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Learning Through Rare Events: Significant Interruptions at the Baltimore & Ohio Railroad Museum

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The collapse of the roof of the Baltimore & Ohio (B&O) Railroad Museum Roundhouse onto its collections during a snowstorm in 2003 provides a starting point for our exploration of the link between learning and rare events. The collapse occurred as the museum was preparing for another rare event: the Fair of the Iron Horse, an event planned to celebrate the 175th anniversary of American railroading. Our analysis of these rare events, grounded in data collected through interviews and archival materials, reveals that the issue is not so much what organizations learn "from" rare events but what they learn "through" rare events. Rare events are interruptions that trigger learning because they expose weaknesses and reveal unrealized behavioral potential. Moreover, we find that three organizing routines—interpreting, relating, and re-structuring—are strengthened and broadened across a series of interruptions. These organizing routines are critical to both learning and responding because they update understanding and reduce the ambiguity generated during a rare event. Ultimately, rare events provoke a reconsideration of organizational identity as the organization learns what it knows and who it is when it sees what it can do. In the case of the B&O Railroad Museum, we find that the roof collapse offered an opportunity for the organization to transform its identity from that of a museum to that of an attraction.

Key words: organizing routines; learning; sensemaking; rare events
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Introduction

During a severe snowstorm[1] in February 2003, the roof of the Baltimore & Ohio (B&O) Railroad Museum Roundhouse collapsed onto the world's most historic and comprehensive collection of American railroad equipment. The roof collapse occurred as the museum was in the midst of preparing for the Fair of the Iron Horse, a large fundraising event planned for July 2003 to commemorate the 175th anniversary of the birth of American railroading. The fair, the record snowfall, the roof collapse, the destruction of artifacts, and the discovery of unexpected damage late in the rebuild were all rare events.

Rare events, by definition, are events that occur outside the everyday experience of an organization and, as such, are frequently portrayed as unique, unprecedented, or even uncategorizable (Roux-Dufort 2007, Starbuck and Farjoun 2005). If we think of rare events as unique, then they pose a challenge not only to organizations as they attempt to anticipate and respond to rare events, but also to theorists trying to understand how and what organizations might learn from rare events. Instead of framing rare events as unique, in this paper we present an alternative view of rare events as significant interruptions, exaggerations of a type of stimulus that organizations routinely encounter on a smaller scale. We define interruptions simply as a "break in continuity" (e.g., Jett and George 2003). Viewing rare events through the lens of interruptions redirects our attention away from unique aspects of a specific rare event and toward the more general learning that occurs as organizations enact order into rare events.

To better understand how rare events and organizational learning are linked, we present an exploratory study of the B&O Railroad Museum, an organization that experienced a series of rare events over a period of approximately three years. We suggest that the issue for learning is not so much an issue of what people learn "from" rare events, as it is an issue of what they learn "through" the rare event.

We start by defining what we mean by organizational learning. Although definitions of organizational learning vary (e.g., Argote 1999, Fiol and Lyles 1985, Huber 1991, Levitt and March 1988, Weick 1991), we conceive of organizational learning broadly and define it as the revision of response repertoires in ways that improve organizational performance. This definition is adapted from Huber (2004, p. 118), who argued that organizational learning occurs when an organization's members revise their beliefs in ways that, when the beliefs are acted on, improve the organization's performance. When we refer to "response repertoires," we mean the stock of routines, habits, and roles that have been experienced, as well as the capability to recombine portions of the stock in novel ways. We emphasize that response repertoires include both realized and latent potential (consistent with Sitkin et al. 1998), for much of the stock remains outside awareness and is taken for granted until moments of interruption and attempts at recovery call attention to it or require actions that draw upon it. By organizational performance, in the case of the B&O Museum, we mean such things as number of visitors attracted, size of donations, formal memberships issued, year-to-year gains, expansion of the collection, and ability to retain and hire talented personnel.

Our analysis of the case study is grounded in data collected through interviews with nine key employees of the B&O Railroad Museum and is supplemented with archival materials, including press releases, and Web content. Once the context of our case is established, we begin to unpack how rare events generate learning during the event.

Our findings reveal that rare events trigger learning in three ways. First, rare events act as audits of existing response repertoires. Prior weaknesses and lack of preparation become salient targets for new learning, and behavioral potential is unmasked and converted into action. Second, rare events disrupt and can strengthen organizing routines. Interruptions provide opportunities to reorganize routines, particularly those that involve interpreting, relating, and re-structuring. These reorganized routines tend to produce quicker and more effective responses to subsequent interruptions. Third, rare events redirect organizational identity. The learning that occurs in responding to rare events—specifically around what the organization can do and how it is perceived by others—may alter how it defines itself.

The B&O Railroad Museum

The B&O Railroad Museum, located in Baltimore, MD, housed the oldest and most comprehensive American railroad collection in the world (B&O Railroad Museum 2007). In addition to the collection, which consists of artifacts, locomotives, and rolling stock, the five buildings that comprised the B&O Railroad Museum were also an important part of the museum and had been designated a National Historic Landmark. Much of the museum's collection was located in one of the buildings—the Roundhouse—which was constructed in 1884. The Roundhouse was an impressive building: a 22-sided polygon containing 22 engine bays and a turning mechanism in the center of the building that allowed a worker to rotate a 64-ton locomotive 360 degrees and place it in a bay for repair (Rockney and Coleman 2005).

Originally part of the B&O Railroad, the first railroad in the United States (established in 1827), the museum became an independent nonprofit educational institute in 1990. Since 1990, the B&O Railroad Museum—like many other museums—had been struggling financially. The museum's primary visitors were school children on class trips and railroad buffs who lived for the arcana of railroading. The museum had been running deficits for several years by the time the museum's chief curator, Courtney Wilson, thought about applying for the director job. He explained, "It [the museum] was kind of limping along running anywhere from $150,000–200,000 deficit a year. And so it needed a kick in the ass" (CW interview).

In fact, the museum at times seemed more like a "playground" for the 120 volunteers (many of whom were retired railroad employees) who far outnumbered the 28 full-time staff. Prior to Wilson's directorship, "There wasn't any kind of push or drive to increase the numbers at the door. There was no incentive, no one to push us to do what we needed to do, and that was to bring bodies to the door" (KH interview). The culture was largely fragmented, and the administrative and curatorial staff rarely interacted with each other. When they did, they often found themselves at loggerheads. Collections and Interpretation Research Assistant Sarah Davis explained:

> [The] Catered Events and the Collections Department by nature conflict with each other because Catering ... wants to sell the Roundhouse or whatever location to somebody who wants to have a party or a wedding in the museum space, where Collections naturally wants to preserve the collection and make sure it's safe. If you have a party in an area where the collection is, then that leads to tensions. And those tensions would sometimes blow up in huge arguments. (SD interview)

In 2000, Wilson was appointed executive director with an explicit mandate to reduce the deficit. To do this, Wilson envisioned a unique event to celebrate the 175th anniversary of American railroading: the Fair of the Iron Horse. The original fair, held in 1927 to commemorate the centennial anniversary of the B&O Railroad, had been the largest gathering of vintage and current railroad cars in the world (B&O Railroad Museum 2007). The original fair was a railroad version of the World Fair Expositions that were popular at the turn of the century. And like the World Expos, the Fair of the Iron Horse turned out to be a great attraction. Over a period of two weeks more than 2 million visitors attended, viewing famous locomotives and rolling stock from the B&O Railroad's historic collection and from collections around the world (B&O Railroad Museum 2007). Given the success of the original fair, Wilson believed a re-creation of the fair would increase the museum's revenue, public exposure, and international recognition. A year and a half into preparations, Wilson's plan appeared to be working: museum attendance had increased and museum staff anticipated that more than a million visitors would attend the two-week-long celebration of the fair in July 2003.

In the midst of fair preparations, disaster struck. Over the President's Day weekend in February 2003, a record

Figure 1(a) **Roundhouse Precollapse (Courtesy of The B&O Railroad Museum)**

Figure 1(b) **Roundhouse Postcollapse (Courtesy of The B&O Railroad Museum)**

snowstorm dumped more than two feet of snow on the city of Baltimore. In the early hours of Monday morning (February 17), the museum's Director of Facilities Steven Johnson received notification that an alarm was sounding at the Roundhouse. Venturing out in the storm, Johnson soon learned that two of the Roundhouse's 22 roof sections had collapsed under the weight of the snow. The collapse damaged the gas system and triggered the sprinklers, which poured six inches of water on the museum's collection.

Although museum senior management realized that something had gone wrong at the museum, it wasn't until daylight that they could see just how much damage there was. The roof continued to cave in section by section and by midmorning on February 17, the spectacular cathedral-like Roundhouse (with a footprint an acre in size) stood with half its circular roof gone and the railroad collection it held (the museum's prized artifacts consisting of trains, locomotives, and other exhibits) damaged by roof debris, snow, and water (see Figures 1(a) and 1(b)).

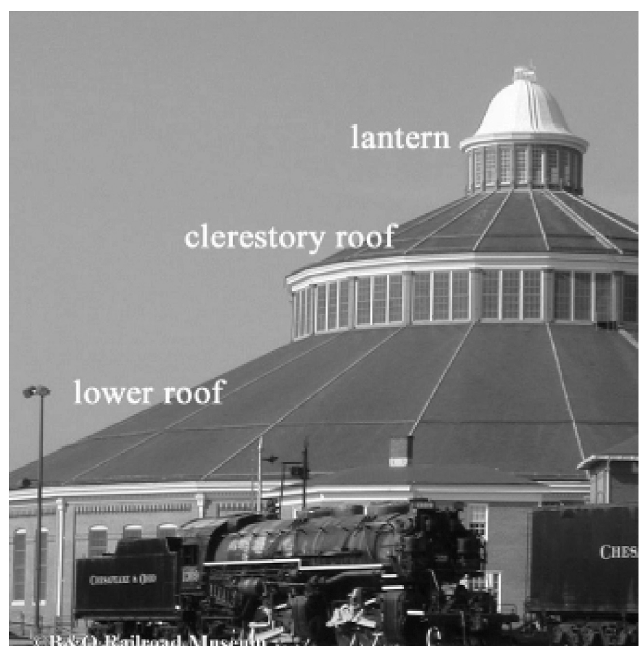
In the days following the Roundhouse collapse, senior management and the Board of Directors discussed whether the museum would be able to survive the catastrophe. The collapse of the Roundhouse not only meant that the building and artifacts were damaged, but also that the fair would have to be cancelled, which would result in a loss of the almost $1 million already invested in preparations (B&O Railroad Museum 2002, 2003a).

The decision to rebuild the Roundhouse was made within the first week at an emergency meeting of the Board of Directors. That decision was communicated to the public via a press release on February 28 (B&O Railroad Museum 2003b). To manage the rebuilding effort, Wilson hired engineering, architectural, and contracting firms headed by individuals who also sat on the museum's board. He also reorganized the staff into three departments: *Administration and Development* (which focused on fundraising), *Facilities and Security* (which helped facilitate the temporary quarters the staff set up), and *Operations* (which focused on storing and cataloguing damage to artifacts).

The museum's first goal was to stabilize the Roundhouse and determine the extent of its damage. One month passed before the building was stable enough to allow nonconstruction personnel to safely enter. At this point, forensic architects determined that the entire lower roof had been damaged by the storm and would need to be replaced (see Figure 2).

Furthermore, portions of the Roundhouse's brick walls were damaged and required reinforcement until later

Figure 2 **Roof Diagram (Courtesy of The B&O Railroad Museum)**



reconstruction efforts were possible. Once it was safe to enter the building, artifact handlers began to remove collection pieces. Curatorial staff catalogued and stabilized the damaged artifacts. Artifacts that could not be removed because of their size were protected by the erection of scaffolding and screening.

While stabilization and recovery efforts proceeded, the rest of the museum staff focused on fundraising. A significant source of money for rebuilding would come from the museum's insurance. Wilson turned to fundraising, soliciting donations from corporations and city, state, and federal government, ultimately garnering \$6.25 million; another \$1.5 million came from private donors. Six months postcollapse, the museum finally learned the extent of the resources they would have to rebuild. The Roundhouse was insured for the total cost of structural damage caused by the roof collapse. However, the collection itself was insured for only \$5 million, far less than the projected cost of repairs. The museum dealt with this shortfall by using the collection insurance money to build a state-of-the-art train restoration and repair facility on the museum campus. Such a facility would not only allow engines and cars damaged by the roof collapse to be repaired, but would also provide a facility that could restore future items for the museum, repair equipment for other museums that routinely outsourced their reconstruction, and be used as an attraction.

Months later, with the roof repair almost complete and the reopening of the museum in sight, a new significant interruption occurred. The museum's intact upper clerestory roof and lantern (see Figure 2) were declared structurally unsound and required replacement. The upper roof was not covered by insurance. Its repair would cost \$2 million and add an extra six months to the construction period, which meant that the business interruption insurance would run out before the project was completed.

The museum also had to determine whether to bring the Roundhouse and the rest of the museum's buildings up to code (for example, because of their national landmark status, the museum was not required to comply with the Americans with Disabilities Act). This, combined with the other challenges listed above, prompted the museum to reconsider basic assumptions underlying the rebuild process. Staff realized that the museum could take advantage of the temporary cessation of operations not just to restore what had existed before, but also to re-think what would make the museum appeal to a wider public.

The museum that finally reopened on November 13, 2004, was considerably changed from the museum that Wilson had inherited. Moreover, the museum significantly improved its performance on multiple dimensions. The museum was much larger (exhibit space increased by 72,245 square feet), it focused on a wider audience of museum goers (families as well as railroad buffs), it offered better access (e.g., making the museum wheelchair accessible also improved access for families with children in strollers), and it presented more exhibits and activities (e.g., a living history and demonstration center) (Wilson 2005). To support the museum's new restoration and repair facility, fundraising for a new \$5 million endowment had begun. Similarly, the museum stopped using the interest from its operating endowment and instead allowed the interest to accrue, which had—as of December 2006—generated \$600,000 of additional funds on the original \$5 million endowment.

Culturally, the organization was no longer as severely siloed. Museum staff described the museum's transformation from an organization where curatorial and administrative staff rarely interacted to an organization where staff communicated freely with one another and where the long-standing tension between the curators and administrators had decreased.

Methods

We use an inductive qualitative approach to develop a rich understanding of the link between rare events and learning. Qualitative methods are particularly appropriate for investigating complex processes that unfold over time. As Lee et al. argue, qualitative research can "effectively address questions such as 'What is occurring?' and 'How is it occurring?'" (1999, p. 164). Among qualitative methods, single case study methodology is well suited for studying extreme or rare events (Yin 2003, pp. 40–41). The case study approach allows researchers to develop rich and deep descriptions of organizations and the activities within those organizations (Yin 2003), which can serve to generate theoretical insight (Weick 2007).

Data Collection

Our analysis derived from two main sources of data. Our primary source of data was face-to-face, semistructured interviews with nine of the key museum staff involved in the roof collapse, including the museum's executive director, the chief operating officer, the director of facilities, museum senior curators, and museum administrators. We drew on the literatures of organizational learning, adaptation, and resilience to create a semistructured interview protocol (see Appendix 1 for protocol). Interviews were conducted by the first two authors in October 2006, lasted one to two hours, and were recorded and transcribed, resulting in more than 228 pages of single-spaced text.

We supplemented our interview data with hundreds of pages of archival materials. The museum posted regular updates on its website from February 17, 2003, the day of the roof collapse, through November 13, 2004, when the museum reopened. The website archival material included all progress reports, press releases, and damage reports related to specific artifacts, as well as photographs of the damage to the museum and artifacts and of the rebuilding process.

Data Analyses

We used a grounded theory approach to analyze our data (Glaser and Strauss 1967, Locke 2001), iterating back and forth between data and theory. We began with multiple readings of the interview transcripts and the archival materials. We developed codes for recurrent patterns in the data, analyzed the codes for themes and emerging theoretical insights, and then returned to the data for further coding and analysis in light of these emerging theoretical insights. Our criterion for what constituted a theme was its relevance as an explanatory factor rather than its frequency (Glaser and Strauss 1967). As we analyzed the data, we also returned to key informants in the organization to collect new data and to check our interpretations. This constant comparison between data and theory continued until "theoretical saturation" was reached, that is to say, until no new themes emerged (Glaser and Strauss 1967).

Findings

Our analysis of how the staff at the B&O Museum managed a series of rare events revealed several distinct ways in which rare events triggered organizational learning. As the analysis proceeded, we realized that the issue for learning in the context of rare events was not so much an issue of what organizations learn "from" rare events as it was an issue of what they learn "through" the rare event. The phrase "learning from rare events" implies that the learning associated with a rare event occurs separately from the event—after the event—and is subject to the simplifications of hindsight. These implications limit the sites where we expect to find learning, and that is why we prefer the phrase "learning through rare events." This reframing suggests that learning occurs throughout the course of the rare event and that the people who generate the lessons are the same people who apply them (Lipshitz and Popper 2000 label this combination "dual-purpose, integrated" p. 347).

Learning *through* rare events refers to more than simply learning about the content of the rare event (e.g., how to handle a roof collapse). It also refers to discovering and strengthening a set of organizing routines that facilitate the resumption of activity as the interruption winds down. Actions taken during the event are strengthened, revised, or extinguished. Because those actions are tied to the preexisting response repertoires, they are less unique and less idiosyncratic than is the rare event itself. Therefore, even though the rare event itself probably will not recur, the actions that unfold during the event probably will. What is distinctive about those actions is that they tend to transform an exceptional setting into one that is more orderly and organized. It is these acts of organizing that are an important site of learning in rare events. What is noteworthy about this case study is that we find that these acts of organizing—acts such as interpreting, relating, re-structuring, and reworking identity—become stronger and more flexible not only within a single rare event as it unfolds but also across a series of rare events.

We present our findings in three sections. First, we show how rare events trigger an "audit" of the organization's current response repertoires, revealing lack of preparation and weaknesses as well as latent behavioral potential. Second, we show how rare events disrupt routine organizing and trigger learning that reorganizes at least three basic routines: interpreting, relating, and re-structuring. Third, we show how rare events trigger learning that can redirect organizational identity. Each of these triggers for learning is located within the rare event itself. None of them is focused solely on the question, "What should we do next time?" or "What are the lessons to be learned from this event?"

Rare Events Audit Existing Response Repertoires

By virtue of their infrequent occurrence, rare events place novel demands on an organization. Depending on the type of event, a rare event can serve as a "brutal audit" for the organization. Lagadec, a crisis management scholar, suggests that

> ...the ability to deal with a crisis situation is largely dependent on the structures that have been developed before chaos arrives. The event can in some ways be considered as an abrupt and brutal audit: at a moment's notice, everything that was left unprepared becomes a complex problem, and every weakness comes rushing to the forefront. (1993, p. 54)

Audits of Weakness

The roof collapse was clearly a brutal audit. It uncovered an unsound building, an underinsured collection, limited ability to contain damage to the collection, and emergency response plans rendered inaccessible because they were buried in rubble.

These audits—associated with the collapse itself—were preceded by earlier audits that uncovered more basic weaknesses that triggered learning. For example, as the museum staff began to prepare for the fair, they discovered that they did not have the right people to stage such a large event. The director, Courtney Wilson, filled this gap by hiring staff members who had experience with large-scale events. His first hire was Director of Development and Sponsorship Programs Stefanie Fay (who later became the chief operating officer). Before she came to the museum, Fay worked for 11 years coordinating sports marketing events, including five Super Bowls, the Ryder Cup, and four PGA events. As Fay worked with the existing museum team, she found that some staff did not have the capabilities or interest to handle newer, more complex tasks. These people, who either elected to leave or were laid off, were replaced by others who had experience working in sales or event planning rather than in not-for-profit organizations or museums.

As preparations for the fair continued, it became apparent that the museum's communication infrastructure was inadequate and needed to be updated. Johnson, the facilities director, recalled:

> In those days, we didn't even have a telephone system. We had individual phones with individual lines that had a separate voice mail attached to the phone. It was just unbelievably antiquated, and we didn't have a computer network of any type and they were connected through a phone modem and to the outside world. (SJ interview)

As the museum faced the day-to-day challenges inherent in putting on such a large-scale event, staff learned how to identify underlying weaknesses and how to address them through new patterns of activity. This experience with re-structuring enriched the organization's response repertoire for coping with interruptions and enabled people to get into action more quickly when faced with a second rare event—the roof collapse.

Audits of Strength

Although rare events reveal the weaknesses of an organization, they also reveal hidden strengths. Recall that much of the stock of the organization's response repertoire is in the form of latent behavioral potential. This potential remains outside awareness and is taken for granted until interruptions and attempts at recovery call attention to it. More than other types of interruptions, rare events are particularly suited to unmasking latent behavioral potential because their rarity does not automatically trigger well-practiced responses. Once unmasked, this latent potential can be converted into action.

The B&O Museum experienced multiple interruptions during the three-year period that we examined. This means that later interruptions such as the roof collapse gave more evidence of unmasked behavioral potential than did earlier interruptions such as the fair. For example, the Roundhouse roof collapse revealed how skilled museum staff had become at relating with other organizations. During preparations for the fair, the museum forged relationships with firms for specialized services such as public relations and event management and with sponsors and city agencies. The experience of working with external agencies not only created ties between the museum and those agencies but also gave museum staff practice in creating such ties.

A noteworthy example is the way museum staff learned how to enact timely, consistent, and coordinated communication with the media. When the Roundhouse roof collapsed, the staff responded quickly and publicly. Operating out of her home, Fay immediately changed the phone number on the museum website to her home number so that she could act as the contact person for the museum; she tasked her colleague, Dana Kirn, with notifying museum staff of the damage, asking them to stay at home, and requesting that media inquiries be directed to her; she coordinated interviews for Wilson with local and national media and established the Roundhouse Restoration Fund—with a link on the museum's Web page—so that the public could make donations. At the museum, Wilson answered reporter's questions by cell phone from the museum's parking lot while Williams and Johnson coordinated with Baltimore police and fire units who secured the scene. The experience that people had gained through communicating and coordinating with other organizations, especially the media, became apparent in the days following the roof collapse.

The collapse also revealed how valuable the museum was to the larger community. Within hours of the roof collapse, national and international media sources covered the story, revealing that the rare event was important to a wide audience. Furthermore, the immediate response was one of deep concern and support, which revealed the depth of the public's affection for the museum. This response led museum staff to reevaluate what their role could be in the community. For example, one of the administrators recounted how the public's reaction to the roof collapse changed how she saw the museum's collections:

> I didn't really care about trains ... But then I learned about the history of it and I just saw the devastation and the letters that people wrote. And I mean we had letters coming in from people in China. ... I just realized the importance of this place. (DK interview)

For this administrator, revising her belief about the importance of the museum helped energize her response to the roof collapse. The value of the museum to the community was also expressed in financial terms: support arrived in multiple forms, ranging from a picture of the Roundhouse that had been drawn by a little boy that said, "I miss the trains" and had 42 cents in change taped to it, to large governmental grants (the largest was $2.5 million from the federal government).

Rare Events Strengthen Organizing Routines

Interruptions create consciousness of things previously taken for granted, and this can trigger learning. As John Dewey said, when activity is blocked by an interruption, routines and habits "get turned inside out" (1922/2002, p. 182). When interruptions occur, especially significant interruptions caused by rare events, routines of organizing become more visible, more subject to modification, and more consequential in determining an organization's fate. Organizations faced with rare events are often called on to continue with their essential functions while dealing with drastically altered circumstances. For example, trading firms somehow had to continue trading in the days following 9/11 when their trading rooms, which were located in the World Trade Center, had been destroyed (Beunza and Stark 2003). The ability to maintain core organizational functions (i.e., same response, or as close to same response as possible) in the face of a rare event (i.e., different stimulus) is the nontraditional quality of organizational learning described by Weick (1991).

In the case of the B&O Museum, organizing routines were edited and enlarged during three significant interruptions. First, the everyday operations of the museum were interrupted by preparations for the upcoming Fair of the Iron Horse. Second, preparations for the fair were interrupted when the roof of the Roundhouse collapsed and crushed significant artifacts. And third, although we do not discuss it in as much detail, the scheduled reopening of the museum after the Roundhouse reconstruction was interrupted by newly discovered damage to the clerestory upper roof. In each case, organizing routines, modified while coping with previous interruptions, enacted order into the event. Moreover, we found a developmental trajectory to these organizing routines. As museum staff responded to repeated interruptions, routines that were initially tentative became stronger and more elaborated.

Organizing routines hold an organization together in normal times, often without much recognition that they do this. When we use the term routines, we mean "repetitive, recognizable patterns of interdependent actions, carried out by multiple actors" (Feldman and Pentland 2003, p. 95). And, like Feldman and Pentland (2003), we conceive of routines as sources of change as well as stability. In effect, the museum had been actively learning for more than two years prior to the collapse. What it had learned were better ways to interpret, relate, and re-structure, all of which facilitated recovery after the collapse. We look briefly at each of these organizing routines.

Interpreting

Significant interruptions generate ambiguity and uncertainty, which require interpretation (e.g., Crossan et al. 1999, Daft and Weick 1984, Levitt and March 1988, Weick et al. 2005). For example, in the early moments following the roof collapse, there was ambiguity and uncertainty around what the roof collapse meant for the museum. The roof collapse itself required relatively little interpretation. By the next morning, it was clear that half of the lower roof was damaged, that many of the artifacts had been crushed, and that the museum would not be able to open to the public for some time (although the extent of this damage would only become clear months later).

What was less clear was what the roof collapse meant for the organization. The roof collapse was an event that could have threatened the survival of the museum. Immediately following the collapse, many museum staff members wondered whether they still had jobs. For example, one of the administrators recalled her reaction when she found out about the Roundhouse roof collapse: "... I can remember my husband elbowing me ... And he goes, 'Well, I guess you're out of a job.' And truly it was scary because I was like, 'Yeah, they aren't going to need me down there' " (DK interview).

We know that early moves—whether interpretations or actions—matter. Weick (1988, p. 309) highlights that, for threatening events such as the Union Carbide gas leak in Bhopal, "... early responses do more than set the tone, they shape the trajectory of the crisis." Interpretations establish initiating conditions that guide future action and learning. Yet facts do not necessarily speak for themselves. Wilson recalled his search for an interpretation in the week following the collapse:

> When you have an event like that, a sentinel event like that in your life, it really does bring you down to almost a single point from which you have to really kind of look up and say, "All right. There's 30,000 directions I can go. Which one is the right one and which one is the one that makes the most sense?" ... I've had an experience that forced me to look at the core values of the institution. Why were we created? What is our mission? Do we have the capability to survive this disaster? And is the mission and the money it's going to take to do it worth it? And they're all the basic questions that, when I was wiping tears away at night for a week or so afterward, that's what I was thinking about: What is the core mission? And even thinking of the alternatives like: We lose the Roundhouse. I still have four other historic buildings. I still have the body of a pretty phenomenal collection. What do I do? Do I tear the Roundhouse down completely or do I put up a modern building? What difference would that make in the future of the museum? (CW interview)

As Wilson's words show, even something as basic as understanding whether the roof collapse meant museum closure, Roundhouse reconstruction, or a completely new building was unclear. The search for meaning initiated in response to this ambiguity is, in part, informed by the activities and interpretations that were already under way when the interruption occurred. Remember, shortly before pondering "30,000 directions [in which] I can go," Wilson had been pondering just one direction: final preparations for the opening day of the fair. Those final preparations were interrupted. But their resumption was put on hold because it was unclear whether the interrupted activity of staging a fair was still meaningful and appropriate. The interrupted activity did not, however, simply disappear. Instead, it was incorporated into Wilson's efforts to re-think "the core values of the institution." Together, the activities and interpretations interrupted by the rare event provided a minimal structure that enabled people to act their way into a better understanding of what they faced.

In the case of the B&O Museum, senior leaders interpreted the roof collapse as a temporary setback, as an event in the museum's history from which it would recover, rather than as a threat that would end its life. Once museum leaders made sense of the rare event for themselves, they acted to strongly influence the sensemaking processes of the museum's stakeholders through sensegiving that mobilized those stakeholders in the same direction. For the museum staff, the "recovery" interpretation was a springboard for action (Taylor and Van Every 2000) that energized the subsequent response to the event.

Relating

Relating reflects the social nature of work and organizations. One way to unpack the notion of relating is to focus on three elements: contribution, representation, and subordination (Weick and Roberts 1993). Across the several interruptions of ongoing museum activities, staff members reworked their own ideas about what they contributed to museum performance (contribution), how those contributions fit together into collective outcomes (representation), and what the museum and its constituencies needed (subordination). Across several episodes of interaction, contributions became more clearly defined, there was greater awareness of how the contributions fit together, and the focus shifted from individual needs to system needs.

Acts of organizing that occurred in the early stages of preparation for the fair (e.g., initiating contacts with public relations personnel, grandstand builders, marketing consultants) involved narrowly defined contributions that fit together formally and involved little subordination to the system simply because the system itself was ill formed. As more and more people were tied into the fair preparations more systematically, relating changed such that people gained a clearer understanding of what it meant to contribute useful inputs, represent the ways in which multiple contributions fit together, and subordinate their interests to the larger question, "What does the fair need?" People learned more about ways that contributing, representing, and subordinating helped to organize the preparations; they did these activities more competently over time, and they began to routinize them. This learning revised the organizing routines in the response repertoire, and these revisions contributed to the swift organizing that occurred following the collapse.

Strengthened routines for relating were evident in the sensegiving that followed the collapse. We follow Gioia and Chittipeddi (1991), who define sensegiving as the "process of attempting to influence the sensemaking and meaning construction of others toward a preferred redefinition of organizational reality" (p. 442). The audience for sensegiving following the roof collapse can be divided into two categories: an internal audience (museum staff and volunteers, the Board of Governors) and an external audience (the general public, railroad fans around the world, and potential donors, such as the city, state, and federal governments).

The internal audience received both verbal and nonverbal sensegiving. Our data suggest that nonverbal sensegiving may have been just as important as verbal sensegiving in helping employees manage emotions. Verbal sensegiving mainly took the form of reassurance—museum leaders immediately told everyone that they still had jobs—even when the leaders were not sure that was the case. The nonverbal sensegiving was primarily related to emotions. Staff repeatedly identified this emotional support as key to their ability to respond to the collapse. The following example illustrates the verbal and nonverbal sensegiving experienced by the museum's staff:

> And I mean they [museum leaders] just took total control of the situation and everyone had someone to call to sympathize with and to know what our next move was. We had great guidance right after the roof—I mean an incredible amount of strength and guidance. And again, I credit it most to Courtney, because he was the one that really stood tall and became the spokesperson and became the face of the museum. And you looked at him and you could see tears in his eyes but then once you looked through those tears, you could see sheer determination to make this place bigger and better. ... She [Stefanie Fay] would pull you aside. She would always check on your mentality, where you were going and how you were feeling. And believe me, there were a lot of tears, there were a lot of—it was a crazy, emotional time at that. But she never kind of backed down, you never saw the white flag here on anyone here, which was amazing at the time. (KH interview)

This emotional management was intentional. The senior leaders, particularly Wilson, were attuned to the importance of emotions and worked hard not to display negative emotions in public:

> ...[T]he worst part of it was watching the pain—not showing my pain—but watching the pain of my curators' faces day after day, seeing an African American porter's uniform from 1899 sitting on a twisted mannequin and getting rained and snowed on and they knew it was one of only two that existed from that period in America and standing outside and looking in and wanting so badly to run in and having me grab them by the collar and say, "No, you don't." (CW interview)

At the same time that senior management was engaged in internal sensegiving, they were also engaged in external sensegiving. The roof collapse at once enlarged the set of external actors with whom the museum interacted. Not only were there more actors, but they exhibited quite different responses to the roof collapse: Some people wanted to donate money; others called the museum and said, "I have a shovel; I'll come down and help clean up." The sensegiving to the external audience focused on creating a coherent story about what happened and how people could help. Even in the moments immediately following the roof collapse, the museum established a single point of contact for questions and a single media spokesperson.

Senior leaders also understood the power of images to communicate what had happened. Ed Williams, the deputy director, went into the Roundhouse the day after the roof collapse to take pictures of the damage, both for insurance and public relations purposes. Press conferences, press releases, and website reports served as the primary means through which senior leaders addressed a wider external audience. All these efforts reflected the importance museum leaders placed on managing the public image of the rare event. Fay asserted:

> When you're a public entity, that's the first thing that you have to think about. Not your own personal issues or how your office is going to look after the disaster. If people are supporting us, if we're especially a 501(c)3, when we're looking for donations every single day and wanting to increase membership and admission sales, we have to look smart to these people so that they're going to want to support us through the roof collapse, through the rebuilding, and then once we're reopened. (SF interview)

In creating a coherent narrative of recovery that would generate support for the museum, its leaders were careful not to narrate themselves into a corner. For example, they reassured those concerned about the museum that they would recover, but gave no specific information about how the recovery would occur. This technique can be thought of as a skillful use of strategic ambiguity (Eisenberg 1984), in which individuals "use ambiguity purposefully to achieve their goals" (p. 230).

Re-structuring

Re-structuring refers to a general capacity to rebuild structures and routines that prove to be inadequate. To maintain core functions, organizations may need to learn how to re-structure the performative aspects of their routines (the content of the routine) while maintaining the ostensive aspects (the spirit of the routine) (Feldman and Pentland 2003). Our argument is that the activity of re-structuring is an act of organizing that can, itself, develop over time and be executed more quickly and more skillfully. The museum staff had gained experience with re-structuring as they prepared for the fair. Once the roof collapsed, they were able to reconfigure routines to maintain core organizational functions. For example, in the first month after the collapse, when only steel workers were allowed to enter the unstable space, the staff had to decide which pieces of rubble could be thrown away and which needed to be saved. The curators trained the steel workers in the basics of what to look for. Wilson described the re-structuring this way:

> Ultimately the steel workers that were in the building—we got the curators outside with binoculars and walkie talkies and they said, "Okay. Get a pair of gloves. That's an artifact. Now take it careful," and they were coaching them. And the steel workers were bringing the artifacts out. And it was funny. When they were cleaning the rubble out, the slate and the iron and the snow, they were in there and they would find something that didn't look like a piece of slate. And they'd go, "Hey!" And they'd hold it up in the air and the curator would be outside, a hard hat on and freezing to death and go, "That's crap! Throw it away." Or, "No! That's good! Bring it to me." (CW interview)

Re-structuring was also demonstrated by the way in which potential capabilities for negotiation were converted into actual settlement of insurance claims. Immediately following the roof collapse, Wilson and Fay received daily calls from their insurers and from public insurance adjustment companies that wanted to handle the museum's claim. Hiring a public adjustment firm for such a large claim would have been the conventional approach to such a situation. But Fay, who had worked in her father's CPA office while she was growing up, had spent her time "reading financials, negotiating numbers, and analyzing stuff." Based on this and her previous experience negotiating with vendors and sponsors in preparing for the fair, she felt she could handle the claim. Wilson agreed with her assessment. Given how important the claim was to the financial health of the museum, the decision was consequential and potentially risky. Wilson explained his rationale for allowing Fay to handle the insurance claim:

> Stefanie came to me one day . . . and she's got her hardhat on and we were all freezing to death in the office and she comes to me and she says, "Court, I want you to let me have this job. I can do it." And knowing how capable she was having worked with her for a year prior, I said, "Okay." And I knew she could do it. (CW interview)

Previous experience adjusting to the nonroutine demands of the fair enabled staff to enlarge their skill set, increase the magnitude of trust shared among top management, and build confidence to take larger risks. People learned the intricacies of re-structuring while doing it to cope with a rare event.

Rare Events Redirect Organizational Identity

The ambiguity and uncertainty generated by rare events provided an opportunity for museum staff to re-imagine and redirect the identity of the organization. Organizational identity is defined as that which organizational players find to be distinctive, central, and enduring about the organization (Albert and Whetten 1985) and has been treated as a potential constraint on organizational learning (Brown and Starkey 2000, Kogut and Zander 1996). If the organization innovates beyond what actors already see as central and enduring, then identity is threatened and further exploration tends to be curtailed. As a consequence, organizational identity serves as a selection mechanism for learning: Organizing routines that affirm the organization's identity are selected and strengthened; those that challenge the identity are weakened or extinguished.

Rare events have the potential to disrupt this mechanism by raising questions about previously assumed qualities of the organization. This questioning, in turn, offers an opportunity for an organization to learn more about itself, its environment, and its relationship to its environment. In responding to a rare event, the members of an organization learn more about what the organization can do (based on audits and attempts at organizing) as well as how the organization is seen by others (based on feedback that is attracted by the rare event). This intensified act of self-reflexive learning may itself constitute a change of identity. Aside from that possibility, it is clear that the content of the feedback is a direct prod to identity change.

From the time he was hired, Wilson was committed to a business model that highlighted the importance not only of preserving artifacts but also of marketing the museum to the public. He explained:

> The museum world has traditionally been operated like the university: very much an academic institution.... The curators were the gods; they were the ones with the long, flowing robes that wore the lab coats that went all the way to their ankles, because they were the trained professionals, the academics. And the rest of the people—the marketers, the fundraisers, and all of that—were in their eyes crap. They didn't have an appreciation for the fact that these are the people that make it so you get paid on a biweekly basis or that you have the tools to do your job. I do believe that it's changing in the museum world, but slowly. I would like to say our museum is a leader in that field. (CW interview)

Wilson's emphasis on the business side of the museum reflected changes that were under way throughout the museum world. Museums had long been thought of as public goods that required public and philanthropic support, not entities that could bring in serious revenue. However, in 1976, the United States experienced the first hint of museums as attractions when the Metropolitan Museum of Art hosted the first King Tut exhibition. Esplund writes about this exhibition as a turning point for museum management: "Since then, it seems museum shows, not unlike movies, are ultimately judged by how well they do at the box office, not by how well they serve our greater cultural interests" (2005).

The increasing attention to the business side of the museum management mirrored changes taking place in other cultural institutions, such as symphony orchestras (e.g., Glynn and Lounsbury 2005) but was not without controversy (Baker 1996). Curators, in particular, objected to the commercialization of art. In part their resistance may reflect the possibility that the model of museum as attraction shifts power from curators to administrators (Pfeffer and Salancik 1978).[2]

In the early stages of identity change at the B&O Museum, Wilson envisioned the fair as a first step in transforming the museum into an organization capable of large-scale "blockbuster" events. This vision of a museum as a popular attraction required a new set of skills (e.g., expertise in relating to the media or in large-scale event organizing) that the staff had to learn. Whether this newer identity would have solidified as a result of a successful fair is unclear. But we do see evidence that Wilson interpreted the museum's learning during interruptions as strategic openings to advance his agenda for changing the identity of the museum.

Wilson's intent to redirect the museum's identity was aided by feedback from the environment after the roof collapse. Recall that the collapse received national and international media coverage and that the public outpouring of concern and aid were impressive. This broad response from the museum's "audience" disconfirmed the staff's prior assumptions about the appeal of the museum and its meaning to the public. This is, as Duncan and Weiss (1979) point out, a form of learning by itself. They define learning as "the process within the organization by which knowledge about action-outcome relationships and the effect of the environment on these relationships is developed" (p. 84). Essentially, feedback following the roof collapse provided a great deal of data to the museum about its image (Dutton and Dukerich 1991). These data changed the museum's action-outcome understanding of itself in relation to its environment. This particular form of self-reflexive learning was important in the redirection of the museum's identity from museum to attraction because the attraction model requires that a large audience be willing to pay for the entertainment offered by the museum.

Six months after the collapse, the museum's board gave Wilson and his staff the challenge to re-think the grounds of the museum rather than simply restore the Roundhouse to its original condition. The re-thinking gained momentum when the museum staff designed a physical campus to match their growing belief in the museum's altered identity. Stephanie Fay discussed the process related to re-imagining the museum:

> And it was maybe six or eight months into the rebuild and we knew that a lot of the money that we had to raise [was] for the damaged trains—because that was the one

> area in our insurance policy that was weak. Everything else was pretty good. And we said, "You know what? If we're going to have to be closed for two years anyway, because it's going to take that long to finish the Roundhouse and get it up to speed"—because that was a more realistic time frame once we got about six months into it—we said, "This is our opportunity to raise some more money, change the campus, do all these dreams that we all had." . . . And we spent like two or three days thinking of pie in the sky. "What if we could do this, what if we could do this, what if we could do this?" And we decided, "Well, we're going to do it." And then we got estimates of how much it would cost, how long it would take. And instead of a $3 million fundraising effort, we did a $10 million fundraising effort and we got it done. (SF interview)

As described in the case, Wilson turned to his staff—curators and administrators alike—and asked them to brainstorm their ideal railroad museum. The result was a museum designed to attract a larger audience and one intended to host large-scale events (such as a visit from Thomas the Tank Engine). Changes included improved restrooms, lighting, and sound system; expanded educational programming and family-oriented activities (such as a living history center where curators in period dress explain the collection to the public); two new exhibition train platforms; and newly offered short train rides to tour the off-campus repair and restoration facility. The majority of exhibits were also made wheelchair (and thus stroller) accessible.

Our case study provides a detailed example of the entwining of organizational identity and organizational learning. The earlier launch of the fair project was a deliberate self-induced rare event undertaken to promote a change in identity. While developing the fair, the staff learned and enhanced their organizing routines. Later, when the externally induced rare event of the roof collapse occurred, there were further developments of organizing routines. Self-reflexive awareness of these changed routines, coupled with favorable interpretations of environmental feedback, fostered reconsideration of identity. Using what we observed with the fair as a guide, we expect that the museum's newer postcollapse identity as an attraction will continue to select organizing routines that affirm it and reject those that do not.

Discussion

This study offers a process-based perspective on organizational learning during rare events. The story is one of a museum interrupting its normal operations to prepare a large-scale attraction, the Fair of the Iron Horse. Throughout the fair preparations, the museum's response repertoires grew richer, larger, and more varied. However, personnel remained only partially aware of these changes because they were focused on the details of the fair itself. The organizing routines that had been developed were brought to light when the roof collapsed, literally, on the museum's rare artifacts. As staff members responded to the roof collapse, they further enlarged and strengthened their response repertoires. Thus, when the museum faced yet another significant interruption—the need to replace the upper clerestory roof—it was able to manage this interruption and initiate the even more demanding process of transforming from a conventional museum to an attraction.

To understand this progression we have proposed several ideas about organizational learning. These ideas include conceptualizing rare events as interruptions, focusing on what is learned during rare events; treating routines of interpreting, relating, and re-structuring as sites of learning during rare events; illustrating that rare events produce tighter coupling of events across time; and showing how rare events can redirect identity.

We found that if a rare event is conceptualized as a significant interruption, then we pay closer attention to the activity that was interrupted, the momentum of the activity that was interrupted (Levy 1962), the shortcomings that were revealed, and the actions mobilized to recover from the interruption. The advantage of thinking about rare events as a form of interruption is that it allows both organizations and scholars to focus on the more general aspects of rare events. As John Dewey writes, "Life is interruptions and recoveries" (1922/2002, p. 178). Organizations experience many more interruptions than rare events. To the extent that a rare event is just another interruption, organizations can learn more about how to handle the rare event by attending more closely to how they handle the more common garden variety interruptions.

Our data suggest that a rare event provides a brutal audit of organizing activities such as interpreting, relating, and re-structuring. These activities store previous experience dealing with interruptions and are crucial because they jointly stabilize the disordered situation and guide the recovering. It is these organizing activities that are a crucial site for learning. They also appeared to be central to the B&O Museum's successful management of repeated interruptions. Although we cannot generalize from a single case study, the underlying acts of organizing seem to embody the cognitive, the behavioral, and the relational aspects of dealing with interruptions. These activities may also be what people notice when they say that an organization has learned how to learn. Interpreting, relating, and re-structuring are the malleable processes through which people learn about the specifics of the rare event. To improve these acts of organizing is to learn more about learning itself and to become more competent at dealing with interruptions both big and small.

We also found that learning and rare events are coupled in more ways than simply learning *from* those events. Multiple learnings occur throughout an unfolding rare event, and this is true whether the event unfolds slowly and voluntarily (Fair of the Iron Horse), slowly and involuntarily (clerestory roof rebuild), or rapidly and involuntarily (Roundhouse roof collapse). Obviously there are differences among these three significant interruptions, but our goal has been to find cumulative learning across all three. When learning occurs *through* rare events, the nature and magnitude of the learning may not be apparent until subsequent rare events. The learning that we highlight at the B&O Museum is less that of "lessons learned" away from action and more that of "skills learned" during the action.

We learned that rare events tightly couple the past to the future. What the B&O case makes clear is that rare events can trigger both a loss of meaning and a surge of meaning (e.g., "30,000 directions in which I could go" is both no meaning at all, because meanings cancel one another, and a surge of meaning, because 30,000 meanings are more than the one meaning of staging the fair). This surge of meanings flows in two directions, away from the disruption toward earlier times and away from the disruption toward future possibilities. The future possibilities that are envisioned uncover past learning needed to realize those possibilities. Actors see in the past factors that they would not have been aware of if the event had not occurred and if they were not concerned about recovering (Roux-Dufort 2007). Their old routines, which had been vague, now become clearer as they are turned inside out. What matters for learning is that people see more clearly what was already under way, what they had been learning, and the limits of their previous comprehension. These perceptions clarify what needs to be further learned to fit these old routines to unique new demands.

And we further learned that significant interruptions provoke people to re-think identity. When Wilson contemplated the rubble, the future, and the 30,000 directions in which he could go, his plight was both an occasion that tested his expertise at interpreting and a brutal audit of previous mission statements. Our data suggest that rare events raise questions about previous views of identity, unsettle those views, and trigger further learning about who we are, who we have become, what we are doing, and what we should be doing. Somewhat to our surprise, it appears that a significant interruption may create a blank sheet on which the organization can reinvent itself. The question following a significant interruption seems to be similar to the one Peter Drucker urged executives to ask themselves: "If we did not already do this, would we go into it now?" (Beatty 1998, p. 125).

The B&O Museum represents an "ideal" case of learning through rare events because its response was effective and the short term outcomes were positive. We call this case "ideal" in the belief that it is more common for rare events to reveal weakness than strengths. This raises the question of why the B&O Museum was able to learn and cope in the face of a potential catastrophe. Our answer is that learning at the museum was focused on the ongoing improvement of organizing routines. Yet we acknowledge at least two additional factors that may have contributed to the success: strong leadership and slack resources.

Wilson and his top management team envisioned the fair as a way to develop and grow the museum, provided strong sensegiving to both internal and external audiences following the roof collapse, recruited new donors, and offered emotional support to colleagues despite the team's own sense of devastation. In addition to strong leadership, our findings suggest that slack also may have played a role. It is unclear how or whether the museum would have been able to continue operating and rebuilding had it not possessed business interruption insurance. Certainly more research is needed to better understand the importance of slack and how it relates to learning and rare events.

Future Directions, Implications, and Conclusions

Our initial findings are limited by the fact that we studied only one organization. However, this rich case study adds important nuances to ideas related to organizational learning. Our results raise a number of questions, and we focus on three: How do rare events vary in their implications for learning? How are rigidity and flexibility intertwined? And how are organizing routines foundational for resilience?

Rare events by definition are not equivalent; they can vary along a number of dimensions, including magnitude, frequency, valence (positive or negative), and cause (internal versus external). Scholars of crisis and disaster have developed typologies of events (e.g., Rudolph and Repenning 2002, Shrivastava et al. 1988), but there is more to be done in this area. Newer trends appear to veer away from classifying and categorizing as researchers attempt to understand rare events as processes and durations rather than singular events (Hwang and Lichtenthal 2000, Roux-Dufort 2007). More work needs to be done to understand the boundary or scope conditions that make it more or less likely for organizations not only to survive, but also to learn from particular types of rare events.

A second direction for future research is in the area of how organizations respond to threat. Events that have not been experienced often are perceived and interpreted as threatening (although this was a transient sensation in this case). Still, as currently theorized, the literature describes two ways that an organization can respond when faced with threat: the rigid response or the resilient response. In the rigid response, organizations are unable to cope with large and novel challenges and instead experience "threat-rigidity effects" and narrow information processing, increasingly centralize and formalize control, and conserve resources (Staw et al. 1981). In contrast, in the resilient response, organizations are able to sustain competent performance by broadening information processing, loosening control, and utilizing slack resources (Sutcliffe and Vogus 2003). Threat-rigidity often is portrayed in the literature as an inevitable and maladaptive response—that is, that organizations naturally respond rigidly in the face of a threat. However, as this case illustrates, threat-rigidity is neither inevitable nor inherently negative, as Staw et al. (1981) and others (Sutcliffe and Vogus 2003) have noted. More specifically, we found that parts of the museum were made rigid to maintain flexibility elsewhere. For example, the museum leaders quickly centralized and formalized control by immediately appointing one media spokesperson and formulating a plan to standardize information to the public. We would hypothesize that hybrids of flexibility and rigidity both assist re-structuring and themselves are the newer structures that are put in place. Departures from this hybrid character should inhibit learning and recovery.

Our findings also have implications for research on organizational resilience (e.g., Sutcliffe and Vogus 2003). Organizations are often exhorted to anticipate and prepare for rare events by developing crisis management plans (e.g., Pearson and Clair 1998). But plans are not capabilities. Plans are intentions based on organizational members' current understanding of what their organization is. Until the organization is faced with an unknown situation, the organization does not know what it will be able to do. In the case of the B&O Museum, the critical determinant of the organization's ability to bounce back was the strengthening of its organizing routines prior to the roof collapse. The museum strengthened its generalized capabilities "to investigate, to learn, and to act without knowing in advance" (Wildavsky 1988, p. 70). The question is, do the triggers for learning found in the B&O Museum occur in other organizations, and do they have similar implications for resilience?

From a managerial standpoint, our study suggests that leaders should keep their organizations in motion. Even if organizations cannot anticipate rare events, they can work to enhance their response repertoire for dealing with interruptions. Organizations can increase the number of interruptions they face by, for example, creating interruptions (e.g., Barnett and Pratt 2000). In essence, this is what Wilson did when he envisioned the fair—he created an opportunity for the organization to deal with interruptions and to get better at dealing with them. Managers should also be mindful of moments of learning in which recurring responses such as those of interpreting, relating, and re-structuring successfully manage the nonrecurring stimuli associated with mundane as well as exotic interruptions. These occasions are where learning succeeds or fails, as do the organizations that attempt it.

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Appendix 1. Semistructured Interview Questions

Career:

• Could you please take us through a brief career history?

• What were the one or two most challenging situations you dealt with in your previous jobs? What lessons did you take from those experiences?

• What led you to join the B&O Railroad Museum?

Culture and Style:

• What was the culture like at the museum when you first joined? Can you think of some stories that exemplify the culture?

• Has the culture of the museum changed? If so, what do you think the cause of the changes were. Stories?

• Describe Courtney's influence/leadership style. Specific stories.

• Did his leadership style change over time? Particularly after the roof falling in?

Your Style and Team:

• Briefly describe your current position and responsibilities.

• Can you describe a "typical" work week—exactly how do you spend your time?

• From which part of your work do you derive the most satisfaction?

• What do you see as your strengths and developmental needs? How has that assessment changed since the snowstorm?

• What are your aspirations or career objectives? Have they changed during your time here?

• With whom do you work most closely?

• How is creativity stimulated within your team?

• In general, what are the sources of creativity in the organization?

• What are the objectives for your team?

• Describe the culture of your group.

• What decisions do you make collectively?

• How did your team change as a result of the roof falling in (people, culture, ways of operating)?

Fair of the Iron Horse:

• What was your role in the Fair of the Iron Horse?

• How was the extra work of gearing up for the fair managed? (From which departments did the team come? How involved were you?)

• It seems like such a huge event would require new capabilities and capacities not present in the organization. Is that true? What new capabilities and capacities needed to be developed? How did that happen?

Emergency Preparedness Planning:

• Were you involved in emergency preparedness planning?

• Can you please walk us through the processes that was used? Who was involved? What kind of analyses were engaged in?

• How did that planning help or hinder when responding to an actual emergency? Was it mostly of use in the short term?

• Now that the museum has actually responded to an emergency, how has that information been institutionalized? How important is it to make sure the lessons that have been learned as a result of the disaster and recovery be part of organizational learning?

• How did that disaster change what you do today?

Rare Event:

• Before this roof falling in, to what extent did people talk about small failures? How did the organization handle mistakes?

• How much awareness did individuals have about how their work fit in with the work of others?

• Did people within the organization know who the experts were?

Recovery:

• How did you respond to the initial disaster? Why did you respond that way?

• What was your role in the recovery effort? How was that different from what you were doing before?

• We imagine that responding to what had happened to the museum could have been an emotional experience. What was that like for you? How was the emotional aspect of this experience accommodated for at work? Did Courtney's style during this time make things easier or more difficult emotionally?

• Why do you think you and the staff of the museum were able to respond so effectively to this rare event?

• The recovery effort succeeded, to some extent, because of individuals feeling empowered to use their discretion. Could you provide us with some examples of that during the recovery effort? How about examples before the recovery effort? How did the museum develop employees with that capacity?

• It seems that, at some point, you shifted from focusing on putting back what was to thinking about what could be different for the future. How did this change in view happen?

• Does that change in orientation persist now that the museum is operating normally again? Or, to some extent, is such an open orientation not helpful during stable conditions? Has this experience changed how you see yourself? Is there anything that you think is important that we have forgotten to ask you about?

Endnotes

[1]The President's Day weekend (February 15–18) snowstorm in 2003 set a new snowfall record for Baltimore, with a total of 28.2 inches of snow (National Climatic Data Center 2007).

[2]This change could be described as a change in institutional logic (Friedland and Alford 1991, Glynn and Lounsbury 2005) away from museums as historical repositories toward museums as attractions.

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