon it. For it does.

The Granite Garden: Urban Nature and Human Design

Nature is ubiquitous and cities are part of nature. Nature in cities should be cultivated, like a garden, not dismissed or subdued. The garden is a powerful, instructive metaphor for re-imagining cities and metropolitan areas. This metaphor infused my first book, The Granite Garden: Urban Nature and Human Design. Successful gardens are expressions of harmonious relationships between human culture and the natural world. In the garden, there is both an attitude of beneficial management and an acknowledgment of natural phenomena that are beyond human control. Gardens are never entirely predictable; one cultivates a garden expecting that there will be unforeseen circumstances.

The Granite Garden presents, synthesizes, and applies knowledge from many disciplines to show how cities are part of nature and to demonstrate how they can be planned and designed in concert with natural processes rather than in conflict. Organized by sections on air, earth, water, life, and ecosystems, the book contains successful cases from the scales of house and garden to city and region.

Take the example of Denver, Colorado. Denver’s urban storm drainage and flood control system, created in response to a series of disastrous floods, is a model for how stormwater management could be managed in every city.

Natural systems retain stormwater in soil, plants, and streams; rivers overflow onto floodplains, which, if unbuilt, protect adjacent areas from flooding. As Denver grew, the ground became covered by more and more buildings and pavement, and it was less able to soak up rainfall, so stormwater flowed more and more rapidly through the watershed into the South Platte River. In June, when snow is melting in the Rocky Mountains and stream flow is already high, rains can produce devastating floods. In the 1960s, a flood destroyed all the city’s bridges and convinced everyone it was time to do something.

Denver responded by building a network of greenways along the South Platte River and its many tributaries and drainage channels. These are both public open space and part of the region’s stormwater and flood control system. The stormwater channels look like little streams with berms on either side to keep the water from flooding adjoining streets and houses. Plazas, like Skyline Plaza in downtown Denver, are also stormwater detention basins that collect rainfall from surrounding roofs and pavement. This system slows down the stormwater runoff; instead of reaching the South Platte within a few hours after a rainfall, it takes several days or more to reach the river. By then, floodwaters have receded. The stormwater system is a series of parks and plazas that are assets to the city around them. There are examples in Japan, too. The City of Kobe built a park to hold the rise and fall of its Togyawara and to protect the city from floods. The entire park is within the 100-year floodplain; terraces mark the height of the average annual flood.

Attending to natural processes in urban planning and design is not just a matter of avoiding hazards or problems; it creates wonderful opportunities for community development and urban restoration.

Rebuilding Cities and Restoring Urban Nature: West Philadelphia Landscape Project

Since 1984, I have continued to explore the approach advocated in The Granite Garden. I have organized my research and teaching around experimental, demonstration projects in inner-city neighborhoods to address issues of environmental quality, poverty, and race. For fourteen years, West Philadelphia has been my laboratory for testing ideas about transforming the urban landscape in life-sustaining ways.

Although my work draws from diverse fields, it is rooted in the knowledge and methods of landscape architecture and the insights they provide. Landscape architects design and plan land-
scapes to serve human purposes at scales from garden to region. This range in scope is fundamental to the discipline, and my proposals include designs for small urban parks and plans for vast urban watersheds. My work aims to understand how natural and cultural processes, interacting, shape landscapes and how to intervene in and shape those processes to achieve desired goals. While the methods and means of designing and planning landscapes at the scales of garden, neighborhood, city, and region may differ, the processes that shape those landscapes - natural, social, economic, and political - are the same. Understanding landscape as the product of interacting processes provides a way of seeing relationships among actions and phenomena that may appear unconnected, but are, in fact, closely related.

Consider the example of several serious issues that are usually addressed individually with narrowly-defined, single-purpose solutions, which compete for limited resources: the flooding of homes and businesses; pollution of rivers and harbors; and the deterioration of low-income, inner-city communities.

Large portions of many American cities contain extensive tracts of vacant land, once covered by buildings. These are commonly regarded as problems, but they also afford opportunities to restore the city’s natural environment while rebuilding inner-city neighborhoods. What is rarely recognized, is that much of this vacant land is concentrated in valley bottoms on buried floodplains. I first discovered this correlation between floodplains and vacant land in Boston in 1985, when I visited low-income neighborhoods and noticed that hilltops and hillsides had very few vacant lots, while valley bottoms were largely open. Old maps showed that streams had once flowed through the valleys. I traced the successive settlement and abandonment of these neighborhoods by comparing maps from 1876 to 1984. I found that homes were built first on hill tops and upper slopes, while floodplains and streams were filled in and developed last with cheaper housing. Some of these buildings were abandoned as early as 1910; by 1964 large areas in the bottomlands were vacant. Water flowing underground, flooding basements and undermining foundations, contributed to the abandonment. It was also fueled by political and economic processes that discouraged investment in old urban neighborhoods while encouraging the development of new suburban communities, and by socio-economic phenomena like population migration and arson. In the 1970s many landlords burned down their decaying buildings to collect fire insurance, and by 1985 even more land was vacant. Local people and city officials believed the only causes were socio-economic. They did not see the connection to the natural processes of poor drainage and subsidence in the buried floodplains and, tragically, they rebuilt on low-lying vacant land.

Similar conditions exist in many other American cities. In the Mill Creek neighborhood in West Philadelphia, where I have worked since 1987, there is a broad band of vacant land and buildings that follows the course of an old stream. In the late nineteenth century, the stream was encased in a sewer, the floodplain was filled in, and buildings were built on top. Periodically, since the 1930s, buildings constructed along the sewer have caved in.

Burying streams like those in Boston and Philadelphia, and turning them into huge conduits carrying both stormwater and sewage, created another problem besides flooding and subsidence: combined sewer overflows. After heavy rains, if you drive along an urban river like the Schuylkill River in Philadelphia, you may notice that its color is brown and that there is a glaze on its surface, like the wastewater in a sewage treatment plant. After a heavy rain, so much stormwater comes off the streets and flows into the sewer - mixing with all the wastewater from homes and businesses - that there is too much volume for the sewage treatment plant to handle. So untreated sewage overflows directly into the river, which is the source of the city's drinking water. This is a big problem in Philadelphia and in many old cities, which were built when it was standard practice for sanitary and storm sewers to be combined.

In the 1970s, many cities separated the sanitary and storm sewers, so that stormwater flows directly into rivers and does not overload treatment plants. Then scientists discovered that this change did not improve the quality of river water as much as they had expected, because urban stormwater is also polluted. The current wisdom is that cities should probably treat stormwater runoff as well as sanitary sewage. It actually is an advantage to have a combined system, but the problem, then, is how to deal with massive volumes of water.
that need to be treated after a rainstorm? Do you build enormous new sewage treatment plants, as some cities have done?

An understanding of natural processes suggests another way to prevent combined sewer overflows: detain the stormwater above ground in order to extend the time it takes the water to get to the sewage treatment plant. Look again at the buried floodplains in urban neighborhoods. They should be recognized as an important structural part of the landscape, a special zone where new buildings should not be built. Imagine if they were reconstructed as greenways, parks, and plazas like those in Denver. A landscape infrastructure designed to detain and filter stormwater prevents floods and combined sewer overflows downstream, improves regional water quality, and improves living conditions in inner-city neighborhoods.

I first proposed these ideas in Boston in 1985. Then, in Philadelphia, I worked for years to convince the City Planning Commission and the Philadelphia Water Department that the buried creek was both a force to be reckoned with and a resource to be exploited. The planners and engineers could not see what was right before their eyes. I began to understand that the underlying problem was a kind of illiteracy. They could not read and respond to the stories landscapes tell. I wrote my next book, The Language of Landscape to help people relearn this fundamental skill.

**Empathy and Imagination: The Language of Landscape**

Literacy in landscape language enables people to read environmental, social, economic, and political stories embedded in their local landscape and empowers them to think about how to tell new stories. The Language of Landscape begins with a prologue, “The Yellowwood and the Forgotten Creek.” The text, adapted here, conveys my reasons for writing the book:

*Once a yellowwood stood by an old library - leafing, flowering, fruiting, setting seed; roots grabbed held, sucked air and water from beneath a plaza of brick. Students sat each spring under the yellowwood, listening to their names named, glad for green shade, walked under it to the library, breathed musky June flowers, kicked yellow leaves of October across red bricks.*

*For many years the yellowwood grew; while red stone blackened, the building decayed. Then men came to fix the library, piled stacks of tools, tiles, and sacks around the tree, sealing soil under bricks. Two years later, the library reopened, leaded glass gleaming, blackened stone brightened. "How elegant," people said. That fall the tree lost its leaves early, in September.*

*In May, the yellowwood flowered, also early, and profusely. Thousands of fragrant white blooms hung in long clusters; petals covered bricks, blew across grass. "How beautiful," people said. How sad, though. Several years’ bud scars bunched against each twig’s growing tip. Abundant flowers signaled a dying, and seeds found no purchase in the plaza. People admired the tree and walked on; they had lost the language that gives tongue to its tale.*

*Once a yellowwood stood. No more. And few knew why.*

*One day a street caved in. Sidewalks collapsed into a block-long chasm. People looked down, shocked to see a strong, brown, rushing river. "A truck fell into a hole like that years back," someone said. "A whole block of homes collapsed into a hole one night a long time ago," said someone else. They weren’t sure where. Six months later, the hole was filled, street patched, sidewalks rebuilt. Years went by, new folks moved in, water seeped, streets dipped, walls cracked.*

*Once a creek flowed — long before there was anyone to give it a name — couring down, carving, plunging, pooling, thousands of years before dams harnessed its power, people buried it in a sewer and built houses on top. Now, swollen with rain and sewage, the buried creek bursts pipes, soaks soil, floods basements, undermines buildings. During storms, brown water gushes from inlets and manholes into streets and, downstream, overpowers the treatment plant, overflowing into the river from which the city draws its water.*

*Vacant lots overgrown by meadows and shrubby thickets near boarded-up homes and community gardens filled with flowers and vegetables follow a meandering line no one seems to see. In a school that stands on this unseen line, the gym floods every time it rains. Once a year, teachers take students on buses to a place outside the city to see and study "nature."

*On a once vacant lot, brand new houses — red brick, yellow siding, green sliver of lawn out front, gates open — rise in contrast to nearby older, shattered houses and land laid waste. "First Time Buy-
ers own this home for less than you pay in rent," a sign urges. The houses have been built by churches from coins and foundation funds, the land a gift from the city. "How beautiful," people say. No one wonders why the land was free, why water puddles there, why the name of the place is Mill Creek.

Signs of hope, signs of warning are all around, unseen, unheard, undetected. Most people can no longer read the signs: whether they live in a floodplain, whether they are rebuilding an urban neighborhood or planting the seeds of its destruction, whether they are protecting or polluting the water they drink, caring for or killing a tree. Most have forgotten the language and cannot read the stories the wildflowers and saplings on vacant lots tell of life’s regenerative power; many do not understand the beauty of a community garden’s messy order. They cannot hear or see the language of landscape.

Architects’ drawings show no roots, no growing, just green lollipops and buildings floating on a page, as if ground were flat and blank, the tree an object not a life. Planners’ maps show no buried rivers, no flowing, just streets, lines of ownership, and proposals for future use, as if past were not present, as if the city were merely a human construct not a living, changing landscape. Children’s textbooks, from science to history, show no nearby scenes, suggest or demand no first-hand knowing, just formulas and faroff people and places, as if numbers and language had no local meaning, as if their present had no past, no future, the student a vessel not an actor.

The yellowwood was the first yellowwood I ever saw, its perfumed flowers an amazing surprise my first year as a graduate student, the same year the hole in the water emerged near my apartment. The yellowwood, gone, is still on my daily path; the forgotten creek is now the heart of my work. Back then I knew nothing of dying trees or buried rivers. Now I have learned to read what sloping valleys and sinking streets tell, what bud scars say. Landscapes are rich with complex language, spoken and written in land, air, and water. Humans are story-telling animals, thinking in metaphors steeped in landscape; putting down roots means commitment, an uprooting is a traumatic event. Like a living tree rooted in place, language is rooted in landscape.

The meanings landscape: bold are not just metaphorical and metaphysical, but real, their messages practical; understanding may mean survival instead of extinction. Losing, or failing to hear and read, the language of landscape threatens body and spirit, for the pragmatic and the imaginative aspects of landscape language have always coexisted. Relearning the language that holds life in place is an urgent task.

The Yellowwood and the Forgotten Creek are not just parables, but true stories of failure. Those who first built houses over the buried creek in West Philadelphia and those who rebuilt in the same place were illiterate in the language of landscape and so could not read the creek’s presence. Those who admired the yellowwood’s excessive, early flowering on the campus in Philadelphia were blind to what the bud scars told. They failed to read the flowers’ poignant message, were unable to imagine the tree’s connection to soil, plaza, and contractor. I tried, but failed, to convince the dean of the school, himself an architect, to find another site for the contractors’ trailer and tools. He refused, unconvinced or not caring that the yellowwood would die as a consequence.

I believe that the language of landscape is our native language. Landscape was the original dwelling; humans evolved among plants and animals, under the sky, upon the earth, near water. Everyone, in every culture, carries that legacy in body and mind. Humans touched, saw, heard, smelled, tasted, lived in, and shaped landscapes before the species had words to describe all that it did. Landscapes were the first human texts, read before the invention of other signs and symbols. Clouds, wind, and sun were recognized as clues to weather; ripples and eddies were read as signs of rocks and life under water, caves and ledges as promise of shelter, trees as guides to food and water, bird calls as warnings of predators. Uluru, in the center of Australia, is read in many ways: landmark, refuge, source of water and food in a dry land. It has been revered by Aborigines for thousands of years.

Gathering rare rains,

island in a desert sea -

red rock, sacred place.

The language of landscape can be spoken, written, read, and imag-
"Speaking" and reading landscape is a byproduct of living and a strategy of survival—creating refuge, providing prospect, growing food. To read and shape landscape is to learn and teach: to know the world, to express ideas and to influence others. Landscape, as language, makes thought tangible and imagination possible. Through it humans share experience with future generations, just as ancestors inscribed their values and beliefs in the landscapes they left as a legacy, a rich lode of literature: natural and cultural histories, landscapes of purpose, poetry, power, and prayer. Landscape is pragmatic, poetic, rhetorical, polemical. Landscape is the scene of life, cultivated construction, carrier of meaning. It is language.

A coherence in vernacular landscapes emerges from dialogues between builders and place, fine-tuned over time. They tell of an agreement between snowfall and roof pitch, between seasonal sun angles and roof overhang, wind direction and alignment of hedgerows, cultivation practices and dimensions of fields, family structure and patterns of settlement.

Landscape meaning is complex, layered, ambiguous, never simple or linear. A river flows, provides, creates, destroys, simultaneously a path and a boundary, even a gateway. Fire consumes, transforms, and renews. A circle is hierarchical—it has a center—yet non-hierarchical—all points along the circumference are equidistant from the center. Put two or more elements together and potential meanings and associations grow. In sacred landscapes, movement, path, and portal often overlap, with spiritual transformation at the threshold where they meet. The wide path up the Hill of Remembrance in Stockholm's Forest Cemetery is steep at first—climbing eased by low stone steps, deep, stone-dust treads, landings every dozen steps—then the slope tapers, steps pass between trees though an open gateway atop the hill, coming to rest just inside low walls. At the beginning of the ascent, steps are set into the hillside, so the slopes enfold the climber; at the end, frames of trees and wall enclose. Form and material shape the experience of path and refuge; all modify processes of movement and grieving, in agreement with the meaning its designer-teller intended:

Ascent, enfolded -

"giving form to a sorrow that cannot be told."

To recover and renew the language of landscape is to discover and imagine new metaphors, to tell new stories, and to create new landscapes. John Berger describes a language of lived experience with which to interpret the common and the particular across the gulf of different cultures. Ecologist Aldo Leopold writes of the need for humans to "think like a mountain," to escape the short-sightedness that threatens the larger habitats of which humans are part. Anthropologist Gregory Bateson says that humans must learn to speak the language "in terms of which living things are organized," in order to read the world not as discrete things, but as dynamic relations, and to practice the art of managing complex, living systems. The language of landscape is such a language: in terms of it the world is organized and living things behave. Humans can think like a mountain, can shape landscapes that sustain human lives and the lives of other creatures as well, can foster identity and celebrate diversity.

Now is a time for telling new tales, for retelling old dilemmas: how to live in the world and preserve it; how to sustain tradition and foster invention; how to promote freedom and cultivate order; how to appreciate the parts and grasp the whole. Paradox - the fusion of seeming contradictions - has never been more critical.

Lush moss fluid, green; roots, growing, make mossy waves - ebbing, flowing, still.

This and other paradoxes are present in gardens like Saiho-ji, in Kyoto. But they also abound in ordinary landscapes, like that of a pool in Sydney Harbor, Australia, clues to what is and what could be:

Waves and harbor wall shape light shallows and dark depths - two sides, one surface.

The language of landscape prompts us to perceive and shape the
landscape whole. Reading and speaking it fluently is a way to recognize the dialogues ongoing in a place, to appreciate other speakers’ stories, to distinguish enduring dialogues from ephemeral ones, and to join the conversation. The language of landscape reminds us that nothing stays the same, that catastrophic shifts and cumulative changes shape the present. It permits us to perceive pasts we cannot otherwise experience, to anticipate the possible, to envision, choose, and shape the future. We can "see" what is not immediate, a future forest in today’s meadow, the yellowwood dying of starved and suffocated roots. Or we can see water underground in the tree along a dry creekbed, in the cracks of a building’s foundation, the slumps in pavement in a city; or see the connections between the buried, severed stream, the vacant land, and the polluted river, and imagine rebuilding a community while purifying its water. And we can imagine poetry.

Let us look, for example, at a house designed by Australian architect Glenn Murcutt, who studies his clients’ patterns of living as closely as he studies the processes of sun shining, plants growing, water flowing, and wind blowing. This home at Bingie, along the coast of Australia, expresses the daily and seasonal rhythms of the place and the people who live there. The roofline echoes the silhouette of a gull in flight, with wings spread; the gutter is in the middle of the inward-sloping roof, instead of at the edge, and two downspouts are columns at either end. The shape of the ceiling inside the house and the corridor along which people move reflect the path along which the water flows. Rain drums on the roof, streams into the gutter, swirls down the columnar downspouts, visible through glass doors at either end of the hall, and falls into an underground tank—the water supply for the house. Water is linked from its source in the sky to a reservoir in the ground. Necessary dialogues are made poetic, everyday experience made aesthetic. Elegant spareness—a hallmark of Murcutt’s work—expresses his environmental ethics.

Murcutt’s skill in the language of landscape brings his clients in deliberate dialogue with processes that sustain their lives, but are often taken for granted. People adjust windows and walls to admit light and air flow, or to intensify or block them, as one adjusts the sails on a boat to catch or avoid the wind: in the process, they learn. For those who live in such houses, light changing, wind blowing, rain falling, and reservoir filling become visible, audible, and tangible. Imagine an entire neighborhood or town—buildings, streets, sewers, parks—that engage residents in such dialogues with natural processes.

Living in such places one learns to read and tell landscape, to understand connections among seemingly unrelated phenomena, to phrase an appropriate response. Such dwelling invokes a sense of empathy, prompts reflection on the continuity of human lives with other living things and with the places we inhabit. Empathy—the imaginative projection of one’s own consciousness into another being, especially the sympathetic understanding of other human beings and other life forms—is surely one of the most important human abilities. Fluency in landscape is an aid not only to survival, but also to the empathetic imagination.

Few people, even if they have seen both Murcutt’s design for the house in Bingie, Australia and my proposals for West Philadelphia, would at first regard the two as analogues, but they are, even though one is the home of a single family, the other a plan for a neighborhood of thousands of families. The design for Bingie and the plan for West Philadelphia are connected by the designers’ kindred ways of thinking and working.

Since 1987, my students and I have worked with residents of the Mill Creek neighborhood. We have taught and we have learned. We have designed small projects, like community gardens, which were built, and sustained over time. And we have made plans for transforming the larger urban landscape. The collaboration is tied together by the Internet: a digital database, activities, and proposals can all be seen on the West Philadelphia Landscape project website. Students in my classes at the University of Pennsylvania, and now at the Massachusetts Institute of Technology, have created designs for wetlands, water gardens, and environmental study areas on vacant land in the Mill Creek neighborhood. They have analyzed the urban watershed and have demonstrated how stormwater can be collected in landscape projects that are also stormwater detention facilities. And they have worked with teachers and students at Sulzberger Middle School to design and implement an urban environmental curriculum, a program that has transformed the school, which is located on the buried floodplain of Mill Creek, near many vacant blocks.
The West Philadelphia Landscape Project employs landscape literacy as a cornerstone of community development. Every child in Sulzberger's Mill Creek Program knows the story and can read the landscape of Mill Creek: where it once flowed on the land, where its shore was the site of a prehistoric settlement, where it powered mills to weave cotton and wool, where it was buried and built upon, where the land above the sewer became open once again, a gash of vacant land. Every child in the program creates a vision of what the future of Mill Creek could be. How the neighborhood could be rebuilt and the water restored, how stormwater running off rooftops, streets, and sidewalks could drain into ponds that slow its passage to the sewer, the treatment plant, and the river.

The goal is to place schools at the heart of the community's reconstruction, for children to learn the arts of citizenship: how to know a place, how to envision and build its future, how to care for it. An outdoor classroom with a pond, butterfly garden, and compost bin was built at a nearby community garden as a living laboratory for the school; children in a summer program helped to design, build, and maintain it. They also learned how to make websites, and published their proposals, designs, and accomplishments on the Internet. The high-tech aspect of the program received the recognition of public officials, like the governor of the state of Pennsylvania and President Bill Clinton, who visited Sulzberger two years ago. Finally, in 1999, the Philadelphia Water Department decided to plan, design, and build a demonstration project on vacant land near Sulzberger Middle School, which will combine a storm-water detention facility to reduce combined sewer overflows with an environmental study area for the school. The project will be a collective vision, designed by stormwater engineers, landscape architects, teachers and students at the middle school, and community residents.

Seamus Heaney compares the poet's role to that of the diviner who perceives through empathy and predicts the presence of something that to others is hidden; the diviner of water, for example, who senses water underground, which can then be tapped by a well. Heaney calls this "a gift for being in touch with what is there, hidden and real, a gift for mediating between the latent resource and the community that wants it current and released." Like poetry, both photography and design are powerful means of divining what lies latent in landscape. "Words themselves are doors," says Heaney. And so are photographs and designs. The photographer frames a view, bringing certain features into dialogue, excluding others. Through this act of framing, one creates a doorway for others to enter mentally. Through empathetic design - architecture, landscape architecture, urban design and planning - one can imagine a world, yet inchoate, with the potential for fusing the traditional and the new, non-human and human, nature and culture. This is what Tadao Ando's Chapel at Mount Rokko in Kobe suggests:

Glowing, shadows show
what is there, hidden and real
eternal threshold.

Designers are storytellers. Design is a way of imagining and telling new stories and reviving old ones, a process of spinning out visions of landscapes, alternatives from which to choose, describing the shape of a possible future. The products of design - gardens, homes, road and water systems, neighborhoods, and cities - are settings for living that convey meaning, express a society's values. We extend these meanings through processes of construction and cultivation, use and neglect, as we dwell in what began as dreams.
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