

It began to rain in Cocoa at about 2:00 A.M. and has rained off and on, fairly heavily, until about 8:30 A.M. when I left for the site. There is supposed to be a group of Cub Scouts arriving at between 10:00 and 10:30 A.M.. I drove through rain all the way to the site where it was only misting slightly. It doesn't appear to have rained as hard at the site as it did in Cocoa. The soil is wet, but the moisture only goes down approx. 1-1/2". Basically, the excavation area is in excellent shape.

N148 E57: This unit has water in it, but some of it is water from the jet pump operation of yesterday. Dave Dickel had hooked four swings together to create one long siphon which quickly and effectively drains inundated areas. I reconnected the super siphon to the header and pumped the unit out. Taping the joints prevents air from entering the system and it should provide us with quite a valuable tool for pumping out small areas.

There is still excellent flow in several of the long well-points, as much as any of the swings have ever carried, in fact. One point is not pulling and may be clogged. As I've said, we will jet several of the longer points down deeper to insure their penetration into the underlying sand. Also, one or two are too far from and too high to be connected to the header system. Greater care must be exercised in choosing locations for the header system.

It's sprinkled intermittently, but been dry for the last twenty (20) minutes. I see clear skies to the south and the rain clouds seem to be moving to the northwest. While the rain appears to have stopped, the impact of more would be minimal.

Dickel has begun entering data from the Hammock into a D-Base II program. Tammy and I have been instructed in the use of the system and feel it to be more useful than Minark would have been. The enhanced flexibility of D-Base II is also a significant feature. Basically, you are not locked into a set of pre-determined pathways. The greatest problem is the maximum file size with only thirty-two (32) individual variables. There will have to be several separate D-Base II files connected by a key indicator and the provenience information. These critical variables can be carried over to any file and an additional twenty-four (24) variables, minimum, added at will. The files may be linked so that, ultimately, they will reside on one large file on the FSU CYBER system.

On Sunday, Tammy Stone, Randy Lovoy and I will sit down to view several carousels of slides. Part of this process is to allow Tammy to get better catalogue information. Some of Randy's early Photo Log notes leave something to be desired and we need some clarifications before more time goes by. Also, an objective critique of the photography will be made, enabling Randy to

better understand archaeological photo documentation.

Since it was raining in Cocoa and Merritt Island, where the Scouts are coming from, they may have cancelled the trip. Nevertheless, I'll stay here until at least 11:00 A.M. so that they don't come out to a deserted site. If and when they do arrive, I'll give them the standard walk-over of the Hammock and the Pond A excavation area. In these talks, we usually stress the importance of accurate documentation, the destruction of site by developers and road construction and interested amateurs who unknowingly destroy potential scientific information. We will also stress the long occupation of Florida by humans and the value to modern people, the significance of the site and the unusually fine preservation features as well as the unique excavation strategy required here. Usually the tour of the Hammock and the Pond takes 30 - 45 minutes or more, depending on the questions asked. We will view a variety of soil profiles and discuss their formation. Normally we then visit the lab to discuss procedures there and stress the care, stabilization, and curation of all archaeological material.

There is also a tour scheduled for Sunday morning by the Daytona Beach archaeological group. The rest of the weekend, I'll spend working on the NSF PIXE proposal. I'll attempt to contact Bill Nelson and get him to send me a draft of his end of it.

Several people would like to go to Orlando to see Steve Vanderjagt's performance in the Backhoe Rodeo, but I'm not sure that the constraints of time and tasks will allow me to go. Much work is still to be done and there are only so many hours in the day. For the last week and a half, Dickel and I have been working until at least 1:00 A.M. or more to get the software up and running.

On Friday, I mailed copies of the SEAC papers to Jerry Milanich, Florida State Museum and to Nancy White, University of South Florida. Now that that is done, I can devote full time to preparing the NSF proposals.

Dr. George Armelagos has not contacted us about the proposal he has been working on and we may need to call him again. We are also awaiting the two carbon dates from Beta Analytic on the red peat the red/brown peat and the black peat. One of the next excavation units opened will possibly go into the area from which these samples were taken. I would anticipate the black peat date could be somewhere around 2,000 to 3,500 B.P., the red peat 5,000 B.P., both guesses. They should be ready by Monday or Tuesday of the coming week.

On Wednesday, Tammy Stone, Randy Bellomo and I will be leaving for Pensacola and the SEAC meeting. We'll be back by Sunday.

Conversations with Ann Harris indicated she will be returning to work on Monday and will be "as fit as a fiddle". We have some grave reservations about her ability to carry on with this strenuous task.

Yesterday, John Keiffer of the Star-Advocate in Titusville heard of the (possible) preserved brain material and conducted a twenty minute phone conversation with me at about 11:00 P.M. and another with Dickel during the afternoon. He anticipates coming to the site by mid-week and running a story on this development by the weekend.

We spoke with Dr. Cindy Dickel, in California, late last night and she gave us several names of people at the University of Florida who could, perhaps, provide us with additional composition of the cranial material. In discussions with Allen C. Wilson, at Berkley (of Wilson and Sarich fame), he said these two people could be helpful, and if there were high concentrations of nitrogen, phosphorus and hydrogen, it would indicate DNA could be recovered. If so, he'd be personally interested in the analysis, otherwise, he recommended Laipis and another at the University of Florida could do the tests for primary constituent atoms of material. She stressed that Wilson strongly advised immediate freezing of the material, preferably at -20 degrees F. On Monday, we'll be speaking with these people at Gainesville and trying to find a freezer facility capable of maintaining this low temperature. She also thought it might be advisable to have an ice chest containing dry-ice on site when we thought we might be recovering more cranial tissue. First, we have to find a dry-ice supplier in Titusville; then upon discovery of further cranial matter, a runner would be sent to purchase the dry-ice, place it in the chest, then quickly remove the skull, seal it and deliver it to a freezer facility, call the University of Florida and drive it up (or send it Federal Express) packed in the dry-ice.

The Cub Scouts, accompanied by four adults including Mr. Irby, arrived around 11:00 A.M. and gave them an abbreviated tour of the site and the lab. We tried to keep it short and simple to fit their attention span.

That afternoon, we purchased a new pipe wrench which was desperately needed for the well-point installation process scheduled for Monday.

Dickel is quickly adding data to the D-Base II programs.

In the evening, I spoke with Bill Nelson of FSU. He feels that it would be best to submit one package proposal for PIXE analysis rather than two. This is more than satisfactory to me. He will be working on his end of the proposal this week, I will have a three or four page summary of the archaeological findings to date and we will try to get together this coming Saturday, in Tallahassee, to go over review processes and budget details. I think we stand a pretty good chance to obtain funding and we will stress that some analysis of the Windover ceramic and skeletal material will take place. This will aid in demonstrating to the NSF that we have a broad base of state-supported funding. While this is by no means a criterion, it does look good from the reviewer's standpoint.

I also purchased two disc minders so that our discs would be better protected than when sitting in a open, \$5.00 Tupperware container.

I have made a quick outline of the site with Rembrant, and copies of the plan should be of use in locating materials within the Pond A excavation area.

In reading a report last night, I noticed there are several carbon dates for megafauna which are less than 8,500 B.P. One date of 7,100 B.P., north of here, may be too early, but there are also several dates slightly in excess of 8,000 B.P. up near Daytona Beach and north into Georgia. The material recovered includes horse teeth and mammoth, I believe. With the top, we feel, of the rubber peat dated at 7,950 B.P., + or - 140, it leads you to speculate about the possibility of an overlap of some of that faunal material and/or people and the material we're finding here, remembering the corrected age would be 8,650 B.P. + or - 100. It would certainly be interesting to get a basal date on the rubber peat this week. We will warn the crew of our interest and Dickel will try to take N150 E57 down to the white sand this week. The minute he hits it, we'll photograph it, take elevations, bag it and send it for a quick date, to Beta Analytic. One of the obvious questions on our minds is "what is the rate of deposition in the rubber peat? Is it much more rapid than in the red/brown or black peat? Is it slower or is it approximately the same? The date on the rubber peat in contact with the underlying sand will definitely give us the basement date we're looking for. What it will be is anyone's guess, but I suspect it won't be much older than about 8,700 B.P. uncorrected. Hope I'm wrong and it'll prove to be older.

Assuming that we will obtain funding for next year, one of the most definite purchases will be a conveyor belt system, with cleat, to remove dirt from the excavation area. The cost should be under \$4,000 and would be well worth the expense.

The Rembrant Graphics package is relatively easy to use, but as expected, printing on the KayPro Letter Quality Printer is very, very slow.

I entered all the receipts from the Petty Cash Fund last night, have totaled them with CalcStar - file name: Cost 3. I've enclosed them, with a copy, and will send them to Carol Keenan tomorrow. Similarly, I have checks; one, a Petty Cash reimbursement for \$1,600 and some-odd dollars. I also have per diem checks, but need to sit down and figure out what the total amount for each person will be. I must go to a bank tomorrow, probably Barnett would be easiest as I already have an account, in Tallahassee, with them. It might be difficult to cash \$4,000 worth of checks at a strange bank.

As far as I know, none of the crew were able to go to Orlando on Saturday to see the Backhoe Rodeo. We would have liked to but

simply couldn't make it. Steve Vanderjagt was entered and we'd have enjoyed giving him our support since he's a super backhoe operator and a heck of a nice guy. We hope he'll be around in future years and can work with us again.