

## Echoes of the Invisible by Jesse La Tour

Fullerton resident Steve Elkins has spent most of his adult life as a musician and filmmaker. His first feature documentary “The Reach of Resonance,” which took him ten years to complete, won the prize for “Best Film Essay” at Montreal’s International Festival of Films On Art. Elkins has recently completed his latest film, “Echoes of the Invisible,” which took him literally around the world and into the lives of scientists, monks, artists, and journalists to explore the search for silence in an increasingly noisy world.

Steve Elkins in Tuva.

I caught up with Steve recently (before the coronavirus pushed us all indoors) at Dripp Coffee in downtown Fullerton to chat about his current film, which was scheduled to premiere at the South by Southwest film festival this year, but then that festival was cancelled due to the coronavirus outbreak. It was recently announced that, despite the festival’s cancellation, “Echoes of the Invisible” was awarded the ZEISS Cinematography Award for “the very best imagery in storytelling.

I’ve seen a rough edit of the film, and it’s a masterpiece. Here’s a lightly edited version of our conversation:

Can You briefly explain the concept of the film?

The film became a reflection on the importance of silence and stillness in the digital age. Thinking about our relationship to technology at this point in human history, it’s a really critical moment. Technology is becoming increasingly, intimately integrated into our lives. We’re becoming dependent on it for so many basic things that we never depended on it before. We really have to ask ourselves some serious questions about what is being gained and lost in that process.

The film is intended to be pretty open in its stance. It’s not anti-technology and it’s not pro-technology. It shows some of the wonders of technology, like CERN’s Large Hadron Collider, a total scientific marvel, the largest machine ever created by human beings that, according to the people who use it, is allowing us to see the conditions of the first trillionth of a second after the Big Bang, to understand how everything came to be.

And likewise, there’s the technology used by astronomers in the film where they’re looking back into the furthest reaches of time and space. The first astronomy observatory I filmed at was ALMA in the Atacama Desert in Chile, which enabled astronomers to see a wavelength of light that had never been seen before—called the millimeter/sub-millimeter range of the color spectrum. They began to see parts of the cosmos that had never been

visible before—specifically the oldest and coldest light in the universe. ALMA is twice the size of the Very Large Array in New Mexico. Scientists are currently working on a much larger array in Africa that will stretch across like 8 countries.

ALMA in Chile.

So the film looks at the wonders of technology, but then also takes a serious step back to think about what we're losing through the use of technology. Hopefully the film illuminates some things that people haven't thought about before.

A major aspect of the film is the search for silence—meaning radio/TV/wifi/light silence that the astronomers need, but the film also focuses on various religious monks. Can you talk about some of those folks and the silence they're after?

I wanted to make the film a kind of large mosaic where it's not just following one particular person's story, but rather looking around the globe at how this theme affects people from all different professions or walks of life. So I made sure this mosaic includes scientists, monks, artists, journalists, athletes. I realized that they were all being affected by our connection to technology and the lack of silence we have.

In some cases it's literal silence—like the monks need literal silence to be able to look further inward and do the self-study and reflection they need to do to understand more about the human soul and brain, what they're trying to connect to spiritually.

But there are other people who need technological silence. There is so much information and noise that's invisible to our eyes, but that's flying through the air all around us, all around the earth, surrounding the planet.

So there's a double meaning to my use of the words "silence" and "noise." One is the literal, and one is the technological (radio, TV, wifi, etc.). Scientists are deeply affected by the amount of noise traveling through our stratosphere because it literally blocks them from seeing further into the universe. Likewise, for monks, if there's too much noise around, it prevents them from looking further inward.

The further I got into the project, I found that this also affected athletes and artists and, perhaps most interestingly, journalists. That was where the film really started to expand, when I brought in the Pulitzer Prize-winning journalist and National Geographic fellow Paul Salopek. He has devoted much of the rest of his life to walking across the globe from Ethiopia to the Southern tip of Chile along one of the migration routes that our ancestors took when they were first discovering the planet, when they were migrating out of Africa.

One of Paul's Pulitzer Prizes was awarded for his reporting on the genetic revolution in the 1990s, when a lot of this stuff in our DNA was first coming to light, when we actually could trace old migration patterns through markers in our DNA.

So he decided to take this pilgrimage because it's an exercise in what he calls "slow journalism." We have this sense that we're more intimately connected to the world than ever because of the internet and social media and the fast pace at which information gets to us—the easy access, the convenience. But Paul would argue that we are in many ways less connected to the world than ever before precisely because of the speed at which news is written and delivered to us—the need to have clickbait articles that meet the next

day's deadlines.

So "slow journalism" would involve taking a lot longer to tell a story that goes a lot more in depth than a quick overview?

Exactly. Paul felt that there were always a lot of gaps in his reporting because he would fly in and out of a place, or he would drive in and out of a place. But by slowing his reporting down to literally walking pace, about 3 miles an hour, that is the pace at which human relationships have primarily been formed for almost our entire history. That's how we've communicated with each other. By walking across entire countries, it not only slows him down to get more information, but to form relationships and connect dots that wouldn't be connected across the world if you were just flying in and out of a particular location.

The sense I got from watching the scenes with Paul was that even though it may seem like a very esoteric or academic thing he's doing, he's actually reporting on very pressing contemporary problems. Not climate change from a numerical standpoint, but how climate change is causing tribal warfare in Africa over resources, for example. Or the mass migration crisis, which is also a consequence of climate change and many other things. You hear about these things in the abstract in the news. I felt like Paul was doing some real current, relevant reporting, even though he's doing it slowly. It's not just some old pilgrimage he's taking, but he's being forced to confront these current problems.

Absolutely. Something that I really value in what he's doing is that it's both things at once—the ancient and the contemporary that he's connecting. So for example when he's walking through regions where there's a migration crisis or war zones, he connects that to the deep history of that region. What is there from the ancient past of this region that is still directly affecting this region today and continuing to cause problems, or how have things changed? So, it's really about connecting the present to the deep past, which I love. It was interesting to me that journalists need silence as much as monks and scientists because, in Paul's case, slowing down enough changes the story. It allows you to see something that was previously invisible, which is what connects all of the people in the film. Stillness and silence allow us to see things that were previously invisible, regardless of your walk of life.

I get better ideas when I'm walking.

That is something else that Paul talked a lot about in our interview. Walking is known to unlock all these things in the human mind and body that we don't even realize. It's not just a simple activity. There's a long history of, for example, poets and mystics throughout the centuries in all cultures, Christian, Islamic, whatever, who have talked about the connection between walking and unlocking the spiritual resources of the human spirit or creativity in artists. So it helps with all these things including journalism—you put the pieces together.

This even reminds me of John Luther Adams, a composer from my first film "The Reach of Resonance," who lives in Alaska. I remember when I was filming him, his composing studio was out in the woods, about a half mile from his home. So he would have to take time to walk to it, and walk away from it. And he said that most of the composing, most of the creative problem-solving, was done on that walk, not when he was in the studio.

I totally get that.

I told him I could relate to that too because when I'm working on my own projects, writing, editing, I would often get stuck on things I would only solve the moment I stopped thinking about it, and just started moving, just walking.

I remember you mentioning Paul Salopek wrote an article about his walk around the world called "What I'm Doing is Normal" where he talks about how, for millennia humans have spent a good deal of their lives walking. I liked that because as someone living in Orange County, when I tell people I don't have a car, they look at me like I'm weird. So I was very heartened by someone saying that actually walking everywhere is normal for humans. What's weird is sitting down in machines that move for us.

Exactly. This is a classic example of that whole theme of how our relationship to technology is making certain things invisible to us. It's "invisible" to us that it would be normal for us to walk the equivalent of from LA to New York and back every year, which is the pace Paul is doing his journey. But when they put GPS trackers on some of the world's last hunter-gatherers in Tanzania, they found that that's the amount that they walk in a year. So, that's actually a normal amount of walking for our species.

Amazing. I know that this project has taken you all around the world. Can you talk about some of the interesting places that this film has taken you?

In no particular order, it took me to Chile where I was filming at astronomy observatories at really high altitude locations in the Atacama Desert. It's the driest desert on Earth, which is why astronomers love it, because the lack of moisture in the air is one of many things that allows them to see deeper into the cosmos. Moisture smudges up the light. Also, it's rare on Earth to find a desert at such a high altitude, way up in the Andes. That combination of factors make it an ideal place for astronomy.

I know the Large Hadron Collider in Switzerland was a big cooperative international effort. Is that also what happened with the observatories in Chile?

Yeah, they are mostly international efforts. Some of them would be under an umbrella organization, like the European Southern Observatory—a pan-European organization.

Where else did you travel to?

CERN's Large Hadron Collider in Switzerland and France—it straddles both countries underground. We already discussed that a bit.

I went to Russia to film in Siberia where some neutrino detection experiments were going on 40 kilometers from shore on the frozen surface of the world's oldest, deepest lake, Lake Baikal. That was pretty intense, living with these scientists who are just out there on the frozen surface for a few months every year. There's no showers, very little to eat. We were eating wild garlic for a while that grows in the region.

Filming on Lake Baikal, Siberia.

Then we went to Tuva, which is also in Siberia, to film Tuvan throat singers, shamans, hunters, and just musicians in general to look at the human body as a form of technology. Throat singing carves musical notes into their internal subharmonics, the same way that you might play harmonics on a guitar. When you play that harmonic, you're hearing the

fractions of notes within the main root note. Throat singing is doing that with the human throat instead of a finger on a guitar string.

Filming in Tuva.

I also went to Ethiopia, where I filmed monks who live in these rock-hewn cave monasteries high in the mountains in a region called Tigray. There's a whole tradition of monks out there who pray by going very far from cities. They kind of wander in the wilderness like John the Baptist in the Bible and they literally will live in holes in the ground or in trees or caves. I found an area where they live in these caves carved out of the mountains.

They are seeking silence?

Yes, and they have an actual tradition of silence within Ethiopian Orthodox Christianity that has to do with going to these remote environments. It really interested me that these monks had to go to the same types of environments that the scientists had to go to to see something invisible. Really far from any city centers.

I focused on monks who had to free climb up these mountains to even get to their prayer caves. I had to climb with them up these nearly vertical cliffs that just had tiny finger holds and toe holds, which was kind of insane.

Filming in Ethiopia.

That sounds terrifying.

It was at times. But we had guides who helped us. It was a really slow process because they'd literally push our feet and hands into position. It was too dangerous for us to guess, and they knew those mountains like the backs of their hands. So we were really fortunate to have them with us.

And then I went to India, to film monks who bow their way across the Himalayas, and to film at remote monasteries there. And to capture this tradition of making certain types of sand mandalas, which is a really important tradition in Tibetan Buddhism. Even though a lot of the sand mandala footage I shot was not in India, it was still reflecting the traditions that came from India. People might find it hard to believe that a lot of the sand mandala footage was shot in El Paso, Texas by a monk who used to be the personal attendant to the Dalai Lama. He's I think the only person in the world who makes these mandalas alone. It's usually done by teams of monks over the course of many weeks. But this guy does them all by himself. The one that I filmed took over a month to make. There's a scene in the film where you actually see time lapse of the entire month in like a minute and a half.

I'm trying to think if there was anywhere I left out. Those were the main places I went.

I know you went to some places in the United States—the mine in Minnesota.

Oh yes. I filmed in a mine half a mile underground—an abandoned 19th century iron mine

that scientists now use to try to detect dark matter particles—dark matter being the predominant matter that makes up the universe. There's more dark matter than there is visible matter, and yet we have no idea what it is.

And then I climbed to the peak of Mt. Whitney, the highest point in the Continental US. That was really exhausting.

I know that, like your first film, you have invested years of your life into this project. I hope the film does well financially, but I don't get the sense that you are primarily motivated by profit. What is your motivation for making this?

From a certain angle, it's a mystery. It might sound cheesy, but I think the world is a really magical place. There are so many unbelievably amazing things in this world, and I just want to see them. And a lot of them are in places that are kind of off the beaten path. This film is definitely an exploration of off the beaten path places that I may never have any other reason or opportunity to see. For some locations we had to get special visas, some were "restricted areas" that people can't just travel to.

But another part of it is, and maybe this is more central, I just think we have such a greater capacity as human beings than we recognize. All of us do. There are so many untapped elements of just how amazing people are—whether it's our skills, our emotional capacity, our capacity for empathy or seeing beyond ourselves. Or even just athletically, like Al Arnold who is in the film. He did something that was thought impossible—running across Death Valley in the middle of summer, and then all the way up to the peak of Mt. Whitney.

While he was in his 50s and legally blind, I might add.

Yeah. It's just unprecedented what he did. So, I think that is kind of a central motivation for me in general, in any form of storytelling, whether it's writing or filmmaking or even music. I just feel like all of us have much greater capacities than we recognize in ourselves.

That was a goal in making this film, to kind of start by showing what we would definitely perceive as extraordinary people—it almost seems superhuman what they are accomplishing. Building a machine that can look back at the first trillionth of a second of the Big Bang. Or Al's run. But what I really want is, at a certain point in the movie, for people to really recognize that this is them. What these extraordinary people represent on screen is the audience's own capacity or potential, which may or may not be fully realized.

In a sense, these are not extraordinary people. They are normal, the same way that Paul really boils down his walk to being like, "This is normal. I'm walking the pace that our ancestors walked for most of our species' history." So I really want that shift to happen.

We're often caught in the tyranny of the moment, thinking: This is my life. These are the constraints of what I can do. But the people in your movie clearly transcend that.

Absolutely. So I think that was a central motivation for me, to kind of give people a mirror, where at first they are in awe, and then realize "I am these people." There's a kind of shift in the film at a certain point where you kind of realize that it's very much about our interconnectedness.

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Join a special webinar with Steve Elkin next week, "Seeing the Invisible: The Search for Stillness and Silence in the Digital Age." More details and RSVP info [here](#).