Interview with Wayne Pathman

Kathy Hersh: We are in the office of Wayne Pathman. We are interviewing him today for the Miami Beach Visual Memoirs Project. Today is October 11th, 2018, and I am Kathy Hersh doing the interviewing. My first question for you is were you born of The Beach.

Wayne Pathman: I was born on Miami Beach in 1959 at Saint Francis Hospital.

Interviewer: OK, so I'm going to put down that you are one of the ones born on The Beach and raised on The Beach.

Pathman: Born and raised and still live.

Interviewer: Still live there, so you've seen a lot of changes.

Pathman: Certainly have.

Interviewer: Miami Beach is a city which seems to reinvent itself almost with every generation. Has that been your experience watching it grow?

Pathman: Well, I think that it definitely has changed from, I think, when I was younger, especially growing up on The Beach and going to elementary school and middle school. It was very much a community where everybody knew everybody. I think that's changed. It has certainly grown.

Our theme has always been tourism, as far as the main economy, but even that's changed. It was a sleepy town for four or five months out of the year. That's not the case anymore. I think that tourism is year-round now, and we've really built a community that's very diverse and has a universal name throughout the world.

Many times when I travel, people say, "Oh, I know where South Beach is." I'll say, "Yeah, I live in Miami Beach." They go, "No, South Beach." They don't know that South Beach is part of Miami Beach, and trying to explain to them that Miami Beach is the main island and South Beach is just a segment of it.

I think there have been a lot of transitions. I think when I was growing up, it was a fairly large Jewish community. I think that's changed. I know that there are less Jewish-style restaurants,

delicatessens, temples. I wouldn't say it's a change for the bad. It's just change.

Things happen and I think a lot of the Jewish population has moved to other parts of Florida, north into Broward and to Palm Beach. I see a regeneration now of younger families coming to Miami Beach and living here, which is good because at one time, when I was growing up, we were known as the retirement community. Everybody had a grandmother or grandfather here.

Today, that's not said anymore because that's not a big segment of our population. It's mostly younger people and different generations, whether it's millennials and so on. I think it has changed a lot.

Interviewer: When you were growing up did you have grandparents on The Beach?

Pathman: No. Well, let me correct that. My mother's mother would come here but didn't live here. Would come here for months at a time. They had a condominium, but primarily lived in New York.

My father's parents did live on Miami Beach. They came here during World War II from Chicago, but would travel back and forth. They died when I was very young.

How the Pathmans got to Miami Beach, my father was in the Army Air Corps, a copilot in B-24s flying, ultimately,_ in Pacific Theater. He got stationed here during his enlistment, as many GIs did back then. He wrote home to his father and mother and said, "You should come to Miami Beach for vacation. It's nice and warm," as compared to Chicago at that time of the year. That was in the winter.

Ultimately, a post card caught up with my father many months later. His father said, my grandfather, "After the war, don't go home to Chicago. We now live in Miami Beach."

Interviewer: [laughs] [03:43-03:44].

Pathman: My grandfather took a ride one day up A-1A. Got as far as Surfside and said, "This is a nice place to set up," and started buying plots of land on Collins Avenue and Harding Avenue and other parts of the Surfside area. The family went into business developing motels and homes. A lot of the commercial areas that you see on Harding were built by my grandfather and my father.

Interviewer: What were some of the motels that they were responsible for?

Pathman: Prince Arthur is the one that I remember the most, but there were others. I just don't remember the names. One of my father's brothers was a pretty well-known architect at the time back here in the '50s and early '60s until he died. He died very young. He built a lot of homes in Surfside as well as some of the commercial buildings and the motels. Some of them are still there today.

Interviewer: Did you spend a lot of time poking around while these things were under construction?

Pathman: Well, again, I was born in '59. When I was, I'd say, four or five years old, I would stroll down Harding Avenue and pretty much everybody knew I was Lee Pathman's son or the grandson of Henry Pathman. That was Surfside, not Miami Beach, but it was a nice town where everybody knew everybody.

Back then, in the '60s, Harding Avenue was sort of the cosmopolitan area. There was no Bal Harbour Shops. Many of the upper-end shops were on Harding Avenue in Surfside and ultimately moved into Bal Harbour Shops. It was a very nice neighborhood, very touristy in terms of seasonal.

I grew up there up until I was about five years old. Then we moved south into Miami Beach and have lived in Miami Beach my entire life.

Interviewer: Where did you go to school?

Pathman: Started at Biscayne Elementary then I went to North Beach Elementary when we moved to the middle of Miami Beach. Then Nautilus Junior High School and ultimately graduated from Miami Beach High.

Interviewer: What year did you graduate from The Beach High?

Pathman: I was the class of '77. I left early in '76. I graduated early and went on to early admission to college to try to play football.

Interviewer: Miami Beach High has a reputation, or had at that time, of having high scholastic endeavors and that there was an atmosphere of seriousness with the studies there. Did you find that to be the case?

Pathman: I always thought academically Beach High was always one of the top schools in the county. The debate team was one of the top, if not the top, in the county. Academically, we, I think, stood out and we had a lot of Silver Knight awardees or people who got awarded the Silver Knight, which is a high honor from the Miami Herald.

I think academically we were one of the top high schools grade-point-wise that was a public school on average. I thought it was a very good high school. I was proud to graduate from there.

I think it still has a pretty good reputation. They have lots of different programs now on the scholastic side that kids do very well and go on to very good and prestigious universities after graduation.

Interviewer: I'm going to shift now and ask you about how you were led into the specialty that you're now known for, for sea-level rise and land use and sustainability. What led you in that direction?

Pathman: On the land-use side, I have always had a background in development and land use. When I was in college, I was a teacher assistant for one of the professors that I had in public administration and political science. He was the local zoning chairman of their zoning council.

Interviewer: Where was this?

Pathman: When I transferred from the University of Michigan, I went to the University of South Florida in Tampa. I worked for him and learned zoning back then, even when I was in college long before I went to law school.

When I was in law school, I was very interested in that area. I was also a trial lawyer. After about three years of practice, I started to convert my practice to land use, zoning and environmental work.

That's how I got into the zoning field. I like the fact that land use gives you an opportunity to get out from behind the desk, to be out there negotiating and presenting. So does being a trial lawyer, being out and doing things and presenting. I like public speaking so land use was a good fit for me.

On the sea-level rise or resiliency side, former commissioner Katy Sorenson, who was a Dade County commissioner, invited me to a forum one day about eight-and-a-half years ago. I had presented in front of her when she was a commissioner many times and we had

become friends, and she said that I think this is an area that you would like and you should get involved in.

I went to this forum and I met a number of interesting people that were already engaged in this, mainly from academia and some scientists, climatologists. I found it fascinating that we have this big problem coming and it really hadn't been talked about back then.

Here I live in an island community that certainly would be impacted. Because of my land-use environmental background, it was intriguing and it fit right in. From there, I started getting more and more engaged in that topic.

I was involved with the Miami Beach Chamber of Commerce, which I'm now chairman of. At the time, I was heading up a couple of their committees. I said we should hold a forum and try to make the public aware, and stakeholders and city officials, of this issue and how important it will be to this community.

We did that. From there, it just kept snowballing. I guess today I'm considered an expert on the economic impact of sea-level rise to coastal communities. I've been speaking a lot around Florida and locally, but around the country as well.

Interviewer: Yes, I noticed an award on the wall, the Celebration of the Sea award from the Wyland Foundation. Tell us about that.

Pathman: The Wyland Foundation hosts different forums throughout the world, really, but mainly in the United States. They award certain citizens with awards who have shown an interest in preservation of the seas. A gentleman by the name of Patxi Pastor has a foundation. He is connected to the Wyland Foundation.

A few years ago when they had the Seafood Festival, Wyland was one of the sponsors. They presented me with that award for the work that I have done in the community with regards to making people aware of the impact of sea-level rise and flooding and the importance of preserving our seas.

Interviewer: Do you feel that you are making an impact?

Pathman: Well, I hope that I am getting people to start thinking differently because it doesn't have to be doom and gloom, but it is something that is going to change the makeup of South Florida eventually.

Mother Nature is coming and she's not negotiable. She's going to have a major impact on not only South Florida, but the world.

We already see it changing in many parts of the world. I think South Florida is just one area. Many people consider in studies that have been done that South Florida is ground zero for economic impact due to sea-level rise and flooding.

I think that we need to be aware. My goal is to not only try to educate, and I serve as the chairman of the City of Miami Sea Level Rise Committee, as well as the Chamber of Commerce chairman. I use both of those hats to try to make people aware, get government paying attention, try to be engaged in the topic to start making major changes to have sustainability.

As a life-long resident of Miami Beach, I think that's very important. My children are third generation, so I think that that's very important and I want to preserve, for them, the future.

Unfortunately, we're a very reactionary society. We tend to react better after something has happened as opposed to when it's coming, but that, I think, is my role and others of trying to now push us, because if you wait until it happens, it'll be too late.

The economics of the impact of sea-level rise and flooding are going to happen a lot sooner than before the water gets here 50 years from now when it becomes a real inconvenient situation.

Interviewer: Well, the water is already here, isn't it?

Pathman: Well, the water is here in terms of we just went through the king tide season, but it was relatively mild because of many things that cities have done with pumps and raising of roads and so on this particular season, so that's a good thing.

Water is changing and, yes, we have impacts from it, but not like the impacts that many predict, like the Army Corps of Engineers or the South Florida Four County Compact, that by 2060 it could be as much as two feet or more. That's significant. That changes a lot. That's an inconvenience on a daily basis.

Now, we have some disturbances. We have problems with sometimes heavy rainfall and distribution of water. Storm water systems are starting to change.

The real impact of what is coming sooner than later is the economics. Flood insurance is going to change. Banking is going to change. Taxation and bonding are going to change. Unless you have a risk plan to address those issues, in terms of what a city or municipality or even an entire state are going to do over the next 25 to 40 years, you're going to feel very significant impacts from economic change.

Some of the things that I advocate is that we have to be very cognizant of what is happening with flood insurance. Many believe in FEMA, and the National Flood Insurance Program in Washington as well, that within two to three years, we could be going to risk-based assessment insurance, which is a total game changer for property values and total game changer for how that will affect banks and other institutions.

Interviewer: And development on the beach.

Pathman: Yeah, and it doesn't have to be that way. If you address risk, you can address these problems and you can build and change things accordingly and still continue strong investment in the community. I actually think that a lot of what we're facing in the future could be an economic boon for South Florida in terms of jobs and investment if we do it right.

Recently, there was a program on 60 Minutes on September 23. The water ambassador from The Netherlands, they created an ambassador position and his ambassadorship is about water. I'm sure I'm going to say his last wrong, but it's Henk Ovink, I think. Anyhow, he's a really brilliant gentleman. I've met him a couple of times.

The message, if you watch the segment, that they're saying is that America really needs to start doing things differently. He said that The Netherlands, we learned from a catastrophe we had in 1953, where they lost 3,500 people roughly. Their systems failed and they built differently. Today, what he says in the program is, not one person has died, since we changed our systems, from flooding or sea-level rise.

In America, we don't necessarily build for the future. It'll be interesting to see after Florence hit North Carolina are we going to rebuild or are we going to build so it doesn't happen again. To me, what I try to emphasize is build differently. Lower risk.

There's a good example for South Florida of how to do that. After Hurricane Andrew, the South Florida building code, which is now the Florida building code, was changed. Many were against it in the construction industry or development community, because they thought it would add a lot of cost to development.

In fact, it spurred better development, stronger homes, stronger buildings and, as a result, greater investment. Insurance was kind of kept at bay. It didn't skyrocket. If you have an older home, let's say, in an area and you didn't upgrade or you didn't change to the code, you're going to pay more for insurance. If you have one that complies with the current code, you're not going to pay that.

The same thing could apply or the same methodology could apply to how we address flooding and sea-level rise. We have to start addressing it. The more we lower risk, the better that we're going to get with regards to insurance and insurance not increasing, as well as making banks and other institutions feel comfortable.

Insurance, to me, it the tip of the spear. If that changes, that sends a red flag to everybody that there's risk. Should we be investing and should we be building or living in South Florida?

These things, like others that we've faced, I think are manageable. It doesn't mean everything will be the same, but I also think that, in time, technology will also help and how we build and how we construct things and where we live will help. There are many, many solutions to doing things. We just haven't implemented them yet.

Interviewer: What I think we could pretty much agree on having seen in the last several years in Miami Beach, we've lived here almost 40 years, is a rush to development. The smell of money was very powerful. I mean it got a mayor indicted into federal penitentiary. I mean the lure of what became so lucrative on Miami Beach. Are you seeing people addressing the risk more in terms of developers being serious about this or are they just trying to get in and get their money out?

Pathman: I think there is both. One, I think it's still a strong economy in the market here. I don't really have fault with someone that builds to sell and move on. That's the nature of many businesses around the country, whether it's here in South Florida or not.

Many stakeholders and developers, like David Martin from Terra Group, are starting to do things differently, build differently, address

the issue of resiliency and flooding. Cities are starting to do that, too. We're not doing it fast enough, but we're starting to address it. It's become more of a common discussion than something that was discussed behind closed doors or not at all.

A few years ago, when Rolling Stone magazine did their article by Jeff Goodell, they made it sound like complete doom and gloom and pack your bags, it's time to leave. Well, hundreds of articles have been written since then. Still we have flourished down here in terms of development, but we need to develop and build differently.

In Miami, from South Brickell to 36th Street, you have maybe 60 to 70 projects over the last five years that are either built, being built or will be permitted. If the code had addressed flooding and sea-level rise, we could have built it a lot differently and had a more sustainable environment with a built-in infrastructure working with the development community and stakeholders and government.

That's what I've been advocating or my committee, the Sea Level Rise Committee, is advocating that we do and we start changing. Miami 21 is the zoning code. It's a form-based code. It's an excellent code, but it's really silent as to issues related to flooding and sea-level rise.

That's starting to change. The City of Miami is starting to address those issues. The City of Miami Beach has done a number of things in their code to address those issues, but a lot more needs to be done.

I advocate to both cities that assessment first. Assess the issues. Determine the economic viability of a project, how long lasting it will be, how it will impact the neighborhood, is it the right project should be done first before we implement a project.

Interviewer: That all has to do with zoning.

Pathman: Well, it has to do with zoning and building and planning. Unfortunately, many times projects, capital projects specifically, that you might see driving around a community that are being implemented are from plans that are six, eight, maybe even 10 years old and don't contemplate or didn't take into consideration at the time what's changing and what's happening.

We shouldn't continue to do that. We should modify those plans to be adaptable for the future. If we do those things then we have an opportunity, I think, to make a much more sustainable environment.

Interviewer: The City of Miami Beach has an office of resiliency?

Pathman: Yeah, Susie Torriente is assistant city manager and chief resiliency officer.

Interviewer: The county has a resiliency [crosstalk] [20:05] department.

Pathman: Jim Murley, yes. The City of Miami also has Jane Gilbert.

Interviewer: OK, so that's important, at least, that they have dedicated people to focus on that. Are they talking to each other?

Pathman: They are all actively involved with each other. The three entities that you named, the county and the two cities, jointly filed to get a Rockefeller Grant for 100 Resilient Cities. They worked together on that and are continuing to.

I know all three resiliency officers personally. They're all good. They all communicate with each other. What I haven't seen happening, and it's a form of government, the county is above the cities, is that the water isn't stopping at any border. It's coming. It's not stopping at the edge of Miami Beach or the edge of Miami.

Everybody needs to work together in planning their infrastructure and major projects or capital improvement projects by working together. There are a lot of things that have to be addressed. For instance, in Miami-Dade County, which affects a lot of cities, I believe 40 to 50 percent of the county is still on septic tank.

Interviewer: We are.

Pathman: That's one of the first things that has to be eradicated due to rising tides and heavy rain. Even in Coconut Grove, there are areas, when they have heaving rainfall, it bring up the byproduct of those septic tanks and they become above ground, so to speak, or even in the street and create a terrible odor and could become toxic.

A lot of those things need to be addressed and that's a big number. I have been told by some former administrators at both the county DERM and the water management, could be a six-to-eight-billion

dollar problem to create and move everybody off septic that needs to be and improve our infrastructure.

It also will have an impact on residents, because as a sewer line is brought up, you have an obligation to tap in to the sewer and eradicate the septic. That's a cost to the individual homeowners.

Some of the things that I have suggested through my committee is that what cities should be looking at is someone who can't afford to pay that should they get a tax credit on their county taxes. Should they get a federal income tax credit or should it be spread over time, so that we can get started and move this forward and not financially impact everybody in their homes?

The other side of that is we don't do it, it's going to start impacting values. It's going to be something that you can't wait too much longer because we're already seeing impacts due to heavy rainfall. Not so much from the sea-level rising yet, but that's not far away. If that happens, the tanks themselves will be impacted as well as the drain fields.

That's a major problem and that's a major cost. I think communities need to work on that that have septic, that their communities are still caught on septic.

Raising road projects, information and design should be shared among cities. There are many different ways that a project needs to be done, depending on elevation, surrounding property. Some of the stuff that's been done in certain cities has not worked well. Some others have. That information, I think, people should cooperate from city to city and county to county to try to help each other.

The four-county compact tries to do that, but the biggest thing, I think, that is being omitted from the efforts is that the business community and the stakeholders have to be engaged in this process and have to be engaged in the dialog of what is going to change, when, how and how are they going to be incentivized to be part of the process, whether it's through P3s, public-private partnerships, or obligations in terms of when you build or develop something, how high can you go, what kind of infrastructure should you be putting in.

All of those things need to start being addressed so that we can lower risk. Risk, to me, is the four-letter word and the 900-pound gorilla in the room. Many times, if I can make a quick segue, when I

go to conferences or when I speak at conferences, I hear lots of great ideas and lots of people saying, well, we're going to be able to do this.

I always ask one question. How are you going to do that in 20 years if economically you can't afford it, if property values start to shrink, if people aren't investing here? We don't have industry here. Tourism is our industry. Property taxes are how government makes money. If those things start to change, and I've seen reports where they anticipate by 2025 to 2035, there could be as much as a 30 percent drop in property values and tourism over the next 25 to 30 years if we don't start doing things.

Interviewer: Where did that estimate come from? Do you know?

Pathman: I can look it up before you leave. I just don't know off the top of my head. I think it was from 2025 and like 2040, something like that.

Interviewer: That's quite a bit.

Pathman: It is. It is quite a bit. What people don't understand, that's not necessarily directed towards their water, let's say, being in the streets or lapping over the seawalls. What that means is that because of changes due to risk and lack of investment or development or property values decreasing, because of the economics is what's going to cause that problem.

It's not about, oh, well, people are going to be leaving or abandoning their property because there's water in the street. That's not coming for a while. Much that we could do, hopefully, with technology and design and engineering, we will be able to push that back or have a much longer longevity before that happens or even eradicate it in some cases.

Now, we have a unique problem in South Florida that much of the world doesn't face. We have the problem of water rising over and the water rising underneath [crosstalk] [25:56] because of our porous limestone.

Interviewer: Bubbling up.

Pathman: Our geology is very different. There are lots of solutions for water rising over. I'm not aware of a lot of solutions for the water rising up, other than developing and building at higher ground. It makes a lot of sense. Right?

If the water table is at four feet on Miami Beach, if it rises a few feet or if, they predict, by the end of the century, it's going to be above four feet, well, then you're going to have some water in your backyard or on the street. If you elevate your property 20 feet or 15 feet of fill and then rebuild, which we've done for centuries all around the world, you're sustainable. How we do it, how we engineer it and how we plan it is what is really important.

The risk community needs to see that. They need to see that cities and counties and states are developing plans to lower risk, add infrastructure that's going to make the environment sustainable to be able to live here and continue to expand and grow and have the growth that we've seen over the last five to 10 years so that type of thing can continue and that the people who are moving here are going to feel comfortable and that there's multiple cycles left before there's any abandonment or moving away.

There are a lot of good things happening. There is a lot of attention being paid to these issues. I think I said technology is changing. We are finding more and more solutions or things that we can implement and do, but we have to do them right. We can't just say, well, the pump program of any city is going to be the answer.

I look at things as things that are resilient and things that are just mitigation. Pumps, to me, while solving the immediate problem, that's just the mitigation strategy. They're not going to last forever. They're not the solution to stopping water.

If you watch the program on 60 Minutes, you'll see much of what The Netherlands have done, which are well beyond mitigation strategy and resilient strategies and why it's been so successful for them. We need to start thinking at that level. We need to start thinking and implementing those kinds of ideas here because, one, they're going to take a long time to plan, fund and implement.

The sooner you start, the better chance of you actually having the opportunity to do it and do it right and, at the same time, encouraging development in the area because they will see that, OK, the city has a plan on how they're going to address this issue.

One of the things you may want to look at in North Carolina a few years ago, the governor they had there and what the legislature decided was that they weren't going to talk about, in essence, sea-

level rise and flooding in their coastal communities, like Miami Beach, where there are tourist areas and how they were going to build. They were going to allow development to continue.

The governors changed. New governor comes in and says, “Hey, we really need to start thinking about the impact of sea-level rise and flooding in our coastal areas.” Well, before they really had a chance to do a whole lot, Florence came.

Now the question is are they going to rebuild the same way or are they going to rebuild so it doesn’t happen again. That’s the big question. That’s the big question for every community.

Unfortunately, the lesson learned only happens after, and that’s the way we work. That’s, like I said, the 60 Minutes segment talks about that. Other parts of the world are learning before. They had their disaster in The Netherlands in ‘50s. We’ve had many hurricanes here in different parts of the country.

New Orleans, for sure, has learned a lesson and is building totally differently. Some of their projects are really some of the leading things being done in the world.

We haven’t implemented that kind of thinking yet, because we’ve been lucky. We’ve dodged a lot of bullets.

Interviewer: I’m curious about how the historic preservation areas are doing to be preserved. Can you lift up [laughs] [29:52-29:53] a Deco hotel? What are they doing to ensure that they’re going to be around when we start feeling all these effects? What can they do?

Pathman: There are companies that say we can pretty much lift anything.

Interviewer: Really?

Pathman: Yeah. There’s a company that’s visited here in South Florida. I forget the name off the top of my head. They’ve done a lot of work in New Orleans and other places.

Interviewer: They would literally lift [crosstalk] [30:22] the building?

Pathman: They think they have the engineering to do that. I haven’t seen a large structure like you’re referring to being lifted. A lot of people refer to back many years ago when they lifted a good part of Chicago. There’s a lot of history behind that.

I don't think it's as easy today. I don't think it's something necessarily that will always pencil out in terms of how you preserve it. There may be other solutions to help do that.

One person you could talk to locally is Reinaldo Borges. While he doesn't live on Miami Beach, he's a renowned architect who is very active in the Miami Beach Chamber of Commerce, does a lot of projects in Miami Beach. He has a lot of interesting comments and idea about how architecture could be preserved, if it can.

Interviewer: B-O-R-G-E-S?

Pathman: Yes. The answer to your question is that you're not going to save everything. Historic structures that are low lying in low-lying areas will be impacted over time. Some people will have to weigh what does it take to save it versus what can they afford to do.

Even studies that have been given to the City of Miami Beach, for instance, like ULI or the Harvard Study, have even said that you have to think differently on preservation today. You have to incorporate new ideas, new science. You have to look at it differently on how you can manage it.

I think preservation is a very important thing for communities. Many parts of the country are facing it. Boston, which has many historic areas, as we know, our history from the colonial days, they're faced with lots and lots of things. Now, they don't have the same problem with their geology that we do, but that is one area that is really struggling and facing and trying to come with new ideas on how to preserve all their historic landmarks.

Interviewer: Charleston, too.

Pathman: Yeah, Charleston. In Norfolk, Virginia, which is our main naval base, the Department of Defense feels that sea-level rise is an issue of national security, because it will affect the entire naval base and it's our largest naval base. There are a lot of things happening in Norfolk that are interesting.

Getting back to preservation, the first problem or, for lack of a better term, wave that's going to [crosstalk] [32:35] hurt historic preservation is the cost, the economics. Because as insurance

starts to change, and depending upon where these buildings are and what areas, they will be impacted.

Interviewer: [laughs] [32:35-32:35].

Pathman: Then the question is how do you preserve it and can you afford to pay the insurance, because they are not equipped to handle today's issues dealing with flooding and sea-level rise. They're older structure, which may have been built very strong in terms of for hurricane, because many of them have been around here for all the hurricanes that have passed through South Florida, but flooding is very different and sea-level rise is a constant.

If the water table rises and there's salt water intrusion and we have salt in our streets, it affects foundations. It affects buildings. The cost to insure them now, in present market, will continue to rise so someone has to do a cost-benefit analysis of is it worth doing. Paying for the insurance, how do you pass that along to your tenants if it's an apartment building?

Like North Beach has a lot of wonderful, small, historic buildings of different times or different time periods of the development of Miami Beach, but some of them are in low-lying areas. Some of them may be so small that the cost of the insurance can't possibly be passed on to the tenants at the income level of the people that are living there.

That creates a huge dilemma for can the people stay and afford to live there. Can the owner of the property or the building still afford to operate the building when his costs are going to continue to go up?

That's a big problem. It's going to be a big issue, and it's not unique just to South Florida. Lots of areas that are low lying and that have the issues with older homes and buildings are starting to experience a lot of new problems. As insurance changes, and it's going to change, it is going to create new problems for all communities in terms of value, affordability.

Those communities that have the ability for what they call planned retreat, where they can actually move away, which we don't really have in Miami Beach, because it's an island, but that's already taken place in other parts of the country. After Sandy, they have had planned retreat.

Other parts of the world already use planned retreat, meaning that they're moving things where they know they're going to eventually flood and moving people out of harm's way and building things that will maybe allow that area to flood, but preserve other areas. We don't do that yet, really, here in America, but we have seen the retreat, especially after Sandy.

We're starting to see some changes, some new ways of thinking of how we can create adaptability. I also think that some of the older buildings, technology will help. Some will be in the path and may not be able to be saved. That's a possibility.

Luckily, on Miami Beach, much of the historic Art Deco district is on the reef. Collins Avenue, Ocean Drive, they're on the reef. That's the high point on Miami Beach. It's everything west of there is what's been dredged. Back when the pioneers came here and started dredging the swampland and building it, they're much more at risk. They still have historic building there, too, but the ones that are on Collins Avenue have a little bit longer shelf life ultimately.

Interviewer: If we could paint a picture of The Beach in the future, let's say that it goes ahead and it reduces the risks, like you say. That is essential is order for this to be economically viable. What will it look like? What will be different about it do you predict?

Pathman: Well, I think that we will change our zoning codes. Unfortunately, the issue with rising water is you've got to add height. You have to elevate.

Two, what we're learning from much of the world is that you've got to learn how to move and store water. You've got to work with it. You're not going to eradicate it all. That has to change.

If we develop open parks, for instance. In many parts of the world, where parks are developed, they have secondary purposes to allow water to drain into them or underneath them with storage retention underneath them. The water is released after the flooding or the tide returns or a storm is over. We haven't done those kind of major infrastructure things yet.

Raising roads is an important issue, as long as they're raised right. Designing of those roads should be looked at so that they don't impact surrounding properties, but that they add an added value so that they're navigable by cars and so on.

I think that the landscape will change, as we get closer to the end of this century, because the water table could be much higher. Much of what we know today is that by working with water, it's sustainable, whether you build on the water with floating homes, which they have a number of them in The Netherlands. I've seen them. I've been there and they're fantastic communities.

Also, like I said, in The Netherlands, they have things called water squares. There is an area that they showed, and it's in the 60 Minutes segment, and I was there. When you see it, it looks like an open-space park. No green, except for some planted trees. It's mostly concrete, but it's an amphitheater style. It's elevated like this, tiered up. You can play basketball on it or soccer. It's between some office buildings, an apartment building and a school.

What happens, though, when they have heavy rain, the water filtrates underneath this square into tanks. It allows the square to actually fill up with water as well so the surrounding area does not flood. When the rains stop or the tide recedes, the water is released.

Interviewer: It's like a retention pond with tanks [crosstalk] [38:35] underneath.

Pathman: Yeah. They call them water squares. Some of that technology and those ideas have to be incorporated here in our future. The landscape will incorporate those kinds of things.

I think that the main arteries to Miami Beach, the Venetian, the Julia Tuttle and the MacArthur, will change because one-and-a-half to two feet of sea-level rise, the low-lying portions of those bridge areas are going to flood. That will look very differently.

Interviewer: Should they start doing that now, you think?

Pathman: Well, I think that it's something they should start paying attention to to implement within the next 20 years. Those are mostly state and federal roads. It's not really the city's problem, but the city should be advocating to our state and federal government that they should be looking at this and having a plan in place.

I think water itself will be used more for navigational purposes to get to and from. Whether it's to and from Miami Beach or around Miami Beach, those things will be used. We'll be looking at things differently there.

Technology and engineering that we are now seeing developed around the world will eventually come to South Florida. That will change our landscape, too, in terms of how water will be prevented from entering into a community or entering into an area, much like what they do in The Netherlands.

There was a workshop sponsored by the AIA about a year ago that Reinaldo Borges was chairing. In that workshop, they did a charrette of ideas and solutions and things. There were lots of very, very smart people there dealing with this issue in terms of architects and engineers. They came up with a lot of really interesting things as to how things might look behind me in the future, but sustainable.

Do I think that the land mass that we have today will be exactly the same? No, I think it will change. People have to remember that when the pioneers came here, it was mostly an area that had lots of swamp, lots of canals, lots of ways where water was moving from the west coast to the east coast.

We eradicated a lot of that because we developed it. Now they're realizing some of that needs to be put back to allow water to move and flow. That will change the landscape and how things will look in the future.

I think that you will be living at a different elevation. You have to raise things. You're not going to be able to make everything go away by staying at the level that we're at because the water is going to rise up from underneath. If it was just dispersing water that flows over, again, a lot easier from an engineering perspective or technology perspective, as opposed to the water [crosstalk] [41:24] rising up.

Interviewer: Like what the Dutch have done.

Pathman: Yeah, and in many places in The Netherlands and other places, they build buildings with the understanding that eventually they might have to abandon the first floor. They build them higher, the entry areas, so that there's like two first floors. They construct them in a way that if they were ultimately impacted by water they're sustainable.

I think we're going to start having to think like that, too, ultimately. A good friend, Harold Wanless, I don't know if you've spoken [crosstalk] [41:52] to Harold.

Interviewer: Oh, yeah. Well, I know who he is.

Pathman: Harold is fond of saying pack your bags, it's already too late. Where we disagree is I think that man has figured out a lot of things. We got to the moon. When people came here in 1905 or the 1900s, what they saw was not what you see out my window. It was swamp, mosquitoes, hot, trees and look what they built. Look what's here today.

I think that we can be resourceful. I do think you have to accept Mother Nature, because, like I said earlier, she's not negotiable. She's coming. It's going to change things, but I think we can adapt to things.

The critical issue to me is when do we start. How quickly do we start phasing this in or at least planning for it so that we can be prepared, not thinking the way we typically think is, well, we do it after the fact? We'll deal with this after the fact. Because if we do that, then I think we have serious problems in terms of not addressing risk today.

I think that's the key issue. There are many things that the [phone rings] [42:57-42:58] people in government or that the [phone rings] [43:01-43:02] chief resiliency officers that we mentioned earlier, what they have to [phone rings] [43:05-43:06], whether it's gentrification or transportation [phone rings] [43:09-43:10]. Risk right now should be the number-one issue on everybody's mind that you need to let the investment world and the banking world and the insurance world, particularly, know that you are addressing risk so that we can continue to build for a sustainable future.

[end transcript]