

A COLLABORATIVE PROJECT OF



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restore

A PEOPLE'S HISTORY OF THE CACHE CREEK NATURE PRESERVE

restory

AUDIO TOUR INTERVIEW WITH

Ben Adamo

STOP 2:

The Wetlands



Stop 2: The Wetlands

Can you tell us where we are and describe what you see?

Well, we're on the south side of the Nature Preserve wetland area looking out across the wetland itself from south to north and you can see both the water and the islands that were created in this lower area that support the Tulle growth and there's birds, primarily ducks and geese, and a few egret and you've got the high bank on the other side with the valley oaks and the mountain oaks and the red buds and it's just a beautiful landscape.

What was this landscape like or what do you imagine this landscape was like originally say as far back as the 1800s?

Well, from what I can understand and what I've heard, this area, because of the nature of the geology here, did have a lot of oak forest growth. So in this particular area I suspect before the settlers came and cleared for farming purposes, it was probably similar to what's on the east end of the nature preserve, there was an oak savannah I would suspect.

When did mining first start here on this part of the creek?

As I understand it, on this particular location, the mining started in about 1970. I didn't come to the site until '74, but I believe that the initial excavation at this location began to occur in the '70s.

I was reading up trying to bone up on mining history and it had mentioned that a lot of mining started in California pretty early actually. They were always pulling something or another out of the creek in terms of gravel for railroads or when the highways really started. Would that have happened here do you think?

Well, as far as the original earlier mining on Cache Creek, always in the history of mining for aggregates it's going to be mined at the closest place to the transportation network and so here on Cache Creek, it would have been closer to Woodland or up the Capay Valley. They had a rail line and so some of the very early excavation as I understand it happened up at the Capay Valley very close to the town of Capay because they had rail access. So they were pulling the gravel out of the creek, putting it on the rail line, as you suggest, for railroad ballast and or roadwork, but it was easily transported on the rail. At this location I'm really not a long term – I came to Yolo County initially for the work in the industry so I couldn't speak to the early times here obviously, but I suspect again, there weren't any big population centers right at this location and the transportation would have been more difficult from here, so I suspect that they would have either used materials that were closer by to the population areas rather than here.

Before the '70s they probably would not have been mining this part of the creek because the material was available in locations upstream and downstream from here, closer to population areas. So the area around Madison was more readily available for the Highway 89 which ran north and south from Madison down to Fairfield and conversely east of here, closer to Woodland. Both the Teichert operations and the Lonestar operations were closer to Yolo which is in closer proximity to Woodland population center there in Sacramento.

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So what changed? Why would this place then start to be mined so much more in the '70s?

Well certainly all construction activities increased in the '60s and '70s and so the demand for the aggregate began to outweigh the supply and so there was more and more activities centered along different areas of Cache Creek just to keep up with the demand.

What happened in the '60s and '70s that would create so much demand?

Well I think that during the '60s and '70s the need for housing for the baby boomers increased the demand for aggregates for subdivisions, mostly for housing and then there was just basic infrastructure to support that. And there were probably also government highway jobs that required – the I-5 construction, I-505, they required huge amounts of aggregate in order to build those facilities. So there was a lot of dirt work going on associated with those highway constructions and there was a need for aggregate as well.

So this would actually be a really good time for me to ask; what is aggregate?

So aggregate is a lot of different things to a lot of different people. In this particular location we're talking about sand and gravel and it is round rock primarily for concrete, but in this same deposit there are larger stones that aren't suitable for concrete aggregate that can be crushed and used for asphalt as well.

Why is aggregate important? What role does it play in our lives?

Well the importance of aggregate, a lot of people don't understand I guess, but most of the infrastructure that we use commonly every day we don't pay too much attention to, but it's the sidewalks we walk on, it's the foundations of our homes, it's the airport runways, the buildings, a lot of concrete buildings, all the base that's under the sidewalks and the roads is all aggregate and it had to be mined somewhere and processed in order to create the specification to support the load that we put on it with our buildings.

That's something I've read a lot about but I couldn't wait to ask that question and I'll probably ask you again. Were there any other main historical moments since you've been in mining? You mentioned the '60s and '70s, the boomers, new highways. Are there any other things that come to mind in terms of what started up in the '60s and '70s that might have led to such an increase in the need for aggregate?

Well, the need for aggregate I guess goes along with growth and as long as an area such as California is a popular location for relocation from outside the state and you get an influx of new residents, you need more housing, you need more infrastructure to support it. And so those growth spurts in the California population have to be supported somehow and aggregate is just of the building blocks, as we talked about all the needs, for the infrastructure that aggregate provides. So in a time like now when infrastructure has perhaps been overbuilt to a certain degree, at least in the housing part of it, we probably aren't going to see the need short term, but as long as population continues to expand, we're going to need aggregates to support it.

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That makes sense. Can you paint a picture for the listener of what this area (you already described how it is now) was like when you were mining it? What did it look like?

Well, this location when I was here wasn't mined. It was a processing facility so there was a production facility here and the crushers, the conveyors, the wash screening plants were here and the whole area was covered with stockpiles of processed material and raw material for feed. So it really wasn't a mining operation in the sense of a mining pit or an extraction point, it was rather a processing facility and at that point everything was up to the original, what we call original grade. There was no depression so it was basically the same elevation as the original ranch ground was and the aggregate piles were on top of that, so it was a completely different landscape from what we see here today.

I'm curious, can you go down memory lane here? You were talking about a processing plant and gravel, could you, since the audio listener will be sitting right around here, point out where buildings were and what they looked like and give an orientation?

Looking at the site from where we are today, from back in the '70s, if you look from left to right, on the left would be a large pile of aggregate that was unprocessed that had come up from the creek. This is our raw material that we would feed through the plant and there was a buried tunnel feeder that the scrapers would drive over the top of to dump their loads and a large conveyor came out of that to the main screening plant and that was about a 40 foot tall structure that had wet screens at the very top and the material is both washed and sorted through those screens to create the different sizes of aggregate for both sand and concrete and then larger stone would be conveyed over to the left side of the plant or the north side which would be the crushing plant and there a crusher would reduce that large stone to a smaller size that would then again pass through another set of screens that would be screened into the various sizes for asphalted concrete and out to the east would be the stockpiles of your sand, pea gravel and concrete aggregates. So it was a pretty compact plant in the scheme of things today and the scale house was located up against the canal, the Moore Canal and the trucks exited out the gate on a bridge over the canal at that time.

Was it really super loud working here?

Certainly the noise level on the plants of the '70s was much greater than it is today because we didn't have the materials that have been developed through the last 30 years. Most of the screens, the shaking screens, the sorting machines that we used to separate the aggregate were steel decks, steel wire and today we use urethane decks and the urethane is quieter so it was, the noise levels were higher with the old plants. The mobile equipment didn't have as good mufflers if any. They used straight pipes on a lot of the old equipment, both agricultural and aggregate mining equipment didn't have the mufflers that we have on today's equipment, so yeah, the noise levels were higher, but that's one of the things that's changed through the years.

So did you and everyone walk around with those big honking earmuffs and then like yell at each other and gesture when you wanted to talk?

No, actually back in the early '70s, probably through the '80s, ear protection, hearing protection wasn't something that was really a big deal. And there are a lot of older operators that are running around that can't hear very well just because of that, but again, that's another one of those things that's changed through the

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years. Both equipment noise has dropped and the use of ear protection has gone up dramatically and it's led to a better environment for everybody, both the neighbors and the onsite workers.

The same with rock concerts!

Absolutely! Yeah!

I was just getting this visual when you were talking about all these guys walking around yelling.

Everybody would be screaming all right to try to get somebody's attention, but it wasn't because we had ear protection on because it was pretty much unknown. There were some, but not very much and everybody thought it was more trouble than it was worth.

I can totally imagine. What's most striking to you? You described what this place is like now and you described what it was like then, what's most striking to you about how it has changed?

Well certainly when I was here in the '70s when I first started work here, we didn't envision that the site would ever be mined so we always thought it would be a processing facility and or when we were done processing here it would just be graded out as a flat area to be used for a storage yard for the agricultural uses around here either for hay storage or equipment storage.

When Teichert purchased the site and then actually mined the aggregate that was where the plant had been located, that changed the landscape dramatically because it created this depression which lends itself to the type of reclamation that we're looking at here today.

So what caused the change? What caused it to go from being an operating plant to a mining operation?

Well, the cause of the change was competition. Teichert aggregates purchased the property whereas the company I was working for was in here on the lease agreement and so Teichert did not renew the lease for the company I was working for and so we had to vacate the site based on the terms of the lease and Teichert already had an existing facility downstream from here so they mined the aggregate from under where the plant site was and at the time aggregate reserves were somewhat limited as far as their availability. There wasn't any off stream mining allowed and this was considered to be an in-channel parcel and so their mining here allowed them to continue operations at their Woodland facility for two or three years longer.

That must have made total economic sense for them.

Uh huh.

Gotcha. Did you all start working for Teichert?

No, we went to other operations for Collet.

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Gotcha. In a broad brushstroke, you've talked about it being reclaimed and it had been mined; processing plant, mining operation and now we see it's reclaimed. What caused that change?

Once Teichert had mined the site, they did not have a requirement other than elevation and slopes for reclamation because this particular site was permitted pre-Surface Mining and Reclamation Act which was enacted in late '75, so their reclamation requirements were very minimal, but they had a vision of this site being something more than what it was and they decided to contract with Jones and Stokes to provide a plan for this wetland. They developed a plan, did the dirt work associated with it and then donated the property to Yolo County along with a licensing agreement that guaranteed a certain portion of their tonnage fees to come to this site for restoration purposes.

Two clarifying questions. Could you say in a sentence who Jones and Stokes are?

Jones and Stokes is a consulting firm in Sacramento that does biological restoration planning.

What is the Surface Mining and Reclamation Act?

Yes, the Surface Mining and Reclamation Act was passed in 1975 and it basically requires since then for any new mining property to have, before it's permitted, a plan to be approved by the local jurisdiction of the reclamation of the site after it's fully mined out. So depending upon the site, the agricultural reclamation might be the priority or a wetland might be a priority, but those plans can't be developed after the fact. They need to be developed as part of the mining plan so that when you get the approval, you get approval for the mining and the reclamation. And it also requires bonding to guarantee that the reclamation will in fact happen as per the plans that are submitted and approved.

What do you think about that Act?

Well I think that the Surface Mining and Reclamation Act is a good thing for everybody. It gives the public knowledge of what's going to happen with the site at the end of the day. The agency that approves the project knows in advance what the end result is going to be, what the land use is going to be when the project is done and the operators know also what's going to be required of them so that right up front, they know the whole picture of both what they're going to get out of the site and what their commitment is at the end of the day for that site.

Can you also tell me in brief, it could be a very technical answer, what is reclamation?

Well, reclamation is what we do with the property to restore it to a use after mining. So it doesn't necessarily mean that it's a use that was existing before mining. It means that once you've mined a site, what is that subsequent use going to be. And in some cases like this particular site, it was not really productive farm ground. It was an area that was used for a corral for pasture for an area to basically handle the sheep for many years as I understand it and this site wouldn't have lended itself to anything other than a storage facility really or a similar use where they could have again gone back to that corral usage.

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But as we see today, with proper planning for all of the constituents here you have to have the water, you have to have the soil, you can create something similar to what we're seeing here at the nature preserve, but that's the beauty of the planning process is that you make sure that you have all of the necessary ingredients for whatever the end use is and that process can sometimes be, as you say, highly technical, but it is a good process, public process, and once you go through it you can get all of the aspects of the project see the light of day before they're approved.

Yeah, plan with the end in mind.

Uh huh.

I've heard you talk a little bit about it both in meetings and in your interview with the students, but for you personally having mined this area and been in mining, why is restoration important to you?

Well I think restoration is important to me personally because it's good to see that not only through our work – and my work has always been focused on the product that we produce, and that's important, but at the same time there's the public expectation of what we're going to leave behind and having a site like this so that both people in the industry can see what we can do and the public can see what we can do as far restoration goes. And in here in this particular location, you can go beyond calling it restoration and actually calling it creating a site like this because it wasn't anything like this initially. So to me that's fulfilling being a part of it even if it is after the fact on this particular site working through the conservancy.

Were you part of this whole process?

I was a part of this process in that even though one of the other company's did the initial work here, by being on the conservancy board I've helped to do the continued improvement of the site and the development of the education program here and I think some of the additional amenities. It has been, again, a partnership of all the producers, the county, the members of the conservancy board, the local communities. It's just been one of those really good collaborative efforts.

Do you think the mining industry is proud of this place?

I definitely think the mining industry sees this as one of the places that can clearly show what can be done with some of the sites that have been mined throughout the state, yes.

So again, could you just describe, if I'm remembering correctly, there was nothing there at the wetland area when you first arrived.

The wetlands area when I first arrived basically was a flat field that had been used for corralling sheep that had been covered with aggregate base just to provide a foundation area for construction of an aggregate plant.

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And you built the entire plant that you described to me on that site?

I was part of the crew that constructed the processing plant that was used by Cache Creek aggregates here, yes.

What was your role again when you first started?

I hired on as a welder mechanic and so my job duties were basically welding structural steel and installing the process equipment in the tower that we built for processing the aggregate.

And how long did it take you to build that whole big plant that you described to me?

It took us a season, a full season from May – March through the rainy season to get the plant constructed and it was ready to operate the following year in 1975.

And how old were you when you built that whole thing?

I was 23 years old when I went to work for Cache Creek aggregates.

And was that like the biggest thing you've ever built at that point?

Certainly at that point in my career that was the biggest thing I've ever been involved in. I had never been around the gravel operation prior to this and so it was a big learning curve for me to be involved in that type of construction.

Do you have a funny story that you can share publicly?

Well sure. During the plant construction we were working – at that time the labor laws were a lot different than they are today for structural steel placement and we didn't use safety harnesses and you didn't have to be tied off so you could basically climb the steel. And we had some, what we call picks, or we would sub-assemble platforms on the ground and then use a crane to place them up on top of the columns. And some of them were what we would call a marginal pick for the crane that we had as far as the size of the crane so we were right at probably the maximum capacity on the crane and –

In terms of weight?

In terms of weight and so it would be quite challenging to get the load picked up and get it placed securely and welded in place, but –

Like four stories high?

Well, most of the larger steel was lower down and it was just the control room that was up at that 40 foot level and the conveyors, but the main process equipment was at about a 25 foot elevation so it wasn't too, too high. Newer plants are higher. Today's plants are 75 feet tall or so.

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But we had a number of fun – I think that there's a picture that we saw in the kiosk by the nature preserve entrance that shows some of the conveyors that were built at the time and they had kind of an A-frame supporting the conveyor structure that had cables run off almost like the Golden Gate cables to support the head section and the mid section of the conveyor and in the original install, once that was lifted in place, someone had to go out and actually put the cables on at the head section and the mid section.

And one of the operation owners' son was working with me and he was actually afraid of heights and we had to go out and put the cables on and he said well I've got to get over this. I'm going to out there with you and help you install these cables and I said fine. So we walked the conveyor belt out, which you wouldn't do today without being tied off, but back then we did it as a matter of course and you just walked the belt out there and you were up about 25 feet or so, maybe 30 feet.

We installed the cables and as we were walking back, he was ahead of me and I just reached up, was really just checking the tension on the cables and kind of gave them a little tug and what it did is it pulled the tower towards us a few inches and it was all chained off so it couldn't go very far, but it did move and the result of that was that the conveyor dropped about two or three inches and it scared him pretty well and he reached down and hugged the conveyor, put a little bit of a bear hug on the conveyor, and that was kind of funny to me. It wasn't very funny to him. Of course I had realized what I had done when I pulled on the cables, but it was quite an amusing trip!

I bet he didn't go back walking out with you.

That was it! He was done. Yeah, that was the last time for Scott on conveyors. He thought I did it on purpose and it was absolutely a brain dead moment. You know, you just huh, I just wondered, did I get them tight enough? Oops!