**Felix Poon:** This is Outside/In, a show about the natural world and how we use it. I’m Felix Poon.

So there’s this small remote island out in the South Pacific. It’s smaller than the city of Washington DC, and it’s thousands of miles from Chile, the closest continental land.

And on this island was a man who goes by Mata’u.

**Sergio Mata'u Rapu:** My name is Sergio Mata’u Rapu. I’m a documentary filmmaker from Rapa Nui.

**Felix Poon:** Before he was a filmmaker, Mata’u used to be a tour guide on Rapa Nui. Despite how remote it is, people come from all over the world to see it.

**Sergio Mata'u Rapu:** you can't escape tourism, you know, it like surrounds you, you’re either transporting tourists, or feeding them, or guiding them, or you know, cleaning their rooms.

**Felix Poon:** One day, Mata’u’s hired by a private tourist from Russia. he’s driving him in his van around the island, and he’s telling him stories from the island’s history.

**Sergio Mata'u Rapu:** And we stopped at this one site and he kept sort of prodding me about, like, how how were they moved?

**Felix Poon:** Rapa Nui is the indigenous name for a place you’ve probably already heard of, called Easter Island. And the tourist, he was talking about those massive statues that the island is famous for. They’re carved from volcanic rock...quarried from the side of a dormant volcano... and they look stoic...with square chiseled jaws, prominent noses and unsmiling lips.

They’re said to represent Rapanui ancestors, and there’s nearly a thousand of them on the island -- most are lined up along the ocean where they stand facing inward. Others dot the mostly treeless island like ancient sentinels.

They’re called moai, and the heaviest moai weighs 86 tons, about two fully loaded tractor trailers. Imagine moving tractor trailers, but without wheels!

So back to Mata’u, guiding this Russian tourist around the island and the tourist asks:

**Sergio Mata'u Rapu:** “How are they moved?”

**Sergio Mata'u Rapu:** you know, I’d kind of talk to him about some theories. And he's like, well, how do you know? Like, it wasn't aliens? And this was kind of like the first time that somebody actually, like, challenged me in saying, what is your evidence that extraterrestrials didn't carve this and it actually wasn't your culture that moved it or carved it?

**Felix Poon:** Yeah. And what do you what do you say?

**Sergio Mata'u Rapu:** Well, I mean, like, I, I walked him over to one of the statues and I'm like, look like here is evidence. It actually pointed out to sort of places on the stone where it has eroded and other things that support theories around the statue transportation upright. Right. By people. Right. And by my people in particular.

**Felix Poon:** Mata’u has been dealing with questions like these for most of his life. That’s because who MOVED the statues, and how they did it, has been the subject of a lot of debate and speculation since Europeans first came to Rapa Nui in 1722.

All of the first Europeans gave written accounts of what they saw. And what they saw was a relatively impoverished island, with practically more statues than there were people. They didn’t believe such a small group of native islanders -- with no modern tools, living on a mostly treeless island -- could have possibly carved and moved the statues. A great civilization must’ve been here before they thought, and something dramatic must have happened to them before the Europeans arrived. What exactly happened was a mystery, one that’s become a big part of popular culture to this day.

[**Leonard Nimoy**](https://youtu.be/dqYJhhAcWBA?t=30)**:**  There is no voice to tell who carved the giants, and why hundreds of them were destroyed in the easter island massacre.

[**“Secrets” Narrator**](https://youtu.be/0wLmJoqCDCE?t=274)**:** Could it be that this remote civilization ultimately destroyed itself? Over the moving and raising of their sacred moai?

**“Rapa Nui” Narrator:** But island legend speaks of a terrible conflict between the clans. A few decades before the Europeans arrived. [Dramatic drumming]

**Felix Poon:** Unlike the Russian tourist’s question about aliens, These films are actually based on the academic theories of archaeologists and anthropologists. For example there’s the theory that it was the Mayans who carved the moai. They supposedly came over on rafts from over 2,000 miles away from Central America, and they supposedly all died in cataclysmic warfare just before Europeans came to the island. Like the aliens theory, this idea assumes that the Rapa Nui couldn’t have done it themselves.

And then there’s the theory that was widely accepted for quite a while, and it was that the Rapanui people did carve and move the moai themselves, but that they did it at the expense of their own civilization.

In his 2005 non-fiction book *Collapse*, pulitzer-prize winning author Jared Diamond theorized that rival chiefdoms on Rapa Nui competed to make bigger and bigger moai. They commanded armies of laborers to cut down trees for making these contraptions for moving moai.

And, a quick note here -- Diamond’s theory rests on a key point of Rapa Nui history -- that the population of the island grew really large up to 20 or 30 thousand people...which...is a huge number for such a small island, but a necessary number for Diamond’s theory for how the statues were moved... you need a lot of people if you’re gonna have armies of statue-movers, not to mention lots of farmers to feed them.

Okay, so what happens next... according to Diamond, is that all this statue-making and transporting gets so out of hand, that the island gets completely deforested.

Diamond even imagines the person who cut down the very last tree, they supposedly knew it was the last tree, but they cut it down anyway. The result, according to Diamond, was quote “starvation, a population crash, and a descent into cannibalism.”

**Gina Pakarati:** So during many years many archaeologists say no, the Rapanui just destroyed the island, cut all of the trees for transporting the moai.

**Felix Poon:** This is Gina Pakarati, who's from Rapa Nui, and has been a tour guide on the island for the past twenty years. And, Gina’s not happy with this self-inflicted collapse version of history.

**Gina Pakarati:** It’s totally like, no that one is not true. I feel like, wow. Yes, sometimes I'm angry with that. Like, OK, if I'm Rapanui, why I want to destroy whole my island. Why I want to destroy everything, just for transporting the statue?

[OI theme fade in]

Gina says that her ancestors didn’t NEED to cut down any trees to transport the moai. In fact, the oral history of Rapa Nui has always been clear about how the moai were transported. The question is, why hasn’t anyone been listening?

[OI theme hit]

**Mata'u:** Why are all these non-Rapanui people telling stories about my island and why am I not telling stories about my island?

**Sergio Rapu Haoa:** but all of these different hypotheses actually tell you one thing. Still a mystery

**Gina Pakarati:** we believe our history. No, we don't need the people from outside, because we know it's true.

**Felix Poon:** This is a story about storytelling: what happens when your community becomes the subject of a global mystery, a parable of human failure and ecological collapse? What’s the true story? Who gets to tell it? Who’s taken seriously? And who isn’t?

[OI theme post]

Today on Outside In -- the island of Rapa Nui, and the stories we tell about it.

[OI theme fade out]

**Felix Poon:** We’re gonna talk about how the moai were transported in the second half of this episode, because before we talk about that, we need to understand what happened on Rapa Nui leading up to the moment that statue-making stopped. We need to understand Rapa Nui history.

And to tell this part of the story, I'm going to introduce you to two archaeologists. Carl Lipo.

**Carl Lipo:** Ok, it's recording, and I can hear you.

And Terry Hunt.

**Terry Hunt:** And we are recording

And we’re gonna go to where it all began on the island, Anakena beach.

[beach ambi]

**Terry Hunt:** So Anakena beach is a small crescent shaped bay with a white sand beach. It's a beautiful setting of sort of turquoise water. It would have been lined probably with giant palms.

**Felix Poon:** In 2003, Terry and Carl are on Rapa Nui along with a bunch of their students. And they’re digging for the earliest human artifacts on Anakena beach.

**Terry Hunt:** we reached the very bottom where there was a hard packed clay under underlying the sand. And in the clay were the the root molds from the palm trees undisturbed. So you know that that's an undisturbed deposit. And in the top of it is evidence of humans.

**Carl Lipo:**  we were right at the bottom -- that looked like the surface that on which people must have walked.

**Terry Hunt:** That is the moment, the geologic moment when humans met the sediments of that island.

[music shift]

**Felix Poon:** According to the oral history Gina told me -- the Rapa Nui tour guide -- the moment humans first met the sediments of the island was when legendary King Hotu Matua and about a hundred settlers had just travelled thousands of miles on double-hulled canoes, essentially two large canoes connected together by a plank in the middle.

They would’ve used the sophisticated Polynesian navigation techniques that we’ve actually talked about on a previous Outside/In episode called look toward the dawn,

Finally, after weeks of sailing in the middle of the vast Pacific ocean they landed there on Anakena beach. This was the moment in historical time that Terry and Carl wanted to identify with radiocarbon dating.

[music out]

**Carl Lipo:** Okay this is the very bottom, the earliest deposits

**Terry Hunt:** You get artifacts, you get charcoal

**Carl Lipo:** Carbonized little twigs

**Terry Hunt:**  you get rat bone, flaked obsidian

And I said to my students there during the excavation, I said, this will date the arrival of people on this island.

**Felix Poon:** And so Terry and Carl send these off to the lab.

**Carl Lipo:** you know, we're going to get a really early date.

**Terry Hunt:** I thought that would be about six, seven, 800 A.D.

**Felix Poon:** 600 to 800 AD because those were the earliest dates that the latest archaeological research was saying at this time. An early date like that was important for the collapse theory because the population supposedly needed enough time to grow big enough to transport all those statues.

A few weeks later, Terry and Carl get an email

**Carl Lipo:** we get this email from the radiocarbon date**.** and we got a date of the 13th century, sort of mid 13th century

**Felix Poon:** More than 400 years later than what they expected. Was it a fluke?

**Carl Lipo:** and then we got another date of mid 13th century and another one.

**Felix Poon:** It wasn’t a fluke.

**Carl Lipo:** and another one, and we're like, wait a second, how can this be

**Terry Hunt:** And I thought, oh, no, there's something wrong with this.

**Felix Poon:** They sat on the results for a couple weeks. Terry says he didn’t even want to think about it. But then he got an invoice in the mail for the radiocarbon dating.

**Terry Hunt:** Yeah. These crazy these crazy radiocarbon dates that I don't believe. And now I have to pay for them out of my small budget.

 And so he reached out to a colleague.

**Terry Hunt:** my senior colleague, Atholl Anderson of New Zealand has been a mentor to me and someone who I really trust

**Terry Hunt:** I emailed Atholl and I said, what do you think of these radiocarbon dates? I'm I'm sure of the context and the dates are, they’re good dates, that. everything from the lab is fine, right, the materials are right. Everything, I said, But how could it be so recent?

**Terry Hunt:** Atholl wrote back something to me that’s you know quotable for the rest of my, you know, I’ll always remember this, he said: Trust the evidence over your preconceptions. I think it began to make us question everything. because if the chronology was wrong. In the conventional narrative, what else was wrong.

**Felix Poon:** Terry and Carl look at the major assertions that’ve been made about Rapa Nui history, and find different explanations for all of them. The narrative thread of Rapa Nui history unraveled before their eyes. The original chronology was the first point to unravel.

**Felix Poon:** The second point to unravel was the population. It was theorized that the island had once reached a population of 20 to 30,000 people at its peak of statue-making. In fact, Jared Diamond’s popular collapse theory depended on the idea of a large population.

But with the new arrival date of 1200 AD, Carl says that would’ve been an astoundingly fast growth rate. And then about 90% of that population would’ve had to rapidly die or disappear just before that first European ship arrived. Here’s Carl.

**Carl Lipo:** Maybe it happened really quickly. Populations just exploded really fast. But we're like, well, if that is the case, then let's see the evidence of that. Let's see if we can figure out, you know, where all these people living, how are they distributed in the landscape, where are these battlefield events? What's the evidence of of lethal warfare and everything we looked at like, wait a second, there's none of this you know, we don't see the evidence that you would expect to see that would support that argument.

**Felix Poon:** The third point to unravel was deforestation.

**Felix Poon:**  Jared Diamond’s theory of collapse was that the island was deforested in a sort of reckless adventure of transporting statues on rolling logs. Terry and very good for transporting statues to begin with. They’re mostly palm trees, which are technically not even trees, they’re grasses. They have a mushy interior and a hard outer shell.

**Terry Hunt:** They probably would have simply been crushed with the weight of a Moai if you put one on there.

**Felix Poon:** And then second, while Rapa Nui people did cut and burn trees to enrich the soil for agriculture, Terry and Carl say that the primary culprit for deforestation on the island was the Pacific rat.

**Carl Lipo:** the tree rat, rattus excellence

**Felix Poon:** which came to the island along with the first Rapa Nui settlers, either as a food source, or as stowaways on the boat. Either way, they spell disaster for the trees because they eat the nuts, which haven’t evolved to withstand the rats, and rats breed like there’s no tomorrow.

**Terry Hunt:** A breeding couple can have up to a few million in just a few years. So this is really an invasion and we see deforestation over about 500 years of occupation on the island.

**Felix Poon:** So: deforestation did happen, but according to Carl and Terry, it’s more likely because of rats and agriculture than it was because of statue-making and transportation.

So, all these points in the conventional collapse narrative unraveled -- the arrival of Rapanui settlers was later by hundreds of years, the population didn’t grow as big as the collapse narrative claimed, and deforestation wasn’t because of a reckless obsession with statues.

Which leads us to the final point to unravel -- the “mystery” of why statue-making stopped. And the reason why statue-making stopped, is arguably one of the darkest chapters of Rapa Nui history.

**Terry Hunt:** People were carving statues and looked up and saw white sails on the horizon, and the profound changes that would come with that visit could be the end of statue making.

**Felix Poon:** In 1774, British explorer James Cook and his crew were on an expedition exploring the Pacific Ocean. According to their accounts, when they arrived on Rapa Nui, they saw what they called a destitute and impoverished place, noting a small population of no more than 900 people, and even human bones on the surface. This account is one of several that built up this whole “collapse” narrative.

But James Cook wasn’t the first European to have visited rapa nui.

**Terry Hunt:** what they're witnessing is the aftermath of the Spanish visit four years earlier and the aftermath of a European visit at that time would have been epidemic disease.

**Felix Poon:** Smallpox.

**Terry Hunt:** And so you probably had an epidemic disease sweep through the population, leaving some significant percentage of the population dead, not even having time to to take care of burial, et cetera

**Felix Poon:** The population bounced back, but in the 1800s, whalers and slave traders began kidnapping Rapa Nui people into slavery. Dozens at first, then hundreds. And then the worst of the raids happened in 1862 and 1863, when as many as 1,400 people were kidnapped by Peruvian and Spanish slave-raiders. All told, as much as half of the island’s population was abducted in the 1800s.

**Terry Hunt:** they're taking them in to this labor, to plantations in the central Pacific and also to South America.

**Felix Poon:** Most are forced to work in guano mines in Peru, which is really brutal work. About 90% them die from disease and dysentery.

Finally, under pressure from the Catholic church, Peru agrees to repatriate the Rapa Nui. About a hundred are shipped back to the island, but only a handful of them survive the trip. And the ones that did make it back brought another smallpox epidemic with them.

**Carl Lipo:** which leads to even more death and terribleness. you know, it's catastrophic. Absolutely catastrophic.

**Felix Poon:** By 1877, only 111 people are left living on Rapa Nui. The island is annexed by Chile in 1888, and it’s converted into a sheep ranch where the remaining survivors are forced to work for no pay. And they’re confined to living in a walled off part of the island they can’t leave.

[music transition]

**Terry Hunt:** This is the collapse, if you want a collapse on Rapa Nui, it’s a demographic disease and slave trading induced collapse, that was misinterpreted from the early days of, where are all the people? Well they're dying of disease that you introduced that you're not aware of. And then there are people being taken away in slave trading during the eighteen hundreds. And, you know, you can see how the story forms as a complete misinterpretation.

**Felix Poon:** A lot’s been said about supposed civil war, cannibalism, and a self-induced collapse on the island, theories that Terry and Carl say are easily debunked. Not nearly as much has been said about the horrors brought by colonialism, which are well-documented.

What was it like to have half of your community kidnapped and enslaved? To have your community decimated by disease, and for the survivors to become imprisoned laborers on their own island? And after all that, to hear the world blame you for your people’s tragedies.

[music]

**Felix Poon:** Thankfully, this isn’t where the story ends. And the people of Rapa Nui are more than the tragedies of their past. The moai, and the ingenuity with which the ancestors of Rapa Nui moved them, are a great pride of the island. The oral history that tells of how they were moved, survived colonialism, and it’s been passed down from generation to generation of Rapa Nui people.

And that story is, that the moai walked. We’ll find out how they did that, after the break.

**<<Midroll Break>>**

**Felix Poon:** Welcome back to Outside/In, I’m Felix Poon, and in the second half of this episode, we’re talking about the moai -- those famed, enigmatic statues of Rapa Nui, or Easter Island, as it was called by the Dutch whov

Terry Hunt and Carl Lipo did not want to wade into this debate at all when they were doing their research on Rapa Nui. So much had been written on the topic, and they didn’t think they’d be able to contribute anything new. But one day on the island, they saw a sign in Spanish.

**Daniela:** *El Camino de los Moai*

**Felix Poon:** and in Rapanui

**Daniela:** *Te Ara o te Moai*

Meaning the road of the moai. And the more that Terry and Carl and their students surveyed the island, the more of these roads they came across. Here’s Carl Lipo

**Carl Lipo:** And we thought, hey, that that the evidence about those roadways is telling us something directly about transport, because those are the paths across which they were moved. We know that.

**Felix Poon:** Most of the statues on Rapa Nui are placed on these big display platforms. And Carl and Terry realized that the statues on the roads were different from the statues on the display platforms.

**Carl Lipo:** for example the statues that we found along the roadways always had this amazingly forward lean.

**Felix Poon:** the forward lean is so much that it even prevents them from standing up on their own.. The road moai also had lower centers of gravity, and a rounded front edge, which is to say that the statues…

**Carl Lipo:** are carved in such a way that makes it easy for them if you rock them back and forth for them to take a step.

Rocked back and forth, kinda like rocking a heavy refrigerator, or washer and dryer, but in this case, one that’s designed to be moved in that way.

And then there were the roads themselves.

**Carl Lipo:** the roads are actually concave. So they're lower in the center than the side.

**Felix Poon:** Which wouldn’t make sense if you were trying to use logs as rollers, because the logs wouldn’t roll very well on a concave surface.

So the design of the moai, the shape of the roads, and a whole host of evidence that Terry and Carl gather, all suggest a particular conclusion.

**Carl Lipo:** that the best explanation was really about the fact they’re moved standing up, that that was sort of the impetus of our book. And we sort of putting all the archeological evidence about the argument that statues walked. And it's that it's not a new idea. It wasn't like we were the first ones to come up with it. But we want to say, look, archeologically speaking, this is the best explanation.

**Felix Poon:** Terry and Carl published their research in a book, called *The Statues that Walked*.

[music]

And then, after their book was published….

**Carl Lipo:** National Geographic wanted us to create a replica of a statue and show, prove it to the world that you could actually walk it.

**Felix Poon:** National Geographic worked with Terry and Carl to produce a documentary about the moai walking theory. But they weren’t so sure about being charge of walking a moai.

**Terry Hunt:** We initially said, no, that's really crazy. Read the book.

**Carl Lipo:** what do we know about tying the ropes and moving this giant multi-ton thing?

**Terry Hunt:** If We are not able to move the Moai, it doesn't mean that we're wrong. It just means we don't know how to move it.

**Carl Lipo:** We can explain it sort of like a flight engineer knows how a plane flies, but you don't really want the flight engineer to fly the plane.

**Terry Hunt:** And they said, no, we need something that's exciting for TV.

**Felix Poon:** But what convinced them in the end, was the difference they could make to change the narrative about Rapa Nui. Carl says, by not participating - you’re left with wild theories about aliens making and moving moai, and things like that. So they said OK.

**[Nat Geo tape]**

**Narrator:** the oral history says the statues walked. And Hunt and Lipo are trying to figure out if it’s true.

**[Terry/Carl chatter then fade under]**

**Felix Poon:** According to the documentary, this is the most precise replica of a moai ever created, and when it’s delivered to the filming location, Terry and Carl have just two days to try and move it.

And on the first day, they’ve got two ropes tied to the moai, one on each side with teams pulling in an alternating rhythm. But it doesn’t do anything but sway the statue back and forth, and it doesn’t walk.

**Narrator:** As they reach the end of the day, Hunt and Lipo have to face the reality that so far the experiment has failed, unless they can get back on track, their failure will cast doubt on the statue moving theory, and on their other ideas about what happened to the islands once robust and productive people.

**Felix Poon:** And then it’s 4pm on the second day, and they’ve only got 1 hour left to figure it out. They make one final adjustment, which is to have a third rope with a team of volunteers holding the moai upright from behind it, and two teams pulling from the left and the right sides.

**Narrator:** With the ten people in back, and more people on each side, they’re ready to try one last time.

**Carl Lipo:** Are you ready?

[heave ho heave ho / dramatic music]

**Terry Hunt:** Oh my god!

**Felix Poon:** The moai walks

**Terry Hunt:**  He’s walking! We did it, yay!

**Carl Lipo:** All right!

**Felix Poon:** Terry captured about 30 seconds of this on video on his smartphone, and later that night, he showed it to a Rapanui friend.

**Terry Hunt:** She watched it about 10 times in absolute amazement, seeing this five ton statue walk. And then she. Put her hands down to her waist like like the hands of a moai, she began to rock back and forth like a like a statue walking, and she began to sing a song. And I said, What's the song? And she said it's the moai walking song. And I said, you have a song? She said, Of course we we all learned the song when we were kids

**Felix Poon:** In fact, Terry gave a lecture to 300 Rapa Nui people. And then he showed them the video.

**Terry Hunt:** I put the video up, of the statue walking, and the entire audience started to sing the song. It was one of the most moving experiences for an archaeologist because archaeology and tradition came alive in contemporary culture, it was just amazing.

**Felix Poon:** Wow.

**Terry Hunt:** If you wanted to hear the the song, I can play it right now just to get an idea, OK? Yeah. Let me move this. Here’s the song...

**Gina Pakarati:** Yeah, I really love to show that video to my guests because it's easy

**Felix Poon:** This is Gina Pakarati, the tour guide we spoke to at the beginning of the episode. Before this video of the walking statue existed, tourists would come to Rapa Nui and expect to be told the collapse narrative of the island. And it was hard to cut through their preconceptions.

**Gina Pakarati:** sometimes when you're explain, just to the guests, sometimes the guests don’t really understand. But when you show them the video with that music, with that song. So everything is change.

[moai walking song weird reverb]

**Sergio Mata'u Rapu:** it pains me a little bit, you know, to be honest to when people refer to the statue walking theory as being the lipo and hunt theory and there is no mention of my dad.

This is Mata’u, who you’ll remember from the beginning of the episode, he’s the former tour guide turned film producer. It turns out Mata’u’s dad, Sergio Rapu Haoa, is a pretty big deal on the island. He owns and runs a number of businesses there, but more notably, he was the first Rapa Nui governor of the island from 1984 to 1990, as well as the first Rapa Nui archaeologist. And Sergio’s done extensive research on the moai, including how they were transported. And he worked together with Carl and Terry.

**Sergio Mata'u Rapu:** Carl Lipo and Terry Hunt, they brought a lot to the island. They have, you know, brought a lot of science and technology and things that we didn't have there. But also they. How do I say this? They um, they they also depended heavily on on work that my dad had done to formulate essentially the same theory that that my dad had. Had developed and had also practiced a lot on the island, you know, the difference between them and my dad is that they are PhD’ed American professors.

My dad at the time had a masters. Right. And so in the academic world, you look at this and and you see my dad as an informant. Right. And and and these two gentlemen, as the the real scientists, right?

**Felix Poon:** Sergio wasn’t the first to say that the statues were moved upright. But he was the first to theorize the actual technique of rocking them back and forth. And he was the first to discover the evidence that supports that theory. So why then are Terry and Carl the ones who changed the narrative? Why wasn’t it Sergio?

I decided to talk to Sergio himself.

**[ring tone]**

**Felix Poon:** Sergio was actually really hard to get in touch with. I reached out to him multiple times, by email and by text. But, long story short, I finally just decided to cold call him.

**Sergio Rapu Haoa:** Hello

**Felix Poon:** hello, is this Sergio Rapu Haoa?

**Sergio Rapu Haoa:** Yes

**Felix Poon:** hi, Sergio, this is Felix Poon, I'm calling from New Hampshire Public Radio, the podcast Outside In.

[fade below]

**Felix Poon:** I thought we’d schedule a Zoom call for a time that worked for Sergio’s schedule. But when I told him that I wanted to interview him about Rapa Nui history, and how the moai were moved, he just started talking.

**Sergio Rapu Haoa:** Then I look to the audience. I said, have you heard of rapamycin?

**Felix Poon:** a little off topic at first

**Sergio Rapu Haoa:** Rapamycin is such an important medicine. And the name of Rapa came from Rapa Nui, Easter Island

**Felix Poon:** But with a lot of pride for his island

**Sergio Rapu Haoa:** it's such a remote and a little ecosystem from where it can find the solution to our humanity problem.

**Felix Poon:** Soon enough, he starts talking about the moai. and says how they were moved is one of the most important contributions of Rapa Nui people to humanity.

**Sergio Rapu Haoa:** What was their resource of those people to move such a public work building and building moving and moving statues, thousands of them.

**Felix Poon:** And so I settled in to learning about Sergio Rapu Haoa, not just about his research, but also his life.

Sergio was born on Rapa Nui in 1949 , and then went on to high school in Chile since there were no high schools on Rapa Nui at the time. After high school Sergio became a teacher, and took some anthropology and museology courses at the University of Chile. When he was back in Rapa Nui, Sergio met an American archaeologist.

**Sergio Rapu Haoa:** Dr. William T. Mulloy, a professor of archeology, anthropology at the University of Wyoming, Laramie, Wyoming.

**Sergio Rapu Haoa:** He realized that there was a native boy of that island

**Felix Poon:** That native boy was Sergio himself.

**Sergio Rapu Haoa:** so immersed already in the subject, so interested in it. He didn’t doubt one minute and he got a scholarship for me, for me from University of Wyoming to finish my B.A.

**Felix Poon:** So Sergio goes to the US in 1973, studies at the University of Wyoming.

**Sergio Rapu Haoa:** it was a fascinating experience for a Polynesian from a hot island. You know, with the cowboys and walking on the snow and in the winter living on the big hard mountain in cabins at night with fireplace castrating cow or bulls. And roasting that, eating that there instead of fish, what an experience. I mean, it's fascinating.

**Felix Poon:** Bill Mulloy becomes a close mentor to Sergio. And they talked about how the moai were moved.

**Felix Poon:** Mulloy’s theory was a bipod system, where you have two trunks of trees that are kinda like crutches.

Sergio didn’t say anything to Mulloy at the time, but he knew his theory wasn’t right.

**Sergio Rapu Haoa:** imagine how big the trunk should be in order to be able to raise and pull forward, raise and pull forward. Dragging on the ground.

**Felix Poon:** And he knew that none of the other theories were right either. Like the one where they use sweet potatoes like engine grease to slide the moai along the ground.

**Sergio Rapu Haoa:** Poor guy, can you imagine, a half pound of sweet potato is the means to your survival. You are going to waste that in turn. crazy?

**Felix Poon:** Or the theory where they stand the moai upright on a sled, and slide it on rolling logs; the theory that they were transported on a barge in the ocean; and of course, the aliens theory.

**Sergio Rapu Haoa:** but all of these different hypotheses actually tell you one thing. Still a mystery, they have no solution

**Felix Poon:** Sergio wanted to find the solution. So, after he graduated from college, he got his masters degree in archaeology. And when he was back in Rapa Nui, he got a grant from the Chilean government to research the moai, and to restore them, since they were mostly toppled over and damaged.

**Sergio Rapu Haoa:** So I started setting up my team of thirty five people, photography, topographer, second archeology, third student bla bla laboratory rapidly. And we started 13, 14 months digging continuously and they started all kind of discovery.

**Felix Poon:** Before working on the moai-transport question, Sergio made a discovery at Anakena beach

He and his team excavated pieces of white coral, and he brought the pieces back to his lab, and he noticed they fit together, like a puzzle. And as he assembled them, they began forming into these flat almond shapes, each with a hole in the middle. That’s when Sergio had a thought.

**Sergio Rapu Haoa:** Oh my gosh. I got on my truck and dash back to the place, back to the broken face of this statues laying on the ground

**Felix Poon:** And he put them right into the eye sockets of the face. They fit perfectly.

**Sergio Rapu Haoa:** and I laughed. I said, hey, guys, you are waken up our ancestor, don’t you see it?

[music fade in]

**Felix Poon:** The discovery of the eyes of the moai was a big deal for Sergio’s team. AND to the whole island. They gathered hundreds of people in town, and they celebrated.

[music swell and under]

**Felix Poon:** did you did you publish anything in in like articles, journals, books or anything like that about. Oh no, no, no,

**Sergio Rapu Haoa:** No, no, no, no, no, no, no, no.

**Felix Poon:** Sergio was approached with book-writing deals.

**Sergio Rapu Haoa:** The ego would say oh Sergio, sign it sign it.

**Felix Poon:** But, he turned them down. Sergio says he wanted to keep doing the work -- because there was still so much to learn before he could put out a book.

[music swell]

When Sergio focused his attention on how the moai were moved, he took the same approach -- very thorough, very systematic, not rushing to publish.

**Felix Poon:** And by 1982, that’s just about 40 years ago, Sergio had 14 different points demonstrating why the walking theory is the best theory based on the archaeological record. But even now, almost 40 years later, when I ask Sergio to tell me about the 14 different points, he declines.

**Sergio Rapu Haoa:** I don't give you the detail because every time I talk somebody else run ahead and publish it.

they took it just like that and they went and published it and added their own thing. But anyway,

**Felix Poon:** Who did that?

**Sergio Rapu Haoa:** No, let’s not talk about that? I mean, I may get a new debate. I don't have time for that. Leave it there. Because if they keep adding to the knowledge, I will. Applause. Yeah. The important thing is they can they can say oh so and so told me this. That’s fine. That's enough credit.

**Felix Poon:** Yeah, can I. Can I ask are you referring to Terry Hunt and Carl Lipo?

**Sergio Rapu Haoa:** You're right.

**Felix Poon:** Yeah. You worked with them, right. You worked together with them.

**Sergio Rapu Haoa:** Yeah. The same way with this freedom, I'm telling you, I told them we have a bottle of wine and we work together, so on.

**Sergio Rapu Haoa:** In other words, I was such a nice native boy that tells story and they the scientists did the right things

[music]

**Felix Poon:** Now, to be fair. As much as Terry and Carl relied on Sergio for the moai-walking theory, the vast majority of their book, The Statues That Walked, is not about moai-transport. It even includes stuff on Rapa Nui history that Sergio doesn’t agree with. All this to say, Terry and Carl’s book is their own work. And where they talk about the moai-walking theory, they mention Sergio as a source. So, they didn’t steal Sergio’s research and pass it off as their own. They didn’t really run off with Sergio’s theory.

In fact, when it comes down to it, there’s one authoritative paper that was published about the moai-walking theory. It was published in 2013 in the Journal of Archaeological Science. And Sergio is named as a co-author on that with Terry and Carl. Here’s Terry.

**Terry Hunt:**  we included Sergio in that because he was so central in us recognizing the things we need to look at.

**Felix Poon:** And Carl

**Carl Lipo:** it was important for us to have him as recognized as a as a collaborator and, you know, leader in that in that endeavor.

**Felix Poon:** But still, somehow Sergio, who’s the original Rapanui archaeologist, who first discovered the evidence for the moai-walking theory -- he’s not the main authority on the statues? At least not in the English-speaking world. If you go online and search how Easter Island statues were moved, you’re hard-pressed to find any mention of Sergio. Instead, you’ll see Terry and Carl in the spotlight as the authorities on Rapa Nui history, and moai transport. But shouldn’t it be the original Rapanui archaeologist, and former governor of the island, who should be in the spotlight? Instead of two non Rapanui, American archaeologists? Shouldn’t Sergio get more credit?

I put this question to Carl.

Carl agrees that Sergio doesn’t get enough credit for the work he’s done. He says one reason for this is Sergio’s lack of academic publications. He only has a handful of publications according to ResearchGate.net, compared to Terry and Carl’s hundreds of publications and thousands of citations.

But another reason that Carl blames for Sergio not getting as much credit is the National Geographic documentary.

**Carl Lipo:** I mean we fought tooth and nail in the sense of creating this drama of outsider experts coming in to explain things that are mysterious. But the NOVA production,

**Felix Poon:** The documentary was a co-production with NOVA on PBS.

**Carl Lipo:** ended up editing it in such a way to make it look like the kind of documentary you typically see where there is this. You know, it's usually a British person, you know, comes in with a very smart, you know, accent to explain to the world that

**Felix Poon:** David Attenborough.

**Carl Lipo:** Yeah, it's the classic, you know, white, old white guy from from afar coming to bring their expertise about, you know, the brown people of some place and then the natural world. And it turned into that. But that wasn't where we started and it wasn't the conversation, nor was it the filming that we actually did on the island. Terry and I, when we did the actual filming, we spent an immense amount of time talking about the role of the islanders, the role of Sergio Rapu, the history and the and where these ideas come from.

We repeated those comments over and over and over again in every single, you know, take that we did. I mean, that must have been hundreds of hours of video. But in the end, it gets edited by what they what TV producers at Nova wanted viewers to see fitting the format of that model.

[music]

**Felix Poon:** In fact, according to Carl, he and Terry both wanted Sergio to be there when they walked the replica. But the Nova producers said no. The Nova producers wanted to film the walking replica in Hawaii. But according to Carl, the producers said there wasn’t enough money to fly Sergio to Hawaii.

[pause]

And so Sergio is in the documentary, but he’s not presented as the pioneering researcher he is. The fact that he was the first one to theorize how the moai walked way back in 1982 is never mentioned. I reached out to the producers of the NOVA documentary, but never heard back from them.

[music swell]

**Felix Poon:** I asked Sergio why he thinks he doesn’t get credited as much as he should. And his answer kind of bucks the premise of my question.

**Sergio Rapu Haoa:** I mean, in the history of humanity, there are many, many things that maybe Darwin was not the one that really talk more of evolution than others. Maybe there was one before him. And about the publish, it was done by whatever extensively Darwin. But that's a common and I see that is real. And I think the tourist they don't have a way to learn about Sergio Rapu, I mean, who am I? You know, I'm not in there in a way to show, hey, I am the one that know hey, because those folks really need it because their professor, they need to show that they know and they they justify their grants or their money from universities. So what, that's why I understand.

**Sergio Rapu Haoa**: But I have my grandchildren and my children say, hey, dad, please publish. It’s because the occidental world need that. If you don't publish you perish.

[music]

**Felix Poon:** So, Sergio doesn’t want anything to do with that publish or perish system, even if that means being sidelined. He told me that he publishes and gives lectures for his own joy, and for passing on what he knows to the next generation.

As for his son Mata'u? Well, he’s taking a different approach -- Mata’u got into filmmaking in college, when he realized that the media has the power to influence people and their beliefs.

**Sergio Mata'u Rapu:** Which eventually evolved to: Why are all these non-Rapa Nui people telling stories about my island and why am I not telling stories about my island

**Felix Poon:** Mata’u doesn’t want to be sidelined. But in order to tell stories about his island, Mata’u had to get his foot in the door of the film-making industry. That NOVA documentary that made Terry and Carl famous for the walking theory? Mata'u was an associate producer on that. It was his first nationally broadcast film. He didn’t have much of a say on the production decisions, but he learned the process for making television. It was a foundation for his future work, including his latest film, called Eating up Easter. The film features all Rapanui people speaking in their own voices.

**Sergio Mata'u Rapu:** We all need to keep sort of growing in our in our career paths and in often times like the hurdles that are set in front of native people to be able to do that are huge and I tell people I’m like hey, we are the little fish. Rapa Nui is tiny. Like, we don't have the power in academia or museology or any of that to be able to just bite back and say no. In order for us to be able to survive, we need to be able to swim with the big fish and not not be fearful that we will get chomped.

[music end, next graph in the clear]

**Felix Poon:** As for science? Science is evolving. Both Carl and Mata’u say that there’s already been a change in funding incentives to encourage research that directly benefits local and indigenous communities.

Plus, there are more Rapanui people entering the field of archaeology, where they can contribute their perspectives and voices to the story. That’s actually in part because of Sergio. He’s opened a high school on the island, and he lectures and mentors the students about archaeology and the history of the island, he gets them scholarships to go to college abroad.

**Sergio Rapu Haoa:** Several of those kids are already going into university already thinking to be archaeologists. That is my book. That is my publicity.

[music]

**Felix Poon:** But in the end, as much as science evolves and becomes more inclusive, it’s still got its own priorities. And they’re often not the same priorities that Sergio has.

I remember what he told me was the first thing he did when he discovered the almond-shaped eyes of the moai.

His team rushed into town.

**Sergio Rapu Haoa:** They run to the town to bring the whole town up. They make such a big food. We’re all there, five hundred people eating to celebrate the discovery of the eyes of the statues

**Felix Poon:** His first impulse was not to turn to the outside world. His first impulse was to turn back to his community -- like the moai, the living faces of his ancestors, looking inward - towards the island. Not away from it.

**Sergio Rapu Haoa:** and they will symbolically say, we have waken up our ancestors, our past is present.