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# HAER—Documenting Creativity

The Historic American Engineering Record (HAER) came into existence in 1969, almost four decades after the birth of its sister program, the Historic American Buildings Survey (HABS). HAER was created in the image of HABS, but with significant variations. The two programs, together forming a division of the National Park Service, both use large-format photographs, measured drawings, and written histories to document national landmarks, but HAER's emphasis on America's engineering and industrial legacy requires it to pay as much attention to function as to form. HAER has spent over 30 years not only recording historic technological sites, but also explaining how they worked, why what happened on these sites was important, and why Americans should care to preserve at least a portion of them.[1] This issue of *CRM* looks both to the past and to the future, exploring how HAER came into existence as well as new directions the program is taking now that the preservation of engineering and industrial sites has become more widely accepted.

Of all the early advocates for a program to document significant engineering and industrial sites, perhaps the most important and persistent was Robert Vogel, then Curator of Mechanical and Civil Engineering at the Smithsonian Institution. Both he and Eric DeLony describe in this issue the founding of HAER by the Smithsonian, HABS, the American Society of Civil Engineers, the National Park Service, and the Library of Congress. Since its creation in 1969, HAER has documented over 7,000 sites and structures, and has helped to establish the standards for the recording of technological complexes. While HAER still documents numerous individual sites around the country, much of the program's current work focuses on multi-year projects examining multiple sites representing broader and more contextual themes. Tim Davis' article, for example, describes HAER's Park Roads Program, now in its 12th year, which has examined roads, bridges, and related landscape features of many national parks. For the past three years, as Lisa Davidson relates, HAER has also conducted the Southern Textile Industry Project, which seeks to place southern textile mills, workers' housing, and other community structures in a larger regional and national perspective. Richard Anderson, Jr., Todd Croteau, and Jet Lowe write about HAER's Maritime Program, Anderson and Croteau relating the history of the program and showing the ways in which measured drawings in particular can reveal significant information, and Lowe discussing how a photographer approaches a maritime subject.

HAER has also documented diverse industries within various regions around the country.

## HAER(Net)

The HABS/HAER Collection is available to the public in the Prints and Photographs Division of the Library of Congress, but all of the HAER collection—histories, drawings, and photographs—will soon be available online. Through a generous donation from the Shell Oil Foundation, the HAER collection is currently being digitally scanned by the Library of Congress for its American Memory web site <http://memory.loc.gov/ammem/hhhtml/hhhome.html>. Over 30 years of HAER documentation will be searchable by keyword, subject, and location. The HABS/HAER collections are among the largest and most heavily used of all the materials in the Prints and Photographs Division of the Library of Congress, and this online catalog will give the general public easy access to the collections.

Richard O'Connor describes how HAER has intensively studied the state of Alabama, producing documentation that testifies to its reputation as a bastion of southern industry. In Pennsylvania, as described by Christopher Marston, HAER teamed with West Virginia University's Institute for the History of Technology and Industrial Archaeology to research the oil fields of Allegheny National Forest. Most of HAER's work has focused on older engineering and industrial sites and processes, but Tom Behrens looks at HAER's documentation of more recent engineering, NASA's George C. Marshall Space Flight Center in Huntsville, Alabama. In the following articles, Justin Spivey and Dana Lockett reveal new techniques HAER has incorporated to study technological sites. While HAER documents engineering sites, rarely has HAER used engineering analysis to gather information about a structure. Spivey describes a project in which such analysis was successfully used to resolve questions about a bridge's mysterious design. Lockett discusses how HAER, without totally abandoning traditional hand-drawing techniques, is using computer aided drafting (CAD), photogrammetry, and other methods to assist in the production of drawings.

Part of the program's success comes from active cooperation with other organizations and institutions. West Virginia University's Institute for the History of Technology and Industrial Archaeology was started 10 years ago under the sponsorship of HAER, and the two organizations have enjoyed a mutually beneficial relationship since, as described by Dan Bonenberger. Since 1986, HAER has also enthusiastically worked with the United States Committee of the International Council on Monuments and Sites (US/ICOMOS) to employ preservation interns from other countries on HAER summer projects. As Ellen Delage, Director of Programs for US/ICOMOS, relates in her article, these students bring a wealth of talent and different perspectives to HAER projects and, in turn, become advocates for technological preservation and documentation in their own countries. HAER was modeled in part on Great Britain's industrial documentation programs, but through the years HAER has also been an inspiration to its British colleagues, according to Keith Falconer, Head of Industrial, Military and Naval Programmes in English Heritage. The final article in the issue is a bibliographic essay by Eric DeLony, Chief of HAER, describing the program's numerous project and program publications.

Architectural historian Reyner Banham has written of the "teeming fecundity" of technological invention, which has produced "a record—all too often ignored—of human creativity so multifarious, determined, and persistent that the only appropriate response is a decent humility."[2] In over 30 years of work, HAER has attempted to document that fertile and creative world, a world of grain elevators, machinery, and lean factories that inspired Modernist architects and painters; of structures and objects, brimming with variety, movement, and irregularity, that give form to the phrase picturesque eclectic; and of still other structures and sites that can only be called the unpicturesque eclectic, a motley assortment of utilitarian, vernacular, and nondescript buildings, towers, machines, and complexes, all of which together compose our modern technological world.[3] HAER will continue to work so that this record of human creativity is not ignored.

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**Notes**

1 The HABS/HAER Collection is stored and available to the public in the Prints and Photographs Division, Library of Congress, Washington, DC. For an Internet catalog to the collection, and instructions on accessing the collection, see "Built in America" on the Library of Congress' American Memory web site at <http://memory.loc.gov/ammem/hhhtml/hhhome.html>. A list of all HAER projects conducted by the Washington office between 1969 and 1998 is included in *IA: The Journal of the Society for Industrial Archeology* 25, No.1 (1999):29-55. For additional information, see *IA: The Journal of the Society for Industrial Archeology* 23, No. 1 (1997), a special issue titled "Documenting Complexity: The Historic American Engineering Record and America's Technological History," and the HAER web site at <http://www.cr.nps.gov/habshaer/haer>.

2 Reyner Banham, "The Becher Vision," in Bernd and Hilla Becher, *Water Towers* (Cambridge, MA: MIT, 1988), pp.7-8.

3 Carroll L. V. Meeks, *The Railroad Station: An Architectural History* (New Haven: Yale, 1956), pp.1-2.

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