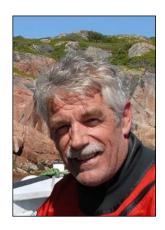
## William Fitzhugh: Immersed in the Arctic



**Charlie Morrow interviews William Fitzhugh** 

American archaeologist & anthropologist heads the Smithsonian's Arctic Studies Center & serves as a Senior Scientist at the National Museum of Natural History. Has done extensive research on the history & archaeology of Arctic peoples & cultures and their responses to climate and environmental change and European contact. Charlie Morrow & Fitzhugh worked together on, among other things, Fitzhugh's exhibition *The Vikings*, which made to cover of *Time* magazine & together on Morrow's *Solstice 24*, a 24-hr celebration of the summer solstice.

Charlie Morrow: Wow, look, I wanted to talk to you about a couple of things. First of all, schedule, second, the business of the solstice and third of all, a book I'm writing. Well, look, some things that you've written are very important to the

thinking in the book and I wanted to ask you a few questions that are relevant.

My book is called *Immerse!* With the development of immersive media and me holding a patent and all and being the head of the Immersive Sound Committee for the International Planetarium Society, I wound up with an offer to publish a book and I've come up with a number of my colleagues who have already created interesting articles as part of our collaboration.

My position has been that we are born immersed – actually before we're born. And that what happens is like an onion, as we get more and more tools, we keep on adding more layers.

And so I wanted to speak to you about this whole idea of how we are immersed and how it functions for us from an anthropological point of view and an archeological point of view and ecological point of view. I was actually thinking the part that was most interesting that you're involved with is habitat. How we've been immersed in the habitat and had to function. It seems like t here's a lot to be said.

William Fitzhugh: But I agree with you. I've seen so many different environments and so many different time periods; people have been finding different ways to adapt to their environment, use local resources and we've just had a very interesting couple of days here with a lady who's come from London where she's a fashion professor for one of the London fashion universities and she's here looking at our fish skin materials in the collections because a lot of people used to use fish skin the way we use textiles and especially in East Asia, Northeast Asia, in the Inuit world and so on. So, yea, materials are amazing and that's how people have learned to use them, cover themselves very quickly to be able to use them for social signaling and status and innovative techniques and just basic design and so forth.

So yeah, it runs all the way through culture in your housing and your artifact design, the beautiful Bering Sea art that was created a couple of thousand years ago because they had masses of ivory handy and they were getting stimulus from east China, eastern Asian design and building in shamanistic concepts into their art to help them catch animals and communicate with animals through art and so forth. You know, I've been fortunate to have a lot of I guess you'd say immersive experiences, dipping in and out of cultures and time periods and geography.

Charlie Morrow: The reason I thought it was so important is because the images of immersion are so prevalent in everything from the bolas [A throwing weapon to capture animals] to the rock drawings. It's just like sensational, cross-cultural gorgeous representations of being immersed and just being caught in life.

I think all of your work with boats is about adding an extra – I talk about envelopes. I say we keep on adding these envelopes with our tools and so forth.

William Fitzhugh: You know, this is a very rich field. It's wonderful that you're doing this because you're a perfect person to be exploring these dimensions too, because of your music and voice and design and all those different things come together. We had a presentation this morning from people from the V&A [Victoria and Albert Museum] in London. And you know they're building a new facility there and they have a plan for a permanent gallery as part of their complex for the Smithsonian to utilize. And they're going to be raising money to have the Smithsonian prepare exhibit materials and concepts for that display space in perpetuity – sort of. They have a very intriguing concept about how they're basically looking at the same kind of thing – immersion and innovation – and looking at how museum collections and curators can help the world prepare for changes to come. You know you can bring the past into the future.

Charlie Morrow: Well, that sounds like a very good relationship. I mean, the first time I saw your exhibit, I guess it was in the Crossroads exhibit and you had the Aleut, the fisherman's outfit, which was in some ways a kind of model of what got made later in rubber or whatever textiles in Europe. Here it was, probably 2,000 years old and looking stunning and you have to feel that there's an element of taste in human beings. Gary Snyder was the one who said that he thought that there was this hip spirit that went right back to antiquity.

William Fitzhugh: Yeah, you see it in the Paleolithic art, you see it in clay models and ivory models of ladies in the upper Paleolithic with fancy hairdresses and costumes, and all the beads that you find in the graves and so on, even 40,000 years ago and certainly coming with homo sapiens especially. But even the Neanderthals. So it's definitely something that became part of social expression from really, really early times. You had one other question I think.

Charlie Morrow: Yes, whether we tickled the monster... there's a solstice ...

William Fitzhugh: Well, I think there has to be a connection between what we were doing because there was never any word of the solstice before us. We did a good job of advertising, running it around to people and lit some fires.

Charlie Morrow: Well, I think it represents the current trend of humility, which goes back to the historic trend toward humility. I mean, in the deeper past, people felt like small people, big world.

William Fitzhugh: We're not out here to harness the world. We've tried to do that and it hasn't worked.

Charlie Morrow: Reading the writings of the fellow that built the deep history exhibit at the National Museum and he was talking about stable environments as being a key ingredient to having civilizations advance, decline or even get wiped out and it seems that stability can be viewed from any number of directions. I just thought it would be great to hear some of your thoughts. How do you view this notion of stable environment and life over time?

William Fitzhugh: Well, it's a pretty big topic. You're talking about Rick Potts I guess.

Charlie Morrow: I am, yes.

William Fitzhugh: Human origin and deep time is the other big hall we have, which is the fossil and dinosaur hall. So Rick is talking about the origins of homo sapiens and the earlier forerunners. He's made a big deal through much of his career of climate change being the driving factor. So, when you started asking about stability ... and Potts has talked about that idea. Well, I thought that's kind of odd because mostly what I've associated Rick's work with was advances of hominid forms as a result of climate change, particularly in East Africa, in Kenya especially. Those areas in Africa are tremendously susceptible to climate change; they get huge droughts and then they have a volcanic stuff that happens. I've had to evaluate for

research prizes at the museum. Some of the papers that he and other colleagues have done; paleontologists working with him and it's just incredibly complicated because they had volcanism and they have lands rising up and watersheds are changing. Then, big droughts are happening and then monsoons and so forth. So, much of his thinking about the evolution has been based on the idea that you have quite dramatic climate changes happening in East Africa over time as a result of global patterns but also local tectonic and geological forces. Anyway, the way I see most of history looking at it from the archaeological point of view is a series of pulsations where you have periods of major change and then you reach plateaus where things are steady like we've been for 10,000-year steady, steady like in a stream or something; where you have placid water and then eventually down below it goes over a waterfall or something. You know, a lot of the changes I see in Arctic cultures happen as a result of climate changes that produce a stable period and then something happens and you either get a warming or cooling and that sometimes then triggers animal changes and we've had population movements into the Arctic, from the western Arctic, from Siberia and the Bering Sea.

We had a long period of stability, which is called the Paleo-Eskimo period and it was 4,000 years long and people moved from Siberia into northern Canada all the way across to Greenland in the time four to five thousand years ago when the climates were relatively warm. There was not too much Arctic Sea ice but enough so that there with plenty of seals and sea mammals and the ice and glaciers had melted off the land. So there were caribou and musk ox and they settled in that area, adapted to it and over the course of 4,000 years and had a very slow kind of constant elaboration of their technology where they went from hunting seals to hunting walruses.

Eventually, 1200 years ago, there's another warm period that began, which melted off almost all of the sea ice in the summer time and the whales from the Pacific and from the Atlantic, the bowhead whales would be swimming up into the Arctic waters, which were originally blocked by ice in the central Arctic. Well, that ice loosened up enough so that the whales could communicate through the Arctic islands and actually then began breeding, the Pacific and the Atlantic stocks began to breed together, which they had done periodically when warm periods opened up. So, what happened is the people had learned how to hunt whales what we call the Thule culture, named from the place in Northwest Greenland where they were originally found. They migrated into the Canadian Arctic and into Greenland. And they replaced this long steady period of the Dorset culture because they had a very much more advanced technology and they were using husky dogs and sleds and they had huge boats and learned how to hunt whales with boat crews and everything. So, they had sort of reached a pinnacle of how you could utilize energy from the marine environment. Gradually the Paleo-Eskimos had developed seal hunting and then the walrus hunting, getting bigger animals, more energy, more fat to burn for fuel and so forth. And then finally along comes the Thule culture, they're moving in on them with sinew back bows, the technology that came out of Asia, much more powerful with these big, aggressive husky dogs and the Dorset people didn't have dogs at all. So, that ushered in a whole new period.

The last 800 years leading up to modern time. Actually, after 200 or 300 years, the Thule People were in the Arctic, then there was the Little Ice Age came along and all of a sudden these sea channels built up in the Canadian Arctic and the whales couldn't migrate through and the people had to readapt to hunting seals and walruses in some places. So, they had a big come down in their technology and their population size and people began to become more isolated and developed into the regional Inuit cultures that we see today.

This is true also in Labrador. We had another whole history there with the early Indians after the end of the Ice Age, people moved up into the Labrador area after the ice melted back off the coast, the Indians known as the Maritime Archaic Indians came up from Maine and further south and occupied that coast for 5000 years in the warmest part of the Holocene, so that's from 10,000 years to around 4,000 years ago. There was what we call a climatic optimum. We're approaching that in the weather patterns today, but a long period of stable weather and they adapted to the marine life. They became almost like Eskimos themselves in terms of hunting sea mammals. But they were tied to the forests, they could not break free from the

forests and the wood and fuel and so forth, the way the Inuit had done by learning how to use sea mammal oil for heating and living in the treeless Arctic, so, that was another long period. And then all of a sudden cooling came in and the Inuit people who came into the Arctic, the Paleo-Eskimos moved all the way down into Labrador and they replaced the Maritime Archaic Indians in the northern part of their range in Labrador and set up the last 4,000 years, which is kind of a seesaw back and forth between the Indians and the Inuit living on the coast of Labrador with the Inuit moving south during cold periods, as far as the Gulf of St. Lawrence and Newfoundland. And then the Indians moving back north when it got warm and the Eskimos had to retreat because the sea ice wasn't there and the sea mammals weren't there. So there are lots of examples of cultural stasis and periods of cultural change and a lot of the change is stimulated by climate in the North. You have a very different situation than you do in most other parts of the world where everything depends on ice and so you can have one degree of average temperature change, which may shift the balance in the winter season from open water to closed ice-covered water and it has changed an environment in an incredibly dramatic way for people who learned to live on one side or the other.

I guess you have cases like this in Africa or in other places where you have droughts or monsoons that can come in. But when you have periods when things are stable then people are able to adapt to those conditions and we've just seen our own civilization take advantage of that now over the last 5 to 6000 years — we've developed agriculture and urbanism and tremendous new technologies and so forth. And there was a time a decade or two ago when people were not talking about global warming; they were afraid the earth was going to go into a glacial epoch. And it's interesting how things have shifted dramatically because of the recognition of CO2 and what it's doing to the greenhouse effect. So, we're in one of those periods of stasis, but the earth is a dynamic place and we're not accustomed to thinking of change until all of a sudden it hits us like COVID-19 virus. And that's going to have a huge effect on the way we do business and communicate; it's going to drive us into a more digital remote means of communication and ways to adapt to other than face-to-face meetings all the time. It's going to have a very unpredictable but huge, huge effect on everything.

Charlie Morrow: It has a huge effect on institutions for sure that depend on visitorship in order to exist. And travel being part of business models, I think the travel industry is predicted to have some of the biggest shifts for this period.

There's another aspect of it; there was a beautiful piece talking about how the sun has been in a relatively boring period of its existence and that it's quite likely that there will be a more active sun in the future and that would globally affect everything, not just on earth but on neighboring planets and so forth because the sun itself has been sustaining these cycles that we're talking about but within livable parameters.

William Fitzhugh: I think I read a little about that a couple of months ago. The Sun is gradually basically warming up and there's going to come a time when the earth will not be habitable, at least in the way we know it. That's just an example that when things change like that, organisms have to find another way to figure it out. And so our way to figure it out is going to have to be finding other planets, other places to live or at least to have some portion of humanity living there to be the seed for some new development that happens. Fortunately that's quite a ways out into the future. All Mammals have this exploring instinct particularly in their adolescent years and particularly more among males than females often at that time but that's when caribou sort of break out of their their herd pattern or individuals will go off In different directions to pioneer new territories. We saw examples of that when we were working in the Russian Arctic on these Arctic islands, way north of the coast out in the Arctic Ocean, hundred kilometers north of the coast and and we'd find remains of caribou that had come out there on their own and just being able to smell land and following their noses over the ice and then colonize these little islands out there and then they would reach a time when they had a really bad winter and they would die and you find their skeletons there. So, yeah, pioneering behaviors built into all species and that's basically what the COVID 19 is doing.

Charlie Morrow: I suppose in a way we're dinner ...

William Fitzhugh: So, in terms of stability, that's the way I think humans have taken advantage of periods of stability and sometimes it's climate that disrupts those stable patterns. But sometimes it's just themselves; they use up their resources, maybe they use up their fossil fuels or use up the elephants that the Paleo Indians came into this great bonanza of new fauna that was not familiar with humans hunting when they came into the New World and they discovered the mammoths and mastodons and all these big Pleistocene fauna at the end of the Ice Age and they rapidly wiped out a lot of them and drove some to extinction. And then they had to readapt from these quite elaborate societies with big groups and fancy technology and we had a period around 10,000 years ago when the big animals were no longer there and people had to hunt deer and find small animals and began to occupy smaller niches, learn to use aquatic and swamp resources and birds – there was a big change. There was a very large population drop; we don't find many sites and it took 1,000 or 2,000 years before the Holocene warm period took hold and then we had this long stable period, particularly along the East Coast of the United States.

The Indian groups for the last 8,000 years have been pretty low density and a pretty low level of subsistence with hunting and fishing but no agriculture until really a thousand years ago. They learned to use a lot of sea resources and so on but very low-key, stable populations. But eventually what happens is those populations begin to get restive and people want to experiment with collecting power and making war on their neighbors and so on. A lot of those things were a natural process for any species. But, in our case, in North America much of the big changes occurred from influence from Mexico and South America where the big empires began and large groups of people were able to live together and political warfare and all sorts of trade and everything began to seep into North America, changing the Indian societies that have been very stable for a long period of time, starting around 2,000 years ago.

The world is amazing in terms of fluxes that happen, some of the impacts that are forced upon them by climate, nature, sun, weather, whatever it is and then huge numbers of other things like political forces where people just create new systems of governance or control learn to exploit other people and then you have other that are not so much the political kind of changes that happen but the technological changes that people move from a spear to a bow and arrow to a gun and so forth. A lot of times the changes happen as a result of inventiveness and think of what would have happened if the American Indians had had rifles when Columbus arrived. We'd have a very different society in North America. So, yeah, it is very interesting to see these from the archaeological perspective, to see the different forces that caused these changes.

A lot of what we spend our time doing is trying to factor out: was it climate or is it social processes going on or is it technology? In the Arctic it's kinda fun because you can actually start to piece those things apart a little better than if you're sitting in the middle of Arabia or the Yangtze basin or something like that. There it gets very difficult to know what exactly is the trigger causing these kinds of changes. While in the north, people are living so close to nature that it is usually nature that has the upper hand until you have the Thule people arriving and they wipe out the Dorsets. You can also say that also happened because of climate, because of the whales expanding and moving east and people following them. So yeah, it's an interesting question that we have to try to sort these different elements.

We used to call the Dorset people the Hobbits of the Arctic, the Hobbits of the Eastern Arctic, because they were this sort of strange people who learned how to adapt in a very basic way to the environment they were in, hunting seals, walruses and caribou. But not being in touch with people in Alaska and not having much contact with the Indians in the south. They just lived their lives and developed beautiful art and wonderful technologies, stone tools and so on but it just kind of stayed in a steady state for 4,000 years until all of a sudden they were caught up in major climate change and the appearance of the Thule people. In that case, that is a good example of where isolation, which had been very effective for them like the virus today. There are places right now where there is no virus at all; there may never be of this particular virus because they were in isolation. But if you are in isolation for too long, the world passes you by and then you have a big price to pay.

Charlie Morrow: Well, thank you for those thoughts. I wanted to touch on one part of it, since this is a series that we're calling *immerse!*, which refers to the fact we negotiate immersive environments and that

way in which we respond to them has a lot to do with what follows. What you said is a very beautiful overview of a lot of collisions and changes affecting the overview of each of the people. I'm wondering, in your studies of the variety of folks who have lived on the earth – how do you think that people take in the outside world and respond to it? Is there something about the inside-outside piece that you've observed?

William Fitzhugh: Well, I see that mostly through social contacts, partly through migration, and this exploratory behavior I mentioned where people decide: hey, I'm going to go look over the hilltop and I don't care what my father says. I'm going to do it and you do it and you come back or the women do things like this too, maybe more particularly breaking out in terms of social conventions or decorative dress and things like that. But once people start moving around they realize that there are different resources in different places like Ramah chert in northern Labrador, which turned out had this amazing stone for making stone tools and that came from a location north of the forest and the people discovered that and then they started trading it. Pretty soon that became a really big deal for them about 4,000 years ago and you have exploratory behavior looking for new lands like the Paleo Indians or the Inuit when they came into the empty Arctic, they needed new lands. They had resources there but then once you settled down you realized, well, somebody's got this kind of stone and it's better and there's copper over here and the Chinese know how to make iron and I'm gonna try to get some of that. And then Vikings come along with iron and you say: wow, maybe I'll trade with the Vikings.

A lot of that kind of inside-outside behavior is going on, people are taking advantage of differences in the environment, differences in the distribution of resources and when you have metal technology coming along and all of a sudden you realize new technologies that can transform minerals into metal that creates huge, huge changes that happen throughout the world as metallurgy began. But it all starts because people are breaking out of their pattern, pushing the technology forward with learning what fire does and how to use it and so forth. Or just for decoration for people who are trading beautiful stones like turquoise or diamonds or all sorts of other stuff. So people are crossing boundaries all the time because there's a market. In Mongolia, people during the Bronze Age, an amazingly stable age for about 800 years in the late Bronze Age when they were creating these beautiful deer stones. But they were beginning then to import bronze and that led them into contact with the Chinese, the Iranians and others. So, systems grow out of these different resource distribution differences that happen around the world whether it is shark teeth or diamonds or turquoise or something, people realize that this stuff has got power. I can bring this home and show it to people and then I'm the guy who can lead them to it or find the resource for them and then you get trade systems to develop in all societies. The edges of all societies have these permeable boundaries where people are bilingual or trilingual and then they're bringing stuff in and taking stuff out. Elites develop and they want fancy goods for their elite leaders.

So, yea, this inside-outside stuff is happening all the time. We used to think of cultures as kind of stable entities and that they were just a self-contained system because as we looked at it both initially from ethnography you came to a certain tribe and you found out that they made their clothes, their artifacts in a very standardized certain sort of way with a certain amount of variety and innovation it, still basically within a template. And then things start to change rapidly and so the edges of these societies are always penetrating and that's when there's a lot of danger, a lot of exploiting and courage required and so forth. Then you get to the core of the power center of the culture. But in archeological times we also find the same thing – we find these stable periods where cultures are making the same kind of tools, the same kind of houses and fireplaces, eating the same kind of food, same adaptions and they will be stable for a period.

Then all of a sudden you will find a rapid shift, sometimes a replacement of peoples, sometimes integrating with other people and mixing and merging. But now we're thinking there is no such thing as an isolated culture. So, what we are trying to do in our science is to piece together whatever little threads that weave this whole tapestry together and following up on which ones that are requiring new adaptions or forcing changes or even religions. So shamanism is another huge worldwide system of beliefs before we get into the kind of codified, big religions 3 to 4,000 years ago. But, for people who are still in a hunting way of life, they're very vulnerable to environmental changes. So shamanism spread throughout the world, starting in

the Paleolithic time period and comes up to the modern day; we have shamans in Russia, Korea and South America and different places today. The period in Alaska when we all of a sudden see a big influx of Siberian shaman equipment, insignias, and artifacts associated with it show up in a particular culture in Alaska, obviously implanted from Siberia , maybe influenced by Siberia or maybe migration from Siberia.

So, that is one example from a prehistoric time period of religion changing the way people looked at the world and we see that today in the kind of religious divisions and problems that have happened because of ideology, not technology and not social life, but simply ideas that grab hold of people or are captured or used by individuals to create their own personal power to change things. In addition to the general economics of culture, you have the personal issues of individuals who forced changes in various kind of ways. I don't I don't know exactly about immerse except to say that we are all immersed in whatever culture we're in and I think one of the things that draws people to anthropology is because it's our own way of kind of exploring boundaries and breaking out of the childhood-family development that we've had and and looking for other ways that people got along, exploring. We're not bringing home diamonds or Ramah chert, but we're out there learning about people, bringing that home to try to see if we can't use that information to make a better world, by creating a better cultural understanding of differences and what motivates people. I think that is one of the reasons that anthropologists are a little bit unique. They're not doing this as a businessman because he's trying to create a profit margin or a military guy that is trying to subdue somebody. It is more altruistic and if we look over the last 20, 30, 40 years that the anthropology starting with Margaret Mead and others really has made a big impact on the way people think about other peoples. We see these people who are carrying rifles into the courthouses or government buildings because they want to see the economy opened up, people stop isolating...

Charlie Morrow: I hear you. One obvious connection that I wanted to explore is just simply that: here we are making media and it's been incredible as you say, trading was based as much as anything on counting and language and learning each other's language and has led to an evolution from storytelling and to creating images on rocks to paintings on walls and various images that are carved on other materials to a very intense life where communication, creation and media is huge. All of the areas where you study the Arctic people are media literate particularly in some ways they took to media faster than in other areas where two-way TV permitted tribal meetings that couldn't taken place otherwise very early on in the game. I mean when radio was invented, it was two ways and the same with TV. And I see from my own position as a traveler and being in North America and Finland, how much the local language and the local point of view and the local television, radio, and music are all part of people's lives. And the use of the archives; I saw an archive of performances by a Sami musician who was working with a local Jazz musician, doing a very enlightened blend between the new and the old, just over lunch two days ago. I think the medium of the world of media has opened a lot of doors and people are learning more and more about each other. I wonder if your last thoughts might be on that.

William Fitzhugh: Well, yea, the same thing that has happened with media has happened with every else in our culture — technology and diversifying and creating ways to communicate that we didn't have before and certainly that's something I've enjoyed because being able to express yourself and being able to present people with information and examples of ways of living histories of how people developed and so forth, all of those are hopefully making people think more about the realities of the world and breaking out of a kind of little capsule of what you have when you grow up and first it's you and your family and then you get to know your relatives and your neighbors and then you go to school or join the army. Your world expands and the Arctic peoples have adapted very quickly, you know, when you think about 1945 in northern Canada there were still people who were starving as caribou hunters in the Canadian barrens near Hudson Bay. Six or seven decades later they're on cell phones and created structures of the United Nations and so they learned very quickly.

But when I first started working in Mongolia, there were horses, people riding horses up and down in Ulaanbaatar with a few cars here and there and this is 2002 or 2003 or something like that and you see a guy on his horse and all of a sudden pull a cell phone out of his pocket and talk to someone on the other

side of the world. So, it is an interesting contrast about how technology has changed, particularly the electronic versions. But I've been very lucky to have found myself in an intellectual niche where I needed material things to be stimulating me, not just ideas. I like to be stimulated by objects and the way people live in the world and figuring out how those things came to be and you can look at the Dorsets soapstone carvings we found that they are 2,000 years old. Then all of a sudden into the 20th century, we have soapstone becoming an art that provides income for Northern peoples who created some of the really wonderful sculptures that now is a whole industry in terms of Arctic art. And then people start adapting like Abraham Rubin who created the sculpture for the Narwhal show, which is a traditional form of rock building used as markers as all sorts of different kinda of concepts behind different forms of how people pile up rocks on the land in the Arctic. All of a sudden you see the Native people moving into the digital world.

I sort of have a pragmatic approach to my own immersion into the way I think about people in the past and tourists will wander around off a ship in the Arctic and they'll look and see an animal or see plants. When I'm with them and when I'm on my own in those areas I have a different immersion. I'm looking at the ground in a different way, trying to figure out did someone put a rock here or change a thing here. You put yourself into a different world, you kind of project your mind back to what the land might've looked like

## immerse! playlist: Podcast 10: William Fitzhugh

American archaeologist & anthropologist heads the Smithsonian's Arctic Studies Center & serves as a Senior Scientist at the National Museum of Natural History. Has done extensive research on the history & archaeology of Arctic peoples & cultures and their responses to climate and environmental change and European contact.

Interview by Charlie Morrow
Incidental sound samples by Charlie Morrow except where noted

Yakut Song • Lioudmila Khandi & Hector Zazou from Songs of the Cold Seas Personal Chants1

Windsong Arctic-Kristallklar Arctic ICE

Spring Helsinki
Two Cellos

+ Arctic snow, wind, ice & birds

Mixed & collaged by bart plantenga, mastered by Sean McCann

5,000 years ago. Gradually you begin to construct for yourself a village with people moving around and making tools, bringing home a seal, carving a little soapstone figurine. So, to me, that's the immersion I feel. It's a kind of exploration of the way people have lived over time and how these lives and cultures have changed through all sorts of different factors - climate, geological change like the land uplifting after the melting of the glacial ice. All of a sudden lakes form where they weren't before, sea levels rose, islands disappeared and so you sort of throw your mind back into those scenarios to rebuild the world as it

was some time ago. And what we always hope is that by learning those kinds of things we can make some improvements as we move forward into the future. A combination of general information that we can provide to get people thinking in different ways about how to improve the world. But we also have to ensure that we have the kind of leaders that can make it possible for us to do those things. That's where I think anthropology can help with the future.

Charlie Morrow: Thank you for sharing your thoughts and your life's work. I'm moved myself as your friend and colleague to hear you speak. We have the same reasons for our life's work and that's inspiring especially in these hard times when it seems forces that are not concerned with the whole world in the best sense, are driving us backwards. I think the ideas that you presented and the actual material world, we have to appreciate in order to be anthropologists of our own lives you thank you for taking the time to be with us today.

William Fitzhugh: Thank you a lot, Charlie. I'm really glad you are doing this; it's a fine product. You have always produce a lot of interesting things.

Charlie Morrow: I wish you a very pleasant day and talk to you soon.

William Fitzhugh: Bye bye.