

**CAREER HIGH ON THE 4TH OF JULY:
FOSSIL COLLECTING IN BRIDGEPORT, JACKSBORO AND
MINERALWELLS 07/04/04**

With torrential Texas rains ceasing in the last week of June, and the last minute cancellation of my scheduled arrowhead dig, it didn't take me long to conclude that a Pennsylvanian push through North Texas was in order. I wanted to make the first set of footprints, or more accurately, hand and knee prints, in selected shale exposures that would undoubtedly offer up killer fossils en masse. A couple buddies couldn't make it, so I seized the opportunity to take the day at my own pace. My efforts were well rewarded.

First stop: Bridgeport. At daylight I was on a small roadcut in the Jasper Creek Shale which produced numbers of isolated *Archaeocidaris* plates and spines as well as crinoid stems, gastropods, and such. Standard fare, but still fun to find.



FIGURE 1: 8 partial *Archaeocidaris* spines and 8 test plates, 2 *Strobus* gastropods, 2 crinoid arms and 4 sections of pentagonal crinoid columnals (stems)

Pressing on, I hit a pyritized goniatite micromorph zone in a shale outcrop which was quite productive. Good numbers of goniatites of a half dozen species played into my hands ranging from 1/32 to 5/8 inch diameter. Some were exquisitely sutured, museum quality pieces. Judge for yourself. In addition, I was surprised to find a couple small trilobites at this

locality. I found a partial shark tooth and a few things which were alien to me, so I had to solicit expert advice to identify them. They are shown below for your viewing pleasure.



FIGURE 2: Various goniatites and orthocone cephalopods



FIGURE 3: *Eoasianites* goniatite



FIGURE 4: *Paraschistoceras* goniatite



FIGURE 5: Unidentified goniatite



FIGURE 6: Unidentified goniatite suture detail



FIGURES 7 AND 8: *Peritrochia* goniatites

Moving downhill a hundred yards or so I once again found myself picking up goniatites like I was on an Easter egg hunt. A third trilobite was appropriated as well. At the far end of the exposure up high in a zone of red Lake Bridgeport Shale nodules I caught a glimpse of a small zigzagged pattern...Gonioloboceras. This is one of my favorite goniatites and it was mostly hidden in the shale to be revealed later by my microblaster. After bagging an unusually large diameter orthocone cephalopod I was on my way to my last Bridgeport area site.



FIGURE 9: *Ameura* trilobite pygidium (tail) top left, 3 *Paladin* trilobites below, partial *Symmorium* shark tooth cusp bottom center, rostroconch mollusk *Aptocardium* top center, seeds *Trigonocarpus* and *Hexaloba* right

I half heartedly stopped and perused a lakeside exposure I had looked at a couple weeks before. Recent rains coupled with a recent mowing seemed to have stirred things up a bit and put me in an enviable position. Large, intact gastropods and goniatites were strewn everywhere, so I did a grid search that almost caused a split Ziploc bag. Half of a large trilobite played into my hand, followed by a concretion with at least 3 trilobites ranging in condition from nearly intact to disarticulated. I snagged about a half dozen 2-3 inch goniatites that some folks may say look a bit rough, but I think they look pretty good for being 300 million years old!



FIGURE 10: Nautiloids *Liroceras* bottom left and center, orthocone cephalopod phragmocones *Mooreoceras* (?) top and bottom right, goniatite *Gonioloboceras* center left, goniatite *Schistoceras* (?) top center. The hourglass shaped cephalopod is new to me.



FIGURE 11: Left to right – *Liroceras* nautiloid, *Straparollus* gastropod, *Worthenia* gastropod



FIGURES 12 AND 13: Trilobites *Ameura* (large) and *Paladin* (small)



FIGURE 14: Gastropods *Worthenia* (left), *Treospira* (center), *Meekospira* (right), and two bivalves *Nuculopsis* (far right)



FIGURE 15: Gastropods *Meekospira* (large) and *Worthenia* (small)

By noon I could feel the heat whipping me like a slave, so I rehydrated and enjoyed the A/C all the way to Jacksboro where I rode my bike across the dam and hit the wall of the borrow pit. Talk about hot! I decided not to wear gloves, and I may as well have been crawling on blacktop. The black Finis shale sort of cooks bare hands as you crawl around, but crawling is necessary since the fossils are small. Brachiopods, horn corals, gastropods and the like all came to hand, but the main draw was goniatites.



FIGURE 16: Jacksboro goodies – cephalopods bottom row *Brachycycloceras* left, *Mooreoceras* center, *Michelinoceras* right. Middle row – *Strobeus* gastropod left, *Myalina* pelecypod center, two horn corals *Lophophyllidium* right. Top row – gastropod *Straparollus* left, brachiopod *Reticulatia* (?)



FIGURE 17: Jacksboro goniatites *Cooperoceras* or *Metacoceras* top left, Unidentified top right, *Gonioboceras* bottom left, *Liroceras* nautiloid bottom right



FIGURE 18: Jacksboro goniatites *Eoasianites* top left and right, remainder *Imitoceras* (?)



FIGURE 19: Cool suture pattern on an *Eoasianites* goniatite

I relocated a certain micromorph zone and collected 24 more goniatites. I'm certain this zone is littered with them, but I didn't need them all. My goal was to map the extent of this zone because I have a couple friends who are interested in this spot, and I want to steer them to a targeted, productive hunt when we are able to coordinate a trip. I only stayed for an hour and a half as my body begged for comfort. On the way off the hill I almost tripped over a couple more big goniatites, which I pocketed without hesitation.

A rematch with the Mineral Wells Landfill was the final leg of my collecting odyssey. I had never found any desirable fossils there in the past, but this time I did a little better. When I

arrived I found...footprints! I guess there are other geeks like me out there. Anyway, by crawling this badlands area I was able to locate some nice brachiopods, some big crinoid stems, a set of crinoid arms, and yes, 2 partial trilobites.



FIGURE 20: Partial trilobites *Ameura* and *Ditomopyge*, crinoid arms, crinoid cup plate



FIGURE 21: Mineral Wells brachiopods *Neospirifer* (with pointed tips) and others, long crinoid stem.

Mission complete. I found stuff worth keeping at each locality. I look forward to the day when my boy and I can make a day of this, but I'm sure I'll have to scale back the pace a bit.