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Hanalei Bridge: A Catalyst for Rural Preservation

BARNES RIZNIK

The ideal landscape [is] defined not as a static utopia dedicated to ecological or social or religious principles, but as an environment where permanence and change have struck a balance. Few landscapes have achieved this and fewer still have managed to maintain it for any length of time. But all of them, it seems to me, have sought it.

—J. B. Jackson, *Discovering the Vernacular Landscape*

LAND-USE PLANNERS AND PRESERVATIONISTS recognize that rural and cultural resource management in the United States requires a working partnership between federal, state, and local government, private landowners, and community organizations. In the context of accelerated growth, and as an issue of rural conservation concern nationally, the Hanalei River Bridge controversy on the island of Kauai in Hawaii draws attention to the difficulty of protecting traditional rural areas. Striking the balance between an agricultural landscape's opportunities for nonagricultural economic development and the costs of losing open land particularly well-suited for producing crops or livestock is no simple task.¹

Since Hawaiian statehood in 1959, competing demands upon agricultural land and rural lifestyle have intensified, and Hawaii now faces the

An earlier version of this paper was presented at the conference of the National Council on Public History in Phoenix, Arizona, April 1985.

1. *Rural Conservation: Information Sheet Number 19* (Washington: National Trust for Historic Preservation, 1984), 1–16; *Conference on Conserving the Historic and Cultural Landscape: Selected Papers* (Washington, D.C.: National Trust for Historic Preservation, May 1975), 29–35; Robert E. Stipe, ed., *New Directions in Rural Preservation* (Washington D.C.: U.S. Dept. of Interior, 1981), 3–4, 25–30, 91–98; Ian L. McHarg, *Design with Nature* (New York: American Museum of Natural History, 1971), 79–93, 127–51; *Historic Preservation through Land Use Legislation* (Montpelier, Vermont: Division of Historic Sites, 1973), 1–9 and maps; John B. Jackson, *Discovering the Vernacular Landscape* (New Haven: Yale University Press, 1984), 148; *America's Rural Heritage: A Preservation Challenge* (Washington, D.C.: National Trust for Historic Preservation, 1988), 1–3, 14–18.

problems associated with rapid population growth, resource depletion, and resort development, along with the contradictory environmental, social, and cultural values held by the various stakeholders. The islands are enmeshed in a struggle for the future of older small communities and the preservation of selective, vernacular rural districts, especially along the coastline. Tourism has altered land-use patterns in Hawaii, and the shift of land development in the last twenty-five years has been away from established sugar and pineapple settlements. The coastal wetlands are paying a heavy price, and a number of rural areas already have lost nearly all of their archaeological and historical resources.

On Kauai's north shore, Hanalei is one such rural hot spot of competing demands. An endangered area with a relatively stable agricultural infrastructure and irrigation system, it is growing so fast that its residents daily experience the loss of qualities that define it as rural and that make living and working there desirable. As landscape preservationists Robert Z. Melnick and J. Timothy Keller observe, "Hanalei represents a model of the classic tourism paradox: frequented by tourists because of its beauty, its natural, historic, and scenic resources are threatened by the very presence of large numbers of visitors."² To some critics of land-use authority and Hawaii's regulatory system, prospects seem dim for rural preservation and the protection of intertwined natural and cultural resources: "The scope of the job is too great, costs are too high, official interest too low," protested the planner and architect Thomas H. Creighton ten years ago.³

Recently preserved with State Department of Transportation funds, and stabilized to meet valid safety concerns, the one-lane Hanalei River Bridge, the oldest remaining American-made steel through-truss bridge in Hawaii, provides a contrasting, successful rural preservation example. The Hanalei Bridge continues to serve a utilitarian function as a historical engineering structure, and, without major inconvenience, it regulates traffic, keeping large busses and heavy trucks out of the Hanalei Valley. The bridge also helps define a vernacular landscape of natural beauty and slow-paced rural lifestyle.⁴ In its dual role as a functional artifact and visually symbolic gateway, the bridge sets rural Hanalei apart. When you drop down into the valley and cross the Hanalei River, you become part of something more immediate and on a different scale. The road follows a narrow coastal strip beyond Hanalei, where the ridges of three more valleys are close to the Hanalei Bay shoreline. All the authentic elements

2. David L. Callies, *Regulating Paradise: Land Use Controls in Hawaii* (Honolulu: University of Hawaii Press, 1984), 6–53, 73–86; Robert Z. Melnick and J. Timothy Keller, "Containing Tourism in Historic Hawaii," *Landscape Architecture* 77, no. 4 (July/August 1987), 46–51.

3. Thomas H. Creighton, *The Lands of Hawaii: Their Use and Misuse* (Honolulu: University of Hawaii Press, 1978), 83–109.

4. *The Prospect From This Hill: The Hanalei Cultural Landscape Survey* (Hanalei: 1000 Friends of Kauai and Land and Community Associates, 1987), 1–125; Beryl Blaich, *Hanalei Yesterday* (Hanalei: The Hanalei Project, Community Newsletter #3, 1989), 1–12.

of this rural world, beside you and ahead of you, come closer and closer over the next few miles as the highway crosses the Lumahai and Wainiha valleys until it reaches Haena and the trailhead for the Na Pali Coast State Park, the end of the road at the nearly impregnable Na Pali range.

The preservation of the Hanalei Bridge, a vital material culture component of this scenic, productive historical farming district, has been a catalyst in ongoing efforts to protect Hanalei and assure the long-term maintenance of its threatened resources. The long, complex battle for the preservation of the Hanalei Bridge has demonstrated that the Hanalei Valley is vulnerable but not entirely defenseless. The clash over the one-lane, 106-foot single span crossing over the river, originally constructed in 1912 and substantially reinforced in 1967, poses a number of fundamental questions for understanding cultural history and a rural landscape at risk in Hawaii.

It is well recognized that American highway planning since World War II does not always produce desired results in relation to comprehensive zoning ordinances, development plans, and historic preservation policies. Criticism of highway planning and bridge replacement is not new, but the conflict generated by the State Department of Transportation's (DOT's) Hanalei Bridge demolition plans in the 1970s was another example of the typical transportation agency's lack of sensitivity to the agricultural, natural, recreational, and cultural resources of an area with distinctive scenic and food-producing significance.⁵

This case history, however, shows how and why state and federal transportation officials changed their position about replacing the Hanalei Bridge and finally decided to preserve it. The dispute additionally reveals how historians and anthropologists and other persons with a sense of the past, in and out of government, became involved in research, inventory, and conceptualization of a cultural resources management plan for the Hanalei Valley, providing interpretive, interdisciplinary insights into preservation issues and environmental review, and helping to solve a public problem through the process of mediation.⁶ Nevertheless, this case history of the conflict also shows that the Hanalei Bridge was saved locally: its preservation depended heavily on voluntary leadership, community education, and grassroots initiative. There was no lack of public awareness on all sides, but if local preservationists had failed to take political action, the historic bridge would not have been saved.

5. *The End of the Road: A Citizen's Guide to Transportation Problem Solving* (Washington, D.C.: National Wildlife Federation and Environmental Action Foundation, Inc., 1977), 15–136.

6. *The Garden Island*, May 27, 1977; Donald C. Jackson, "Historic Bridge Preservation at the Community Level," 11593, Vol.3, no.2 (May 1978), 1–3; Tom Horton, "To Save a Valley," *Historic Preservation* (July/August 1980), 3–9; Barnes Riznik, "The Hanalei Bridge and Protecting Cultural Landscapes," unpublished paper delivered at the meetings of the National Council on Public History, April 25–27, 1985.

*Hanalei's Cultural and Historical Agricultural Evolution:
From Taro to Rice to Taro*

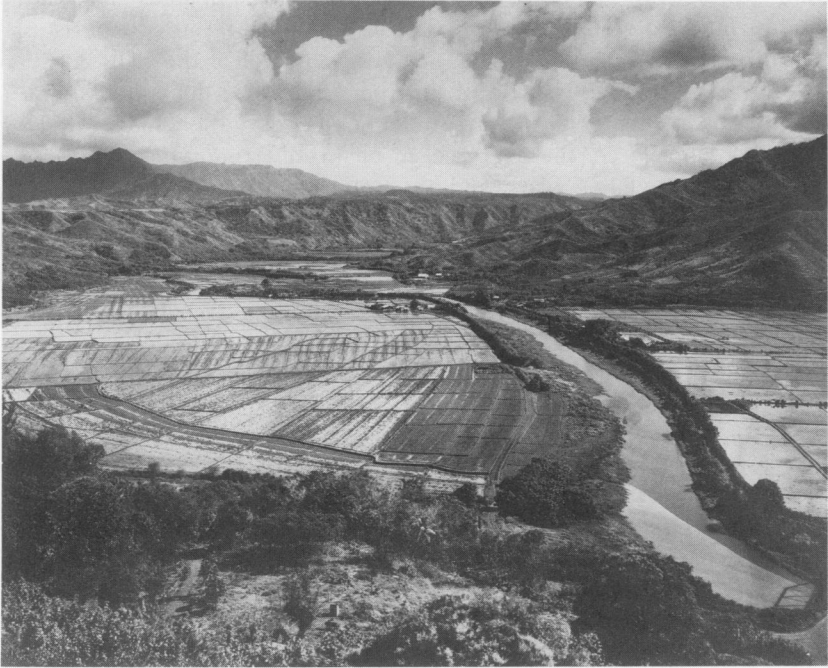
From the Nile to small streams all over the world, every river has its ecological history. Anthropologist Timothy Earle has asserted that in pre-Western time the irrigation systems of the Hanalei Valley were built gradually and extended as needed. With abundant water for irrigating crops, the Hanalei Valley has probably provided food for more than 1,000 years for immigrant Polynesian, Western, Chinese, Japanese, and Filipino cultural groups; today the flow of water from the mountains and the irrigated farms in the valley helps contribute to the cohesive rural and ethnic qualities of a surviving past.⁷

In the evolution of food production, the valley has epitomized rural and ecological interdependence, and the district today is one of the last wetland areas remaining in Hawaii still being used for farming taro, a nutritious staple of the Polynesian diet.

The valley looks as if it has been there forever. It is a made up of taro pondfields, irrigation systems, roads, farm dwellings, commercial structures, bridges, fields, and forests. It is an area of 2,350 acres set within a traditional Hawaiian *ahupua'a*, with an average annual rainfall of 100 inches. The *ahupua'a* was an ancient Hawaiian land division that contained a variety of ecosystems, from the ocean to the mountains. The *ahupua'a* provided its residents with a self-sustaining community economy—fish from the ocean, wild birds from the mountains, ti-leaf for wrapping, wood for fire, olona for fish line, and fresh mountain water sources for irrigating taro *lo'i*, the pondfields. As Earle has said of Hanalei, “By controlling a full valley, each community was guaranteed access to productive alluvial land with water for irrigation, to shallow water fishing areas, and to extensive upland zones for collecting.”

Hanalei's history is characterized by small-scale human settlement and a succession of extensive wetland farming traditions, with brief experiments in other types of agriculture. Important cultural groups have contributed to the development of Hanalei's history, which may be understood best as a chronology of overlapping periods, beginning with the transformation of the natural, swampy wetlands by Polynesian settlers at

7. The following sources provide relevant discussion of cultural and agricultural history: E. S. Craighill Handy and Elizabeth Green Handy, *Native Planters in Old Hawaii: Their Life, Lore and Environment* (Honolulu: Bernice P. Bishop Museum, 1972), 57–118; Timothy Earle, *Economic and Social Organization of a Complex Chieftdom: The Halelea District, Kauai, Hawaii* (Ann Arbor: University of Michigan Museum of Anthropology, 1978), 1–196; *The Prospect From This Hill*, 1–125; Patrick V. Kirch, *Feathered Gods and Fishhooks: An Introduction to Hawaiian Archaeology and Prehistory*, (Honolulu: University of Hawaii Press, 1985), 101–2; Carol Wilcox, *The Kauai Album* (Kauai Historical Society, 1981), 141–59; Steven Hahn and Jonathan Prude, ed., *The Countryside in the Age of Capitalist Transformation* (Chapel Hill: University of North Carolina Press, 1985), 3–17.



The Hanalei Valley, Kauai, circa 1930, showing the valley planted in rice. (Photo courtesy of the Bishop Museum)

least ten centuries ago. Agricultural uses have followed a sequence from taro to silk, coffee, tobacco, to sugar cane and rice, and back to taro again.

From an ecological perspective, a primary organizing theme of the Hanalei landscape has been the need to develop and maintain fresh-water wetland farming systems a short distance from the ocean. The earliest known planters brought fresh water to cultivate crops from the mountains to the alluvial plains via irrigation systems. The use of irrigation, from Polynesian-contact times to the present day, marks the agricultural continuity of Hanalei and has resulted in distinct and recognizable patterns of spatial organization of farming within the valley. These patterns are evident in the shape, location, and orientation of taro *lo'i*, the pondfields; the location, size, and orientation of complex field irrigation and drainage systems; the location and orientation of habitation sites and agricultural structures; the location and alignment of roads; the location and design of bridges; and the location of vegetation. From an evolutionary viewpoint,

while the detailed components of the rural setting have been adapted and changed over time, the patterns have remained unusually consistent for a rural setting.

Productive agricultural resources in Hanalei today are associated with taro farming and the production of cattle and buffalo in areas more suited for grazing than crop production. The taro-growing resources consist primarily of *auwai* irrigation ditches and ponds, as well as the walls between the *lo'i*. The size and shape of taro pondfields are dependent upon a number of factors, including the production needs of the taro farmers, the available labor force, the degree of mechanized farming techniques, and the need of taro for regularly and consistently flowing water.

There are two major areas of taro in the valley. At present, 195 active taro *lo'i* cover 140 acres next to the Hanalei River. There are also 201 active taro patches covering 93 acres inland of the highway, across from Hanalei town. As with the taro pondfields next to the Hanalei River, these *lo'i* take their shape and size from the technology of taro production as well as from the slope and drainage capabilities of the land.

Ecological conditions and the material culture of irrigation have shaped, and continue to shape, rural life, but so have other human ambitions to reorder the valley landscape, including external changes in agriculture market demand. Western economic market organization and commodity production dominated Hanalei following contact and settlement over 150 years ago by the English, Americans, and, briefly, even the Russians. They brought on a revolution in land ownership shaped by commodity market-dominated agricultural behavior typical of Western colonialism in the Pacific. This transformation of the local economy resulted in the decline of Hawaiian culture and brought about the decrease of taro growing in Hanalei through the introduction of beef cattle and experiments with other export commodities such as coffee, mulberry trees and silk worms, sugar, and rice. Not every new nineteenth-century crop was successful in Hanalei. Some of these experiments turned out to be mistakes, despite sizeable investments of money and labor.

Asian immigrants were carried to Hanalei over a century ago to help cultivate and harvest sugar and rice. These competent men and women brought with them their own distinctive Chinese and Japanese rice farming practices and other cultural traditions. While some taro continued to be raised by Hawaiians, rice became the major market crop grown in the Hanalei Valley, and by the 1920s, for example, half the rice grown in Hawaii was cultivated and harvested in Hanalei, and there were four or five operating Hanalei rice mills. Only one rice mill survives today, a preserved reconstructed historic site as part of a working taro farm.⁸

Uniformly high grade rice grown in California by highly mechanized

8. John W. Coulter and Chee Kwon Chun, *Chinese Rice Farmers in Hawaii* (Honolulu: University of Hawaii Research Publications Number 16, 1937), 13–14, 20–21, 35–62; *Rice Mill News* (Hanalei: Ho'opulapula Haraguchi Rice Mill, August, 1987), 1–4.

farming methods was sold in Hawaii at the same price as locally milled rice beginning sixty years ago, and mainland mechanization forced Hanalei-grown rice out of production by the 1950s.⁹ Since then, irrigated taro farming has been revived in Hanalei by ethnic growers, and wetland agriculture again has become profitable for the farmers who utilize the acreage in both the Hanalei Valley and adjacent Waioli Valley. Their market niche has been comparatively stable because of reduced taro acreage in production on other islands and the taro-consuming habits of the more recently arrived immigrant ethnic Samoan population in Hawaii.

According to the University of Hawaii Institute of Tropical Agriculture and Human Resources, Kauai in 1986 was the center of wetland taro production in the state, and the Hanalei Valley is now the most important non-plantation farming area on Kauai. Land development pressures and other factors, including a number of short-term leases, place the future of sustainable agriculture in question, but taro yields per acre in Hanalei are higher than on the other islands and the water supply continues to be plentiful, thus giving encouragement to the fifty or sixty Hanalei men and women who raise and harvest the crop. Additional protection for Hanalei taro has been afforded by U.S. Federal Fish and Wildlife Reserve management policies and the County General Plan, as the direct result of public interest in wetlands conservation and preservation of taro farming in Hanalei since the 1970s.

Taro has been trucked out of the valley over the Hanalei Bridge for more than seventy years, making it an integral part of Hanalei's agricultural history. The Pratt through-truss span was erected by the Honolulu Iron Works Company for the County of Kauai. The many pieces of the Carnegie steel truss were prefabricated in New York City by the specialized bridge builders Hamilton and Chambers, and shipped to Hawaii, where all connections were riveted on site. In historical context, the imported Hanalei Bridge is significant as a technical achievement because it shows expanding capital investment and the technological control that American manufacturers and engineers gained over their British and German industrial and technological rivals in Hawaii and the Pacific, especially as a consequence of the annexation of the Hawaiian Islands by the United States in 1898. The Hanalei Bridge also played a major role in plans for the 1912 County Belt Road, built with Territorial Loan Funds to link the west side of the island with the north shore by an improved paved highway and a series of new bridges. Several of these one-lane, flat-slab, reinforced concrete bridges continue to carry traffic beyond the valley toward Haena. As a cultural phenomenon, the new road and the bridges the belt road created, between Waimea on the west side and Haena beyond Hanalei, shortened distances and connected all of Kauai's towns and plantations. Supplies, county and territorial services in Lihue, scenic

9. Karol Haraguchi, comp., *Rice in Hawaii: A Guide to Historical Resources* (Honolulu: State Foundation on Culture and the Arts and Hawaiian Historical Society, 1987), xii-42.

and recreational areas, and families and friends, were reached more easily, and the county's improved road stimulated new competition with shipping at each coastal town's pier and landing. In this pre-federal highway aid period, the County of Kauai became known throughout the Territory of Hawaii for its modern road system. The county belt road continued to be the only road in and out of Hanalei, and the Hanalei Bridge was maintained. Over twenty years ago a Warren truss was added for strength, turning Hanalei Bridge into a hybrid engineering structure.¹⁰

Additional Growth and Change in Hanalei

In the early 1970s, the County of Kauai took the lead in identifying the need to protect many of the resources of the north shore, as part of the preparation of area development plans. The University of Hawaii made a social and economic study of the north shore, and an in-depth community survey made it clear that maintaining agriculture in the Hanalei Valley and protecting the scenic beauty of the area outranked other community considerations. The county's plan did not include the scenic highway and bridges as resources worth preserving, but its environmental analysis concluded:

Another key is the retention of the *ruralness* of the North Shore. Ruralness can be described as that landscape settled by man where the products of man do not dominate the natural features. Rural is somewhere between a city and a wilderness. Hanalei Town is the most developed area, but the trees, grass, open spaces along streams, and the agriculture are all integrated into a mix that is rural.¹¹

The plan also recommended the development of a portion of the high ground of the old Princeville Ranch adjacent to Hanalei "as a second home and resort community for high income groups." Subsequently, the 11,000-acre Princeville resort project on the plateau received approval by the State Land Use Commission and the county for a long-range plan for home sites, condominiums, a 27-hole golf course, a commercial and service center, as well as several hotels. Twenty years ago Princeville was seen by county planners as a planning *quid pro quo*, a means of centering growth and creating a future source of employment for north shore residents, especially some of those left out of work after the closing of nearby Kilauea Sugar Plantation Co. in 1970.

The Princeville resort plan was controversial at the time it was passed

10. Donald C. Jackson and Barnes Riznik, "Kauai's Opaekaa Bridge: The Only Known British Truss Bridge in the United States," *Industrial Archaeology* 13, no.2 (Summer 1978), 162-74; *The Garden Island*, May 27, 1977.

11. *North Shore Special Planning Area, Kauai County, State of Hawaii* (Honolulu: Muroda and Itagati, Inc., and Eckbo, Dean, Austin and Williams, Inc., 1972), 11; Callies, *Regulating Paradise*, 83-84, 86; R. N. Anderson, J. C. Barron, and W. G. Marders, *Hanalei Development Plan: A Socioeconomic Prelude* (Honolulu: College of Tropical Agriculture, University of Hawaii, 1972), 25-33.

on the grounds that it gave up prime agricultural land; however, one of the county's planning objectives in approving Princeville's development was to take growth pressures off the Hanalei Valley. In reality, these assumptions were overly optimistic, because growth at Princeville has intensified growth at Hanalei, taxing many of Hanalei's resources. For recent planning purposes, an average annual growth rate considered acceptable by the North Shore Development Plan was projected at 3 percent; the actual annual growth rate from 1970 to 1988 was in excess of 12 percent. The earlier conceptual planning approach now looks naive, especially since Princeville resort has received state and county approvals for a second phase development that will put substantially greater population, commercial, and recreational pressures on nearby Hanalei's existing land use and zoning.

In 1972 Princeville sold 900 acres of its land located across the bridge in the Hanalei Valley to the U.S. Department of the Interior for conservation use as an endangered Hawaiian waterbird habitat. The federal government, therefore, became an on-site partner in shaping the land-use of the Hanalei Valley through its land acquisition and management of the wetlands. The Hanalei National Wildlife Refuge is now the largest bird refuge in Hawaii, conserving the only large natural wetlands area left on Kauai for the nesting, feeding, and resting of endangered waterbird species. The interrelationship with taro farming continues to be important, and taro growing within the refuge serves as a wildlife management tool for habitat development. Department of the Interior policy supports continued taro production and maintenance of the historical irrigation system. The land adjacent to the Hanalei River now in taro farming is under the control of the federal government, and according to the refuge master plan,

the use of taro farming as a refuge management tool to develop and maintain wetland wildlife habitats provides opportunities for adapting management policies to meet compatible and supportive non-wildlife permitted uses. . . . Taro cultivation is part of the cultural heritage of these Hawaiian islands as well as an active economic pursuit by farmers.¹²

The Hanalei Bridge Replacement Conflict

The county's North Shore Plan recommended highway improvement including replacement of the Hanalei Bridge and all other one-lane bridges to Haena. These recommendations were based on proposals made by the state DOT in the late 1960s. Between 1972 and 1975, the transportation department's highway division prepared several routes and alignments for new two-lane bridges, including an elevated highway over part of the Hanalei Valley. The DOT's first draft environmental impact statement was

12. MKGK/Yamamoto, Inc., *Hawaiian Islands National Wildlife Refuge Complex: Conceptual Plans* (Honolulu: U.S. Fish and Wildlife Service, 1979), 9–21; Hawaiian Waterbirds Recovery Team, *Hawaiian Waterbirds Recovery Plan*, (Honolulu: U.S. Fish and Wildlife Service, 1978), 2–10.

circulated for review in 1975, and at the public hearing held at Hanalei, major concerns were expressed for the first time by residents who contended that new highway alignments and new two-lane bridges would induce growth in the Hanalei Valley.¹³ At the time, the county planning department supported the state DOT plans on the grounds of the “deteriorated condition and poor safety record of the highway.” In a response, the Kauai Historical Society recommended to the state that the historic bridges of the belt road be preserved and nominated to the National Register. The Register documentation was based on a descriptive narrative and historical interpretation that I prepared with the curator of Waioli Mission House and other historical society members. The lack of a state government interested in bridge preservation and a Department of Transportation historical survey of pre-1941 bridges contributed greatly to the controversy. The historical society, however, consulted with historians from the Historic American Engineering Record (HAER) at the U.S. Department of the Interior. They communicated easily, sharing information about the steel truss Hanalei Bridge and the reinforced concrete spans from Hanalei to Haena. They formed a continuing, supportive, professional relationship with local individuals and groups. Both HAER historians and the National Trust for Historic Preservation deserve credit for helping raise consciousness about the historic bridges in Hawaii. As T. Allen Comp and Donald C. Jackson wrote in 1977, “within the last decade, a new movement within historic preservation, called industrial archaeology, has brought attention to these parts of our visual landscape . . . The movement,” they emphasized, “reminds Americans that technological sites are vital parts of our historic development and our contemporary landscape.” In May 1978, HAER staff described the historic significance of the Hanalei Bridge and the related reinforced concrete bridges on Kauai in *11593*, drawing further attention to the dispute.¹⁴

Once the National Register nomination forms were prepared by the historical society, the Hawaii State Historic Preservation Office sought a determination of eligibility for nomination, and in 1978 the Keeper of the National Register decided that the Hanalei Bridge and two of the reinforced concrete bridges at Waioli were eligible. A second draft environmental impact statement (EIS) had been prepared by the state transportation department in early 1977. Preservation of the Hanalei Bridge still was not considered by the state, whose transportation director alleged that the north shore bridges were in terminal condition, past the point of future

13. *Final Environmental Impact Statement: Kauai Belt Road* (Honolulu: U.S. Department of Transportation and State of Hawaii Department of Transportation, 1980), I-21-24.

14. T. Allan Comp and Donald C. Jackson, “Bridge Truss Types: A Guide to Dating and Identifying,” (Nashville: American Association for State and Local History Technical Leaflet 95, 1977), 1. *Saving Historic Bridges: Information Sheet Number 36* (Washington, D.C.: National Trust for Historic Preservation, 1984), 3. Donald C. Jackson, “American Bridges: Can They Stand Up to Progress?” *Historic Preservation* (November/December 1981), 48-51; Donald C. Jackson, “Historic Bridge Preservation at the Community Level,” 1-3.

repairs: “The deterioration of the 1912 Hanalei Bridge is so advanced that continued repair is hopeless,” he stated. A number of Hanalei residents and organizations continued to question the state’s assumptions and plans, and for the first time the state DOT began to consider replacement in kind in Hanalei rather than its design of longer, newer bridges to be constructed along entirely new alignments. “The only significant difference will be minimum width for two-way traffic to avoid litigation and to qualify for federal aid,” the DOT director observed in 1977.¹⁵

Because of strong, local community reaction, informal consultation was requested by the state DOT with the North Shore Belt Road Citizens Advisory Committee, a feisty *ad hoc* group formed in Hanalei to meet with the DOT and coordinate information about the project in 1977. The “roads committee,” as it called itself, was an informal alliance of representatives of the Kauai Historical Society, Waioli Mission House, and other private landowners and residents in Hanalei.

From the outset the committee agreed that to understand the rationale for saving Hanalei Bridge, land-use issues and the historical significance of the existing roads and bridges were inseparable. The committee’s position was that many residents and tourists alike perceived the Hanalei Bridge as a significant landscape gateway. “Beginning at Kalihiwai the existing highway transportation system serves as an entrance and a corridor through traditional small-scale, rural community activities and natural features,” the committee reminded the state DOT in 1978. It claimed that the Hanalei Valley was “nationally recognized as a special, multiple resource area.”

The committee made an assumption that Hanalei is not a remote landscape and that the bridge has special psychological significance to individuals, thus underscoring Robert Stipe’s important environmental argument in *The American Mosaic* that the preservation of places “creates an image of stability, comfort, local identity, and livable atmosphere.” For north shore Kauai residents, the Hanalei Bridge seems a familiar part of immediate, personal surroundings; for the new visitor, especially as a car driver or passenger, the bridge seems an active, authentic, historical and aesthetic crossing by which one enters into a different environment.¹⁶

The roads committee retained the advisory services of a Honolulu structural engineer and established good communication with the National Trust in Washington, D.C., whose executive staff visited Hanalei as the committee continued to urge the state DOT to study the feasibility of repairing and maintaining the Hanalei Bridge. The engineer’s preliminary inspection of the structure found that the bridge probably was not in terminal condition, and he recommended load testing and further analysis.

The state DOT insisted on bridge replacement, pointing to the policy of

15. *The Garden Island*, March 21, April 22, October 26, 1977.

16. Robert E. Stipe and Antoinette J. Lee, *The American Mosaic: Preserving a Nation’s Heritage* (Washington, US/ICOMOS, 1987), 274–76.

the Federal Highway Administration (FHWA) directing demolition of one-lane bridges in the federal highway system. Both state and federal transportation agencies also supported replacement designs with spans that would be capable of carrying heavy truck and bus traffic and approaches and alignments as straight as possible. The existing bridges met none of these standards, and the state DOT highways division continued to classify the Hanalei Bridge as “functionally obsolete.”

As a result of the U.S. Department of Interior’s determination that the Hanalei Bridge and two of the reinforced concrete bridges were eligible for the National Register, the FHWA was required by law to consult with the Advisory Council on Historic Preservation about how its funded project might affect historical bridges. The Federal Highway Administration was required to prepare a statement for the U.S. Department of Transportation identifying feasible and prudent alternatives to Hawaii’s Hanalei Bridge replacement project, under Section 4(f) of the Department of Transportation Act of 1966. The FHWA also was required to show how its proposed undertaking would affect the Hanalei Bridge as a listed property, according to Section 106 of the National Historic Preservation Act of 1966.¹⁷

By following national preservation rules, federal and state governments appeared to be regulating themselves, and in March 1979, the President’s Advisory Council on Historic Preservation, the FHWA, Hawaii’s historic preservation officer, and state DOT officials held a public information meeting in Hanalei to consider the effects of the proposed bridge demolition. The meeting was attended by county-elected officials, community residents, and representatives of Kauai organizations including the citizens committee, and there was overwhelming opposition to the state DOT’s bridge replacement plans. Testimony ranged from engineering discussion of the feasibility of repairing the existing bridge structure to deeply felt community concerns about the impacts new bridges would have on land use and lifestyle in the Hanalei Valley.

The meeting once more showed Hanalei’s desire for immediate repairs on the existing bridges, a more thorough review of traffic safety issues, taxpayer objections to the cost of modern bridges, and reminders of the tourism value of the area. The citizens committee spoke in favor of designating the existing road and bridges as a rural and scenic highway, and committee members asked why single public agencies, like FHWA and state DOT, continued to overlook the local community’s well-documented support for the preservation of the Hanalei Bridge and the Hanalei Valley. It appeared to many that the FHWA and state DOT together had taken on a governmental life all of their own.¹⁸

17. Donald C. Jackson, *Great American Bridges and Dams* (Washington: The Preservation Press, 1988), 55–62.

18. Transcript, “Public Information Meeting: President’s Council on Historic Preservation, Hanalei, Hawaii, March 22, 1979.”

One consequence of the 1979 Hanalei meeting, called by the President's Advisory Council, was an agreement finally reached among government agencies. The state historic preservation officer (SHPO) insisted that the FHWA and state DOT would have to make a comprehensive cultural resource evaluation of the Hanalei Valley if federal funds were to be used in their undertaking.

The meetings held on Kauai with the staff of the Advisory Council helped to define the positions of both government and citizen groups even more clearly. The FHWA and state DOT, in their final EIS for the north shore road improvements, recommended highway improvements in the Princeville area, but could not recommend long-range proposals for the Hanalei segment of the road beyond Princeville until preservation questions were considered. The EIS noted that "for the Princeville to Haena segment of the project, a supplement to the final EIS (to include Section 106 requirements) would have to be prepared and approved before implementing any major action."¹⁹

The 1980 EIS also announced that the state DOT would carry out an interim bridge repair program, and the following year the highways division funded new timber decking, corrosion repairs, and repainting for the Hanalei Bridge. In the months before these repairs were made, the county planning department surveyed north shore citizen opinions as part of a county development plan update. At least one consultant contracted by the county concluded that there was no real public demand for a new Hanalei Bridge but only for a strong, well-maintained one. In February 1980, a majority of all respondents to the survey (63.3 percent) said that they would repair and maintain all one-lane bridges rather than build new two-lane bridges. However, in December 1980, the primary consultants to the county recommended that the Hanalei Bridge be replaced.²⁰

It appeared, despite this, that the Hanalei Bridge had been saved until the state DOT deepened the dispute in 1983 by publishing an EIS Preparation Notice for the road from Princeville to Hanalei town. Rehabilitation of the existing bridge as a possible alternative was mentioned for the first time, but the notice stated that work would have to meet "current design standards for bridge loading and geometrics." In a follow-up meeting of the State Commission on Transportation, the DOT highways division director reported that "the proposed action is to replace the Hanalei Bridge with a new two-lane bridge." "In the judgement of the state DOT, it would be uneconomical to continue to repair and maintain the existing bridge," he said.²¹

This was not welcome news to the members of the roads committee.

19. *Final EIS: Kauai Belt Road*, F-101.

20. *North Shore Development Plan Update* (County of Kauai: Public Affairs Advisory Services, Inc., 1980), Table 18, p. 22.

21. State Department of Transportation, "Environmental Impact Statement Preparation of Notice for Kauai Belt Road, April 1983," 1-22; "Highway Activities, COT Meeting, May 20, 1983," 6.

Frustration, if not a real sense of powerlessness, was compounded by information provided by the National Trust staff to the effect that representatives of the Federal Highway Administration, the National Trust, and the Advisory Council in Washington D.C., meeting nearly three years earlier, had agreed that “FHWA Division Administrators are well aware of the opportunity to waive highway standards on a case-by-case basis when historic preservation needs justify such action.”²² At a meeting in Honolulu, open confrontation between the angry citizens group and the state DOT underscored the agency’s stubborn determination to go ahead with the EIS supplement and litigation, if necessary. Recent Hanalei Bridge repairs, it appeared to preservationists, had only bought more time for Hawaii’s DOT to build its new bridge over the Hanalei River.

Mediation to the Rescue

The island of Kauai is a relatively small place with a population of approximately 50,000 persons, and after seven years, the now fully developed struggle over the Hanalei Bridge was known to elected representatives. In the Hawaii state legislature, where several of Kauai’s representatives had experience in conflict management, legislators launched efforts to use the professional services of the Neighborhood Justice Center of Oahu to bring the state Department of Transportation and the roads committee to a workable solution through face-to-face, directed mediation.

The state DOT seems to have agreed to enter the voluntary mediation for several reasons. During the six-month period after its confrontational Honolulu meeting, there had been administrative changes in the state DOT. With a better understanding of federal preservation laws and the complexity of solutions to the dispute, the new regime at DOT was willing to involve all interests in the controversy. The DOT was also faced with protracted litigation with preservationists over a major freeway on Oahu, and administrators hoped that mediation of the Hanalei Bridge conflict might shorten the time needed for resolution on Kauai. The state DOT independently sought out the services of the Neighborhood Justice Center of Oahu at the same time legislators asked for its mediation help.

The use of voluntary mediation to reach consensus is a relatively new approach in historic preservation. The Justice Center had been formed on Oahu in 1979 as an experiment in settling family and neighborhood disputes. This nonprofit service expanded and started a conflict management program that brought government and local community groups together in several land-use cases. The center’s excellent track record was another incentive for mediating the Hanalei Bridge conflict.

22. *Saving Historic Bridges*, 4.

Discussions between the state DOT and the citizens committee began in 1984 and continued for two years. From my perspective as a member of the negotiating team, the advantage of mediation was its attention to substantive issues.²³ Actual and projected traffic demands for a bridge at the Hanalei River were analyzed objectively and at length; the historical gateway concept was discussed; recent efforts by states like Michigan, Vermont, and Virginia that have preserved historic road bridges were studied; and safety standards and the condition of the Hanalei Bridge were re-examined. The process also reached out to include many other parties in the controversy—the taro farmers, private property owners, school bus and tour bus operators, and the interests of county government for its emergency service vehicles. In more than a dozen or more meetings, mediation tried to analyze functional considerations, financial costs, historical significance, and other issues.

As the mediation searched for consensus, an uneasy truce prevailed, but public awareness and support for a preservation alternative to Hanalei Bridge replacement continued to grow. The county's North Shore Development Plan Update continued through the review and approval process in public hearings and came before the Planning Commission and County Council. With the mayor's approval, the ordinance adopting the plan called for the preservation and rehabilitation of the Hanalei Bridge.

As the mediation meetings went on, agreement finally was reached over the citizens group's most important proposal, the need for load testing of the Hanalei Bridge as part of a new structural assessment. The Justice Center, in the coming months, helped the participants frame an agreement about the scope of the assessment and the qualifications of private traffic and structural engineers to do the work.

A minimum of three preservation alternatives were agreed upon.²⁴ The first of the preservation alternatives to be developed was stabilization and preservation maintenance. It would repair and conserve as much of the Hanalei Bridge as possible, including both the Pratt and Warren trusses. Where replacement due to deterioration was necessary, it would be limited to minor upgrading, and a load capacity of twelve tons would be maintained.

The second alternative was restoration, if the condition of the bridge was found to require replacement of major as well as minor elements. If restoration was the selected alternative, the bridge might have a higher load capacity.

23. Roger Fisher and William Ury, *Getting to Yes: Negotiating Agreements Without Giving In* (New York: Penguin Books, 1983), 3–98; The seven-person Hanalei Bridge negotiating team was made up of Cheryl Soon, Tets Hirano, and Clarence Yamamoto from the state DOT; Carol Wilcox, James Adams and I from the North Shore Citizen's Belt Road Advisory Committee; and David Matteson from the Neighborhood Justice Center of Honolulu, Inc.

24. Ms. meeting minutes, March 3, 1985; April 16, 1985. Neighborhood Justice Center. The "Roads Committee" files are located in the collections of the Kauai Historical Society.

The third alternative was a complete reconstruction. Reconstruction would remove the old bridge and replace it with a new structure as identical to the original as possible. This might be a replica of either the Pratt/Warren truss combination or just the Pratt truss, and the new bridge would be capable of carrying a twenty-ton load.²⁵

With alternatives decided upon, the state DOT set out to choose a historic bridge consultant who would inspect the bridge and the stone masonry and concrete abutments underwater and above, conduct load tests, and determine the condition of the steel in the bridge. A New Jersey civil engineer, with a professional practice that specialized in bridges, highways, railroads and dams, was selected in December 1985, and he inspected and load tested the Hanalei Bridge the following April with measuring equipment furnished by the University of Hawaii.

The engineer's study concluded that preservation of the Hanalei Bridge was technically feasible, and that the work could be done more economically than the state DOT had estimated.²⁶ The study made several other significant findings. Computer analysis of load testing showed that the Pratt truss continued to carry 55 percent of all loads, but field inspection of the structure and laboratory testing of steel samples discovered substantial deterioration of the upper part of the Pratt truss. In contrast, the Warren truss was found to be in good condition. When a preweighed truck of approximately twelve tons was driven onto the bridge and placed at pre-determined locations, the tests showed that the bridge stresses were within acceptable, safe limits.

Following the preservation guidelines agreed upon by mediation, the consulting engineer recommended a number of structural alternatives to the state DOT for discussion with the roads committee.²⁷ The mediation team expressed preference for the first of the consultant's recommendations, repairs that would give the Hanalei Bridge an additional twenty-five-year life and achieve a posted load capacity of fifteen tons to enable taro trucks, fire equipment, and school busses to continue to cross it safely in the future. The key to such an engineering solution was the transfer of all carrying loads to the Warren truss, leaving the Pratt truss to continue to support itself and to serve as a lateral bracing element for the Warren truss.

Because of the relatively low repair cost projected in this recommendation, the preservation option could be implemented using state maintenance funds. This had important implications: FHWA funds might not be necessary; the preparation of a state or federal EIS would not be required;

25. *Ibid.*

26. *Restoration Alternatives: Hawaii Department of Transportation Hanalei Bridge and Approaches* (A. G. Lichtenstein & Assoc., Inc. July, 1986), 1–36; Abba G. Lichtenstein, "Historic Bridges: Conflict Ahead," *Civil Engineering* (May 1987), 64–66.

27. Ms. "Common Understanding between the North Shore Citizen's Belt Road Advisory Committee and the State Department of Transportation," August 28, 1986. Neighborhood Justice Center.



The Hanalei Bridge after stabilization, March 1989. (Photo courtesy of the Hanalei Project)

and the requirement for the state DOT to conduct a regional cultural resources study, under the agreement worked out with the SHPO and the President's Advisory Council, could be dropped.²⁸

It was understood that the state DOT again would need to gather broad community input before making its decision, and it scheduled another open public information meeting in Hanalei in September 1986. According to the Deputy Transportation Director, who had participated in the mediation meetings for two years, "strong community support for one alternative would probably get the department's backing for that option."²⁹

More than seventy-five people attended the state DOT's meeting in Hanalei, the fifth community meeting called by the agency in twelve years in Hanalei to consider the future of the bridge. The consulting engineer, A.G. Lichtenstein, was present and reviewed his alternatives. There was nearly unanimous support for his first preservation option. A sampling of comments made at the September 1986 meeting gives a good idea of community reactions.³⁰ A spokesman for the Ching Young Village merchants said that a new two-lane bridge would create a "disastrous problem with traffic; word would get around that Hanalei is crowded and the very

28. Ibid.

29. *The Honolulu Advertiser*, September 11, 1986.

30. *The Garden Island*, September 10, 1986; *Public Information Meeting: Hanalei Bridge Preservation and Replacement Alternatives*, State of Hawaii Department of Transportation, September 9, 1986; "A Bridge to Reconciliation," *Honolulu Star Bulletin*, editorial, January 27, 1987.

people who keep us alive wouldn't come here." A Hanalei fireman said that if the repair work increased the bridge from twelve to fifteen tons to make it strong enough for fire trucks, he would support it. A Princeville resident said that if the Hanalei Bridge were upgraded to twenty tons, "containers would come across, followed by construction trucks." An elected County Council member said he favored preservation because the farmers hoped to establish a taro processing plant that would reduce the number of truck loads of raw taro going across the bridge. One of three Hanalei members of the negotiating team and chair of the citizens committee since 1977, Carol Wilcox, called the meeting "the end of our road."

The committee's goal to establish preservation and maintenance of the Hanalei Bridge as an alternative to demolition finally had been accomplished. The state DOT director announced soon after the meeting that with authorization by FHWA, he would select the preservation and maintenance alternative endorsed by the community, and Deputy Director Cheryl Soon made the following statement:

The idea of mediation between a government agency and the public is a way that some conflicts can be solved, and I think that it worked very well in the case of the Hanalei Bridge. I hope that the Highways Division will turn again to mediation for avoiding unproductive confrontations.³¹

The Hanalei Project

The state DOT's decision to preserve the Hanalei Bridge is the first case in Hawaii of the positive resolution of a dispute via mediation between a Hawaii state government agency and the public. But it was not the end of the story. Both Hanalei residents and county government officials recognized that additional, environmentally conserving measures were needed to give greater protection to Hanalei's rural landscape. Some feared that the powerful surge of population and resort and other tourism pressures could cause a breakdown in the continued food production of the Hanalei Valley; an unsuccessful bid by some developers to build a commercial theme park on 700 agriculturally zoned acres adjacent to the U.S. Fish and Wildlife reserve and taro farms in the Hanalei Valley was an immediate reminder of what the future might bring.

A conference, "Hanalei Yesterday, Today and Tomorrow," was held in 1985 with support from the state-based public program of the National Endowment for the Humanities and the Wallace Alexander Gerbode Foundation. These meetings focused on ecology, local history, and cultural change and posed an elemental question for the Hanalei Valley: "Does Hanalei have adequate protection?" Several conference speakers, including the state historic preservation officer's representative, identi-

31. Hawaii State Department of Transportation, *Carrier* (September–October 1986), 8.

fied the need to strengthen the county's North Shore Development Plan. The plan provided a good foundation, the SHPO said, but historic preservation continued to be perceived at the fringe of the development process. Conference speakers emphasized that preservation and conservation were associated and that saving archaeological, historical, scenic, and other environmental resources involved a basic process. Also discussed were the survey and inventory of resources, their evaluation according to criteria spelling out what is worth protecting and publicly accepted protection measures including voluntary efforts, zoning, and property tax incentives for private owners.³²

Following the conference, and in recognition of the lack of an available Hanalei resource inventory, the state historic preservation office awarded and supervised a grant to 1000 Friends of Kauai, an island-wide community education group, for a local cultural landscape survey of a major part of the Hanalei Valley. Since 1966, State Historic Preservation Offices have faced the challenge of recording all types of historic sites worthy of preservation, and the documentation of historic landscapes by governmental agencies and other organizations is still in its infancy. The Hanalei inventory borrowed its methodology and classification model from the National Park Service's 1984 study, *Cultural Landscapes: Rural Historic Districts in the National Park Service*, and the author of the NPS study directed the Hanalei fieldwork as the principal consultant.

The resulting report, *The Prospect from this Hill*, is grounded in the taxonomy of cultural geography. Historical resources are classified and mapped according to overall patterns of landscape organization, land-use traditions, multi-cultural practices, vegetation, structures, and scenic and historic views.³³ The Hanalei survey discusses the present physical appearance of the Hanalei Valley and what is known of the physical appearance of the valley at different historical periods. As material culture and survey methodology, the inventory is typically descriptive, but as a useful analysis of the survey data it also suggests new directions for the interpretation and explanation of Hanalei's historical development. What was learned from the field was the evolutionary nature of the landscape, the importance of environmental history, the abundance of water, and the role that irrigation and cultural adaptation have played in the development of agriculture in Hawaii.³⁴

32. The community conference, "Hanalei: Yesterday, Today and Tomorrow," was held August 17, 1985. Hawaii Committee for the Humanities grant project M-L-85-Y-41.

33. Robert Z. Melnick, Daniel Spohn, and Emma Jane Saxe, *Cultural Landscapes: Rural Historic Districts in the National Park System* (Washington, D.C.: National Park Service, 1984); *The Prospect from this Hill*, 1–125.

34. For discussion of material cultural survey methodology, see Thomas J. Schlereth, "Material Culture Studies in America, 1876–1976," in *Material Culture Studies in America* (Nashville: American Association for State and Local History, 1982), 1–75; Carolyn Torma, "History of the Historic Sites Survey Program," unpublished paper, 1988, South Dakota Historical Preservation Center.

The experience of the Hanalei survey brings out a need for some professional service organization to offer workshops to instruct local historians, anthropologists, and state preservation office staff how to conceive and design cultural landscape studies. Initiatives that will bring academic and public sector consultants together to discuss and share research methodology and scholarly findings and to give training to community people who are actively involved in conducting oral interviews and other documentary ethnographic projects. For example, although the Hanalei inventory project identified and classified the existing irrigation systems, and more than 200 individual taro *lo'i* and over eighty standing structures, including the Hanalei Bridge, the state preservation office grant award's scope of work did not include much-needed archaeological fieldwork. Archaeology is part of landscape continuum research, however. According to Bishop Museum anthropologists, there still remains potential for further work in the Hanalei Valley to test anthropological interpretations of how and when early taro cultivation and irrigation were expanded and intensified and how later Hawaiian settlement may have differed from first settlement. Nineteenth-century cattle raising and large-scale rice farming probably altered traditional Hawaiian pondfield systems and even may have obliterated much early archaeological evidence that could help answer research questions about the evolution of the irrigation systems, population density, and the life of the Hawaiian community, but archaeological investigations would round out the picture.

Once completed, the Hanalei survey did become the keystone for a two-year cooperative planning effort, known as the Hanalei Project. A group of thirty Hanalei residents, landowners, farmers, merchants, conservationists, and county officials agreed to try to reach consensus about growth management and agricultural, scenic, and cultural resource protection in Hanalei. The Hanalei Project voluntary advisory committee began meeting in 1987, and with grant support from the Gerbode Foundation, the G.N. Wilcox Trust, and the Critical Issues Fund of the National Trust, project activities were coordinated by local staff, giving the community a preservation resource center in Hanalei for eighteen months under the general administration of 1000 Friends of Kauai.

Land and Community Associates, the mainland-based consultants who had prepared the landscape survey, were retained to help prepare and interpret resident and visitor surveys, develop design guidelines and project maps, and to produce the final growth management and preservation report. The Hanalei-based staff and advisory committee, however, assumed major responsibility for defining preservation objectives and making recommendations on how to integrate preservation more effectively into both private and public sector planning. The contracted planning consultants and the community staff operated under the burden of a long distance separation, and the pitfalls of this fairly typical relationship require effective, frequent communications.

"Hanalei will continue to grow, but decisions should be made on how

growth is going to be managed to preserve what should not be lost,” was the project’s basic conclusion.³⁵ *The Hanalei Cultural Resources Management Plan*, completed in 1988, includes an analysis of major conditions and issues and a set of consensus objectives and activities for continued rural preservation efforts in Hanalei. Although a new, independent community association has organized as a result of The Hanalei Project, it is too soon to suggest how effective Hanalei’s preservation ambitions and hopes may be in maintaining a balance of permanence and change for any length of time, but Hanalei does remind one of J. B. Jackson’s generalization in *Discovering the Vernacular Landscape*,

No group sets out to create a landscape, of course. What it sets out to do is to create a community, and the landscape as its visible manifestation is simply the by-product of people working and living, sometimes coming together, sometimes staying apart, but always recognizing their interdependence.³⁶

Unanswered Preservation Questions

Several unanswered preservation questions about Hanalei are still on the table.

Recently, as the bridge was being structurally repaired, at least one of the original members of the “roads committee” asked over and over, “How committed is the state DOT to maintenance and preservation?” In fact, the state DOT in cooperation with the FHWA has completed the *Historic Bridge Inventory: Island of Kauai*, funded by the federal Surface Transportation and Uniform Relocation Assistance Act of 1987. This is an encouraging sign of the willingness of state government and transportation planners finally to consider historic bridge protection in Hawaii. The inventory and evaluation report of Kauai’s fifty-one existing state and county pre-1941 road bridges recommends that as many as seventeen bridges be given a top priority for historic preservation considerations, based upon criteria of significance for possible inclusion in the National Register of Historic Places. These criteria include integrity of location, design, setting, materials, workmanship, age, associated events and persons, and distinctive characteristics. The Hanalei Bridge was rated in Category I with the highest preservation criteria score of any of Kauai’s historic bridges.³⁷

35. Barbara Robeson, Beryl Blaich, Barnes Riznik, Robert Z. Melnick, J. Timothy Keller, and Genevieve P. Keller, *Hanalei Cultural Resources Management Plan* (Hanalei: Hanalei Project, 1988), 3–114; R. Z. Melnick, “Where Am I Now? Regionalism and Rural Landscape Protection,” *Landscape Preservation Seminar Proceedings*, (Amherst: University of Massachusetts at Amherst, March 25–26, 1988), 69–77.

36. J. B. Jackson, *Discovering the Vernacular Landscape*, 12.

37. *The Garden Island*, November 23, 1988; *Historic Bridge Inventory: Island of Kauai* (Honolulu: Spencer Mason Architects, 1988), 1–16. Bridge inventory prepared for the State DOT and FHWA.

A more difficult question to answer revolves around the relationship of tourism and preservation on Kauai. Tourism is the latest in a series of export commodities from Hawaii, and it holds big cards in the struggle for the future of Hanalei as a rural district and sensitive wetland farming area. There is no telling what further resort expansion on the north shore of Kauai may bring.

It is no small irony that although the economic benefits of tourism for preservation are well understood, the economic benefits of preservation for tourism have been less well appreciated in Hawaii. Many visitors come to Hawaii to discover and experience its regional diversity, history, local lifestyle and people, along with the state's natural beauty and warm, sunny beaches. Ruralness is itself an attracting power in Hawaii's tourist market appeal. Many visitors to Hanalei seek genuine rural experiences in their travel and leisure plans, and return to their favorite places. The Hanalei Project found that over one-third of tourists were repeat visitors to Kauai. The Hawaii visitor industry knows that one of the reasons people come to the Islands is to see, taste, experience and take home some of what is regionally interesting and genuine about Hawaii, especially those things both tangible and intangible that have individual, local, and multi-cultural character.

Preservation is a long-term economic investment, and as the 1988 National Historic Trust Program Council report on tourism and historic preservation recently stated, "the issue of capacity is an important growth management concern for individual historic resources, historic districts and entire communities."³⁸ Regulating tourist-related development should be part of resource protection. In this sense, the resolution of the Hanalei Bridge dispute and The Hanalei Project are instructive examples of community preservation planning.

Conclusions

The wetlands and marshes of the nation, places like Hanalei still in use for food production and as waterbird habitats, are disappearing quickly, and the protection of the Hanalei Valley is important because it is one of Hawaii's last remaining coastal wetland cultural landscapes.

Preservation of the Hanalei Bridge represents conservation consciousness and action, an acknowledgment that ecological and historical areas are finite and fragile. Preservation of the bridge is an example of the reshaping of modern historical perspective in the minds of people who

38. *Preservation Forum* 3 (Fall 1988), 13–16; for another recent perspective on tourism, environmental conservation, and planning, see Robert E. Stipe, "Political Constraints on Tourism and Use," in *International Perspectives on Culture Parks: Proceedings of the First World Conference, Mesa Verde National Park, Colorado, 1984* (Washington, D.C.: National Park Service in association with the Colorado Historical Society, 1989), 195–200.

realize that efforts to save and interpret tangible areas are a necessary part of their identity. The Hanalei Project resident survey sent out a list of fourteen historical and cultural resources and asked, "Of those which are listed below, which do you want your grandchildren to be able to see?" Ninety percent named the taro farms and Hanalei wildlife refuge and eighty-four percent named the Hanalei Bridge.

Resolution of the bridge controversy supports many of Donald C. Jackson's conclusions about preservation in *Great American Bridges and Dams*, particularly his point about democratic society.

The most important element in the successful, long-term preservation of historic bridges is strong local support; and, because most of the laws relating to bridge preservation concern activities funded or authorized by the federal government, this support must be of sufficient visibility to impress regional, state and federal officials.⁴⁰

As a result of encompassing federal and state historic preservation programs over the past twenty years, preservation is now widely accepted as a public activity. In this real sense, the Hanalei Bridge has been a preservation catalyst, and in 1987 the County of Kauai became the first local government in Hawaii to participate in the federal Certified Local Government program by establishing the Kauai Historic Preservation Commission, made up of trained local archaeologists, historians, architects, teachers, librarians and other cultural resource people.

The Hanalei Bridge is a consequential case study of the various roles federal, state, county and non-governmental community authority must play in an unending struggle over the cumulative effects of growth that continue to pose inimical threats to rural lands, rural life and the material history of the United States.

39. *Hanalei Cultural Resources Management Plan*, 136.

40. Donald C. Jackson, *Great American Bridges and Dams*, 55–56.