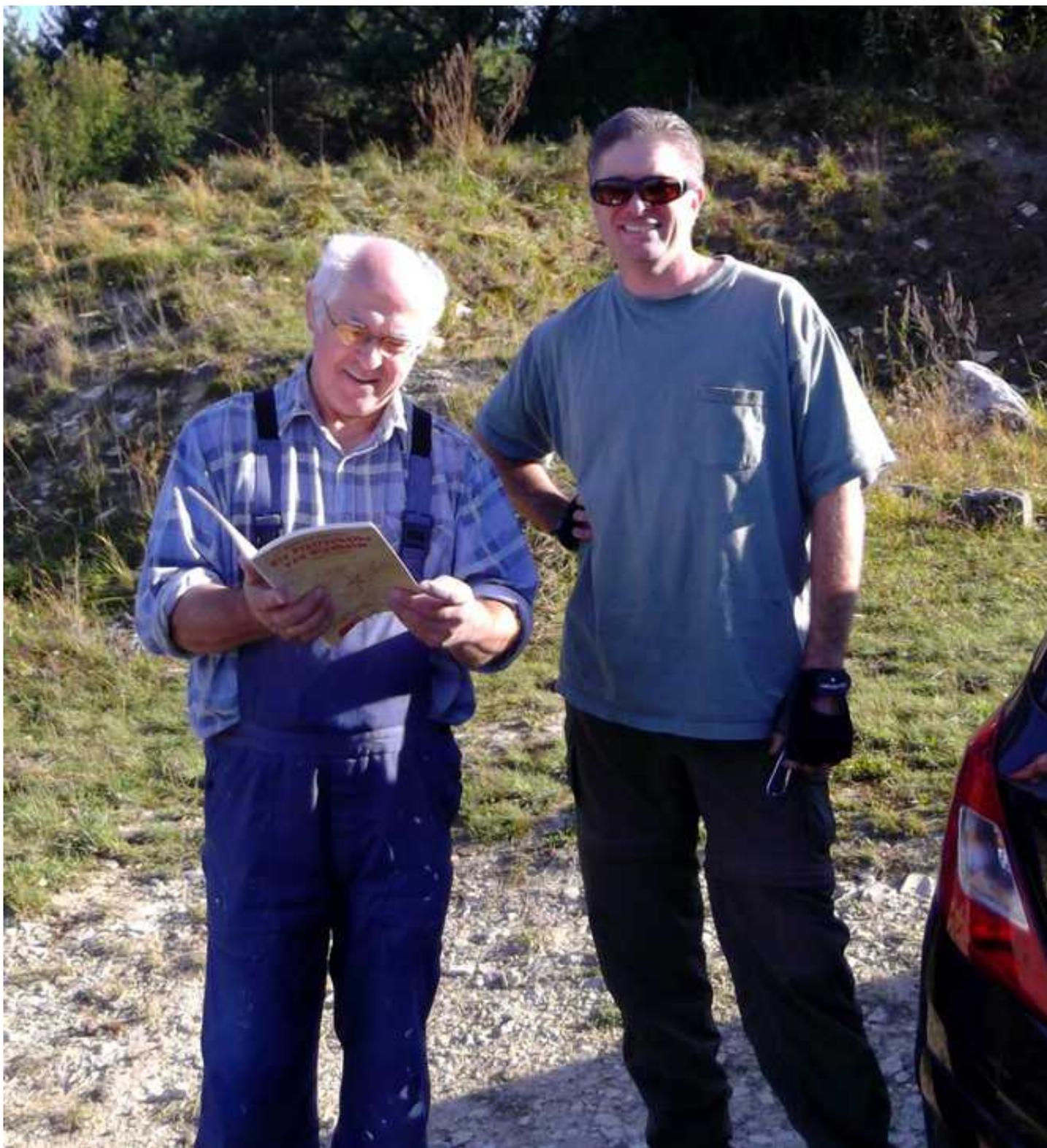


## September 16, 2011: Oh My (Brittle) Stars!

Again Ms. Brett and I drove by many Hochsitz lining area corn fields and showed up right on time at 9 a.m. to meet with our fossil guide, Wolfgang Mages, once again in the Plattenkalk limestone, but this time slightly higher in section, still Tithonian, 146 MYA. Our quarry this time: *Sinosura kelheimense* and *Ophioptera lithographica* brittlestars. And once again characteristic of the Solnhofen area, hard digging was required to lay hands on prized fossils.

The site had been worked hard by others for quite some time, so Wolfgang found the need to hunt around a bit to locate an accessible portion of the very specific brittlestar bearing layers which were 1.5 cm apart. In the meantime Brett and I messed around splitting slabs on the spoil piles, and in the process I located first the front half of a small fish, then a slab of several brittlestars...nice find, but coming from a spoil pile, it left me no direction in making more similar finds as all the limestone looked the same.



FIGS 471-472: Wolfgang Mages and the author this and next page (Site 567)





FIG 473: Wolfgang Mages and Ms. Brett (Site 567)



FIGS 474-476: The author and Klaus working the pit, this and next 2 pages (Site 567)







FIG 477: Partial fish *Tharsis dubius*(Site 567)

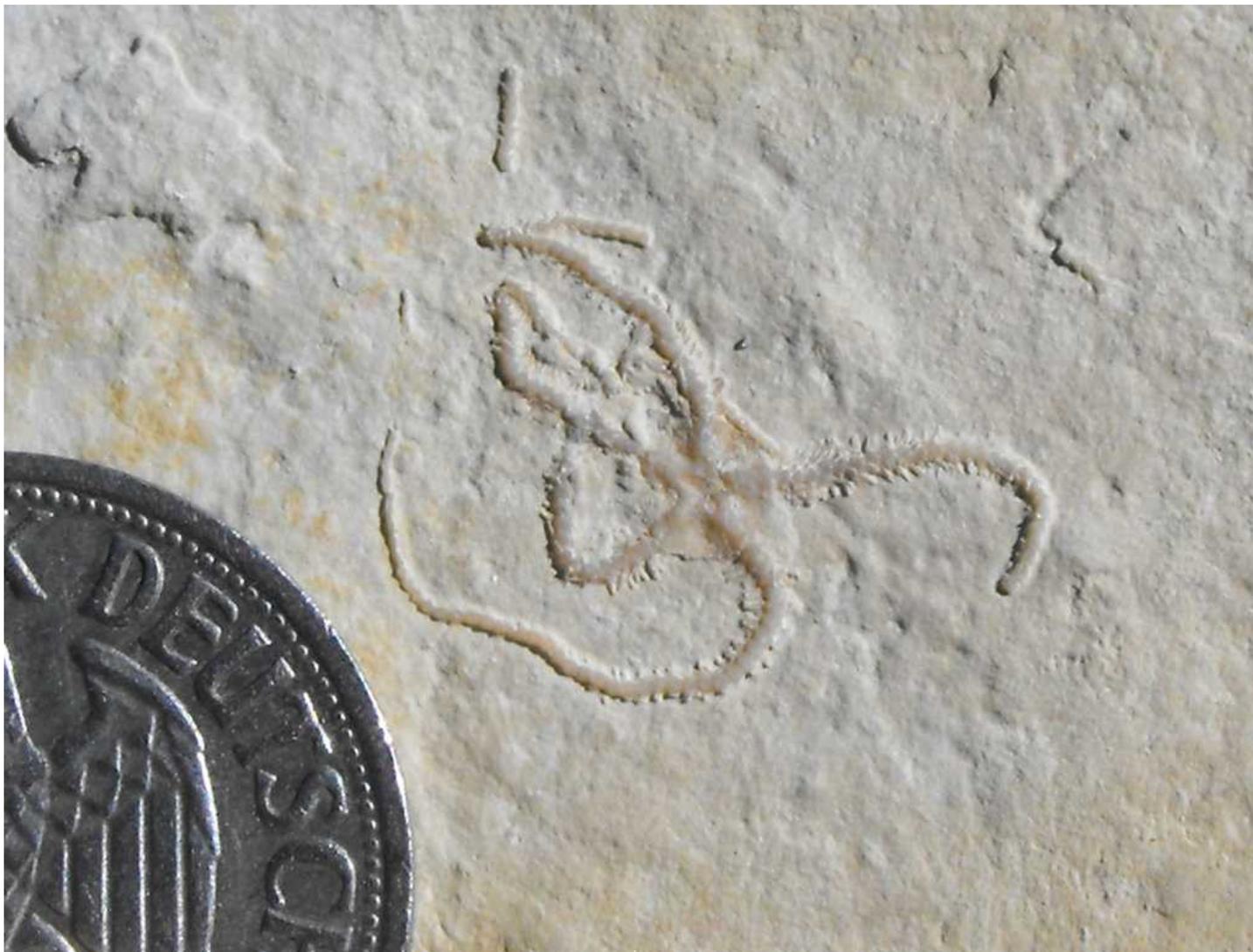
This was becoming hard work, and Brett was still sick, so she elected to retire to the Mietwagen. Wolfgang was a hard digger and his example motivated me to do the same, and at about that time another local collector named Klaus showed up with his dog and we all (well maybe not the dog) jumped into a hole in the ground and proceeded to removed cubic meters of overburden to access the brittlestar layers. It's a good thing these guys knew what they were doing or I would have had virtually zero chance of seeing brittlestars on this day.

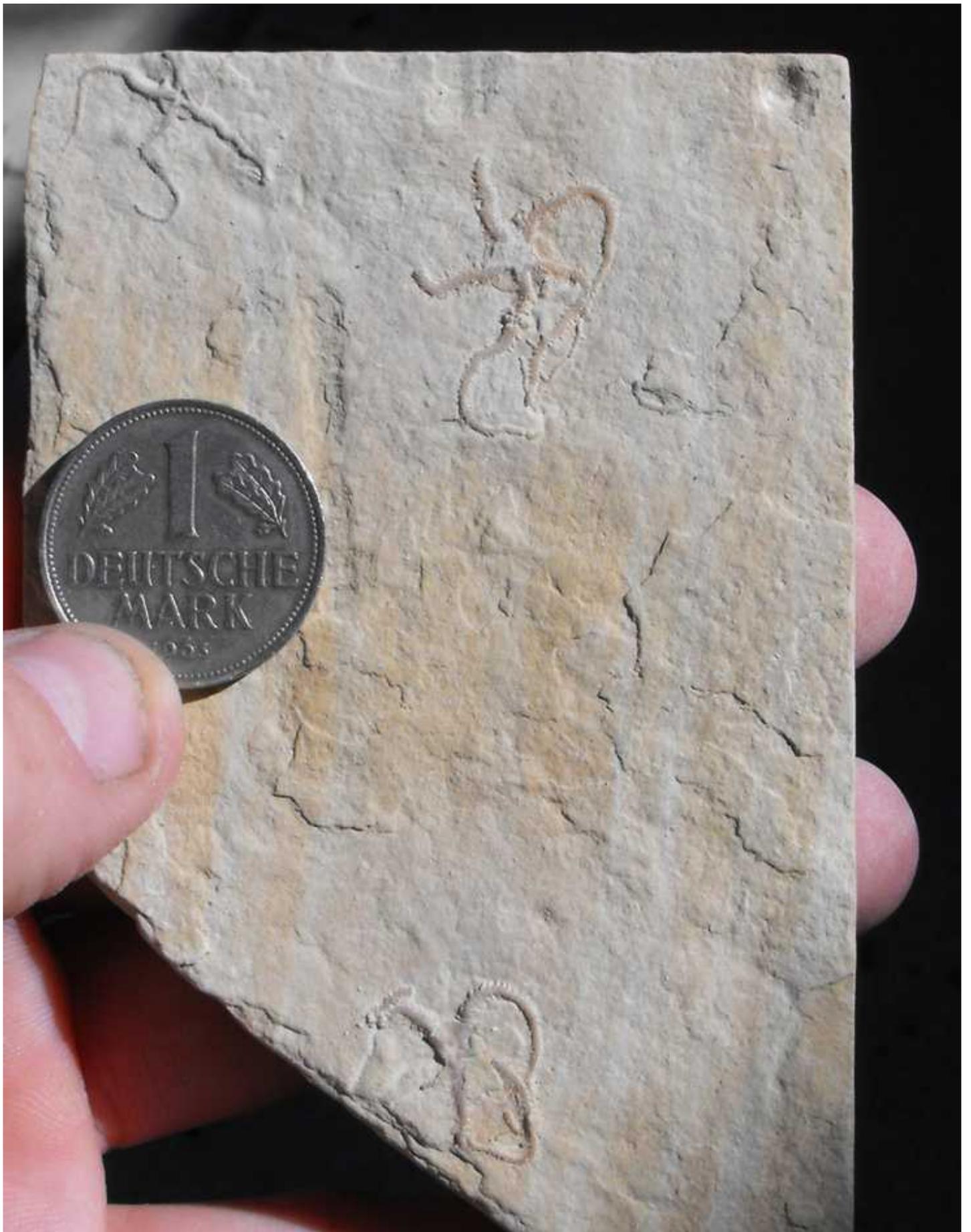


FIGS 478-486: Tithonian age brittlestars *Ophiopoda lithographica* this and next 8 pages (Site 567)







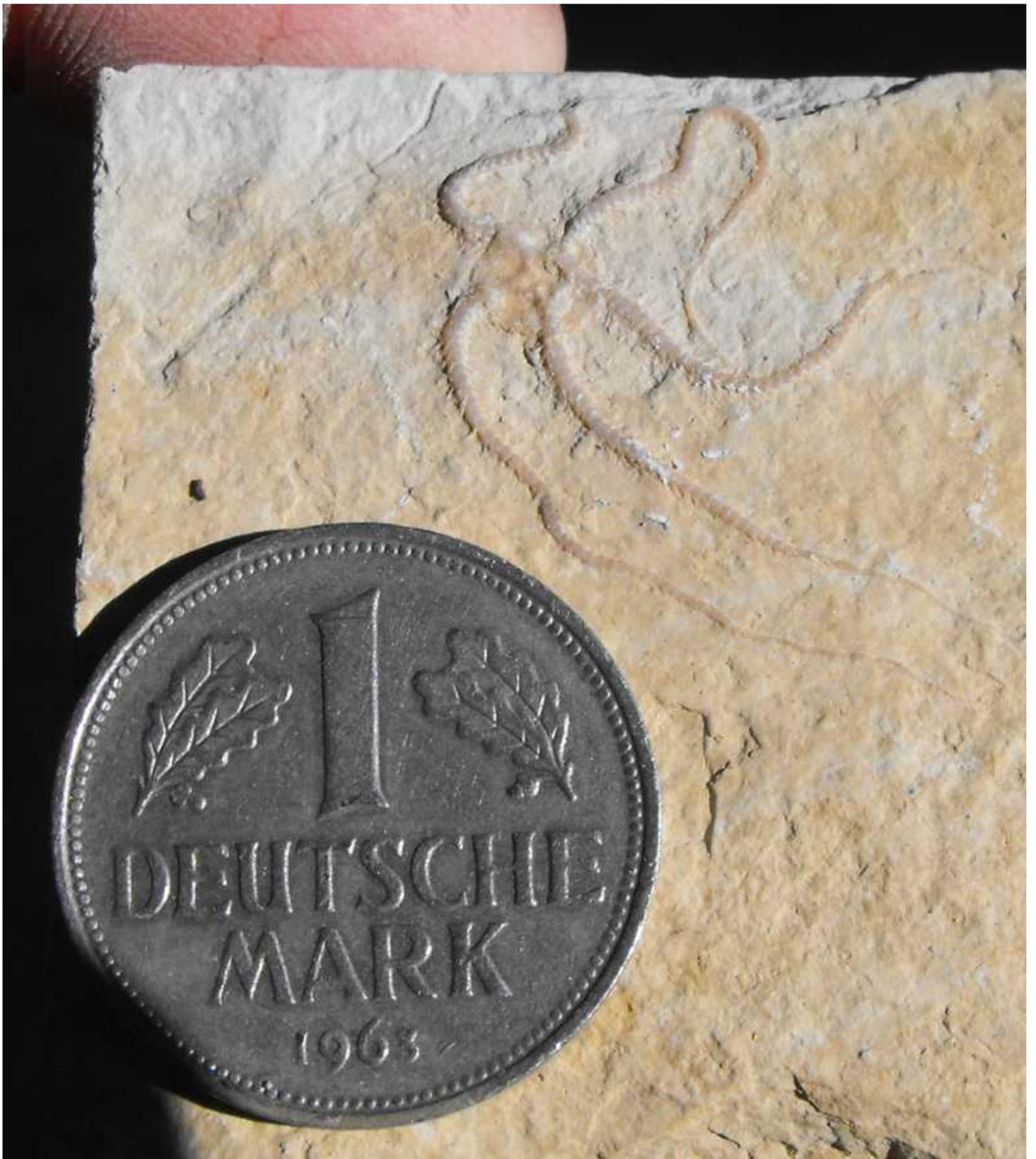












FIGS 487-496: Tithonian age bittlestars *Sinusoria kelheimensethis* and next 9 pages (Site 567)



Jtith 1 Site 567 091611

















After a flurry of 2 handed pick activity, finally we were pulling out chunks of matrix from the right level, splitting them into layers and finding target fossils. Klaus saw me struggling with my thick chisel and handed me a thinner wood chisel which vastly facilitated precision splitting in the field. By noon we had probably 20 brittlestars.

We rejoined Brett and visited a commercial starfish quarry in the area.....quite impressive.



FIGS 497-503: A commercial Jurassic starfish pit bearing *Riedaster reichel*/this and next 6 pages













From there we drove on to the Bürgermeister-Müller Museum, where Dr. Röper took very good care of us by first throwing on an apron and cutting our fossils into suitcase-friendly small slabs, then together with Wolfgang guided us on a private tour of the museum. Pterosaurs, fish, sharks, turtles, crocodiles, jellyfish, lobsters, echinoids.....words do not do these fossils justice, so I'll allow my photos to do the talking.



**Friedel**

*Natursteine*

Solnhofener Natursteinplatten

**Büro - Werksverkauf**

Solnhofer Bruch 2 ▪ Tel. 09145/837933

FIGS 504-506: Dr. Röper kindly trimming my Solnhofen area finds for most efficient transport home, this and next 2 pages







FIGS 507-510: Dr. Röper and Wolfgang Mages took us on a wonderful behind the scenes, after hours tour of the Burgermeister-Müller Museum





Sitte nicht berühren.  
Strom führt zu Tod.

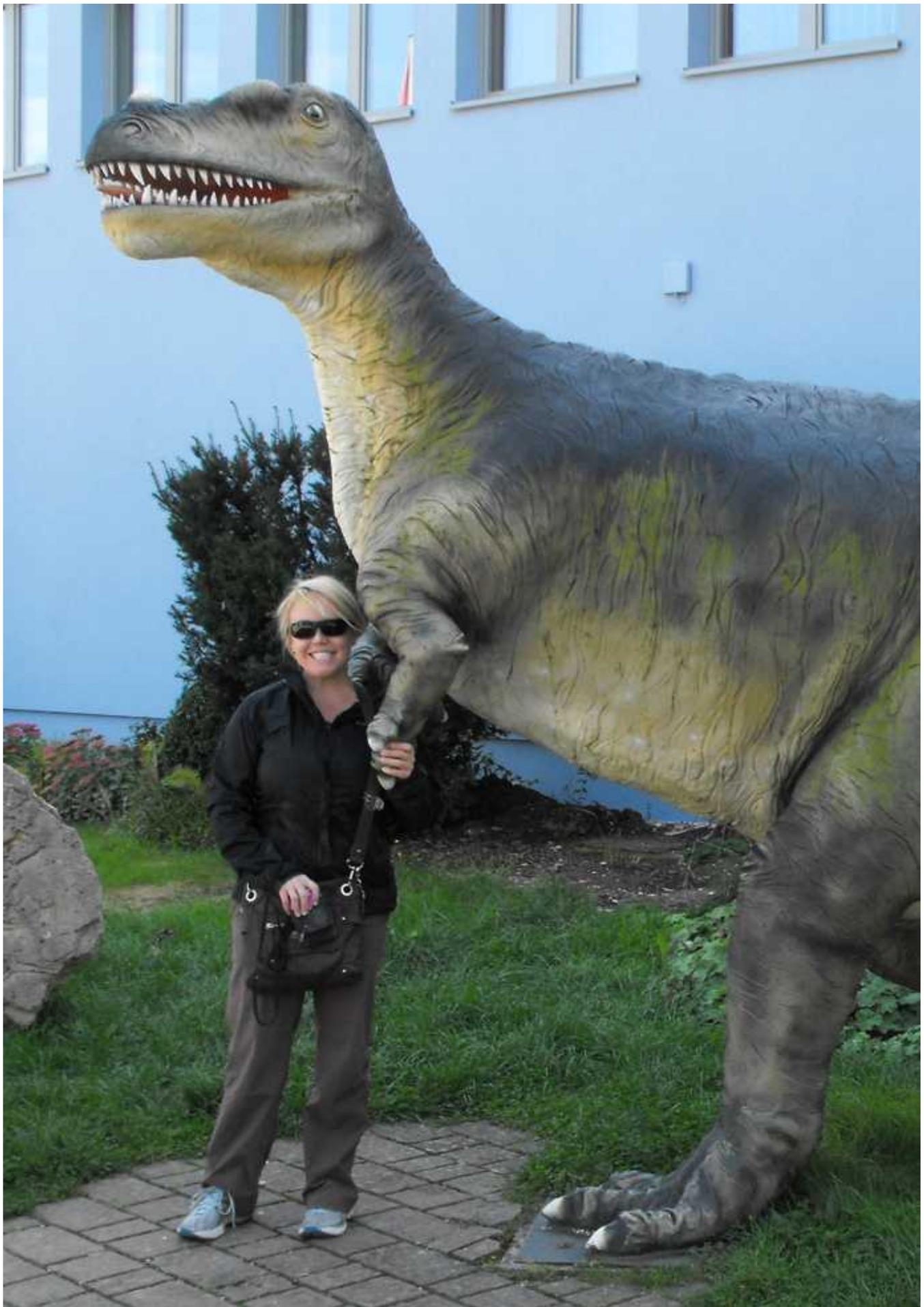


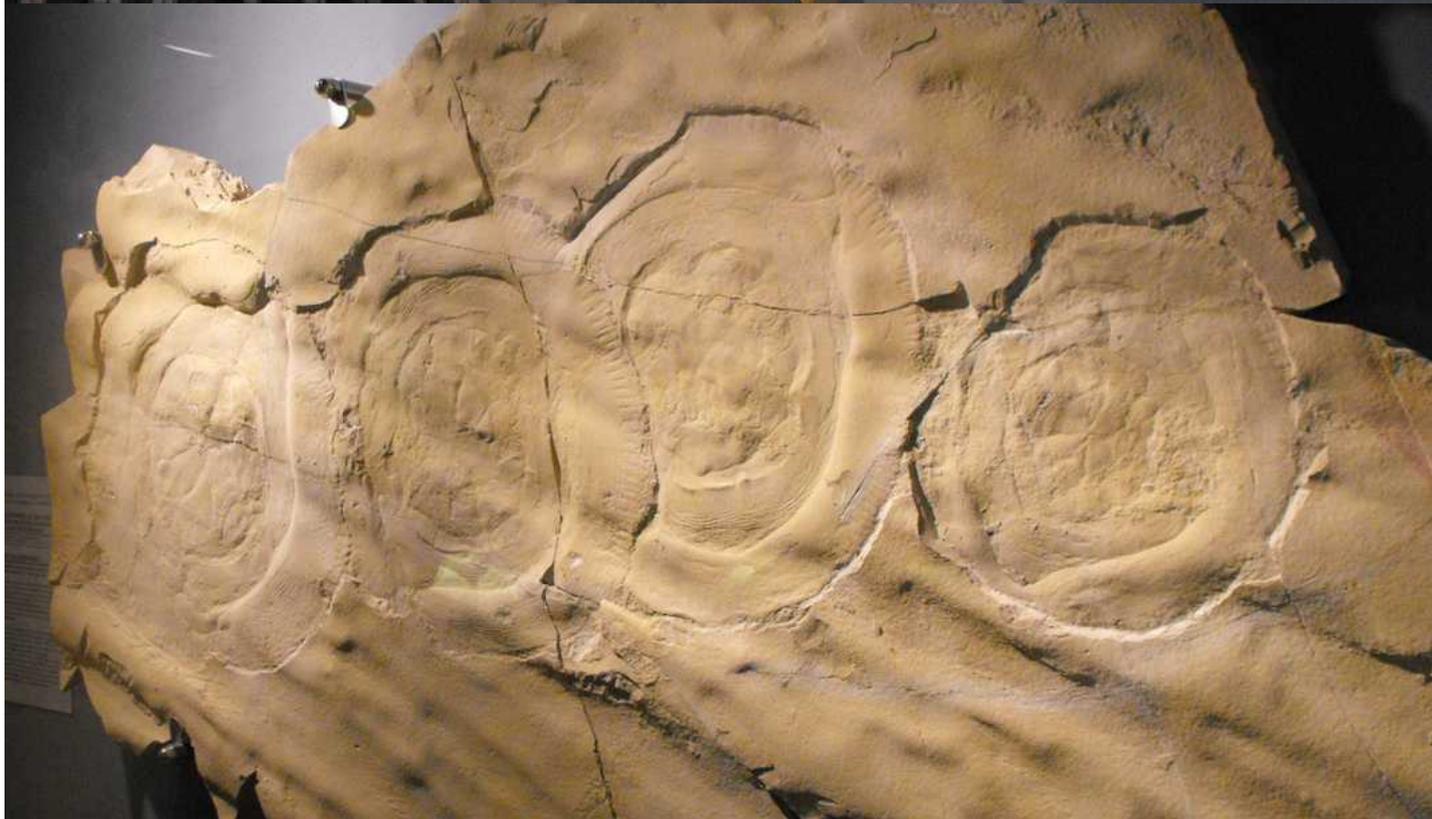


FIG 511: Dr. Martin Röper at the Bürgermeister-Müller Museum



FIGS 512-513: Dr. Martin Röper and his right hand man, Wolfgang Mages, posing in front of Dr. Röper's personal best find at the quarry, a monstrous and impressive slab of fish (*Tharsis dubius?*), this and next page





FIGS 514-515: Wolfgang Mages' personal best find, a slab of 4 huge jellyfish



FIGS 516-560: A montage of Tithonian age finds in the museum over the next 35 pages, starting with this jellyfish



Ms. Brett and an Ichthyosaur





Turtle



Crocodiles



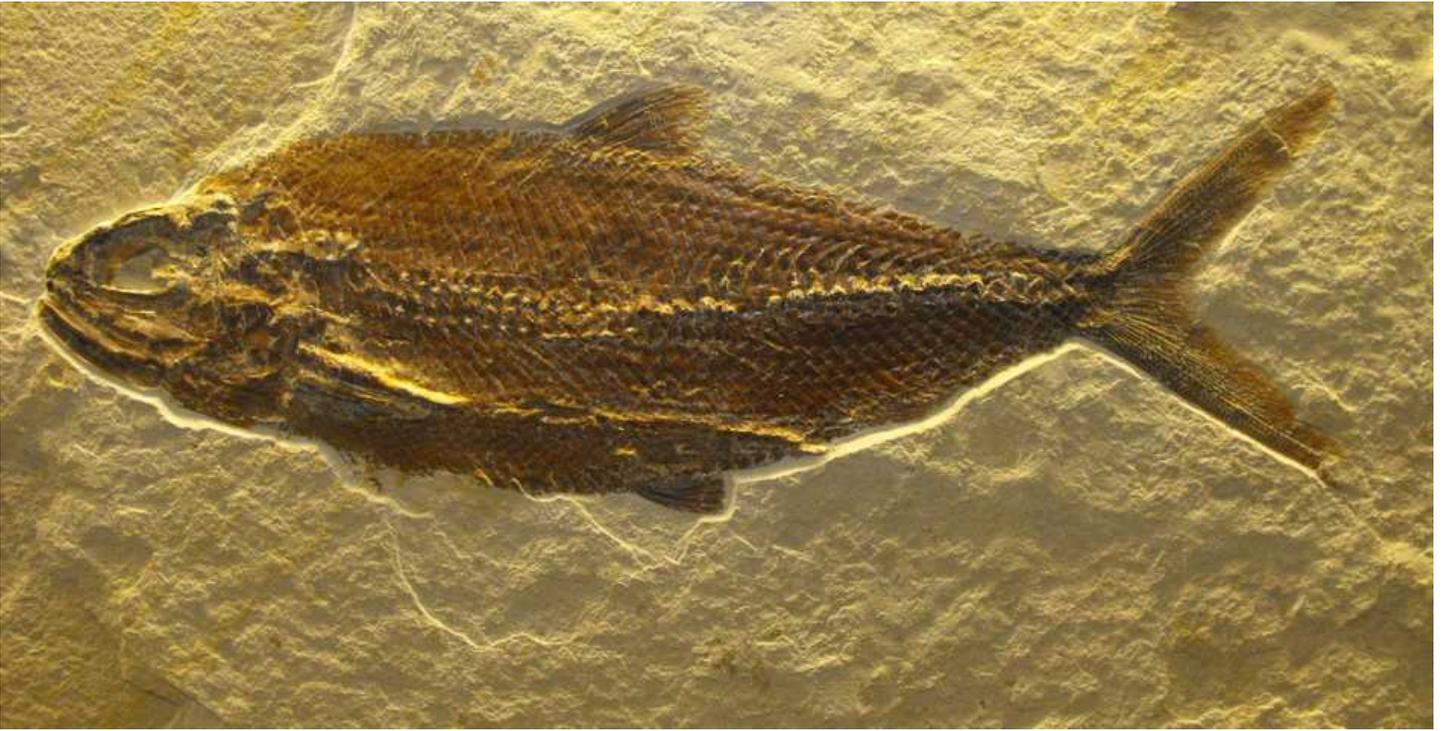


Pterosaurs

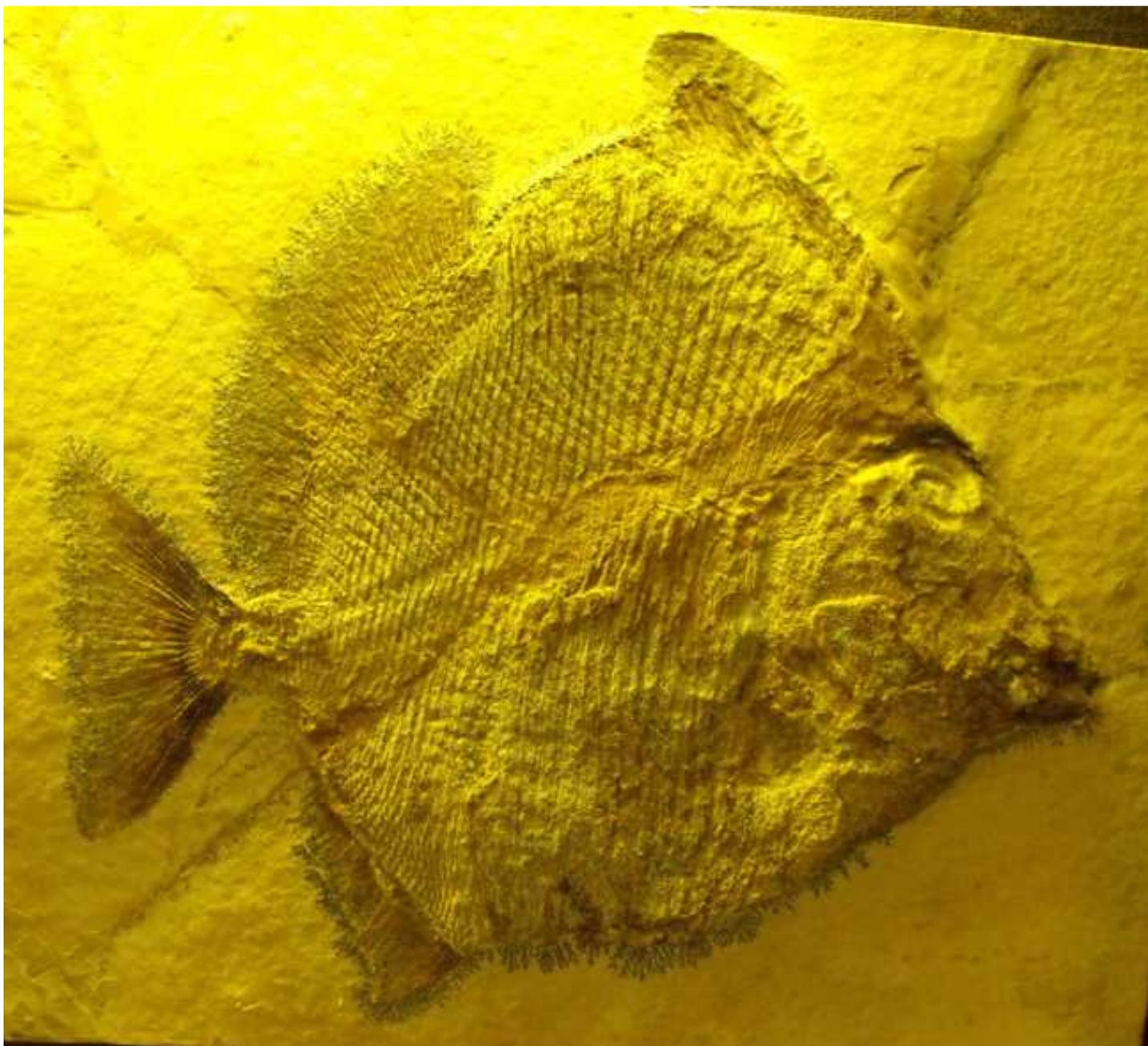




Fish and Pterosaur



Bony Fish





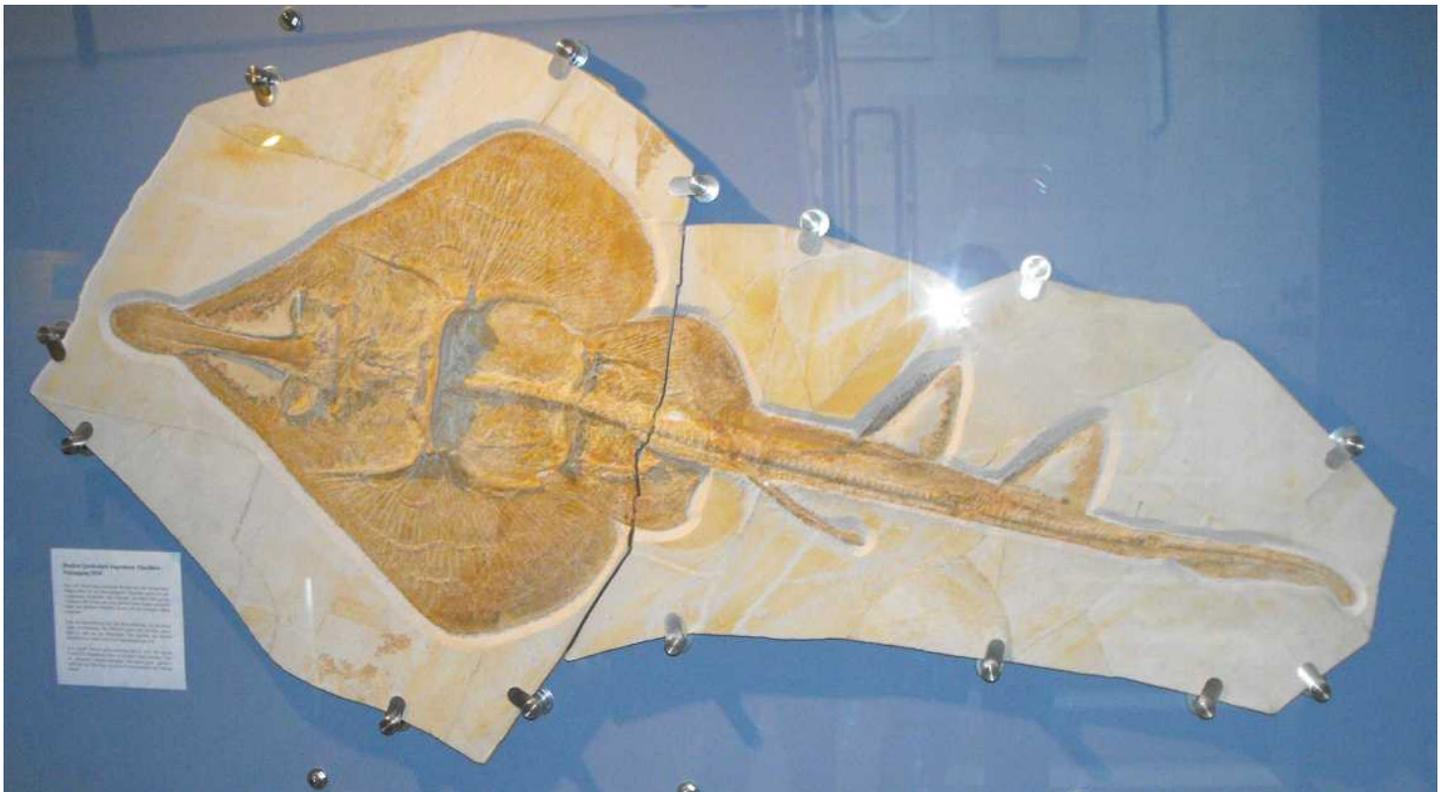






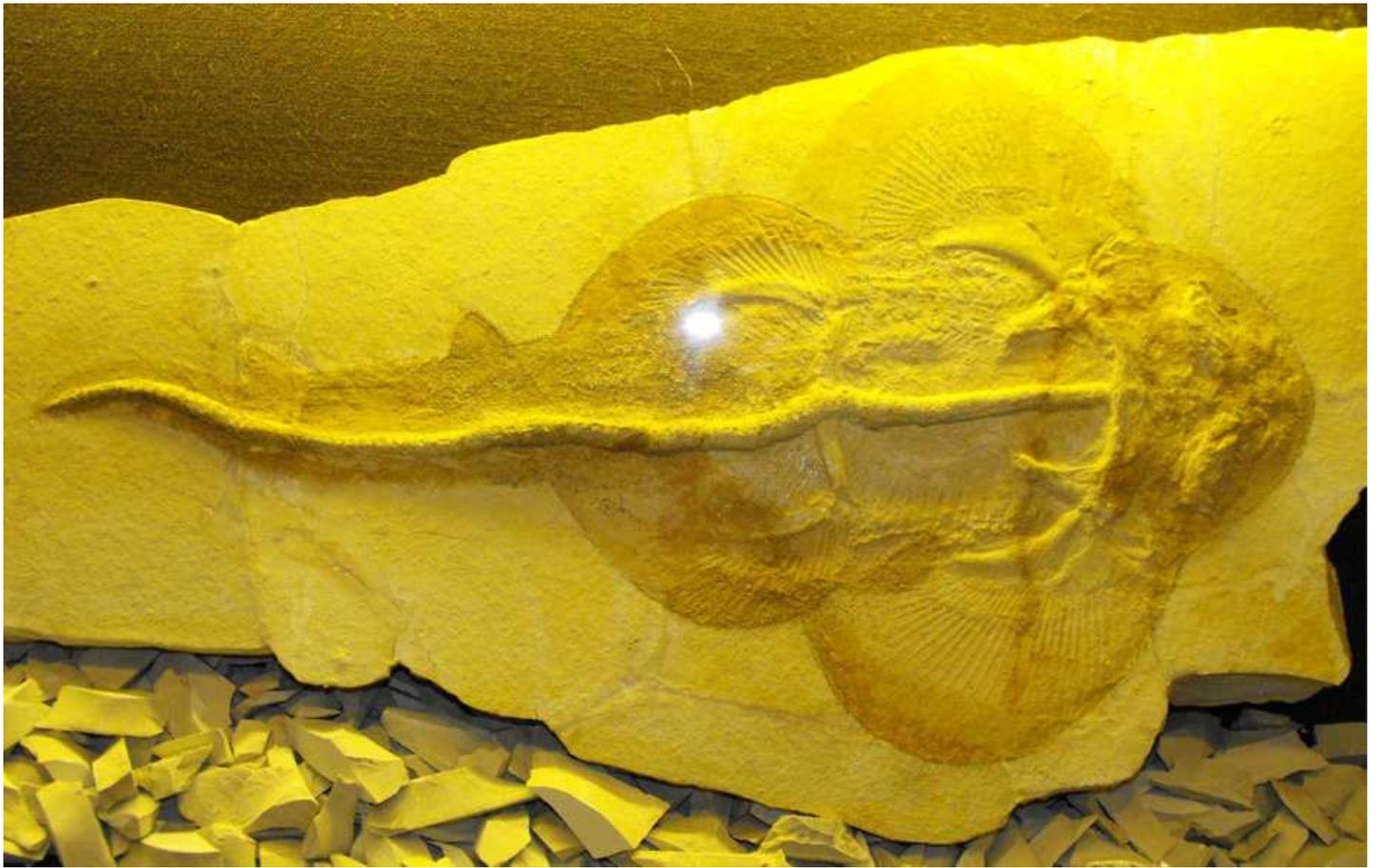


Shark



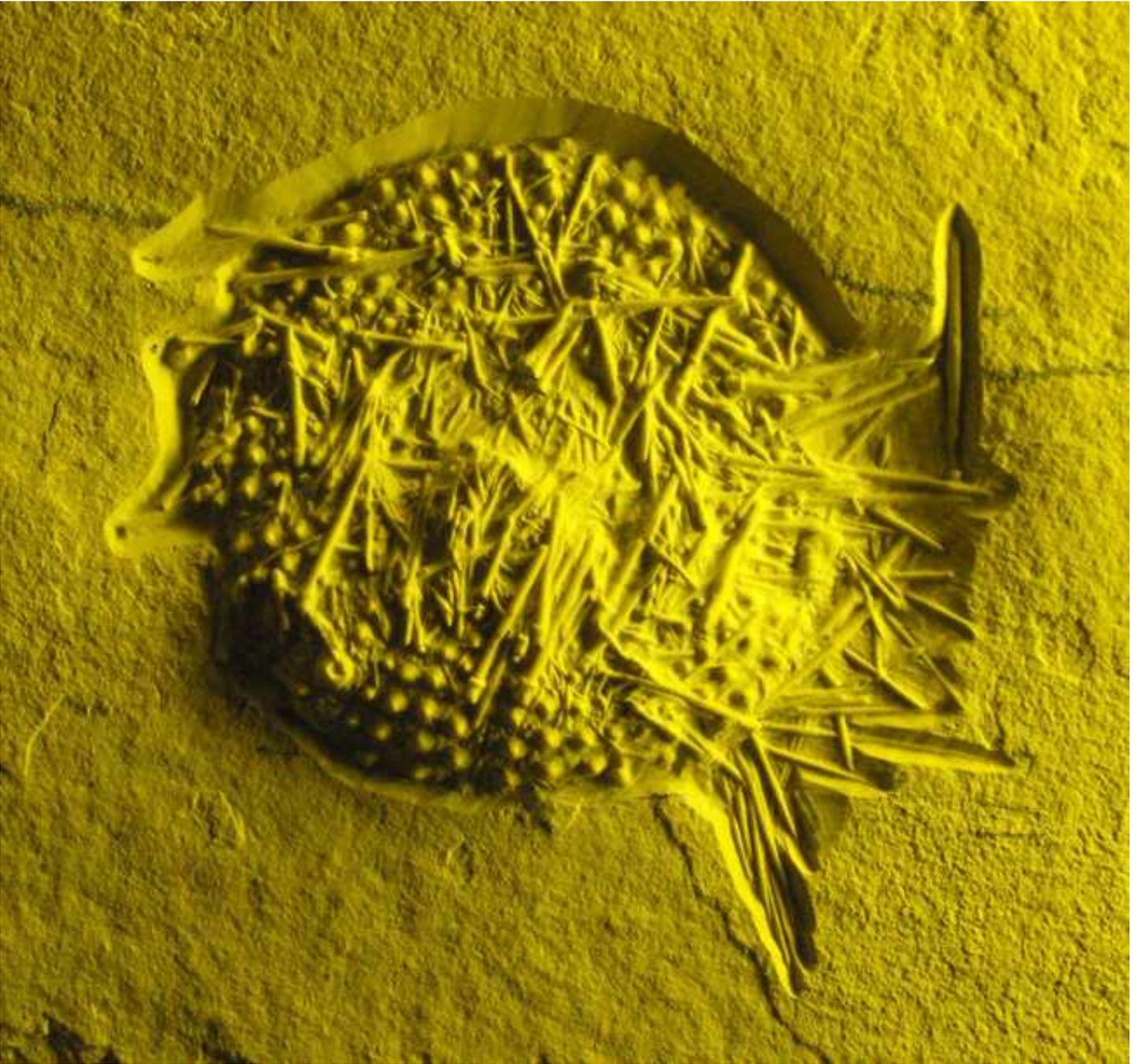
Rays and Skates





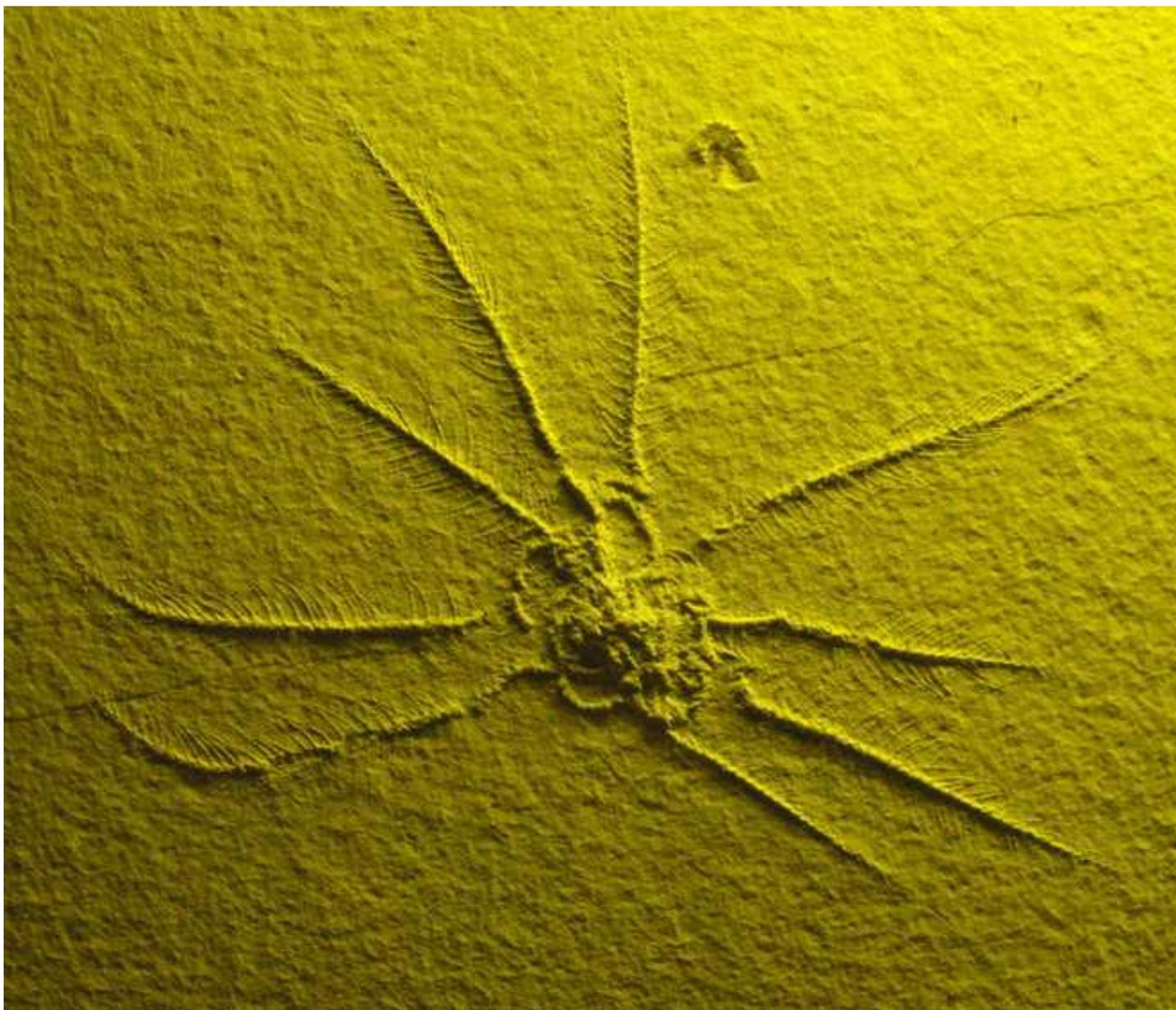


Insects

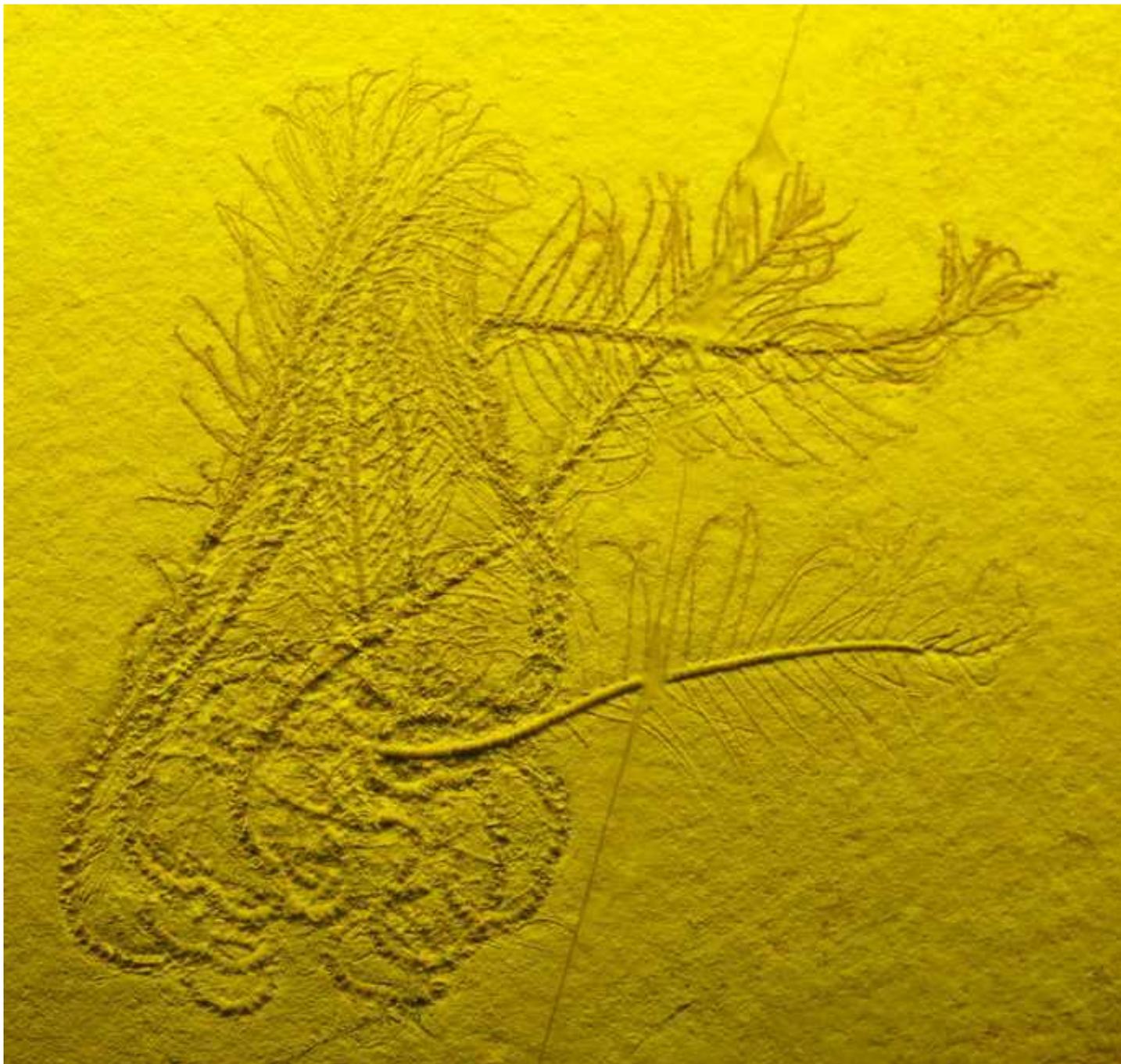


Echinoids





Crinoids





Brittlestars





Starfish



Horseshoe Crab



Lobster like crustacean



Shrimp





Lobster



Ammonites



(Taking design cues for my haus)



Squid





*Rhabdocidarisechinoid* seen behind the scenes of the museum



Lageskizze des  
Beute, einem 0,6 m l

FIGS 561-565: Cretaceous age fish and other fossils from the Sanatana Formation of Brazil, this and next 4 pages

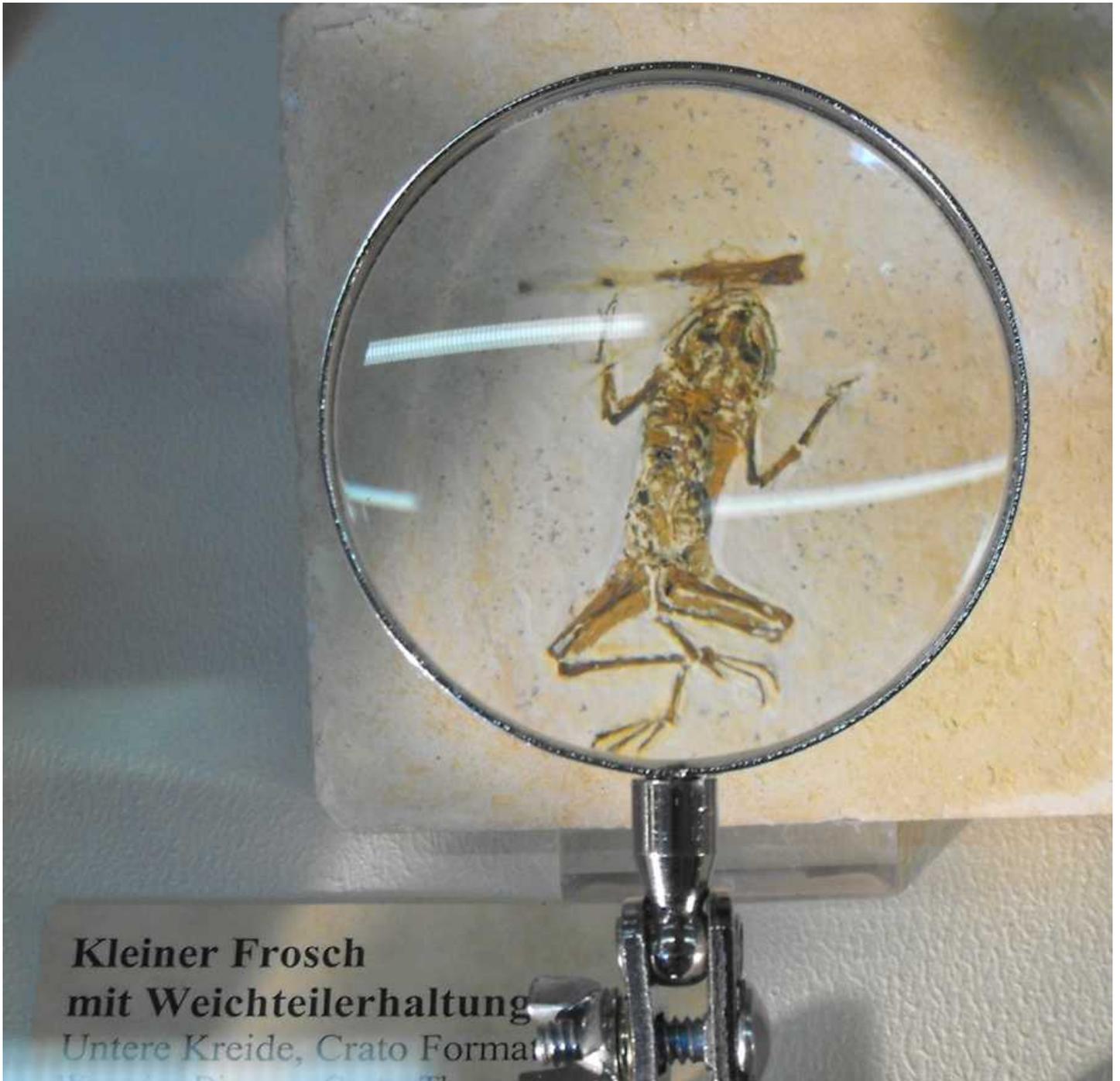


Zalmoxis  
supraurischer Pterosaurier  
Untere Kreide, Silesia Formation  
Wieliczka-Obere Kreide, Silesia Formation  
Kontinentaleuropa - 115/100 - 2

Pterosaur



Turtle



**Kleiner Frosch  
mit Weichteilerhaltung**

Untere Kreide, Crato Format

Ein Frosch





FIG 566: Dinner in Solnhofen

Behind the scenes they showed us a recent and spectacular find....an unprepped *Rhabdocidarisechinoid*, with 6 articulated spines...very impressive! I felt privileged to see this.

Soon we found ourselves enjoying traditional Bayern fare at a local eatery perched high on a ridge overlooking the town of Solnhofen. Dr. Röper and I got so deep into our discussion of echinoids that Brett said we were speaking a secret language and the waiter had to come back 3 or 4 times before he could even get us to look at the menu. I believe I got Schweinenbraten again, and Brett had some sort of curry. The Bier drinking Germans almost laughed at me for ordering Apfelsaft (apple juice)...hahaha!

Anyway I gave the guys some bags of choice Texas fossils and Dr. Röper had prepared for Brett and me an impressive suite of European echinoids....very nice! Now Brett and I will have to decide how to divide them up. After detailing a possible upcoming echinoid trade with Dr. Röper, Brett and I bade farewell to both of our generous hosts and made our way back north that night to the Hotel Main Franken in Bamberg.



FIG 567: A high stakes echinoid swap with Dr. Röper

September 17, 2011: Bayern Steinbruch Trifecta

Red...white....green....orange....all these colors would show themselves in ammonite hues over the next 12 hours as we punctuated our final day of collecting with an ambitious assault on 3 quarries. Up at 7, wonderful breakfast buffet under our belts both literally and figuratively, we left Bamberg around 8 a.m. and at the suggestion of Wolfgang Dietz and Sönke Simonsen we parked as close as we could to a defunct quarry near Kalchreuth and hiked in under threatening skies. As we arrived it began to spit rain on the gray Pliensbachian (Lower (Lias) Jurassic, 186 MYA) clays of the pit, the clay studded with brick red ironstone concretions.



FIGS 568-570: Ms. Brett and the author surveying Pliensbachian age Site 568, this and next 2 pages





Tightening our hoods, we continued our perusal of the slopes and found quick and ongoing success in the form of calcitic *Pleuroceras solare* ammonites trapped as singles and associations in concretions as well as singles weathered out into the clay and a healthy assortment of belemnites as well. Our stay here was not more than 90 minutes, but resulted in many well preserved, beautiful little ammonites for us both.



FIGS 571-584: Our collective take of *Pleuroceras solare*; this and next 13 pages (Site 568)





























FIG 585: Some of Ms. Brett's finds, mostly *Pleuroceras solare*, wondering about ID of the more spiny one just below left center, a few belemnites *Passaloteuthis* right (Site 568)



FIGS 586-587: Pliensbachian age belemnites *Passaloteuthis* sp. this and next page (Site 568)





FIG 588: Ms. Brett showing her interest in a big slug I found working its way across the field (Site 568)

Later than night as I was reducing matrix in consideration of suitcase weight, I whacked one nodule with my hammer only to see 3 cute little *Pleuroceras* perfectly exposed....more were later revealed through air scribing the outside of the nodule....this was my prize specimen from this site.





FIGS 589-590: My best find from the early morning hunt, an ironstone nodule chock-full-o-*Pleuroceras solare*(Site 568)

And so we began our trek to the next quarry, and along the way I reflected on some of the quaintness of the German countryside. Again, Schützenhausen aplenty. Also, there were apple trees literally lining the streets, in yards, about everywhere there wasn't old timber, a house, or a crop field there were apple trees. And then there were hike and bike trails set back 25 meters or so from the main roads, and the Germans seemed to stay pretty fit by hiking and biking as much as they drove.

And soon we entered the hamlet of Gräfenberg, and parked near the agglomeration of vehicles at the front entrance to the Endress quarry amongst all the German speaking folks wielding hammers, picks and other rock pounding implements. I struggled with my conversational German, but still made some friends by rapid firing Texas fossils into willing hands like the aforementioned paleo Pez dispenser.



FIGS 591-593: Arriving at the Wolfgang Endress quarry in Gräfenberg, this and next 2 pages (Site 569)



**WOLFGANG ENDRESS**

**Kalk- und Schotterwerk GmbH & Co. KG**  
**91322 Gräfenberg, Bayreuther Str. 46**





FIGS 594-597: Finally meeting in person a very helpful and knowledgeable Roger Furze this page, moving into the quarry next 3 pages (Site 569)









FIG 598: Wolfgang Dietz at work (Site 569)



FIG 599: Roger Furze left, Peter Möser right (Site 569)



FIG 600: A candid shot of Roger Furze (Site 569)



FIGS 601-602: A couple field shots of the author, this and next page (Site 569)



We had the good fortune of meeting in person a forum buddy of ours, Roger Furze, and he had driven 4 hours to reach the quarry so in consideration of his experience, I knew it would be good! Always cognizant of the rapidly accruing aggregate weight of our finds to date, after some deliberation I was happy to give Roger the largest block of ammonites that I hauled out of the Lafarge Quarry in Belmont. Roger is an expert preparator so I knew I'd learn some prep tips in

return, and within a couple weeks he sent me images of intermediate preparation steps as well as of the quite impressive finished product. Absolutely beautiful *Pseudogrammoceras* ammonites...see for yourself in the Belmont section earlier in this lengthy September report.

12:00 rolled around and the parade of German speaking collectors poured into the quarry, perhaps 30 or 40 in all. Preferring to "roll her own" at times, Ms. Brett found a spot in the quarry she liked and began perusing for ammonites while I moved on to some larger weathering spoil piles with Roger.

Many of the ammonites were fragile and "gebrochen" but Roger and I soon found an area that was pregnant with nice specimens. Soon our friends Wolfgang Dietz and Peter Möser found us and remarked that we had indeed found a good spot. So the four of us worked that area for a while, with some very nice green *Orthosphinctes* ammonites coming to hand. With a swing of my hammer the glauconitic limestone (Upper (Malm) Jurassic, Kimmeridgian, 153 MYA) yielded me a nearly intact *Physadoceras* ammonite, its slightly weathered keel being offset by the presence of the associated aptychus (ammonite mouth part), which Wolfgang noted was indeed rare for this site. In crawling around some of the more broken down, marly areas I was pleasantly surprised to secure some unexpected echinoids, *Collyrites* of some species.



FIGS 603-604: Kimmeridgian age echinoid *Collyrites carinatus* this and next page (Site 569)





FIGS 605-606: Kimmeridgian age ammonite *Physodoceras* sp. with laevaptychus (mouth part) associated, this and next page (Site 569)





FIGS 607-608: Two views of a *Physadoceras* sp. ammonite this and next page (Site 569)





FIGS 609-610: Kimmeridgian belemnites *Hibolites semihastatus* this and next page (Site 569)





FIGS 611-612: Kimmeridgian belemnites *Hibolithes semihastatus* and ammonite *Sutneria platynota* this and next page (Site 569)





FIGS 613-614: Kimmeridgian ammonites *Sutneria platynota* this and next page (Site 569)





FIGS 615-619: Kimmeridgian ammonite *Taramelliceras* sp. in foreground, *Ataxioceras* sp. in background, belemnite *Hibolithes* sp. at base of association piece, this and next 4 pages (Site 569)











FIG 620: Kimmeridgian ammonite *Taramelliceras* sp. (Site 569)



FIGS 621-624: Kimmeridgian ammonites *Ataxioceras* sp. this and next 3 pages (Site 569)









FIG 625: Three Kimmeridgian ammonites *Lingulaticeras* sp. and possibly *Ochetoceras* sp. lower right (Site 569)



FIG 626: Kimmeridgian ammonites *Lingulaticeras* sp. left, *Orthosphinctes* sp. right (Site 569)



FIGS 627-647: Kimmeridgian ammonites *Orthosphinctes* sp., this and next 20 pages (Site 569)











































FIG 648: Kimmeridgian ammonite *Orthosphinctes* sp. and partial belemnite guard *Hibolithes* sp. (Site 569)

Brett rejoined forces with us, and she was quite pleased with the quality and quantity of ammonites she had been finding. Upon Wolfgang's suggestion our little pack followed him to an area of better weathered piles, which we all commenced to splitting and finding more *Orthosphinctes* ammonites. Peter was kind enough to hand me a palm sized block of matrix containing the ammonite *Sutneria* as well as a long, exposed, nearly complete belemnite...upon later prep, I revealed a second belemnite, making this even more of a display piece for the house.

I enjoyed watching Wolfgang's high energy "hit and run" technique...reminds me of myself a few years ago. He knew how to target the right lithology, spotting it from a distance, busting it open, and moving on in quick succession. We were then joined by my new friend Christian whom I ran into in the fields of Schlaifhausen a few days prior.



FIG 649: Fellow collecting friend, Christian, whom I met earlier that week in the fields of Schlafhausen

Brett and I had a respectable take of ammonites within a couple hours, and we were hungry so we broke away and visited a Biergarten in Gräfenberg on Wolfgang's suggestion. We loved it....Pfeffer steak, Schweinenbraten mit Kloße, hot raspberry sundae to finish it off....dang good chew. On a side note, I found it interesting that it was standard and acceptable procedure for Europeans to bring their dogs into the restaurants we visited...my son would love the place!

Upon leaving we passed by the quarry again and saw that the box of Texas and French fossils I had left for Wolfgang on his windshield was still there an hour after we left. Unfortunately I later got an email from Wolfgang saying that someone had taken the box.....bummer! It was full of good will specimens from Texas intended to thank him for his help in planning the trip.

