The Making of “America on the Move” at the National Museum of American History

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ABSTRACT

This case study examines the curatorial challenges of producing a very large exhibition at the Smithsonian’s National Museum of American History from 1999 to 2003. This is an insider’s look at how a cross-functional exhibition team worked to produce a compelling new exhibition. Among the issues addressed are: development of a theme; choice and use of artifacts; presentation organization and techniques; issues of truth, authenticity and accuracy in history exhibitions; and practical issues of exhibition team organization and contract management.

INTRODUCTION

Curators should think carefully before deciding to move a 189-ton locomotive, 45 tons of highway, or a 12-ton rapid transit car. In fact, decisions about even relatively easily moved vehicles—like a Peterbilt truck or 30 automobiles—deserve careful thought, especially if those artifacts are part of an enormously popular existing exhibition that has been attracting several million people a year. But in making America on the Move, at the National Museum of American History, we moved all those things, and more. It took us four years and some $20 million to replace a 40-year-old transportation exhibition with a new one.¹

The America on the Move team did think carefully before doing this—not just before moving vehicles, but before conceptualizing the new exhibition, choosing the artifacts, designing displays, writing the labels and creating the videos and interactives. This essay describes some of those decisions, and outlines the process of exhibition creation.

The transportation exhibitions we replaced were installed when the museum opened as the Museum of History and Technology in 1964. These exhibitions displayed artifacts chosen for their technological interest, arranged by technological category, placed on pedestals, and interpreted by labels describing technological innovations. They were, to use historian John Staudenmaier’s term, “clean” exhibitions: artifacts almost complete devoid of any of the messy social or cultural stories that might have been told about them (1993, 62-63).
But they were popular exhibitions nonetheless. Visitor surveys ranked the transportation exhibitions one of the top three most popular exhibition areas at the museum. Old cars, trains and ships have a devoted audience. They’re right up there with dinosaurs and construction equipment as a magnet for young boys, and with ceramics and guns as a magnet for collectors and enthusiasts (Danefer 1980).

We wanted our new exhibition to allow visitors who came with these enthusiasms to enjoy their experience. One would hate to make all those kids unhappy! But we also wanted to reach beyond the enthusiasts. They’re only a small part of the museum’s audience, even if a vocal one. A car or train museum might define itself around that audience, but that was not the role of the National Museum of American History. We wanted to reach a broad audience with an important national story.

EXHIBITION GOALS

In designing America on the Move, we had two major goals. First was to fulfill the museum’s mission: “inspiring a broader understanding of our nation and its many peoples” and presenting “challenging ideas about our country’s past.” That is to say: we’re a history museum. Our exhibitions are about a variety of topics and have a variety of aims, but overall they are concerned with the presentation of American history.

Just as important was engaging our audience. We couldn’t inspire or present ideas unless we did that, after all. Learning some history is one of the reasons our audience visits, but it’s not the only one. Visitors come for many reasons and we should meet them halfway.

We hired an audience-testing firm to ask our visitors what they thought of this new way of looking at transportation. The overwhelming majority—even those who described themselves as car or train buffs—agreed that the National Museum of American History should be telling an American history story. No one expected or wanted to see the sort of display a car museum would show (Institute for Learning Innovation 2000, 5). A more recent study prepared for the museum’s Lemelson Center for the Study of Invention and Innovation also found wide support for a contextual study of technology (Pekarik and Dreibelbis 2000, 4). More generally, a study by the Smithsonian’s Office of Policy and Analysis (2002, 6) found that most visitors to the museum do so because of an interest in American history.

The Museum of American History seized upon a funding opportunity—$3 million included in the 2000 federal transportation reauthorization bill (TEA-21)—to begin serious work on our new exhibition. We organized a charette in 1999 and invited historians, curators, geographers, designers and transportation experts to the museum to discuss what a new exhibition might look like. What story should we tell? What topics, themes and artifacts should we include? And so closely connected as to be part of the same decision-making process: How best to tell it? What design techniques? What types of presentations? What balance in the use of artifacts, images, video, words and historical settings?

The charette lasted one day. The morning saw general discussion. In the afternoon, three groups, each working with a designer, spent a few hours outlining exhibition possibilities. At the end of the meeting, we had three schemes on the table for
organizing the exhibition. One of them—much modified—became the exhibition we would unveil to the public four years later.

Like most exhibition developers, the team that created America on the Move had an intuitive sense of what exhibitions should look like, based on memories of successes, failures or missed opportunities in previous exhibitions, and observations of other successful exhibitions. Most exhibition creators develop feelings about the right way to do exhibitions—what works and what doesn’t—based on experience, museum visits, observation of visitors, and a theoretical understanding of learning. In the same way, historians develop a sense of what’s important in history. Exhibition design, like historical presentation, is a creative art, not a science. Theoretical writings, visitor surveys and observation only suggest possibilities or pitfalls. Further, exhibitions, especially large exhibitions, can do many things; they don’t need to limit themselves to a particular type of learning or style of visitor interaction. They can and should provide different experiences to different visitors.

One way we began our thinking about the exhibition was to consider what had been done before, looking at successful models and the literature on them. Our most important models were social history exhibitions, not transportation exhibitions. At the National Museum of American History there were many successful exhibitions that combined artifacts and larger themes: Field to Factory: Afro-American Migration, 1915-1940; A More Perfect Union: Japanese Americans and the U.S. Constitution; Engines of Change: The American Industrial Revolution, 1790-1860; and After the Revolution: Everyday Life in America: 1780-1800. America on the Move came out of this 20-year tradition, and related exhibitions at other museums.

America on the Move also partook, to a much lesser extent, of the transportation exhibition tradition. At the Smithsonian, transportation was one of the first areas to have its own curator. John Elfreth Watkins, on loan to the Smithsonian from the Pennsylvania Railroad in the 1880s and 1890s, documented American railroad “firsts,” and catalogued innovations in his collections and exhibitions. He also made the case, more in his writings than in his exhibitions, for transportation as an essential element in the development of the American nation—indeed, of the American national character (Lubar and Kendrick 2001, 137-41). Smithsonian transportation exhibitions were for the most part technology exhibitions, chronological displays of important innovations.

Three major transportation exhibitions elsewhere suggested other possibilities. Many critics hailed the Automobile in American Life exhibition as a breakthrough for the Henry Ford Museum when it opened in 1987. Its curators took cars off their pedestals and displayed them along with car-culture artifacts. Although it moved beyond a simple celebration of automotive design and technology, it never asked fundamental questions about how cars shaped history, or hard questions about the automobile in American life. In a thoughtful critique, Frank Ahrens of the Washington Post wrote that it envisioned cars without context: “In a perfect world—or in a museum—there is no traffic. Only splendid, shiny cars, each one envisioned as the only one on the road.” (Ahrens 1999; for more scholarly and enthusiastic reviews, see Hyde 1989 and Pursell 1992). Ahrens’ critique of the Automobile in American Life was important in my thinking about America on the Move. Traffic, in its metaphorical as well as specific meaning, had to be as important as the cars.
The Petersen Automotive Museum in Los Angeles started with cars, too, and surrounded them with other vehicles and artifacts in what looked like movie sets. While the exhibition, which opened in 1994, didn’t ask hard questions, neither it did suggest that cars were simply bits of technology and design. It set them in a context and implied they were part of a larger story (Volti 1995).

A third recent transportation museum exhibition focused on trains, not cars. The Altoona Railroaders Memorial Museum (1998) told a social history of railroading that “celebrates the lives and work of the people who built, maintained, and operated the Pennsylvania Railroad and its successors.” Based in part on the path-breaking California State Railroad Museum, it focused on life and work in a railroad town.

These were transportation museums, though. Our exhibition had to reflect our museum’s mission: We are a national history museum. Our goals are to give visitors a chance to learn and become excited by history, to understand historical change, and to see the importance of history in their lives, in their communities, and in the nation. We sincerely believe that understanding history is important, even good for people; that it makes visitors better citizens, maybe better people.

That meant we were not doing a transportation exhibition. We were doing an exhibition that used transportation as a way to understand and present American history. Automobile, railroad and maritime museums have traditionally been concerned with the vehicles first, and only after that, and only occasionally, vehicles’ roles in history. We wanted to turn that around. Our exhibition would be about context: who drove the vehicles, what they carried, where they went, how they fit into the wider world. And of course, why those things happened the way they did, and why it still matters.

Who, what, where, how and why are very general questions, so we sharpened our focus further. After lengthy discussion we decided to look at four areas in which transportation has played a key role: our communities, commerce, landscapes and lives. Within those areas we looked for topics that cast light on major changes in America: issues like race relations, urbanization and suburbanization, immigration and migration, work and business, globalization.

These issues are based on topics that academic historians find interesting. On the other hand, an exhibition is not for academics. All too often there is a wide gap between how historians and non-historians approach a topic; the same is true with the assumptions they bring to understanding the past. We used a front-end study to discover if the “big questions” historians found compelling were of interest to our visitors—and were pleased to find they were (Institute for Learning Innovation 2000).

The appeal of big historical questions to a general audience is important. It suggests an overlap of interest between a general and an academic audience. Moreover, with the rise of standards-based learning in history and social science classes, the “big” historical questions of the sort academic historians ask are now common in middle and high school classes, too. In recent years, some museums have feared their exhibitions might be “too academic” if they followed recent trends in historiography; our experience with visitors and secondary school teachers suggests this might not be the case.

We chose carefully among the many historically interesting questions, selecting (for the most part) those that are “exhibitable,” that is, those with artifacts that tell their stories. Transportation history is full of important but not-so-exhibitable stories: policy decisions, for example, or demographics. We could do these in words or images or video,
but we decided the social history questions, and the vehicles that embody them, would take center stage. Not every important story works equally well in the exhibition medium.

EXHIBITION APPROACH

Once we settled on our themes and topics, we had to decide how to present them. We chose a case-study approach. We would find stories—particular places and moments—that would be representative but also interesting or important. They should be stories we could tell well in the exhibition space, with the collections we had or could get. One might argue that any transportation story addressed these themes—but some did it better than others.

Closely tied to this was a second major decision. Our stories would be about people. As any newspaper reporter will tell you, most people are interested in people, not things or ideas. Lead with a personal story and you have a better chance of getting a reader’s attention. Artifacts, because they survive, and because museums preserve and display them, can seem more important than they are. History is about relationships of people, not of things—though of course things help shape people’s lives, too. We wanted to suggest that people made history; they were not simply blown by the winds of technology, politics or economics. Individuals have agency—they decide whether to drive or take the train, to immigrate or not. We wanted the voices of individuals in our exhibition. So wherever possible we did oral history or found letters or other documents so that people featured in our exhibition could tell their story in their own words.

Third, we would for the most part tell typical, not exceptional stories. They weren’t the firsts, the stories everyone knew—we didn’t have the golden spike, or even the first golden arches. We wanted visitors to see their own lives in the kinds of stories we were telling. Following recent trends in history museums and historiography, we told everyday stories, not exceptional ones.

The decision to tell our stories through case studies brought us to the first major design decision. Our displays would feature vehicles—they are the central element of the transportation story, they’re what we have and could get, they are big and exciting and popular—but we would put them in settings that re-created moments in history. We would try to bring historical moments—real places, real times—to life for our visitors. We would try to transport visitors into history.

There are advantages and disadvantages to the case study or personal approach. On the one hand, it’s possible to bring a case study to life in a way that a more general approach never can. Real stories engage visitors. On the other hand, no case study is ever truly representative; each is its own story. How much should one emphasize the peculiarities of a case study at the expense of what makes it typical?

Another concern is that a case study is about someone, and that individual may feel ownership of the story—quite rightly. He or she may not want the story told at the Smithsonian, or may want it told in a particular way. Real stories have real people connected to them, and while that’s good—it provides facts, insights and color—it might also mean there is resistance to fitting the story into the categories the historian selects.

There is not always enough material to build an exhibition from a single case study. Sometimes we needed to tell composite stories, or to build conversations not from oral histories or diaries, but from a combination of sources or from more than one
individual story. These stories might be historically accurate, but they might not seem to be as “true” as a story built from evidence about one person. (In another sense, though, as composites, they might be more broadly representative, more true.) As with our presentation of artifacts in settings (see below), in our case studies we worried a lot about the nature of historical truth and how to balance authenticity, accuracy and truth.

Choosing our case studies—To choose our case studies, we balanced our themes, stories, and objects—a time consuming, iterative procedure that is at the heart of exhibition work. Even though we had 27,000 square feet, there were of course more stories than we could possibly tell. The stories we chose had to balance location, mode of transportation, chronology and type of story. We felt the exhibition should provide geographic diversity as well as a diversity of transportation types and uses.

First we decided what we would not include. We cut some areas that traditionally fell under transportation: race cars, for example. It’s hard to claim that a race car provides transportation. Racing is a sport that happens to use a transportation technology. Moving away from technological categories to historical ones was essential to our new way of shaping the transportation hall.

One limitation that proved controversial was our decision to start the exhibition in 1876. That decision was based in part on our collections, which are weaker for the earlier years. And there are good historical reasons to begin with the Centennial year. With the completion of the transcontinental railroad a few years earlier, truly national networks connected the country for the first time. There were also good design reasons—the first really impressive artifact we have, the Jupiter locomotive, dates from 1876. But for people used to seeing American history “from the beginning,” this time-frame was hard to understand. After Smithsonian managers raised concerns about this, we decided to add a prologue to tell this earlier history.

The discussion of how to limit the exhibition raises the question: How large should an exhibition be? It’s rare for this question to be explicit in museum deliberations. Generally you have a certain space to fill, and you design the exhibition to fit. But it might be useful for exhibition producers to think more like theme park designers. How long should the experience last? How much do visitors want? Too large an exhibition and you run the risk of boring most of your visitors; too small and you might leave them feeling cheated.

Closely related to exhibition size is the relationship of one exhibition to others in the museum. How do you balance the appeal of old exhibitions and new? At the National Museum of American History, as at most museums, we assume that the total average visit will be longer if we have more (and more engaging) exhibitions. But appealing new exhibitions may subtract from the time spent in other exhibitions. There’s no evidence that the total stay in the museum goes up.

In any case, there’s never enough room to do everything—especially when there is an ambitious team of curators coming up with many ideas, a superb collection to show off, and more than a century to cover. But within these limits we had an enormous amount of choice. How many objects? How many stories? How many interactives? Other than some general considerations on providing “enough” but not too much, there were few guidelines. We limited words severely (see below) but we found ourselves trying to show off all the great material we had, and somehow fit all of the stories we thought were
important. We had to stop and remind ourselves that we could overwhelm the visitor. On
the other hand, with free-choice learning, most visitors feel free to ignore what’s not of
interest, and might be unhappy to see their favorite stories left out. There’s no easy
answer.

Funding, of course, also limited what we could do. Fund-raising for America on
the Move began with the federal grant, through TEA-21, of $3 million, but clearly we
would need more. An initial goal of about $7 million was set, based on what seemed
reasonable to raise. Smithsonian Secretary Lawrence Small insisted we raise our sights
higher. Good exhibitions, he said, cost about $1000 per square foot. We should aim for
about $25 million. We did, and achieved that goal.

Choosing artifacts—What objects did we have to tell our stories? We were starting with
a superb collection—but also a rather idiosyncratic one. The history of Smithsonian
transportation collections reflects over 100 years of changing collecting philosophy. Each
of the three traditional categories—road, rail and maritime—has its own history. All,
though, were vehicle-centric, and most had been collected as evidence of technological
change. The maritime collections had enormous strength in models, half-models and
plans—as well as a small collection of engines and other bits of ships. (It included one
very large marine steam engine, installed permanently in the exhibition area.) The rail
collection included a few locomotives, typical of their day, but none of them of particular
importance; a small but charming selection of relics from the earliest American
locomotives; and a fine grouping of models built (for the exhibition we were replacing) to
show technological innovations. The road vehicle collection was very strong in the so-called “brass age”—the earliest cars—but quite weak after the 1930s. A Washington, DC
streetcar, a cable car, and a collection of models represented public transit. Patent models
told the story of early technological change. (On the history of transportation collections
at the museum, see Lubar and Kendrick 2001, 137-41.)

One of the locomotives, and that marine steam engine, were too big to move. The
1401, a 1926 Southern Railway locomotive—the 189-ton behemoth mentioned
earlier—could only be moved forward or backward a few feet on its rails, gingerly. Other
than that, we could move just about anything, up to and including the Jupiter, an 1876
Santa Cruz Railway locomotive. We moved things for design reasons—the Jupiter made
a great introduction to draw visitors into the exhibition—but also for curatorial reasons.
We wanted to break down the old technological categories of road, rail and maritime, and
to do that we had to tear down the walls and move things around.

We also had to acquire new things. It might seem a shame not to show off the
treasures already on display—many of them rare and precious, and many of them
visitor’s favorites from their decades-long (in some cases, century-long) display. And it
was a shame not to show off more of the treasures that had been in storage for so long,
waiting patiently for their moment in the sun. But that would mean holding the exhibition
hostage to the collecting philosophies of the past. We decided we should take advantage
of the exhibition to improve the collections.

We would also expand the range of the collections on display beyond those
related directly to transportation. This was an American history exhibition, not a
transportation history exhibition, so we wanted to mix transportation objects with other
sorts of objects. Travelers took things with them on their journeys. Trucks and trains
carried freight. Workers used tools, and wore union badges. Dollhouses reflected changes in housing types. We wanted to put the vehicles back into history, which meant surrounding them with historical artifacts and historical context.

Much of the collecting for the exhibition fit well into the collecting plan we had established a few years previously. The exhibition planning, though, exposed areas the collecting plan did not cover—a police motorcycle, for example—that it made sense to collect. And of course the exhibition made possible collecting that wouldn’t have been possible before. We had money to purchase vehicles. We could offer donors a chance to have their donation displayed.

The other part of choosing what objects to show, of course, was deciding what objects not to show—and figuring out what to do with them. Every object we moved into or out of the hall was a project in itself. Where should it go? How should we move it? We were removing from display some very important vehicles with a devoted following. They no longer fit the story we wanted to tell, but they told important stories, so we did our best to lend them to other museums, and we committed to putting information and images about all of them on the exhibition Web site.

Two recent museum networking innovations helped us. A few years ago, the Smithsonian established a program that allowed museums across the country to affiliate with the Smithsonian, with the promise of easy access to loans. We took advantage of this and offered vehicles to a number of affiliates. We lent the entire locomotive model collection, a spectacular study series, to the B & O Museum in Baltimore. We lent automobiles to car museums across the country.

The Museum Loan Network helped with perhaps our most complicated loan. The Railroad Museum of Pennsylvania was eager to borrow our 1830s Camden & Amboy Railroad coach. It was a good home for the coach, one of the earliest surviving railroad passenger vehicles. But the move would be very expensive, and traditionally the borrower pays for loans. The Railroad Museum paid some of the cost; the Museum Loan Network picked up some; and we offered to contribute what it would cost us to put the coach in storage, to make the loan affordable.

Organizing the exhibition—Once we had our stories, we needed to figure out how best to organize them. We opted for a chronological display. Our visitors would walk through history. This always seems the natural way to organize a history exhibition, and visitor studies suggest that it is the easiest for visitors to understand.

How else could we have organized it? The exhibition team considered many alternatives. The subject of transportation cries out for a geographic organization—although making it work with our space and objects seemed impossible. A technological scheme—dividing the exhibition by technological category, say by carriage, car, railroad and automobile age—meant putting technology first, exactly what we were trying to move away from.

A thematic organization always appeals to historians. It makes sense for books: Figure out the big points you want to make, marshal your evidence, make your argument. We spent a lot of time considering categories for a thematic display. One of the most appealing—simple but allowing enough room for nuance—was to organize by three big subject areas: people, networks, and places.
But so many of our potential objects and case studies included all of these themes, and in an exhibition you can only use an object once. So we backed off from a purely thematic organization to consider an exhibition that combined thematic and chronological schemes. We explored the idea of introducing into our chronology the three thematic sections—people, places and networks—as separate exhibition areas. But in the end these were dropped, except for people. That became a small section called “People on the Move,” an area that gave visitors an opportunity to consider transportation in the lives of people in the past, and in their own lives.

Does it matter to the public? Many visitors seem to see exhibitions not as organized presentations, but rather as a series of interesting displays, or even simply a series of interesting artifacts. Curators and designers, on the other hand, tend to see exhibitions as floor plans: a carefully laid out series of attractions. It’s interesting to ask how much the visitor understands of the organization of the exhibition, either consciously or unconsciously.

**Display and curatorial strategies**—We knew our stories; we had a good sense of the organization; now we had to bring history to life.

Working with our designer, Dave Seibert, was for many curators the most satisfying part of the exhibition. A successful exhibition design process works both ways. Ideas become floor plans and elevations as concepts move from interesting historical discussions to three-dimensional reality. And it works the other way, too: the potentials and possibilities of design shape the ideas. If exhibition design becomes a flowing conversation between curator and designer, rather than an exchange of positions, the show is much the better for it.

Our process required an enormous amount of time, good will, and back-and-forth. The first part of the process was determining the order of our stories and fitting them together. We started, as do many exhibitions, with “bubble diagrams.” These showed roughly the size and location on the floor of the stories we wanted to tell. Over time these stories gained shape, losing the simple circle of the bubble for a more realistic geometry. We had a lot to pack into the space, and over months of discussion we figured out ways to combine stories, and to use the transitions as part of the stories. The designer found ways to surprise us by visualizing the scenes in a much more complex way than we started with. For example, instead of Washington, DC’s central market being a setting you view from outside, it now serves as a transition space leading you out of a previous story. Museum visitors find themselves inside the market, looking out at the street scene beyond.

We took advantage of theater designers’ tricks to make our settings seem real. A team trip to meet with the Imagineers at Disneyworld had convinced us that blurring the line between the historical setting and the visitor’s space would bring history to life more effectively than a traditional diorama. Artifact security came first, of course, but in a few instances we were able to break down the wall and let visitors into the sets. (In those areas where we were not able to let the visitor in, we tried to let bits of the set flow into the visitor’s space.)

And we invested heavily in making each of our settings as “real” as we could make it. Real life has a backdrop of sound, light and space, and we wanted that in our exhibition. Sophisticated lighting, good stage sets, complex soundscapes,
backdrops—large painted murals for backdrops, not the usual photo blowups—put the artifacts and our visitors into historical space.

We decided there would be people—mannequins, or, as we learned to call them, “cast figures”—in every setting. Every vehicle would have a driver and if appropriate, passengers. There seemed no better way of sending the message that this was an exhibition about people’s lives. As far as we know, this is a complete break from transportation exhibition tradition. It was expensive; the historical research for our 75 figures was time-consuming, and it required careful design to insure that figures did not hurt the historic seats. But peopling the exhibition was the key element in moving beyond a display of artifacts into telling historical stories.

Most of the cast figures in the settings are simply silent. But in eight places visitors can overhear the figures in conversation, or use interactive stations to “talk to” them. And especially near the beginning of the exhibition, we sometimes placed our figures so they broke through the barrier around the setting and entered visitor spaces. (Toward the end, in more or less contemporary times, the visitors themselves people the scene.)

For the most part, the need to preserve artifacts meant that we could not let visitors into them. We got around this in two ways. In our Watsonville setting, for example, we built a boxcar façade that visitors could walk through. And in New York, visitors could walk on board a (re-created) U.S.L.S. Oak, and look down into the (authentic) engine room and out into the (photographically reproduced) harbor.

In Chicago, we built a truly immersive setting. A rapid rail transit car—made for heavy public use, and so harder than most of our artifacts—was turned into a theater. The car was restored to 1959 condition. We filmed actors re-enacting a (thoroughly researched) morning commute on a cold Chicago morning in December 1959, a scene played back on a screen that extends across one end of the car. Computer simulation allowed us to add Chicago scenery outside the windows at that end of the car. Lights flickering outside the windows and the recorded rumble and squeals of trains (played back through powerful speakers) give a convincing feeling of motion. Visitors feel like they’re riding the El around the Loop; they can eavesdrop on the conversations of other commuters who talk about transportation in Chicago.

Special effects like our CTA car simulation are expensive, and budget limits the number of special effects in an exhibition. But there’s a curatorial question here as well: How much of an exhibition should be interactive, immersive, crying out for special attention? What is the right amount to keep visitors interested, but not to overwhelm? What are the right special effects for a diverse audience: young kids who want to play, older kids who want to explore, those who are accustomed to Disney, and those who would like peace and quiet to read the labels or enjoy the artifacts? And perhaps most important: Can an experience be both immersive and educational, or does the experience overwhelm the interpretation? Will people remember something about the politics and history of mass transit? Or just the Wow? Perhaps it’s okay that visitors will remember the historical moment and have a new—or renewed—personal connection to history.

Adding figures, creating stage sets—it was philosophically the right thing to do. But doing it well took more work and more expense than we expected. We had to do an enormous amount of research. What kind of apples would have been shipped from Watsonville? What were the commuters reading on the elevated in Chicago? How did
people stand when waiting to board a trolley in Washington in 1900? How worn was the freight platform in Salisbury? We wanted a Smithsonian level of accuracy for all of these questions. In working out the details, we inevitably—by reaching further—increased the possibility of error.

We also had to create what movie producers call a “back story” for each setting and figure. What time of year, and what time of day was it? The traveler who stopped at the tourist cabin: Where was he coming from? Where was he going? The Chicago commuters: What were they thinking? What had happened on the interstate to stop traffic? Movie directors think about each character’s back story to help understand motivation; we figured out a back story to make our settings more realistic.

Building environments around the artifacts overcame one of the primary problems we had identified early on: the “tyranny of artifacts.” Artifacts on pedestals suggest that history is about relationships among things. We wanted to suggest that history is about relationships among people. We wanted to put artifacts back into history, to suggest their natural place was in the real world, in the era when they were in use—not in the museum.

But this method brought problems. We soon ran into one of the great bugaboos of museum work. We began to blur the line between what was real and what wasn’t. The vehicle might be real, but it was surrounded by a false setting—accurate, but false. The boxcar that visitors walked through was not a real boxcar. The deck of the Oak was a recreation, though the engine room was authentic. Labeling what was real and what wasn’t would spoil the illusion. We decided that accuracy of historical effect—the mise en scène—was more important, more compelling and engaging, than fidelity to the artifacts. This kind of accuracy, we decided, was more true to history.

We also played with precise historical accuracy in displaying vehicles in a setting where they had never actually been. Our pickup truck was from Pennsylvania, and had never been on the Oregon street it’s driving along. On the other hand, it was one of thousands of identical pickup trucks; one very much like it undoubtedly did drive down that street.

Balancing historical accuracy and presentation is always a tradeoff. Exhibitions need to be specific in order to be true; at the same time they need to summarize, to generalize. Curators must sometimes back away from a simple “accuracy” to make the exhibition work for the visitor, balancing presentation with the demands of being true to the object, to its specific history, and to the larger historical picture.

The question of where “truth” lies in a historical exhibition is one that needs careful thought. There are two parts to the question: Is the historical information, analysis and interpretation accurate and complete? And what can the curator do to make the presentation “truthful?” At some level all museum exhibition is a falsehood—the object lacks context, the labels lack nuance, the mise en scène is incomplete and inaccurate—yet an exhibition can portray a compelling historical truth.

And to what extent does the curator need to explain this to the visitor? Should the curator call attention to the historical inaccuracies or omissions in a scene, or aim at a suspension of disbelief that allows for a historical immersion, and perhaps a better teaching moment?

Taking advantage of the settings also led us to challenge another curatorial taboo. We wanted to use our settings to their fullest, and some vehicles were simply too big to fit. A Greyhound bus, a Chicago city bus, the trailer pulled by a Peterbilt truck; these
things were important, but simply too big. So we made the unusual museum decision to cut them apart. We set some strict rules. We would only do this to vehicles that were already represented in other museum collections and in bad shape. We found our Chicago city bus lined up alongside 16 others in a junkyard in Omaha, decaying. Our Greyhound had been cut up for a movie; there were others like it in much better shape. The flatbed trailer had been in a wreck and would have been scrapped; it was identical to thousands of others on the road. We made sure that other museum collections held similar CTA cars.

An exhibition uses objects—and uses them up, as a conservator will tell you. Artifacts are happiest—that is, they last longest—sitting quietly in the dark. But they are most useful on display. This is a fundamental dilemma for museums. Even if we didn’t cut an object to size, displaying it meant hurting it. In some cases—especially with paper artifacts—we displayed a replica, trading off historical authenticity for preservation. Textile objects we agreed to change occasionally. Throughout, we did our best to protect objects with railings, appropriate lighting, and other means. In almost every case, conservator and curator reached a consensus that reflected the right balance of the museum’s dual mission of preservation and education.

Our exhibition was strong on both historical setting and artifacts. But there were some stories we wanted to tell—immigration and migration, for instance—for which a setting with artifacts would not work. We had nothing from an international border, and couldn’t see a way to reconstruct it. So we told personal stories in pictures and words, and in interactive devices that fit into a bigger picture.

The story of the automobile—a complex technological, social, cultural and legal tale—would not fit into a setting, so we used the opportunity to display diverse collections on that subject—everything from repair tools to parking meters.

The important story of aviation also wouldn’t fit. Airplanes were simply too big for the exhibition hall. To cover this essential element of transportation history, we arranged for large models of three of the key aircraft of the twentieth century—a Zeppelin, a DC-3 and a 707—and showed them flying over the chronologically appropriate setting. (We referred visitors who wanted more on these stories to the National Air and Space Museum.)

The final story, we decided, was globalization, perhaps the most important historical transformation of the late-twentieth century, and one in which transportation is central. We set it in Los Angeles in 1999. We wanted to show the many meanings of globalization: an increasingly international economy; global shipping and communication; increased immigration and cultural exchange. So we picked three stories: fusion food, clothing manufacture, and the people of Los Angeles. We tell these stories in a 21-screen video theater presenting visuals and interviews with the participants—in their words, not ours, to avoid an overt political message. The video uses few words, but sets a tone with music from three bands that were hot in L.A. in 1999: Ozomatli, Jurassic 5, and the Red Hot Chili Peppers. Scrolling headlines about globalization and related topics from Los Angeles newspapers provide context to the historical events of the day.

This last section, which addresses current political topics, required careful consideration of voice and presentation. It would be inappropriate to take a political position on globalization, of course. It is a topic with so many viewpoints and such great
complexity that it would be difficult indeed to provide an overall appraisal in a small space. Instead, we used our standard case-study technique: a particular restaurant, a particular manufacturer. We let the individuals speak. We flashed facts on the screen, providing a feel of objectivity. We presented information, rather than drawing conclusions.

Words and pictures—Our settings, and the videos and immersive experiences, tell the bulk of the story. We designed the exhibition so that a simple walk-through, without reading a label or an object description, would get across the major points we wanted visitors to understand.

But many visitors expect more—more details, analysis, description—and we should provide it. Words (museum labels) and video are the way we do this. America on the Move is not a particularly wordy exhibition, but it does have extensive label copy. We thought long and hard about how to organize the text so that it was predictable, easy to find and coherent. Each of the exhibition’s 19 sections (except the introduction) has a major label, printed on an 11-foot tall pylon that resembles an unfolding map. On that map is:

- An inset map of the United States with a star and a date, showing where and when that story is taking place.
- A title giving name and date, and a two- or three-word summary of the big story.
- A short label describing the historical story.
- A short label describing how this particular story fits into the bigger picture of American history.
- A simple touch-screen video that allows the visitor to select the label in any of four languages, or (for the visually impaired) to have it read to them, along with a description of the scene.

As the visitor proceeds into the scene, other labels appear, mostly on reader-rails that also serve as barriers around the settings, but also, occasionally, in cases, on walls, or in vitrines. These include:

- Historical narratives, describing the context.
- Photos and captions, sometimes including the photos the scene was based on; sometimes with additional or contrasting stories. When appropriate, a video monitor provides more imagery.
- Object labels, each with a tactile image for the visually impaired.
- Tactile maps of landscapes, where appropriate, for the visually impaired and those who are not.

For special audiences we added three additional groupings of labels, each with its own graphic style, where it seemed appropriate.

- For children, we added what we called “Bud” labels (Bud was the dog that accompanied the drivers of the first car to cross the country in 1903; he’s
something of an exhibition mascot). Bud labels direct a kid’s attention to an
element of the scene that captures the point of the section.

- For those interested in historical perspective, labels ask: “What happened next?”
  At about 250 words each, these half-dozen labels are the longest in the exhibition,
  and are written at a higher level. They address big historical questions, and allow
  us to break out of the “moment in time” theme.
- “What about you?” labels suggest ways that visitors’ lives today reflect some of
  the issues raised by the exhibition.

What constitutes appropriate labels? The question is a contentious one. Label
length reflects a much larger issue involving the role of the museum. Is it primarily
educational, or social? Is it aimed at those who are interested in information, or at those
who are more casual about wanting to know more? Does the museum teach best with
words or objects? Is historical nuance appropriate, or is history best served with a broad
brush? Do words near objects detract from them? There are no easy answers.

Visitor studies show that most people do not read most labels; they read a few,
here and there, where something seems interesting. Different visitors want different
information. An exhibition must accommodate a wide range of learning styles. We hoped
that our layered approach to labels—a clear and consistent hierarchy of labels overlaid on
attention-getting but meaningful settings—would allow the largest number of visitors to
enjoy their visit while learning about an important subject in the manner they felt
appropriate.

Beyond words and objects—In addition to our labels we provided several other kinds of
interpretive elements. Interactives allowed discovery techniques that encourage the
visitor to investigate beneath the surface. Where appropriate, we provided some
information on lift panels, or inside of doors for visitors to open, or in a “game” format.

The exhibition’s museum educators focused on shaping this visitor experience.
Working from a list of learning styles, they helped the team think through the learning
strategies we would use in the exhibition. They were also responsible for the many forms
of outreach we undertook: teacher’s guides, parent’s guides, Web site educational
materials, even travel bingo cards. They also worked with other educators on the museum
staff to produce public programs and activities in the Hands On History Room and the
Hands On Science Center.

What’s the best way for educational products to relate to the exhibition? In our
discussions about programming, curriculum, Web materials and other guides, we found
ourselves repeating an argument about whether they should extend the reach of the
exhibition: Should we offer the same content to audiences beyond the museum—or new
material, designed for specific audiences? We did some of each. The Web site included
the entire script of the exhibition, as well as additional material aimed at children (games)
and transportation buffs (we put a significant part of our transportation collections on
line). In the curriculum we aimed at teachers by focusing on topics required by the
history standards.

We considered but did not use the techniques that science centers and some
history museums call “large motor skill” activities—climbing, running, interacting with
the environment in ways that are more active. The museum simply has too many visitors,
and we’re not staffed for this kind of labor-intensive work. Nor did we set up a system to get feedback or collect stories from visitors. While the museum has used these techniques very effectively in the last few years, we decided that it worked best in a temporary or a more focused exhibition.

*America on the Move* uses video, though sparingly. We quickly realized that one of the drawbacks of our approach was a lack of chronological overview. In historians’ language our show favored the synchronic, not the diachronic. We corrected this bias with three video stations, set slightly out of the mainstream, that we called The Bigger Picture. Each station covered a broad swath of time (1800-1900, 1900-1950 and 1950-2000) in a series of three short videos: one on technology, one on infrastructure, one a general overview. (We also made these videos available on the exhibition’s Web site.)

Finally we added a bit of interactive video. Each of our three video stations included a game for kids—for example, comparing where food came from in 1950 and 2000. Interactive maps encouraged visitors to dig deeper.

Video and other high-tech elements can add to an exhibition, or distract. One of the key questions for an exhibition developer is the amount and type of technology to use. Perhaps the museum should take advantage of what makes it special—objects, spaces, a social experience—and not provide another venue for watching TV or reading Web pages. On the other hand, it’s clear that visitors enjoy spending time watching TV in exhibitions. Why not give them what they want? Is there a way to use video that is substantially different from the way people use video at home?

In considering when and how to use interactives, we thought carefully about pacing—about how a visitor’s experience would play out over the course of a visit. We arranged for a sequence of different sorts of spaces: some loud and interactive, some quiet and contemplative; some artifact-intensive, some immersive. We put places to sit—a theater, for example—at points about one-third and two-thirds of the way through, and at the end. And of course, in keeping with modern museum practice, we put a museum shop just after the end of the exhibition.

**Design and production**—Once the overall spatial arrangements were determined, we focused on new levels of design detail. Every section needed detailed elevations. The script of the exhibition, and the images we selected, needed to be laid out in a graphic order that made sense and looked good. Again, this took days and days of collaborative work, designer and curator sorting out what was necessary or truly important. We might drop several historically interesting images for a single strong image. Or we might find a way to expand the area for images, if the story needed them.

Words, too, were part of the balancing act. We knew roughly what we wanted to say. But we also knew that we had to write our text to the space available—a word count determined by square footage and generous type size. This was not easy for many curators. We lost depth and nuance each time we made the text shorter to fit within stringent word count limits. Some section curators held out for more words and won; but for the most part our design determined our exhibition text.

We went through a similar process to lay out each case: first a series of small sketches, then a detailed layout, then a measured drawing. Each stage made that part of the exhibition more defined.
A show the size of America on the Move, at an institution the size of the Smithsonian, moves through a strictly defined contracting and building schedule. It needs to be fully designed. A smaller show might leave the detailed arrangements for installation, but here everything was detailed, down to the last fake rivet head in the CTA station. There were dozens of sheets of architectural and engineering drawings, dozens more of design, and yet dozens more of precise working drawings for cases and installations. A thick binder supplied specifications for lights, finishes and a thousand other details.

Yet even with these multi-level design specifications, and with multi-page contracts outlining roles and responsibilities, we spent many hours sorting out design details as the exhibition was built. That’s probably unavoidable in so complex a project.

Exhibition design is a constant balancing of big picture and small components, story and experience, word and image and space. A good exhibition designer must appreciate and understand the content of the show; a good exhibition curator must appreciate spatial concerns and design. Both must balance their own interests with the other’s, and with all of the other team members (especially educators and conservators), at the same time keeping in mind that the exhibition is not for them, but for the visitor.

Design is just half the battle. The content and presentation go hand in hand with getting the exhibition approved, raising funds, getting it through review processes, and—most important—getting it built. The best exhibition ideas and content mean nothing if the exhibition is never built and given to the public to enjoy. And, in our imperfect world, the details of implementation will always affect the content.

Fundraising—Building a large exhibition combines all of the challenges of a complex construction job with the added frisson of constant concern over content. Add the complexities of a complicated museum administrative structure—in this case, a constantly changing museum management—and a highly politicized and contentious museum environment, and the problems compound enormously.

The Smithsonian’s exhibitions have been closely watched since the controversies over the Enola Gay and The West as America. Fundraising for America on the Move occurred in the midst of an extraordinary controversy over gifts to the museum from Kenneth Behring and the Catherine B. Reynolds Foundation.

The exhibition team addressed the possibility of donor influence in several ways. Our fundraising took place only after we had determined almost all of the content. (The initial $3 million Department of Transportation funding was instrumental in the early design process.) Potential donors were shown a model of the exhibition, and were told up front they were buying into a completed design. We were also clear with them on their role. They would not be allowed to influence content; it was already determined. Many donors raised the content issue nonetheless, wondering how they or their industry might be represented. We told them in general terms but never in detail, and we never shared the script with any of our donors. We listened to the issues they thought were important and made a few changes based on their suggestions. (For instance, when the American Public Transportation Association pointed out that buses were the most important story in intra-urban transportation, we added a city bus.)

Nonetheless, fundraising became especially contentious when the museum announced that the area where America on the Move was to be located would be called
the General Motors Hall of Transportation. This decision accorded with Smithsonian policy—the new name received the required approval from the Smithsonian Board of Regents—but it was a first for the museum and many staff members were unhappy.

Attaching the name of any corporation to a hall would have raised concern. But in an advertisement on the op-ed page of the *New York Times*, a group identified by the Web site name (tompaine.com) raised objections based on a putative incident in GM’s past, in which GM had allegedly destroyed many of America’s trolley systems in order to sell buses and cars. This conspiracy theory, though dismissed by just about every historian who had examined it closely, had gained widespread popularity with Disney’s 1988 film, *Who Framed Roger Rabbit?* The (tompaine.com) advertisement was provocative enough to get 170 academics to sign a petition urging the Smithsonian not to “let donors influence both the nature and content of exhibitions.” “Corporate money in Washington,” the scholars lectured us, “generally does not come without a price.”

The exhibition team responded to the fundraising controversy in letters to the editor, discussions with potential donors, and conversations with doubting colleagues. The Smithsonian administration stood firm and the controversy blew over. Moreover, donors continued to sign up. Bad publicity can be overcome—but only because the Smithsonian was credible in its assertion that donors did not affect the show’s content.

In the end, *America on the Move* raised an enormous amount of money—by far the largest amount for an exhibition at the museum—much of it at a time when fundraising was very difficult. The topic was key. The transportation industry realized its own importance to the nation—but didn’t believe the rest of the nation did—and wanted to see itself in the nation’s museum. The industry is closely linked to the federal government—both for funding and regulation—and saw the advantage of a Washington site to demonstrate its value, as well as to entertain its membership and the Washington establishment.

**The exhibition team**—Large exhibitions require large teams, and *America on the Move* was no exception. Throughout this article, the exhibition team has been referred to as “we,” but behind that simple word there were many people, and as many points of view and ideas about exhibition content, design and technique.

At the National Museum of American History, large exhibitions are typically led by a project director and managed by a project manager. Curators, educators, historians, collections managers and assistants are assigned from existing staff (or chosen from staff volunteers) and also hired just for the project. In addition, much of the work—design and construction and video production, for example—is contracted out. Considerable effort goes into the managing of contracts.

Over the last decade or so the museum has defined a clear system of project management with fairly well defined roles. Project directors—usually but not always curators by training and job title—are responsible for overall direction. They are the spokespeople to management. They make hiring decisions and lead team meetings. They consider the big picture and the interests of the exhibition as a whole. They’re held responsible for the success of the product, and with the project manager, the success of the process.

In the case of *America on the Move*, the project director had a general knowledge of American history and significant exhibition development experience, but was not
expert in transportation history. He helped conceptualize the exhibition and the exhibition process; picked up bits and pieces of exhibition work that fell between the cracks; held standards high, but (perhaps just as important) also decided when it was time to simply get things done; raised the bar for the scope of the project where that seemed appropriate; served as the interface with the museum and Smithsonian administrations and development offices; and kept the team more or less happy and on the same page.

Eight project curators and a project historian conceptualized and wrote sections of the exhibition. Each curated one or more sections. Working with the project director and historian, each section curator decided what story to tell and how to tell it; researched the topic; spent weeks working closely with the designer to lay out the section; chose artifacts from the collections, and collected new artifacts; chose the images and wrote the script. Some curators came to the project with great expertise in the subject matter; others picked it up as they went along.

The project historian kept the curators on track not only with her expertise in research and detailed knowledge, but—just as important—with her superb sense of the big picture of American history and the themes of the exhibition. The project director and project historian reviewed and rewrote subsections, and occasionally added missing stories for balance and coverage. For better or worse, there’s no cookie-cutter consistency between sections.

A project assistant supported the whole team by keeping track of the team’s work and some of our paperwork, dealing with our video producers, and serving as the coordinator between the curators and the cast-figure maker. A photo researcher tracked down pictures or had them taken, negotiated for rights, and kept track of the images needed for each of the many projects—the exhibition, the book, the educational programs, the Web site. A Web project manager played a similar role for the Web site, serving as the contact point between the Web design firm and the rest of the team.

A collections manager kept track of the collections, and worked with museum conservators to prepare them for exhibition. Our collections manager faced some complex challenges because of the size and weight of our objects. She became our main point of contact with the riggers who moved them. The challenge of moving the collections determined content in some places: We had to design around some objects, and in a few cases design around the requirements of moving objects.

Finally, a project manager and design manager kept the project on track. The project manager is mostly concerned with schedule and budget. He or she is responsible for compiling the budget according to a budget template, and making certain that it’s not overspent, and for dealing with the complexities and inanities of the Smithsonian finance and contract system. In this case the project manager had significant construction expertise, so he spent a lot of time dealing with our architectural and engineering issues.

The design manager was responsible for dealing with design firms and with the exhibit fabricator. Our design manager was a designer by training and experience, and in her role as COTR (government-speak for Contracting Officer’s Technical Representative—the person who pays attention to the details of making sure the contract is completed correctly), she reviewed drawings and samples, and served as a traffic cop controlling the communications between the team and firms designing and building the exhibition under contract.
Managing the contracts—A big part of almost everyone’s job turned out to be overseeing contracts with vendors. Like many large museums and other organizations in recent years, the Smithsonian contracts out a great deal of its work. All told, some two-dozen firms did significant work on America on the Move, in a complex maze of interlocking contracts that required extensive management and which in the end would just about drive us crazy. Contract coordination—making sure contractors worked well with each other and nothing fell between the cracks; determining who was to blame for problems and who should pay to fix them—took a lot of our time.

Contracting and managing contracts are central features of exhibition work in a large museum. Contracting at the Smithsonian Institution, which (mostly) follows federal government guidelines for contracting, is more complex than most museums, but many of the same concerns apply. What should be contracted out, what done in house? How many contracts, or what size? Is it better to hire one contractor and let that firm hire subcontractors for particular work, or to try to save money (but lose sleep) by coordinating a large number of contractors?

CONCLUSION

America on the Move is by any standard a significant museum project: large in size, expensive in cost. But even more than those measures indicate, America on the Move is ambitious in scope and educational objectives. We hope it sets a new standard for history exhibitions: important, educational, engaging, entertaining and perhaps inspiring, all at the same time.

At the time of this writing, it’s too early to tell if we meet our objectives. We will undertake a significant program of evaluation, of course, but until then, each member of the exhibition team has made his or her informal evaluations. In the final weeks of installation we watched, mostly with pleasure, each time some new exhibition element that we sweated over and argued about a year or more ago appeared in the space. Sounds brought objects to life, just as we had hoped. Cast figures suddenly drew attention away from the automobile to the people who drove it. Settings became complete, and suddenly there was a little bit of Wyoming or Chicago in the exhibition.

And then the exhibition opened, and we felt that moment of sadness, mixed with triumph, when the exhibition was no longer ours, but became the museum’s and the public’s. But that brought new pleasures: following visitors through as they admired the settings, discussed the labels, played with the interactives. We’ve started making our lists of changes and improvements and corrections, of course, and our lists of elements to evaluate. But we’re still at the stage when we can walk through the exhibition, remember the tribulations it put us through, and yet—watching a group of visitors react with pleasure to the show we built—think that yes, it was worthwhile.

ACKNOWLEDGEMENTS

The America on the Move exhibition team thought through this exhibition together. My thanks to all the team members: Wendy Abel-Weiss, Janet Davidson, Laura Hansen, Michael Harrison, Andrew Heymann, Paula Johnson, Peter Liebhold, Bonnie Lilienfeld,
Howard Morrison, Ann Rossilli, Shari Stout, Julia Sytsma, Susan Tolbert, Roger White, and Bill Withuhn. Thanks also to the other Smithsonian employees and contractors who participated, especially exhibition designer Dave Seibert of Museum Design Associates, Cambridge, Massachusetts.

And thanks to other individuals and firms that played important roles in the exhibition: Amaze Design (design); Atta, Inc. (cast figures); Batwin and Robin Productions (“Going Global” and CTA car videos); Design and Production, Inc. (exhibition production); EAR Studio (soundscapes); Rob Evans (murals); the History Channel (videos); Operand Corporation (CTA car experience); SmithGroup (architecture and engineering); Sightline Studios (scenic design and theming); Squid Country Safari (interactives); TexAm (construction) and Stuart White (murals).

I am grateful to the team for their assistance with this article, and to Kathleen Franz, Martha Morris, and the editorial staff and referees of Curator: The Museum Journal for their advice and suggestions.

NOTES

1. “We,” in this essay, generally means the America on the Move exhibition team; individuals are named in Acknowledgements. This article represents my take on the exhibition and the development process; not all of the team would agree with all of it. It does not represent official policy of the Smithsonian Institution or the National Museum of American History. The History Channel filmed parts of the process of making the exhibition for a one-hour television documentary called America on the Move, available at (www.store.aetv.com). The exhibition Web site includes several stories on the making of the exhibition: see (americanhistory.si.edu/onthemove/themes).

2. The others were military history, popular culture and the First Ladies exhibitions. (See Kindlon, Pekarik and Doering 1996, vi; Smithsonian Institution Office of Policy and Analysis 2002, 6.)

3. A good summary of the reasons visitors attend museums is found in Kavanagh (2000, 2-4). Drawing on work by Sheldon Annis, Kavenaugh outlines three “overlapping spaces” at the museum: cognitive, pragmatic (social) and dream. In other words, visitors come to learn, to enjoy social interaction, and to reflect on their own lives, memories and feelings. Zahava Doering uses four similar categories of experience and value: object/aesthetic; cognitive; introspective/reflective; and social experiences (2002, 11). These categories and those of other researchers are useful in thinking about the range of interests exhibition developers should consider.

4. There is an extensive literature on exhibition development, and several attempts to outline what makes a good exhibition. See for example Standing Professional Committees Council of the American Association of Museums (n.d.), and Serrell and Associates (2003). There is a small but diverse literature on transportation history exhibitions. Corn (1989) suggests a “technology and culture model” for transportation exhibitions that focuses on vehicles but explains their technical details in terms of the culture in which they were enmeshed. In the same book, Blewitt (1989) disparages this approach. Industry, not technology, is her interest. She finds people—especially laborers, but also businessmen and consumers—to
be a key part of the story. More recently, Jeffrey Stine, an environmental historian and a curator at the National Museum of American History, suggests that many transportation museums “fail to transcend their origins as testaments to technology.” They tend to romanticize the car and car culture, rather than exploring the ways automobiles have influenced the environment. He urges a focus not on vehicles but on routes. He praises the International Bioregional Old Route 66 Visitors Center and Preservation Foundation in Hackberry, Arizona for interpreting “both the highway and the plants, animals and humans that lived alongside it (2002).” A recent volume by British and European historians and curators (Divall and Scott 2001) suggests the state of the art in museums that define themselves as transportation museums first, and history museums second. These curators address larger issues than their predecessors, but for the most part these are still transportation issues. For historical and institutional reasons, transportation museums still tend to define themselves as museums of science and technology, and museums of transportation objects, not museums of history—though Divall and Scott do hold out hope for a new generation of object-centered interpretive exhibitions.

5. The line between what is “real” and “authentic” and “true” is almost always more complicated than it seems, especially with artifacts that have led a complicated life of use and restoration; see Crew and Sims (1991). A purist’s view of the problems with this sort of simulation can be found in Walsh (1992, chapter 5). The re-created site, Walsh claims, is a “spurious simulacrum,” and he argues that it “may in fact contribute to a sense of historical amnesia” (Walsh 1992, 103). He seems to assume that visitors cannot distinguish between reality and representations of it.

6. For a thoughtful examination see Vogel (1991). Miguel Tamen’s notion of a “society of friends” as necessary for interpretation might also be useful; the exhibition expands this society (Tamen 2001).

7. On models for exhibition development teams, see Smithsonian Institution Office of Policy and Analysis (2002a). For how these schemes play out in actual projects, see Smithsonian Institution Office of Policy and Analysis (2002b).

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Standing Professional Committees Council of the American Association of Museums. n.d. *Standards for Museum Exhibitions and Indicators of Excellence*. Available at [www.n-a-m-e.org/standards.html](http://www.n-a-m-e.org/standards.html). Last accessed 02/03/04.


