BLAZING

The Mogao Caves, set near the ancient Silk Road city of Dunhuang, are an oasis of Buddhist art that evolved over many centuries. As professor and theater director Peter Sellars embarks on his most ambitious project to date—a ten-year study in and of Dunhuang—he returns to themes that have animated his long and storied career:



BEACON

that ideas and practices are shared across geographies and time, and that the art of performance can best reveal these living traditions. In the following text, Sellars tells Thomas Francis about his long-standing fascination with the Mogao Caves and his desire to bring the experience of the caves to a wider audience.



THOMAS FRANCIS How did you first learn about Dunhuang, and what was inspiring about it at the time?

PETER SELLARS Well, for twenty-five years I've been completely obsessed with one of the first Mahayana Buddhist texts, the Vimalakīrti Sutra, which probably dates in its worldly form from the first century A.D. It's the first of a new brand of sutras that was followed by the Lotus Sutra, the Flower Ornament Sutra, and the Amitābha Sutra, which are about getting Buddhism out of the monastery, out of the intellectual surround of pure mind theory, and moving it into a public space where a nonliterate audience can enter the highest levels of practice. The strategies are amazing, in the Lotus Sutra they almost read like supermarket giveaways—everything is like, "No matter who you are, no matter what you've done, you're already a Buddha." That's extremely different from the long, complex, straight-and-narrow path of the earlier texts.

The Vimalakīrti Sutra is quite entertaining. Like most of the sutras it's in dialogue form: every time there's a sutra it's because Buddha has gathered a bunch of people to teach them something, or a bunch of people have gathered to ask him to teach them something. In fact one of my favorite parts of every Buddhist sutra is chapter 1, because it's ten pages of guest list. Every time Buddha speaks, everybody is there, and they're from all the worlds: animal worlds, spirit worlds, human worlds, gods and demigods—everybody is assembled. That for me is one of the most moving things: understanding that wherever you are, all the people you admire are present—Martin Luther King is standing right next to you. If you have one beautiful, positive, inspired thought, if your mind is directed positively and you're focused on doing something of benefit to other human beings, you're not alone.

In chapter 2, Buddha tells his disciples that there's a businessman, Vimalakīrti, who is sick, but they can learn a lot from him because he's very wise, so they should go visit him and offer him comfort. The disciples refuse to go; they're offended by this guy Vimalakīrti. It's very moving: if you're serious about Buddhism you renounce the world and devote yourself to spiritual practice, so the idea that this guy is both a businessman and has spiritual teachings to offer the disciples is a stunning reversal. Finally Buddha says "Just go." So they arrive, but their heads are too big to fit into Vimalakīrti's house, so one of the first miracles is performed to reconfigure the architecture so that the disciples can all fit inside [laughs]. Then they're all sitting down, but they need to sit on lion thrones, so lion thrones are flown in from some other galaxy [laughs]. Then Vimalakīrti is lying on his sickbed, the disciples are sitting on the other side of the room, and finally Buddha's most famous disciple, Sāriputra, breaks the ice and says, "Okay, if you're so holy, how come you're sick all the time?" Vimalakīrti's answer is astounding: he says that all human beings carry with them so much pain—acknowledged and unacknowledged, spoken and unspoken—that the only way he can hear what they're trying to say is to be in more pain than they are. He can listen through pain to recognize what people are going through; his sickness is his Buddhist practice.

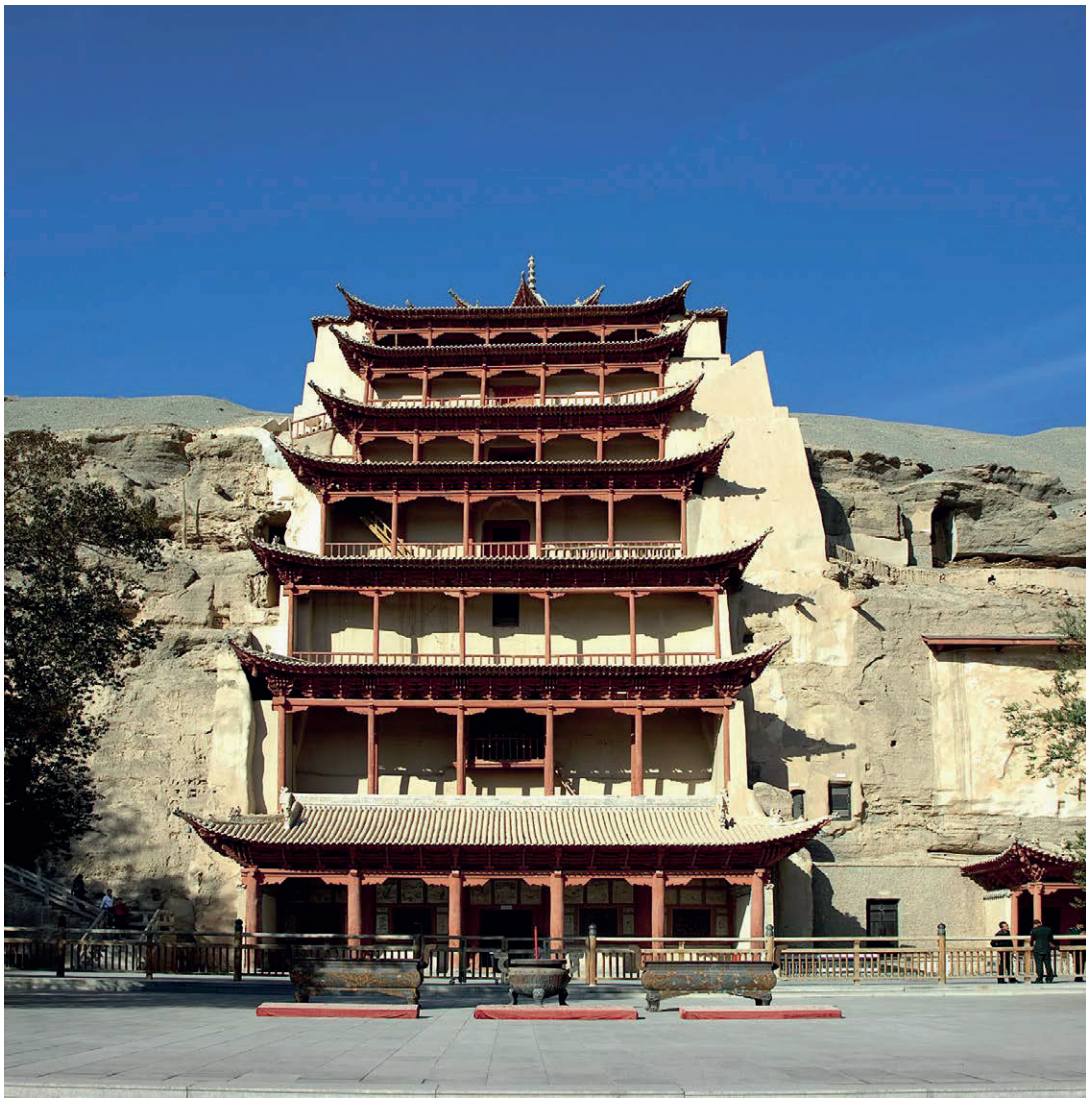
TF So the room is silent.

PS Right. Then in the next chapter, a goddess is floating around in the rafters of the newly enlarged room and she decides to drop in. Buddha's disciples are freaked out—they all say, "Get away, woman unclean, horrifying, stay back." She's in a very good mood, high hilarity, and she exchanges bodies with Sāriputra. The switch is a great theatrical moment, a kind of virtuosic and thrilling theater trick, and profound at the same time. Sāriputra is freaked out now that he's in a woman's body, so she says to him, "Still feeling unclean?" [laughter].

TF Bait and switch.

PS As far as I know, it's the first statement in all of world literature about the equality of women. I don't know of anything else before the first century that just lays it out with that kind of vividness [laughs]. Then a few chapters later it's five minutes to noon and Sāriputra panics, he says, "Oh my god, we're going to miss lunch," because as a Buddhist monk you have to go out begging for food and eat by noon, and then you're not allowed to eat for the rest of the day. So they're going to miss lunch and Sāriputra is freaked out. Vimalakīrti says, "Dear Sāriputra, have you come here for spiritual teaching or for lunch?" There's lots of comedy in it.

So Vimalakīrti sends for takeout, a billion galaxies away, where there are these beings who live only on perfume. It's an entire world of perfume and magical fragrance. The perfume people travel a billion galaxies to Earth in less than a second, they arrive with takeout, and everybody is given the perfume feast. It's the best meal they've ever had. Then the perfume people start sniffing around. They notice that everything on Earth is dirty and smells bad, and they say, "How can you people live here?" So Vimalakīrti does this amazing teaching where he explains to the perfume people that they live in their sublime gated communities of perfection, but here on Earth people have to deal



Previous spread:
The Mogao Caves. Photo by Mick Roessler

The Nine Story Temple at Mogao, a UNESCO World Heritages site in northwest China, with sand dunes on the plateau above the cliff. Photo View Stock/Alamy Stock Photo

Opposite:
The Mogao Caves can be seen from a distance. Carved into the cliff face, the site sits along the Daquan River and is surrounded by desert. Photo View Stock/Alamy Stock Photo

with bad smells, dirt, inadequacy, anger, and therefore they have to learn to practice compassion and understanding and wisdom and love. In this way life on Earth is actually superior to places where life is easier.

Anyway, the whole sutra has these amazing reversals, these miracles, this unexpected humor. The high goes low, the low goes high. I've always wanted to stage it. For twenty-five years I've been collecting books with images of the Vimalakīrti Sutra, and most of them turn out to be, of course, in the Dunhuang caves. I was assembling an entire shelf of books without ever quite putting it together that all roads lead to Dunhuang [laughs].

The Getty Conservation Institute in Los Angeles has been working with the Dunhuang Academy on the protection and preservation of the caves for twenty-seven years. In the summer of 2016, the Institute and the Academy, together with the Getty Research Institute, mounted a stunning exhibition: *Cave Temples of Dunhuang*. As the exhibition was taking shape, I was able to be part of a series of encounters with the curators and was invited to imagine some of the ancillary programs. This was the first moment when it occurred to me that I could actually visit Dunhuang—that it was a real place, not just a shelf of books, and I began planning my own projects.

TF Tell me the history of the Mogao Caves in Dunhuang.

PS The history of the caves lies in their geography. For many centuries, anybody going in or out of China—from or to India, Iran, Greece—had to go over what's now called the Silk Road. And the whole world was being invited to China, particularly during the Tang Dynasty, because it wanted the best of everything, whether it was spices or fruits or slaves or lapis lazuli or horses. Buddhism was one of those things. People in China recognized that there was something in India—something outside of their culture—that they needed. The arrival of Buddhism, which happened over several centuries, came over the Silk Road. You have this path that goes between two deserts, the Taklamakan Desert and the Gobi Desert, with, in the middle, an oasis town, Dunhuang. It was a treacherous path because the desert dunes are shifting all the time. Entire caravans were just erased.

TF Was Dunhuang ever threatened by that?

PS The dunes are right on the edge of Dunhuang, and that's actually part of the story. Once people made it through the Taklamakan Desert they'd want to offer a prayer before going through the Gobi desert, which is a little less friendly because it's volcanic ash, so it's gray and austere and quite terrifying. So for the offering of those prayers, there began to be a carving of caves in a cliff face at the edge of a river about twenty miles outside Dunhuang. This was around the fourth century A.D.

Interestingly there's a tradition of Buddhist rock-cut temples in the same formation in India, in the Ajanta Caves in a cliff above a river bend. There the rock was such that you could carve into it, so there are these amazing Buddhist sculptures emerging from the rock. The sculptors could not make a mistake, because they couldn't put back the rock that they'd just chiseled out. There was a tradition of three prayers to every chisel stroke, because they had to be totally concentrated; so their carving was a spiritual practice. In Dunhuang, farther along the route, the rock is crumbling, it has no substance, so they couldn't carve, they had to paint. They'd carve out caves, plaster them, then paint on the plaster surface.

This was China's westernmost frontier, and it was a very violent time; the area was quite contested. Tibet ruled Dunhuang for a period in the eighth and ninth centuries. And the caves reflect all of this in an interesting way. The interiors of the caves were carved out and plastered as if they were textiles—the walls are deliberately supple, they have a little bit of curve to them, and textile patterns are painted all over them, so you're surrounded by wall hangings, tassels, and banners. When you enter a cave it feels like you're going into a tent. In the middle there are four ceiling pieces that go up to a point, and always in the center you see Buddhism's seven heavens going up. It's bizarre—you come across the desert where there's no color, only scorching sand or volcanic ash, and suddenly you enter this cool dark place of magical color. Every surface is painted with astonishing images and fields of color.

TF How many of these caves are there?

PS About 500. You can't generalize about them, either, because they represent hundreds of years of the evolution of Buddhist iconography. In the early phase of Buddhism, as in the Hebrew and Islamic traditions, it was forbidden to show an image of Buddha, so Buddha is represented as a tree, a wheel, or a pillar. Later we get an anthropomorphic image of Buddha that comes to China by way of Greece through what is now Afghanistan, is transformed in Gandhara and Indian art, and then takes a Chinese form, and you can watch this morph ethnically and culturally across the centuries in the Dunhuang caves. Some of the earlier caves have fantastic examples of Buddha sitting with a kind of amazing Jimi Hendrix psychedelic nimbus of flames of inspiration in fourteen colors, and next to Buddha are Shiva and Ganesh, and on the other side is Brahma, and above them is the Goddess of the East bringing the sun with her in a chariot drawn by geese, and above them are all these Chinese weather gods, gods of thunder, gods of rain,



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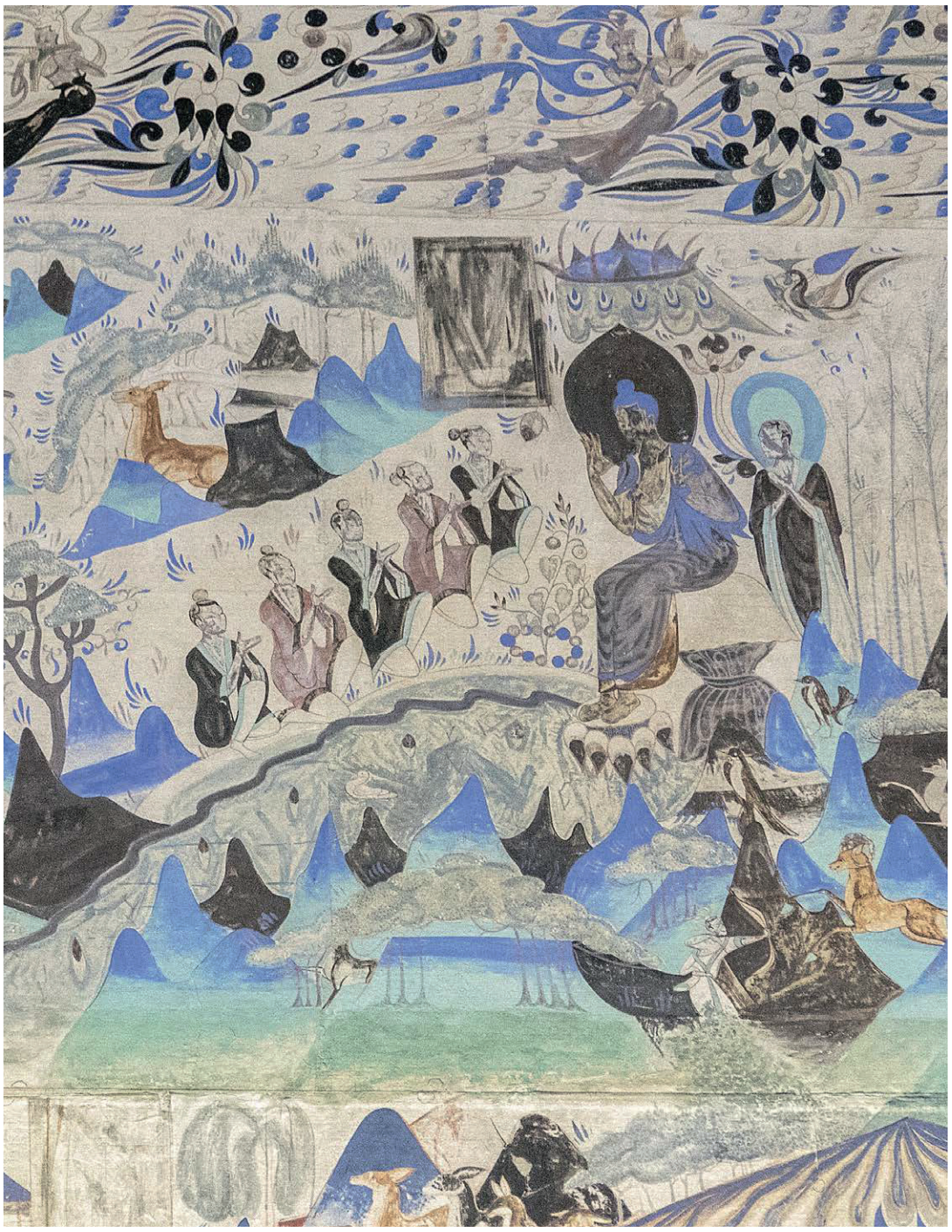
Peter Sellars

gods of lightning, and also the god who introduced architecture to China. So there's an amazing simultaneity of interlocking cosmologies, where all of these traditions are present simultaneously in the same cave, and are not at war but are mutually supporting. That is so moving to think about at this moment in history right now, to see multiple traditions that aren't canceling each other out but deepening each other.

TF How are the caves generally laid out?

PS In most of them you enter through a central portal. Typically there was a first vestibule room and then a deeper chamber, but because of centuries of crumbling and earthquakes, most of the vestibules have fallen off and only the deeper chambers remain. But what's very powerful is how it's a totally immersive installation work—the ceiling is alive, the side walls are alive, the wall in front of you is alive, and the wall behind you is alive. You're in a 360-degree experience of an expanding mind. The walls all illustrate Buddhist sutras or stories of Buddha's previous lives. Reading them you're overwhelmed, every wall is packed with layers of information—gods, goddesses, divine beings, mortal beings, beings in transformation.

Scholars still haven't decided what these caves were used for. I think they were used for performance, to gather people for sutra readings and



chanting. As in any liturgical religious practice, you're repeating something hundreds of times in order to deepen your perception of reality.

In Cave 85, when you turn to go back out into the world—this blazing hot sun—the wall that's been behind you as you've been looking at Buddha, depicts Vimalakīrti and Manjushri, who engaged in a famous debate about how you can best represent perfect Buddhist realization. The imagery in Dunhuang is incredible: Vimalakīrti and Manjushri are in a pavilion in a garden. The debate reaches this incredible moment where they're going back and forth, and Manjushri finally says, "So how could you describe perfect realization?" Famously, Vimalakīrti is silent. . . . And then Manjushri says, "Oh my god, you've won the debate. Silence is the only correct description" [laughs]. So when you leave this spiritual cave to go back into the world, the door you walk through is the silence between Vimalakīrti and Manjushri. Then you step back into the sun, sand, and desert.

TF We were discussing earlier this idea of discovery through journey in the context of the Isra or Night Journey, one of the Islamic revelation miracles, in which the Prophet travels in the space of one night from Mecca to Jerusalem, and thereon through many heavens, meeting angels and prophets along the way. There's a particularly exquisite fifteenth-century Timurid manuscript of this myth, held in the Bibliothèque nationale, that's apparently heavily inspired by the Dunhuang murals.

PS Yes, the idea of the wisdom that comes from journeying, from moving your body through a pilgrimage, through geographies, through cultures—that is the power of the caves. I want to create a modern response to them, a series of discrete but linked art projects involving collaborations between filmmakers and poets, dancers and sculptors, installation artists and musicians. They'd be about multiple art forms and cultures, cultural positions in dialogue.

TF Only composite art forms could properly respond to this composite civilization.

PS Exactly. One of the most important things we've been talking about with our Chinese partners is that our interest in Dunhuang is our interest in Los Angeles—what we're interested in is art on the Western frontier. We're interested in a city that is an immigration capital, and in the flow-through of different peoples. Los Angeles is actually a great way to think about Dunhuang and Dunhuang is a great way to think about Los Angeles. The caves at Dunhuang are fragile and remote. To create a body of work that isn't situated in the caves anymore but that is able to move itself across the world, to be seen in a range of cultural capitals or in extremely remote locations—that's very exciting. The idea is that this project is ten years of commissioned work by teams of artists from Africa and from Russia and from China and from Peru. It's a conversation about no fixed points, but rather about what kinds of dialogue are possible between art forms and cultural vantages.

The Dunhuang caves are a UNESCO World Heritage Site, you can't meditate in them. You have a security guard who looks at your little slip of paper and then goes and unlocks the padlock on the metal doors that cover the cave, and then you have fifteen minutes. The caves are cold and sandy and don't have lovely textiles, incense, or meditation cushions [laughs]. You're not invited to spend three days reciting a sutra [laughs].

TF So everything has to be transposed elsewhere, because that's where those conditions obtain.

PS Exactly. When you're in Dunhuang you have to imagine, "What would the sensory experience have been?" Because the caves must be protected, you can't imagine those possibilities there now, so you need to create other places that begin to respond to what they might have been, and also to now. It's a way of creating a body of work that is forward looking and that has some spiritual immanence and challenge to it.

So the attempt is to try, every May and December, to take a trip with twenty-five to thirty artists and historians to experience the caves—ideally a really interesting group of people, all of whom will see radically different things and have very different experiences from each other in the caves. I just returned from the first of these trips and I have to say the discussions were just thrilling, because being in the caves with people this rich in perceptions and backgrounds is quite astonishing. You get new insights that you can't get from art-historical literature. That literature is absolutely involved with answering important questions, but the caves are asking larger questions. First of all, they're asking for knowledge of the Buddhist sutras, and that's very powerful. When you walk into a cave knowing an actual sutra, the cave speaks back to you,

Wall painting in Cave 285 (detail). Mogao Caves, Dunhuang, China. Photo by Zhang Peng/Contributor

Opposite: Reclining Buddha in Cave 148, Mogao Caves, Dunhuang. Photo by Sura Ark

and the sutra takes astonishing new forms.

TF Will it always be the same protagonists?

PS No, every trip will be different people. We're all being challenged by the incomprehensible, the transcendent, the beyond, the world of what the Vimalakīrti Sutra calls inconceivability. That's a really thrilling place to be with a bunch of artists.

TF Will Dunhuang be your major preoccupation? How do you see it bearing on the other work you're doing in Europe and in the West?

PS I've got to clear my schedule and make ten years of effort focused on a concentrated set of projects. I want to make it a series that could one day be assembled in some contiguous way, but for now they all have to be considered and financed and logistically arrived at as separate units. Maybe one day in the future they could actually be joined together to create one epic picture.

TF Do you have any preconceived ideas of what you're looking for? Any parameters?

PS I don't want to say there's a protocol or procedure, but maybe the projects do inform each other, and maybe that turns into some kind of dialogue. The artists are all so different from each other, and what's so cool about artists is that they will always do something you didn't expect—that's one of the most thrilling parts of working with artists. We're taking a big step into particularly unknown territory and it's an unlimited field. That's a very exciting space of political possibility, of spiritual possibility, of cultural possibility.

TF You say you're going to invite dancers, performance artists, visual artists, musicians, and academics. Do you see merit in bringing practicing Buddhists to Dunhuang?

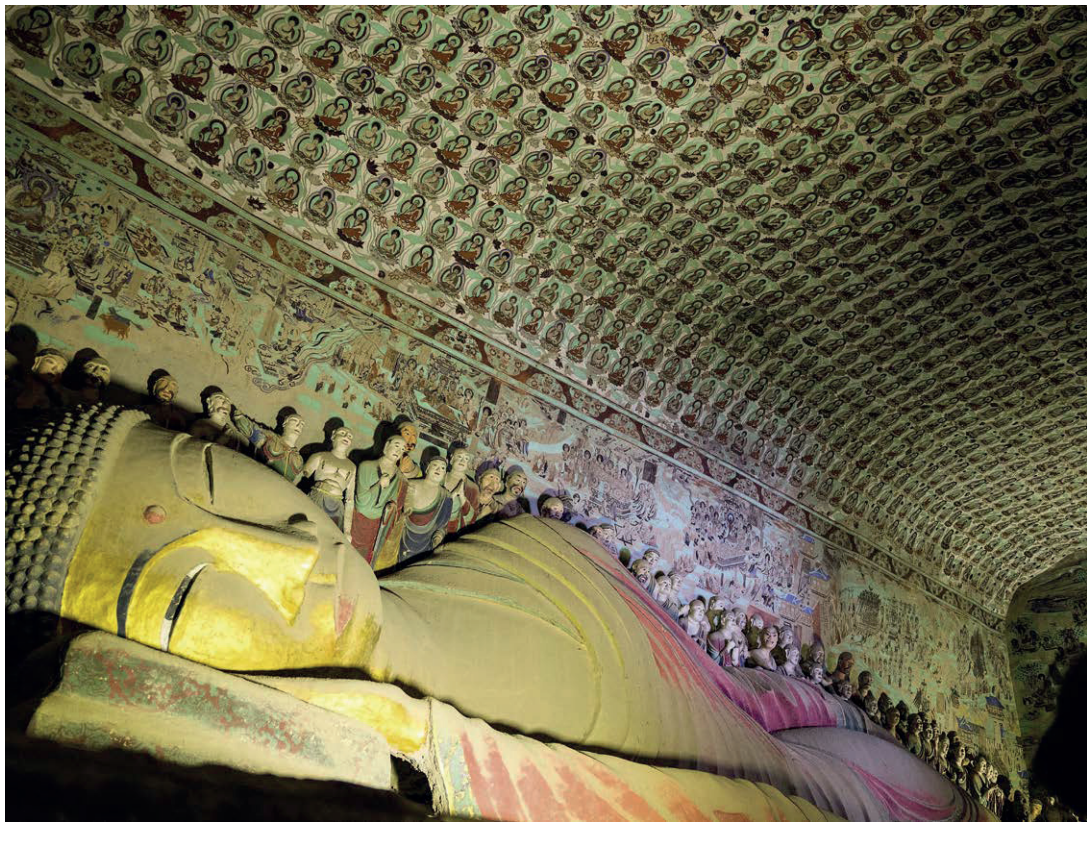
PS That's very important. Every group will include practicing Buddhists. That's made more complex by the fact of diminished practice of Buddhist traditions in China for many years, so Buddhist art isn't immediate for most people who have grown up in China. It's also not the primary focus of most art-historical writing. We need to make sure that every group includes practicing Buddhists who understand what the caves represent as a ritual, not just as something you read but as something you have to internalize in your body.

TF How did the Getty's exhibition treat the caves?.

PS The Getty did something quite amazing. What's powerful is its sense of the way in which this material has to be reexperienced. A generation of Chinese artists went to the caves in the 1940s and started to preserve them. They had different ideas of preservation than we do now, and some of the overpainting and other things they did had to be undone, but one of their most powerful ideas was to make replica caves. They recognized that the caves are fragile and should not have visitors, should not be disturbed. So what they started doing—and they're still doing this in Dunhuang eighty years later—is creating replica caves that you can see in their museum. The replica caves have no time limits on your stay. Your presence, your breathing, isn't loosening the paint. There's a full program of students from the leading arts institutions in China who come for residencies to work on painting replica caves. There are artists in residence—some of them have been there for thirty years—who are in charge of the initiative to create more replica caves. There are three caves right now in London at Prince Charles's School of Traditional Arts, and three caves came to the Getty.

It's very moving for me to watch the students painting. Every inch of these caves has been documented digitally but the digital documents have no *qi*, no spiritual energy, they don't breathe. These young artists use those images but work freehand, using a brush, mixing the paint, and making a gesture that is both very careful and precise but also free and genuine. Again, the process of making the caves was not a construction project, it was a spiritual practice. I have rather controversially announced that I preferred the replica caves to the originals, because the replica caves involve young people engaging in Buddhist practice right now. Buddhist practice has to be new every day, it has to be renewed at every moment. You can't just say, "Oh, these people in the fifth century did something beautiful." They have set the bar for you, and now you have to meet them at their level.

So I love the replica caves. I love that they're clean, I love that they're not dusty, I love that you can see really clearly what's going on in them, they're well lit, and that you can spend hours and hours in them. They're much more welcoming. But I also love that people in our lifetime have engaged in the practice. That's very beautiful.



THE CEILING IS ALIVE, THE SIDE WALLS ARE ALIVE, THE WALL IN FRONT OF YOU IS ALIVE, AND THE WALL BEHIND YOU IS ALIVE.

Peter Sellars

TF That's a common tension in archaeological and historic-preservation circles. There's a cult of authenticity.

PS Right. Western art distrusts copies, and of course in Asian culture the copy is the point. A copy isn't less valuable. We're so sure that there's this one moment of authenticity and everything else is the machine, mechanical reproduction. In fact, mechanical reproduction is one thing but reproduction by human beings is another. Even mechanical reproduction—when the subject matter is infinity, how can you have too many images?

TF Right. There's this presupposition that people are struck by moments of divine inspiration, like the angel of history flashing up.

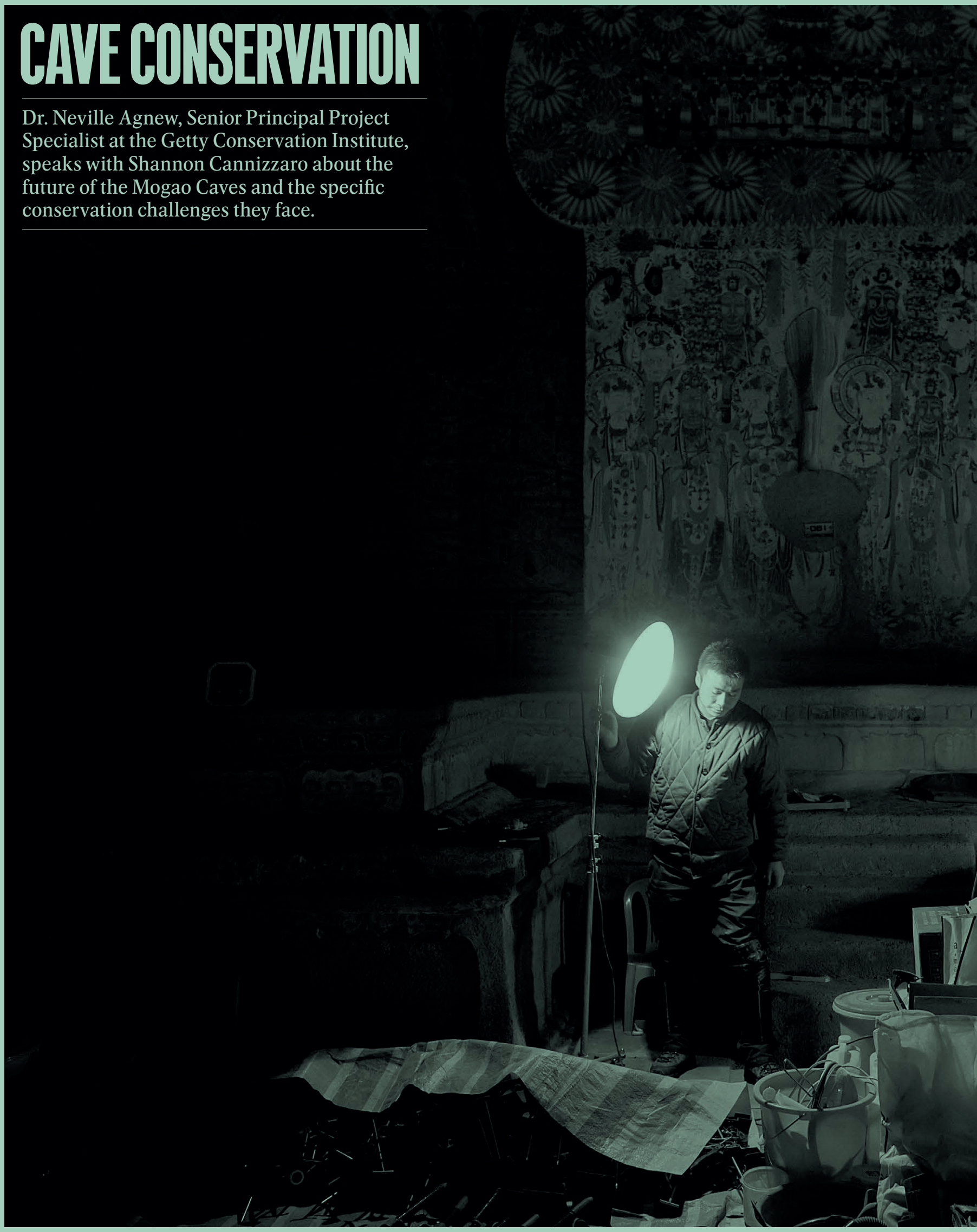
PS Jesus, Muhammad, and Moses were not just speaking to their own personal friends. They were speaking across all of history. These are spiritual traditions that exist outside of time. Our history is about dating something correctly, whereas the tradition itself is inviting you to experience time at a completely different level.

TF How do you think these caves can relate to people today?

PS Oh, they strike me as deeply exciting in terms of where we all are in the world right now, with all cultures on the move, with everything in conversation with everything else, with no purity available in any direction, and with all of our vocabularies morphing and trying to be more inclusive, trying to recognize what someone else is saying, trying to represent people who are not like you in your pain. And you're doing it because you're in their painting and they're in your painting, because you're in each other's lives. And because culture cannot be considered as a fixed point, but has to be considered as an open, evolving reality.

CAVE CONSERVATION

Dr. Neville Agnew, Senior Principal Project Specialist at the Getty Conservation Institute, speaks with Shannon Cannizzaro about the future of the Mogao Caves and the specific conservation challenges they face.





Shannon Cannizzaro: You have personally led the partnership between the Getty Conservation Institute [GCI] and the Dunhuang Academy in China since 1989. Can you talk us through the various stages of the Mogao Caves project over that nearly thirty-year period?
Dr. Neville Agnew: It's had many facets in that time. In the initial five years, the GCI and the Academy were focused on immediate issues outside the grottoes. The most important was that a tremendous amount of sand had blown from the dunes over the top of the cliff and was burying the entrances to the caves. The site was abandoned for centuries, from the Ming to the middle of the Qing dynasty, and there are frequent sandstorms in that area; during that time the sand buried the entrances of many caves. Thousands of cubic meters of sand had to be cleared away.

We also had to examine the geological stability of the cliff face, which is very soft rock, full of cracks. We began monitoring the cracks, some of which were opening due to earthquakes, which are a huge problem in that part of China. The cliff face and many of the caves are very susceptible to earthquakes. And we monitored and researched the color stability of the pigments in the wall paintings, studying how they aged under the influence of visitors and lights, and of the salts that come out of the rock into the clay paintings and destroy them. This is one of the big issues at the Mogao Caves.

That period culminated in 1993, when we held the international conference "Conservation of Ancient Sites along the Silk Road." After the conference we also began studying Cave 85, which I will discuss in more detail later.

Simultaneously, we worked with the Dunhuang Academy and others to develop a set of national principles, which we call the China Principles, for conservation and management of heritage sites in China. We think that's the most important thing we've done in China because now there are national guidelines for conservation and management. The principles were issued in both English and Chinese, and have been revised and reissued in both languages. As you can see, many initiatives were going on at the same time. They weren't sequential.

While we were studying Cave 85 and compiling the China Principles, we were also establishing a set of guidelines for visitor management. More and more people are arriving at the sites. When we first started, they might have received 50,000 visitors a year; today it may be more than a million visitors a year. There can be more than 20,000 visitors on the site at one

time. So we embarked on a very detailed plan for visitors and issued a book on that.

In early 2004, we held the "Second International Conference on the Conservation of Ancient Sites on the Silk Road." What we're doing isn't just technical work; it's scientific, it's research and training, it's analysis. We're looking at a comprehensive picture of the site. And then last year at the Getty Center we had the exhibition *Cave Temples of Dunhuang: Buddhist Art on China's Silk Road*. Everything we've done has been in collaboration with the Dunhuang Academy and with the full support of both the national authority in Beijing and of the provincial authority in Gansu.

What are the key goals of the project?
There are multiple goals, but the overarching goal is to provide support, guidance, and training in China—and specifically at the Dunhuang Academy, which is responsible for managing the Mogao Caves and other sites—to take care of their historical treasures for the future. As such, the way we treat the Dunhuang sites serves as a model for other areas in China and stands as a kind of beacon, if you like, of a successful international collaboration. Our work in conservation, broadly speaking, which also encompasses management, is concerned with stabilizing and saving what is there and trying to slow deterioriation—it's impossible to stop deterioration, but we want to slow it down. So we're saving the authentic, stabilizing it, and trying to slow deterioration as much as possible.

You've already spoken of specific problems threatening the caves, including earthquakes, sand accumulation, and the influx of visitors. Can you talk about specific conservation problems that you and your team faced when you first started? I understand that some early conservation techniques were less successful than others.
When we began the partnership, one of the first problems we encountered was the belief that science was conservation and that all conservation was technical conservation, that conservation was fixing things, stopping things from falling apart. Some earlier conservation techniques were in fact harmful in the long run; we had to identify these and try to stop them. You need to understand what's causing deterioration before you can do anything. You should never go in blindly and concentrate on an adhesive or a treatment, because unless you understand the causes—I mean, a doctor doesn't give you pills of any old kind, right? The cure needs to be related to the underlying problem. Diagnosis is everything. And in the case of conservation, you want to test your methods before you apply them. So testing, research, more testing, diagnosis. The mantra is to do as little as possible.



Previous and this spread: Technicians work to restore the Mogao caves in Dunhuang in northwestern China's Gansu province, May 2013. Photos by Ed Jones/ AFP/Getty Images

So you must learn as much as possible about the site before you begin?
Yes. Of course you do what has to be done for conservation, but you never act in haste. Conservation intervention is the last thing you do, not the first. There's no one universal material that's good for conserving wall paintings. You have to understand the problem, and you have to understand the properties of the material you're proposing, you have to test them.

Have the goals for the caves' conservation evolved over time? What are some of the future goals for the site?
No, I wouldn't say they've evolved over time, but they've had to adapt to the changing realities there, mainly in response to increasing tourism. It's not just a question of crowding, it's the impact of visitors on the grotto environment itself. For example, we found that if it rains, as it sometimes does in the summer, the outside humidity rises. If the doors to the caves are opened and visitors go in and out, that humidity comes in and is absorbed by the salts in the wall paintings, causing them to dissolve. When the air dries out a few days later and it's a normal desert environment again, those salts recrystallize. If you shine a strong flashlight on the paint you can see them glinting in the light, disrupting the surface. It's like a cancer affecting the wall paintings. So that's why we had to understand the salts and the impact of visitors—an indirect impact in this case, mainly when the outside humidity is high. From there we can determine what management interventions to put in place as a response. One example is to have environmental monitoring to know when the critical humidity of 67 percent is reached, and then those caves that are particularly susceptible to salt damage through recrystallization have to be closed to visitors. Cave 85 is an example of this case; terrible salt damage has occurred there. So you can see how research plays into the policy and the decision-making that management has to put into place for good preservation.

Flooding has also become a more serious threat to the caves. In the last five or six years, there have been two or three major floods. Fortunately they didn't do much damage to the caves because there's a big channel outside for the river, and it's almost deep enough, but flooding did sweep away the bridges and railings and almost got into the caves. This may or may not be right, but we think it's a climate-change-related issue.

I wondered if you and your team had seen any growing threats to the caves as a result of climate change.
Yes, we think it's very likely. But we must remember that climate change is difficult to discern, especially when you're looking at what might be normal variability over a short period of time.

Another threat that the Dunhuang Academy is facing is development

in proximity to the site. When we drafted our master plan, we requested that a big buffer zone be applied around the site. The new exhibition and visitor center is actually about ten miles away from the site. Visitors go there first and then they get bused to the site.

What is a day in your life like on this project?
[Laughs] It's been very variable, I must say. When we were working on Cave 85—I should say that I never did any wall-painting conservation work myself, I'm not trained in that—but I would go into the cave and discuss management issues with the wall-painting conservators there, document and record the visitor flow, look at environmental monitoring data, hold meetings with people from the Dunhuang Academy, decide on next actions. Then as a way to enhance the collaboration, we would invite the Dunhuang Academy staff to come to stay here in LA with us—it improved their English, allowed them to see how we work here, and, very important, it cemented bonds of collaboration and friendship. So it was both diplomatic and practical.

Why was Cave 85 selected as a case study for GCI's restoration work? What was special about that cave?
During the first five years of our partnership with the Dunhuang Academy, we'd been focused on looking outside the caves, mainly to stabilize their structure and stability. Next we needed to look inside them, and that's when we chose Cave 85 as a model conservation project for the other caves. Remember you don't conserve first, you conserve last. So the very first thing you do once you've chosen the cave is document it. What's its condition today? You do that through photographs, drawings, and other techniques. You also look at the history of the cave, archives relating to the cave, earlier photographs of the cave. . . . you spend a couple of years amassing information, getting to understand your patient. The patient here was Cave 85.

It's a spectacularly beautiful cave. It had the scale, it had the beauty, it also had much of the original work. A great deal was known about it. Its date of construction was known. The ninth-century donors who donated the money for its construction were known. It's famous. There are photographs of it from the early days of the twentieth century. Essentially, it's a spectacular cave with problems symptomatic of the site. Those problems, once solved, could be applied more widely.

Were you involved in the replication of caves 275, 285, and 320 for the Getty's exhibition? Can you talk about the complexities of replicating these caves?
We chose them with the agreement of the Dunhuang Academy, which was responsible for their replication. We were not directly involved in that aspect, as they have a highly skilled set of artists at Dunhuang and a long tradition of copying the wall paintings in order to, first of all, study how they were done. That practice also allowed for alternatives should there be some catastrophic loss of some of the caves, through, for example, earthquake or flooding: they have copies. And they can send those copies, replicas, on exhibition elsewhere. You can't move the actual caves themselves, but you can send the replica, and that's what they do.

Was it difficult to bring these replicas to LA for the exhibition?
It was enormously complicated logistically. The replicas had to comply with safety codes in LA and the United States against earthquakes and wind. We had thirty technicians from the Dunhuang Academy come for about six weeks beforehand to put up the replicas and then come again for a month at the end to take them down. It was an amazingly complicated process but the exhibition was a great success.

We also had a digital reproduction of Cave 45, which was an immersive experience. You could wear 3D glasses and experience a seven-minute video in three dimensions. As such, we had four caves here, three real replicas and one virtual replica, in addition to a lot of rich imagery and loaned material from Dunhuang.

Can you discuss the measures that have been taken to manage future visitors to Dunhuang? As I understand it, a set of guidelines has been established for this.
The tourism industry in China is one of the largest in the world at present, and it continues to grow because the country has such a huge population. Today, with greater wealth in China, Chinese nationals can travel to Dunhuang by car, train, or plane. We've done work to establish capacity: we know that the caves can handle about 3,000 people a day easily and safely and without impact on them. With 20,000 people it's more complicated to manage, with overcrowding in the peak summer and holiday seasons and bad air quality in many of the caves. To give you a brief overview, the China Principles stipulates a comprehensive strategy for managing visitors and interpreting the site that would include considerations for a visitor center, methods of enhancing the visitor experience, and a reservation system to reduce crowding. Limitations on visitor numbers have been defined and applied to the caves.

That's very impressive, 20,000 in one day?
Yes, per day. This is often in the beginning of October. They're enormous numbers.

What are the next immediate steps?
In early September we did a training course with the Dunhuang Academy to help to disseminate the China Principles document. This was a China-wide training course, not at Mogao but at another cave site, Maijishan, also in Gansu Province and also a World Heritage Site under the authority of the Dunhuang Academy. Much of the methodology that we researched and applied at the Mogao site is encoded and enshrined in the China Principles, which are now going to be disseminated at Maijishan and other sites.

Do you have a lot of these training courses?
We don't, actually; this was a special one. And I should clarify that the China Principles isn't actually our document; we initiated it, we worked on both versions, but we wanted it to be a Chinese document. We've been involved in training courses from time to time. The reason we did this one with our Chinese colleagues is that it was really an opportunity to promote the China Principles on a wide basis, but actually it's not our business to continue running training courses.

In the same way, we're not going to do another wall-painting conservation project like the one we've done for Cave 85. We initiated that project with the express objective of developing methods, materials, practices, and policies for conserving a site that is representative of many other sites on the Silk Road. Painted on mud stuck on rough-cut walls . . . fragile hand-hewn caves with salt problems . . . these are unique characteristics of those sites in the Gobi Desert and beyond on the Silk Road. And GCI's concern is less with any one site than with endeavoring to identify and address the big problems in conservation. Whether it's technical conservation, analysis, research, or management, we really like to have a long-term impact. Otherwise there's no point in just conserving something. It might be fun while you do it, but without that larger framework it's probably going to—you know, just go to hell after you've gone [laughs]. We always make it a priority to try to put in place the sustainability aspects.



