

11593

Information Related to Responsibilities of the Secretary of the Interior Section 3, Executive Order 11593

Office of Archeology and Historic Preservation
National Park Service

Vol. 2 No. 5

OCTOBER 1977

IAS BEGINS BIBLIOGRAPHY PROJECT

by Terry H. Klein
Archeologist
Interagency Archeological Services

The Interagency Archeological Services Division has begun work on a bibliography project that will examine the possibilities of establishing a

body of consistent, comprehensive, updatable information on the level of survey work that has been done in each part of the country and on the disposition and availability of survey data and other useful information.¹

Such an information system was proposed in a recent 11593 article by Tom King and Wil Cole who pointed out that until the National Register is more comprehensive, and thus usable for such purposes, a useful interim planning tool should be developed. One such tool would be an automated data management system that could be applied to compiling data and research resulting from archeological surveys.

Thus, the IAS bibliography project and the information system proposal have a common goal—the management, for planning purposes, of data and research results from archeological investigations. They are therefore presented jointly in this article, in terms of responses to the proposal.

IAS Bibliography

The initial pilot study will be conducted by five states: Louisiana, Massachusetts, Missouri, Nevada, and Texas. These states were selected because of their diverse natural, cultural, and social conditions.

The bibliography pilot project will examine the feasibility and utility of developing an annotated bibliography of all archeological reports, covering survey and mitigation, connected with federally involved undertakings. It would help federal agencies and SHPOs to quickly identify, on a general level, sources from which the status of archeological knowledge about a specific project area may be developed, and thus permit better informed decisions about whether there is a need for supplementary resource studies. It would also make information about previous

work more readily available to personnel conducting surveys, resulting in more efficient background research for whatever need is at hand.

End Products

The end products of the pilot project will include:

- a set of standardized bibliographic forms from each state involved in the project, containing information on each report entered into the bibliography.

- a bibliographic volume from each state containing a master list of reports entered in the volume. Each report, designated by a number, will be cross-indexed by location of the investigation (counties or parishes, and/or major drainage systems), and general nature about the historic resources covered by the report. Preparation of this last index will be optional, and should be based upon historic categories most pertinent and meaningful to the particular state.

- an evaluative report, by each SHPO staff, discussing the utility of the product for both planning and research, suggestions for further work relating to the bibliography, and a discussion of difficulties encountered in obtaining the base data.

- a set of summary maps that depict areas covered in the bibliography.

As the project gets underway, there remain some unresolved questions that should be answered by the end of the study, or should at least be illuminated to some extent.

1) *Should old reports be incorporated into a bibliography of federally related archeological investigations?* There is concern about the quality of the old reports (especially those of the 1950s and 1960s); most do not fit present standards of survey and excavation. Furthermore, if old reports are incorporated into the bibliography, difficulties may be encountered in locating them.

2) *How should reports in the bibliographic volume be cross-indexed?* It will be difficult to find categories or types of historic properties that will be useful in all states. If categories are extremely broad, then they may be of no real utility.

One possible problem with the proposed bibliography is its potential for misuse. The bibliography is intended to be a tool in developing cultural resource assessments for an area. It is not intended to be a substitute for whatever professional survey and/or anal-

continued on page 7

WINNING FEDERAL GRANTS

by Eric Liebmann
Program Assistant
National Register Division

The National Register of Historic Places has been active in compiling sources of preservation funding for SHPOs and others who can use such assistance. Although knowing about funding sources and finding them is seldom a major obstacle to securing grants, the problem often rests in an uncertainty about how to approach government agencies for grant support. Numerous manuals on how to find funds have recently been published, expounding the merits of grantsmanship and encouraging the grant seeker to be

continued on page 2



Bridges page 9

IN THIS ISSUE

National Benefits of the Rehabilitation of Existing Buildings

Baird Smith compares the benefits of rehabilitating urban buildings . . . Supplement

Bridge Replacement

Eric Delony discusses the need for increased awareness in historic bridge preservation . . . Page 9

HABS Project at Tuskegee Institute

Lucy Franklin describes the preliminary investigation findings . . . Page 4

Reuse of Industrial Buildings

T. Allan Comp discusses the HAER feasibility studies on industrial buildings . . . Supplement

Contents Page 12

1. See "Automated Management of Data and Research Results on Archeological Surveys: A Proposal for Discussion," by Thomas F. King and Wilford P. Cole, 11593, April 1977.

a "shrewd salesman." Whether or not high-powered marketing techniques are necessary or even advisable in seeking grant support can be debated. There are, however, certain general guidelines that, if followed, can make the entire grant-getting process more comprehensible—and possibly more successful.

Before Applying

Getting a grant involves more than writing a good proposal: careful planning is necessary. Before you write and submit an application for funding, you, the grant seeker, should first have a firm outline of what activity you propose, including time, costs, and required facilities; you should be well acquainted with related activities or projects, past or present, conducted by others in the field; and you should possess a thorough knowledge of potential funding sources. Once an application is submitted to a federal agency, 6–12 months for processing elapse before the agency can notify the applicant that an award is made; only then can funding begin. Without scrupulous assessment of future needs, there is no way to insure that funds can be made available when required.

Be imaginative when investigating potential funding sources. Programs beneficial to preservation span a wide range of federal agencies—from the Department of Labor's Manpower Administration, to the Department of Agriculture's Federal Extension Service, and to the Department of Commerce's National Oceanic and Atmospheric Administration. ("Sources of Preservation Funding," available through OAHF, lists publications that preservationists can consult for information on preservation funding, and includes recent additions and revisions in federal funding programs.) If a single program cannot meet your needs, perhaps a creative combination or multiplication of federal funding mechanisms can. Money received through a community development block grant may, for example, be used to meet the matching fund requirements of a National Park Service historic preservation grant.

Government grant programs not only can be used in conjunction with one another, but they also can assist in attracting nonfederal funding—from foundations, corporations, state agencies, local public agencies, and even individuals. Phasing the project may further aid in attracting other funds. Whatever the strategy, mutual reinforcement, cooperative effort, and long-range planning should add to the credibility of your proposal.

Remember that although it is important to follow current trends and to investigate a wide range of potential funding sources, it may prove futile to apply to a granting agency simply to tap its resources. Granting agencies have specific policy objectives, which they help implement through their funding programs. Project reviewers are conscious of these objectives and are sophisticated enough to know when such objectives are not present in a proposal. An agency's report, legislation, and lists of previous awards are available to the public and should clarify an agency's funding preferences. The easiest and most effective means, however, of discovering if your idea falls within the purview of a funding program is to ask the agency. Federal agencies are required by law to reveal their plans and

methods of review; furthermore, accurate dissemination of information about procedures and program objectives simplifies the review process by government personnel, and provides the best means of insuring that program needs will be served.

You should know your proposal well when you talk to an agency, whether by phone or in person. An informal conversation may be the first stage in the agency's evaluation of your proposal. A preliminary draft or brief summary should prove helpful in soliciting suggestions from government officials. Invite recommendations for format and reasonable dollar amounts to request; solicit information on funding cycles and deadlines, current priorities, and special restrictions; be sure you possess the most up-to-date guidelines and regulations, as well as the appropriate forms. Without such information and reasonable time for discussion and revision, you are at a competitive disadvantage in seeking funding support.

The Application

Assuming that the proposed activity fits within the guidelines and monetary limits of the funding program, your application will be evaluated on the basis of significance, creativity, and perhaps foremost, on your capacity to successfully carry out the proposal. All aspects must be clearly communicated; shortcomings in applications often are not weaknesses, but reflections of inadequate or incomplete presentation. Remember, too, that excessive paperwork can mask the merit or distinction of your idea. Your application must, therefore, be an accurate, concise yet thorough, statement of your proposal. With an ever increasing number of applications to process, reviewers rarely have the opportunity to seek out clarifying material.

Although there is no standard application format, virtually all federal agency grant applications contain a section for structural information and a section for a descriptive narrative. Be precise in citing the structural information. Government reviewers need this basic information to efficiently process the many applications they receive and to compare your application with others in a standard way. Carelessness is not readily condoned; a seemingly minor omission could deny your organization the aid it seeks. If any material seems confusing, ask questions.

The narrative portion is widely considered the most important part of an application. Here, the project description is left totally with the applicant. Agencies do, however, designate a length, which should be respected. An overly long narrative may be construed to lack a precise direction and may cast doubts upon the potential success of the proposed activity.

The narrative should define your project so that it will appeal to the granting agency; it should correspond to that agency's own stated purpose and granting patterns. For example, although your primary goal may be the rehabilitation of publicly owned buildings in your community, in seeking manpower services through a Department of Labor grant, you must stress components of your project that will create jobs and public service employment. Do not emphasize personal goals at the expense of the funding

program's stated objectives—you will risk losing the funds you seek.

Because a single proposal cannot precisely match the varying objectives of several programs, it is best to avoid sending identical proposals to more than one source. Research and prior communication are the keys to tailoring your proposal to the individual grant program.

Knowing the review process should also be helpful in preparing your application. Federal agencies are obliged to provide such information. Your proposal will likely be reviewed not only by specialists in the field, but also by laymen and administrators, as well as national councils, program directors, or agency heads who often render the final decision. Undefined jargon can cause confusion and can be interpreted as a deliberate attempt to obscure. Avoid jargon whenever possible; if not possible, provide definitions. Do not assume that every reviewer possesses a vocabulary of technical terms equal to your own.

Although review panels differ in their makeup and approach, certain questions will inevitably be asked of your projects: Does the project fit our program and type of support? Will a real need be met? Are the ideas finite and objectives specific? Will a competent and adequate staff function within a clear methodology? Are evaluation techniques suitable and specific? What is the relationship to other local, state, or national efforts? Suitable responses to these questions will demonstrate why your project should be funded instead of another.

The final requirement of your application will be an itemized budget. All project items must be justified (later additions will prove difficult), and the preparer should be aware of all pertinent regulations, including rules on direct and indirect costs, any matching fund requirements, as well as policies on budget negotiations.

In evaluating your need, the grantor agency will be interested in knowing what part of the costs you can assume, as well as your long-range funding plans. Be accurate and truthful; there is little to gain by false claims of financial solvency or exaggerated predictions of self-sufficiency at the termination of the funding period. You will probably be considered unrealistic or naive. If any agency acknowledges the value of your proposal through funding, they will be likely to continue aid if necessary (although continuing aid should never be presumed). It should satisfy the agency that you have been comprehensive in your funding search and, having exhausted all available resources, are requesting an outlay that is of true necessity.

Keep in mind the financial situation of the agency from which you are soliciting funds; don't overestimate your need or overreach their funding limits. Simply be honest and accurate and try to avoid needless mistakes.

One final word concerning the application: It seems best not to inundate the reviewers with supplementary information. If it is necessary to provide more material than is requested, present it simply, in an organized form that will allow for efficient examination. Endorsements providing evidence of your fiscal responsibilities or program capacity may prove beneficial, especially if they demonstrate community input and support; for example, letters from community groups or

DALLAS TENANT RELOCATION PROGRAM

by Susan Mead
Director
Historic Preservation League of Dallas

The Historic Dallas Fund is a revolving fund within the purview of the Historic Preservation League of Dallas. The fund began purchasing and reselling structures in the Munger Place area in the fall of 1976. At the outset of the project, our members focused on one of the well-known problems resulting from the rejuvenation of neighborhoods: tenant displacement. We were fortunate to have a highly qualified person step forward as a volunteer to head up our tenant relocation program. Dorothy Masterson not only teaches American history at Richland Community College but also does research and writing for the League of Women Voters in human resources with booklets such as *War on Poverty*, *Housing Needs in Dallas*, *Public Welfare*, and *School Desegregation*. She is currently heading the Urban Crisis study for

the League of Women Voters and serves on the War on Poverty Board for Dallas County. The steps followed in each relocation are:

- 1) Masterson talks personally with the tenants, informing them of the need to move and of the financial and man-hour assistance she will provide. She then either takes the tenants to their new place or meets them there with a standard cost tenant relocation amount of \$100 plus deposit refund.
 - 2) The tenants are permitted to take anything they need from their present apartment with them, such as appliances and/or furniture owned by the fund.
 - 3) In many cases Masterson follows each tenant's progress in his new place with a personal visit.
 - 4) Masterson helps the individuals involved with many other difficulties, such as food stamps and welfare problems.
- The apartments purchased by the fund are not good living quarters. Furthermore, no one has been placed in a worse situation, and many people acquire better housing. Masterson has found that without exception the tenants are grateful for her assistance and are cooperative about their relocation. ●

continued from page 2

local politicians. But don't overdo; quality will outweigh quantity.

After Applying

Once a proposal has been formally submitted, is the final decision out of the applicant's hands? There is disagreement on this issue—some manuals recommend soliciting the support of politicians, following the application step by step along the review process, questioning the program officers regularly about the proposal's status and chances. Where the results may profoundly affect the future of your organizations, the temptations to remain actively involved are great. The positive or negative effects of such lobbying, however, have not been clearly established. Although exuberant expressions of interest will probably be understood, you should resist the temptation to seek special consideration. The federal agencies are aware of their responsibilities and public image; such requests may work against you. One indisputable recommendation concerning lobbying is always to be discreet. In any follow-up communication, emphasize continuing dialogue without pushing for a decision.

Once the decision has been received, be sure to maintain a relationship of good will with the grantor agency. A letter of acknowledgement and thanks should be forwarded regardless of the outcome. If your organization is awarded funds, immediately find out about reporting requirements and set up a schedule for periodic accounting. The significance of such reports should not be underestimated; a well-constructed report can serve as an ideal advertisement for refunding.

If your request is turned down, find out why. The Public Information Act of 1964 (P.L. 90-23) entitles those denied funds to obtain specific reasons for their rejection. Disapproval may have been the direct result of limited funds; find out whether resubmission to a later competition is recommended. If

your proposal has been assessed to have shortcomings, ask how it might be changed to improve its chances.

Finally, be persistent. Funding by federal agency programs is highly unpredictable. Having your project on the right desk at the right time may prove to be the winning formula.

Sources

Alderson, William T. "Securing Grant Support: Effective Planning and Preparation." American Association for State and Local History Technical Leaflet 62. *History News* 27 (Dec. 1972), no. 12.

Cleveland Foundation. "Guidelines for Grant Getting." *Grantsmanship Center News* (Aug./Oct. 1976).

Coe, Linda C. "Finding Federal Funds: ABC's of Applying for Support." *Museum News* 54 (May/June 1976), no. 5.

*Conrad, Daniel L. *The Grants Planner*. San Francisco: Institute for Fund Raising, 1976.

Derfner, Carol. "City Hall, An Important Resource for Your Organization." *Grantsmanship Center News* (Sept./Nov. 1975).

Hill, William J. *A Comprehensive Guide to Successful Grantsmanship*. Littleton, Colo: Grant Development Institute, 1972.

Urigo, Louis A. *A Manual for Obtaining Government Grants*. Boston: R. J. Corcoran Co., 1972.

*White, Virginia P. *Grants: How to Find Out and What to Do Next*. New York: Plenum Press, 1975.

*For further assistance, Virginia White's book is recommended. It provides clear readable information. The most thorough step-by-step outline for the "marketing" of ideas is Daniel Conrad's *The Grants Planner*. ●

BREAKING A BOTTLENECK

by Wilford P. Cole
Chief, ADP Section

Preservation publications that never reach the public neither do good for the public nor for preservation. Although sent to libraries, they may reach the stacks only after long delays in waiting for catalog cards to be made and filed. Library cataloging is time-consuming and expensive, often costing more than the purchase price; many libraries cannot afford adequate cataloging services. Nontrade publications, particularly from local or government sources, may be relegated, uncataloged, to vertical files, and therefore remain unknown to those people who use the card catalog to find what they want. This is an increasing problem: personnel costs and library accession rates are both rising rapidly. If a publication is supposed to bring an aspect of preservation to public attention, its goal can be frustrated or even defeated by the cataloging bottleneck.

The Library of Congress has established the Cataloging in Publication Program (CIP) to move publications off the catalogers' desks and into the stacks. Each imprint in the program is supplied before printing by CIP. A complete set of cataloging data is then printed on the reverse of the title page. Librarians need only copy the data onto catalog cards, or order preprinted cards from the Library of Congress. No original cataloging is necessary. Preservationists should use this program to assure maximum, timely availability of their publications through libraries. A great variety of publications is eligible for CIP, including trade and text books, as well as all government documents. The program is not limited to hardbound books and can include site inventories, planning and research reports, instruction books and guidelines, state and local history materials, and reprints. Periodicals are not part of the program, although most serials are. If a publisher has any doubt whether a title falls within the scope of the program, CIP will make a determination.

Participating in CIP is simple. There is no cost, but CIP requires one copy of the final publication. The publisher sends galley to CIP, and within 10 working days CIP returns the catalog card information to be printed on the "copyright" page. If galley are not available, other forms of front material may be sent. Some recent OAHF publications, such as HABS catalogs, already carry CIP information, and all but a few future publications will participate.

Note: CIP is separate from the copyright program. For instructions and further information, write or call: Library of Congress, Cataloging in Publication Program, Washington, DC 20540 (202/426-6372). ●

RESOLUTION PASSED

by Michele Hope
Archeologist
National Register Division

After several years of accumulated evidence concerning the lack of communication between archeologists, civil engineers, and architects, Dr. Mario G. Salvadori, Professor Emeritus in civil engineering and Professor Emeritus of Architecture at Columbia University, presented a paper to the American Society of Civil Engineers (ASCE) dealing with the need for greater interdisciplinary cooperation. As chairman of the Social Concerns Subcommittee of the Social and Environmental Concerns in Construction Committee of the Construction Division of the ASCE, Dr. Salvadori proposed a resolution, which resulted from his paper, to the Committee on Professional Activities. The resolution, which urged engineers responsible for construction projects to pledge their active participation in the preservation or salvaging of archeological sites, continued to the Governing Board of Directors of the ASCE and was passed unanimously in September of 1976. The professional society has over 73,000 members.

The mere existence of the resolution and the fact that it took 2 years in committee to evolve to its final form is sufficient comment on the difficulty of developing a working professional understanding between the civil engineering and archeological communities. The resolution suggests an almost radical element in traditional engineering philosophy. Dr. Salvadori was alerted to the need of such an action by archeological fellow faculty members at Columbia. Since his campaign started almost 4 years ago, representatives from the Society for Professional Archeologists and the American Institute of Architects have become adjunct members to Salvadori's Social Concerns Subcommittee. It is hoped that an archeological paper will be presented at an ASCE meeting in 1978.

Despite one committee's effort to call for a greater understanding between professions, that reality is not quite as accurate as one's first impression of the resolution would have it appear. It is only through increased legislation regarding dispersal of federal funds that any holds have been placed on destruction of historic or prehistoric archeological deposits. Without more education on preservation in the fundamental engineering school curriculum, very little can be done to alleviate basic misconceptions concerning the discovery of archeological intrusions at a construction site. It is crucial that a workable compromise be reached by the construction engineer between possible delays of the project and the need for adequate archeological survey. These delays may not necessarily be extensive or inconvenient and often just a few hours are required for archeological mitigation or salvage.

The resolution for preservation of archeological and paleontological sites is a commendable beginning. It represents the first professional advice on policy for all civil engineers, not just those affected by federal contracts. The resolution verbalizes an ethic code which cannot actually be enforced and its existence as part of the official ASCE

codes and resolutions for professionals may have done little to actually change the current state of affairs.

Construction's compliance with archeological interests varies from state to state. Since 1966 Laurens Hammack as Arizona State Highway Archeologist, has participated in the advance planning stage of all highway construction projects. After a new highway alignment has been proposed, it is surveyed by the highway archeologist to determine any conflicts with known archeological sites. If a conflict does result, mitigation of the site or realignment of the project will result. No state project can commence until cleared by his office in joint affiliation with the Arizona State Museum. This, of course, is almost an ideal situation. Equally competent programs exist in other states including Alabama, Illinois, and Texas. Probably the earliest program of its kind, in the United States, was started in New Mexico around 1956.

There will be little effect on preservation of our cultural and physical environment without mutual cooperation between civil engineers, preservationist, and archeologists. The Preservation of Archeological and Paleontological Sites Resolution marks a turning point in the national concern for protection of our cultural heritage. ●

American Society of Civil Engineers

PRESERVATION OF ARCHAEOLOGICAL AND PALEONTOLOGICAL SITES

A Resolution adopted by the Board of Direction,
September 25, 1976

WHEREAS, the American Society of Civil Engineers has established and supports a Committee on Social and Environmental Concerns in Construction as a technical committee under its Construction Division, and

WHEREAS, this Committee has personally studied for a period of two years the problems of the destruction of archaeological and paleontological sites due to construction in the United States, and

WHEREAS, this Committee is deeply concerned about the irreparable damage to and unnecessary destruction of these remains of our precious heritage.

BE IT RESOLVED that the Board of Direction of the American Society of Civil Engineers invites all engineers responsible for construction projects to pledge their active participation in the preservation or salvaging of archaeological and paleontological sites and requests all members of this Society to support such activity.

HABS PROJECT AT TUSKEGEE INSTITUTE

by Lucy Franklin
Historian
National Register Division

This summer, HABS selected the campus of Tuskegee Institute for preliminary investigation because of its unique history, its designation as a National Historic Landmark, and the major impact it had on Black education in the United States. The students of this rural school have actively participated in its construction and development since its founding by Booker T. Washington in 1881. Students made the bricks for the buildings, installed the electrical system, and landscaped the campus. Tuskegee had one of the first architecture departments within a Black school, and three early Black architects were associated with the school either as students or faculty. Most of the structures on the campus date from 1889 to 1919, and were built by the students. Well-constructed, the buildings have survived the years, frequently undergoing extensive interior renovation and remodeling.

The HABS team this summer included field supervisor, Richard Dozier (Chairman of Tuskegee Institute's Department of Architecture); two student architects, Lamar Berry and Michael Clark; and myself, serving as the project historian. While the student architects made preliminary sketches and field notes of the Foundry and Blacksmith shop, my time was spent searching the archives, libraries, and county courthouse records for information regarding the construction and history of the buildings. The survey's primary objective was to research and evaluate existing resources and to determine the priority of structures that may receive future HABS documentation. All of the campus' earliest buildings, those constructed between 1889 and 1919, are being studied to determine the degree of documentation required.

The campus buildings served a variety of purposes. The 1889 Foundry and Blacksmith Shop, the earliest surviving building, was also the site of the 1890 Tin Shop started by Lewis Adams. Adams, a former slave and one of the Institute's founders, was the only Black to serve on the school's three-man board of commissioners, established in 1881 by the Alabama legislature. A prominent local blacksmith and tinsmith, Adams moved his shop from the site of the present Courthouse Square to the Institute, where he taught his trade until he died in 1903. The shop's tin roof, still intact, was installed by Adams and his students. The building is presently used as the Band Cottage, where the band practices and the instruments are stored. It has not been greatly altered during its 88-year existence on a campus that has often adapted buildings to varieties of functions not originally intended.

Built in 1893 by students, Thrasher was constructed from bricks that the students had made. Initially it was called the Science Hall and contained classrooms and laboratories. In 1903 it was renamed for Max Bennett Thrasher, a journalist from the *Boston Journal* who came to Tuskegee to document the Institute in his *Tuskegee, Its Story and Its Work*. As with the Band Cottage, the ex-

terior of Thrasher Hall remains largely unaltered. There have been, however, some interior modifications.

The present Margaret Murray Washington Hall, named for the wife of Booker T. Washington, was formerly Slater-Armstrong Memorial Agricultural Building. John F. Slater, a wealthy Connecticut cotton manufacturer, bequeathed \$1 million to fund Black education. Money from this fund covered most of the cost of materials for the building. Clay for the bricks and wood came from the campus; instructors and students built it. Slater was the center of the school's agricultural studies. Equipped for teaching practical and scientific agriculture, the building had classrooms, an herbarium, a reading room, and a milk processing area in the basement. George Washington Carver served as director and consulting chemist of the new Agricultural Experiment Station in 1897. Secretary of Agriculture James Wilson and Alabama Governor Joseph F. Johnson attended its dedication. After Milbank Agricultural Building was constructed in 1909, the agricultural facilities were moved there, and the Slater-Armstrong Building was converted to classroom space for domestic science. In 1931 it was renamed Margaret Murray Washington Hall. In 1901 two wings were added to provide a laboratory and a museum.

Built in 1901, the Carnegie Library was one of many financed by Andrew Carnegie. Professor W.E.B. DuBois of Atlanta University taught in the library in the school's first summer school (1903); George Washington Carver also taught there. As part of the 1906 quarter centennial celebration, African art and photographs depicting the Institute's early history were exhibited in the Historical Room of the library. Guests included the presidents of Harvard, Minnesota, and Alabama universities, and Andrew Carnegie. When the present library, the Hollis Burke Frissell Library, was completed in the 1930s, Carnegie Library became the Music Building, housing the Tuskegee Institute choir. In 1972 the interior of the building was completely gutted, but the exterior was preserved and restored.

Students constructed the Huntington Academic Building in 1905 near the site where Porter Hall, the first building on the campus, once stood. All studies, other than Bible and industrial classes, were conducted in the Huntington building. Built as a gift of Collis P. Huntington in the memory of her husband, the building is an excellent example of the steadily rising quality of workmanship achieved by the students. At one time both the town's Lewis Adams Elementary School and the Tuskegee Institute High School were located in Huntington. Essentially unchanged on the exterior with modifications on the interior, the building now houses the School of Arts and Sciences and the School of Education.

Thompkins Hall, one of the most imposing buildings on the campus, was named in memory of Charles E. Thompkins of Connecticut. Students built the hall in 1910 to accommodate 174 teachers and 1,600 students and an assembly hall that seated 2,500 persons. For a while vesper services were held nightly in the assembly hall. In 1964 the assembly hall became the College Union. The exterior is unchanged since construction.

The 13 buildings to be documented by HABS were built by students. Students and professors drew the plans for all but one. The needs of the fledgling school dictated the curriculum. As stated in a 1913 issue of the Institute's *Southern Letter*, "the story of the industries is the story of the school. Other industries grew up as the demands of the school made them necessary and circumstances made the teaching of them possible and profitable." The first need of the school was food; the first industry, of course, was farming. The second industry was brick-making, begun in 1883. A ravine on the campus, between the former Alabama Hall and first Chapel provided the clay for the school's first bricks. Handwork was replaced by a small machine that produced 8,000 bricks a day. This machine, in turn, was replaced by two larger machines which together produced 25,000. Brickmaking was followed by plastering and carpentry in 1884. The utility of these trades extended beyond the class-

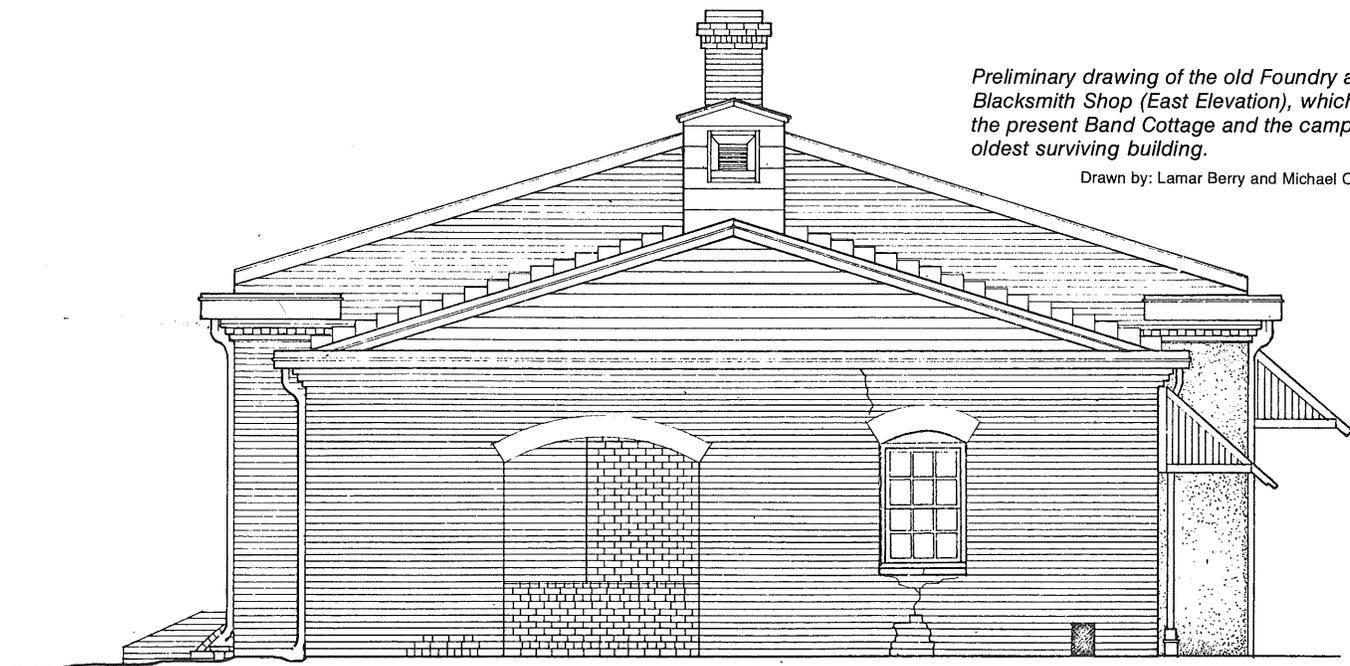
room, providing the students with practical experience. Student building was important to Booker T. Washington as a means of teaching the utility and the nobility of labor. Despite objections, Washington believed that "in the teaching of civilization self-help, and self-reliance, the erection of the buildings by the students themselves would more than compensate for any lack of comfort or fine finish." In addition to the individual benefits of students, the South in particular, and the country in general gained hundreds of men with construction and architectural skills.

Practical instruction was not limited to building skills. Students at Tuskegee made clothing for the student body, mattresses and other furniture, wheels, painted furniture and buildings, laundered, placed pipes and sewer lines, and laid roads. In 1896 a course in electrical engineering was added, which was taught by Arthur Ulysses Craig, the first black to receive a degree in electrical engineering. Graduating from the University of Kansas in 1895, Craig joined the Tuskegee faculty in 1896, and taught there until 1901. "Under his direction students installed much of the electrical lighting on the campus, maintained the school's powerplant and installed and operated the campus telephone system." Craig also planned the town's electrical system, which was supplied by the school's powerplant. A division of Landscape Gardening began when John Williston joined the faculty. Most of the floral and foliage designs on the campus were done under his direction.

In the early 20th century, Tuskegee Institute was nearly a self-sufficient, self-contained educational, social, and economic community. The Institute provided services and facilities not only to the campus population but also to the surrounding communities, especially the town of Tuskegee. When one remembers that Tuskegee's early years coincided with the Jim Crow era of segregated facilities and institutions and during a period when the lynchings of Blacks throughout the South were a common occurrence, Tuskegee Institute's development is all the more awesome. The HABS project of this historic campus is not only timely but also of unique importance.

Preliminary drawing of the old Foundry and Blacksmith Shop (East Elevation), which is the present Band Cottage and the campus' oldest surviving building.

Drawn by: Lamar Berry and Michael Clark



SOCIETY PRESERVES CANALS

by Michele L. Hope
Archeologist
National Register Division

Sluices, wing-dams, ring bolts, and hauling paths constitute a small part of the remaining evidence of historical navigation overlooked until recently in favor of the easier-to-spot canals, dams, and locks. Environmental impact statements frequently act as the stimulus for archeological investigation—often the only way to document this earlier era of water transport.

The American Canal Society (ACS) was formed in January 1972 to encourage the preservation, interpretation, and use of the many canal sites in the United States. The society acts as a clearinghouse and information center for canals and related sites as well as a spearhead for action on threatened canals. As one of its Bicentennial projects, the ACS began publishing practical guides to the historic canals of the United States and Canada. Current guides deal with the South from North Carolina to Florida, and the West Coast. The guides were established to encourage the preservation of canals and to provide a concise description and logistical data as well as visitor information. The systematic survey of canal sites and related structures helps to determine the best use of sites.

The ACS has also established a marker program for sites along canoe trails and other traveled areas. The 4-inch diamond-shaped metal historic site markers can be purchased for 50¢ from the ACS and are designed to be placed on trees near locks and other canal sites that would interest visitors. Hopefully, the markers will prevent inadvertent destruction of these sites as well as provide the name and address of the ACS to contact for further information.

Applications for ACS membership are currently being received. Those interested may contact William H. Shank, P.E., Secretary, American Canal Society, 809 Rathton Rd., York, PA 17403. Historic site markers and copies of the American Canal Guide, Parts 1 and 2 may be ordered from Dr. William E. Trout, III, Vice-President, American Canal Society, 1932 Cinco Robles Dr., Duarte, CA 91010. ●

CANALS, DAMS, AND RELATED WATERWORKS

ALABAMA

Wilson Dam, Colbert Co., Florence vicinity.

ARIZONA

Ash Fork Steel Dam, Coconino Co., Ash Fork vicinity.

Hohokam-Pima Irrigation Sites, Maricopa Co., Phoenix.

Park of the Canals, Maricopa Co., Mesa.

Roosevelt Dam, Gila Co., Globe vicinity.

CALIFORNIA

Barker Dam, Riverside Co., Twentynine Palms vicinity.

Old Mission Dam, San Diego Co., San Diego.
Ott's Assay Office/South Yuba Canal Office, Nevada Co., Nevada City.

Outlet Gates and Gatekeeper's Cabin, Placer Co., Tahoe City.

COLORADO

Ore Processing Mill and Dam, Clear Creek Co., Georgetown vicinity.

Smith's Irrigation Ditch, Denver Co., Denver.

CONNECTICUT

Enfield Canal, Hartford Co., Windsor and vicinity.

Farmington Canal Lock, New Haven Co., Cheshire.

DELAWARE

Eastern Lock of the Chesapeake and Delaware Canal, New Castle Co., Delaware City.

Pagen Creek Dike, Sussex Co., Lewes.

DISTRICT OF COLUMBIA

Castle Gatehouse, Washington Aqueduct, near jct. of Reservoir Rd. and MacArthur Blvd.

Lockkeeper's House, Chesapeake and Ohio Canal Extension, SW corner of 17th St. and Constitution Ave., N.W.

GEORGIA

Augusta Canal, Richmond Co., Augusta.

Fish Trap Cut, Laurens Co., Dublin vicinity.

GUAM

Spanish Dikes, Agona vicinity.

IDAHO

Arrowrock Dam, Boise Co., Boise vicinity.

Swan Falls Dam and Power Plant, Ada Co., Murphy vicinity.

ILLINOIS

Chicago Portage National Historic Site, Cook Co., Forest View.

Illinois and Michigan Canal (Locks and Towpath), Will Co., Goliet vicinity.

Will County Historical Society Headquarters (Illinois and Michigan Canal Office Building), Will Co., Lockport.

INDIANA

Canal House, Fayette Co., Cornersville.

Whitewater Canal Historic District, Franklin Co., Metamora.

KENTUCKY

Craig-Johnson Mill Dam and Mill Sites, Scott Co., Great Crossing vicinity.

LOUISIANA

Bailey's Dam Site, Rapides Parish, Alexandria.

Bayou Plaquemine Lock, Iberville Parish, Plaquemine.

Chalmette National Historical Park (Rodriguez Canal), St. Bernard Parish, New Orleans vicinity.

MAINE

Cobbosseecontee Dam Site, Kennebec Co., Manchester vicinity.

Cumberland and Oxford Canal, Cumberland Co., Standish, Windham, Gorham, and Westbrook.

Georges River Canal, Knox Co., Warren, Union, Appleton, and Searsmont vicinities.

MARYLAND

Chesapeake and Ohio Canal National Historical Park, Allegany Co. (also in Frederick, Montgomery, and Washington Cos., MD; D.C.; and Morgan Co., W. Va.)

Old Lock Pump House, Chesapeake and Delaware Canal, Cecil Co., Chesapeake City.

Seneca Quarry (Potomac Red Sandstone Company), Montgomery Co., Seneca.

Southern Terminal, Susquehanna and Tidewater Canal, Harford Co., Havre de Grace.

MASSACHUSETTS

Blackstone Canal, Worcester Co., Northbridge and vicinity.

Lowell Locks and Canals Historic District, Middlesex Co., Lowell.

Middlesex Canal, Middlesex Co., running SE between towns of Lowell and Woburn.

North Canal, Essex Co., Lawrence.

MICHIGAN

Clinton-Kalamazoo Canal, Macomb Co., Utica vicinity.

St. Mary's Falls Canal, Chippewa Co., Sault Ste. Marie.

MINNESOTA

Grand Portage National Monument, Cook Co., Grand Marais vicinity.

Grand Portage of the St. Louis River, Carlton Co., Duluth vicinity.

St. Anthony Falls Historic District, Hennepin Co., Minneapolis.

Savanna Portage, Aitkin Co., McGregor vicinity.

MISSISSIPPI

Yazoo Pass Levee, Coahoma Co., Moon Lake vicinity.

MONTANA

Bighorn Ditch Headgate, Big Horn Co., Fort Smith.

Great Falls Portage, Cascade Co., Great Falls vicinity.

NEVADA

Lehman Orchard and Aqueduct (No. 22), White Pine Co., Baker vicinity.

NEW JERSEY

Delaware and Raritan Canal, Hunterdon Co., Lambertville vicinity (Follows the Delaware River to Trenton, then E to New Brunswick. Also in Mercer, Middlesex and Somerset Cos.)

Great Falls of Paterson/S.U.M. Historic District, Passaic Co., Paterson.

Morris Canal, Essex Co. (Irregular line beginning at Phillipsburg and ending at Jersey City. Also in Hudson, Morris, Passaic, Sussex, and Warren Cos.)

NEW YORK

Champlain Canal, Saratoga Co., Troy vicinity.
Erie Canal, Montgomery Co., Amsterdam vicinity.
Erie Canal: Second Genesee Aqueduct, Monroe Co., Rochester.
Five Lock Combine and Locks 37 and 38, Black River Canal (Boonville Gorge Park), Oneida Co., Boonville.
High Bridge Aqueduct and Water Tower (Aqueduct Bridge and Water Tower), New York Co., New York.
Lewisport Portage Landing Site, Niagara Co., Lewisport vicinity.
Lock 18 of Enlarged Erie Canal (Double Lock), Albany Co., Cohoes.
Lockport Industrial District, Niagara Co., Lockport.
Lowertown Historic District, Niagara Co., Lockport.
Nine Mile Creek Aqueduct, Onondaga Co., Camillus vicinity.
Old Croton Aqueduct, Wayne Co., Yonkers and vicinity.
Sailor's Snug Harbor National Register District, Richmond Co., New Brighton.
Watervliet Side Cut Locks (Double Lock), Albany Co., Watervliet.
Weighlock Building (now the Canal Museum), Onondaga Co., Syracuse.

NORTH CAROLINA

Roanoke Canal, Halifax Co., Roanoke Rapids and vicinity.
Somerset Place State Historic Site (Somerset Canal), Washington Co., Creswell vicinity.

OHIO

Canal Warehouse, Ross Co., Chillicothe.
Gaston's Mill-Lock No. 36, Sandy and Beaver Canal District, Columbiana Co., Clarksville vicinity.
Lockington Locks Historical Area, Miami Co., Lockington and vicinity.
Lockville Canal Locks, Fairfield Co., Lockville.
Maumee Sidecut, Lucas Co., Maumee.
Miami and Erie Canal, Deep Cut, Allen Co., Spencerville vicinity.
Ohio Canal Groundbreaking Site, Licking Co., Heath.
Ohio and Erie Canal, Cuyahoga Co., Valley View Village.
Ohio and Erie Canal Deep Lock, Summit Co., Peninsula vicinity.
Roscoe Village, Coshocton Co., Valley View Village.

OKLAHOMA

Fullerton Dam, Jackson Co., Olustee vicinity.

OREGON

Cascade Locks Marine Park, Hood River Co., Cascade Locks.
Willamette Falls Locks, Clackamas Co., West Linn.

PENNSYLVANIA

Albert Gallatin House, Fayette Co., Point Marion vicinity.
Allegheny Portage Railroad National Historic Site, Blair Co., Johnstown vicinity.
Delaware Division of the Pennsylvania Canal, Bucks Co., Easton to Bristol.
John Roebling House, Butler Co., Saxenburg.

Mauch Chunk and Summit Hill Switchback Railroad, Carbon Co., Jim Thorpe, Summit Hill and vicinity.
Robert Fulton Birthplace, Lancaster Co., Quarryville vicinity.
Union Canal Tunnel, Lebanon Co., Lebanon vicinity.
Western Division-Pennsylvania Canal (Conemaugh River Lake), Westmoreland Co., Torrence vicinity.

RHODE ISLAND

Blackstone Canal, Providence Co., Lincoln, from Steeple and Promenade Sts. to the Ashton Dome.

SOUTH CAROLINA

Landsford Canal, Chester Co., Rowell.
Saluda Factory Historic District, Lexington Co., West Columbia.

TEXAS

Espada Aqueduct, Bexar Co., San Antonio.
Medina Dam, Medina Co., Castroville vicinity.

VIRGINIA

Humpback Bridge, Allegheny Co., Covington vicinity.
James River and Kanawha Canal Historic District, Henrico Co., Richmond.
Lock-Keepers House, Goochland Co., Cedar Point.
Martinsville Fish Dam, Henry Co., Martinsville vicinity.
Midway Mill, Nelson Co., Midway Mills.
Shockoe Slip Historic District, Richmond (independent city).
Tredegar Ironworks, Richmond (independent city).

WASHINGTON

W. T. Preston, King Co., Seattle.

WEST VIRGINIA

Harpers Ferry National Historic Park, Jefferson Co., Harpers Ferry.

WISCONSIN

Brule-St. Croix Portage, Douglas Co., Solon Springs vicinity.
Eureka Lock and Lock Tender's House, Winnebago Co., Eureka vicinity.
Fox-Wisconsin Portage Site, Columbia Co., Portage.

WYOMING

Buffalo Bill Dam (Shoshone Dam), Park Co., Cody vicinity.
Pathfinder Dam, Natrona Co., Casper vicinity.

List prepared from information provided by the American Canal Society

IAS Project from page 1

ysis of data that is needed to make sound management decisions. As a result, close scrutiny will be given to how these bibliographies are used.

Responses to the Proposal

Five responses to the article by Tom King and Wil Cole were received. All indicated that the authors' suggestions were a step toward systematizing knowledge about our cultural resources, and that implementation of their suggestions would help the current situation, in which increasing information collected in cultural resource investigations is not being stored where it is available for managers and researchers when a need arises.

Negative points were also raised. Would a centralized automated data processing system, alluded to in the article, have a bad effect on response time and reliability? Data recovery should be rapid and convenient, allowing for local day-to-day use; otherwise, the needs of a state's archeologists and historians could not be properly met. There is also a danger that an agency using the system may lose valuable contact with state or local agencies by relying too heavily on a centralized system. Furthermore, while it may be easy to assign geographical units to a numerical ranking based on the extent of survey work, ranking the quality of work would be extremely difficult.

A Word of Caution

A goal of the bibliography project is to place the collected information in an automated data processing system. Before taking this step, however, it will be necessary to analyze information requirements and to plan the system. First, we must know what range of information exists and in what quantity. Second, what are the characteristics of the information in terms of quality, depth of coverage, etc.? Third, what resources are necessary to obtain this information? Fourth, how will people use the information? By dealing with these points, we can decide what information can be automated and how to go about it. The IAS bibliography project is an attempt to answer the first three of these questions. The negative points raised, while valid, are unanswerable in an *a priori* fashion. This project will give us experience at both the federal and state level with the application of such concepts.

We solicit comments and criticisms on the bibliography and on the responses to the King and Cole article. Address comments to Terry H. Klein, Interagency Archeological Services, Office of Archeology and Historic Preservation, National Park Service, U.S. Department of the Interior, Washington, DC 20240. •

COMMUNITY PRESERVATION SYNOPSIS

by Lisa Soderberg
Program Assistant
National Register Division

The Planning Branch of the National Register of Historic Places has recently prepared a "Community Preservation Synopsis" in order to share information regarding successful local historic preservation activity throughout the United States, and to note its increasing importance in community development. Particular emphasis was placed on the role of historic preservation in neighborhood conservation, housing rehabilitation, commercial revitalization, and state and municipal programs, as well as in more comprehensive community programs, both urban and rural in nature.

Inevitably, the ultimate success of a national historic preservation program is contingent upon the effectiveness of local preservation efforts. The dominant and pervasive role of the local planning agencies in preservation planning was clearly emphasized in Robert E. Stipe's article, "The Next Ten Years: Directions and Impacts of the National Register on Planning and the Built Environment" (see 11593 Supplement, June 1977). It is the local agencies that determine the use of community development block grant (CDBG) funds, develop and administer housing improvement and rehabilitation programs, and formulate the local zoning machinery that constitutes the essential historic district ordinances.

Many of the programs developed by local and regional groups could benefit other communities and, in part, could be duplicated or adapted. The primary aim of the synopsis is to disseminate information regarding proven administrative techniques of successful local programs, and the creative leveraging of federal, state, local, and private funds.

A number of localities have demonstrated an encouraging attempt to integrate preservation/conservation programs into city planning. Boston, for example, has developed a housing improvement program with \$5 million CDBG monies, which provides incentives for the rehabilitation of the housing stock. The techniques of exempting owners from property reassessment for code-related improvements has proven effective in encouraging major exterior repairs. A direct grant equal to 20% of the repair value is available on a city-wide basis to all owner-occupants of one-to-six-family structures whose "net taxable income" does not exceed \$1,600 per annum. Concurrent with the city's *Historic Preservation Guidelines*, owners of National Register properties are able to receive up to a 40% rebate to cover special restoration costs. The grant can be used as a leveraging tool in order to receive additional loans from private funding institutions. During the 3 years of its operation, the program has proven cost effective in generating private rehabilitation work.

Jersey City is a noteworthy example of a municipality attempting to integrate historic preservation provisions into a comprehensive neighborhood preservation program. A particularly effective aspect of the program

is an interest reduction provision that was initiated when the city was faced with federal cutbacks in section 312 monies. The technique of systematic building enforcement was used in an attempt to upgrade the quality of housing in older areas of the city; the program seeks to reduce the effective interest rate on conventional bank rehabilitation loans. An owner-occupant of a one-to-four family home in any designated Neighborhood Preservation Area is eligible for a subsidized bank loan program regardless of his income. Homeowners in historic districts may receive a subsidy of 25% of the cost of facade restoration. Residential property owners may receive a 5-year tax abatement up to \$4,000 per unit for property improvements on dwellings that are over 20 years old. There are several other examples depicted in the synopsis of cities that have formulated innovative loan and grant programs, urban homesteading programs, as well as provisions to combat the practice of "redlining."

CDBG funds have been a vital resource for the success of local historic preservation efforts. The synopsis outlines the accomplishments of a few communities (such as, Lynn, Massachusetts; Poughkeepsie, Saratoga Springs, and Syracuse, New York), which have used CDBG money to develop comprehensive housing rehabilitation and neighborhood preservation programs. The recent recognition of community development corporations as eligible recipients of CDBG funds could have a potential positive impact on historic preservation activity. Newport, Vermont, allocated \$230,000 CDBG money to the Northern Community Investment Corporation, which purchased the vacant historic Governor Prouty Inn. The corporation will rehabilitate it, and develop a senior citizen housing complex.

The synopsis does not only deal with historic preservation activity in urban areas where there is a concentration of historic and architecturally significant structures, but also reports on historic preservation efforts in some rural communities. The most noteworthy rural preservation effort cited is in the Prairie Community Design Center (PCDC) Historic Preservation Program in Fargo, North Dakota. Incorporated in North Dakota in 1972 and in Minnesota in 1975, the PCDC is a nonprofit organization providing free or low-cost design services in graphics, architecture, and communication to people who cannot otherwise afford them. The center has also established a program specifically for historic preservation, which is unique in its attempt to bring free or low-cost restoration services to rural communities (population under 25,000). The PCDC works closely with the local and regional groups throughout all stages of the specific project, and is available to take an active role in the planning process emphasizing its concern for the rehabilitation of the building in terms of its relationship to overall, community development plans. Probably the only rural preservation program of its kind in the United States, the PCDC could serve as a pilot program for the development of methods and solutions in the restoration of needy rural communities.

The synopsis represents an arbitrary sampling of the growing number of community revitalization efforts throughout the country. The data, distilled into a chart format, has been compiled from current periodical liter-

ature, and hopefully is the first portion of an ongoing series.

The National Register welcomes additional information about other successful local revitalization projects. Please send any material to Planning Branch, National Register of Historic Places, National Park Service, Department of the Interior, 18th and C Streets, NW., Washington, DC 20240. Those who are interested in receiving a copy of the Community Preservation Synopsis please contact the same office. ●

HISTORIC PRESERVATION LOANS

by Marilyn P. Cable
Planner
National Register Division

Early this month, loans for restoration, rehabilitation, or preservation of residential structures that have National Register status should be available through HUD's Historic Preservation Loan program. This program may become an important source of loans to support preservation of historic, residential structures.

Loans insured by the FHA for up to \$15,000 per residential unit and up to \$45,000 per structure will be available directly from the 9,500 FHA-approved lending institutions in the United States. Loans will be made at market interest rates, not to exceed 12%. Community development block grants or other funding sources may be used to subsidize the market interest rate, so that monthly payments are lower.

It is the opinion of the Department of the Interior's Solicitor that Historic Preservation Loans cannot presently be used as a match for the National Park Service's historic preservation grants. Two bills introduced into Congress recently (HR 8557 and HR 7796) would amend the National Historic Preservation Act of 1966 to allow any federally insured, guaranteed, or direct loan to be used as a match for NPS grants; this includes Historic Preservation Loans.

Authorized by the Emergency Home Purchase Assistance Act of 1974, the Historic Preservation Loan program will be operated on the basis of final regulations that were published in the *Federal Register* on July 1, 1977. Loans to purchase a home are not eligible. All residential structures listed, or determined eligible for inclusion, in the National Register of Historic Places, either individually or as part of a district, are eligible for Historic Preservation Loans. This includes those residential structures within a district that do not contribute to the character of the district or that are considered intrusions. Although no requests for determinations of eligibility will be accepted specifically for the purposes of securing a loan, any residential structure added to the National Register through the present determination of eligibility process may receive a loan. While this program is restricted to historic properties that are used or will be used after work is completed as a dwelling, the regulations allow an incidental, nonresidential use of up to 20% of the structure.

To implement the program, HUD has published an informational pamphlet called *Historic Preservation Loans* (HUD 452-H), and a booklet called *Guidelines for Rehabilitating Old Buildings* (HUD 465-F). In addition, HUD has prepared a letter to lending institutions and forms for certification of eligibility (applications). When these materials have been distributed to FHA-approved institutions (expected to be completed by this printing), loans can be made under the program. Soon SHPOs will be sent a separate letter, with complete informational materials.

There are FHA-approved financial institutions in all states and territories except American Samoa; SHPOs will be provided with a list of addresses. Anyone who cannot locate an approved lender in a particular community should write to the nearest HUD area or insuring office.

Copies of the leaflet describing the program and the *Guidelines for Rehabilitating Old Buildings* have been distributed to the SHPOs. While the Guidelines were prepared especially for use in conjunction with the Historic Preservation Loan program, they have wide applicability and could be used for many purposes. Federal agencies especially may wish to use the Guidelines in preservation and rehabilitation work on historic structures under their control, or for new construction projects that will affect historic properties. Local communities may find the Guidelines useful for guiding rehabilitation and new construction in a sensitive manner, or may want to use them as a basis upon which to develop specific design guidelines for individual conservation areas. Copies of the Guidelines and the informational pamphlet are enclosed with this copy of 11593. SHPOs and national organizations can order large quantities of these publications by calling HUD's Program Information Center in Washington (202/755-6420). Individuals or local groups wishing less than 10 copies can also order them from the Information Center. Individuals or local groups should order large quantities from their nearest HUD area or insuring office.

Each loan applicant will be given the Guidelines to assist in improving the property while preserving its special historic character. Before a Historic Preservation Loan can be made, a description of the proposed improvements must be sent to the SHPO for review to ensure that the improvements do not conflict with the Guidelines. The SHPO may charge a review fee of up to \$25. If the SHPO chooses, he may arrange to delegate the review to a competent individual or a local organization such as a local preservation commission.

Persons interested in obtaining Historic Preservation Loans can get information from participating lending institutions, HUD area or insuring offices, or SHPOs. ●

Donna Williams, Program Assistant for the National Register, contributed to the preparation of this article.

BRIDGE REPLACEMENT

by Eric Delony
Principal Architect, HAER

Americans depend on thousands of bridges crossing countless streams and rivers to tie their communities together and to link those communities to the larger world. Most of these bridges are metal trusses. Prefabricated during the late 19th and early 20th centuries by numerous bridge companies, bridges were shipped to county and local road departments for erection by local construction gangs, usually under the supervision of bridge company engineers. Many of these bridges are approaching a hundred

years of service and they are wearing out. As the Secretary of Transportation describes them, "They have become structurally deficient, physically deteriorated, and functionally obsolete."

While this may indeed be true, many of these structures are historically significant. They represent some of the finest achievements of American engineering and construction technology. The metal truss bridge is uniquely indigenous to America; no other country experimented with the truss concept as we did during the 19th century. With unlimited supplies of wood, coupled with the need to construct railroads and highways as quickly and as cheaply as possible, the timber truss was a natural solution. Once the trunklines opened up the frontier, the people

continued on page 10



Photo: Bill Barrett, HAER

It would be logical to include railroad truss bridges as part of any comprehensive bridge inventory since railroad bridges are directly related to vehicular bridges. This structure is the Fairmont Bridge (1912), built by the B & O Railroad over the Monongahela River in West Virginia.



Photo: Jack Boucher, HAER

A product of the Wrought Iron Bridge Company, Laughery Creek Bridge (1878), erected near Aurora, Indiana, has a 300' span, a construction depth of 40', and is the only known example of a triple intersection Pratt truss in the country.

continued from page 9

who moved westward built a network of primary and secondary roads to connect their farms with market towns and on to larger commercial centers. The solution to crossing thousands of streams and rivers was the prefabricated metal truss which evolved in this country from the wooden truss about the middle of the 19th century. Manufactured first in cast and wrought iron, and later in steel in a bewildering number of configurations and styles, hundreds of bridge patents were taken out during this period.

Presently, a significant number of these trusses remain. The more modest spans maintain a sense of scale with the rural landscape not duplicated in the concrete girders that replace them. Those located near towns and cities serve to slow traffic, and thus contribute to preserving the human scale and 19th-century character of many historic towns and urban neighborhoods.

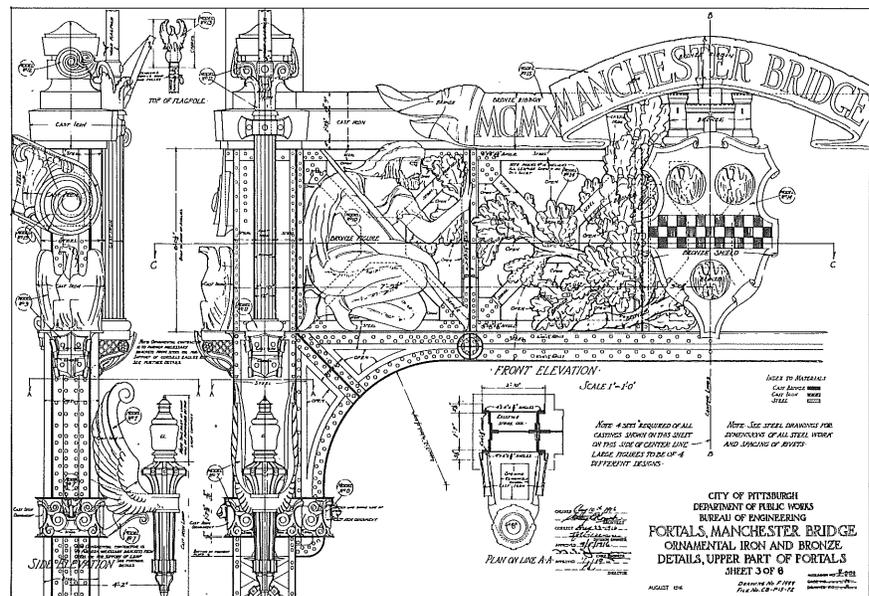
Thus, we have both a historical and environmental argument to preserve metal truss bridges. However, under the current Special Bridge Replacement program (section 144, title 23, USC), administered by the Federal Highway Administration (FHWA), none of the 16,452 bridges, for which replacement applications have been made as of December 1976, will survive. Funds under the program are only available for replacement. The answer to the question "How many of these bridges possess historical or environmental values?" remains unknown. Few states have even begun to identify their historic bridges much less assess those of historic merit. The only states known to have addressed this problem are Virginia (which is the only state with a complete comprehensive inventory of its historic bridges), and then New York, Ohio, Michigan and Wisconsin, with inventories in various stages of completion. Vermont has identified and nominated to the National Register most of its wooden covered bridges, but little has been done with metal trusses or concrete spans. Those states that have done little towards identifying historic bridges now are 5 years behind in the planning process, since plans were completed that long ago for the 978 bridges that are in the process or have been replaced. State Highway authorities are extremely reluctant to alter their plans at this stage for preservation reasons, especially considering that historic preservation is supposed to complement, not obstruct, the planning process of other state and federal agencies.

The Bridge Safety Act of 1977

Although this scenario paints a dire picture for the future of historic bridges, there is an opportunity at hand to improve the situation through the federal legislative process. The Special Bridge Replacement Program is due to expire on September 30, 1978, the end of the 1978 fiscal year. It will be replaced by the Bridge Safety Act of 1977. First introduced by Senator Hugh Scott (R-Penn.) in 1976, the bill died in the 94th Congress, only to be reintroduced by his replacement, Senator Henry J. Heinz (R-Penn.), as S 161 on January 11, 1977. Numerous other bills related to unsafe highway bridges have been introduced during the ensuing months. Most of them could be relevant to the preservation of historic bridges. The key point to



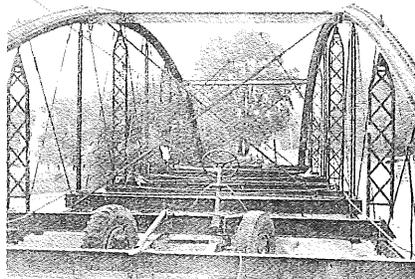
North Side Point Bridge (1911-1915), Pittsburgh, Pennsylvania, was demolished in 1970. Elements of the ornamental portal were preserved by the Pittsburgh History and Landmarks Foundation in the gardens behind their headquarters.



A selection of photocopies were made from the original drawings of the Manchester Bridge for the permanent record. Original 19th-century bridge drawings rarely survive. They should be considered irreplaceable and saved not only as archival records, but also because they often preclude the necessity of producing contemporary measured drawings, if a bridge is destroyed.

Heinz's legislation is that "primary emphasis shall be placed on the *repair of existing bridges* to modern standards, wherever practicable," and it increases the funds available from the Highway Trust Fund for this purpose from \$180 to \$720 million. (Italics added.) The significance of the bill is that it permits FHWA funds to be used for the *rehabilitation* of bridges, whereas before, funds were available for replacement only. Obviously, it is much less expensive, in most cases, to repair a bridge rather than replace it with a new structure. Why this was not considered in the bridge replacement program of 1970 is curious.

The other important bills are cited as the Bridge Replacement and Rehabilitation Act of 1977, which address bridges not included in the federal-aid highway system. This legislation has been introduced primarily by Congressmen from the rural farming states of the Midwest like Iowa, Minnesota, Mis-



Espyville Road Bridge, originally spanning the little Scioto River in Marion County, Ohio, is an example of a single span bowstring arch truss manufactured in 1873 by the Wrought Iron Bridge Company, Canton, Ohio. Identified by county engineer Jack Tozzer who, recognizing the bridge's historical significance, arranged for it to be braced, lifted from its abutments, placed on a wheeled undercarriage, and driven to a new location over the Olentangy River near Caledonia, Ohio—an unusual, but simple and inexpensive alternative to demolition.

souri, and Kansas, where there exists a vast network of farm-to-market roads that fall under state and local jurisdictions and not under the federal government's. Although the National Bridge Inventory is 98% complete (248,233 bridges have been inventoried as of December 1976), little has been done to identify bridges off the federal-aid system. FHWA projects that 65,600 of these off-system bridges are deficient. A significant number of these bridges are going to possess historical and environmental values, but without sufficient context—a basis for comparative assessment—it will be difficult to evaluate each one on its individual merits. Therefore, an inventory of off-system bridges is extremely important not only for the maintenance of a safe secondary road system, but also for the preservation of our built environment.

These are the highlights of the new bridge safety bills that have been referred to the Senate and House Committees on the Environment, Public Works, Transportation, and Finance. The emphasis of the new legislation is the repair of existing bridges, which is very encouraging. On the other hand, increased funding and the proposed 90/10 federal/non-federal split of the costs means that the rate of repair or replacement will accelerate over the next few years (Congress is thinking of terms of 13 years to eliminate deficient bridges from America's roadways.) Many of these issues and conflicts were discussed at the Bridge Preservation Workshop held during the Annual Conference of the Society for Industrial Archeology in Wilmington, Delaware, last spring. It was resolved at the workshop that a timely opportunity was at hand to include preservation considerations into the new legislation. According to the Senate Committee on the Environment and Public Works, public hearings on bridge repair will be held by early fall and hearings on Department of Transportation appropriations will be held early in 1978. The following suggestions should be included in the legislation or at least be discussed during the hearings:

1. It is recommended that funds be made available to the states for the identification and assessment of historically and environmentally significant bridges. Based on the example of those states that have initiated studies of this matter, especially the Commonwealth of Virginia, this could be the responsibility of the state departments of transportation, in consultation with the SHPO and the HAER. State departments of transportation are most familiar with bridges, since they have compiled inventories for bridges on the federal-aid highway system and will be responsible for identifying off-system bridges, if required under the new law. Historical considerations conveniently could be included as part of the "Structure Inventory and Appraisal Sheets" (SIA Sheets), the survey forms used by bridge inspectors in the field.
2. Once all bridges have been identified, they should be evaluated not only under the needs formula for repair and replacement, but also under criteria of historical and environmental values, after which they could then be rated according to significance, and the more significant structures should be nominated to the National Register. This procedure would provide "an early warning system" to state departments of transportation as they formulate their repair and replacement plans and initiate mitigatory procedures at the earliest planning stages. Thus, the necessity of a safe highway system would not be in conflict with preservation interests, which is the current situation.
3. Under existing regulations, deficient bridges that qualify for federal funds must comply with rigid standards of loadings, widths, and geometrics that do not permit the retention of historic spans. Most of these standards are based on modern interstate highway codes that, in many cases, are inappropriate and unnecessary for structures that are not part of the high-speed interstate system. Old bridges often have the best safety records because they force the motorist to be cautious while crossing, and with the national reduction of speed limits, why do we need bridges that will accommodate speeds of 70-80 mph when the limit is 55? Why should every intersection and crossing be made more convenient for the automobile, when there is a national trend to encourage mass transportation, not only because of the fuel crisis, but to eliminate the need for individual automobiles which have contributed substantially to the degradation of our natural environment and the quality of life in our urban centers. Indeed the day will be refreshing when highway engineers make one of their top priorities the *regulation* of traffic rather than the making of every intersection and crossing more convenient for the automobile.
4. Closely related to the above is the apparent inability of engineers to execute designs that respect or enhance the character, appearance, and setting of historic bridges. An illustration of this point is the



Middle River Bridge (1907) near Weyers Cave, Virginia, was built by the Champion Bridge Company of Wilmington, Ohio, which is one of the few late-19th-century—early-20th-century bridge companies to survive to the present day. This example of a single intersection, Pratt through-truss of three spans, is typical of the vast majority of metal truss bridges surviving today.

Continued on page 12

continued from page 11

old metal truss bridge that has been strengthened by inserting a deep section concrete girder underneath the deck that is completely out of scale with the delicate trussing members, which have been tacked on to serve merely as guard rails. This again relates to the construction of our interstate system where bridge designs have been established by formula and cranked out by computer—a process that has eliminated sensitive design solutions from the repertoire of civil engineers, especially when confronted with the individualistic problems of bridge rehabilitation.

These are just a few of the concerns over the bridge replacement program raised by historic preservationists, industrial archeologists, and historians of civil engineering. It would be unfair not to mention that many bridge engineers at the state and local levels and transportation planners at FHWA share these concerns. The intent of this article is not to identify preservationists as "good guys" and highway engineers as "bad guys." The FHWA, in cooperation with OAHP, has initiated important measures to increase the awareness of their administrators, planners, and engineers in the FHWA regions, as well as engineers working with state transportation authorities. Instead, the purpose of this article is to focus the attention of all concerned with the quality of the built environment on a specific problem that we have the opportunity to deal with in a sensible and rational manner. Metal truss bridges have been identified by HAER as an "endangered species" of the American building art, and thus should be considered of highest priority for study and evaluation. This does not mean that deficient, deteriorated, or obsolete bridges should be allowed to continue as threats to the users of America's highways and country roads. However, laws that provide for bridge replacement should also provide for identification of historically significant and environmentally necessary highway structures, as well as for means to repair and strengthen the more significant spans, rather than across-the-board replacement, which is the current situation. The demolition of historic highway structures without consideration of alternatives, as provided by our environmental and preservation laws, is fast approaching the day when it no longer will be tolerated by the preservation community and environmentalists. The neces-

sary expertise for the timely evaluation and consideration of alternatives to replacement are available to the highway engineer. The written authority to do this is at hand. What is required to make these forces effective is a positive commitment by state and federal transportation officials who want to preserve historically significant resources. Furthermore, concerted pressure upon the public works, transportation, and finance committees of Congress so that provisions are written into the pending Bridge Safety and Bridge Repair and Rehabilitation Acts of 1977 not only for the evaluation and documentation of historic highway spans, but also for federal funds to be made available for the protection, restoration, and continued use of the most significant examples.

Bills Pertinent to Bridge Safety

The Congressmen and bills listed below are concerned with measures that would favor bridge rehabilitation.

- S. 161:** Sen. Henry J. Heinz (R.-Pa.)
- S. 394:** Sen. John C. Culver (D.-Iowa)
Sen. Jennings Randolph (D.-W.Va.)
Sen. Dick Clark (D.-Iowa)
Sen. Frank Church (D.-Idaho)
- S.1465:** Sen. John C. Danforth (R.-Mo.)
- S.1898:** Sen. James B. Pearson (R.-Kans.)
- HR 2435:** Rep. Thomas P. Harkin (D.-Iowa)
- HR 2582:** Rep. Joseph M. Gaydos (D.-Pa.)
- HR 7661:** Rep. David L. Cornwell (D.-Ind.)
- HR 8205:** Rep. Gary A. Myers (R.-Pa.)
Rep. Marilyn L. Lloyd (D.-Tenn.)
Rep. Baltasar Corrada (D.-P.R.)
Rep. Joshua Eilberg (D.-Pa.)
Rep. Robert Nix (D.-Pa.)
Rep. John Jenrette, Jr. (D.-S.C.)
- HR 6470:** Rep. Michael Blouin (D.-Iowa)
Rep. Alvin Baldus (D.-Wis.)
- HR 8041:** Rep. Albert Quie (R.-Minn.)

Congressional Committees and Subcommittees considering bridge safety legislation.

Senate

- Environment & Public Works, Jennings Randolph (D.-W. Va.), Chairman; Subcommittee on Transportation, Lloyd Bentsen (D.-Tex.), Chairman, John Chafee (R.-R.I.), Ranking Minority Member.
- Finance, Russell B. Long (D.-La.), Chairman.
- Commerce, Science and Transportation, Warren Magnuson (D.-Wash.), Chairman; Subcommittee on Surface Transportation, Russell B. Long (D.-La.), Chairman, John C. Danforth (R.-Mo.), Ranking Minority Member.

House of Representatives

- Public Works and Transportation, Harold T. Johnson (D.-Calif.), Chairman; Subcommittee on Surface Transportation, James J. Howard (D.-N.J.), Chairman, Bud Shuster (R.-Pa.), Ranking Minority Member.
- Ways and Means, Al Ullman (D.-Okla.), Chairman. ●



Roaring Run Bridge (1878) originally located near Bedford, Virginia, was manufactured by the King Iron Bridge Company of Cleveland, Ohio, and is a bow-string arch-truss.

CONTENTS

IAS Begins Bibliography Project	1
Winning Federal Grants	1
Dallas Tenant Relocation Program	3
Breaking a Bottleneck	3
Resolution Passed	4
HABS Project at Tuskegee Institute	4
Society Preserves Canals	6
Community Preservation Synopsis	8
Historic Preservation Loans	8
Bridge Replacement	9
National Benefits of the Rehabilitation of Existing Buildings	Supplement
Reuse of Industrial Buildings ..	Supplement

11593 is published by the office of Archeology and Historic Preservation, Jerry L. Rogers, Chief; Ron Greenberg, principal editor; Sally Marusin, Betty Berry, and Robert Haynes, editors.

CONTRIBUTING EDITORS:

- John C. Poppeliers, Historic American Buildings Survey, 523-5474
- Isabel T. Hill, Historic American Engineering Record, 523-5460
- Janet G. Kopleck, Interagency Archeological Services Division, 523-5454
- Lee H. Nelson, Technical Preservation Services/Preservation Technology, 523-5891
- Eleanor G. Condit, Grants Administration, 523-5054
- Kay D. Weeks, Technical Preservation Services/State Preservation Projects, 523-5477
- Marilyn P. Cable, National Register Division/Plans, 523-5480
- Sarah G. Oldham, National Register Division/Registration, 523-5486
- James H. Charleton, Historic Sites Survey, 523-5464
- Mariene Nicolls, Automatic Data Processing Division, 523-5470

Address correspondence to the contributing editors or to Martha Raymond, National Register Division, National Park Service, US Department of the Interior, Washington, DC 20240 (202/523-5486).