UNIVERSITY OF HOUSTON
ORAL HISTORY OF HOUSTON PROJECT

Mike Collins

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RA: Let's get into the questions if we could.

MC: There's some overlap in the questions. You've covered a lot of ground there but I don't see any big gaps. It might be good to just kind of go down the list.

RA: I am Reed Amadon from the Center for Public History here to talk to anthropologist Mike Collins, Ph.D. Research Associate, Texas Archeology Research Lab, University of Texas, Austin, Texas. Thanks for seeing me and being part of this project and one of our goals is to kind of record the people, get a historical record of the people that have been involved in archeology. A lot of one of our feelings is that a lot of people are going sort of unknown historically. They do a lot of work but then they finish their careers and they are off. We want to capture some of the works that they have done for historical record and other people in the future can go back if they are looking at the Gault research or other work that you have done they can go back and they can research and get some idea from the record about what has happened.

MC: Okay.

RA: So it is an archival record that will be stored at the University of Houston and available and I will try and get you a transcript once it has been transcribed.

MC: I would appreciate that. Would you turn that off just a second, I just late yesterday afternoon mailed off a manuscript that has just been a monkey on my back and

when I'm writing I just throw stuff on the floor and it ends up in a big heap. But I want to have I think I have a copy of my curriculum vitae. I have a couple of questions I might want to glace at it and refresh my memory.

RA: Absolutely.

MC: This is the right one. When we get through if you are interested you can take this.

RA: I would love it, I'd appreciate it.

MC: It would be kind of a cross reference to what we have talked about.

RA: Alright very good.

MC: You don't mind me stopping you if we need to?

RA: No we'll just play it by ear. One question I'd like to ask is what initially got you interested in archeology?

MC: You know I can't answer that I just know when it happened. When I was about I'm going to say four years old I stayed with my aunt and cousins for a few days, my aunt and uncle and grandmother and cousins and the cousins were a little older and they were in school and the golden encyclopedia for children had just come out and my cousins had a copy of it. It was a single volume encyclopedia with these funky little hand drawn illustrations all through it and my grandmother let me sit on the floor and look at it. To this day there are two pictures in here that I still remember from that, and that was before I could read I was just looking at the pictures. One of those was the prehistoric flint mines in England and the other was the cliff dwellings at Mesa Verde. So here is the cliff dwellings at Mesa Verde picture. I just found this in a used book store a few years ago. I had to have it. So there was something there very early. I got involved in archeology when I was eleven.

RA: Eleven?

MC: Eleven, the discovery was made of the human skull south of Midland on the Scarber (4.37) Ranch, I grew up in Midland, west Texas. That is one of the oldest bits of human remains that we have in the western hemisphere.

RA: Really?

MC: We don't have a date on it but it's very early. Because of the local connection I had to a Glen Evans there in Midland who was a geologist who did the geology of a lot of important geological sites in Texas and Oklahoma and elsewhere. He and I were friends and he invited me to go out and be on that site and I met some of the major players in Texas archeology at that age. I had already, I was already convinced that was the direction I was going but that was a huge boost to my career. That was Fred Windorf who is now a member of the American Association of Scientists, National Academy of Scientists, Alex Kreger who is one of the most prominent archeologists in the new world at that time, Jack Hughes on down the list. Those are guys that I maintained friendships with for the rest of their lives. Windorf and Evans are still alive. I also met Claude Albritten a geologist that was on that project. It was….

RA: Fantastic!

MC: A kid couldn't have had a greater experience.

RA: That is fascinating. What do you think attracted you to that sort of thing?

MC: I don't know. It just fascinated me.

RA: It just clicked?

MC: I spend as much time as I can with kids and give tours of the Gault site to kids and I had a school kid out there one time. That kid was bored to death I mean he was just

looking all around until I started talking about the physics of optically stimulated luminescent dating. That kid's radar homed in on me and he absolutely did not break eye contact. He listened to everything I said. I mean that was his… that connected to him and I can't tell you why, he couldn't tell you why. It's just the way people are put together.

RA: What is your present position and what is TARL?

MC: Okay TARL is the Texas Archeological Research Laboratory and that Archeological is spelled EO not AEO and it is an organized research unit of the University of Texas at Austin. My position is Research Associate which is a non salary research appointment that I have to generate my own salary from outside projects.

RA: They let you be here but you have to pay your own way?

MC: Yeah well they provide the infrastructure, this lab and computer and phone and so forth and so on. I have full library privileges and I don't have to serve on the university committee. I can serve on graduate student committees which I'm serving on graduate student committees not here but A & M and several other universities, Tennessee. So it is a, I can be my own boss.

RA: So it works out fairly well?

MC: It works out beautifully.

RA: Is there money out there now to do this?

MC: It is tight as hell right now. As a matter of fact, your wife is sitting in one of three empty offices that I have because I've had to let my entire staff go. The Gault project is not funded right now.

RA: Really, gee with all the different schools involved.

MC: Yeah the key funding that we had was from foundations here in Texas. Their source of funds has just tanked mostly investments.

RA: That's a tragedy.

MC: It is.

RA: Do you think that will turn around?

MC: I think so but I don't know how soon.

RA: You hope soon.

MC: I hope real soon.

RA: That's an interesting tone to this. What was your… and that's an interesting phenomenon too the whole aspect of depending on really third source funding and if something happens in the link it effects so much other stuff.

MC: That's right.

RA: What was your journey like to get to this position that you now have?

MC: Well in a way it has been almost a straight line and in a way it's had a lot of detours along the way.

RA: How is that?

MC: As I say I grew up in west Texas in the 50's and of course Texas was in a very severe drought in the 50's especially west Texas. All of the wind erosion out there was exposing plastesine fossils (9.55), mammoth, horse, camel, so forth and so on and archeological sites were just deflating everywhere. I began to…

RA: Use the term deflating.

MC: The wind was blowing the sand off of and from around the artifacts and they were dropping down on surfaces and being exposed to be picked up. I started as a kid doing

that. My dad was sharp enough to say, "You need to keep records of what you are finding." As I say when I was eleven I got acquainted with Glen Evans who was a consummate naturalist in every respect.

RA: You say Glen Evans?

MC: Glen Evans, G-L-E-N E-V-A-N-S. A day in the field with that guy was like a year in collage I mean just phenomenal and a huge influence on my career. He was interested in those really earliest cultures in the Americas and those things were being exposed right around me. Sites that we now date to 11 to 13 thousands years ago and I was picking up…

RA: Those were all in the Midland area?

MC: Yeah. A lot of those were sites I could ride my bicycle to after school and that sort of thing. I joined the Texas Archeological Society when I was twelve or thirteen. I began reading everything I could get my hands on, which wasn't a lot really.

RA: There hadn't been much archeological research in the state of Texas up to that time?

MC: There had been a lot but it was published in academic journals that weren't locally available in Midland.

RA: You didn't have the public library?

MC: The public library I went through there holdings in probably less than a year. My junior high school didn't have but maybe three books on the shelf. But, you know, every one of those helped. What that did was focus me on the question of the really early peoples in the Americas. When did they get here and who were they and so forth. I had made… I put a wooden border around my desk in my bedroom and put a sheet of glass

up on that and I had the artifacts that I had found on display in there and I had made up little labels based on everything that I could…

RA: What age are you at this point?

MC: Oh by then I was probably 15, 16 somewhere like that. I had projectile points, one of the things archeologists do is we use those as time markers. They are like automobile hubcaps or something they change over time and if you know the 1947 Hudson hubcap and we have the same for projectile points. I put the dates on these things. One of my friends came over. I guess I was a few years older than he is and he had no interest in this whatsoever. But he was looking over my arrow heads and he said, "Why is it that you've got all of these over here. 1000, 2000, 3000 years old and then these over here are all 10,000, 11,000 years old? What happened between 10,000 and 3,000?"

RA: Good question.

MC: Wonderful question and I had not thought about that question. That right there told me that there was still a lot to learn. What we have learned is that those were just guess dates and a lot of them were way off. Things that the textbooks dated at 3,000 we now know are 7,000 and 8,000.

RA: Oh really?

MC: So there is an unbroken chronology of prehistoric peoples in Texas. It was just that archeologists hadn't gotten it all figured out yet. See that was just right on the heels of very earliest discovery of radio carbon dating. When those radio carbon dates began to roll in….

RA: Can you carbon date an arrow head?

MC: No but you can radio carbon organic material associated with it in an excavated site.

RA: Okay. So you figure it was here near this charcoal that it is probably related?

MC: Yeah bone or whatever. You have to do more then just figure that you have to have a good basis for saying that. As those dates began to roll in they were surprising to the profession. So I was operating, it takes a while for those, that kind of information to get in the literature and get out to the general public and I was operating in that lag. First radio carbon dates were run in the very early 1950's, 51, 52, 53.

RA: They have been modified too haven't they?

MC: Gosh yes, huge advances in that science. But see that was a spin from the development of the atomic bomb.

RA: Really now that is interesting.

MC: Yeah. Willard F. Libby was involved, he is the physicist involved in the development of the atomic explosives and atomic energy and he realized that there was that decay curve in radio active carbon.

RA: It's fixed.

MC: He said, "You know we could use this to determine how old stuff is." In fact, Glen Evans collected some of the very first samples that Libby ran. They came from a site over here in Uvalde camp. So all of this interconnectedness, so by the time I was in high school I was fascinated with the earliest archeological record of Texas. Now, Glen Evans' degree was in geology. He had instilled in me the absolutely invaluable contribution that geology makes to archeology. Archeological materials come out of the earth. People were living on the surface of the earth and you can not adequately

understand archeology if you don't understand the geologic context at the time and what has happened to the archeological materials in the geologic context since they were deposited. So…

RA: Interesting, is that the same as environmental?

MC: It is the elephant in the bedroom of the environmental studies for archeology. When I say geology that is geology writ large; that is the thing about history of glaciations on the whole world scale and ocean level changes, earth science would be a better characterization. We didn't call it in those days. So I made up my mind that I was going to get a degree in geology and minor in archeology. It ended up I did that but first I ended up majoring in anthropology/archeology and minoring in geology but I do both. That has been absolutely cornerstone to my career. The beginnings of that were when I was in junior high.

RA: Really you've got to understand the science of the earth probably to be able to understand where your things are coming.

MC: Absolutely.

RA: That is interesting. You specialized in lithic. What is that and what does it tell us? That is probably a long answer?

MC: Actually it's really not. Of the archeological record of human evolution, 99.9% of it is primarily represented by non perishable artifacts. So stone and bone mostly. So if you are going to understand human evolution one of your key tools, one of your key lines of evidence is stone tools. When you make a stone tool you take a round smooth rock and begin to break it open and create sharp edges, every one of those motions that you take in creating that stone tool is a piece of human behavior. Somebody had to know

what they were doing and know how to do it and I decided that if we could really understand the minutia of how people produce their stone tools we would have a lot of insights into human intellect, the development of human intellect and motor skills, all of those sorts of things. We would understand how they articulated with the geological source of that stone, what they used for their manufacturing tools so when I was twelve or so I was getting rocks and banging them together trying to make stone tools. I don't remember the year but there was a newspaper reporter from Houston by the name of Herbert Mewhinney and Mewhinney published a little popular book called, "A Manual for Neanderthals." That came out when I was in junior high school. I found it in the book store and I didn't have the money to buy it so after school I would ride my bicycle over to the book store and I would get that book and I would read a few pages of it and put it back on the shelf and go home and bang some rocks together and try to do what Mewhinney was talking about. When I sort of exhausted that read I'd go back over to the book store and read some more (the book wasn't selling) and I'd read a few more pages. I don't know whether the shop owner caught on to what I was doing or not, probably.

RA: Did he have enough knowledge of it to really be able to…?

MC: Well he was able to do, what 50 years later we realize it's fairly rudimentary, we call it flint knapping.

RA: Right.

MC: But I knew Allen Bettis.

RA: I talked to him I sure did.

MC: You spoke to Allen he is the guy that replicates he makes his own tools.

RA: Beautiful stuff.

MC: When I started there was practically nobody doing that. In early 1960's there was a conference in France on lithic technology and just a handful of people attended that conference and there were two guys, one from the United States, Don Crabtree and one from France, Francois Boyd and those were about the only really sophisticated scholars who were studying how stone tools were made and using it to help understand the prehistoric record. Those two guys ended up being, there they are, Don Crabtree and Francois Boyd, they ended up being mentors of mine.

RA: Oh wonderful.

MC: I spent several years studying the few six weeks or so in the summer with Francois in France and I had less time to spend with Don Crabtree but…

RA: Are you a knapper then?

MC: Oh yeah, well not so much anymore. I've developed a tremor and I've got a little arthritis in my elbow and I just don't have the… from where you are sitting you probably see a canvas bag over there on the floor.

RA: Yes.

MC: That's my knapping kit. And I never got as good as Bettis but what I did, I did a dissertation on the topic and what I… I wasn't the only one doing this, this was an awakening in the discipline that we, a lot of archeologists have been throwing away the waste flakes from stone tool manufacturing and collecting the tools. I was saying, "Man we've got to collect these flakes and study them." Because each one of those flakes tells you three things: it tells you what the exterior surface of the stone object was at the time it was struck, it tells you what the flint knapper did to prepare the point that he struck, what the condition of it was before he struck it and then the size and configuration of the

flake tells you about the blow that was used to take that flake off. When you have a one stone tool you might have 1500 flakes that come off of it so you've got 1500 snapshots of behavior. There is a tremendous potential for information there. There were a whole lot of us stumbling around in the dark trying to figure out how to make those snapshots effectively useful in understanding the human past.

RA: Now have they done that pretty much?

MC: Oh yeah. We've…

RA: I see a lot of what you've got out here.

MC: It's just flakes.

RA: Yeah.

MC: Absolutely and there are whole books now written on the topic but you know intellectually I was in the pioneer group of that movement in archeology. There are now thousands of flint knappers all over the world. That fellow that called just after you came in is a, there is no other way to describe him other than artist. He makes little tiny things and great big things but his little stuff is literally jewel quality flint knapping.

RA: Well they talk about the difference between Folsom and Clovis and Folsom being really, I think I'm right, correct me please if I'm wrong but the Folsom being really intricate and the Clovis being a little bit more simple or is it the other way around? Anyways they were talking about it…

MC: You can't make a contrast there. They are different.

RA: They are different?

MC: You are comparing a Mercedes to a Lexus here. I mean they are both designed to do similar things but it is a whole different gestalt in terms of engineering and design and

so forth. My study of lithics has brought me to exactly that question but in a broader sense of how…

RA: They were different purposes so they came from different mind sets?

MC: Yeah and they did things differently. The end products are a little bit different but they were equally effective for what they were designed to do. So perhaps to some folks a Folsom are a little bit more aesthetic.

RA: I've heard the comment made that they were better than they needed to be and that some people think they were… had some sort of spiritual purpose or…

MC: Or maybe the individual knapper gained status by skill. I would go that far. I don't think I would go… I may end up eating these words but I've never, until the last couple of years, even considered the possibility that there was any significant _____ (27.38) attached to the manufacturing of these tools. But the Gault site in conjunction with a couple of other sites has raised that specter.

RA: Interesting, very interesting.

MC: It really is that's a brand new world that we haven't ventured into.

RA: Well good hopefully we will get to there. When you went to your college education what was that like? Was it what you needed you think?

MC: Yes and I have been around academia since _____ (28.15) there is a school kid and had an academic career and I have always, for years I have said to somebody that is getting ready to go to college, "You can go to school and get an education. You can go to school and get a degree and they are not necessarily the same thing."

RA: Right, absolutely.

MC: I came here to get an education. I took courses that had no relevance whatsoever. I took courses in engineering and law and petroleum engineering and places where I could get something that I wanted to know. I took twice as many credits in Spanish as I needed and that kind of thing. So I was five years getting a Bachelors' Degree here. I avoided faculty members that I considered to be a waste of time and I sought out and took courses from those that, some of them were the really tough, demanding classes and maybe I didn't get an A in them but I walked away with something that I am still using. We have one professor here that was interested in lithics, the study of lithics. He could make some stone tools. He had identified in Texas some stone tools and types that nobody had ever though of before because he studied in lithics and I spent a lot of time with him. We were good personal friends. He died recently but we remained friends until he died. I wouldn't take a class from that man for anything but I learned from him otherwise. So I had, oh I don't remember 24 or 28 hours maybe of geology, about the same in anthropology as a Bachelors degree. From the time I was a freshman I volunteered on every archeological project that they would have me. I went to meetings. I hobnobbed with archeologists whenever I could. I read but I also got interested in, I wasn't planning to do this, wasn't expecting to do this but I got interested in human osteology, and physical anthropology. We had a wonderful mentor here Thomas W. McKern and Tom had an interesting _____ (31.06) style. He wouldn't give you a damn thing. He'd give you an assignment and then he would sit back and you had to show the initiative. He would say, "Okay in this class you need to do a term paper and it's your topic it just has to be within these bounds." That was the assignment. He said, "You need to come talk to me during my office hours about your topic and if I think it's a

good topic I'll approve it. If it's not then you need to work on it some more." Kids would go to him and said, "What can I do?" He'd say, "Well you tell me." Once…

RA: Students hate that.

MC: Yeah because they have to think. They have to understand the topic well enough to say, "Well here's a little constraint topic or subject or question that I can work on." If he couldn't do that he didn't have the time of day. Once you walk in and say, "Dr. McKern I'd like to do this." "Okay you need to read this, this…" Then here it came you just opened the flood gate of support and information and so forth and so on. There were two categories of students: those that couldn't stand him and those that just practically worshiped him. I learned an awful lot from that man. I got pretty good at identifying human skeletal materials, this little piece of bone is part of a radius off of an adult human, _____ (33.00) it's probably a woman and fusion tells you it she was probably over 20 years old and bla, bla, bla, from these little pieces. That's very valuable in the archeological world. You come up with bones.

RA: So you could be a forensic anthropologist.

MC: Well I ended up doing a lot of forensic anthropology. My first real academic appointment was what it was in part because I could do that. Are you doing okay with that?

RA: I think so I'm just a little bit concerned about the battery but it's doing fine it's a phenomenal battery. We are fine. Well that is really… so graduate school too was graduate school… you were saying that you are sort of at control of your own ship and you chartered your own course.

MC: I navigated… of course you have to articulate with the system. I had to fulfill those requirements but I had to figure out how to… University of Texas at that time, of course they still may in technical writing. Well I needed that. Well it didn't really fulfill a requirement but it was hours. I went over in the English department and I had a fabulous class. The professor that taught it had three Ph.D.'s in different fields of science and class was… there were maybe 14 of us in that class and first day he said, "Your first assignment" (and we had kids in engineering and various sciences I was the only one background in archeology) and he said, "Bring me the style guide to the premier journal in your field and the rest of this semester everything you write has to follow that style guide and I will grade it." How pragmatic can you get?

RA: So he actually literally helped you in your specific field?

MC: And everybody else in the class. It was neat. It was well done. He was a bright, interesting, interested person and he related to every student in there individually, very effectively. I'll give you an example of one of his assignments. He said, "Your assignment is to describe a process in your field and write an article as though you are writing it for that journal." I wrote one on the production of a Folsom point and he found that just absolutely fascinating. But every one of those kids came to him and said, "What is a process?" He said, "Well in your field what is your process? You tell me it's your assignment." Places like that at this university were fabulous and we had a good library here. It wasn't a great library but it was adequate for what I needed. I got a Bachelors here and Masters. My Masters thesis, Glen Evans called up and said, "There's some advocational (36.26) archeologists digging on a site here near Midland and it's a site like none of us have seen before and it sure would make a good Masters thesis." So my

professor, Tom Campbell here called me into his office and said, "You need to go out to Midland and talk to Glen Evans." There was my thesis project right there.

RA: Really good.

MC: All of that was good. I had Tom McKern and I was helping him with identifying skeletal remains from archeological sites and he and I had three or four, maybe five publications together before I got out of graduate school here. I ran his physical anthropology lab for him. I had analyzed a couple hundred prehistoric human skeletons by the time I got out of my Master program.

RA: Fantastic, that's great!

MC: Really good practical experience. I ended up going to the University of Arizona Tucson on a fellowship or an assisted-ship for a couple of years and then fellowship for Ph.D. and Arizona didn't really offer a whole lot of instruction on what I was really interested in. There were two faculty members there that I had sought out. One of them and I are still… he was chairman of my thesis dissertation committee and we are still friends. He was excavating a site in Israel, the prehistoric site of Tabun, which Tabun cave was at that time the estimate was it had been occupied for about 250,000 years. The deposits in there were 50 feet thick. It had been dug previously so there was a great gaping hole in the middle of it. He had about a five year project to take a much more detailed sample off the site of that old excavation. When I heard about that I went to him and…

RA: Is that when they did the Neanderthal and the two types of beings that were in the cave at essentially the same time?

MC: Yeah the Tabun and Skhul cave were about 100 yards apart and Tabun had a classic Neanderthal and Skhul had what is called progressive Neanderthals.

RA: Oh progressive Neanderthals.

MC: Yeah in other words they had a mosaic of homosapiens sapiens and homosapiens neanderthalensis traits. It seemed to be about contemporary. That was a huge topic of debate at that time. But also Tabun was absolutely loaded with stone tools from lower Paleolithic, middle Paleolithic and upper Paleolithic. So here was my chance to get my hands on just a mother load of stone tool technology. Arthur Gelonick who was a faculty member at Arizona running the project, he was a lithicist also. The Israeli archeologist that we would be working with, Rona Rhom, also he had studied with Francois Boyd so he too knew lithics very well, wonderful learning opportunity. The requirement to go to Tabun was you had to take Gelonick's seminar on the pre history of the near east, the spring semester before going. Lo and behold about half way through that semester, or not that far along, part way through that semester he had invited Francois Boyd, Don Crabtree and a third old world pre historian. When I think of his name I'm going to say it for your record. Jacque Techiae and Techiae had specialized in the latest Paleolithic, earliest Neolithic stone technology. Crabtree technology of Mesoamerica and North America in particular and Paleo Indian and Francois Boyd the lower Paleolithic and middle Paleolithic and part of the upper Paleolithic. So my gosh what a…

RA: What a group!

MC: What a tour. I met Boyd there in Gelonick's office and that began a friendship that lasted as long as Boyd lived. Went to Tabun and the single most outstanding

experience of my career occurred at Tabun cave. It happened on July 20, 1969, 40 years ago this past July. What was it?

RA: I was thinking about the man landing on the moon.

MC: Exactly. Okay Gelonick is a funny old duck. He didn't drink coffee so we weren't allowed to drink coffee in his lab or site or anything like that. He didn't believe that people listening to radios while they worked, which I happen to kind of agree with that, it is a distraction. But on July 20th he let us bring a transistor radio and set it up on the wall of the excavation. Reed, I was uncovering lower Paleolithic hand axes, part of the earliest human visible technology on earth and I listened to Armstrong say, "This is a small step for a man and a giant step for mankind."

RA: Amazing!

MC: I sat there in that cave thinking in fewer than 200,000 years humans went from this technology to that technology and we don't know squat about the steps along the way. That is what archeology is all about. I've got goose bumps all over right now. I've told that story a thousand times. I tell it to students all the time and it still just overwhelms me emotionally to think about what archeology as a discipline and the awesome task that we have.

RA: That is wonderful. I was in Vietnam when that happened. So I was on the other end of the spectrum, the dark side of the moon.

MC: You know what you say is true but damn it, an awful lot of technological advance has been spin off from military…

RA: Oh tremendous amount. Even the stuff you study it had to get better because of the pressure.

MC: Because of human conflict.

RA: Survive or not.

MC: Right and a lot of that survival was as a result of conflict between humans. As I said here is that great unknown story and there is incredible… just boundless complexity and intricacies to it and a lot of them are beyond our reach but anytime you can shed light on a step along that way it should be of interest to everybody.

RA: Well you had some, let's go on to question 7, what was the…you've gone through the process of becoming known in the field and all of that. How do you see from sort of the earliest days, how do you see the thinking has changed in your field and perhaps how has the thinking in the field changed as far as you are concerned?

MC: Can I insert the final chapter in that… you asked how did I get from start to here?

RA: Absolutely the education thing.

MC: I got my Ph.D., actually I didn't quite finish it, jobs were getting tight in 1970, '71 and Ph.D.'s were pumping gas and selling insurance all over the place. I thought, "I've got research done for a big old dissertation here and it's going to take me a couple of years to write that and there might not be any jobs by then. So I put myself on the job market as an A.D.D. and I got three or four job offers. I was… Arizona at that time was a huge department, I think 478 graduate students and a significant number of those were Ph.D.'s and these guys were getting turned down. They were not getting job offers and every one of them had very narrowly specialized.

RA: Yeah I know I understand that one.

MC: I had North American archeology, I had Paleolithic archeology, I had flint knapping and I had physical anthropology. I had a diversified set of skills and the job

offers that I got, the two that I really seriously considered, I ended up taking one of them. One of them, there are days to this day when I think, "Gosh what a career difference I would have had if I had taken that job." University of Massachusetts was opening their new campus at Boston. They built a whole new campus right down by the harbor and the chairman of that department, when he got my application he called me and he said, "I want you in my anthropology department. He said I have a special assignment for you." Because I had been to two departments they covered all five fields of anthropology I had linguistics and the whole nine yards. He said, "A major test at this university each department has to take upon itself the responsibility of developing the university's library holdings in that field and we need somebody with a diverse background to pick out what journals we need to subscribe to, which ones we need to get the back issues to and what books we need to put on the shelf." He said, "You will have a million dollar a year budget for three years to build the anthropology library for the University of Massachusetts at Boston. It is a great big building with not one book on the shelf." That was, I would have loved to have had that chance. He said, "We can pay you $9,000 a year." I said, "I've got a wife and two kids I can't live in Boston on $9,000 a year." I took an oath a long time ago that I was not going to commute to work and I don't want my kids in the inner city Boston school. I said, "We live in the southwest we don't have a heavy coat. I can't take the job." He said, "$9,200.00," he said, "That's as far as I can go."

RA: $9,200?

MC: $9,200 now this is 1970. So I turned that one day I just couldn't afford it. That was a hard " No" to say. Boy that was in the fall of '70. Nothing happened until April of

’71 and I got a call the Department of Anthropology at the University of Kentucky at Lexington had an unexpected resignation there and they were scrambling and the chairman of the department called me up and he said, “I’m going to have some people in Tucson at a conference up there and we’d like to interview you for an unexpected position that we have.” He said, “I’m calling you because you have physical anthropology and archeology.” I took the job for $10,000. In Kentucky I could live on $10,000 there. It was a great experience I was there for eleven years. Great students, I had some graduate students there that we still work together. It was a great program. It took me away from that trajectory that I was on the Paleo Indian archeology of the Americas. I ended up… I ran the contract archeology program for the University of Kentucky for six or seven years. We excavated sites from historic sites all through the organic and so forth and so on, geological archeology was a major part of those which changed the way that archeology was being done in that part of the Ohio valley. Finally I got unhappy with the way things were going there and I quit and came back to Texas to get back on my track. I did that in 1981.

RA: Well you answered some of those things. You looked at some of those so the thinking of the field where you were saying was about the whole involvement of geology in the whole process. What are some of the other things, just briefly, that have sort of changed in the field?

MC: Well a lot has changed. Archeology has always known that it is dependent on help from all of the other fields of intellectual inquiry, particularly the sciences. I think archeologists have gotten better and better and better at tapping into those and participating, developing collegial relationships, working relationships in other fields.

Archeology is a historical science and we need to date events in human history, pre history and when I started we were struggling terribly with chronology. Radio carbon had come along and everybody jumped on that band wagon and we got a lot of solid radio carbon dates and people got leery then of dating techniques. But we have sort of gotten over that and we now have dozens of alternate dating techniques in our tool kit and that has…

RA: Name some for us.

MC: Yeah we've got luminescent dating, uranium dating, spin residence training. Of course we have had dendrochrology for a long time, so forth and so on. That is the backbone of what we do so that has been major. Archeologists have been very myopic as a profession. Usually interested in a very small sphere, become the world's experts on the pottery from the shady side of a pyramid in Mesoamerica.

RA: Right, exactly.

MC: We haven't been wide ranging in our research and in our thoughts. Lithics gave me the opportunity to do archeology in the world where there were stone tools. So I got to go work in the near east, Europe, Central America, South America, all across North America. I kind of have a broad view of the field anyway and I'm absolutely convinced that humans in the past have been far more cosmopolitan then most archeologists even begin to think and that has begun to… I have more and more colleges that share that perspective, able and willing to at least think about, if not embrace, broad sweeping views of the human past but I think a very…well okay I have to say this: archeology in North America, Canada and the United States, is deeply embedded in anthropology and that's valuable. We are studying humans. We are looking at one aspect of humans but we

have sort of been week on the science side. Pre historians and the rest of the world are usually, and pre historian meaning people who study the past of 10,000 years ago or more, they tend to be affiliated with departments of geology and other sciences and there are kind of week on the human aspects of the past. What you really need is to meld those two fields and that has been a pretty clumsy and awkward relationship until recently. More and more archeologist in the United States have come to add the old world pre history perspective and so forth and so on to the study of humans in the past and Europeans have realized they need to know more anthropology. There are an awful lot more cross fertilization between those two fundamentally different approaches to the past. That has been good. Unfortunately in the last decade or so because of their affiliation with social sciences, American anthropologists and archeologists have bought into this post modernist view of things and it is crippling archeology. I think most modernism is an intellectually bankrupt view of the world.

RA: Explain how you think that applies to archeology.

MC: Well there are people who will tell you that everything that we do and every report that we write has no more meaning that what we think it means. That it is impossible to really understand what humans do today much less what is in the past, so you are wasting your time.

RA: That's kind of a waste, overreaction.

MC: A hell of a waste and an overreaction. There is some truth to it but what a dismal view of intellectual curiosity. This department at this university is intellectually bankrupt as far as I am concerned. I cannot attract students from this university. I attract students from universities.

RA: A & M?

MC: I've got a student here from China and a student just left from Exeter University in Great Britain. But six miles away, down here on this campus the Gault site I had one student, literally break away from her advisor's advice to not get involved in the Gault project. She came out and spent a year and a half working with us, one of the brightest young women I have ever met, Ashley Limke. Ashley ended up being in just a couple of months being one of our assistant field directors, just really a superb student. She is interested in underwater archeology. She started graduate school last year. She applied to only two universities: Oregon and Michigan because they had… she looked at the underwater archeology programs around and she rejected A & M and Florida and places that have great big flashy programs in underwater archeology because she didn't think they were really doing anything of interest to her. Oregon is and Michigan is. She applied and she instantly got phone calls back from the directors of admissions in those two departments. Do you know what they said, "We want you in our program." They didn't say anything about the University of Texas. They said, "The Gault project. You've been involved in the Gault project." The program at Oregon could not take her because they had failed to graduate some students and they were full. They had reached their saturation point. Michigan said, "Come to Michigan. Here is this fellowship. Here is this internship. Here is this and that."

RA: Because she had actually done the Gault project.

MC: Plus…

RA: Well of course.

MC: Plus she may have had a perfect 4.0 average she was really… she had all of the academic credentials but what made the difference was she also had field experience on a high profile site.

RA: What about why is archeology not… are they not doing field work in archeology down there?

MC: They think that archeology is in Mesoamerica, China and everywhere but here. They see no merit whatsoever in studying, and there's some damn interesting stuff going on right here where we are sitting which we will talk about in a minute. One of your questions leads right there into it if we ever get there.

RA: Well maybe we should go there. What was the question you are referring to?

MC: We'll get to it. I never have answered the last one you asked.

RA: Okay well just insights in the field we talked…

MC: Yeah I've told you a little bit about that. Here we are losing a perspective. The old fashioned anthropology of trying to understand all humans, all times and all places is getting corrupted.

RA: Kind of a nihilism?

MC: Yeah.

RA: In anthropology they are doing the same thing but in my case I would say, "Of course it's bias but so what let's still look at it."

MC: Of course.

RA: Of course it is going to be tainted but it's not ruined.

MC: Exactly. Anyway I hope this is something that, you know as they say, "This too will pass." I hope the discipline out grows this. But it has gotten so bad at this university

that I'm leaving. I'm out of here. It is just… I don't get any support or encouragement from the administration or the department. This is a great place in a lot of ways but it is also a very frustrating place for my interests.

RA: Well I know when I look at Rice, Rice was kind of the same way. They are very, way off in the hinterland somewhere. I thought A & M's program was interesting. But I think they are not quite in that boat but instead of looking locally they have been looking…

MC: But they are also looking locally.

RA: Yes they are. I understand they have some wonderful work going on up there. I mean Gault, of course Mike Waters.

MC: Mike and I worked together.

RA: Center for the First Americans.

MC: Study for the First Americans. Okay that's all we need to say on that topic.

RA: What are your greatest discoveries? Two questions really, what are your greatest discoveries and what are your greatest joys in this field?

MC: Well greatest discoveries I guess I've been involved in projects where I didn't make the initial discovery so that's a little bit different. But having the opportunity to be involved in the Monteverdi project and the Gault project have certainly been highlights. But in terms of intellectual development, the Tabun project, hugely valuable. But in terms of actual discoveries I tend to synthesize from a lot of sources and I guess one of the things I'm proudest of is that the opportunity to study the whole prehistoric record of central Texas. When I was a student here in the '60's at UT there was a majority term used to describe the archeology of central Texas. Central Texas was a cultural sink and

that was because nobody in central Texas, in the prehistory of central Texas had advanced to the level of food production.

RA: Hunter gatherers.

MC: They were hunter gatherers absolutely. In spite of the fact that it was a Frisbee throw to Mesoamerica, the northern fringes of Mesoamerica and agricultural region, another to the southwest, the southern plans, the Caddo, southeastern United States… in every direction were people that had been engaged to some extend of food production for 3,000 years and the local folk had never gotten there. That was considered a fail. I've turned that absolutely upside down by synthesizing what we do know about central Texas pre history. What we know is that people thrived here starting 8,800 years ago they developed a technique here for cooking wild camus (105.30) and it became a staple equivalent, although it is a wild plant, it was equivalent to corn, beans, squash, tyra root (105.47) whatever cultivated plants that you might think of. It was like the salmon of the northwest. Here you could have a culture thriving on hunting and gathering. Why is that? Well it's because in central Texas we've got a hugely variable climate. Rainfall, temperature, not just how much it rains but when it rains and how it rains, just real quick example: 2007 right here in the Austin area we had 1.8 times the normal annual rainfall; 2008 we had .45 the average annual rainfall. That is characteristic of this environment. The native plants and animals are adapted to those…

RA; Different plants come back.

MC: Yeah it stresses the heck out of one segment of the local flora and fauna in the dry years and it stresses the other segment in the wet years. But they both survive pretty well all the time and it creates a diverse plant and animal community and people had adapted

to that. Had they shifted to tropical cultigens, corn, beans and squash and tried to grow them here they probably wouldn't have a crop of more than one year in four.

RA: Right, very interesting.

MC: So these guys they could avoid the labors and limitations of food production.

RA: And they developed the other technologies they developed a way to cook it with those ovens.

MC: Yeah with those earth ovens you bet. I imagine they were the envy of a lot of the farming peoples around them who had gotten themselves…

RA: Locked in.

MC: Locked in. We are dependent on Walmart at HEB in our society…

RA: Didn't they also have better nutrition than the people that were limiting it to crops? I mean the crop people had more…

MC: Intuitively, I think the answer to that would be an emphatic yes. This wasn't the Garden of Eden.

RA: Right.

MC: We really don't have anybody who has taken a good hard look at the nutritional record of central Texas. There is a fellow, Bob Heart at UTSA who is tiptoeing into that but he is staying now so far on the whole gulf coastal planes.

RA: There is a man I interviewed at A & M who had sort of looked at the…

MC: Austin Toms.

RA: Yes now he is getting into nutrition.

MC: People are beginning to but I can't site an analytical record to…

RA: Say whether or…

MC: To directly answer your question. But that's why I say intuitively, I think you are absolutely right. One of my joys and some of these are getting hard to come by. Archeology is not attracting young people like I think it should. I don't see very many undergraduate students that interested in archeology. It's not a field that can sport large numbers so in a way that's not a bad thing but I think there are certain areas of human intellect that to be a well rounded human being you need to know a little bit about it.

RA: You know I've noticed that. It used to be when I went to college it was a required course. We studied anthropology but it touched in a little bit of everything. That is not required here.

MC: No exactly.

RA: You have to have sociology, psychology, economics and I think that is a loss.

MC: I do too. What the Gault project has given me the opportunity, we are a high enough profile now, that we are attracting school teachers that want to bring their students out. We are attracting other organizations who want to bring their kids out and there is a joy in introducing kids to that discipline. Boy just every once in a while one of them says, "This is what I want to do."

RA: You know in talking to people like yourself and the other professors that I've met or people that are archeologists in the state they all started when they were like two, just some connection that got to them. So there's a bunch of people out there that are meant to be archeologists.

MC: You would think with all the documentaries on television and so forth.

RA: They'd love to be out there.

MC: That you would have more people interested. But I go to these regional archeological society meetings and I'm often the youngest person in the room. That's depressing.

RA: The youngest person in the room?

MC: That's depressing. That's not a joy to see that over and over and over. Monteverdi was the site that began to tip the balance. When I got interested by 1970 I was absolutely convinced that there had been people in the new world before Clovis. That, if I had been a completely dependent on that for generating funding and getting things published it would have been a death null to my career. Maybe 2% of my colleges would even consider that possibility. I mean they were emphatically bought into the paradigm of Clovis first.

RA: Right.

MC: I just sort of ignored that and went on. In 1973 I published anyway back there somewhere I published a little note on some evidence for pre Clovis in the lower pacus (112.50) region of Texas. It was ignored. That's fine. The publication came out of a paper I gave in a conference in Nice, France. The fellow who organized it was James Bennett Griffin who was the prominent, most prominent archeologist in North America at the time would be my guess. It was on Paleo Indians in North America and I gave my paper on these lowly hunters and gathers that I thought probably had their beginnings before Clovis. I finished my paper and he took the podium and what he was doing was each person he'd introduce them, they would give their paper and he would make a comment or two and then introduce the next paper. His comment to me was, "Those aren't my Paleo Indians" next paper. I mean he just dismissed it. Now Jimmy Griffin

and I remained friends all through his life and he ended up being one of the people who shifted over time to a much more open point of view. But by the time Monteverdi, the major volume was published in 1997, maybe 15% of the discipline was willing to consider pre Clovis.

RA: Even in 1997?

MC: Yeah. There had been metacroft (114.31) and other sites and metacroft had kind of, depending on who you listened to, had weathered the storm or not weathered the storm. It was highly controversial. Monteverdi came out and in spite of Stuart Fidel was a tour force. Forty scholars involved in that project. We worked on that excavation analysis and write up and getting it published for 18 or 19 years.

RA: Yeah I saw a review of Fidel's comments.

MC: There was a lot of fluff over it for a while but that 15% of the discipline grew to I think in a short time to 60%, 70%, 80% and I think we are now probably somewhere around 95%, 98% maybe even of the discipline will at least engage in the debate that there were people here before Clovis. The most fundamental thing that has changed in that debate is this: the whole story of Clovis was developed by a very small number of American-ist archeologists. They had a pretty _____ (116.07) view of the world. They had the land bridge. They had the idea of an ice free corridor. That all worked. They wrote it up. It was an elegant, beautiful theory and so nobody… everybody said, "Well we've got that take care of. We know how American pre history began and when." The whole damn thing was flawed. Once the real controversy over Monteverdi and Metacroft (116.42) and other sites begin to really take hold and a few people began to put forth some compelling criticisms of the Clovis first theory and some

compelling alternative ideas and evidence, it began to attract scholars from other disciplines and pre historians from other parts of the world. So now when you go to a conference on the people in the Americas there are going to be linguists there, there are going to be specialists in human DNA there. There are going to be geographers and geologists and oceanographers and climatologists from all over the world there. There are going to be pre historians there from all of the northern hemisphere of the world if not elsewhere and there is going to be a group of really bright, sophisticated American archeologists who are working with specialists in all of these other fields and to me it is the most exciting field anybody could possibly be in. It is just fantastic and to have been a part of it from the time I was in junior high school and to watch this evolution is hugely satisfying.

RA: I wanted to really discuss the two sites that are important. One is Gault, to get a description of that and also Monteverdi and why it was so important. Can you tell me about the Gault site? Give me sort of a run down of what it is and why it is important, what they found there and all in two minutes!

MC: Don't tempt me. Gault is located at a very special place. It is the convergence of multiple environments. What that means for hunter gathers is that you can live in one place and in the shortest possible travel distance access the diverse resources of the gulf coastal plane, the little narrow valley where the site is and the surface of the Edwards plateau which contrasts to the local valley and the gulf coastal planes and the geology, soils, plants, animals and even to a certain extent climate. Those are the ideal places for hunter gathers to be. It is the poster child for the story that I just told about humans in central Texas adapting to this environment and how they did it. There is also wonderful

tool stone, a wonderful local variety of Edwards chert outcrops there and there are reliable springs. I was out there Saturday. The creek is dry but the springs are flowing. I've talked to the old timers from that area and we have oral histories back into the 1890's that say that little group of springs right there in that small locality have never dried up for the last 100 years, 110, 115 years now. They are flowing right now pretty well. So it is a special place and it has been a special place for a very long period of time. It is a laboratory for understanding hunter gather adaptations. Unfortunately it is such a special place that the archeological record from European contact back to 8,800 years ago it was huge rock burned rock _____ (121.12) where those earth ovens were operating since beginning about 8,800 years ago. It is one of the most prolific sites in terms of collectible artifacts that anybody has ever known. We know that the pot hunting, the relic collecting, and the looting of that site began there about 1908 and it went on mercilessly until the land changed hands in 1998 so that is 90 years that people dug on that site to collect relics and they are sold into the antiquities market hundreds of thousands of artifacts have gone away from the site, but only back to about 8,800 years ago. What happens if you dig more deeply than that is the concentration of artifacts drops way off and people just weren't motivated to dig in those older deposits. So we've kind of lost the most recent 8,800 years of the archeological record there.

RA: That's kind of major.

MC: Well but underneath it is the first 5,000 or more years of the local archeological record all in tact. We have investigated a lot of sites in central Texas from 500 to 8,800 years ago.

RA: Okay so you've got that.

MC: We can still put the whole picture back together. The Clovis interval at Gault a side bar to everything that we've talked about is that archeologists have kind of been getting away from the idea of Clovis was first but they have also been getting away from the idea that Clovis as specialized big game hunters. Gault is the poster child for that. We have Clovis deposits there 30, 40 centimeters thick. That represents a pretty fair period of time. The same Clovis people were coming back to that site repeatedly over a few centuries. It was a domestic site where people were making stone tool. They were engaged in all sorts of daily domestic activities and consequently we have that site has helped greatly in changing people's perspective of Clovis. Clovis is, like it or not, that is the benchmark against which all of the early pre history North America rests. Everything is either post Clovis or pre Clovis and then there's Clovis and it is the reference point that everybody begins with.

RA: Okay.

MC: Now that reference point is way more complex and way more interesting then it had been. So Gault has really changed perspective on Clovis. We have over a million artifacts from the Clovis level at Gault which is more than the excavated Clovis artifacts from all of North America.

RA: Wow.

MC: We have added a number of tool types to the inventory. We've got use wear studies on diverse tools from the site that tell us that these people were cutting dry grass and cutting green grass. They were working leather; they were working skin and all of these things. Making stone tools we know, we have a better record of how stone tools were made in Clovis times from that site then can be pieced together from all the other

sites. It puts the other sites where we just have a little piece of that record, it puts them in perspective. Do you know what has happened? That has changed, the Gault project has changed the Clovis map because what we have done is we have put together THE story on how Clovis artifacts were made, the technology of their production, going back to my interest in lithics. When we started the map of the western hemisphere would have Clovis in all of the 48 continuous states of the United States, plus the maritime providences of Canada and a little bit of the southern fringe of the prairie provinces of Canada. But if you take what we are now calling technological Clovis, when we just look at the very specialized way that Clovis people were making stone tools, it turns out that the fluted point sites around the Great Lakes and all of New England and maritime Canada, those aren't Clovis from a technological point of view. So we've taken them off the map. California, mostly the same way, so we have this restricted distribution in North America and this shading here is Clovis _____ (126.56) manufacturer and the little dots on the map are where they were also making Clovis blades, a very specialized Clovis technology. But in addition to that we add spots down the Sierra Madre Occidental of Mexico, we add I believe…

RA: That's Belize.

MC: We add Costa Rica clear down to Panama.

RA: Really?

MC: And we add northern Venezuela and we find Clovis like spear points in Western Ecuador, Southern Chile and Tierra Del Fuego and we don't know yet, we don't know enough about these technologies to say whether these are Clovis or are these another fluted point technology like the… they are probably closely related but somewhat

different technologies that we see up here. We have changed the western hemispheric map of Clovis. For Clovis to have made that kind of expansion in a couple of centuries, creates a huge conundrum for archeologists to unravel. My way of thinking, it doesn't make sense if they weren't traveling by boat. This, the water craft have suddenly become the hottest topic in the people in the New Americas, that technology right there. It is skin on frame boats and if people, if they came across the land bridge into Alaska and tried to come south to the interior of North America they couldn't have made it because the Canadian ice sheets blocked the way. If people here before, actually probably early Clovis or anytime before that they had to have come by boat. Here I am in a tiny, tiny minority there is a very, very small minority that think they may have very well come from Asia and Europe by boat between 13,000, 18,000 or 20,000 years ago and that could account for the very rapid spread of cultures all the way down.

RA: That does make sense. They also talk about the cultures on the coast line the coast line being elevated and not under so much water. Down in the Yucatan they talk about that.

MC: Well now we of course are investing energy in looking… the Texas gulf coast 18,000 years ago was 60 miles further out. One of my colleges just got off a boat working in the Gulf of Mexico looking for those old coast lines and the old submerged sites and so forth and so on.

RA: Any luck?

MC: Well they are getting the geography worked out. They are finding the old river channels and the chert out crops and all these things.

RA: Oh really?

MC: They haven't found a site yet.

RA: They are close. They are right where a site should be.

MC: What they found is the haystack now they can look in the haystack for the needle is what it amounts to.

RA: Well that's wonderful. I know there is a space off of Galveston where they have the beach where all the remnants come in from some place out in the ocean.

MC: Yeah right that's McFadden beach. But see in Clovis times, which there was a Clovis that we are talking about at McFadden beach, that was 50 miles from the coast. That was like being in Brenham or someplace at that time. So it's not a coastal site at that time.

RA: No, no it's way inland.

MC: Yes sir. So anyway.

RA: That's right. That's fascinating, I just think it is fascinating.

MC: There is the whole next round of research that needs to be done. Linguists; 1500 Native American languages when the Europeans arrived here and the time and depth of the split off of those languages from each other.

RA: Had to be thousands of years.

MC: I mean they have no real good ruler for measuring that but their estimates push 20,000 a year.

RA: Really? That's interesting.

MC: So you know they are excited about the archeological record. Human DNA, right now most of our DNA is modern DNA we don't have the ancient DNA so I think when we get the ancient DNA we are going to have… every time we find a little bit more DNA

that is 6,000, 7,000, 8,000 years old, it's got some surprises. So when we start getting DNA out of 12,000, 13,000, 14,000 year old human remains is when we begin to find them or continue to find them, it is all up for grabs in my view.

RA: Well I know that some of the work that they have done at… at Texas A & M they talked about that there was evidence of Caucasian…

MC: Let's not use that word non-mongoloid.

RA: Non-mongoloid there you go. Way, way back somewhere in the DNA of what they found. I mean that's just a lot of other stuff too.

MC: Actually the DNA so far has very strong Asian lien to it.

RA: Right, sure.

MC: And I think that's probably real but I don't think it's the whole story.

RA: Right.

MC: So anyway. All can be summed up that a career in archeology has one of the perks that you can't get in an awful lot of other jobs and that is there is something new and exciting to learn every single day. You can't beat that!

RA: So the Gault site is very important.

MC: One other important thing about the Gault site. Here we've got this massive Clovis component and everywhere on the Gault site that we dug through that in older deposits we'd find a few flicks and so forth and so on. In May of 2002 we dug a little bitty test hold as big as that chair through Clovis and on down and we got flakes, quite a few of them in a deposit about 40 centimeters thick below Clovis. We got two optically stimulated luminescent dates one at the bottom of Clovis, 13,200 which is dead on for the beginning of Clovis and 10 centimeters below that 13,600 which is earlier than most

people think Clovis began and then we've got another 30 centimeters below that we, in 2007 were able to dig another test unit down to that depth and we now have 312 artifacts from down there. They are all flakes and so forth. They are all below Clovis and they are… this map is of Clovis lithic technology, those artifacts wouldn't fit on that map. There is something different.

RA: It's nothing you are looking for.

MC: Now it is a pre Clovis site. Now could you chart a trajectory from a school kid in Midland, Texas to finding the ultimate Clovis site with a pre Clovis site below it? I mean there's… I'm one of the luckiest guys that I can imagine in terms of having a career go like that. I found my first Clovis point when I was about 14 years old and became fascinated with Clovis from that time on.

RA: But you really found a substantial amount of evidence of pre Clovis?

MC: Oh yeah.

RA: That's just great.

MC: We, Mike Waters and I and several others hosted a conference here in February, a year and a half ago on that topic and we brought people from all around on that topic. We bought Stuart Fidel and Gary Haynes who are two of the most phosiferous (135.36) Clovis first advocates that are still hanging on. We had others but we also had people who were involved in research pre Clovis. Then we had some people who were kind of on the fence one of whom was Bob Kelley from the University of Wyoming. He came here and he listened to that whole conference. At the end of the conference he told me, he said, "I came here expecting to hear a lot of Calico Hills sites. Calico Hills is one that gives pre Clovis a bad name. It is just, the evidence is not convincing. He said, "I didn't

hear that. I heard a lot of good scientists with compelling evidence." He said, "I've got to go home and rethink my views on the people in the Americas." Stuart Fidel and Gary Haynes got up and gave pathetic, pathetic critiques of pre Clovis situation and to me that conference was hugely satisfying to see the discipline get to that point. Now there was plenty of disagreement but it was within a whole different frame then the disagreement had been for the past 70 years.

RA: How come, what do you think is the deal with Dr. Fidel was he damaging to the Monteverdi? Is he a Clovis first?

MC: Oh he is one of the loudest spokespeople for Clovis first.

RA: I saw some of the critiques. I was looking for your comment on his work but I didn't get to it, I saw Johns.

MC: Okay it's there. Sure he did some damage but he also did some good. Because he pointed out problems that we were able to respond to and people listened. There was a time that I had one colleague who was a Clovis first-er listen to Fidel's critique and said, "Well okay we can forget about Monteverdi now." There were probably a lot of people like that. But then there were others that said, "Fidel isn't making any sense here." He is still running around. I wonder when that guy goes to bed at night if he doesn't sit there and say, "Am I getting myself way out on a limb that somebody is about to saw off?"

RA: Well I suspect that he has probably made a name for himself.

MC: Oh he has there's no question.

RA: He's got a name, he's recognized.

MC: He's recognized and maybe that's more important to him. To me, you know I don't care what the answer turns out to be about the people in the Americas, I just want us to get it right.

RA: Right, right exactly. Get the science right.

MC: Get the science right. The people in the Americas represents a chapter in human history when people had evolved biologically and culturally to the point that they could make it to the western hemisphere and when they did that that, that opened up 25% of the land surface of the earth for human occupation. That is not an inconsequential piece of human history. So we've got to get it right. I lost it there was another part to that. Oh one of my biggest gripes about the Clovis firsts theory is that the view that this was a purposeful migration, that people got up and came to the new world. Some people say, "There had to be at least 30 of them to be biologically viable" and that kind of thing. That is just absurd to view it as an event. It is a process. The process is, that it is absolutely natural progression of human adaptative radiation. As people developed the biological and cultural abilities to move into a new environment, they do so. What you watch is the progression of our hominent (140.37) ancestors out of a very small environment in southeast Africa and with each cultural advance they expand to greater parts of the world. By about 30,000 yeas ago they were pushing the northern latitudes in Euro-Asia and had adapted to those cold climates, those really rigorous northern latitude environments by 50,000 years ago they used some kind of water craft to people Australia. By 30,000 years ago people were plying the waters of the West Pacific in skin on frame boats bringing them sitting off of volcanic islands out into the Pacific onto the what is now the big islands but was part of the mainland of Euro-Asia Japan and that

_____ (141.38) and they were going miles out in the Pacific and getting the _____ and brining it back. You don't swim in the shark infested Pacific carrying rocks. They had boats at 30,000 years ago. Of course northern Japan is pretty far north. So add to that the fact that literally the richest environment in the world for hunters is the circum arctic because you've got all of that glacial activity up there has created that talcum powder dust of grinding up rock that is constantly flowing into the rivers and the oceans around the North Pole. That is a mineral fertilizer. The Aurora Borealis as an electromagnetic phenomenon frees nitrogen into the atmosphere that comes down with every rain drop and snow flake and as that stuff falls on the water or is washed into the ocean, nitrogen is the other critical ingredient, nutritional ingredient for life. You've got the plankton bloom around the north of the artic circle is the richest on earth. That supports the invertebrates, the fish, the sea mammals, the polar bear and humans. Humans on the west coast of northern Europe and on the east coast of northern Asia looking out of those… oh and I left out birds and bird eggs. Trillions of birds flock to the arctic every spring to raise their young because of the hugely rich food sources up there. Humans have been in our level of intellect for, 100,000 years, 60,000 years, people debate on exactly when. But you know they are going to stand on those coast lines of Western Europe and eastern Asia and look out over the Atlantic and Pacific and say, "Damn look at all that food out there! How are we going to get it?" By 30,000 years ago or so the margins of the oceans were becoming part of the human niche and they were exploiting it. As they became better at dealing with the northern latitudes they expanded that range and eventually it was the north Atlantic and the north Pacific and people arrived in the Americas. It is the normal predictable advance of human adaptive

radiation. It is nothing extraordinary and it is nothing un-expectable. We have made this mysterious event out of it, just poppycock.

RA: Tell me something now when you talk about Gault is Gault also pretty much reflecting the coastal planes, is that…?

MC: Not much. I mean it is a classic central Texas site. What I now think I am seeing is 15,000 years of that hunter gather adaptation to this local environment and you talk about a laboratory for studying hunter gathers, what more can you ask for? There is an exception. In Folsom times, Folsom people were at Gault and similar sites along the edge of the Edward's Plateau here. They were just there to get tool stone and make stone tools and go back on the prairies to hunt buffalo. They were specialized big game hunters. Their tool kit reflects it. Their use of the landscape reflects it. We don't have any Folsom Gault sites with these long periods of domestic activity at one site. Clovis people left cashes of stone artifacts all around over the landscape. That is because as organized foragers, they knew that they could come back to those places annually or seasonally or whatever. So cashing materials out over the landscape was advantageous to organized foresters, to nomadic big game hunters as Folsom were, cashing would be of no value and we don't have any Folsom cashes, so that all fits together pretty nicely.

RA: Tell me some, just give me in general what is the value, what did the Monteverdi site tell the world? What is the importance of it?

MC: Well it tells us, in a very simplistic sense that there were people in, at 42^{o} south latitude in Chile, 1,000 years before Clovis and maybe longer.

RA: Now I didn't see that on your map. Was that one of the things I?

MC: No because it's not Clovis.

RA: Oh okay.

MC: Very, very, very Asian looking in terms of the lithic technology. The Paleo ethno botanist, actually he isn't a Paleo ethno botanist the ethno botanist, a fellow by the name of Ramirez that did the preserved plant remains from Monteverdi, I was there one day when he brought some students out and he showed up on the site and he was so excited and he said, "You know the sophistication of the plant use that we see out of the archeological record of, I'll use calendar years, the 14,500 years ago is nearly identical to that that I see as an ethno botanist in the current rural populations of this the lamkili (148.07) region of southern Chile." Same plants used in the same ways. He said, "I think people had to have been here for 1,000 years before this site to have developed that degree of sophisticated exploitation of so many species of and then inner-mountain valley and coastal plant resources. The site is inapeek bog (148.42). It caused the site to be flooded, sphagnum grass grew out over it and created peat and preserved meat, skin, wood, bone, seeds, all kinds of stuff, sea weed, all kinds of stuff in that site. So well preserved, Ramirez even named a previously unknown species of potato from preserved potato peels in that 14,000 year old site.

RA: Potatoes?

MC: Potatoes. That is a native of South America.

RA: I understand that but that is a long time ago.

MC: Damn right! It was a wild potato but they found it, figured out how to cook it and eat it and that was part of their diet. I mean this guy is a botanist it might not have taken people 1,000 years to figure it out. But he put his finger on the ramification of that as a sophisticated adaptation in a very specialized environment a thousand years before Clovis

at 42° south latitude. Like I said about from the lower Paleolithic to the landing a man on the moon an awful lot of details that we need to fill in and boy that's a big one right there.

RA: Have they found any parallel, anything similar like that anywhere else?

MC: Not yet. The projectile points from that deposit there are sort of a distinctive type, I'll use a very general time they are very much like _____ (150.29) points and they were found, among other things with remains of _____ which is a _____ closely related to mastadons. In Venezuela there is another site, same age, with those same spear points with _____ so the site is not unique but what makes Monteverdi extraordinary is that preservation of the organic stuff. I mean the lithic artifacts there are important to understand because 99% of the rest of the sites that you are going to find are only going to have the lithics.

RA: Right.

MC: They aren't going to have the wood, the leaves, the twigs, the roots and stems, all those stuff; the medicinal plants. The whole raft of plants today that _____ (151.28) are selling in the markets to treat headaches and menstrual pain and all this stuff, they are all right there in that site, every damn one of them. Some of these things they are getting from up in the _____ (151.42) of the Indies mountains. Some of them they are getting out of the estuaries on the pacific coast. I mean those people were absolutely locked into that environment. They knew it and knew how to exploit it.

RA: What kind of structures did they have do you know?

MC: Tom Delahay who is the principal investigator believes, what he has got is this little rectilinear, it looked like foundations and he thinks those were the base of skin on frame shelters. Maybe so I just don't know. I don't have any basis for discounting that

idea but on the other hand the evidence for it is, well it is conjectural much more than it is based on any sound evidence.

RA: So they don't really know?

MC: No but at that environment at that time I'm pretty sure they had to have shelter. I was down there for a while in 1985 and that is a cold damn place. The temperature hovers around, of course they use centigrade so what from -1^{o} to + 4 ^{o} or 5 ^{o} is pretty much the annual swing of temperatures. It would get real cold in the winter. I'm pretty sure it didn't get real warm in the summer.

RA: Interesting.

MC: It's damp.

RA: It's a funny place for people to have….

MC: It's a rich environment. People gravitate to the places that…

RA: It's like the Maya, trying to figure out how the Mayan did what they did. Again it was a rich environment.

MC: It's a potentially rich environment but you have to massage it to really bring that out. We picked the low fruit off the trees pretty quick. Then you've got to get down to hard work.

RA: I'm trying to figure out, I want to make sure I don't run out of power here, which I've done about 30 interviews on two batteries and it's doing pretty good. What about other sites on the Gulf coast have you dealt with anything else on the Gulf coast?

MC: Quite a few and most of them are sort of run of the mill.

RA: Gault is pretty much… I was going to ask you about the Austin Toms did a site in west…

MC: In San Antonio the Richard Bean site?

RA: Yes. Now how is that related to the Gault site because it went pretty far down?

MC: Oh yeah he had a very deep section there. He's got a whole lot in the same time intervals represented. But his chronology is stretched out in a thick strata graphic unit so he's got these kind of thin things that are sort of compressed together at Gault, so the two compliment each other.

RA: But the Gault is easier to get to?

MC: Yeah I guess probably the other main site I've worked on is the site on Wilson Leonard. She is right up here between Leander and Roundrock. That site had a 21 foot thick strata graphic section. It had the most complete archeological sequence for central Texas of any single site. I've got a five volume, those white volumes up there report out on that and that is really where I first ventured to say that the whole story of adaptation and central Texas had been badly misconstrued. People weren't still calling it a cultural sink but they were still bothered by the fact that people hadn't gotten to raising crops.

RA: There is evidence in archeology of tribes that have gone from raising crops who went back to hunter gathers.

MC: Absolutely.

RA: I mean if it works, as long as it supplies your needs then its fine.

MC: It's viable.

RA: Yeah it's viable.

MC: Exactly.

RA: How many people do you think there were in the groups that were hunter gathers were they small groups?

MC: I think they were fairly small. That is one you will have to go to ethnography and find your best analog and cross your fingers and make a guess.

RA: You think of the Apaches that were the _____ (156.37) the groups that were out there they were about 25 to 30.

MC: Yeah but they coalesced into larger groups during part of the year as did the neumic speakers on the great basin when the _____ nut harvest. You would get people that would come from all around and the _____ and the _____ and so forth and so on and they would be in groups of a couple hundred or more for a few days or weeks. That is where you have exchanged material and information and genetic material and it is sort of the glue that holds those disparate bands together and I bet you there were similar things going on probably back to homo-erectus. I think that is sort of…

RA: That's sort of and getting off the topic a little bit but I spent a lot of time in the Navajo reservation and I was near the Zuni and archeologists just tend to say, "Well just look at that one group." You've got 30 groups, 40 groups all inter relating not necessarily well, but they are all doing stuff together.

MC: Inner marrying and everything else. Looking at each other's ceramic technology and… You know those Zuni down there; of course they are not doing it now they are in a religious retreat.

RA: Really?

MC: Oh yeah they are walling themselves off from the rest of the world.

RA: No!

MC: The conservative element of Zuni has taken over and you really have to be connected to get in to visit Zuni now.

RA: I used to I did work for them a couple years ago.

MC: Well that had already started so see you had the entree you could get in.

RA: When did that happen?

MC: Oh it's been coming on for 10 or 15 years and it has just gotten more and more…

RA: They don't want; they are tired of the tourists and the effect of the tourist.

MC: Yeah they think it is time to kind of get back to basics religious and everything else.

RA: Really? Kind of late to be doing that.

MC: Back in the 70's when their pottery was selling for twice what everybody else's was except maybe _____ (159.04) everybody was envious of their ceramics and a lot of the pueblos went as close as they could to Zuni type ceramics cashing in.

RA: Do you feel there needs to be further excavation and discovery? What is really not been, what connections have not been made yet in Texas?

MC: Oh just in Texas? Well see I can't think just Texas.

RA: Alright well think, give me the bigger picture.

MC: How did we get from the Paleolithic to the space age? There are thousands of pieces to that puzzle that needs to be found and understood and put in place. But I think archeologists really need to come around to a more cosmopolitan view of how people interrelated.

RA: Yeah take off those glasses.

MC: Take the blinders off. When Cabaza de Vaca washed up on the gulf coast in what was it 1528, it was just a few years after Cortez had marched on Mexico City and if you want to think of a people that would seem to be isolated from the rest of the world the Koroncoa Indians found on the gulf coast would be a pretty good candidate. They knew who Cabaza de Vaca was. They had heard of the ships and the men with beards and white skin and so forth and so on.

RA: That's right and how would they know that if they were all isolated?

MC: When Lewis and Clark got Sacajowea out of the cave at the mouth of _____ (201.06) in Kentucky she was able to communicate. She knew as they went up to Missouri, she knew who the next group of people were going to be and she could communicate with them until she got to the continental divide and she said, "You are on your own west of here." But I mean that is a lot of territory from the continental divide to _____ Kentucky and she was a part of that, a political geography not…

RA: A little group just dealing with itself.

MC: Robert Reckless excavated an artifact out of the site in Victoria County, Texas and it was a cemetery that was in use about 8,000 years ago. Because it was a cemetery everything had to be reburied and they weren't allowed to study it. But one of the things that he got out of there was a spear point about that big, very highly distinctive thing. I got a chance to look at it and I got a chance to see a little bit more information on it a few years later and there is no doubt in my mind that that thing was made in South America over 10,000 years ago and it found its way from probably Columbia to central Texas and it was 2,000 years between the time it was made and the time it was buried. Now what happened? What in the world happened? That thing could have been in a grave in

Columbia that eroded out after 2,000 years. There are all kinds of places where it could be parked along that route. But cosmopolitan…

RA: Fascinating.

MC: Isn't that fascinating?

RA: When I worked with the Navajos and I had a good friend of mine who worked there, he was a historian and very much involved in Indian studies. He said that the Indians all knew each other and they all communicated.

MC: Absolutely and that's not new. That hadn't happened in the last two centuries or five centuries.

RA: No, no, no it's ancient.

MC: It's ancient, ancient.

RA: He said there were a lot of people talking about the Native American approach towards anthropology and towards archeology and they said of all the theories of the Clovis people were crazy that there was much more of a history and much more communication and much older. That has really inspired me and I think as I have gone through I've really found that they were absolutely right, they were right.

MC: They were right but unfortunately it has created a confrontational bipolar perspective that has been… neither side is blameless in that either.

RA: Well on the detail they are not right. That is where the science comes in. But in the generality they are right, in the broad suave.

MC: And the fact that they reject the science is where the problem comes.

RA: Absolutely. What is your legacy? What do you want people when they think about you Mike, what do you want them to think about?

MC: You know I like to look back and say that my view of lithics influenced the course of lithic studies particularly in North America but beyond. I like to look back over central Texas pre history and say that I forced my colleges to take a more realistic approach to excavating sites and recovering a different kind of information then we had been. We have been digging through those earth ovens and never knew it for 70 years. Let's stop and look at the burned rocks not just the chip stone tools that are down there amongst them. The minute we start doing that we start getting those earth ovens and changed our perspective. I'm proud of that. I guess I'm most proud of hanging in there for 30 years now, more than 30 years, debating the presence of people here before Clovis and feeling vindicated on that front. And I said to you a while ago, I'm not as interested… I don't have a single interpretation of pre history that I want to prevail. I want us to get it right. If people can prove that I'm wrong in my perspective of people in the Americas and they've got the evidence and the evidence stands up, that is better than my ideas taking hold and being wrong. So I'd like for people to look back and say that I maintained an open mind.

RA: You said you are going to leave here.

MC: Yeah.

RA: Two things. One, where are you going and what is going to happen to the Gault project?

MC: I'm taking the Gault project with me.

RA: Oh okay, are you in charge of that project out there?

MC: Oh yeah absolutely.

RA: Great.

MC: I've been involved. J. E. Pearce founded the Department of Anthropology at the University of Texas and he dug out there in 1929. There was only one professional, two professional archeologists that we know of that visited the site between 1929 and 1990 and that was Tom Hester from UT and Pat McCaddow with the Texas Historical Commission. They spent a day out there in 1988 and what they did was document the decimation of that site. They concluded that it may not have any scientific value left unless there happened to be some more deeply buried deposits that had escaped the looting which happened to be the case in spades. In 1990, a fellow who was paying, it was a pay to dig site, a fellow who was paying to dig out there got tired of digging up gloves and shovels and stuff where people had already dug and he went off on one edge of the site and he not only dug in a different area, he dug more deeply and he found some engraved stones with Clovis artifacts and that was such a phenomenal find that word got to Tom Hester and me here at UT and we were able to get a two week investigation of that site out of the pretty hostile land owner and we found engraved stones with Clovis artifacts.

RA: Are those the pictures I saw?

MC: Yes. We had to walk away from that site for the next seven years. We couldn't deal with that land owner. It changed hands and absolutely a coincidence beyond probability calculations, the new landowners they put a stop to the pay to dig operation but they started digging on their own and they hit a mammoth mandible that was in pretty good condition except it was splintered and they knew if they tried to lift it out it was going to fall apart. They ended up getting in touch with Tom Hester and me asking if we would come out and help them get it out of the ground which we did. Those people got

very interested in the history of that site and we ended up working there for three years after that. Then they tired of us being there and so they, we had a three year lease and they wouldn't renew it. So we left there in May 31, 2002 but they challenged me to raise the money to buy that site and make it a research and educational preserve. That was their wish but they also wanted to have enough money for the whole bunch to retire on. I tried for seven years to do that and it was just too much money, I couldn't do that. Finally just in utter exasperation I told them that their price was just too high and I made them a cash offer. I said, "You've got five days." Actually they came back with a reasonable counter offer and it was less than half of what they had been asking. So I bought the site.

RA: You?

MC: No. I bought it and then I turned around and donated it to the Archeological Conservancy. The Archeological Conservancy owns it. They have allowed me to continue… What I said was, "I want you guys to have this but I want to bring to closure the research that I am engaged in out there on the pre Clovis." That is what we are doing.

RA: That is wonderful, what a wonderful… I mean that is incredible.

MC: Maybe that will be part of my…

RA: That will be your legacy.

MC: That will be part of it but I would hate for that to be all of it.

RA: Are you going to retire at some point?

MC: I don't like that word.

RA: Right you are going to find other things to do.

MC: I don't want to spend the rest of my life on the Gault site. But it could be a hell of a cap to a career. But I'm interested in other things.

RA: What are some other things that perk your interest that are going on anywhere?

MC: Well I have some ideas of how to take the geology of Texas and the oceanography of the drowned continental shelf of North America and improve our search for pre Clovis sites. I'd love to be at a place where I had students that I could cultivate into those…

RA: How is your Spanish?

MC: Well I used to be fluent in Spanish but I don't use it enough anymore.

RA: There are some interesting colleges in Mexico that are…

MC: Well at my age I'm not going to pick up and move to Mexico. But I am, I have an appointment pending at another university right now that is way, way friendlier than this one to my kind of research and…

RA: How far away?

MC: It's not far away. The students there, I have much more interaction with students at that university then I do at the ones at this university.

RA: Well whoever gets you is going to be really lucky. These guys lose you they are idiots.

MC: Well thank you I kind of agree with you on that part. I don't know how lucky the other university might turn out to be.

RA: When would you make the move? We shouldn't go into that probably, fairly shortly.

MC: Well fairly shortly. When word began to get out that I was looking I had in one week I had four phone calls. One of them was just not practical and one was too far away so I ended up… well actually I had already had a standing invitation to join the faculty at a school in Europe and I'm again, I'm not going to make that kind of a move. But we are still working on the details of that.

RA: Very good. I just think this has been fascinating. I'm trying to think if there has been anything; any neat thing that you have come across that you would like to share before we conclude?

MC: Oh I think I've had the opportunity to… it must be time to quit my phone is ringing.

RA: No we have had a really good talk. I'm very grateful.

MC: Before we flub it up with trying to think of something else let's just wrap it up.

RA; That is just good. We'll wrap it up and I just think it has been really good. We have been going over two hours.

MC: I'm not surprised. It has been interesting enough that I haven't looked at my watch.

RA: I haven't either it's great. Well …

MC: And your battery made it!

RA: My battery made it just barely and I'm just so grateful.

MC: My battery is running down I'm going to have to have a cup of coffee.

RA: Let's conclude and I want to say thank you very much and when we get the transcript done I will try to email you a copy and you can print it out on your own printer. But thank you very much.

MC: You bet.

End of interview.