

*Standing Committee on Historic and Archaeological Preservation in Transportation (ADC50)*  
*Emily Pettis, Chair*

## **Historic and Archaeological Preservation in Transportation**

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The ADC50 Standing Committee on Historic and Archaeological Preservation in Transportation was formed in 1984 and is one of the subject matter components of the Environment and Energy Section (ADC00)<sup>1</sup>, representing the full range of historic preservation interests in transportation including archaeology, architectural history, historic engineering, and the management of cultural resources. Not only does it include the diversity of historic preservation “sub-disciplines”, its membership is equally diverse geographically and by organization including representation from federal agencies (Federal Highway Administration, National Park Service, state departments of transportation (DOTs), state historic preservation offices, and private-sector consultants. Externally, ADC50 is one of the key components of the wide array of environmental interests in transportation that make up the Environment and Energy Section, reflecting the inter-related diversity of environmental issues in transportation project development, construction and maintenance. It, along with the other environmental components of the Transportation Research Board (TRB), is a product of TRB’s last *quarter-century*, and a key element of moving forward into its second century.

From a broader perspective, ADC50 and its subject area – historic and archaeological preservation in transportation – occupies intellectual spaces between the present and the past, between engineering and art, and where law and regulation introduces potential conflicts between the values of transportation and conservation. Those intellectual spaces can be sources of tension, but also of opportunities to balance potentially competing social values. The resolution and balancing of those values through research is the opportunity that ADC50 seeks to achieve.

### **CONTRIBUTIONS TO RESEARCH**

ADC50 has been actively engaged with transportation research through the National Academies, both in identifying key research needs, coordinating those needs with relevant AASHTO committees, and serving on research panels. In addition, some members have been involved with carrying out the research as contractors to the National Academies. Over more than two decades, historic preservation topics have been important components of NCHRP Synthesis, NCHRP 25-25, and “main” NCHRP. Evaluation of historic significance, historic bridge preservation, managing the recent past, and fine-tuning aspects of regulatory compliance have been key topical areas for transportation research and remain so today<sup>2</sup>. For NCHRP 25-25, 18 percent (22 out of 120) of all environmental topics studied for AASHTO’s Standing Committee on the

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<sup>1</sup> ADC50 previously was identified as A1F05.

<sup>2</sup> See “Transportation and Historic Preservation, Progress and Research” by Antony F. Opperman, Hope E. Luhman, Emily Pettis, and Stephanie Stoermer; *TR News* 262:25-29 (2009).

Environment and Sustainability (CES) have focused on historic preservation issues of importance to state Departments of Transportation<sup>3</sup>.

One of the most important and ongoing examples of research conceived and supported by ADC50 involves managing the “recent past” in transportation project development. The exponential increase in the built environment during the late 20<sup>th</sup>-century remains a significant challenge to state DOTs with significant potential impacts to project schedules, cost, and compliance with statutory and regulatory requirements. The NCHRP report “A Model for Identifying and Evaluating the Historic Significance of Post-World War II Housing”, published in 2012, remains one of the most downloaded NCHRP publications<sup>4</sup>. The continued *national* importance of this topic is reflected by the initiation of a companion research report concerning post-World War II commercial properties<sup>5</sup> and an NCHRP 25-25 study on the implementation of efficiencies in dealing with post-World War II properties by state DOTs and other practitioners<sup>6</sup>.

Another example of research that originated from the close, and perhaps unexpected relationship between ADC50 and the Standing Committee on Transportation-Related Noise and Vibration (ADC40) is NCHRP 25-25, Task 72 which examined the issue of construction vibration and its potential effects on historic buildings<sup>7</sup>. Originating from a research need developed for a workshop at the TRB Annual Meeting, the product reflects both the importance of interdisciplinary collaboration and of research with a high implementation value for transportation project development and construction. By defining the means of technical analysis of transportation-related vibration, it resonates on the relationship between science and history.

## **OUTREACH AND COLLABORATION WITH OTHER DISCIPLINES**

ADC50 has collaborated closely with a broad range of other TRB committees as reflecting its internal and external disciplinary diversity. Long-term formal liaison relationships are active with the Standing Committee on Native American Transportation Issues (ABE80) and the Standing Committee on Landscape and Environmental Design (AFB40). ADC50 has a long history of close coordination with many of the bridge standing committees (AFF10, AFF20, AFF30) given the importance of historic bridges from both preservation and engineering perspectives.

Within the Environment and Energy Section, ADC50 has collaborated closely with other disciplines reflecting the broad range of environmental issues in transportation, especially ADC10, ADC30, ADC40, and ADC50. It has also nurtured a close and long-standing relationship with AASHTO’s CES and its cultural resources subcommittee, essential for identifying research of importance to state DOTs – the ultimate consumers of NCHRP products. The results of NCHRP research on historic preservation issues in transportation often are included in AASHTO conference programs to ensure wide-scale dissemination of findings.

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<sup>3</sup> These include NCHRP Tasks 15,19,21,33,41,49,61,66,72,79,87,88,90,91,97,98,106,107,110,114,116,and 118.

<sup>4</sup> “A Model for Identifying and Evaluating the Historic Significance of Post-World War II Housing” by Emily Pettis et al.; NCHRP Report 723 (2012).

<sup>5</sup> “Commercial Properties from 1945 to 1980: Guidance for State DOTs and Their Partners for Historic Context Development, Identification, and Evaluation”; NCHRP 25-58 (Request for Proposals due March 6, 2019)

<sup>6</sup> NCHRP 25-25, Task 110, *National Synthesis of Successful Strategies for Managing Post-World War II Resources in Historic Property Identification Surveys* (in preparation).

<sup>7</sup> “Current Practices to Address Construction Vibration and Potential Effects on Historic Buildings Adjacent to Transportation Projects” by Wilson Ihrig and Associates, ICF International, and Simpson, Gumpertz and Heger; NCHRP 25-25, Task 72 (2012)

## **VIBRANT PROGRAMS**

ADC50 has a long history of vibrant programs it organizes at TRB's Annual Meeting and at its mid-year meeting. Its podium sessions and poster sessions each January serve to highlight the most important historic preservation issues in transportation in the context of a global audience. As important are ADC50's mid-year meetings which have been held consistently for more than two decades, often in conjunction with other committees, and distributed across the nation from Rhode Island to California, from Texas to Minnesota, and many locations in-between. Bringing TRB's program to practitioners and implementers, especially those who cannot travel to the Annual Meeting, has been a conscious and deliberate focus of ADC50 program planning. In addition, the mid-year meetings are able to accommodate a broader range of subjects than the Annual Meeting and serve as the crucible for the discussion and development of new research needs.

## **THE FUTURE**

### **Focus on Research and Implementation**

As TRB moves into its second century, research must remain the focus – both of the organization as a whole as well as its constituent elements such as ADC50. The development of research ideas that satisfy transportation community needs, and that have high implementation value remains the essential area of focus – for historic preservation, environmental analysis and conservation, engineering and all other associated disciplines. With exponential developments in technology and communication, that focus will require attention in two areas.

### **Cultivate a Global Perspective**

ADC50 continues to expand its extent and depth of involvement in national and international studies, especially concerning the understanding and preservation of transportation structures. These interests involve more than historic bridges, but include a wide range of engineering structures: tunnels, canals, and railways – all of which reflect the increasing diversity of what is considered “historic” in transportation. The work of ADC50 must include perspectives from engineering and engineering history with more deliberate inclusion of civil and structural engineers in its program, both nationally and globally, and from the DOT, academic and contractor communities. Outreach to international researchers is one of ADC50's most important initiatives, one that will provide fresh perspectives, a greater time-depth to its subject matter and a wider range of preservation solutions than may be apparent in the U.S. alone. Our international contributors already have provided ADC50 and the larger TRB community with valuable insights into the design and civil engineering of their historic structures as well as the contemporary means applied to preserve them.

### **Interdisciplinary Outreach**

Successful research almost always has an interdisciplinary element, both for philosophical and practical reasons. Philosophically, science, engineering and the humanities have common global ancestry in art, thought, and design that evolved over many millennia through the Enlightenment and industrial revolution. The products of engineering of interest to the historic preservation community, just like products of art, provide solid proofs of the human condition and the progress that achieved them. Works of engineering and architecture, preserved or manifested archaeologically, represents the social history of the community that achieved them, the thread of

human progress intertwined with and in mutual relation with every other thread, which represents human history. Historic preservation interests in transportation are better served when the relationships between disciplines are recognized for the practical synergy they provide in transportation problem solving.

From a practical perspective, historic preservation interests in transportation almost always can benefit from the involvement of other disciplines, especially since preservation interests in the United States are part of an interdisciplinary web of related environmental statutes, regulations and policies. Ultimately, the results of transportation research are applied to solve problems in project development, construction and maintenance that are outside of the immediate environmental disciplines from which the research may derive. A conscious and deliberate focus of historic preservation interests to identify and seek those interdisciplinary relationships is the path forward.

Interdisciplinary outreach also works bilaterally. Evaluation of a historic bridge from an engineering perspective can provide valuable insights to the historic preservation community and improve the historical understanding of the structure in terms of its social history. A focused, bilateral interdisciplinary effort and collaboration of historians, archaeologists and engineering professionals expands the understanding of engineering design, especially in relation to development of a global perspective discussed above.

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