ONE DAY, TEN YEARS AGO

SEPTMBER 11, 2001
BATTLEGROUNDS, BURIAL GROUND

AN INTERVIEW WITH PAUL MURDOCH AND WARREN BYRD.

BY ALEX ULAM
Pennsylvania is strewn with battlefields from the Civil and French and Indian War eras. Now, a memorial is being designed here to commemorate what is probably one of the country's most critical battles in the war on terror.

It was here on September 11, 2001, that Al Qaeda’s plan to knock out the U.S. Capitol ended infernally on a bright sunny morning at the site of a junkyard and former coal mine. When a group of passengers aboard the hijacked Flight 93 learned that Al Qaeda terrorists planned to turn the plane into a guided missile, they decided to fight back. One of the passengers, Todd Beamer, shouted, “Let’s roll.” And with that, a group of them stormed the cockpit and engaged the terrorists in what they surely must have known would be a fight to the death. At 10:03 a.m., Flight 93 slammed into the ground at over 500 miles per hour, but the U.S. Congress, which was in session at the time, was saved.

Ten years later, there is little physical evidence left of the crash at this relatively remote rural site. Most of the memorial landscape, designed by Paul Murdoch Architects and the landscape architect Warren Byrd, FASLA, a principal of Nelson Byrd Woltz Landscape Architects, has not yet been built. A lot of the work thus far has involved just clearing the junkyard and remediating land from the degradation it suffered during its days as a coal mine. However, there are plenty of daily visitors, including large gangs of middle-aged motorcyclists and young tourists with foreign accents. They come to read excerpts from the flight recorder and look at the photographs of Flight 93 passengers plastered across a wall inside an interim visitor center. Currently, the other main activity at this historic site is a short walk along a path that ends at a fence at the edge of a large grassy hill. At the bottom, workers are busy getting the first phase of the site ready for this coming September 11. Here you can see diminutive figures in the distance planting trees and setting black concrete slabs for a plaza that will overlook the barren expanse of ground where Flight 93 crashed.

The design of this place has not been without controversy. When the plan was unveiled, then-Rep. Tom Tancredo (R-Colorado) angrily attacked its crescent-shaped allée of trees, which he said was a gesture of sympathy to the Islamic terrorists. But for one of the most important constituencies, the families of Flight 93 victims, the design works.
On a recent trip to interview Paul Murdoch and Warren Byrd, I had a chance meeting with a frequent visitor to the site, David Beamer, Todd Beamer’s father, who had driven up from his home in Maryland. He is a ramrod-straight, balding man dressed in a blue blazer, and his watery, intense eyes betrayed a decade of suffering. He took a few minutes from his pilgrimage to give a critique of the Flight 93 Memorial design inside a construction trailer. “It is absolutely appropriate: It is serene. It is reflective. It is high quality,” he said. “This place used to be a strip mine and nasty junkyard with rusting equipment. But now this project is reclaiming and reconstituting the space and the landscape with some of its original elements of wildlife and forestation. It is being reconstituted and at the same time preserved as a special place which is both a battleground and a burial ground.”

After a firm handshake, Beamer left and the memorial’s designers filled in the details.

ALEX ULAM: How did the plane’s crash affect the site?

PAUL MURDOCH: The crash occurred at the edge of the bowl, just in front of the hemlock grove. There was a mining headwall that was buried just in front of that grove, and apparently the fuselage hit the relatively soft ground in front of the headwall. The impact broke the fuselage and the plane just obliterated. The resulting incineration of the plane was absorbed by the grove. All of the fuel started burning and a lot of the trees were damaged.

ULAM: What happened to the site in the months after the crash?

MURDOCH: In Pennsylvania, the coroner is responsible for the forensics of a criminal scene, which they [law enforcement authorities] declared this to be. The area was then fenced off, and the coroner’s office conducted the forensics operation with the FBI and others to retrieve the transponders, the boxes. The crash site was extensively excavated, creating a giant crater. Afterward, they got the flight recorder boxes, filled the crater back up, and restored it to a condition that was as close as possible to what it was before the crash.

ULAM: I understand that the crash site is being called the Sacred Ground and that people will not be allowed access to it?

WARREN BYRD: Today, when you look at the crash site, you don’t see much physical evidence of the crash except for the damaged grove of hemlock trees. The grove is a bit hollowed out because the trees that were damaged in the crash were taken down.

But the public won’t be allowed to go into the grove or onto the crash site. A hemlock grove is a pretty delicate ecosystem. It is a shallow root tree. Another reason that you don’t want the public in those sacred grounds is that the literal crash site is not being marked, and people wouldn’t know what to be looking for.

ULAM: What inspired you to enter the design competition?

MURDOCH: I grew up outside Philadelphia, so I knew this landscape a little bit from camping here. It is a landscape that was always a special part of growing up, and we wanted to do something after 9/11 to contribute something, even though it seemed to be a pretty landscape-oriented project.

ULAM: It is interesting that this project is more focused on a landscape than it is on a statue or a structure.
SITE PLAN

1 GATEWAY
Tall enough to be seen from the highway, the Tower of Voices, a concrete structure finished with white mosaic glass, marks the entry to and exit from the park.

2 APPROACH/RETURN
A two-lane approach road and a one-lane return road allow visitors to drive to a parking lot near the crash site.

3 BOWL
This circular landform is bounded by 40 groves of trees, which commemorate the passengers and crew of Flight 93.

4 SACRED GROUND
The final resting place of the passengers and crew of Flight 93 is protected by a sloped wall and a small moat.

5 PERIMETER/VIEWSHED
Existing tree coverage along the park perimeter is preserved and amended to maintain views to and from the memorial and also to decrease disturbance from outside the park. In their restored state, these woodland buffers will serve as a stunning example of the Laurel Highlands.

IMAGE CREDIT
Paul Murdoch Architects

OPPOSITE
Left is an aerial photograph of the site from April 1994. Right is the site in June 2011.

IMAGE CREDITS
© 2011 Google, opposite left; Courtesy of Arrow Kinsley Joint Venture and LR Kimball, opposite right.
MURDOCH: Any architectural expression would have been dwarfed in the landscape, and that became very apparent as soon as we started looking at the documentation of the site. So the first thing was to recognize that we needed to work with the land and that would be part of the expression—and we wanted to do something heroic. It is not like most memorials are not made with landscape elements, but we are basically designing an entire landscape as the memorial.

Another thing was recognizing how large the land area was for the park. It was 2,200 acres. So the strategy was never to treat the whole park formally but to pick our spots, if you will—to have some intensive areas of memorial expression.

ULAM: How did the National Park Service decide to make such a large park for the memorial?

MURDOCH: They wanted to preserve the crash site. But there is also the graded area around it that needed to be part of the park, which is where part of the debris was reclaimed from the flight. And then there are these overlooks—they [the park’s planners] tried to keep in mind the viewsheds around this site as well.

ULAM: Can you discuss the design of the memorial?

MURDOCH: It is really a sequence of spaces through the landscape that help prepare the visitor for ultimately arriving down at the crash site, which was always the focal point of the park for us. Recognition of the flight path also was part of the initial design. We wanted to have a more intensified area of color that was native at the crash site. We had wanted to create a formal edge to that space, a kind of big embrace at a heroic scale. There is a cut through for the flight path, along which the main entry walkway runs, with a view down to the crash site below.

Along the edge of the crash site is a plaza with a sloped wall, which is designed to create this intimate relationship of the visitor to the site. It is a barrierlike as we could make it, so the space can flow. Behind it, we designed a planted moat, to discourage anyone from climbing over.

We also have a wall with a gateway at one of the plazas with panels, each of which is inscribed with a name of one of the victims.

ULAM: There was a committee of family members and other stakeholders. How did they influence the design?

MURDOCH: We chose to have this intensive area of wildflowers and bulbs at the crash site so that there would be color from May through late September and early October. And there will be wildflowers throughout the meadows. But we had wanted to have a more intensified area of color that was native at the crash site. At some point relatively late in the process, the Park Service solicited the families' input on that, and the families overwhelmingly wanted to keep the site as it is. We had been planning on working with the layer of top soil that the coroner had placed over the debris field, but even that act of planting bulbs in the top layer was disturbing.

BYRD: It was similar to the emotion of some of the families in New York. They wanted the site to be raw, and the challenge was to try to explain to them that this site will change. You have to either manage it in a certain state or it will evolve. They struggled with that because obviously they prefer no disturbance. Even moving it is a disturbance—it is the difference between the immediacy of what happened and that memory, versus looking ahead 50 years, and that is the hard thing for the families to do. But we are trying to look 50 years ahead.
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ULAM: There was a committee of family members and other stakeholders. How did they influence the design?

MURDOCH: The families wanted it to be very much a part of the park, but they also wanted to preserve the crash site. They wanted to have some kind of barrier, but they didn’t want it to be too intrusive. The committee worked closely with us to make sure that the design was in keeping with the site and the families’ wishes.
ULAM: So won't the crash site become overgrown?

MURDOCH: I think that visualization of the crash site changing was not possible for the families at the time. At this point it is going to be the way it is right now. There is no intention of seeding or planting bulbs in that area, but around the upcoming September ceremony, they [the National Park Service] will cut the grass down and tidy it up a little bit.

ULAM: Were there other possibilities for redesigning the crash site, and what was it about your design for the crash site that the families found objectionable?

BYRD: There was a discussion about it being a lawn. But we all decided that was too pristine or too manicured. We all felt like a natural meadow that emphasized native wildflowers could have its own natural beauty and would be more fitting for the scale and character of this place, but even that was potentially too beautiful—in other words, the beauty was almost disturbing to the families because they don't see a beauty there.

MURDOCH: There is a difference between trying to make it beautiful and trying to make it pretty. On the one hand people don't want to sugarcoat it. They do not want this thing to be made to look pretty, overlooking what really occurred there. On the other hand, it is the final resting place of these people. They [the families] want it to be beautiful.

ULAM: I have read that one of Warren's contributions was adding 40 groves of trees to the design to honor the 40 victims of the crash, whereas initially you had wanted 40 trees to represent the victims.

MURDOCH: We did not propose 40 trees, but a large curving gesture, embracing the field with trees. In the site plan, we showed a wide swath, but in our initial rendering we showed a walkway with a single row of red maples that curved from the flight path to the wetlands. One of the first things we started to work on after Stage 1 was the widening of that element. It was a recommendation of the Stage 1 jury if I recall correctly. When Nelson Byrd Woltz joined our team, we were able to visit the site again to discuss how to best do this. We knew we wanted a formal arrangement of memorial trees along the walkway, which would also be buffered by an outer zone of trees in the winter.

BYRD: We wanted to go with 40 groves, but even that wasn't enough, and this is still a very windblown landscape. So we felt that it needed another layer, which is essentially a reforestation layer outside of that. So what is interesting is that, as it evolved, we go from a one-species allée of red maples to a multispecies grove, which gives way to a very diverse reforestation area.

MURDOCH: There is a certain amount of concentric design and a certain amount of radial design. We were trying to figure out how we were going to subdivide this walkway, which is about a mile long, so we started talking about different ways to do that,
and then Warren suggested groves, and we took a few seconds to agree to that.

**BYRD:** One of the things that is a little hard for a lot of folks to get their arms around is this notion of this very formal planting in a national park—the nature of it as a memorial. On the other hand, there is a progression from this very formal framing of a space with the allee of trees into the diversity of the grove.

**ULAM:** What types of tree species did you use, and what influenced your decision?

**BYRD:** Originally the groves were going to be just two species—red and sugar maples, because sugar maples are wonderfully colorful and they grow around here. But the Park Service was very concerned with the issue of diversity right from the start, and they wanted an even greater diversity of species. From our point of view, too much of that was going to destroy the design integrity. So in the end I think that what we have is a solution that we feel good about, because it has that integrity on the interior and a different kind of integrity as you move away with more emphasis on that diversity of species.

**ULAM:** How did the soils from the old mining operation affect your choice of plantings?

**BYRD:** The soils are the biggest challenge because they are much more impoverished than normal. They are generally more acidic and have very little organic matter. We worked hard to change and modify the soil in the vicinity of where the trees would grow. And there has been discussion of having an on-site nursery for replacement trees.

We still have sugar maples, but they are not as dominant as they were in our initial plans because we were not sure of their total reliability on this land. The challenge here is that we have to work with species that we think can adapt well. We spent a lot of time visiting nearby reforestation sites just to see what has done well, because one of the great things is that the state foresters have actually done experimental plots over the past 10 or 20 years. A huge amount of reforestation has taken place around here because of the mining. And we didn’t get access to that until more recently. So we have actually adapted our plant palette with that knowledge. Red pine—that is one species we initially had not stressed as much, and that is one that has done particularly well here.

**ULAM:** So will it take a while before your design really takes shape?

**BYRD:** One of the things we were wrestling with was the size of the trees versus the cost, the soil conditions, and the timing. So we initially looked at these somewhat smaller trees, and generally, with a challenging site, smaller trees will adapt better and more quickly than bigger trees. But we also knew that it was going to be two or three or four years before these trees filled out. Currently, within the allee and groves we are in the two-inch-caliber range.

I wouldn’t be surprised if when more money comes in that we will increase the size. And with Phase 1 we have put in much bigger trees. It had to do with the fact that it was going to open more immediately, and that with the site down below, if you put too small a tree, it wouldn’t look like anything. The bigger trees will survive. But usually the bigger the tree the longer it takes to adjust to a site—they will all go through a little bit of a struggle on a site like this because it is not what they are used to.

**ULAM:** Can you discuss the memorial as a work of landscape architecture and how it relates to other open spaces throughout Western Pennsylvania?

**MUDDCH:** They [the Park Service] anticipate a lot of the local folks coming to have a walk or take a bike ride. From a local point of view, this will be a real center. Even though there is so much open space around here, much of it is private property, and a lot of it is hunted.

**BYRD:** As a designed space, this is unique regionally. The Park Service has a presence here in Pennsylvania in smaller increments because of the history of a lot of the Civil War and French and Indian War battlefield sites. But those tend to be interpretive trail sites and visitor sites. Part of the longer vision we have had is that this is a national park. It is obviously about the memorial, but it is 2,000 acres, so there will be a time 50 to 100 years from now when people will be coming here not just for the memorial, but to experience the larger landscape. So all of that remediation and regeneration of meadow and forest has been part of the long-term thinking. However, for the foreseeable future, most people will be coming here because it is a memorial within a park.

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