CRM

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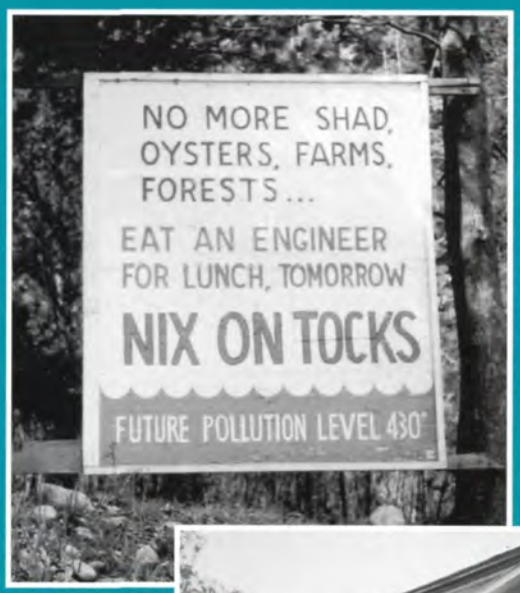
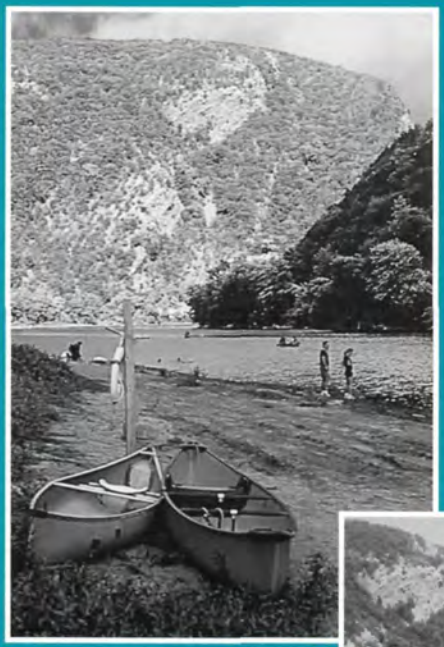
Saved from the Dam





Delaware Water Gap National Recreation Area

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Information for parks, Federal agencies, Indian tribes, States, local governments, and the private sector that promotes and maintains high standards for preserving and managing cultural resources

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Cover: Clockwise: sign near Dingmans Bridge, Dingmans Ferry, PA in 1971, photo by Albert Dillahunty; sill beam replacement, Greek Revival House, Peters Valley, NJ; Delaware Water Gap, where the Delaware River winds through Kittatinny Ridge, photos by Thomas E. Solon; and canoes at Kittatinny Point river access, view of Gap in distance, photo by Michelle Jacques.

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Thomas E. Solon

In the Beginning...

Delaware Water Gap National Recreation Area (NRA) was established in the shadow of the controversial U.S. Army Corps of Engineers Tocks Island Dam project in 1965. From the beginning, the park's enabling legislation's call for the care and protection of both natural and cultural resources was clearly at odds with damming the Delaware River to provide water storage and outdoor recreation.

Amidst public protest, many historic buildings were removed to make way for the dam. Environmental opposition and cost over-runs would eventually nix the project, leaving the National Park Service to manage those structures left standing. Still the dam remained on the books. The threat of inundation facing the valley and its remaining historic buildings would not subside until the menacing dam project was officially deauthorized in July 1992.

Here we are then, ten years after, and like the free-flowing Delaware River that continues to run through it, this 70,000-acre Pennsylvania/ New Jersey preserve is "going with the flow." While not exactly what its creators had originally intended, as it matures – the park (minus the dam) is gradually finding equilibrium with nature, park visitors, and the surrounding communities.

Map by GIS Lab, Delaware Water Gap NRA.

Delaware Water Gap NRA is a linear park running approximately north-south for a distance of 40 miles. At its southern end, Interstate 80 provides direct access for the multitudes from metropolitan New York. Manhattan is a mere 90 miles away. From a distance and seen from above, the valley and park are a collage of farmscapes, rural villages, historic structures, ponds and streams, roads and trails – asymmetrically divided by the winding Delaware River. Up close, the park is a rich repository of prehistoric and historic settlement – historic structures woven together by a tenacious cultural landscape.

The structures, landscape, and river are remarkable survivors. Quite remarkable indeed, considering that the origin of the river itself goes back some 200 million years. In the latter part of that time period, the Delaware River was rejuvenated through a process of geologic uplifting, thus forming the park's namesake, the distinctive Delaware Water Gap.

In the late 20th century, yet another "rejuvenation" was to occur in the Delaware Valley – the restoration of the structurally damaged Van Campen Inn, an imposing stone house with distinctive Georgian and Dutch detailing dating back to 1746. This was an uplifting process of a different sort. A movement was initiated by concerned citizens and National Park Service cultural resource managers willing to look beyond the threat of inundation by the dam. The emergency stabilization of the Van Campen Inn was completed in 1984 and would inspire subsequent preservation efforts parkwide. Backed by extensive inventories, condition assessments, archeological investigations, historic structure reports, and Historic American Building Survey drawings – originally intended as "record and remove" compliance – park staff were well equipped to begin the process of preserving what remained of the valley's cultural heritage.

To commemorate this 10th anniversary of the deauthorization of the Tocks Island Dam, this issue of CRM looks at what has been lost and gained over the last 37 years since the park was created. A recurring theme is preservation for public enjoyment though reuse, partnerships, and resource protection. In the end, that will be a noble achievement. On behalf of my colleagues at the park and elsewhere in the National Park Service, our park consultants, and partners, I hope the sharing of our collective experiences will be of benefit to the reader.

Thomas E. Solon, AIA, is the guest editor of this issue of CRM and is a historical architect who manages the office of preservation and design at Delaware Water Gap National Recreation Area.

Bill Laitner

From "Wreck-reation" to Recreation Area

A Superintendent's Perspective

Delaware Water Gap National Recreation Area (NRA) is a special place visitors enjoy nearly five million times a year. Opportunities for recreation, the park's main attraction, abound. There is boating on the river, technical climbing on the escarpments, hunting and fishing on lands and streams, swimming in lakes and rivers, camping on both islands and shore, and hiking, biking, horseback riding, and cross country skiing on many miles of trails. That said, the most popular activity is simply enjoying the scenery that surrounds the river.

The Delaware River is indisputably the park's focal point. It offers some of the best canoeing, rafting, tubing, and fishing experiences to be found in the East. Its waters are of exceptional quality and provide very clean drinking water to 10 percent of our nation's population. Of this we are extremely proud. Yet accomplishing Congress's initial mandate to "provide for public enjoyment of such lands and water" has been a tumultuous experience. Today's park visitors were in fact preceded in the 1960s by demolition teams, causing local residents to coin the term "Wreck-reation Area."

In preparation for damming the Delaware River, the Army Corps of Engineers purchased and removed hundreds of buildings from within the area to be inundated. Delaware Water Gap NRA was conceived in 1965 as a recreation area adjoining the reservoir's waters. Through a series of events discussed elsewhere in this issue of CRM, local residents strongly protested and the dam was never constructed. The national recreation area, however, prevailed, leaving the National Park Service to manage what is truly one of the region's richest examples of natural and cultural heritage.

How best to manage these resources has been an ongoing struggle when the cold reality is that there will never be enough money for everything. One solution has been "conservation through cooperation." Today dozens of historic structures are adaptively reused and conserved by such partners as the Millbrook Village Society, the Montague Association for the Restoration of Community History, the Pahaquarry Foundation, the Peters Valley Craft Education Center, and the Walpack Historical Society, just to name a few. In addition, long-term traditional uses continue at the Montague Grange and a few churches. But saving individual buildings is not enough — we must also preserve their context and surrounding rural landscape. Farmers help maintain open space and the rural countryside by cultivating crops and mowing fields. Without such dedicated partners it would be impossible to preserve the cultural history of the park.

Huge challenges remain. We need to find even more partners to adaptively reuse many vacant buildings and care for the adjacent lands — for only with use will there be protection. We need to learn more about our cultural landscape and how to manage it. We need to learn more about the plants and animals and natural systems in the park. The areas surrounding Delaware Water Gap NRA are among the fastest growing counties (by percentage) in New York, New Jersey, and Pennsylvania. With this inevitable growth outside the park, the rural landscape inside the park will become more and more valuable as a "window" into a more rural, agrarian past. We need to recognize growth outside the park and work with communities to support planned growth and the preservation of park resources.

The National Park Service is committed to protecting and preserving these national treasures for all times — so that our grandchildren and their grandchildren can enjoy and learn from them. Often there is a conflict between preserving resources and enjoying them at the same time — making sure they are not "used up" but not "locking them up" either. We seek to carefully balance recreation uses with conservation of resources so that these resources will be here in the future.

Bill Laitner is superintendent of Delaware Water Gap National Recreation Area.

Richard C. Albert

In-Tocks-icated
The Tocks Island Dam Project

The Tocks Island Dam was a huge multi-purpose reservoir project proposed for the Delaware River six miles upstream of the famous Delaware Water Gap. The dam would have created a 40-mile long lake with depths up to 140 feet. Almost 250 billion gallons of water were to be stored behind the dam with ample "dry storage" for floodwaters. The project was to be the U.S. Army Corps of Engineers' eighth largest U.S. dam project and its largest east of the Mississippi River. The Tocks Island National Recreation Area, later Delaware Water Gap National Recreation Area, was proposed specifically to develop the recreation opportunities created by the dam.

The Delaware River entered the second half of the 20th century undammed. This was no small feat considering its drainage area contained the fourth largest U.S. city (Philadelphia), and its service area was being expanded to include the largest U.S. city (New York). Moreover, the so-called Delaware Estuary running from Trenton, NJ, past Philadelphia to Wilmington, DE, contained one of the largest concentrations of heavy industry in the world. In fact, the Industrial Revolution in America is said to have begun with the first shipment of anthracite coal down the Delaware to Philadelphia in 1823.

Architect's model of the unbuilt Tocks Island Dam. The spillway is on the New Jersey side of the river. Photo courtesy Delaware River Basin Commission.

Two reasons that the river remained undammed in spite of the intense demand for its water are apparent. The first was the existence of a Pennsylvania and New Jersey "anti-dam" treaty. This was signed in 1783 in order to keep the river open for lumber rafts. It was still on the books when hydropower generation became feasible. As a result, power dams were kept off the river. The second reason is that by 1920 the three states that shared the non-tidal Delaware (New Jersey, New York, and Pennsylvania) had decided that the Delaware River was going to be developed as a water supply river — and only tangentially for hydropower.

The story is often promoted that the Tocks Island Dam project was a response to massive flooding in August 1955. This is not true. The record flood was serious; and it killed 200 people in the eastern United States, including about 100 people within the Delaware River Basin. Property damage in the 13 states affected by the flooding was extensive, with about one-fifth of the damages occurring in the Delaware Valley. A dam at Tocks Island would not have prevented most of the deaths or damage from the flood in the Delaware River drainage area.

A dam on the Delaware was, by 1955, largely unfinished business. During the first half of the 20th century, over a dozen major studies had looked at dams on the main stem of the Delaware for either hydropower or water supply. In addition, three interstate water supply compacts had been negotiated by the states; all had failed to pass. The river had also been fought over by the states twice in the U.S. Supreme Court. A 1931 Supreme Court decision allowed New York City to divert water out of the Basin, and a 1954 amendment sanctioned a similar diversion by New Jersey. By mid-1955, New York City was building the second of three reservoirs in the Delaware drainage area; and Pennsylvania had a

Artist depiction of the unbuilt Tocks Island Dam. Photo courtesy Delaware River Basin Commission.

consultant looking at a planned dam at Walpack Bend, six miles upstream from Tocks Island, that would have sent water to Philadelphia and North Jersey. Pennsylvania began acquiring land for this project.

What the flood of 1955 did was open the doors to federal involvement in Delaware River Basin water affairs. Until the flood, the federal government was not particularly welcome; nor was there a federal justification for a dam project, e.g., potential flood control benefits.

In response to the flood, the Corps initiated a large, basinwide comprehensive planning effort in 1956 — the first of its kind in the U.S. This was completed in 1961 and authorized by Congress in 1962 as part of a huge national water resources bill. The bill called for 11 dams in the Delaware River Basin with 58 percent of the total water storage in the Tocks Island Reservoir. The other 10 dams were on tributaries. Two were built.

The authorization of the dam generated three highly visible spin-offs. The greater Tocks project included the Kittitinny Mountain Yards Creek Pumped Storage Project (announced in 1960), the Delaware River Basin Commission (created in 1961), and Delaware Water Gap National Recreation Area (established in 1965). The members of the commission were the four Delaware River Basin states and the federal government. One of its functions was to serve as the local sponsor of the project on behalf of the four Delaware River states. The Commission, not the federal government, would have owned most of the water behind the Tocks Island Dam.

The pumped storage project was an enormous electrical generating facility proposed by a consortium of large power companies. It would have also operated the dam's hydropower facilities. Water to north New Jersey would have been sent over Kittitinny Mountain via the pumped storage project. The city of Newark, NJ, acquired an abandoned railroad right of way for moving this water. The first phase of the project, the Yards Creek Pumped Storage Project, was built and exists today.

The most exciting spin-off of the Tocks project for many people was the national recreation area. The recreation area, however, was controversial from the beginning because it added 47,000 acres to the 23,000 acres needed for the dam project. The amount of private land being acquired by the federal government for purely recreational uses was unprecedented in U.S. history.

The original schedule for the dam project called for construction to begin in the fall of 1967. In 1972, the reservoir was to begin filling and be fully operational by 1975.

Because the bearing capacity of the geology at the Tocks Island site was problematic, an earthen dam was proposed. The dam would have been 160 feet high. When the Corps found out how bad the geology at the site was, they moved the dam location downstream and greatly decreased the dam's slope in order to spread its weight over a larger area. Behind the dam was, of course, the reservoir. This would have stretched 37 or more miles upstream with the tail waters reaching above Port Jervis. The reservoir's maximum water depth was to be 140 feet and contain 250 billion gallons of water — although this would vary daily and seasonally.

The first to organize against the expanded 70,000 acre Tocks Island project were the local residents whose land was being taken. They organized as the Delaware Valley Conservation Association (DVCA) in 1965. Unlike other opponents in the Tocks Island Dam controversy, the DVCA was opposed to the creation of the national recreation area, but willing to accept the construction of the dam. They raised funds to

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"The Minisink"

A Chronicle of the Upper Delaware Valley

Having grown up in northwestern New Jersey and attended Boy Scout camp at Pahaquarry on the upper Delaware River, I had heard the stories of Dutch miners and the Old Mine Road as a boy and had visited the copper mines along Mine Brook on more than one occasion.

I also knew about the hurricane floods that had ravaged the Delaware Valley in 1955, remembering at least the gap torn by floodwaters in the bridge at Easton. Even something of the proposal to build a dam across the river at Tocks Island seems to have registered in my young mind, since the dam meant the demise of Camp Pahaquarry.

Little did I know then how I would later become involved in the conflict between those who cherished the upper Delaware's Minisink* country for its history and natural beauty and those who wanted to protect downstream populations from destructive floods (and develop hydroelectric power and water supply) by building a dam. The struggle over the valley's fate would lead to my co-authoring "The Minisink," a 200-page chronicle of its history, as well as shape my future career as a historic preservationist.

Returning to New Jersey in 1974 after graduating from college, I learned of plans by local leaders opposed to the Tocks Island Dam to commission a history of the Minisink. The proposed publication would document and publicize the resources that would be lost in damming the river. The Warren County Board of Chosen Freeholders in New Jersey and the Monroe County Commissioners in Pennsylvania agreed to undertake the study using employees hired with federal funding provided by the Comprehensive Employment and Training Act (CETA). With little more to recommend me than a college degree and an interest in history and architecture, I applied to Warren County and was hired for the position. Monroe County employed two other individuals, Pat Valence and Russ Woodling, creating a team of three CETA "writer-trainees." Glad to have a challenging project that did not confine me to an office, I must say that the irony of using federal money to fight a federal project escaped me at the time.

That none of us had ever written anything longer than a term paper seems not to have filled us with trepidation. Luckily, we received guidance and assistance in writing The Minisink from many individuals, among whom three stand out: Nancy Shukatis, chair of the Monroe County Board of Commissioners; Peter O. Wacker, chair of Rutgers University's Department of Geography; and the late Herbert Kraft, professor of archeology at Seton Hall University.

Nancy Shukatis was the driving force behind the project. With deep family roots in the Minisink, she imbued us with her strong sense of its history and natural beauty. Her conviction of our chronicle's value as a vehicle for educating the general public, as well as informing public decision makers about the important legacy to be lost if the dam were built, gave the book its compelling point of view. Without her leadership and persistence, "The Minisink" would not exist. From Pete Wacker I learned about the concept of cultural landscapes, and his seminal historical geography of the nearby Musconetcong Valley provided a framework for understanding how both the natural environment and man shaped the development and material culture of the upper Delaware Valley. Herb Kraft impressed us with his reverence for our Native American forebears and made us realize the particular importance of archeological resources in comprehending the history of the Minisink.

Like a cultural geography, the text of "The Minisink" begins with the region's natural environment and then traces man's impact on its landscape. Chapters, arranged topically and chronologically, cover such subjects as Native American and early European settlement patterns, frontier warfare and fortifications, transportation, architecture, agriculture, social institutions, industry, and recreation. It ends with a discussion of the proposed dam and its impacts.

While others must judge the value of "The Minisink" as a work of cultural history or for its impact on the decision to deauthorize the Tocks Island Dam, I hope that it will stand as a record of the valley's historical resources as they existed some 25 years ago. For me, writing "The Minisink" was a defining moment in my professional life.

Dennis Bertland
Historic Preservation Consultant
Dennis Bertland Associates

* The geographic region of the Minisink gets its name from a derivative of Minsi, a branch of the Leni Lenape Indians who once populated the valley.

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contest the project in court arguing that the acquisition of land for recreation purposes violated property rights protected by the Fifth Amendment to the Constitution. The lawsuit was dismissed on a technicality by the U.S. District Court in Scranton, PA.

In 1967, local opposition to the destruction of Sunfish Pond by the Kittitinny Mountain Pumped Storage Project in New Jersey attracted regional and national attention. Sunfish Pond is a small glacial pond on the ridge of the Kittatinny Mountain along the Appalachian Trail. The Sunfish Pond controversy attracted attention to the dam project below — just as the national environmental movement was beginning to gear up.

Massive environmental opposition to the Tocks Island Dam started relatively late — around 1970. There are two reasons for this late start. First, the establishment of the national recreation area appeased many of the traditional opponents to dam projects. Second, recognition of the environment as a cause celebre received widespread attention only after the first Earth Day in April 1970. The Save the Delaware Coalition, the most visible organization opposing the Tocks Island Dam project, was a coalition of 50 or more organizations created in late 1970. The coalition's leaders were opposed to the dam, but pro-recreation area; a delicate position since the recreation area tripled the amount of land that was to be taken.

Every prevailing environmental issue was raised at one time or another against the dam. The most damaging, however, was the prediction that the reservoir would become eutrophic. This issue eventually turned New York State against the project. New York was upstream of the reservoir and reluctant to initiate the pollution abatement measures needed only if a dam was built.

Eutrophication was especially serious because it jeopardized the recreational benefits assigned to the project. The Tocks Island Dam really needed recreation to get a benefit-cost ratio greater than 1 — the cutoff point for economic feasibility.

In spite of all the real and imagined environmental impacts, it can be argued that the Tocks Island Dam was a victim of cost overruns and the Vietnam War. The project had enormous cost overruns from the very beginning. Major geological site problems created some of these overruns, but estimates for land acquisition, grave removal, and other project costs were clearly under-predicted. As early as 1967, TIME magazine criticized these costs and recommended that Congress kill the project. Various Congressional studies looked at the problem, but took no action. The cost overruns plus budget cuts due to the Vietnam War, however, kept construction from beginning. This delay allowed the project to get caught by all the new environmental legislation passed in the late 1960s and early 1970s. It didn't survive.

On July 31, 1975, in Newark, NJ, the Delaware River Basin Commission voted 3 to 1 against the immediate construction of the Tocks Island Dam. Voting against construction were the states of Delaware, New Jersey, and New York. Pennsylvania voted for it, with the federal government abstaining. This was an emotionally charged decision.

The Commission stopped the dam, but the project was killed by subsequent actions. In 1978, the reach of the river where the reservoir would have been was added to the National Wild and Scenic Rivers System. This was the single most important victory for the environmentalists. Interest in the dam limped through the 1980s due to a series of droughts. Congress finally deauthorized the project in July 1992.

Drilling underway in 1964 near Smithfield Beach. Many miles of core samples were collected as part of the geological studies for the dam. Geological problems at the dam site resulted in major cost overruns, relocation of the dam site, and redesign of the dam structure. Photo courtesy Delaware River Basin Commission.

Reference

Albert, Richard C. *Damming the Delaware, The Rise and Fall of the Tocks Island Dam Project.* University Park: Penn State University Press, 1988.

Richard C. Albert is on the staff of the Delaware Riverkeeper Network. He has written several books including "Damming the Delaware" (Penn State University Press, 1988) and "Along the Delaware" (Arcadia Publishing, spring 2002).

Zehra Osman

Saving a Few, Before Losing Them All
A Strategy for Setting Priorities

Disbursed throughout its 70,000 acres, Delaware Water Gap National Recreation Area (NRA) has 464 structures appropriate for human habitation that are in various states of repair and disrepair.

While a sizeable number of buildings have been adapted to new uses, many more remain underutilized or lay vacant. Some of these have been determined to be historically significant, while others await determinations of eligibility. Meanwhile, decaying structures continue to be the victims of vandalism and arson, and even pose safety hazards to visitors. Extremes in the humid river valley climate have accelerated the decline of these structures at a rate that taxes the capabilities of a limited budget and park staff. While stabilization efforts have in many instances managed to stave off "demolition by neglect," going beyond stabilization has been more difficult. Getting vacant buildings up and running is the real challenge.

Under tremendous public pressure, the park set out to remedy this situation. As a first step, the park elected to pursue cultural resource evaluative studies, treatment plans, and historic leasing options. However, due to staffing and funding limitations, it became readily apparent that only one to three structures could be evaluated, leased, and/or treated in any one year. Vulnerable structures would have trouble surviving this slow, incremental pace of stewardship. Park management therefore needed to ascertain if the one to three buildings per year receiving attention were, in fact, the *most* significant. To make this selection process democratic and defensible, a methodology for setting priorities from the list of 464 structures would have to be devised. This was accomplished through the development of a Facility Management Report (FMR).

Vacant for years, the eclectic Delaware View House in Flatbrookville, NJ, had fallen into a state of disrepair. This former boarding house is now up and running as a country store under a historic lease. Some 31 "target properties" remain candidates for historic leasing. NPS photo.

The FMR is a three-part facility management planning process to 1) sort properties and assess needs, 2) geographically organize properties through zoning, and 3) determine achievable facilities management strategies. The FMR was developed by an interdisciplinary team at the park that included a historical architect, an exhibit specialist, an archeologist, the chief of interpretation, a curator, a landscape architect, a historian, a geographic information specialist, and a facility manager. A planner from ICON Architecture in Boston was also consulted, and public input was solicited through a series of public meetings.

The FMR process started by grouping the 464 structures into 154 "properties." A property was defined as an ensemble of structures that make up a former residence, farmstead, visitor center, village, etc. For example, one property may contain a house, barn, and silo (three structures). Some of these properties are valuable visitor facilities, some are significant historic structures, and some are dilapidated safety hazards.

Of the 154 properties, 78 were over 50 years old, potentially historic, and required a higher priority.

Using the park's Historic Resource Study, these 78 potentially historic properties were sorted by nine historic contexts including Agriculture, Early European Settlement, Industry, Recreation, and Exemplary Architecture. To

establish a defensible and objective methodology for determining what properties were the "best examples" of a particular historic context, we adapted a "preservation priority matrix" developed by Tony Crosby, a historical architect at the Denver Service Center. The matrix allowed the interdisciplinary team of subject matter experts to quantify their institutional knowledge and, albeit at a cursory level, to sort, organize, and better understand which of the properties should be targeted and which could wait for evaluation and treatment.

Of the 78 potentially historic properties on the matrix, 31 were vacant and thus more threatened by vandalism, age, and weather. These were identified as "target properties" and became the primary focus of the assessment.

This exercise ranked the 31 vacant historic properties from highest (Category A) to lowest (Category C) priority

- Category A (11): subtotal scores between 15-18
- Category B (12): subtotal scores between 11-14
- Category C (8): subtotal scores between 7-10

Eleven Category A properties were much easier for the park to deal with than 154 when determining priorities for Cultural Landscape Inventories, Historic Structures Reports, and the Historic Leasing Program!

However, there were still questions as to how to reuse these properties. In addition, park management wanted to understand these historic preservation needs in relation to all other park facility needs. Would the park's focus on a

(Selected Samples from 154 Property Database Matrix; numerical values range from 1-3; weighted values (wt.) are multiplied by weights shown)

Facility Management Database											
Historic Context	Identification		Cursory Cultural Resource Value				Cursory Baseline Data				
	Property	Current Use	Remaining Character Features		Best Example Rating (Wt.=3)	Subtotal Score	Condition		Inter-pretive Value	Visitor Access Rating	Opera tional Value
			Main Bldg. (Wt.=2)	Entire Property (Wt.=1)			Main Bldg.	Entire Property			
Agricul-ture	Wheat Plains Farm	Hist. lease	3	3	3	18	2	2	3	3	3
	Van. Campen, B.B	vacant	3	3	3	18	2	2	3	3	1
	Bevans Farm	vacant	2	2	1	9	1	1	1	2	1
Early European Settlement	Van Campen, Abraham	lease-back	3	2	3	17	3	2	3	3	3
	Depue House	vacant	2	1	3	14	2	1	3	3	1
	McCarty House	vacant	2	1	2	11	2	1	3	3	3
Industry	Slateford Farm	vacant	3	3	3	18	2	2	3	2	3
	Metz Ice Plant	vacant	3	2	2	14	2	1	3	2	1

Remaining Character Features:
3 = good; major character-defining features remaining
2 = fair; some charter-defining features lost
1 = poor; most character-defining features lost

Best Example Rating:
3 = best example of historic context
2 = medium example of historic context
1 = poor example of historic context

Condition
4 = very good; routine maintenance needed
3 = good; habitable, but needs infrastructure work
2 = fair; substantial work needed to make habitable
1 = poor; extensive work needed to make habitable

Visitor Access
3 = good access from primary road
2 = fair access from primary or secondary road
1 = poor access from primary, secondary or tertiary road

Category A property supercede a much needed contemporary public beach or restroom facility? The matrix was a first step, but now the properties needed to be placed in the context of the park's management objectives, visitor use patterns, and natural resource values.

A concept similar to General Management Plan (GMP) "management zones" was applied in part two of the FMR. Five "Facility Management Zones" were established based on visitor use patterns, the inherent nature of properties, the suitability of areas for visitor use or development, and natural features. These zones were intended to geographically organize facilities, to logically "package" properties for future uses and partners and, finally, to provide a framework for the direction of all facilities management.

Facility Management Zones are

Park Gateways. These are areas where recreation opportunities, National Park Service rules and regulations, and a description of the park can be introduced to the visitor. Gateways are also places where adjacent communities share boundaries, roads, viewsheds, and plans with the park.

Recreation Zones. These are areas where the GMP has called for the development of swim beaches, boat launches, picnic areas, play fields, and a living history village. Surges of day use traffic occur on weekends within these zones. Consequently, road improvements may be required that could potentially affect the character of historic preservation zones (see below). Mapping these zones helps to minimize such future conflicts.

Historic Preservation Zones. Particularly on the New Jersey side of the park, there are zones where a group of several historic properties, collectively, has high integrity as a cultural resource. Some of these have already been designated as "historic districts." However, there are also zones that encompass more than one historic district or are geographic areas that have continuous historic integrity from property to property. These zones are considered "gems" within the park. They require higher standards of preservation treatment.

Scenic Corridors. Roads follow narrow river corridors, with rock-outcropped hills above and the wide river below. Some of these corridors are also important commuter routes. Upland slopes, ponds and streams just above these roads, as well as the open fields down towards the river, are typically important areas for hikers, fisherman, and hunters.

Upland Camp. There is one zone along the Kittatinny Ridge where the Appalachian Trail crosses the park. Here, Boy Scout camps and other rustic recreation cabins have historically thrived.

Within each of these zones are areas that were defined by the 1987 GMP as natural zones. Within these natural zones are even more sensitive microenvironments where certain plants, animals, and sensitive ecological communities flourish. Each of these "Sensitive Resource Subzones" was also mapped within the Facility Management Zones to minimize conflicts between the preservation of cultural resources, visitor use, and natural resources.

A Geographic Information Systems (GIS) map was created to show the Facility Management Zones and indicate the location of individual properties. A detailed description of each zone was developed that included

- overall character
- GMP goals
- interpretive focus
- facilities character
- road character
- landscape character
- list of all facilities

The final step in the FMR was to develop strategies for facilities management. The principles which guided this process included

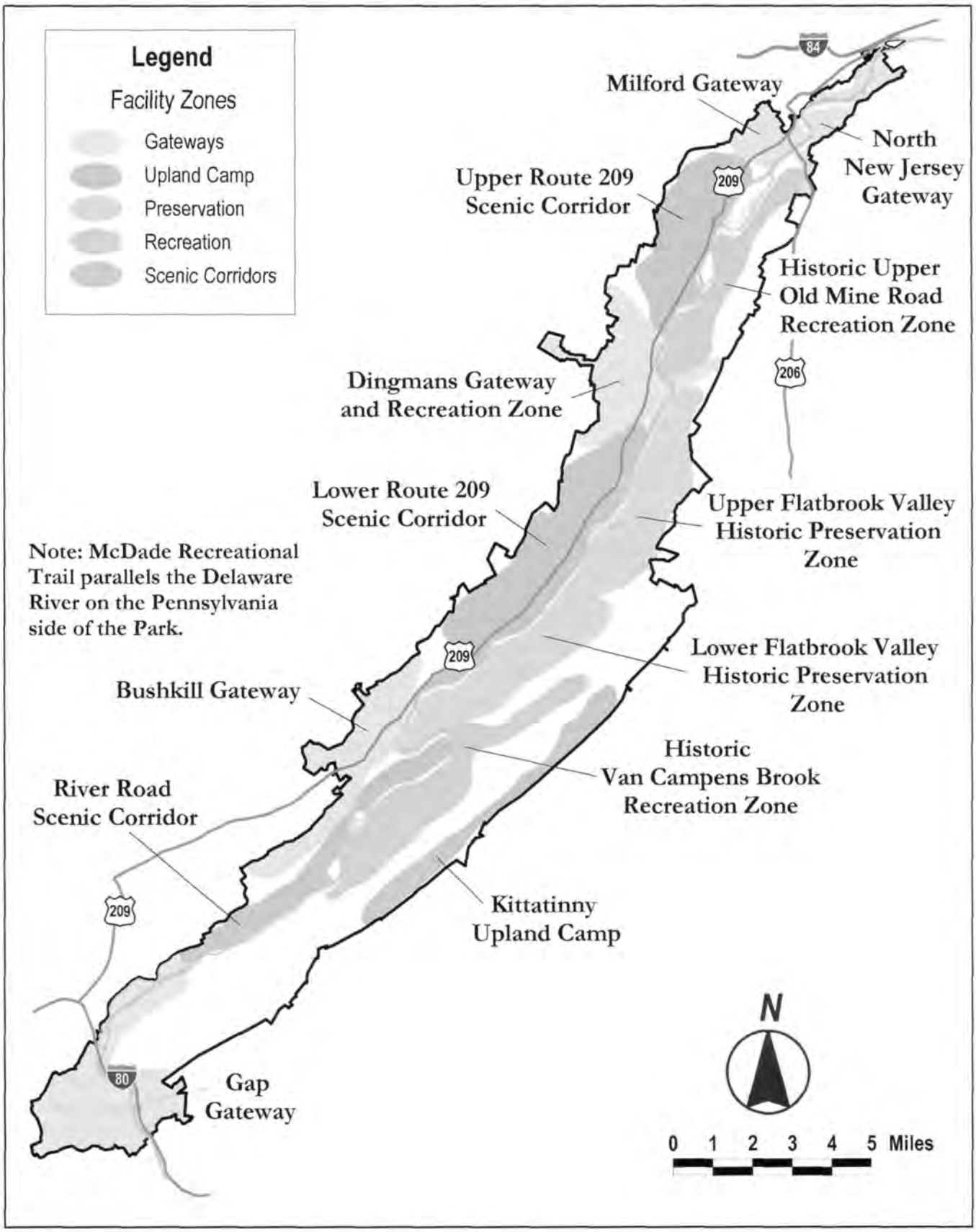
- employ vacant Category A and B properties first and foremost;
- preserve the inherent character of each Facility Management Zone;
- preserve and interpret or else demolish vacant historic properties according to the "Secretary of the Interior's Standards and Guidelines for the Treatment of Historic Properties 1992";
- maximize partnerships; and,
- accomplish goals sequentially and with focus.

Using these principles, the park outlined five alternatives, each of which could be implemented sequentially over 5-10 year periods. Each addressed historic preservation and contemporary facility requirements for a specific geographic area or under the umbrella of a funded project. The five alternatives were

- Alternative 1: McDade Recreational Trail

Facilities Management Zones

Delaware Water Gap National Recreation Area



Herons Nest, built c.1830 was converted to a summer retreat in the 1930's. Forest succession is strangling the building today. One of 31 vacant "target properties", it ranked in the lowest priority (Category C). NPS photo.

- Alternative 2: Historic Van Campens Brook Recreation Zone
- Alternative 3: Upper Flatbrook Valley Historic Preservation Zone
- Alternative 4: Park Gateways
- Alternative 5: Address most threatened target properties

For example, before the FMR was completed, Congress appropriated funds for the McDade Trail (Alternative 1), which is now under construction. Under this scenario, this 22-mile recreational trail corridor would, through the expenditure of funds and staff time, become the focus for all divisions. Under this alternative, the following items would receive priority consideration for funding requests, staff allocation, program development, and implementation:

- evaluating the three vacant target properties within the trail corridor
- focusing partnership search efforts on the three vacant target properties along this corridor by investigating opportunities for concessions and partnerships that support the trail user, including bike rentals, ski rentals, food concessions, "hut-to-hut" hiker lodging, eco-tourism ventures like birding, environmental education centers, maintenance sheds, restrooms, and trail shelters
- removing hazardous structures along the trail corridor
- upgrading existing trail facilities, including picnic areas, kiosks, benches, and restrooms
- developing trailheads
- developing trail sign system, interpretive exhibits, brochures, and ranger-lead tours related to the trail
- selectively clearing vegetation to enhance views and vistas along the trail
- maintaining managed open space preservation along trail corridor

This three-part facility management planning process 1) sorted properties and assessed priorities, 2) geographically organized properties and suggested their management through zoning, and 3) developed alternative facility management strategies. It helped the park take a list of 154 historic properties and narrow it down, as the example demonstrates, to three vacant ones that should be addressed within the next 5 years. Given the geographic context and selected implementation strategy, it is now easier to visualize appropriate uses for these three properties that will meet many park management objectives. This process is meant to be dynamic. The database matrices as well as the GIS maps are to be periodically updated. Currently, the alternative strategies have been updated and used in combination.

Although the ranking of resources is not (theoretically) a desirable management practice, the Facility Management Report provided a strategy for setting priorities and a plan for implementation. The proposed methodology offered a defensible and achievable means for determining which of the 154 properties should first receive evaluations, treatments, and historic leases. The entire park staff can now sing with one voice when requesting funding or designating staff time. This planning process allowed the staff to come to consensus on what the park's "best examples " are and how they could be best managed in their current context. In setting priorities there will, of course, be concomitant deferred maintenance and calculable losses along the way. But what is the alternative? When funds and staff are lacking, wouldn't we be better off saving a few, before losing them all?

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Map on p. 12 by GIS Lab, Delaware Water Gap NRA.

Hugh C. Miller

Countrysides Lost and Found
Discovering Cultural Landscapes

Delaware Water Gap National Recreation Area (NRA) had a significant role in the formulation of the National Park Service's cultural landscape programs. The park was at the forefront of many issues addressed in the 1970s during the evolution of the National Park Service's cultural resource policy, management programs, and professional cultural resource management staffing decisions. The holistic approach to archeology, anthropology, collections, history, historic buildings, and cultural landscapes that we know in the parks today and the development of related professional staffs in the regions and the parks all had significant origins in that period. At the same time, strategies for management of vegetation on historic sites, leasing of historic properties, and cooperative partnerships developed.

National recreation areas in general, and Delaware Water Gap NRA in particular, were "poster parks" for what was wrong with cultural resource management in the National Park System. Farmland had been purchased, and the owners stopped cultivation and moved off the farm. The buildings and land were abandoned. Vandalism, arson, and the stripping of historic features from buildings were common place. As a result, demolition was the preferred management action in spite of the fact that many buildings were on, or eligible for, the National Register of Historic Places. Land that had often been in cultivation since prehistoric times was released to natural succession and the management of natural resources to wilderness was the preferred National Park Service policy.[1] Cultural landscapes did not exist.

Slateford Farm reclaimed. Main house built 1833. Cabin built c. 1790. Buildings are undergoing stabilization while adjacent lands are cultivated under an agricultural lease. NPS photo.

This problem was compounded at Delaware Water Gap NRA where over 23,000 acres of the Delaware River Valley were to be flooded by a reservoir that would extend more than 37 miles upstream from the proposed Tocks Island Dam. This was to be surrounded by about 47,000 acres of National Park Service managed recreation area. The private land in the "take boundary" included active farms, villages, summer cottages, and large private resorts. Here the Corps of Engineers land agents aggressively acquired land and buildings not only in the proposed pool area but also for the National Park Service in the surrounding recreation area. Suddenly, over 1,000 buildings and their landscapes, many historic, came into government ownership, with demolition the intended or eventual action and abandonment of cultural landscape the unintended consequences.

By the early 1970s, the National Park Service had taken up the "No Dam" argument with a position that there were better and more recreational activities with a "free flowing" river. This was at odds with the work of the Corps, and the tensions rose between the local population and National Park Service. The dam was effectively stopped in 1975 by a decision of the Delaware River Basin Commission. But well into the 1980s, some National Park Service managers spoke of the eventual building of the dam. They were adamant about not spending money on any cultural resources in the reservoir area. The dilemma of how to manage the thousands of acres of landscapes and buildings as potential cultural resources was largely ignored.

The National Historic Preservation Act of 1966 established the National Register of

Historic Places and gave a variety of program responsibilities to the National Park Service. In 1971, Executive Order 11593 made it clear that federal agencies, including the National Park Service, must register and manage their historic resources. At the same time, National Park Service Director George B. Hartzog issued a directive that all demolition of buildings over 50 years old would need to be approved by him. This review and approval was delegated to the office of the Chief Historical Architect in the Washington Office.

The first visit to the park in 1973 to review demolition requests was depressing. There was an excitement of riches in the 18th- and 19th-century architecture of farm complexes and village settlements that lined the roads. There was the immensity of the destruction of buildings in the pool area and threads of hope for the boarded-up buildings in weedy fields or once well-kept yards. There was the sad reality that these places had lost their human activity. The efforts by the park to preserve a few of the historic resources were sincere but missed the mark.

The entry to the historic interpretive area at Slateford Farm was on a multi-lane scenic drive (never completed) that ended at a large parking lot. Here there were interpretive signs overlooking abandoned farmland, ruins of the barn, and dilapidated outbuildings. The farmhouse was being restored, but there was little concern at the time about the farm. The real meaning of the historic place was being lost with molding outbuildings and a succession of trees and woody plants creeping onto the fields.

During the same visit, the artificial nature of Millbrook, a surviving 19th-century village used as a repository for additional structures displaced by the dam, became apparent. Unlike many successful outdoor museums, there was no cohesive historic theme or relationship to the land. The buildings removed from the pool area were typically marginal and many of the salvaged parts did not fit. There was no understandable plan or implementation to depict the landscape and settlement pattern of a typical historic village of the upper Delaware Valley.

There were many visits to the park with regional cultural resources management staff to categorize historically significant buildings with the hope of preservation. There were the reluctant signoffs for the demolition of historic buildings that had been trashed by vandalism or moldered in neglect. There was the bittersweet joy to find daffodils blooming near hydrangeas in the weedy overgrown farmsteads. There was a sense of loss of what the cultural history of Delaware Water Gap NRA was all about.

The management of cultural resources in the National Park System became a major focus of National Park Service headquarters and the newly staffed professionals in the regional offices in the mid-1970s. The neglect of buildings, collections, and archeological sites became the subject of regional directors' meetings, committees of Congress, the friends of the parks, the preservation community, and the national press. Stories and slides of the richness of historic buildings at Delaware Water Gap NRA in their abandoned state and overgrown farm fields were included in horror shows given at these meetings.

Abandonment persisted Servicewide, but the nagging problems at Delaware Water Gap NRA prompted a "show me" tour for the National Park Service directorate. The visit of James Tobin, Associate Director for Park Operations, in the winter of 1979 was fortuitous. Jim, a third-generation park manager, had inherited the park historic resources programs and was learning a lot about eastern parks and cultural resources. On this trip, the Delaware Valley settlement patterns of historic villages and intensely cultivated farms that we saw outside the park were discussed. The wild scrub, overgrown fields, and neglected, often trashed, buildings in the park were a shock to him. From the porch of an abandoned house, we overlooked the abandoned farm landscape of the valley and discussed how a leasing program (then before Congress) could provide for rehabilitation of the farmland and the farmsteads. We also talked about the lack of policy and guidelines to evaluate and manage significant rural landscapes as historic resources.

It was not a surprise that in the summer of 1979 Jim Tobin authorized the hiring of Robert Z. Melnick, a professor of historic landscape architecture on leave from Kansas State University (KSU). He talked about the need to define a preservation policy for cultural landscapes and a method for landscape evaluation. He was familiar with the U.S. Forest Service's landscape assessment process for timber cutting and road and power alignments that could be a model. Melnick's summer work established an information database and defined landscape types. He proposed treatment standards for cul-

Application of cultural landscape preservation principles to historic farmland through agricultural leasing maintains cultural land-use patterns and open space. NPS photo.

tural landscapes in a CRM article.[2] This was followed by a contract with KSU (1980) that led to the first National Park Service management policy on cultural landscapes (NPS 28-1981) and the manual, "Cultural Landscapes: Rural Historic Districts in the National Park System" (1984). A new cultural resource had been created.

At Delaware Water Gap NRA, the real or imagined pall of the dam had hampered definitive actions for the management of cultural resources well into the 1980s. Cultural landscape preservation ideas came in 1985 following the first National Park Service workshop on "Identification and Evaluation of Cultural Landscapes" held at Sleeping Bear Dunes National Lakeshore. Here, Beth Johnson, the natural resource manager from Delaware Water Gap NRA, met landscape professionals from the National Park Service and from the private sector and universities, including Melnick, who were active in the application of cultural landscape preservation principles to abandoned farmland. She recognized the application of the Sleeping Bear field exercises to Delaware Water Gap NRA, where there was a farmland leasing program developing. She worked with the park and regional staff to secure funding for a cultural landscape inventory and management plan for the park.

In 1989, Land and Community Associates (Robert Z. Melnick, J. Timothy and Genevieve Keller, principals) were contracted for a multi-task evaluation of the cultural landscape with management recommendations for Delaware Water Gap NRA. Their "Rural Landscape Management Plan" became the model for the Service's natural and cultural resource professionals — and later student summer teams from Iowa State University — to put cultural landscapes on the map.[3] Now the continuing work for the identification, evaluation, and management of the park's cultural landscapes is an ongoing program that is well recognized in the landscape preservation community internationally.

In the award winning book, "Preserving Cultural Landscapes in America," the authors acknowledge that "the National Park Service more than any other American organization or agency provided the most significant direction to the nascent cultural landscape preservation movement"; and they reference the National Park Service's 1981 policy that first recognized cultural landscapes and the 1984 manual.[4] Cultural landscape preservation is now an established program in the National Park Service and a profession nationwide. However, the roles of the people who saw the problems and were able to find the solutions are often forgotten in the institutionalization of an idea. I credit Jim Tobin who was willing to take a risk on an "idea" after recognizing the problems he saw at Delaware Water Gap NRA.

Now the free flow of the river has eliminated the pool zone, and the entire park can think anew about challenges to find imaginative solutions for management of a landscape that had been manipulated by human occupation for centuries and then lost in a few decades. Delaware Water Gap NRA could be a model to give new meaning to the process of reclamation of cultural landscapes for other national recreation areas and similar public lands.

Notes

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2 Melnick, Robert Z. "Preserving Cultural and Historic Landscape: Developing Standards." *CRM* Bulletin 3 (March) 1980: 1+.

3 Land and Community Associates. *Rural Landscape Management Plan* (Philadelphia: National Park Service. Draft 1993): 1-1 - 1-3; telephone conversation and e-mail with Beth Johnson, February-March 2000.

4 Alanen, Arnold R. and Robert Z. Melnick, eds. *Preserving Cultural Landscapes in America.* (Baltimore: Johns Hopkins Press, 2000): 7.

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Assessing Cultural Landscapes

Delaware Water Gap National Recreation Area (NRA), in partnership with the National Park Service's Philadelphia Support Office and Iowa State University, is completing a cultural landscapes inventory to evaluate the historic significance and integrity of its 70,000-acre rural landscape. The park's surviving structures, villages, circulation networks, field and forest patterns, topographic and geologic features, and archeological features lay witness to thousands of years of cultural landscape history. A 1996 historic resources study identified agriculture, industry, community planning, and transportation as primary areas of historic significance and considered surviving landscape patterns as dominant features. While much information has been collected about the park's structures, this is the first comprehensive inventory of its cultural landscape.

In the summer of 1995, Delaware Water Gap NRA was selected as a test park for the then developing National Park Service Cultural Landscapes Inventory (CLI). The CLI, which today is the official inventory of National Park Service-managed historic landscapes, is an evaluated inventory containing information on the location, size, historical development, significance, and management of cultural landscapes throughout the National Park System. The CLI framework contains a hierarchy for looking at the landscape as a whole and also subdividing into smaller, more identifiable, components and features. The inventory is completed in three progressively more detailed levels from Level 0 through Level 2. The CLI findings are then input into a database called CLAIMS (Cultural Landscapes Automated Inventory Management System) which incorporates written descriptions, scanned images, and maps utilizing a Microsoft Access program.

During the summers of 1995 through 1998, students from Iowa State lived at the park and joined a core field team of park and regional staff. Fieldwork for the CLI began at the component landscape scale and included farmsteads, vacation homes, mill sites, villages, resorts, churches with cemeteries, and Boy Scout camps. Sketch plans of each property were developed and all existing cultural landscape features recorded. GPS points were taken at most properties to create the first data layer for the cultural landscape inventory in anticipation of linking the component landscape information to the park's GIS database. All other information was collected manually for later input into the CLAIMS database.

To begin evaluating change at the component landscape scale, two sets of baseline information were used: 1) a complete set of 1939 aerial photographs and 2) a complete topographic survey of the park created in 1963 just before demolition began for the proposed Tock's Island Dam. Together these surveys provided a consistent picture of the entire landscape at two distinct historic periods. With these two resources in hand, the team was able to make excellent comparisons between the early- and mid-20th century and the existing landscape patterns. Preliminary integrity determinations of each property were then made. By the summer of 1998, the park's CLI team clearly saw that consistent and repeating land use patterns were intact throughout the entire valley and were undoubtedly highly significant cultural landscape characteristics. But to fully evaluate the park's larger landscape systems, a different approach was needed than the manual approach used to document the smaller landscape components. Drawing upon the sophisticated spatial analysis capabilities of Arc View GIS and the expertise of computer specialists at the park and at Iowa State, the team developed an approach for scanning and geo-rectifying the 1939 aerial photographs. As electronic images, these could be overlaid on corresponding 1993 digital-ortho photography. This is proving to be an effective approach for comparing and contrasting the historic landscape patterns over a large geographic area.

The existing conditions inventory and a preliminary evaluation (CLI Level 1) of the park's most significant component landscapes have been completed. Documenting the larger landscape patterns using GIS technology is underway. The next steps for the park are twofold: 1) complete a full comparative analysis and evaluation using National Register criteria for all component landscapes and large landscape systems and 2) link the tabular data from the CLAIMS database to the park's GIS spatial coverages. Park resource managers will then be equipped with comprehensive information to manage cultural landscape features and patterns and plan for future landscape rehabilitation.

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John R. Wright and Lori Rohrer

Between a Rock and a Hard Place
Archeology in a National Recreation Area

Cultural resource managers in the National Park Service are oftentimes caught between the proverbial "rock," preservation laws or regulations, and the "hard place," the park's enabling legislation.

The "rock": the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470, et seq.), is designed to encourage identification and preservation of the cultural resources of the United States[1] and gives the National Park Service the lead role in this effort.

The "hard place": Delaware Water Gap National Recreation Area (NRA) was established on September 1, 1965, pursuant to Public Law 89-158, "...to provide for public outdoor recreation use and enjoyment of the proposed Tocks Island Reservoir and lands adjacent thereto by the people of the United States and for preservation of the scenic, scientific, and historic features contributing to public enjoyment of such lands and waters...." The park's mission is to provide outdoor recreation opportunities while conserving the natural, cultural, and scenic resources.

In addition, confidentiality regulations of archeological sites (site location, character, and nature) can often hinder interpretation of these resources to the public. Since America's bicentennial, the public's awareness of, and interest in, archeology has grown steadily. How does the cultural resource manager balance the legal requirements of confidentiality, conservation, and preservation and still respond to and encourage the public's interest?

Excavations at Harry's Farm Site c. 1967, by Professor Kraft, Seton Hall University. NPS photo.

Delaware Water Gap NRA lies within the upper Delaware River Basin, a unique drainage system containing the physical evidence of a rich natural and cultural past. This area contains the remnants of the final Pleistocene glaciation that provided an abundant natural environment enticing the earliest North American inhabitants to exploit its resources. These resources supported human occupation continuously from approximately 10,500 BP to the present day. This rich history is preserved in both the historical and archeological record of the park.

There are currently 458 documented archeological sites within the park. The park contains the premier prehistoric and contact period archeological sites in the mid-Atlantic states. Among these sites, several have been placed in a specially designated district based on their unique and nationally significant composition. This district, the Minisink Historic District, received National Landmark status on April 19,1993. It consists of 1,320 acres of land within the northern portion of the park, in Pike County, PA, and Sussex County, NJ. The landmark consists of 7 contributing and 12 non-contributing archeological properties, and 1 contributing standing structure.

Archeological research in the Delaware River Valley still attracts scholars and local prehistory enthusiasts much as it did the early antiquarians. Research in the 19th century centered on the relics of the past, the study of the artifacts and monuments of ancient times. However, little research was done on the cultures of those ancient populations.[2]

It was not until late in the first half of the 20th century that serious research was conducted based on the development of chronologies, context, and function.[3] During the 1960s and 1970s, federal legislation provided for the preser-

Professor Pam Crabtree and NYU undergraduate and graduate students excavating at Fort Namanock. NPS photo.

vation and protection of prehistoric and historic resources and the shift in anthropological and archeological research to cultural evolution.[4]

In the late 1950s, the proposed construction of the Tocks Island Dam stimulated historical and archeological interest in this valley. Historians and archeologists were summoned to identify, record, and salvage data before the valley was dammed. Professional archeologists began their surveys in 1959, and by the mid-1960s, recognized that this area offered an abundant wealth — and well preserved record — of prehistoric occupation.

From 1964 through 1975, under federal government contract, W. Fred Kinsey III, of Franklin and Marshall College, and Herbert C. Kraft, of Seton Hall University, undertook extensive archeological investigations in response to the proposed Tocks Island Dam project. Their work, along with others from the New Jersey State Museum, helped lay the foundation of a cultural history of this region. During the 1980s and 1990s, the National Park Service continued long-term archeological investigations in response to planned development projects and completed a predictive modeling survey in the park.

Academic presence in the park saw a hiatus from 1975 until 1997, when New York University's (NYU) Department of Anthropology was asked to research French and Indian War period fortifications in the park. In 2000, Kutztown University (KU) of Pennsylvania was added to a growing list of academic partners researching various natural and cultural resources in the park. Kutztown University's Department of Anthropology is continuing research of the Brodhead Site begun by Kinsey in 1965. [5]

These university students and other volunteers serve a dual purpose at the park. They allow us to take on larger projects in a world of diminishing fiscal and human resources while, at the same time, providing an opportunity to engage the public in understanding both the "how to" and "why" of archeology.

Between 1994 and 2001, 201 volunteers donated 10,505 hours assisting in archeological excavations at sites including the McDade Recreational Trail, Trach/Shoemaker House, Bushkill Boat Access, Foster-Armstrong House, and Schneider Farm. [6,7] These volunteers were students, professional archeologists, amateur archeologists, teachers, and retired persons and ranged from 12 to 77 years old.

The popularity of archeology not only draws committed volunteers but, unfortunately, also attracts the criminal element. Between 1995 and 2001, there were 134 illegal surface collecting cases and five ARPA (Archeological Resources Protection Act of 1979, 16 U.S.C. 470aa-mm) cases in the park.

To combat this increase in illegal collecting, the park implemented two major programs in 1995. A 40-hour ARPA class for all Law Enforcement Park Rangers raised awareness of archeological resources and provided tools to help the park staff enforce the law. In addition, an Outreach Archeology Education Trunk was developed for 4th- through 6th-grade students to promote upper Delaware River Valley archeology in the area's school districts. The trunk simulates a portion of a Late Woodland habitation site

Fifth grade students working with the Outreach Archeology Education Trunk. NPS photo.

Archeological Technician Lori Rohrer and three middle school students excavating a test unit at the Foster-Armstrong House. NPS photo.

excavated in the park during the late 1960s. Cultural features (i.e., post molds, storage pits, and hearth outlines) were painted onto a light brown canvas tarp with a site grid painted over it. Late Woodland period artifacts, recovered from illegal collectors, are placed on the tarp near the features or at a location of a special activity. The program introduces the students to the study of archeology and the prehistory of the valley by recording, analyzing, classifying, and interpreting the gathered evidence.

During the last decade, the park's emphasis on interpreting the upper Delaware River Valley's prehistoric and historic sites and collections has helped raise public awareness of conservation and preservation. The interpretive services branch offers well attended programs throughout the year, ranging from campfire programs about the Lenape, the native people, to a spring lecture series by natural and cultural resource professionals discussing current research in the park. A hands-on activity booklet, "Junior Time Traveler," has also been developed for children.

We share information on the park's archeological wealth through these and other educational programs and through the availability of publications like the Kraft and Kinsey monographs in the park's visitor centers. But we also realize that the information we provide, not to mention the vast quantity of data that is only a click away on the Internet, can be used by those who see a different value — a market value — for these resources.

The approach we have developed to the "rock" and "hard place" conundrum identified at the outset of this article is to respect both. Respect the need to keep silent about the specifics of archeological sites to deter those who would do them harm. At the same time, respect the right of the public to know — and our responsibility to teach — about these publicly owned treasures. By sharing some, but not all, information, we can stimulate an interest in archeology and develop an understanding of the importance of these resources. When our visitors are our partners in preservation, we have huge allies in fending off the illegal collection of surface archeological materials, illegal metal detector prospecting, and illegal excavation of prehistoric and historic resources.

We need their help. The protection of 70,000 acres, 458 sites, and one landmark district is too much for any one archeologist.

Notes

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2 Jay F. Custer, *Prehistoric Cultures of Eastern Pennsylvania.* Anthropological Series Number 7. (Harrisburg, PA: Commonwealth of Pennsylvania, Pennsylvania Historical and Museum Commission, 1996), 39-40.

3 Ibid. p. 57.

4 Ibid. pp. 81-82.

5 Fred W. Kinsey III, *Archaeology in the Upper Delaware Valley, a Study of the Cultural Chronology of the Tocks Island Reservoir.* (Harrisburg, PA: Commonwealth of Pennsylvania, the Pennsylvania Historical and Museum Commission, 1972).

6 John R. Wright, "Archeological Investigations at the Peter Trach/Jacob Shoemaker House: A View of Settler Life", Proceedings of the 1995 Delaware Water Gap 30th Anniversary Symposium. November 18, 1995. (East Stroudsburg, PA: R.K.R. Hess Associates, Inc.), 31-41.

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Pam Crabtree, Douglas V. Campana, and John R. Wright

Exploring the Archeological Potential of French and Indian War Fortifications

The era of the French and Indian War (1754-1763) is one of the most important periods of political change in colonial American history. Yet, despite the pioneering archeological research carried out at Fort Necessity in western Pennsylvania in the 1950s,[1] the archeology of the French and Indian War remains relatively understudied.

In February 1997, Delaware Water Gap National Recreation Area (NRA) and the Anthropology Department of New York University (NYU) entered into a five-year cooperative agreement. Archeologists from the National Park Service and New York University agreed to investigate the archeological potential of a series of forts and blockhouses along the Delaware River within the park. The archeological research has been co-directed by John Wright, archeologist, Delaware Water Gap NRA, and Pam J. Crabtree, associate professor of anthropology, NYU. The National Park Service funded the project through the Systemwide Archeological Inventory Program. The program has provided research opportunities for over 20 undergraduate and graduate students at New York University and volunteer excavation opportunities for Boy Scouts, Girl Scouts, and students from the Eatontown, NJ, school district.

The Delaware Water Gap region is an ideal area to explore the archeology of the French and Indian War. In the 1750s, colonial legislatures from New York to Virginia authorized the construction of forts and blockhouses to protect their citizens from raids by Native Americans who were allied with the French. Portions of both the New Jersey and the Pennsylvania fortified lines are within the park boundaries. In addition, Jonathan Hampton, a trained surveyor who also served as quartermaster for the New Jersey garrisons along the frontier, prepared a map showing the locations of the forts and blockhouses along the New Jersey frontier in 1758.

The Hampton map, along with other archeological and documentary research, has helped guide our excavations.

In 1998, we began a three-year program of excavation at the site of Fort Johns, also known as Headquarters and Fort Shapanack. The Hampton map shows that the fort was located at the intersection of the Old Mine Road,[2] one of the oldest roads in the United States, and the military road that extended eastward to Elizabethtown. The late professor Herbert Kraft[3] of Seton Hall University had conducted preliminary excavations at Fort Johns during the mid-1970s. A 19th-century farmhouse, the Hull-Schnure house, was located on the property until the early 1970s. Aerial photographs were taken of the site in 1939. In addition, an insert in the Hampton map showed a plan of Fort Johns Headquarters. A small stone house, approximately 26 by 52 feet, was located at the center of the fort; a square palisade surrounded it with bastions at the corners. A stone blockhouse, possibly for storage of munitions, was located along one side of the palisade.

We began our field project by identifying the locations of Professor Kraft's trenches, so that we could continue his pioneering

Jonathan Hampton map of the New Jersey side of the Delaware River showing forts constructed during the French and Indian War. (Kraft, 1977).

Foundation ruins of the possible blockhouse. NPS photo.

work. Professor Kraft's initial excavations had identified several structures, including a line of postholes and a rectangular stone structure, which may have been associated with the fort. Local oral traditions suggested that the stone structure, which served as a cowshed in the 20th century, was built on the foundations of the 18th-century blockhouse shown in the Hampton plan. In 1999, we excavated a section of the stone structure.

We recovered a large variety of artifacts from this excavation including pottery, glass, and metalwork. Among the more interesting objects we recovered were a 19th-century bottle for a patent medicine for treating worms and early Ball mason jars and lids. All of the objects that we recovered could be dated to the second half of the 19th century. No 18th-century objects were recovered. Our excavations suggest that the stone building is more likely to be associated with the 19th-century Hull-Schnure house than with the earlier French and Indian War fort.

In 1999, we also conducted additional excavations along the line of postholes first identified by Professor Kraft. We found that the postholes were associated with 19th- and 20th-century artifacts. The postholes probably represent a fence line associated with the Hull-Schnure occupation. We also excavated several test squares throughout the site in an attempt to identify the line of the 18th-century palisade. Our testing strategy did not identify the location of the fort's palisade.

In all three excavation seasons we dug a series of test pits in an attempt to locate the foundations of the small stone house that stood at the center of Fort Johns. We excavated several test trenches to the east of the foundations of the Schnure house, as well as a small number of test pits on the north side of the military road. These trenches yielded a wide range of prehistoric and historic artifacts and cultural features. However, we were unable to locate the foundations of the 18th-century house. It is clear that the Fort Johns site was heavily disturbed when the Hull-Schnure house was destroyed in late 1974, and it is possible that the earlier 18th-century foundations were also obliterated at that time.

In the summer of 2001, we decided to explore Fort Nominack (Nomanoc), a fort located approximately eight miles north of Fort Johns. Fort Nominack stood as a ruin until the early 20th century[4] so its general location is known. Amy Sousa, a New York University student who took part in the 1998 excavation season as part of her senior honors thesis research, conducted preliminary archival research in Fort Nominack. In 2001, we mapped and tested the ruins of a building that had been identified as Fort Nominack in early archeological surveys of the park. This building may be an old barn on the property. We are currently consulting with area residents who remember the location of the Nominack ruins, and we hope to carry out further archeological testing of Fort Nominack in future seasons. In future years we also hope to look for the remains of Fort Hynshaw on the Pennsylvania side of the river.

Notes

1 J. C. Harrington, *Washington's Fort Necessity: A Report on the Archeological Explorations at Fort Necessity National Battlefield Site, (Richmond, VA)* (Conshohocken, PA: Eastern National Parks and Monuments Association, 1977).

2 Herbert C. Kraft, *The Minisink Settlements: An Investigation into a Prehistoric and an Early Historic Site in Sussex County, New Jersey* (South Orange, NJ: Seton Hall University Museum, 1977).

3 Ibid.

4 C. G. Hine, *The Old Mine Road, (New Brunswick, NJ, 1909)* (Rutgers, NJ: Rutgers University Press, 1985).

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Philip A. Perazio

An Investigation of the Brodhead Site

The Brodhead Site was one of a series of archeological sites investigated by W. Fred Kinsey III as part of his work for the National Park Service in the upper Delaware Valley during the planning for the proposed Tocks Island Dam. The Brodhead Site is located about a mile north of the village of Bushkill, PA, in the flood plain adjacent to the Delaware River.

The park is constructing a 32-mile cycling/hiking trail in Pennsylvania parallel to the Delaware River, known as the McDade Recreational Trail. The trail will pass near, but somewhat inland from, the area of Kinsey's 1965 excavations. Since more recent archeological investigations have revealed the presence of prehistoric archeological materials in nearby locations, the park determined that the area should be tested prior to construction.[1,2,3]

To accomplish this work, in 2001 park archeologist John Wright developed a partnership with the Department of Anthropology and Sociology of Kutztown University of Pennsylvania. Working under a cooperative agreement, the university's archeological field methods classes hold their field exercises at the Brodhead Site, satisfying both the National Park Service's goal of maximizing educational opportunities in the parks, and protecting potential archeological sites from disturbance.

KU students performing field investigations at the Brodhead Site. NPS photo.

In addition to the Kutztown students, members of Chapter 14 of the Society for Pennsylvania Archeology have also participated in the fieldwork. The Society brings together people with an interest in archeology. Some members have been active in Delaware Valley archeology for many decades and have worked on sites key to developing knowledge of the region's prehistory.

As work progressed, interest spread. Veteran participants brought family members, friends, and co-workers to visit and, in some cases, to work. Teenagers came to gain first-hand experience and, perhaps, explore whether archeology is something they wanted to pursue as a career. Kutztown students from previous years have returned to lend their expertise. The variety of participants permitted the pairing of students and others new to the field with seasoned volunteers, thus enriching the experience for both groups. Other visitors have included a Girl Scout troop and a criminal law forensics class from East Stroudsburg University.

Despite the large number of individuals who have participated, the progress of the work has been slower than hoped. Weather and ground conditions in February and March restricted fieldwork by the Kutztown University class to about five Saturdays in April and early May, just before the semester ends. Work continues intermittently with a combination of Kutztown University students who live locally and a variety of volunteers. Generally, no more than half a dozen people are present on any one day. This permits a less hectic setting than when the field class, usually about 12 students, is present. Novice volunteers can be given close attention and instruction by the more knowledgeable participants, and many a story of past experiences, both in the field and "apres" field are exchanged.

The down side of running the excavation with this type of crew is the lack of continuity in personnel. Just when the Kutztown University students are beginning to get the hang of things, the semester is over and nearly all are gone. The Chapter 14 members and other volunteers have

Professor Perazio explaining site excavations to a local Girl Scout troop. NPS photo.

busy lives with many commitments to things other than archeology. With the team constantly changing, much time is spent bringing new workers up to speed.

The 1965 investigation by Kinsey does not appear to have included any deep excavation.[4] The cultural components are described as shallow and mixed, including dateable points and ceramics associated primarily with the Early through Late Woodland periods. Very few artifacts attributable to any portion of the Archaic were found. However, the Kutztown University excavation of the Brodhead Site has recovered thus far artifacts, including archaic diagnostics, at some depth below the base of the plow zone. The presence of these materials indicates that it is at least possible that the archaic materials, which appeared to be missing from Kinsey's study area, are in fact buried at greater depth.

The Kutztown class has now spent two seasons at the Brodhead Site. A planned Pennsylvania Department of Transportation roadwidening project immediately adjacent to this location will both increase the area to be examined and raise the urgency for completing the fieldwork. National Park Service staff and an expanded pool of volunteers will join the Kutztown University archeological field methods class this year determined to bring the field investigation to a completion in 2002.

Volunteers sifting for artifacts at the Brodhead Site. NPS photo.

Notes

1 Fred W. Kinsey III, *Archeology in the Upper Delaware Valley, a Study of the Cultural Chronology of the Tocks Island Reservoir.* (Harrisburg, PA: Commonwealth of Pennsylvania, the Pennsylvania Historical and Museum Commission, 1972).

2 John R. Wright, *Archeological Investigations South of Randall Creek and South of Bushkill Access and Additional Archeological Investigations of the Stoehr Site, 36 Pi 148, Bushkill Access in the Delaware Water Gap National Recreation Area, Lehman Township, Pike County, Pennsylvania.* (Bushkill, PA: U.S. Department of the Interior, National Park Service, Delaware Water Gap National Recreation Area, 1997).

3 John R. Wright, and Lori Rohrer, "Preliminary archeological investigations of portions of the proposed Joseph M. McDade Recreational Trail Delaware Water Gap National Recreation Area Monroe and Pike County, Pennsylvania." In progress. (Bushkill, PA: U.S. Department of Interior, National Park Service, Delaware Water Gap National Recreation Area).

4 Fred W. Kinsey III, *Archeology in the Upper Delaware Valley, a Study of the Cultural Chronology of the Tocks Island Reservoir* (Harrisburg, PA: Commonwealth of Pennsylvania, the Pennsylvania Historical and Museum Commission, 1972), 257, 259.

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Thomas E. Solon

Mistress of Stylistic Blends

An Architectural Pictorial of the Minisink

Greece was the great Mistress of the Arts, and Rome, in this respect, no more than her disciple; it may be presumed, all the great buildings which adorned the Imperial city, were but imitations of Grecian originals.

"The Antiquities of Athens, 1762-1818"

The geographic region that is home to Delaware Water Gap National Recreation Area (NRA) was known historically as the "Minisink." A name of Native American origin, the area today contains a virtual repository of 18th- and 19th-century vernacular architecture. While not a "mistress of the arts" like ancient Greece, the Minisink as "mistress" does symbolize a "bearer of fruit, possessor or protector." Both figuratively and literally, the Minisink has given birth to a diverse architecture. Today, it possesses a unique blend of styles and is under the care and protection of the National Park Service.

European settlement of the upper Delaware Valley flourished during the mid-18th century. Those first to arrive came from Dutch settlements to the north. They were later followed by English and German settlers from the lower Delaware Valley. These colonial settlers brought to the Minisink diverse architectural traditions, which over time coalesced into stylistic blends, one early example being the Van Campen Inn. One could almost liken these stylistic blends to an "architectural cocktail," an amalgamation of architectural details from Dutch Colonial, Georgian, Federal, and other sources with harmonizing, yet distinguishable, parts.

Later, as 19th- and 20th-century architectural styles developed elsewhere, a diversity of new styles eventually began to appear in the rural Minisink. Quaint rather than formal, these were unexacting, free interpretations of historical styles — a country builder's version of the various popular styles being published in "pattern books" such as "The Antiquities of Athens, 1762–1818" by James Stuart and Nicholas Revett.

Greek Revival House, Peters Valley, NJ, built c. 1855. Larger-than-life concrete ferns by local artist Ricky Boscarino.

All photos are NPS photos.

Van Campen Inn, Walpack, NJ, built c. 1746, is today an unfurnished house museum.

So it was with Greek Revival. By the mid-19th century, several "high style" examples of this type had been built, including the Greek Revival House in Peters Valley, NJ. An even greater number of vernacular versions, though, dot the valley's landscape today.

These less pretentious 1½-story dwellings often adopted Greek Revival detailing in the form of paneled friezes with "eyebrow" windows. Such was the case with the upper Delaware Valley

Arisbe, former home of American philosopher Charles S. Peirce, built c. 1887-1914.

cottage, one of the park's dominant vernacular dwelling types.

Larger scale hybrid versions of Victorian, Italianate, and Queen Anne styles cropped up in towns and villages and, by the turn of the century, provided a convenient palette for a growing number of resorts. Some hybrids, like Arisbe, actually evolved from the expansion and elaboration of an earlier farmhouse. Many former valley farms became second homes for city dwellers.

The Zimmermann family from Brooklyn, NY, built a Dutch Colonial Revival style summer home on their farm. The region's early settlement architecture inspired much of this 2½-story stone house's detailing although other styles were added to the mix. The eclectic result is an extreme example of stylistic blending. Craftsman and Shingle style features together with a rounded bulging entrance tower reminiscent of a Dutch windmill combine to give the building a picturesque, almost storybook appearance — as if to suggest later alterations to an earlier house. More often than not, builders and architects chose to reference details from the valley's past when creating these later buildings.

Zimmermann House, Dingmans Ferry, PA, built 1911, currently undergoing rehabilition.

The c. 1910 origins of the Ramirez Solar House had expansive verandahs and intersecting gambrel shaped roofs in a style also derivative of the Shingle and Colonial Revival periods. Architect Henry Wright, Jr., an early solar advocate, drastically remodeled the house in 1944. The decidedly modern yet Rustic result features a large glass window wall facing south to collect the sun's energy. This is the second passive solar house built in America. In the remodeling, Wright freely mixed and matched both traditional and modern, the old with the new, creating an "architectural cocktail" if there ever was one.

The Ramirez Solar House and numerous other Delaware Water Gap NRA historic structures are currently mothballed, awaiting a compatible tenant, like the lessees of the Dutch

Ramirez Solar House, Milford, PA, looking today as it did following the 1944 remodeling.

Reformed Church in Dingmans Ferry, PA, (see photo essay, p. 32) to share in the cost of rehabilitation.

As a stronghold of vernacular mixtures of Colonial, Classical Revival, Victorian, and Early Modern architecture, the Minisink as "Mistress of Stylistic Blends" exemplifies the "messy vitality" that a rural agrarian economy is capable of when unfettered by the amenities or the expectations of a cultured city life.

Thomas E. Solon, AIA, is the guest editor of this issue of CRM and is a historical architect who manages the office of preservation and design at Delaware Water Gap National Recreation Area.

Kenneth F. Sandri

Upper Delaware Valley Cottages
A Simple Regional Dwelling Form

Houses are significant in so far as they reveal the living conditions of a period and the capacity of the people who occupied them. They are a record of human society and of the particular genius of a given community.[1]

Research, surveys, and preservation activities provide much of what we know about small vernacular dwellings built in 19th-century America. Unfortunately, these modest dwellings rarely attract sufficient study and are often subject to drastic modification or demolition. As a result, their "collective knowledge" may be lost or relegated to photographs. Some writers believe these simple regional dwelling forms were so engrained in the collective knowledge of the builder/craftsman as to make new designs superfluous.[2] It is assumed that evolutionary changes that occurred were more a product of experience than suggestion or planning.

In Delaware Water Gap National Recreation Area (NRA) there is a particular 1½-story cottage dwelling type that still survives. Its profusion makes it a dominant rural dwelling type in the upper Delaware Valley. Through further study and preservation, we may better understand its origins and increase its chances for survival.

Cultural geographers have defined vernacular structures as those built according to traditional precedents, i.e., without formal design, and influenced by local building materials and environmental conditions. When legislation for the national recreation area was passed in 1965, amidst all the controversy a unique opportunity emerged to study the origins and ethnic influences of the region's domestic (vernacular) architecture. Settlement of the upper Delaware and the evolution of vernacular architecture that resulted were the product of diverse cultures from a variety of other, earlier settlements.

The typical 1½-story upper Delaware Valley cottage is a variation on the "hall and parlor" house plan, though one-room-plans and two-room-plans were also common. Prior studies have identified similar types of dwellings built by the English, Dutch, Flemish, and Germanic peoples, who are collectively indigenous to an area encompassed by Connecticut, Long Island, northern New Jersey, southeast New York, and eastern Pennsylvania — the cradles of 18th-century America.[3] Two distinct types of cottage have been identified — English Cottage in New England[4] and East Jersey Cottage (EJC) in northern New Jersey.[5] The British Cabin, as defined by Glassie and others, from the lower Delaware Valley may be yet another possible style.[6] All are potential progenitors of the Upper Delaware Valley Type (UDVT) first named by Norman Souder in the formative years of Delaware Water Gap NRA.[7]

They have in common wood framed, 1½-story, gable ends with floor plans that are two rooms wide and one room deep with eave-side entrances. Such houses, however, were also built of stone. Other possible differences among these examples include the date when erected, roof pitch and overhang, window type and placement, chimney types and locations, and method of heating.

In sorting out differences and similarities among these examples, the EJC and UDVT appear to share a common ancestry. It is primarily the use of frieze band windows at the second floor level of the UDVT that differentiates the two; under close comparison their similarities far outweigh their differences.

Indeed, the cumulative changes in the construction and appearance of the EJC as settlements moved westward may have actually culminated in the UDVT and could explain one possible origin for this cottage form. While Souder coined the phrase "Upper Delaware Valley Type" to describe such cottages as the Daniel Clark House in his 1967 architectural survey of the park, he did not fully discuss the origins or variations of the UDVT. His broad and cursory survey simply indicated the UDVT was important because of its profusion in the area. Variations in

Daniel Clark House, built c. 1865.

the UDVT can likely be attributed to owner/builder preferences, economic conditions, and the technology of the day—or simply fashion trends at the time. While these variations owe little to the EJC, the basic form of the UDVT cottage could have evolved, in part, from the westward migration of the EJC.

The predominance of the Greek Revival style in the early- to mid-19th century had an affect, if somewhat delayed, upon the appearance of cottages built in the park and surrounding areas. Not surprisingly, UDVT cottages with Greek Revival detailing are not at all uncommon. Stylistic features were simple in execution, probably to reduce costs, and usually occurred near the roofline in the use of expanded cornice detailing and paneled frieze boards punctuated by a single three-pane window sash, called "eyebrow" window. Early and late versions of the UDVT cottage likewise show the respective influences of Federal and Victorian styles. Style, however, should not be viewed as the overriding character-defining feature of the subject cottage, for an equal number of examples were left unadorned. While only the earliest examples have fireplaces on one gable end, most were heated by wood stoves and have interior, gable end chimneys. Early examples have six-pane sash window units but later examples exhibit two-pane sash used in three, four, and five bay examples.

On occasion, builders repeated certain examples, creating identifiable phases or subtypes. Company towns, not unlike Walpack Center in the park, are good examples of plain, but nearly identical, repetitive dwellings. Sometimes the subject cottage evolved from the expansion of an earlier dwelling. In Millbrook Village, for example, the Garris House was expanded linearly from a cabin into this house type. Such a linear expansion into this popular house type speaks much to the aspirations of the owner. It also serves to illustrate that looks can be deceiving when dating historic buildings.

Much information remains to be uncovered on the original range of the UDVT cottage (within this region), their historic appearances, and the differences between examples. Indications are that only a fraction of those built remain; and of those still in existence, most have been substantially modified into contemporary dwellings. Currently, only a few of the UDVT cottages exist in their original state. Within the park, some 14 examples still remain; but only the Garris House has been restored to a period appearance. The others remain mothballed.

The UDVT cottage was a dominant vernacular dwelling type in the park and the surrounding area. Like all other architecture of the region, it is a hybrid — a cross-fertilization of the cultures and the traditions of those who settled the area. The very simplicity of this cottage type reflects a deliberate intention to live modestly. Delaware Water Gap NRA has provided one of these examples a refuge from extinction. Those that remain warrant preservation too.

Notes

1. J. Jakle, R. Bastian, D. Meyer, *Common Houses in America's Small Towns*, (Athens, GA: University of Georgia Press, 1989), 1.
2. Ibid.
3. Peter Wacker, *New Jersey's Cultural Landscape Before 1800*, (Newark, NJ: New Jersey Historical Society, 1970).
4. Lester Walker, *American Shelter*, (Woodstock, NY: Overlook Press, 1981), 78.
5. Thomas Wertenberger, *The Founding of American Civilization*, (New York: Cooper Square Publishers, 1938), 69, 153.
6. Henry Glassie, *Pattern in the Material Folk Culture of the Eastern United States*, (Philadelphia: University of Pennsylvania Press, 1968) 47, 52 & 53.
7. Norman Souder, *Historic Structures Report on Historic Structures of Delaware Water Gap NRA*, (Philadelphia: National Park Service, Office of Archeology & Historic Preservation, 1967).

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Chuck Evertz and Larry J. Smotroff

Camp Staff Breathes New Life into Old Cabin

Have you ever seen an old cabin in the woods and wondered who built it and lived in it from season to season? The stories that the old cabin could tell would fill a book. This is the story of a cabin that lived, died, and was reborn through the efforts of a life-saving team of volunteers who remembered their times at Todd Lodge, along the Appalachian Trail, atop the Kittatinny Mountain Range.

In 1995, the staff alumni associations of Camp Ken-Etiwa-Pec (KEP) and Crossett Lake Scout Reservation (CLSR) merged to become the KEP-Crossett Lake Association. This was a natural union because the proceeds from the 1972 sale of Camp Ken-Etiwa-Pec to the National Park Service for inclusion in Delaware Water Gap National Recreation Area (NRA) helped the Orange Mountain Council of the Boy Scouts of America purchase Crossett Lake Scout Reservation the following year. Crossett Lake operated until 1994 when the Boy Scouts sold the property. It was at that time that the Crossett Lake Alumni approached the KEP organization and the new association was formed. It was decided by the executive board of the new association that an effort would be made to form a partnership with Camp Ralph S. Mason, the current operator of KEP, and the National Park Service to renovate and put Todd Lodge back into service.

Todd Lodge was the first building constructed at Camp Ken-Etiwa-Pec. It was built by volunteer leaders and scouts from the Orange Mountain Council and was dedicated in 1938 to the memory of Rev. Francis Cheswick Todd, a driving force behind the building of KEP and the scouting movement in the Oranges, an area of New Jersey west of New York City, near Newark.

Over the course of its long history, Todd Lodge served many purposes. It was used extensively in the winter camping season for short term camping. During the summer months, Todd Lodge served at one time or another as the handicraft lodge, the scout craft lodge, and commissioner headquarters. For several years after the sale of KEP, Todd Lodge was used by the various lease groups that occupied the camp. Little or no maintenance was done, however, and the building began to deteriorate. For many years, Todd Lodge was boarded up and abandoned.

The newly formed KEP/CLSR Association presented a plan to Camp Ralph S. Mason and the National Park Service to save Todd Lodge. After many meetings and visits to the site, the plan for the restoration project was approved. Several subcommittees were formed to tackle the various aspects of the project.

A mailing list of over 2,000 former campers, staff, and friends of both camps was created to gain support for the new endeavor. Not only was financial support sought, but also technical sup-

The Todd Lodge after resuscitation. Photo courtesy KEP-CLSR Association.

An alumnae reunion at Todd Lodge. Photo courtesy KEP-CLSR Association.

port and manpower to do the actual work.

The response to our Birchwood Newsletter was very favorable, and within six months close to $10,000 in cash and gifts had been donated. A great many people indicated their willingness to help, and on our first work day close to 50 scouters and their families came back to KEP to start the project. Those who could not attend contributed by sharing memories and memorabilia and providing resources for future use.

The association developed plans for the actual restoration of the lodge with the guidance and approval of the National Park Service. Due to the historic nature of the building, it was decided that the lodge would be restored to the way it was during its prime operating years. This provided additional challenges such as finding exact replicas of the light fixtures and wooden double hung windows with 6/6 true divided lights. However, all these challenges were eventually overcome due to the diligence and hard work of the association members.

Finally, after months of planning and preparation, the actual work began in May 1996. Over the course of the next five years, association members met one Saturday a month during the May to October camping season to work on the project. Not only was there a great deal of work accomplished on these days; but also friendships were made and renewed, fond memories were relived, and scouters found that they could really come back "home." The group was made up of staff and friends of both camps, and very often family members and children joined in the effort.

The scope of the project was enormous because Todd Lodge had been closed up for so long. Structurally, the lodge was intact; however its appearance was disheartening. A great deal of time was spent cleaning out years of accumulated debris. Once that was accomplished, windows were replaced, new doors were built, the building was rewired and replumbed, the entire ceiling was replaced, the walls were scrubbed and refinished, and the floor was sanded and refinished.

The highlight of the 1998 season was a grand reunion and rededication of the cabin. Close to 100 former staff and their families met that weekend to share memories, rekindle friendships, and enjoy again the magic of the camp of their youth. The highlight of the day was a rededication ceremony at Todd Lodge. Although the work was not yet finished, the progress made in the 2+ years was astounding.

In the years since the 1998 reunion, the majority of the work on Todd Lodge has been completed. The association still meets monthly during the camping season to finish up odds and ends and to do maintenance on the building. Plans for the future include reserving Todd Lodge on the first Saturday of each month for association use. The rest of the camping season Todd Lodge will be used by Camp Ralph S. Mason.

Chuck Evertz grew up as a camper at KEP and was a long time staff member at Camp Ken-Etiwa-Pec and Crossett Lake. He is an Eagle Scout. He currently resides in Sussex County, NJ, where he is a teacher with the Vernon Township Board of Education.

Larry J. Smotroff, Ph.D., is a former camper and staff member at both Camp Ken-Etiwa-Pec and Crossett Lake. He is an Eagle Scout and resides in Connecticut. He is the dean of Continuing Education and Community Development at Naugatuck Valley Community College.

Leonard R. Peck

Preserving and Interpreting Historic Houses

VIPs Show the Way

Some members of local historical societies are Volunteers in the Park (VIPs) who augment Delaware Water Gap National Recreation Area's (NRA) maintenance and interpretive staff in operating and presenting individual historic sites to the public.

The Montague Association for Restoration of Community History (MARCH) operates two historic properties in Montague, NJ, and has been particularly successful in establishing fascinating exhibits from donations made by past residents of the surrounding area. Docents, often dressed in period clothing, greet an enthusiastic public on weekends and holidays. Like the Millbrook Society which assists the park with the operation of a museum village near Flatbrookville, NJ, MARCH depends on the park for assistance with major upkeep and improvements. Even so, just occupying the once vacant structures and giving them a "cared for look" is, in itself, a priceless form of upkeep.

Walking the talk, the author, a VIP, has personally participated in refurbishing countless window sash and built ventilated security panels to protect them. NPS photo.

The ambitious Millbrook Society has also spearheaded the raising of two barns and a 19th-century gristmill — filling voids left in the village from arsonists and a failed dam project. The society supplies docents and craftsmen to entertain thousands of visitors during Millbrook Days, held during the first weekend in October each year. Volunteers operate a wagon shop, blacksmith shop, and woodworking shop; make apple cider and applesauce; and demonstrate dye making and other crafts prevalent in the mid-19th century. Park staff assists with preparation and logistics.

In Pennsylvania, the Friends of Marie Zimmermann (FOMZ) have helped the park in other ways. While park staff coordinates construction planning to restore the Marie Zimmermann House, FOMZ volunteers help maintain the grounds and promote local interest. Members of FOMZ were instrumental in requesting rehabilitation funds from Congress in the first place — something the park cannot do on its own.

Staving off the elements and protecting buildings from vandalism while awaiting rehabilitation, or mothballing, is an ongoing program at Delaware Water Gap NRA. Dedicated volunteers from the Walpack Historical Society (WHS) have made mothballing a routine activity.

The WHS was formed in 1986 to preserve the history and heritage of the Walpack Center Historic District in the central New Jersey side of the park. The WHS supplies docents to interpret the nearby Van Campen Inn and provides security patrols for a large portion of the contiguous Old Mine Road Historic District. Members of its Landmark Preservation Committee look for signs of vandalism and report those conditions to park law enforcement officials. In many instances, repairs are performed by a core membership of volunteers with construction skills.

But mothballing is WHS' specialty. Vacant park buildings left for years without heat, light, or air circulation have been successfully "mothballed" by installing ventilated security panels

over windows consisting of half vent and half Plexiglas. These see-through panels let sun and air in while keeping curiosity seekers out. Over 350 of these panels have been built and installed by WHS volunteers on buildings all over the park. Members also restored many minor structures including roofs, floors, and porches on some of the major buildings. Less glamorous jobs were tackled too, including cleaning out building interiors. Using park provided dumpsters, structures were returned to a broom clean condition so that interior history tours could be held. As a founding member and past president of the WHS, I personally participated in all these work details.

Mothballing vacant properties until such time as funds for their repair become available is an interim measure calculated to buy time. By educating the public and giving vacant historic properties that "cared for look" — mowing grass, making minor repairs, and providing occasional house tours — we have witnessed a reduction in vandalism and have, I hope, shown the way to a more promising future for the preservation of our past.

Nonagenarian Leonard R. Peck has been a VIP at Delaware Water Gap National Recreation Area since 1987. Len received the National Park Service Northeast Region's VIP of the Year Award in 1996.

VIPs make a significant contribution to the day-to-day operations of Delaware Water Gap National Recreation Area. While there never seems to be sufficient staff, enough hours in the day, or adequate funds to carry out the park's mission, there has always been a generous supply of unselfish individuals willing to perform worthwhile tasks on a volunteer basis. VIPs work in almost every park in the National Park System.

The Many Faces of "Eaves"

Dutch Reformed Church, Dingmans Ferry, PA

"Turban Renewal." Photo taken July 4, 1998.

This combined residence, antiques, and crafts shop is one of the national recreation area's successful historic leases. Today, the carriage house has been adapted for use as a gift shop called "Phoenix."

"Polychromy." Photo taken during summer of 1996. The ancient Greeks polychromed their temple facades with a multitude of paint colors. Leasee Doug Cosh has instead planted vast flower beds and, in the process, has turned the grounds of the former Dutch Reformed Church into a polychromatic feast for the eyes. Fourth of July facade decorations have become a "perennial" event.

"Decorative Frieze." Photo taken during the winter of 2000.

Larry Hilaire

Yesterday and Today
Planting for Tomorrow

Almost a millennium ago in what is today Delaware Water Gap National Recreation Area (NRA), prayers and tobacco were offered to Kahesana Xaskwim (kay-ess-ahna haas-queem). She was also known as "mother corn" by some of the earliest inhabitants of the valley — the Lenape (or Delaware) Indians. She is one of the benefactor spirits, or manitowouk, who oversees all of the plants.[1] Corn, beans, squash, tobacco, sunflowers, and other crops were grown in the valley. Land was cleared for cultivation and planted year after year until its productivity declined, was allowed to rest, and perhaps was cultivated again at a later date.

Delaware Water Gap NRA was not established to commemorate a specific time period. Nevertheless, notable historical and cultural imprints on the land began over 10,000 years ago with Paleolithic peoples and continue to the present day. Some agricultural fields were cultivated since at least 1300. Prior to European settlement, it is believed that periodic fire was part of this area's ecology. Fire helped to maintain open space in the valley and surrounding ridges. To restore this greater cultural landscape, it is important to plant historically accurate fire-dependent grasses. Successful native grass restoration projects in the park have involved the cooperation of the ranger division, farmer special use permittees, and outside public and private entities. Through this cooperation, more than 100 acres of native grasses (big bluestem, little bluestem, switchgrass, deertongue, Indian grass, and Virginia, riverbank, and eastern wild ryes) have been restored in the last 5 years. The goal is to continue native grass restoration efforts, combined with a program to eradicate invasive exotic plant species as called for in National Park Service Management Policies.[2]

Beginning in the early 1700s, Europeans settled the valley bringing with them orchard crops, rye, oats, buckwheat, flax, cattle, and sheep. Much of the park's upland acreage was better suited for grazing than row crops. One remnant orchard, the Roberts farm orchard, is believed to be the oldest in the National Park Service.[3] It is being managed and propagated through an agricultural special use permit and with the assistance of the Frederick Law Olmsted Center for Landscape Preservation. While most of the apple trees are not yet identified as to variety, one has been identified as a Newtown Pippin. The variety's origins go back to the Newtown, (Long Island) NY, estate of Gershom Moore. There is a report that the first Moore to settle in Newtown Village brought either a seed or young tree from England about 1666.[4] The park's tree may be over 200 years old.

Around 1900, wealthy visitors began buying farms for rural retreats, horse boarding, hay production, and vacation facilities.[5] Inactive farm fields were frequently rented to neighboring farmers, thereby maintaining agricultural landscapes. Where fields were allowed to mature into woodlands through succession, vestiges of stone row field borders are still apparent today. Place names within the park, like Wheat Plains, Egypt Mills, and others, testify to the historical importance of agriculture in the valley. Nowadays, resource protection practices utilize modern farming and succession management tools to protect and preserve this agricultural context.

Maintaining a mix of open space and forested areas offers a glimpse into different time periods and creates and maintains vistas along roads — increasing the diversity of the scenery for travelers. The use of agriculture as a tool to maintain park open space is addressed both in National Park Service natural resource management guidelines and directed in the park's General Management Plan (GMP). Agricultural landscapes are also representative of (historic) cultural landscape.

Farmer permittees help the park manage 2,700 acres of parkland by farming and an additional 1,000 acres by mowing. Through agricultural Special Use Permits (SUPs), farmers facilitate two management objectives: 1) they hold back forest succession and help maintain cultural land-use patterns and open space (which the park has neither the personnel or equipment to do), and 2) they benefit wildlife, which in turn enhances the bird watching, hunting, and other recreational activities called for in the park's enabling legislation.

Besides cultural landscape issues, other resource considerations are addressed prior to issuing an agricultural SUP. Advising on best

Lenape corn varieties likely grown in the Delaware Valley include, left to right, Delaware blue (Sehsapsing), Grandmother corn, white flour corn (Puhwhem). Photo by the author.

management practices (BMPs) in-house are the park archeologist, park rangers, natural resource personnel, and the park's historic preservation staff. Outside agencies may include county conservation boards, state wildlife agencies, and the U.S. Fish and Wildlife Service. The Natural Resource Conservation Service (NRCS) is always consulted and prepares a "conservation plan" for each tract that is included as part of the lease and directs BMPs to control soil loss. BMPs may include installation and maintenance of riparian buffers, contour strips, hedgerows, field borders, and may address soil types, cultivation methods, and crop rotations — all designed to protect the natural and cultural resources of the park. Having and implementing a conservation plan is also a requirement for farmer permittees seeking enrollment in federal agricultural subsidy programs.

No-till farming, where only small openings are cut in the soil to plant seeds, is required in areas of archeological sensitivity where farming continues. Minimum-till methods (lightly disking the soil surface) are used in other areas. At one site, preliminary data demonstrate that the practice of minimum tillage is a benefit to the nesting success of the wood turtle (Clemmys insculpta), a threatened species in New Jersey. In this situation, cultural farming practices (the coordination of tillage, spraying, and harvesting operations) benefit a natural resource. While hedgerows, contour/filter strips, wetland protection, and riparian buffers were not historic, nor were minimum or no-till practices, their use has greatly enhanced the protection of park resources. Organic farming too has made great strides in land protection practices — utilizing cover crops as green mulch, double cropping, etc. Unfortunately the tilling requirements in organic systems conflict with the need to protect underground archeological resources, and it is uncertain whether organic farming can be expanded throughout the park.

Pesticide use is restricted to products approved by the National Park Service as safe for use within the watershed and with park soils. Further, farmer permittees are required to enroll their acreage into crop management associations (CMAs). CMAs scout crops for insects, weeds, and nutrient deficiencies, conduct soil tests, and recommend products from a cost-benefit perspective. While an additional expense for the farmer, CMAs ultimately save money by assuring that pesticides and fertilizers are used only when necessary and only in the amounts and locations where they are required.

Agricultural leasing also helps maintain culturally and historically significant farm structures. The Brodhead farm, begun in 1770, is currently leased as an organic farm. The permittees are undertaking substantial restoration of the farm structures.

Today, into the continuum of the 21st century, it is comforting to know that Kahesana Xaskwim still looks after the crops and plants that comprise the cultural landscape in the scenic valley of the Delaware River.

Notes

1. Mark Raymond Harrington, *Religion and Ceremonies of the Lenape* (New York: AMS Press, Reprinted from an original in the collections of the University of Chicago Library, 1921), 43-44.
2. *National Park Service, Management Policies 2001.* (Washington, D.C., U.S. Department of the Interior, National Park Service), 4.1.5.
3. William Coli, and Nora Mitchell, *Inventory and Conservation of Genetic Resources in the Form of Historically Significant Fruit and Nut Trees in the National Park System* (Boston: National Park Service Regional Office, 1992).
4. Thomas Burford, *Apples: A Catalog of International Varieties.* (Monroe, Virginia, 1998).
5. Richard Westmacott, *Managing Culturally Significant Landscapes in the National Park Service.* (Washington, D.C.: U.S. Government Printing Office, Volume 1).

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Searching for the Old Mine Road

Twenty-first century travelers from Kingston, NY, to Pahaquarry, NJ, pass markers reading "The Old Mine Road was built about 1650." It is generally accepted that this road linked early Dutch settlements in Esopus, NY, to the Delaware River. Its oral history, reported within the 1828 letters of Samuel Preston published in Samuel Hazard's "Register of Pennsylvania," recounts information told to a surveyor in 1730 by area settlers. With its southern terminus at Pahaquarry, many thought Old Mine Road was tied to copper mines worked there. Since successive attempts at those mines proved unprofitable, most dismiss any possibility of that as the reason for the road's construction. The reference in Hazard's "Register" has been dissected and analyzed — yielding more doubt than understanding. Whether romanticized history or fact, the origin of the road has stirred controversy and dispute.

What is most contested is whether or not the road extended as far south or existed as early as commonly believed. Writers who popularized Old Mine Road, particularly Amelia S. Decker who placed markers along its southern end, acknowledge it began as an Indian trail. The Old Mine Road traverses the Minisink, a region extending northward for about 60 miles from the Delaware Water Gap. First named in the 1600s, Minisink would also identify an Indian village, a nearby island in the Delaware River, a 1701 voting district, a 1704 patent, a 1736 precinct, and a 1788 New York town. The Minisink was at the crossroads of a number of native Lenape trails and waterways which explorers and traders traversed through the late 1600s.

Research also proves frustrating because routes were not given consistent names in the period preceding the American Revolution. Before it was the Old Mine Road, it was the Trade Path, Road to Esopus, Kings Road, and Queen's Highway. Not unlike modern roads, it began as a trail, a primary route used by explorers and traders, and evolved into a wagon route and then a finished road. Old Mine Road's origin starts in the period of Dutch control of Novi Belgi (New Netherlands) and continues through the British takeover in 1664. To understand the full historical context and evolution through these changes in governance — since each entity called the area by a different term — one has to become a historical detective to spot illusive clues.

The Minisink was a region highly contested by proprietors and adjacent colonies. The Dutch West India Company instructed Peter Minuet to seek sources of minerals and promote trade and commerce. Documents of early New York note ore had been found along the Delaware and adjacent mountain ranges. Modern analysts of 17th- and early-18th-century maps believe locations and details were purposely left vague because Dutch sponsored entrepreneurs were competitive and secretive. Those engaged by the Dutch West India Company seldom kept records; those that were kept were often lost at sea, discarded, or destroyed. Later, as the English forcibly overtook this area, there would also have been reason to neglect disclosing mines from which the British would exact quotas of production.

Of the earliest settlers, many were Indian traders engaged by the New York colony in an attempt to establish claim to the Minisink. The lush shores along the Delaware's eastern banks enticed weary explorers to put down roots, exchanging the pursuit of trade and ore for timbering and agriculture. With settlements came itinerant ministers, journeying south toward Shawnee, PA, and erecting permanent churches along the lower end of the Minisink around 1737. Such activity would eventually cause Native Americans to seek to reclaim their territory and to destroy early evidence of European presence.

Thus, we remain, trying to piece together a historical puzzle, looking to the records of European colonizers and to the archives of east and west Jersey as well as those of the colonies of Pennsylvania, New York, and New Jersey. A common thread is the consistent use of Old Mine Road to promote exploration and commerce — frequently a search for ore given the number of mines uncovered along its route. To weave these threads into a comprehensive understanding of the Old Mine Road continues to challenge the modern historian.

Alicia C. Batko
Historian
Montague Association for Restoration of Community History

Dorothy J. Moon

Bit by Bit
Curation in a National Recreation Area

Like the park itself, collection management at Delaware Water Gap National Recreation Area (NRA) has grown more complex through the years. Bit by bit, acquisitions have accumulated, placing an increasing burden on both park staff and park facilities. Park staff, focused on enhancing and providing recreational opportunities for visitors — a prime objective of the national recreation area — have been hard pressed to make curation of the collection a top priority. Park storage facilities require renovatio, including elaborate utility upgrades, if they are to satisfy museum storage criteria. At Delaware Water Gap NRA, we have found that improvements are more likely to occur when approached in small doses, or "bit by bit."

Even before it became clear the Tocks Island Dam would never be built, then-park Superintendent Peter DeGelleke wanted to preserve and interpret what was left of the history of the area. The two sites chosen were Slateford farm, a historic farm in Pennsylvania, and the historic village of Millbrook, NJ. As part of this effort, park staff acquired through donation, purchase, and field acquisition thousands of objects that would be used in furnishing the buildings and creating a 19th-century atmosphere for both sites. Household furnishings, farm implements, mill works, carriages, sleighs, books, shoemaking tools, and more were collected and used in fulfilling this mission.

In addition to historic objects collected for the exhibits, "salvage archeology" conducted in conjunction with the proposed dam generated a large collection of both prehistoric and historic objects that have not been completely cataloged. The personal papers, magazines, newspapers, and ephemera of past residents were also collected. When facilities and staffing levels at the park were planned, such large collections were not anticipated, so care and maintenance have been done bit by bit with stolen staff time. National recreation areas seldom plan for collections; but even if they do not acquire collections from outside sources, every day they generate resource management records that must be retained in the park archives. It has been an on-going struggle to protect and exhibit these collections. Thus far there are 6,385 records relating to historic objects and 64,235 records relating to archeological material. And the number grows daily.

In a national recreation area designated as a Wild and Scenic River, the focus is usually on natural resources. Visitors are primarily attracted to recreational opportunities such as canoeing, kayaking, fishing, hunting, hiking, and swimming. Although there are some people who come to enjoy a tour at Millbrook Village or to seek out the many historic buildings identified in the park's auto-tour book (see Kopczynski article, p. 44), these cultural sightseers are in the minority. In addition, the park's staff has often been more attuned to the significance of the natural rather than cultural resources under the stewardship of the National Park Service. At Delaware Water

Bushkill School collection storage facility following installation of new hip roof. Work will begin on the new HVAC system later this summer. NPS photo.

Interior of wagon shop in museum village of Millbrook, NJ. Park interpreter Jim Morris operates a horizontal boring machine patented in 1883. A hollow auger bit is being used to make wheel spoke tenons, "bit by bit." In the background are just a few of Millbrook's vast collections. NPS photo.

Gap NRA we have no famous names or events with which to associate our collections, but this does not make them any less important to preserve once we have accepted that responsibility with their acquisition. Indeed, the lack of knowledge and appreciation of cultural resources puts them in danger.

Many staff members are unsure of the curatorial responsibilities of the park. To account for park collections and to care for them, cataloging and environmental monitoring more often than not take place behind the scenes, out of sight of staff or visitors. This is especially true in some of the remote areas where park collections are located. Getting support and cooperation for accessioning and organizing management records that comprise the park archives is an even more formidable task since many people do not recognize the importance of "their" files to the overall park legacy. When it is recognized, the staff is supportive and understanding.

Along with the difficulties outlined above, the park has never had sufficient funds to undertake major projects to document and provide storage for the collections. To bolster support for funding, in the summer of 1996, a team from the National Park Service Northeast Museum Services Center visited the park and developed a Collection Management Plan to help the park get a better grip on the museum collection. With the plan's recommendations in hand, the park began seeking funding through the Museum Management and Protection Program, the Cultural Resources Preservation Program, and other sources for which curatorial projects qualified. Much time and thought was invested in developing project statements and determining priorities for projects. This was a cooperative effort involving not only the curatorial staff, but also the maintenance and historic preservation staff as well as our colleagues at the Northeast Museum Services Center.

A major accomplishment of this effort was the expansion and improvement of the collection storage facility in the former Bushkill School. Proceeding bit by bit, we undertook a phased, multi-year approach, focusing on smaller projects and components in order of priority. Phase 1 studied the total needs of the building with a team of architects and engineers. The flat roof of the building leaked, especially under the stress of accumulating snow, so installation of a new sloping roof and structural repairs was Phase 2. In Phase 3, an HVAC system will be installed to provide a museum environment for objects in storage. The three phases of the project were funded over four years. The plans allow for the eventual expansion of the storage facility, including the mechanical system. Although storage conditions for park collections are vastly improved, there is still much more to be done. The next priority is security — including fire detection and suppression and intrusion alarms. To complete the upgrade of the Bushkill School collection storage facility, some smaller projects remain—including blocking and securing windows and doors, interior plastering, painting, and installing storage equipment.

There are many challenges facing curators in the National Park Service; but for those of us who work in sites that are not primarily recognized for a significant person or event, the challenges in fulfilling our mission can be even more monumental. At Delaware Water Gap NRA, getting as many supportive players on the team as possible and getting tasks accomplished bit by bit are pragmatic solutions that have worked.

Dorothy J. Moon is cultural resource program manager at Upper Delaware Scenic and Recreational River and provides curatorial assistance at Delaware Water Gap National Recreation Area.

Jean Zipser

"Shall We Dance?"
Partnering with the National Park Service

For 27 years, I've been a tenant of the National Park Service in Delaware Water Gap National Recreation Area (NRA), in a house my family once owned. A difficult dance, indeed! We began as forced partners, the National Park Service and I; and only time has mellowed the relationship.

As I write this, The Pahaquarry Foundation, Inc., an organization I helped create, is on the verge of joining the National Park Service in a new dance — partners in the rehabilitation of a 190-year-old house my grandmother bought early in the last century and from which her descendants were evicted by that same National Park Service in 1991. The B. B. Van Campen House, built around 1810, is about a quarter of a mile from the Abram Van Campen farm, where I live. My grandmother, Julia Orthwine, purchased the property in 1926. It was then a rural retreat called "Honeysuckle Lodge." She turned it into a home — not only in the physical sense, but her heart's home, for she felt most at ease when she was there.

Her marriage to Rudolf Orthwine, the publisher of "Dance Magazine," derailed; and Julia put her energies into the property — remodeling, landscaping, and farming. She also pursued other interests — including drawing, painting, sculpture, and the study of religion. The Pahaquarry Foundation, with 200 members, feels that its plan to create an art and study center there, with art education programs for teens and residency programs for adults, serves Julia's memory and will create a valuable regional resource. This will be a different kind of dance.

B. B. Van Campen House, built c. 1810, shown after completion of exterior rehabilitation. Work performed included the replacement of foundation sill beams, general carpentry repairs, and exterior painting. NPS photo.

While preservation of the mid-Delaware River Valley as a national park and the Delaware River as part of the Wild and Scenic River System is laudable, I abhor what has happened to my community, Pahaquarry Township, which was forced out of existence. I have struggled to turn my bitterness and anger into something positive. Preserving the wonderful, historic houses is a way for me to assuage my grief. It combines my deep feelings for family heritage and regional history with my civic mindedness. I was my township's last mayor, and I am now the president of the board of The Pahaquarry Foundation. This allows me to take a more active part in historic preservation and rehabilitation.

I have some experience in preservation, as a private National Park Service tenant in a house that is almost 300 years old. The house was built by an original Dutch settler, Abram Van Campen; and was my parents' home. It is located north of the Delaware Water Gap, along Old Mine Road, in Warren County, NJ.

The National Park Service now considers me a beneficial tenant; I pay rent and keep a historic building in good condition — difficult because the lease absolves the National Park Service from a landlord's traditional responsibilities. The foundation was incorporated on July 21, 1997, 19 days after the Township of Pahaquarry was forced to merge with Hardwick Township, a neighboring municipality. Pahaquarry lacked enough people to operate a municipal government. The township's demise was the result of the federal policies, including National Park Service policies, in place for the Tocks Island Dam project, a 1960s program to dam the Delaware River.

Park construction crew led by preservation carpenter Doug Townsend rehabilitates the covered porch. A new flat seam metal roof was installed with assistance from the NPS Historic Preservation Training Center in Frederick, MD. NPS photo.

After the first environmental legislation was signed into law (The Clean Water Act), construction of the dam was delayed. Congress stopped funding the project; and it was finally deauthorized in July 1992, almost 30 years after its inception. My own grief at the death of my township spurred me to create the foundation as a way to keep the "idea" of Pahaquarry alive. The name "Pahaquarry" has a specific meaning. It is an anglicized version of Lenni Lenape word Paoqualin, meaning "the place between the mountains beside the waters." It refers to the glacially formed Delaware Valley, including the striking Delaware Water Gap. The area remains remarkably unspoiled. Many artists and photographers, including Eladio Lopez, Penny Ross, Patricia Ann Griffin, Sandy Taylor, Miharu Lane, Owen Kanzler, and Dominick Martino have drawn inspiration from that beauty. Thus, the foundation wanted to stay in Pahaquarry, if possible.

My grandmother's house had been empty since 1991. Richard Ring, then park superintendent, had hopes that Van Campen family descendants would use the property. That plan fell through. The house, which had been re-roofed in expectation of its new tenants, and outbuildings were left empty.

By 1996, the park's administration began to seek tenants who would refurbish and use the historic buildings. My grandmother's house was put on a list of available properties. It was on a park-sponsored tour in June 1996 that I entered my grandmother's house for the first time since the National Park Service evicted my cousins from it. I was shocked and angered by the damage. The house is on the National Register of Historic Places as part of the Old Mine Road Historic District. While the National Park Service has a mandate to preserve these buildings, financing this is another matter. What is remarkable is that there was a reprieve. In December 1998, Robert Kirby, then assistant superintendent of Delaware Water Gap NRA, asked me if the foundation might be interested in the property and, if so, would it come up with a draft use plan. The foundation's board of directors asked me to draft it. On December 9, 1998, the foundation submitted its plan.

The National Park Service responded by sending a memorandum of agreement. The document was impossible. The foundation balked. It would be responsible for the property's rehabilitation, and it simply did not have the money to do the work. The foundation's representatives toured the property on a rainy spring day in 1999. The wooden floors were rippled from moisture; moisture had severely damaged structural beams in the cellar; the kitchen porch was partially collapsed and the other porches needed repair. The house had no running water, and the septic system no longer met building codes. Despite this, the foundation reaffirmed its interest and explained the reasons behind its reluctance to take over the property.

That summer, the National Park Service committed funds and manpower to repairs. Work began. Beams were replaced, and the porches repaired. Early in 2000, the foundation's buildings expert, Robert McCabe of Belvidere, toured the property and declared the project "manageable." The foundation started investigating grants to finance the work. I am really not sure why Bob Kirby had faith in The Pahaquarry Foundation. We are a homespun group, with a small budget. We try not to waste resources. Kirby created a bridge of trust. He extended his hand and asked The Pahaquarry Foundation to dance, and we said we'd be delighted. All the bitterness of the past receded. This does not mean that everything goes smoothly. However, the foundation and the National Park Service have discovered that we can be willing partners in this dance. We can save Julia's home (the B.B. Van Campen farm) and give this extended community a valuable resource.

Jean Zipser is founder and president of the Board of Directors, The Pahaquarry Foundation, Inc., and former mayor, Pahaquarry Township, NJ.

Douglas C. McVarish

The Ramirez Solar House
A Holistic Approach to a National Register Nomination

Nominations to the National Register of Historic Places have evolved over time. Early nominations included only a paragraph or two of description, a significance statement that was simply a capsule building history, and little or no discussion of the property's setting or outbuildings. Site managers or later site owners could not use this documentation for guidance in assessing the significance of secondary structures and landscape elements or in determining whether property elements should be retained or restored.

Recent National Register nominations have recognized that historic buildings do not exist in isolation. A building is an integral part of a larger environment that includes outbuildings and landscape features. These elements contribute to the property's significance and integrity and should be discussed in National Register documentation. Delaware Water Gap National Recreation Area (NRA) followed this approach when developing the nomination (still pending in the review process) for the Ramirez Solar House. The nomination looks at both the architecture of the house and the design of its surrounding cultural landscape.

The Ramirez Solar House is the park's most unusual building. The house was originally a rambling, wood-framed and stone, Shingle-style country retreat with intersecting gambrel roofs. Its design, typical of Pocono Mountain resorts of the time, was later mockingly called "rustic-baronial."[1] The house was built in about 1910 for wealthy New York City residents. Damaged by fire in 1942, the house was sold the following year. Two years later, it was converted to a passive solar residence for Gustavo Ramirez.

The upper story was removed; windows were salvaged and reused; sheathing and other materials were retained; the servant's quarters were modernized; and the pantry was transformed into a small kitchen. The dining room and reception hall were converted to a living room with a corner cut from the space to form a porch. Two bedrooms were added on the main floor. An original veranda with massive stone piers and overhanging eaves obscured the view from the living room. This space was converted to a terrace to allow for spectacular views of the Delaware River Valley beyond by removal of the roof and wood floor, truncation of the piers, and filling to grade. The exterior space was designed as an integral part of the living area and as a transition from house to landscape.[2] Some elements of the original plan remain. For example, behind a door in the living room is a partial stairway to the second story.

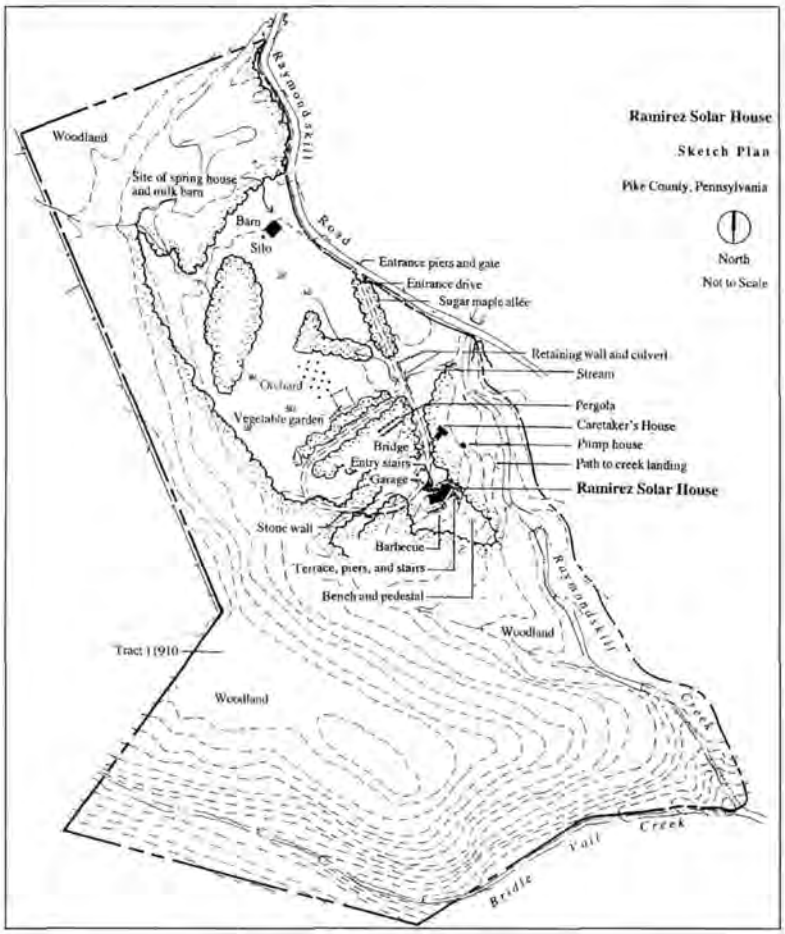
A window wall, 18 feet in height, formed the south wall of both the living room and the south bedroom. A wide roof overhang provided the window with full shading from the highest path of summer sun, yet allowed the lowest path of sun to enter. Only a small portion of the lower window wall was operable. It was equipped with double-glazing with sealed air space for the full height. To further protect against winter temperature extremes, a winter window was installed eight inches behind the bottom half. The two windows formed a trough to catch cold air behind the radiators which warmed the air prior to transmission into the room. Radiators placed under the new north clerestory windows handled cold air in a similar way. According to a 1945 article in "House Beautiful," "Sun now heats these rooms on sunny cold days. Coal fired heating plant heats house at night and on cloudy sunless days."[3]

Architect Henry Wright, Jr., designed the transformation of the house to a passive solar dwelling. In the 1930s and 1940s, he was an editor with "Architectural Forum." During his tenure with the magazine, he became increasingly interested in passive solar architecture. Wright's

designs of the 1930s and 1940s were all classic solar houses.[4] Each featured a shed roof permitting a tall open wall on the south elevation and a short, enclosed wall on the north elevation, with larger windows on the east wall and fewer, smaller windows facing west.

In 1995 and 1996, John Milner Associates, Inc., in collaboration with OCULUS of Charlottesville, VA, drafted determinations of eligibility and National Register nominations for properties in Delaware Water Gap NRA. The Ramirez House was submitted for the National Register under Criterion A for exemplifying the 20th-century recreation context of the recreation area and under Criterion C for exemplifying early passive solar architecture, for its incorporation of native materials, and for its relationship to the dramatic surrounding landscape.[5]

This nomination traces the history and evolution of the house while placing it in the context of the development of passive solar residences. Research revealed it to be one of the earliest examples of modern passive solar architecture in the eastern United States. The nomination describes the house as an amalgamation of late Victorian and modernist architecture.



Ramirez Solar House sketch plan showing topography and landscape elements. Illustration by Liz Sargent, OCULUS.

In documenting the cultural landscape of the property, landscape architect Liz Sargent of OCULUS followed the procedures outlined in National Register Bulletin 30, "Guidelines for Evaluating and Documenting Rural Historic Landscapes." In its landscape features, the Ramirez Solar House property clearly exemplifies the recreational context of the area. The siting of the main house atop a prominent knoll with views to the surrounding landscape, an extensive use of native materials, particularly stone, and deliberate connects to picturesque landscape features are representative of response to the area's natural beauty.

Walkways from the house provide connections to natural features. They include a cascading stairway to a woodland garden and barbecue and a rustic path with stone and log steps that leads to a picnic area and swimming hole. A stone pergola sits beside the entry drive on a knoll overlooking a stream valley. The property also incorporates a dramatic approach and arrival sequence, including a stone-pillared entrance, sugar maple alee, river stone walls and a stone bridge, open meadows, a stone garage, and a sinuous stone stairway leading up to the main house entry.

The Ramirez Solar House is currently vacant and in need of repair. The work done to prepare the National Register nomination will help park staff assess the significant elements of the property's landscape and develop treatment recommendations for this unique property. Its ultimate listing on the Register will ensure that the national significance of the Ramirez Solar House is recognized.

Notes

1. Joanna M. Kendig, AIA, and Thomas E. Solon, AIA, "Tomorrows House Today: Solar Heating the 'Wright' Way," Preserving the Recent Past 2 Conference, (Philadelphia: Association for Preservation Technology, 2000).
2. "Can an Old House be Remodeled for Solar Heating?" *House Beautiful*, June 1945.
3. Ibid.
4. Biographical information concerning Henry Wright is taken from his FAIA nomination file in the archives of the American Institute of Architects, Washington, DC.
5. Douglas C. McVarish and Liz Sargent, "Nadler Solar House," National Register of Historic Places Registration Form, 1996.

Douglas C. McVarish is principal architectural historian for John Milner Associates, Inc. in Philadelphia. He co-authored the National Register nomination for the Ramirez Solar House.

Kenn Jones

Peters Valley Crafts Education Center

Managing a Contemporary Crafts Center in a Historic District

At first blush, managing a contemporary crafts center in a historic district may not seem ripe for conflict. But the potential for conflict increases as the complexity of management increases, and that is true of Peters Valley Crafts Education Center.

Peters Valley is a multi-faceted organization. One part residential community where a large percentage of the staff lives and works; one part school for fine arts with over 1,500 students of all ages and over 120 instructors; one part independent business providing primary financial support for approximately 14 households and 45 employees throughout the year; one part-non profit organization requiring complicated financial structures, administrative relationships, and public relations initiatives; and one part interpretive center with over 30,000 visitors per year. All this takes place within 36 buildings, 14 of which are historic structures that are spread throughout 3,600 acres. Managing this contemporary craft center requires the ability to balance potentially conflicting priorities while celebrating common ground.

Most of the 14 historic structures are located within the campus' identifiable center and create a concise historic district. For the uninitiated visitor, the historic district provides a natural sense of arrival, but does little to communicate where they have actually arrived. The sudden tight cluster of buildings causes people to pause as they wind their way along country roads. If they slow down enough, they might catch a sign proclaiming the craft education center; and if they stop, they might notice the craft store and gallery, payphone, or public restrooms. Even with recent additions of modern craft sculptures, contemporary craft window displays in the store, and more informative signage, the historic nature of the buildings lead most uninformed visitors to expect a historical reenactment of craft rather than a contemporary school for fine art that focuses on craft media. In part, this problem stems from old New Jersey road maps and signs that refer to Peters Valley as a craft "village" and not a school; but for the most part, the architecture itself sends the biggest message.

Few visitors simply stumble upon Peters Valley. Most come in connection with a destination activity, such as taking or teaching a class, attending the annual craft fair, shopping in the store, viewing live demonstrations, or participating in a residency program. For these visitors, the historic district enhances their sense of arrival. The store and gallery, main office, cafeteria, and student check-in are located within the middle of the historic district. From there, the campus branches out in three directions, each supporting a combination of dormitories, studios, residences, and support structures. During the summer workshops, when students stay overnight and eat in the cafeteria, the historic center pulses with activity as participants travel from dorms to studios to the cafeteria to the office and back. Much like its 19th-century incarnation, the center reflects the community's life. The picture book church holds gatherings for slide presentations and lectures on often-soulful artistic expressions. The general store still functions as the primary retail outlet. The converted meetinghouse is part

Located at a crossroads near Layton, NJ, the central campus of Peters Valley Crafts Education Center forms a historic district. The former general store has been adapted to a contemporary crafts store and gallery. NPS photo.

Contemporary wood crafting. Summer workshops typically run for 2-5 days and attract students of all ages for hands on instruction working with wood, textiles, ceramics, fine metals, and photography. NPS photo by Richard Frear.

cafeteria and part student lounge. And the single-family homes still provide housing as dormitories or staff residences. In a strange way, the center functions much like it did in the 19th century.

As a school, Peters Valley competes for students against several other nationally prominent centers, each with their own unique setting. Clearly, some of our students seek out our rural location within the breathtaking and historic Delaware Water Gap National Recreation Area (NRA). They embrace the charm and ambiance that helps them escape their everyday lives and focus on their art. For them, Peters Valley is a spiritual and intellectual oasis. Unfortunately, the center's antiquated rural aesthetic is not for everyone and is not without its own set of unique challenges.

Some of our students come to study a specific topic or under a particular instructor; they don't necessarily come for the environment. In fact, the atypical dormitory style, lack of air conditioning, dirt roads, and surprising rural setting spread out over a two-mile diameter is sometimes a great shock, despite attempts to celebrate and promote these features. Fighting to maintain modern plumbing, heating, and comfort standards within early-20th- and late-19th-century structures is not always easy. Power outages are frequent as are water contamination problems, struggles to maintain ailing furnaces, and unexpected emergencies within the century old structures. Similarly, as our student population grows and technology changes, the slightly restricted studio environments, outdated utility connections, and limited financial resources create a constant battle to remain responsive to our students' needs.

The biggest challenge is allocating the organization's limited financial resources and balancing the multitude of requests for facility upgrades against required maintenance, emergency repairs, and improvements that positively impact public perception. Added to this is the difficulty in obtaining philanthropic funding for federally owned buildings with short-term leases along with a tight operating budget with no cash reserves, endowments, or capital campaigns. Then add the special and sometimes costly requirements of maintaining historic structures, and the challenges grow. The question of allocating extremely limited financial resources quickly falls into a philosophical and moral dilemma. Which master does the organization serve? It is easy to see how an organization's business goals might be in direct conflict with the park's preservation strategies, especially when the organization relies heavily on earned income.

Rarely do we question the importance of preserving the historic structures, but the question of what is the best use of the organization's financial resources is always present. Choosing between an income-producing activity and a preservation investment is a common split. While preserving the structures is central to our lease agreement and in the long-term best interest of the historic district, the organization's immediate survival and commitment to the essential elements of its mission hold a higher priority. The most rewarding solutions address a variety of issues, such as supporting the school's programmatic or educational goals, improving public perception, and even raising additional earned income while preserving a historic structure. Clearly, finding the right tenant for these historic structures is extremely important, as is developing a sense of shared clarity around expectations.

Managing a contemporary craft center in a historic district within a national park is an interesting mix of great beauty, significant challenges, and successful collaborations. Without open and free communication with National Park Service staff, the creative problem-solving process that enabled us to balance potentially conflicting priorities would not be possible. Like making art, the process is one of continual evaluation, self-critique, and reinvention so that the organization's form and expression reflect its highest and best potential.

Kenn Jones was executive director of the Peters Valley Crafts Education Center November 1996-October 2000.

Susan A. Kopczynski

"Drive-thru" History
A Self-Guided Auto Tour

Delaware Water Gap National Recreation Area (NRA) has hundreds of fascinating historic structures built over three centuries, hopefully more than enough to arouse the interest of even the most casual tourist.

Included within the park's boundaries are three Dutch colonial stone dwellings from the mid-18th century, one of the first solar houses in the country and the homes of artist Marie Zimmermann and philosopher Charles S. Peirce. However, visitors and staff are often unaware of these treasures, or may not understand and appreciate their value. After all, this is a national recreation area, we are reminded, where people come to hunt, fish, canoe, and hike.

You may not need boots or paddles, but "windshield touring" and heritage tourism are forms of recreation as much as hiking and canoeing. Visitors to Delaware Water Gap NRA were enjoying the scenery, but had little idea what they were looking at. To enhance this recreational pursuit, we needed to find a way to introduce the historic buildings of the park to our visitors.

The introduction offered its own challenges. At places like Independence Hall or Lincoln's Home, visitors generally come with at least some knowledge of the events or people whose stories are told there. They expect this history to be preserved. At Delaware Water Gap NRA, the stories are less well-known and the value of preserving that dilapidated house down the road may be harder — at first — to grasp. But the park has a special responsibility to tell these stories and preserve these places.

The park was established in 1965 to operate a recreation area surrounding a 36-mile long reservoir to be created by the construction of a controversial dam across the Delaware River. To make way for the dam, many historic homes — and even whole communities — were demolished. The decision to build the dam was reversed, but the decision to demolish the homes and villages could not be. Preserving what remains of the tangible evidence of the history of this area and sharing the region's stories is a commitment the park has made to its neighbors.

So what to do? Somehow we needed to provide information on the historic structures in the park and, hopefully, raise awareness of, and support for, historic preservation. All of which had to be done at little cost. The idea of a self-guided auto tour book that would educate the public (and staff!) and promote casual windshield touring as a legitimate form of recreation surfaced.

The Tour — Take it Yourself

62. BRODHEAD-HELLER FARM
Established in 1770s
Frequently altered and expanded
Private Residence

Garret Brodhead, a Revolutionary War soldier, originally settled this farmstead. The current house was probably constructed in the mid-1800s in the Greek Revival style with some Italianate style details. Evidence of the original structure is still visible within the present house. Like roads, farmhouses were built close to the hills in order to avoid using land suitable for agricultural use. Note, too, the springhouse behind the main house. The fertile, broad river flats enabled Delaware Valley farmers on the Pennsylvania side to take greater advantage of agricultural technology and to prosper more than their neighbors across the river. Except for a brief period, this farm remained in the family.

Retrace your route back to Route 209.

Turn right and continue 1.0 miles to a farmstead with a large two-story house on your right. Pull into the gravel pullout on the left to view the farmstead across the road.

Along the next stretch, some clearings are peppered with small Eastern red cedar trees, "planted" by birds that consume the tree's berries (and thus spread its seeds). Notice how the Delaware River on your left appears and disappears as you travel. Often you are not looking at the entire river width, but a meandering branch that is separated from the main "stem" by an island. The Delaware River is a "braided" river; branching and coming together as it surrounds numerous islands and forms wetlands. This provides diverse, peaceful habitat for wildlife such as great blue herons, Canada geese, common egrets, and common mergansers.

In 1993, the decision was made to produce the tour book. But what to include? Natural features such as waterfalls and geologic formations? Cultural landscape features such as rock walls and remnants of old orchards? All historic buildings, the most important or significant ones, or the most accessible and visible ones along the main roads?

The original draft had 33 stops and included just the most significant buildings that were visible and accessible from the two main park roads — Old Mine Road along the New Jersey side and Route 209 along the Pennsylvania side. A cultural landscape specialist then supplied additional information, and a couple of dedicated volunteers revised and edited the draft adding even more. The result is an auto tour and field guide that also serves as a park reference. There are 84 stops and optional side routes. For simplicity's sake, the guide was organized as a single tour allowing visitors to stop and start as they wished. Prior to publication, the guide was reviewed by local historical societies in a series of small, informal meetings. A designer was hired to do the layout and final edit. The attractive end product has a lively narrative and a comprehensive collection of historical photos.

"Exploring Delaware Water Gap History, A Field Guide to the Historic Structures and Cultural Landscapes of Delaware Water Gap NRA" was finally published in September 2000. Now all we had to do was get the word out.

Fortunately, our timing was great. Three major special events — the Peters Valley Craft Fair, Millbrook Days, and Van Campen Day – were already scheduled and provided the opportunity for book signings to promote and sell the guide. Sales got off to a good start and jumped again thanks to media coverage of the guide's publication in the local newspapers, television, and radio spots. By spring 2002, we had sold almost 1,000 copies and were revising and reprinting the guide. In addition to serving our recreational auto-touring visitors, the field guide works as a park reference for both park staff and prospective historic property lessees.

In the future, we hope to make an audio recording of the field guide available — something for windshield tourists and farsighted motorists alike.

Susan A. Kopczynski is the park historian at Delaware Water Gap National Recreation Area. She wrote "Exploring Delaware Water Gap History, A Field Guide to the Historic Structures and Cultural Landscapes of Delaware Water Gap NRA," which was edited by Will Dohe, Archemie Planning and Architecture.

Barbara A. Campagna

Sympathy, Harmony, and New Architecture

Can sympathy, harmony, and new architecture live happily ever after in a national park setting? This is the question designers and administrators have been debating since the National Park Service was created in 1916, and even as early as 1872 when Yellowstone became our first national park. Although national recreation areas like Delaware Water Gap are a relatively new concept in National Park Service history, its architects have also struggled with this question. The park's search for the elusive "appropriate" architectural style for new buildings is perhaps more complicated than for typical national parks because of the diverse collection of both architectural styles and social conventions that are found within its boundaries. With no dominant architectural style in the park, is it acceptable to introduce a new style? Is it better to blend with the natural resources and reflect another time? Should only buildings that are functionally pure and apparently "low cost" be allowed?

The architectural cultural heritage of Delaware Water Gap National Recreation Area (NRA) does not constitute a style as much as a vernacular. Its form is inseparable from its content — from an authentic country village at

The new restrooms and changing facility at Smithfield Beach purposefully reference park historic structures with contemporary results. NPS photo.

Walpack Center (1830-1950) with examples of the Delaware Valley House type, to a semi-museum village such as Millbrook of 1832, to an artist community at Peters Valley Crafts Educational Center with an 1855 Greek Revival building, to historic farms complete with outbuildings. New buildings and even building types were needed to accommodate the new recreational use of the area. The park has many vacant historic buildings, but few are located near the river or the recreational landscape.

The challenge of constructing new recreation buildings in a context of historic farms, rural villages, weekend resorts, and river shore vernacular led the park to develop a set of design guidelines. These were heavily influenced by the thoughts promoted by early National Park Service professionals such as Albert Good, whose 1938 "Park & Recreation Structures" promoted the use of Rustic architecture — natural materials, handcrafting, and a variety of informal motifs — in the early "theming" of America. He traveled across the country and evaluated and identified what he thought was successful park architecture. Good's book has been the guide for many subsequent parks, mostly those out west. Ironically, many of the parks he documented were in the northeast and midwest.

Good encouraged the use of natural materials associated with local building traditions in a sort of "unobtrusive rusticity." He saw Rustic architecture as a term that applied to a number of styles sharing a central concept or ethic: commitment to harmony with the natural environment, use of pioneer motifs and handiwork, affectation of simplicity, and employment of design professionals. Good recommended park buildings that had outstanding and amiable accomplishment, used a very free and rugged rock masonry and a vigorous log construction, had no "pinchpenny employment of rock and logs," and created "indigenous" sign markers. He allowed for regional responses and preferred the park building that responded to the context and culture of its place. He saw the buildings in Yellowstone and Glacier National Parks as superb examples of Rustic architecture.

Frederic Law Olmsted, discussing Yosemite in 1865, said the objective should be

> the preservation and maintenance as exactly as is possible of the natural scenery [and] the prevention of all constructions markedly inharmonious with the scenery or which would unnecessarily obscure, distort or detract from the dignity of the scenery.[1]

Yet Olmsted and early National Park Service officials admitted that with establishing a park came the necessary accommodation of visitors. Thus, the National Park Service has, from its inception, been responsible for a good deal of building to accommodate visitors or to house staff. Since 1872 "harmony with nature" has been the recurring architectural theme in all national parks. Rustic architecture seemed to respond the best to this concept. In recent years, Rustic architecture has been approved for work in the west, but questioned when suggested for projects in the east. Yet, the designs of buildings throughout the western parks owe their heritage to the "Great Camps" in the Adirondacks.

William West Durant, the man most closely related to the creation of the Adirondack Great Camp, built private vacation retreats — Camp Pine Knot (1879), Camp Uncas (1890), and Sagamore Lodge (1890) — that were designed for the very wealthy and their guests. These rustic creations were quickly heralded in travel guidebooks and attracted tourists. Railroaders, industrialists, and bankers appreciated how appropriate this architecture would be in the setting of the western landscape.[2] The railroads had linked the eastern and western U.S. The resort builders — railroaders seeking customers — wanted to create comfortable accommodations set amid unusual, beautiful scenery. The inspiration for rustic architecture produced by the railroaders came from the new landscapes they found, the landscapes they were familiar with (Hudson River Valley and the Catskills), and the landscapes they visited in Bavarian and alpine settings. They drew on their exposure to the rustic architecture of the

Adirondacks, which was inspired by their European travels.[3] The style is as much borrowed as it is indigenous; conditions of terrain, weather, and available materials are as similar in the northern timbered region of alpine countries as they are in the Adirondacks and in many of the far west parks. Sagamore Lodge, one of the best known of the Great Camps, exhibits the classic Bavarian inspiration. And the Old Faithful Inn (1903) in Yellowstone draws obvious design parallels from Sagamore and Durant's other camps.

The designers of Delaware Water Gap NRA, when using Good's tenets as their guiding principles, were thus well within their region's design continuum to do so. Buildings throughout the region and the adjacent Hudson River Valley exhibit the rustic uses of local fieldstone and timber, referenced Bavarian and chalet architecture, and were all built well before the grand rustic buildings of the west — in many cases 30-50 years before! The entrance to Child's Park within the park's boundaries is demarcated by a rustic cobblestone gate dated 1892 which predates nearly all the parks out west and is contemporary with the Great Camps. The Charles Peirce House, home of the great American philosopher and now home to the park's science staff, exhibits rustic elements that could easily be at home at Camp Uncas, and even could have influenced Uncas since it was built three years earlier in 1887.

Park architecture has a narrative function and is a powerful means of communication. It should answer the questions: How do I get into the park? Where do I go once I'm in? Where do I find a rest room? Where do I launch my boat, park my camper, find a trail, pitch my tent? Visitor centers, comfort stations, boat launches, and shelters all needed to be built to turn this new national park into a functioning recreation area. Its collection of architecture includes a variety of historic contexts. Federal style farmsteads that appeared in the early 1800s; distinctive inns and ferry structures located along the river; rural villages such as Bushkill, where life revolved around the local general store, church, and school; private resort homes designed in the Rustic style reminiscent of Arts and Crafts style; "gentlemen farms" such as the Marie Zimmermann Farm that features a Dutch eclectic-style summer home; and, spectacular landscape features such as allees of maple trees, waterfalls, meandering rivers, and creeks did not provide the infrastructure for most of the park's recreational needs. Hence, new buildings were needed in a park already filled with buildings, few of which fit the requirements of the new recreation area.

With a multitude of styles — Federal, Greek Revival, Dutch Colonial, Victorian vernacular, Rustic, Bavarian, Arts and Crafts, Colonial Revival, International style, and Contemporary – and building types, where do we start in designing new? While the creation and maintenance of an architectural theme is a monument to the talents and clear visions of the designers, it should identify all development with dignity and unobtrusiveness. At Delaware Water Gap historic contexts were used to create a design continuity, one that respects harmony and is sympathetic to the existing cultural and architectural heritage. The guidelines suggest designing new buildings with references to past forms, textures, and materials. Representative construction materials were recommended: fieldstone foundations, horizontal clapboard siding, laminated timber roof framing, slate roofing, and gable roofs. But special considerations were just as important; and striking a balance between both was key to the final products: accessibility, maintainability, sustainability, compatibility, life safety, life cycle costs, control of vandalism, and resistance to fire. Flood control was important as well.

Delaware Water Gap NRA has been wonderfully represented by sympathetic, harmonious, and balanced new design in the past 15 years. At Milford Beach, the earliest of the new building campaigns, gazebo-like open-air structures with fanciful columns whose designs took cues from

Like the Child's Park gate, the verandah of the Crane-Goldhardt House, built c. 1906, uses cobblestone for a rustic effect. Both structures influenced the design of the Raymondskill Falls restroom. NPS photo.

Restroom at Watergate Recreation Site, near Millbrook, NJ. The stone pattern of the foundation recalls the 1950s stone pillars of the adjacent dam that forms multi-level ponds. NPS photo.

those found on the 1887 Charles Peirce house, provide rest rooms, changing, and lifeguard facilities. Bushkill Launch restroom looked to the forms of some of the old river houses, using a standing seam metal roof, clapboard siding, fieldstone foundation, and a covered porch. The rest room at Watergate was derivative of area bungalows and the stone pillars of the adjacent dam and lake. The restroom and changing facility at Smithfield Beach referred to river shore hotels, but created a new form to accommodate a new type of use. And finally the Raymondskill Falls restroom harkens back to Albert Good and the Adirondacks Great Camps but even more so utilizes the same rustic cobblestone as the Crane-Goldhardt house verandah and the gate at Child's Park. Here we see the Rustic come full-circle. All these new buildings used different references and clues, yet they are still cohesive as an architectural theme — a new one representing recreation.

What does harmony and responding to context and culture of place really mean? A spectrum of attitudes about harmony exists. Some are created in nature's image, reflecting or vying with awesome imagery. Others seek a dynamic fusion with the setting. Still others seek obscurity. And others are spectacular signature pieces—controversial when built, but we could not imagine them any other way today. Some represent layering of history. They are all valid approaches which made similar journeys by different paths.

While Albert Good believed that in order to sympathize with natural surroundings one must defer, we should hope that "deference" never means an indifference to design quality. We can hope that great contemporary architecture, whether it is part of another Mission 66-type program promoting signature pieces such as the brilliant Dinosaur National Monument Visitor Center, or whether it is an outgrowth of harmony, will always be able to find a place in our national parks. After all, recreation and introspection go side by side. And they both mean different things to different people.

Notes

1 Phyllis Myers, "The Park Service as Client," *Architecture*, December 1984, p. 42.

2 Harvey Kaiser, *Landmarks of the Landscape*, San Francisco, Chronicle Books, 1997; p. 17.

3 Kaiser, p. 17.

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