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Landscape Architecture in The Rural Landscape

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Preface

In developing this LATIS we hoped to focus attention on the rural landscape and some of the collaborative and encouraging work taking place there. The observations and examples presented here are clearly the tip of the iceberg. We believe, however, that the range of issues and work presented is enticing and challenging by what it suggests—not only work to be studied and expanded, but work to be initiated. If we provoke further interest, thought and action, then our time has been well spent.

The American Society of Landscape Architects adopted a Policy on the Rural Landscape in 1985. This policy marked a significant return to the concern for stewardship in the rural landscape that so characterized our profession in its earliest days. Inspired by the policy, we hope this work will accelerate its momentum.
THE RURAL LANDSCAPE

Definition

Why does the rural landscape live so pleasantly within the depths of our memory as a place of peace and tranquility? Is this a landscape of romantic time past or productive land to be used for agriculture? Is the rural landscape simply an undeveloped resource awaiting construction or a recreational retreat from crowded urban environments?

However diverse the meaning, the rural landscape is often characterized as "all that land out there at the edge of town"; space that has little effect on any of us. In fact it is a highly manipulated landscape that affects all of us. Shaped for human adaptation and survival, the rural landscape exhibits natural and human elements subject to ecological, economic and cultural forces. This relationship creates a pattern upon the landscape—a complex and changing pattern of agriculture, rural communities, industrial and residential development, wildlife habitat, soil, water, and plant life.

The precise bounds of the rural landscape are elusive. J.B. Jackson (1977) puts the beginning of the countryside at the edge of town "beyond the last street light and where the familiar asphalt ends." John Fraser Hart (1975) distinguishes rural from non-rural landscapes, both within the countryside. He suggests that rural landscapes are primarily related to agriculture, while recreation, mining, and forestry are non-rural activities that may be located in the countryside. Healy and Short (1981) describe a continuum of development: central cities, suburbs, urban fringe, exurbs, countryside, and wilderness. Supporting commentary on the American Society of Landscape Architects Policy on the Rural Landscape (1985) contains this definition: "...the diverse portion of the earth's surface not covered by oceans or seas, not densely populated or covered by built structures, nor set aside for preservation in a natural state."

The tension between urban and rural land uses, between settlement and ecological systems, is apparent in all these descriptions. This document focuses on landscapes where this tension is clearly visible: the urban fringe, exurbs, and countryside. It is primarily concerned with land uses that Hart classified as rural, or related to agriculture. Certainly recreation, forestry, and mining are integral to rural landscapes; however, they have been more frequently discussed as concerns of our profession.

The ASLA Policy on the Rural Landscape provides a basis for cohesive professional action and challenges us to act on our own, and within the politics of local land use planning. Reflecting the rural landscape as a vital productive and qualitative resource, the American Society of Landscape Architects Policy on the Rural Landscape states:

"The American Society of Landscape Architects recognizes rural landscape as a complex of ecological, economic and cultural qualities on which human and other life forms are dependent. The Society considers the continued loss and misuse of the Rural Landscape unwise and threatening to present and future generations."

"The Society is committed to the advancement of the public's awareness, understanding and appreciation of the rural landscape as a limited resource which is vital to the health, safety and welfare of the earth's lifeforms."

"The Society affirms its belief that the essential qualities of rural landscape can be conserved, while accommodating human needs, through sensitive integration of human land uses with natural systems."

"The Society encourages the application of sound principles and practices of wise land use planning, design and management to ensure conservation of the rural landscape for the benefit of future generations."
Change

America’s countryside is an array of colors and forms, a rich diversity of open space and managed cropland, clustered ranch or farmstead structures and small communities in harmony with each other and the landscape. These images that leap to mind when we think about our rural environment, but this identity is changing rapidly as we manipulate the countryside. Patterns of rural land ownership are changing; historic structures are threatened by development, neglect and decay; traditional farming practices are being replaced; urbanization is consuming productive farmland and open space; the current farm financial crisis threatens a rural lifestyle; while large corporations and others continue to acquire lasting and sometimes detrimental control over rural resources (Sweeney and Diggs, 1986).

Change in the rural landscape may be quiet yet dramatic. A drive in the countryside may reveal new homes that were not there six months before. Cows pasturing last year may be gone without apparent reason from this year’s scene. Bulldozers and pan scrapers may be preparing last year’s soybean field for a new industrial facility. Consolidated farm holdings may eliminate sound conservation practices and hedgerows, while new farm structures appear out of scale. Seemingly imperceptible changes are equally important. Topsoil on rich productive land may be two inches shallower this year while the downstream flood elevation has grown higher. Wells may have become polluted. Change is a continuing theme in the rural landscape, in both land use and land management practices.

Land Use Change

The National Agricultural Lands Study (1980) alerted Americans to the imminent danger of converting highly productive agricultural land to other uses. Each year 675,000 acres of American cropland are converted to urban and other non-agricultural uses (USDA, 1986). Whether that quantity (one-fifth of one percent of estimated total American cropland) poses a threat to the future adequacy of farmland acreage is the subject of broad debate. However, rural non-farm population growth together with the near-metropolitan location of productive farmland suggest that the where and how of development is extremely important to maintaining the productivity and attractiveness of the rural landscape.

Rural non-farm population in the United States grew from an estimated 6,921,000 in 1900 to 42,543,000 in 1980—an increase of 513%, greater than the 453% population increase experienced in urban areas within the same period. Currently, nine out of ten residents of unincorporated areas are non-farm residents. Only one out of ten is a farmer—less than 3% of the total American population. Census data suggests that much of the recent rural population growth occurs within commuting distance of urban areas (Hart, 1984). At the same time, the American Farmland Trust reports that 58% of the counties which account for the highest dollar value farm production are inside of or next to metropolitan areas (American Farmland Trust, 1986).

The repercussions of land use changes in the rural landscape are many and interactive. For example, residential development takes farmland out of production. Urban-oriented residents may have a pastoral ideal of the rural landscape, and not be prepared to cope with the reality of unpaved roads, farm odors, chemicals, or machinery operation from early in the morning until late at night. Farmers may become isolated from their supplies, markets, and neighbors. The social and economic fabric of the community is changed.
Land Management Change

Many people can understand the implications of replacing agricultural uses with subdivisions or shopping centers. Changes in land management, however, are more subtle. It may be only the agricultural economist watching census figures, or the alert air traveler, who notice the cultivation of grasslands or the irrigation of drylands. Even these observers may not fully appreciate the ecological implications of farmers' adoption of a new crop rotation; or new land patterns necessitated by large scale farm equipment; or changes in land ownership away from the owner-operated farm. At first glance these changes may seem to be only agricultural matters not affecting other uses of the landscape. In fact, they may profoundly change ecology and landscape quality even within nearby urban or wildlife areas.

The effect of agricultural land management practices on the hydrologic system, for example, is a matter of serious concern. Cultivation of erosive lands can increase sediment in adjacent streams, with detrimental impacts on wildlife habitat, recreation, and water quality. Agricultural chemicals may also move through the hydrological system with similar damaging or even life threatening effects.

Global Change

We may assume that the rural landscape will provide clean air and water, habitat, and open space forever. However, Lester R. Brown of the Worldwatch Institute cautions that we have begun to consume the productive base of global biological systems (Brown, 1985). He compares the degradation of soil, water, grassland, forest, and fishery resources with using the principal in a bank account. Production of food and fuel should use only the interest from the account, or eventually there will be nothing to draw upon.

On a global scale, the rural landscape is the scene of resource and population pressures far more extreme than American examples suggest. The World Bank estimates that somewhere between 500 million to a billion people are malnourished in the developing countries of the world. Rapid population growth puts extreme stress on rural resource systems. Soil erosion, forest destruction, water pollution, and increased concentrations of carbon dioxide in the atmosphere can be traced to the simple need to feed and shelter the world's people.

The degree to which the rural landscape provides food, clean air and water, and maintains itself as habitat, are not only political and technical issues but design and land planning issues as well. As we view the rural landscape globally, we see enormous environmental challenges and, at the same time, important examples of holistic planning and long-term stewardship. As landscape architects, we have the opportunity to look beyond our borders to learn about and participate in addressing fundamental issues of human well-being.


Legislation & Policy

Frequently, public law and policy provide opportunities for professional involvement in the rural landscape. Understanding what opportunities exist is important to the professional who wants to contribute. For example, provisions within the 1985 Farm Bill (Food Security Act, P.L. 99-198) are predicted to do more to change soil and water conservation in the United States than any legislation since the 1930s. For the first time, all Federal farm programs will focus directly on conservation goals (USDA, 1986). Three major conservation provisions within the Conservation Title (Title XII)—Conservation Reserve, Highly Erodible Land Conservation which includes Sodbuster and Conservation Compliance, and Wetland Conservation (Swampbuster)—are expected to reduce soil erosion and improve environmental quality.

By March, 1987, nearly 20 million acres of farm land had been signed up for the Conservation Reserve (USDA), a federal program that encourages farmers to stop growing crops on highly erodible cropland and plant it to grass or trees through 10-year contracts with the U.S. Department of Agriculture. USDA expects 40- to 45-million acres will be entered into the reserve by 1990. Equally significant are the Swampbuster, which denies eligibility for certain USDA farm programs to farmers who convert wetlands to cropland; the Sodbuster, which requires conservation systems to continue eligibility of farmers who break out highly erodible fields in order to plant crops; and Conservation Compliance, which requires farmers who continue farming highly erodible cropland to have conservation systems in order to continue their eligibility for certain USDA farm program benefits.

Farm Bill provisions emphasize proper use of the land and will significantly increase the demand for conservation plans and technical assistance. Provisions within the Credit Title (Title XIII) allow conservation easements, which can have a positive and long-lasting effect upon landscape quality. The conservation easement is an increasingly popular land conservation technique. Instead of deeds by fee simple title, a land owner conveys to a public or private conservation organization or agency individual rights for changing the natural, scenic, or historic value of his or her land.

While federal and state actions provide incentives and guidelines, key decisions on rural land use continue to be made by local governments. Forty-eight states and local governments have now adopted some form of farmland protection program. Local governments have used a wide range of traditional (zoning) and experimental (transfer of development rights) techniques to protect farmland and rural landscapes. Land trusts have provided a unique and flexible vehicle for protecting land that falls outside the effective government umbrella (Montana Land Reliance and Land Trust Exchange, 1982). Coughlin and Keene (1980) and Steiner and Therlacker (1984) provide comprehensive and readable overviews of farmland protection techniques.

Opportunities for professional involvement evolve as private development responds to public policy. A prime-farmland conservation policy, for example, may lead to a development pattern that respects both agriculture and the need for affordable housing.
Professional Involvement

Interdisciplinary Approach

The countryside supports many biological, physical, and cultural systems. Agriculture is a production system, but it is also part of an ecological system and a way of life. The traditions of landscape architecture support an interdisciplinary approach to the rural landscape. Landscape ecology provides a theoretical framework and information source for this approach. Forman and Godron (1986), describe landscape ecology as an inclusive discipline that joins scientists and designers, and they illustrate its implications for the rural landscape.

Sustainable agriculture and biotechnology apply holistic approaches at a site scale. Sustainable agriculture supports diversity in farm enterprises, as well as ecologically and economically self-reliant farm systems, and tends to reduce production costs while raising the quality of products. Biotechnology covers a variety of concepts and activities. Soil bioengineering, for example, is a land stabilization approach that uses live vegetative cuttings independently or in combination with engineering structures for slope stabilization and erosion control (Gray and Leiser, 1982).

The soil scientist, agricultural economist, agronomist, ecologist, agricultural engineer, social scientist, biologist, forester, landscape architect and others can work together to influence change in the rural landscape. Within such an interdisciplinary setting, landscape architects can provide a people-oriented, problem-solving viewpoint that bridges the gap between other disciplines to focus on quality-of-life factors.

Networks

Many disciplines, private organizations and government agencies currently respond to rural landscape needs. This broad spectrum of involvement provides an existing network for collaboration. Among design and planning colleagues, the American Planning Association has an active Small Town and Rural Planning Division. The American Society of Agricultural Engineers, an organization which has significantly shaped the rural landscape, has established a national committee on rural landscape design. The Alliance for Historic Landscape Preservation was one of the first attempts at professional collaboration. Notable among private organizations concerned about the rural landscape are the Nature Conservancy, Soil Conservation Society of America, American Land Resource Association, National Association of Townships and Towns, National Association of Conservation Districts, American Forestry Association and National Wildlife Federation.

Private land trusts have been particularly effective in protecting rural land values. The Trust For Public Land is a national center for assisting land trusts to undertake rural landscape protection transactions. The Land Trust Exchange is a key umbrella organization and information source for the hundreds of land trusts throughout the country.

The National Trust for Historic Preservation continues to address architectural and landscape elements in the rural landscape. The American Farmland Trust has been particularly active in gathering and presenting information on the state of the rural landscape and in causing legislative response to rural landscape issues. In addition, it has intervened to protect farmland sites across the country.

Many federal, state and local governmental agencies provide information and technical assistance in the rural landscape. A listing of some federal agencies and private organizations involved in the rural landscape is contained in the Appendix under Organizations and Agencies.

LAND TRUSTS

Land Trust Exchange
Elizabeth Watson

Elizabeth Watson—Washington, D.C., representative of the Land Trust Exchange—says that the work of land trusts is a happy marriage of private action and public incentives. The Land Trust Exchange was formed in 1981 as the "national communication network for local and regional private land conservation groups." It holds no land itself, but provides information and assistance to conservation organizations throughout the United States.

Watson reports that there are more than 500 land trusts in the United States. Most are small, local, volunteer organizations, although some operate regionally with a paid staff, and a few, such as the Nature Conservancy, American Farmland Trust, and Trust for Public Land, are national. Collectively they have protected more than 1.7 million acres of land in the United States. Ideally a trust maintains a revolving fund for quickly buying land that is in danger of being converted to an inappropriate use. Often, that land is later resold with a restrictive covenant protecting the land for its appropriate use. Land trusts can also protect land without outright purchase through management agreements or conservation easements, in which property owners voluntarily agree to protect the land.

Watson sees local land use regulation as the area where landscape architects have the greatest opportunity to affect land trust actions. Landscape architects involved in environmental assessment or comprehensive planning can help to establish the legal basis for identifying lands that are most in need of protection by trusts or other means.

Determining scenic resources is one type of environmental assessment for which trusts rely on landscape architects. Under the Tax Treatment Extension Act of 1980, the law that governs charitable contributions of conservation easements, easements must meet one of several conservation purposes. One of these is "the scenic enjoyment of the public." IRS regulations for this tax law list eight factors to be considered, including "degree of conservation and variety provided by the visual scene," "harmonious shapes and textures," and "consistency of the proposed scenic view with a methodical state scenic indentification program." or "with a region of local landscape inventory made pursuant to a sufficiently rigorous review process." Landscape architects, says Watson, can provide significant help in defining the visual quality of a potential easement donation. She also feels that the leadership of landscape architecture is needed to promote more state, regional, and local landscape inventories.

Another role for landscape architects is designing plans for lands acquired by trusts. Trusts may buy lands that support some development and work with landscape architects to create a plan that protects sensitive resources. This technique is called limited or partial development. A real-estate developer is generally brought in to carry out the plan.

Watson says that communities everywhere want more open space protected, while government officials and private citizens alike see how nonprofit entities can help them achieve their land conservation goals. She thinks that landscape architects should be aware of the potential of land trusts to affect the rural landscape, and should take every opportunity to collaborate with these groups.
Old Ideas, New Challenges

In recent decades, landscape architects working in the rural landscape have had to be advocates, innovators, and entrepreneurs. Planning and design colleagues, private organizations, and government agencies do not typically think of landscape architecture first when rural issues are at stake. This is a loss of a historic mission and a real market.

The earliest landscape architects in the United States were deeply committed to the rural landscape as a resource and design entity. Andrew Jackson Downing, the profession's 19th century forefather, helped guide a public desire for utility and beauty in the rural landscape. Through his writings, Downing offered utopian techniques of landscape gardening and architecture and addressed issues of beauty and taste. William Saunders was one of the first employees of the United States Department of Agriculture and one of the founders of the American Society of Landscape Architects. These early practitioners can be recognized now for their foresight and vision.

Although a rural perspective has not characterized landscape architectural practice in the last several decades a pervasive interest has remained. Rural involvement has continued since those early days and now appears to be burgeoning. The 1982 Council of Educators in Landscape Architecture (CELA) conference on the Rural Landscape in Blacksburg, Virginia, evoked an enthusiastic response, with more papers submitted than at any previous conference. Landscape Architecture made agriculture the theme of its January, 1983, issue (83:1) and continues to report on landscape architecture in the rural landscape. Perhaps the most significant sign of landscape architecture's rediscovery of the rural landscape was the American Society of Landscape Architects' adoption of a policy on the Rural Landscape in 1985. Quoted on page 3, the policy clearly describes our professional commitment to the ecological integrity—as well as the visual delight—of the rural landscape.

In 1981 Grady Clay asked, "Can landscape architects share in the design of farms, homesteads and other agricultural enterprises?" Landscape architects have done this and more. We have become involved with the restoration of country farms and farmhouses, preparation of agricultural site management guidelines, pasture systems, cropping alternatives, sediment and erosion reduction, and woodland management. On a broader scale, landscape architects have been addressing the critical issues of protecting agricultural land and rural community heritage, making new living places in attractive rural environments, and maintaining and creating the rural landscape as habitat and home. We have joined other disciplines to return the rural landscape to a more comprehensive set of conservation goals. This work is of fundamental importance in protecting both the quality and quantity of the rural landscape. This document is a call to continue our concern for and professional responsibility to the rural landscape—that "place beyond the last street light and where the familiar asphalt ends."

"The historical relationship between agricultural education and landscape architecture is often overlooked. Agricultural education in the United States is intimately tied to the university land-grant system. Landscape architecture has played a role in this system since its inception." (F. Steiner, K. Brooks)

"Conservation systems are installed, for the most part, in the rural landscape. The future of conservation systems and the future of landscape architecture in helping to shape such systems are closely related. Landscape quality is an essential feature of conservation practice standards contained in SCS's National Handbook of Conservation Practices. It is impossible for me to conceive of a competently designed conservation system that does not adequately address quality in the rural landscape. In judging the acceptability of resource management systems, and ultimately conservation systems, the adequacy of landscape architecture considerations is also considered as an intrinsic part." (L. Herndon)

"The conflicting pressures of the preservation and development of our rural landscape require that the next generation of our rural population be technically and politically skilled to deal with the difficult decisions that lie ahead. Landscape architects, with their interdisciplinary background and integrative tools, must take a leadership role in educating our citizenry—helping them to become environmental activists in the determination of their community's future. At the same time, landscape architects must determine their own individual philosophies and translate that into political action and professional direction." (D. Raphael)

"In our urban and near urban environments, such as the Boston metropolitan area, we see much of the focus in the rural landscape as one of interpretation, preservation and generally educating the urban citizen about the rural contributions." (V. Walker)
THE RURAL LANDSCAPE AT A BROAD SCALE

Scale & Location

Viewed from the air, patterns of water, vegetation, landform, and structures stand out boldly on the rural landscape. At this scale the effects of climate and variation in soil and topography are readily apparent. Cities and towns dot the landscape, but do not dominate it. Roads and land use parcels extend the visible evidence of human hands, but their geometry flows across a varied plane too vast and complex to be manmade.

Looking at the broad scale allows us to compare regional characteristics of places and emphasizes how elements combine to uniquely define each area. Location—spatial variation—has emerged as a key factor in addressing both farmland conversion and resource conservation. Some places are more suitable for development than others. Some places are more vulnerable to erosion than others.

Identifying suitable locations for human activities—including farming and development—has been a key issue for landscape architects who have been developing or testing systems for viewing and evaluating the rural landscape in new ways. They tend to see their own work as establishing starting points for pursuing a vast body of work. They have analyzed data describing large land areas and also revealed a holistic concept of landscape and its value.

Their work has grown from the traditions of the profession. It also has expanded the profession—bringing new techniques, tools, interdisciplinary relationships, and new (or rediscovered) clients. It has required not only mapping characteristics that make land ecologically and culturally suitable for a given use, but more importantly, interpreting the combined qualitative effect of those characteristics.

An ecological perspective was fundamental when Frederick Steiner, Washington State University, assisted Whitman County, Washington, in implementing its comprehensive plan. The ultimate solution balanced agricultural land protection with rural housing development. With the Whitman County Regional Council, Steiner identified land suitable for rural housing and refined the criteria for commercial and industrial use in a developmental test of the Soil Conservation Service (SCS) Land Evaluation and Site Assessment (LESA) procedure.

DEVELOPMENT OF THE AGRICULTURAL LAND EVALUATION AND SITE ASSESSMENT SYSTEM

Whitman County, Washington
Frederick Steiner

Frederick Steiner, Washington State University, worked with other faculty in landscape architecture, regional planning, agricultural economics, and staff of the Whitman County Regional Planning Council, to participate with the USDA Soil Conservation Service in developing a new system for rural land evaluation. One application of LESA, the land evaluation and site assessment procedure, is to evaluate land that is being considered for conversion from farmland to other uses. In developing the Land Evaluation & Site Assessment (LESA) procedure, the SCS tested LESA in 12 counties nationwide. One of the pilot projects was Whitman County, Washington, where the county comprehensive plan and zoning ordinance are strongly committed to protecting agriculture.

There was some concern in the early 1980s about the comprehensive plan's provisions for light industrial and heavy commercial land use. This concern coincided with the development of the LESA pilot study, and thus, there was an opportunity to use LESA. The original planning guidelines restricted light industrial and heavy commercial uses to areas of thin soils, near floodplains, in the urban periphery, and in the same vicinity as other non-agricultural uses. All these guidelines were designed to help protect farmland. There was, however, concern from county officials that the first two of these criteria—thin soils and floodplain—were inappropriate. As a result, the LESA system was explored as a means to evaluate light industrial and heavy commercial uses while maintaining the county goal to protect agriculture. The planning guidelines were amended to better regulate light industrial and heavy commercial uses in a way consistent with the county's goal. The LESA system has since been used by planners to provide alternative locations for industry and commerce.

Steiner believes that the LESA system provides many opportunities for landscape architects because it combines two historical fields: land evaluation and site assessment. He also feels that landscape architects can lead the way in developing land evaluation and site assessment methods for recreation, housing, and forestry.
Evaluating overall patterns of scenic quality was the focus of a study for the County Land Trust of Whatcom County, Washington, by Sally Schauman, University of Washington and Carolyn Adams, Soil Conservation Service. Building on their work, Chris Carlson and Steve Durrant, sponsored by the National Endowment for the Arts and The Trust for Public Land, collaborated with Schauman and Adams to focus on site scale visual quality, primarily on dairy farms. In combination, the work of Schauman, Adams, Carlson and Durrant recognizes a descending scale of visual characteristics, from the overall appearance of the countryside to the site plan and building forms of a farm.

**Interdisciplinary Work**

Frequently, landscape architects working at the broad scale have collaborated with people working in other disciplines. This approach can bring information and an outlook that begins to match the complexity of broad scale landscape issues.

In his study of landscape preservation in the Sautee and Nacoochee Valleys of northeast Georgia, for example, Allen Stovall, prime consultant to the Sautee-Nacoochee Community Association, began the project with a series of three workshops in which community residents defined values and goals. Stovall collaborated with ecologists, archaeologists, architects, historians, and attorneys from the beginning of the study, including their participation in the workshops.

**THE SAUTEET AND NACOOCHEE VALLEYS—A PRESERVATION STUDY**

White County, Georgia

Allen Stovall

This 1981-1982 study resulted in a comprehensive program of procedures for the preservation, conservation and interpretation of a 10-square mile rural valley area nested in the mountains of Georgia. The project was initiated by the Sautee-Nacoochee Community Association, which secured a federal study matching grant with consultants in ecology, archaeology, architectural preservation, and local history, as well as legal counsel. The State Historic Preservation Office was closely involved as well.

The study was guided by the community's wish "to keep the valley area as it is—to preserve these qualities that give the valleys their special character and image as place". The community realized that the area was significant for archaeological, historical, architectural and scenic resources, and that the area's natural systems also should be protected.

Importantly, local people recognized that changes underway in the region created an urgent need for planning. Where and how change should occur was of primary importance. It was critical to identify and protect areas and features where changes should not occur.

The early role of community involvement was basic to Stovall's approach. During the first six weeks, three consultant-led workshops were held, which allowed local people to voice their concerns, to explore how much regulatory control would be accepted, and finally, to formalize goals and objectives.

The study included a comprehensive documentation of cultural and natural features. Map overlay patterns of these features, when ranked, established zones of use compatibility and preservation priority. Plan implementation incorporated laws and statutes at the federal and state levels, proposed county-wide regulations, and volunteer actions by the community association and individual landowners.

Since the study's completion, residents have actively protected the local landscape. Nacoochee Valley was added to the National Register at the start of the study, the Sautee Valley was added after federal approval at the time of this report. Two historic structures have been renovated and owners of one, now a country inn, received an award from the Georgia Trust for Historic Preservation in 1985. With few exceptions, developers have respected the integrity of the valley preservaton plan. The county has now established a planning commission, as the study recommended.

Stovall concludes that "while preservation efforts are seldom easy, they may become even more difficult in rural areas, where the resource itself becomes an attraction to outside interests." The Sautee and Nacoochee Valley Study directly addresses that problem.
Richard Westmacott collaborated with agricultural economist Tom Worthington to investigate changes in the agricultural landscape of England and Wales. The team paired objective measures—actual change in landcover, agricultural practices, and wildlife habitat—with reports from farmers. The design of this project around human perceptions and land management changes was supported by the two disciplines that composed the study team.

In 1972 Westmacott and Worthington surveyed the same areas, again in the interest of landscape management techniques. They found that while the rate of removal of many of the features of the traditional mixed farm landscape had slowed, the trend continued. The Ministry of Agriculture has now begun to identify sensitive agricultural landscapes where farmers would be compensated for modifying farming practices in the interest of landscape conservation.

As a result of these two studies "demodernization farms", designed to show farmers landscape management techniques that are ecologically and aesthetically sensitive, were set up around the country.

Richard Westmacott, Tom Worthington

LANDSCAPE ANALYSIS OF THE GUATEMALA HIGHLANDS
Guatemala
Paul Anderson

Paul Anderson worked with 30 Iowa State University faculty and graduate students to conduct an Integrated Area Development Study of the Guatemalan highlands, which had been devastated by an earthquake in 1976. The rural service infrastructure was destroyed resulting in critically low food production and nutrition levels. The study area included 60,000 square kilometers (23,166 square miles). The mountainous landscape made travel difficult and farming nearly impossible. Most people relied on subsistence agriculture. The area included the highest proportion of indigenous peoples in the country and also had the poorest two-thirds of the municipalities in the country, the lowest literacy levels, and lowest incomes.

The Guatemala government and the U.S. Agency for International Development (AID) funded the study, whose purpose was to develop an integrated data base and geographic information system (GIS) for regional planning. Data bases included land use, natural resources, infrastructure and service patterns, local participation, and demographic information.

In the natural resource component of the project, landuse potential was the principal application of landscape analysis. In other parts of the project, landscape analysis was used to describe location, type, and quantity of study area characteristics.

The Iowa State University team identified data needs, evaluated data sources, installed and tested GIS software, trained users of the GIS, and prepared and documented for the system. As a result, the Government of Guatemala is better equipped to develop plans and policies for guiding investment in rural development.

Anderson reports that knowledge of land use planning and natural resource management is essential to projects of this sort. Computer literacy and data processing experience is also essential. He points out that successful projects must take into account differences in government, culture, and landscape, as well as issues of technology transfer and appropriate technology. Cultural perceptions of the landscape may differ considerably. Anderson says that in rural Guatemala, for example, people do not consider steep slopes (25-40%) to be major limitations, although there were stories of farmers falling to their death from cornfields.
Policy and the Public

Concern for broad-scale landscape patterns rarely occurs outside a public policy framework. Frequently, policy has opened the door for landscape architects’ work in the rural landscape. Anderson’s work in Guatemala was sponsored by the United States Agency for International Development (AID). Stein was testing the LESA system, a product of federal agricultural policy. Westmancott and Worthington worked as consultants to the Countryside Commission of England and Wales. Schauman, Adams, Carlson and Durrant evaluated scenic quality in response to needs expressed by a local land trust.

In a project sponsored by the National Park Service, Robert Melnick of the University of Oregon developed procedures for identifying, evaluating, and managing historic rural landscape districts consistent with the National Register process for evaluating historic places. His goal was to provide a means of clarifying the historic value of cultural rural landscapes, places that “seem so natural that they often go unrecognized, misunderstood, unprotected, and mismanaged.” The procedures Melnick recommends were carefully developed to dovetail with existing National Park Service procedures as well as requirements of the National Register of Historic Places nomination forms.

Robert Melnick

Robert Melnick of the University of Oregon has developed a manual for the park manager to identify, evaluate, register and manage significant rural landscapes in the National Park System that are designated “rural historic districts.” Supported by the National Park Service, Cultural Landscape addresses itself to the selection of landscapes within many units of the National Park System that have special cultural values. They are identified as “rural historic districts” to reflect their rural nature and to connect the manual with the National Register process for evaluating historic places. Melnick defines a historic rural landscape district as “a geographically definable area, possessing a significant concentration, linkage, or continuity of landscape components which are united by human use and past events or aesthetically by plan or physical development.” He stresses that the district is more than just a set of landscape components. The district is defined also by the particular way in which the components are combined to form the distinct rural landscape which we see and experience. He describes a method for evaluating a rural historic district’s significance and integrity and clarifies the ways in which rural landscapes are distinct from more traditionally acknowledged historic places. He notes that a district’s significance may be based on an association with a historical movement rather than an historically significant individual, and that districts rarely present the work of a master or possess high artistic values. He adds that integrity, the degree to which the district retains its essential character from an historic period, should be determined by analyzing the relationship of all the landscape components rather than only by measuring individual historic structures and sites in the district.

In conclusion, he describes methods to manage rural historic districts to maintain their essential historic character rather than to strictly preserve or recreate their history. Options include an excellent summary of greening, easements and zoning.

Typically, policy and legal mechanisms are necessary to influence landscape change at the broad scale. Allen Stovall’s study of the Sautee and Nacoochee Valleys outlined implementation strategies that include a range of federal and state laws and statutes. It also proposed county regulations, including the establishment of a planning commission. Finally, it stressed the key role of individual stewardship. With these mechanisms, the community has helped to see that a 115 K.V. electric transmission line, proposed in 1985, will be located outside areas of preservation priority within the valleys.

Beyond knowing law and policy, understanding public perceptions of landscape issues is fundamental to making credible design and planning recommendations at the broad scale. At that scale, where property lines are only one aspect of a complex landscape pattern, the aphorisms of the environmental age are quickly recalled. Everything is connected to everything else. That the landscape should be managed for the public good becomes a convincing argument, but defining that public good and involving the public in recognizing that good can be elusive tasks.
Following a regionwide ecological analysis, Frederick Steiner’s study of soil and water conservation in the Palouse region of Washington and Idaho involved the public by a survey of local farmers’ perceptions and attitudes. Students and faculty in landscape architecture and regional planning at Washington State University took a people-oriented approach as their work progressed from analysis to design solution. Ultimately, the team participated in developing a multi-use greenway, which addressed soil and water conservation as well as recreation within the Palouse Basin.

Located land uses within the larger landscape pattern, collaborating with people from other disciplines, and working within a framework of public perception and policy characterize landscape architecture at the broad scale. No study of regional ecological or land use systems can ignore the rural landscape, whether it is called “agricultural protection zone” or “urban fringe.” The rural landscape moves us away from our town to see its context, and, some would say, its foundation. The work described here sketches a role for landscape architecture in managing that foundation.

CONSERVATION PLANNING IN THE PALOUSE REGION

Eastern Washington and Northern Idaho

Frederick Steiner

Frederick Steiner reports that landscape architecture and regional planning faculty and students from Washington State University are involved in several related efforts to promote better conservation planning in the Palouse region of eastern Washington and northern Idaho. This is one of the most agriculturally productive and beautiful landscapes in America and also one of the most erosive. According to the SCS, all of the original topsoil has been lost from 10 percent of the cropland in the Palouse River basin and one-fourth to three-fourths has been lost from another 60 percent. In addition to loss of soil, the erosion causes siltation and water pollution. Suspended sediment in the Palouse River is carried into the Snake and Columbia Rivers, where it fills reservoirs of hydroelectric plants, destroys fish habitats, ruins recreation areas, and pollutes other water. The U.S. Army Corp of Engineers wants to spend more than $2 million per year just to dredge the sediment from a relatively small segment of the Snake River.

FEARRINGTON FARM

Chatham County, North Carolina

Sears Design Group

Twelve years ago, a partnership of landscape architects and surveyors including Dan Sears obtained the option to purchase the historic Fearrington Farm near Chapel Hill, North Carolina. With both conservation and development in mind, the partnership prepared a master plan using the unproductive portion of the farm for a residential community and retaining the farmland for production. The farmstead and many old barns and outbuildings—local landmarks—were incorporated into the plan. After county approvals were obtained, a developer was sought to implement the plan. R. B. Fitch of Chapel Hill accepted the challenge and purchased the land along with the master plan and is now developing the project.

Fearrington consists of 650 acres developed as a planned unit development with more than 1500 dwelling clusters on 430 acres, and 220 acres for what is now an example of the former “country farm,” the rural landscape of yesterday. The conflict of high tech/clean industry and the agri-business community is as complex and sometimes as emotional a conflict as the issues raised by urbanization of the rural South. Issues of both revised land use and economic base changes influence Fearrington. The project takes a stand that is firm in philosophy but malleable in form and in land use policy conserve and maintain the farmland and let the village grow around it.
1981. Prime agricultural land is also valuable for its ease of development. Undirected development patterns break up and isolate farm parcels, rendering them difficult to farm. As the cost of shipping agricultural products increases, the real value of productive land near burgeoning towns and cities should not be underestimated.

As America's population spreads into the countryside, landscape architects can assume a leadership role in guiding development into land-conserving patterns. The planned unit development concept, which clusters development in order to retain farmland and provide efficient delivery of public services, has been successful in both protecting farmland and producing affordable building sites. These developments may become a community of people dedicated to the landscape that attracted them or a rural office park that includes productive farmland as borrowed scenery tended and maintained by a successful farmer. While an integrated mix of higher density land uses can be a tool to conserve farmland, the challenge is to gain approval of these developments from rural governing bodies. Landscape architect Dan Sears suggests..."if we can fight for and achieve approval for land plans that employ high urban densities and couple this with the conservation of our farmlands, then we will be doing something—then we will be stewards." According to Sears, a clear philosophy of development and conservation with a defined set of goals is necessary to gain government approvals and guide the community over time. A holistic approach to rural development and conservation encourages innovative development features such as narrower curbside roads, community-based sewer treatment systems, wetlands and woodland. Farming activity may continue within these communities under the original farmer's control or through a variety of other methods. Agri-communities challenge landscape architects to innovate and are an effective technique to influence the conservation of farmland, critical ecosystems, wetlands and woodland. Farming activity may continue within these communities under the original farmer’s control or through a variety of other methods. Productive farmland may be leased to a nearby farmer or in some cases sold or donated to a land trust organization. Instead of being irreversibly taken out of production, the land becomes an integral part of the community’s agricultu-
Agricultural Development

Understanding the relationships between human activities and ecological, economic, and cultural forces is essential to planning and design within the rural landscape. Knowledge of these relationships can be gained from local farmers who have adapted their operation to natural systems.

Assisting local farmers with conservation planning is a major activity of the USDA Soil Conservation Service (SCS). SCS uses comprehensive technical information, standards and specifications in these assistance activities. A series of recently-initiated technical guidelines will deal with landscape design as it applies to windbreaks, ponds, wildlife habitat, mined land reclamation, animal waste management, farmed land planning and design. Intended for local SCS conservation personnel to apply when preparing farm conservation plans, these guidelines encourage increased function, efficiency, and cost effectiveness. SCS employs an interdisciplinary team of specialists who influence change in the rural landscape. The agency offers information and assistance through Soil and Water Conservation District offices located in over 3000 counties throughout the country.

The idea of sustainable agriculture near metropolitan areas is growing in importance as productive farmland disappears. Alternatives to traditional corn, soybeans and tobacco are reviving farm economies and fostering rural community benefits. Cantaloupe, cauliflower, cabbage, broccoli, sweet corn, bell and straw peppers are diversifying the rural landscape. Extension programs state land grant universities and local lenders, including the Federal Land Bank, are encouraging farmers to diversify to boost their local agricultural economy.

Healthy Development

Potential conflicts between farm operations and expectations of non-farm residents must be considered in rural community development planning. Incompatible elements should be carefully isolated from one another. The noise, dust and odor inherent to agriculture may surprise new urban residents. Farmers may suffer vandalism, increased traffic, or uninvited woodland cutting and hunting.

At least 16 states now have right-to-farm laws, which assume a farmer’s prior right of farming and that farming must be accepted as part of the rural experience (National Agricultural Lands Study, 1981). Right-to-farm laws prohibit local governments from enacting laws that unreasonably restrict or regulate farming practice and limit farmers’ liability for damages in nuisance lawsuits. At issue here is not whether the farmer or the rural community has control over the situation by prior use, but what methods are available to minimize conflicts.

Water conservation in arid landscapes is a growing rural community development issue. Thomas Stille and Associates have responded to high desert conditions of sparse rainfall, rapid urbanization, salt and sodic soils by developing a graywater irrigation system in the suburban fringes of Reno, Nevada. Xeriscape or xeric-type plants used with other techniques has reduced plant water requirements by 30-80%.

As rural population growth continues, the issues will not be whether or not to develop the rural landscape but how and where to develop it. It is time to foster a professional attitude that rural landscape has an identity and purpose. Our task is to understand existing land use patterns and create rural development that enhances soil, water, and cultural resources.

NORTH VALLEY SHOPPING CENTER
AND SIERRA PACIFIC POWER COMPANY
CORPORATE HEADQUARTERS
Reno, Nevada
Tom Stille and Associates

Stille Associates responded to high desert conditions of sparse rainfall, salt and sodic soils and rapid urbanization by developing a graywater irrigation system for the North Valley Shopping Center north of Reno, Nevada. Water conservation within the Great Basin of North America is a key issue as water becomes less available and more expensive, costing up to $30,000 per acre foot. Stille and Associates were contacted to collaborate on a graywater irrigation system and to develop conceptual plans for landscape planting and irrigation.

The local Washoe County Health Department officials took an intense interest in the potential health hazard of using graywater to irrigate a commercial shopping center. The graywater is collected in a chlorinated 4000 gallon tank, pumped through a 40 mesh "Y" strainer and sand filters, to a fertilizer-acid injector and out into main irrigation lines. The Health Department is assisting with water quality tests and calibrating chlorine residual. Various drip emitters have been installed for evaluation of the graywater application.

A management plan, suggesting detergents low in boron and sodium and outlining a course of action in case of poison or herbicide spills that could get into the system, was introduced to store managers.

In another water conservation project, Stille and Associates were retained by the Sierra Pacific Power Company to design a 1.25 acre water conservation demonstration garden at their new corporate headquarters. The Northern Nevada Native Plant Society, Washoe-Storey Conservation District and Soil Conservation Service endorsed the concept. Stille developed a comprehensive plant list based on ten plant groups in three water regimes. Great Basin Xeriscape was formed to ensure long term evaluation and continued community education.

By communicating practical information to local personnel, Technical Notes have extensive potential impact on detailed rural farm management applications.
Extension offices are located in every county in the United States and landscape architect specialists advise from many state universities.

In Halifax County, Virginia, an "agricultural diversification task force" was created in 1982 to find "alternative crops with good marketing potential that are popular with consumers and would allow transferring existing production technology". By understanding the local market and growing popular vegetable crops, the task force was able to reduce transportation costs and provide new life to local farms (American Land Forum, 1986).

Janna Coen has used the idea of sustainable agriculture to design a small farm in rural North Carolina. Respect for the influence of natural systems on production requires a clear understanding of agroecology. Reducing imported inputs into the system is accomplished by polycropping, biological pest control, providing habitat for birds and other pest eating wildlife, mulching, no-till farming, permaculture crops and plant stratification. Sustainable agricultural practices reduce production costs while yielding a product that can command premium prices for greater quality. This helps stimulate a sustainable agricultural community as well.

Booker T. Whatley of Montgomery, Alabama, has created a small farm plan which is independent of the farming methods, machines and crops found on larger farms. He says a small farm "has got to have high value crops and a year-round cash flow," from a variety of crops harvested throughout the year. Memberships are sold to city families, giving them access rights to pick their vegetables in his fields at 60% of the retail value. He tries to make subscribers feel as if it was their own farm by sending out a newsletter that reports on picking dates and other farming activities (Seeber, 1984).

CREEKSTONE FARM
Reepsville, North Carolina
Janna Coen

The Creekstone Farm has been designed and is being developed to demonstrate the profitability of sustainable agricultural practices. The major objective of this effort is to promote a farming system that is economically efficient and supportive of the traditional agricultural community.

Creekstone Farm is twenty-seven acres of land in the rural community of Reepsville, located in the western foothills of North Carolina. The landscape is composed of rolling farmland and forest, dotted with crossroad communities. Although located within fifty miles of Charlotte, North Carolina, the farm is very rural.

Sustainable agriculture is a micro-ecosystem using the diversity and complexity of nature as its model. Natural ecosystems demonstrate an impressive ability to maintain productivity, stability and a quick adaptiveness to natural disturbances. Farming decisions are made within an ecological framework. Food-producing crops are being introduced and work is underway to enhance the habitats of pest-eating wildlife. Agricultural practices such as heavy mulching, minimum tillage and multi-layers of permanent crops are being undertaken.

The techniques of landscape planning and design—extensive community and site analysis, goals and objectives formulation, plan and implementation—are applied to the farm to integrate farming activity and stewardship of human and natural systems.

In Reepsville, North Carolina, an agricultural diversification task force was created in 1982 to find alternative crops with good marketing potential. Sustainable agriculture has been used to design a small farm in rural North Carolina.

Maintaining Rural Character

The same forces that remove old barns, farmsteads, grain elevators, churches, fences, windbreaks, hedgerows, meadows and wildlife from the rural landscape provide the opportunity for restoration and adaptive use of historic farm structures, farmsteads and entire farms (Gibson, 1986). As farms grow larger and farm populations shrink, more and more farmsteads are abandoned. Changes in technology have caused many traditional farm buildings to deteriorate and eventually be removed. As development pressures mount, these rural land marks and lifestyles may disappear. Although all of these structures may not be saved, some can be put to new uses.

By developing alternative cropping systems or by modifying farm use, older farms and farmsteads can be adapted to a use that assures their economic survival. For example, an older dairy farm in North Carolina is now a horse riding park. Elsewhere farmers are raising catfish and selling their produce directly to local restaurants in nearby Charlotte metropolitan area. Some older historic farm buildings have been converted to restaurants, theaters and other new uses. Many older farms within urbanizing regions have become local landmarks. These landmarks help tell the story of how the farm has been used over time.

WHATLEY FARM
Montgomery, Alabama
Booker T. Whatley

Over the past 15 years, Booker T. Whatley has worked out a farm plan that grosses $3,000 or more per acre and produces income year-round. Whatley's model farm plan is like the one he set up at Tuskegee Institute in Alabama in 1974. In 1981 he retired from the institute's Horticulture Department, wanting to create an example that would show small farmers how to succeed. He blames decades of small farm failures on the premise "get big or get out". He says... a small farm has got to have high-value crops and a year-round cash flow.

Whatley selected the best producing fruits and vegetables to capitalize on the year-round productive capabilities of his local situation. Ten irrigated crop species are grown at different times throughout the year to provide steady income and do not compete for harvesting labor. Organic farming methods are employed both to assure quality and to reduce production costs.

Crops are marketed by a pick-your-own membership system. Members obtain picking rights and pay a reduced rate for their produce as the crops mature. Whatley says such a membership system "guarantees a local market". He suggests locating this kind of a farming system within 40 miles of a metropolitan area. Location is the most important criterion for success because the plan depends exclusively on its membership for harvesting and cash flow. His approach combines down-to-earth common sense and the best of modern technology. He estimates more than 600 small farmers have adopted his model plan. Subscriptions to his monthly Small Farm Technical Newsletter have increased from 500 in 1981 to more than 20,000 now. Whatley is often invited to speak before farming organizations.

A DIVERSIFIED PLAN FOR SMALL FARMS

Manny Rubio
When Joseph Volpe was commissioned to design Northwest Park for the Town of Windsor, Connecticut, he went beyond providing for the town’s recreational needs to develop an experience of encountering nature with an understanding of agricultural patterns and old farm structures and fields. The landscape design and management plan conserves and protects the original agricultural patterns of the site. Recreational activities are developed around the natural character of the historic farm. This character is a result of the historic action of agriculture upon the dynamic rural landscape.

The Macomber Farm and Humane Education Center in Framingham, Massachusetts, was developed by Victor Walker for the Massachusetts Society for the Prevention of Cruelty to Animals. This 42-acre farm park was designed to be developed into a working farm and education center that gives urban people an opportunity to experience agricultural livestock first-hand. Only 20 miles from downtown Boston, the site’s rural character was carefully preserved. Farm parks increase public awareness of farming methods and rural life. They demonstrate conservation principles while maintaining the long term productivity of the land.
Public Awareness & Education

Public awareness of the disruption and decline of the American farm and rural life has grown in recent years. Farmers who borrowed heavily against inflated land values of the 1970s may be faced with the reality of insurmountable debt in the 1980s. While landscape architects are not prepared to deal with the economics of agriculture, we should at least be aware of them as we foster greater public awareness about changing land use patterns and declining rural landscape quality.

Joan Nassauer’s Caring for the Countryside was published by the University of Minnesota Experiment Station to expand public awareness of rural landscape quality. The document concludes that both agriculture, as a function of the landscape, and composition of landscape views make the countryside beautiful. It suggests that increased understanding of the processes of agricultural production can enhance public appreciation for the beauty of the rural landscape. Both site-scale design and land planning can be a means of informing the public as well as protecting rural landscape processes.

A landscape architect-in-residence program sponsored by the Vermont public schools and the Vermont Council on the Arts has produced innovations in environmental education. David Raphael has conducted planning and design workshops for young people with educational goals of promoting the rural landscape and stimulating the development of responsible skills in resource stewardship.

Within a workshop setting, Raphael introduces the basic issues of planning a rural community. This equips students with tools for making decisions about natural resource management and meeting needs for housing and industry. Students are introduced to visual learning by placing landscape cut-outs on topographic maps—exercises that not only stimulate an awareness in rural conservation and development but also help young people realize they have an impact on the environment.

Understanding the rural landscape as an ecological system that includes natural and human-made systems is necessary to manage change. Managing change, or integrating development into the rural landscape, requires a careful examination of land use alternatives and consideration of conservation goals. Clear goals and defined objectives are needed to specify appropriate community development, farming and farm management alternatives within the rural landscape. Farm parks and other interpretations of farming and rural lifestyles further public awareness and sensitivity to our rural heritage.

CAREING FOR THE COUNTRYSIDE

University of Minnesota and Soil Conservation Service
Joan Nassauer

Produced by the University of Minnesota Agricultural Experiment Station in cooperation with USDA Soil Conservation Service, this publication is subtitled "A Guide to Seeing and Maintaining Rural Landscape Quality." It is written for lay people involved in land planning and for professional planning staff who are not landscape architects. It is intended to provide people to look for the visual quality of the rural landscape and to help them articulate in describing that quality.

Nassauer emphasizes that some rural landscapes may be beautiful for their productive agricultural character rather than for picturesque beauty. Each has a distinctive character. Drawing from traditional landscape architecture design principles, she gives three general guidelines for maintaining an attractive countryside:

1. Respect the particular characteristics of your locale.
2. Maintain the meaning of the countryside. Preserve a sense of openness, naturalness, productivity and orderliness.
3. Look at basic visual relationships among landscape elements.

ENVIROMENTAL DESIGN EDUCATION IN RURAL PUBLIC SCHOOLS

Vermont Council on the Arts
David Raphael

An experimental educational process is currently being developed by David Raphael in conjunction with the Vermont Council on the Arts and local public schools throughout the state. Raphael organized a series of planning and design workshops for young people. Educational goals focused on promoting awareness of the rural landscape and developing the integrative skills for being responsible citizens in the stewardship of our environment. Additionally, this work represents an interpretation of our values and policies as a society of professional landscape architects and a commitment to developing environmental awareness among young people.

Introductory sessions to Raphael’s workshops emphasize the connections among all living things. Participants also discuss the “art of seeing” and the continuum of change as a universal force we all experience. One way Raphael encourages young people to think about the rural environment and how its changing is to involve them in a hypothetical planning project, which introduces them to some of the basic issues of planning in a rural community and equips them with guidelines and tools for decision-making.

An introductory slide show presents examples of rural development and conservation. Students discuss concepts of natural resource management and its importance to the local community as well as the growing needs for housing and industry.

Another method used to teach young people about the natural environment is actual physical contact with the environment. The students designed and constructed a garden in a vacant lot over a two-month period. Another series of workshops focused on field exercises to acquaint young people with the undeveloped rural environs of the high school and involved them in planning an environmental education center. These opportunities have provided memorable adventures and new skills. Raphael says, "the conflicting pressures of the preservation and development of rural landscape require that the next generation of our rural population be technically and politically skilled to deal with the difficult decisions that lie ahead. Landscape architects, with their interdisciplinary background and integrative skills, must take a leadership role in educating our citizenry, helping them to become environmental activists in the determination of their community’s future.”
THE RURAL LANDSCAPE: LOOKING AHEAD

Increasing Roles

Undeniably, the rural landscape offers a multitude of opportunities for planning and design professionals. An array of situations evolve, from public awareness of rural landscape issues among an urban population, to the demand for rural residential development, to innovative approaches for agriculture, to protection of culturally significant landscapes or protection of ecological resources. In this country and around the globe, landscape architects' skill in integrating human activities into the environment can address these and other issues. Principles of landscape planning and design are as applicable to rural landscapes as they are to urban situations more familiar to contemporary designers. The basic goal of creating landscapes for sound ecological function and human delight remains the same.

"There is a long and valuable tradition in landscape architecture of involvement in the total rural small-city landscape . . . What seems to have happened is that a generation of environmental designers has allowed itself to be persuaded by the beautificationists and their ample financial resources that the task of preserving Marin County, California and Westchester County, New York is somehow worthier of its talents than is the preservation of Madison County, Arkansas or Cheyenne County, Nebraska." (J.B. Jackson)

"The role of landscape architects in rural lands during the next century can be nonexistent or extensive. Our roles will depend on the profession's desire to balance its preoccupation with urban environments and become equally concerned with the rural environment." (S. Schauman, C. Adams, C. Carlson, S. Durrant)

"Landscape architects can no longer afford to ignore urban-rural fringes or rural landscapes. It is our responsibility to consider all people, all land and all design issues. With population increases and urban spread into rural areas, the landscape architect can play a vital role in creating urban-rural land alliances instead of the present urban-rural conflicts. There will exist a real opportunity for landscape architects as policy makers and actual implementors of designs . . ." (J. Coen)

"For the past 80 years it appears that our profession of landscape architecture has largely ignored the rural landscape and the problems it has offered. In spite of the strong roots fostered by Waugh and others, we have let the opportunity to influence good design and quality of life factors slip through our hands. One must ask why this can be when our professional dogma required a sensitivity toward people and their relationship to the natural environment around them." (F. Steiner)
Continued Change

Global concern for the integrity of rural landscapes continues to increase. Commentary from many disciplines representing all levels of public, private, and academic practice covers the gamut of resource degradation and depletion, farmland and open space conversion, rapid, unplanned growth and the economic plight of farmers. A new order is said to be evolving in the rural landscape. Responding to politics, economics, climate and technology throughout the world, life in the rural American landscape is becoming increasingly dynamic. Consolidation of rural land ownership and businesses is resulting in an increasing number of large-scale commercial enterprises. At the same time, Booker T. Whatley's small plan (page 29) illustrates how a number of part or full-time, small-scale operations reflect geographic conditions, special market opportunities and individual preferences. The farmers, ranchers, business people and rural residents of the future will be innovators looking for alternatives to traditional methods and for the resource information needed to make those alternatives workable. Rural residents will continue to make increasing demands upon the rural landscape, as will visitors. Consultants will be in greater demand as farmers or other rural residents attempt to obtain and manage all of the resource information and new technology needed to respond to changing conditions. Profit and demand for services will be greatest for those practitioners who can respond to changing conditions while providing the client with innovative ideas to choose from.

Integrated Landscapes

Changes in the rural landscape can result in destruction of natural resources, inefficient operations, and generally a poorer quality of life—losses that can be avoided or greatly reduced by using an approach that requires integration of natural and cultural values.

An integrated landscape encompasses the physical characteristics of the land, the combined values and goals of people, and the technology used to address specific problems and opportunities. It is a system of interdependent elements that, taken together as a whole, can achieve more than each element acting alone. These elements, whether human, natural or manufactured, must work together toward the achievement of common rather than unrelated objectives. Although the interrelationships between these elements are often difficult to determine, common sense and experience tell us that it is much better to address the entire soil, water, plant and animal interface than just a limited number of the contributing elements. A responsive and sustainable rural landscape will demand this approach.

"Two trends in agriculture—one positive and one negative—will require input from landscape architects. The positive trend is diversification. The negative trend is over-population. Another agricultural issue that will still be with us in the future is preservation of prime agricultural land. Landscape architects can help by analyzing the implications of alternative definitions and finding new ways of protecting and managing prime agricultural lands." (P. Anderson)

"The most troubling environmental problem of the years ahead might not be conserving energy or protecting natural systems, but emotionally coping with a landscape more transitory than we have ever experienced." (R. Riley)
A Common Approach

We must acknowledge the rural landscape as a priceless ecological, economic, and cultural resource system. Conservation of the rural landscape while accommodating human needs and uses, may be accomplished through: (1) application of sound planning and design principles, (2) education of the general public toward understanding the rural landscape and (3) visionary legislation and effective local land-use guidelines with innovative implementation.

This approach calls for interdisciplinary planning and design. Historically, an array of professionals and others have pursued their individual specialty or interest in the rural landscape with little attention to the work of others. This has led each to assume that his or her particular use of rural resources and resulting quality of life has precedence. We need an interdisciplinary approach to remove these disciplinary blinders.

As landscape architects, we have a major role to serve in the rural landscape. We should not assume, however, that we can automatically move into the complexity of rural planning and design problems. Few rural residents will appreciate or pay much attention to "professionals" who show up unprepared. Our credibility and successful influence in the rural community will be severely tested until we demonstrate through knowledge, skill and commitment that we can serve a useful and respected role in the rural landscape. We must understand rural processes as well as the needs of resources and people. Anything less will surely lead to ineffective actions and long-term failure.

"Conflicts among land-uses in rural regions are likely to increase and understanding the best fit of human settlement to the environment is crucial. Landscape architects can provide leadership in developing methods of land evaluation and site assessment for recreation, rural housing, and forestry." (F. Steiner)

"Stewardship is the essence of husbandry." (J. Stilgoe)

"A harmonious relation to the land is more intricate and of more consequence to civilization than the historians of its progress seem to realize. Civilization is not, as they often assume, the enslavement of a stable and constant earth. It is a state of mutual and interdependent cooperation between human animals, other animals, plants, and soils, which may be disrupted at any moment by the failure of any of them. Land despoilation has evicted nations, and can on occasion, do it again." (A. Leopold)

"Landscape architects have always been land stewards within the design/development community. We have the values. We have the tools. We have the concern. Together, we have the numbers that it will take to conserve our rural lands. Let us join with the agri-economists (normally in service at the land-grant universities), the planners, the politicians and the children (the residents of the plans we draw today), in setting land use policy that demands that farmland be an integral part of our land use fabric." (D. Sears)

"Working in rural lands, especially farm lands, requires a basic knowledge of agronomic practices, familiarity with crops and their geographic extents, and in general a knowledge of food and fiber production. This expertise is not easily gained now in traditional landscape architectural education; nor can a professional merely transfer urban solutions to the countryside." (S. Schauman, C. Adams, C. Carlson, S. Durrant)

"Landscape architects have already contributed a great deal to the land trust movement, and could probably do much more if the profession became generally aware of the potential of our movement to affect land use in rural areas." (E. Watson)
Choices & Challenges

The potential for our involvement and major influence in the rural landscape is limited only by our thinking and willingness to venture into new opportunities. Landscape architects in public, private, and academic practice should become involved. We can expect to engage in all aspects of natural resources conservation and environmental quality planning, recreation and tourism planning and design, heritage preservation, reforestation, water conservation, storm water management, sediment and erosion reduction, watershed protection and flood prevention, animal waste management, land reclamation, farm planning, energy conservation and production, utilities planning and design, farmland/open-space preservation, conservation education, community planning and design. Our impact in these rural activities will depend upon educational programs suitable for preparing landscape architects for greater involvement.

For some, these activities will mean expanding tested principles and concepts into nontraditional areas of application. In the case of rural residential design for example, landscape architects are likely to focus on multiple use benefits, enhanced aesthetic values, off-site effects on water quality, and improved wildlife habitat. Innovative approaches to agriculture may address these in addition to energy conservation and production, optimum facility location and design, the most convenient but practical pedestrian and vehicular circulation systems, cost-effective but aesthetically acceptable animal waste facilities and well-sited living quarters. These and other objectives make the rural design process complex and challenging. The less obvious and nontraditional approaches may have the most far-reaching results. What if, for example, landscape architects were to become farm managers, rural land developers, or elected officials who attain major influence in the rural landscape? What if landscape architects worked with the development of materials and equipment for rural use—employed by major corporations such as John Deere or Butler Buildings? What if landscape architects became more active in their local conservation districts or other organizations in every county that have a direct impact on the rural landscape? What benefits would result from landscape architects performing research and development or establishing standards and specifications? This "what if" list will become very expansive if we remain innovative, flexible and bold.

Changes will continue to occur in rural areas. To avoid arbitrary or ill-advised change, landscape architects must build stronger bonds within other disciplines to influence rural planning and design. ASLA's policy on Rural Landscape establishes our collective professional commitment to the rural landscape. The rest is up to us as individuals.

"In the coming years, landscape architecture has an obligation and an opportunity to become more involved with the quality of environment and human life. To do so will require a diversity of skills and perceptions... the explosion of the information age of the third wave (Toffler 1980, Marshall 1980) will greatly enhance the ability of some landscape architects to contribute to environmental and resource management." (F. Steiner, K. Brooks)

"Landscape architects need to develop new ways of solving problems. New ways of working with people can help to effectively identify issues, perceptions, and priorities. New ways of working with technology can help to effectively gather, analyze, and communicate information for decision-making." (P. Anderson)

"The need for the landscape architect to be sensitive to the economic and operational constraints of farming and to the aesthetic preferences of the farmers themselves is clear." (R. Westmacott)

"It will also be necessary for landscape architects to develop a market for their services in these areas—to consciously define problems, develop ranges of solutions and otherwise interact with individuals, industries and planning organizations who have rural interests." (S. Schauman, C. Adams, C. Carlson, S. Durrant)

"We need not worry as long as our profession of landscape architecture does good work." (A.E. Bye)
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APPENDIX II: GLOSSARY

Agricultural Land—Land in farms regularly used for agricultural production.

Agricultural Use—The use of any tract of land for the production of animal or vegetable life.

Conservation—The protection, improvement, and use of natural resources according to principles that will assure their highest economic or social benefits for man and his environment now and in the future.

Conservation District—A public organization created under state-enabling laws as a special-purpose district to develop and carry out a program of soil, water, and related resource conservation and development within its boundaries—often called a soil conservation district or a soil and water conservation district.

Conservation Easement—An agreement negotiated on privately owned lands to preserve open space or protect certain resources (Authors).

Conservation Education—A comprehensive concept that spans curricula from kindergarten through adult, post-graduate programs and links the subject to natural resource conservation.

Conservation Plan—A collection of materials containing land user information requested for making decisions regarding the conservation of soil, water, and related plant and animal resources for all or part of the operating unit.

Conservation Tillage—Any tillage sequence that reduces loss of soil or water. Often a form of non-inversion tillage that retains productive amounts of residue mulch on the surface.

Ecosystem—The interacting system of biotic community and its nonliving environment.

Farmland—Any place from which $1,000 or more of agricultural products were sold, or normally would have been sold, during the census year.

Greenbelt—A strip of land kept in its natural state or in agricultural use to serve to break up the continuous pattern of urban development, frequently planned around the periphery of urban developments.

Integrated Landscape—Encompasses physical characteristics of the land the combined values and goals of people and technology used to address specific problems and opportunities (Authors).

Interaction—Mutual or reciprocal action or influence between organisms, between organisms and environment or between environmental factors.

Landscape Architecture—In-Residence Program—Experimental educational program developed by the Vermont Council of the Arts through the Artist-in-Residence program supported by the National Endowment for the Arts.

Landscape Ecology—Interdisciplinary study of the structure, function and change in a landscape composed of interacting ecosystems (Authors).

Landscape Systems—Independent elements that when working together as a whole can achieve more than each element acting alone (Authors).

Land Use—The primary or primary and secondary use(s) of land such as cropland, woodland, pastureland, etc.

Minimum Tillage—The minimum soil manipulation necessary for crop production or meeting tillage requirements under the existing soil and climate conditions.

Multiple Use—Harmonious use of land for more than one purpose, not necessarily the combination of uses that will yield the highest economic return or greatest unit output.

Natural Area—A site or area in its natural state or left undisturbed by man's activity.

Natural Resources—The elements of supply inherent to an area that can be used to satisfy human needs, including air, soil, water, native vegetation, minerals, wildlife, etc.

No-Tillage—A method of planting crops that involves no seedbed preparation other than opening the soil for the purpose of placing the seed at the intended depth. Chemical weed control is normally used. Also called soil planting or zero tillage.

Overpopulation—A population density that exceeds the capacity of the environment to supply the health requirements of the individual organism.

Pisciculture—Integrated, evolving agricultural system of perennial or self-perpetuating plant and animal production.

Plant Stratification—Use of multi-layer of crops simultaneously on the same land area.

Poly cropping—Interplanting or two crops to reduce pest population buildups that often occur on monoculture crops (Authors).

Prime Farmland—Land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, and oilseed crops, and is also available for these uses.

Productivity—The rate at which organic matter is stored in any organism.

Purchase of Development Rights—Acquisition of the rights to develop private land.

Resource Management System—A combination of conservation practices indented by the primary use of land or water that, if installed, will at a minimum protect the resource base by meeting tolerable soil losses, maintaining acceptable water quality, and maintaining acceptable ecological and management levels for the selected resource use.

Rural Landscape—A complex of ecological, economic, and cultural qualities on which human and other life forms are dependent (ASLA).

Scenic Easement—An easement restricting development to protect roadside views and natural features.

Soil Bioengineering—The use of live vegetative cuttings independently or in combination with engineering structures to support earth masses, prevent shallow slope failure, and reduce erosion (Authors).

Sustainable Agriculture—Agricultural production, processing, and marketing systems that often occur on monoculture crops (Authors).

Synergism—The simultaneous actions of two or more agencies that, together, have a greater total effect than the sum of their individual effects.

Transferrable Development Rights—A land development control system in which landowners whose land is restricted because of classification as prime farmland or floodplain are awarded development right certificates to compensate for the restriction.
try, commerce, and other segments of the national economy. Water Conservation—The physical control, protection, management, and use of water resources in such a way as to maintain crop, grazing and forest lands, vegetation cover, wildlife and wildlife habitat for maximum sustained benefits to people, agriculture, industry, commerce, and other segments of the national economy.

Wetland—Lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. Woodland—Any land used primarily for growing trees and shrubs.

ORGANIZATIONS


American Farm Bureau Federation, 600 Maryland Ave., SW., Suite 800, Washington, D.C. 20004.

American Forestry Association, 1319 18th Street NW., Washington, D.C. 20036.

American Land Resource Association, P.O. Box 3448, Washington, D.C. 20003.


American Society of Agricultural Engineers, 2500 Niles Road, P.O. Box 410, St. Joseph, Michigan 49085.

American Society of Agronomy, 677 South Segoe Road, Madison, Wisconsin 53711.

American Society of Civil Engineers, 345 East 47th Street, New York, New York 10017.


American Water Resources Association, 5410 Grover Lane, Suite 220, Bethesda, Maryland 20814.


Federation of Western Outdoor Clubs, 801 Pennsylvania Avenue SE., Washington, D.C. 20003.

Friends of the Earth, 530 7th Street SE., Washington, D.C. 20003.

Institute for Alternative Agriculture, 9200 Edmondson Road, Suite 117, Greenbelt, Maryland 20770.

Izaak Walton League of America, 1701 North Fort Myer Drive, Suite 1100, Arlington, Virginia 22209.

Land Improvement Contractors of America, 1300 Maybrooke Drive, Box 100, Maywood, Illinois 60143.

Land Trust Exchange, PO Box 364, 13 Albert Meadow, Bar Harbor, Maine 04610.

U.S. Geological Survey, Department of Interior, National Center, 12201 Sunrise Valley Drive, Reston, Virginia 22092.
U.S. Forest Service, Department of Agriculture, Washington, D.C. 20250.
The following publications provide further details regarding many of the case studies included in the LATIS.

Land Trusts—Elizabeth Watson: A pamphlet entitled Land Trust Exchange—A National Network of Private Land Conservation Organizations is available from the Land Trust Exchange, P.O. Box 364, 13 Albert Meadow, Bar Harbor, Maine 04609.


Managing Change Through Design—Sally Schauman, Carolyn Adams, Chris Carlson, and Steve Durrant: Copies of The Farm Landscape of Whatcom County—Managing Change Through Design can be obtained from the Department of Landscape Architecture, University of Washington, Seattle, Washington 98195 at a price of $5.00 each for less than 25 copies and $4.50 each thereafter. Checks should be made payable to University of Washington.

The Sautee and Nacoochee Valleys—A Preservation Study—Allen Stovall: A copy of the study document can be obtained from Sautee-Nacoochee Community Association, P.O. Box 66, Sautee-Nacoochee, Georgia 30571 for $12.00 per copy.

New Agricultural Landscapes and Agricultural Landscapes: A Second Look—Richard Westmacott and Tom Worthington: Copies of New Agricultural Landscapes and Agricultural Landscapes: A Second Look can be obtained from Countryside Commission, Publications Department, 19/23 Albert Road, Manchester M19 2EQ.

Landscape Analysis of the Guatemala Highlands—Paul Anderson: A project report entitled "A Rural Development Planning Program for Guatemala" can be obtained by writing Paul F. Anderson, Department of Landscape Architecture, College of Design, Iowa State University, Ames, Iowa 50011.


Whatley Farm—Booker T. Whatley: Single copies or a yearly subscription to Small Farm Technical Newsletter can be obtained by writing to Whatley Farms, Inc., P.O. Box 2827, Department "N," Montgomery, Alabama 36105. Single copies are $3.00 and yearly subscriptions are $16.00 for 12 issues.

Caring for the Countryside—Joan Nasauer: Copies of Caring for the Countryside (publication number AD-SB-3017) can be obtained from any county extension office in Minnesota or by sending $2.00 to the Distribution Center, 3 Coffey Hall, University of Minnesota, 1420 Eckles Ave., St. Paul, Minnesota 55108. Checks should be made payable to the University of Minnesota.


RURAL LANDSCAPE CASE STUDY PUBLICATIONS