

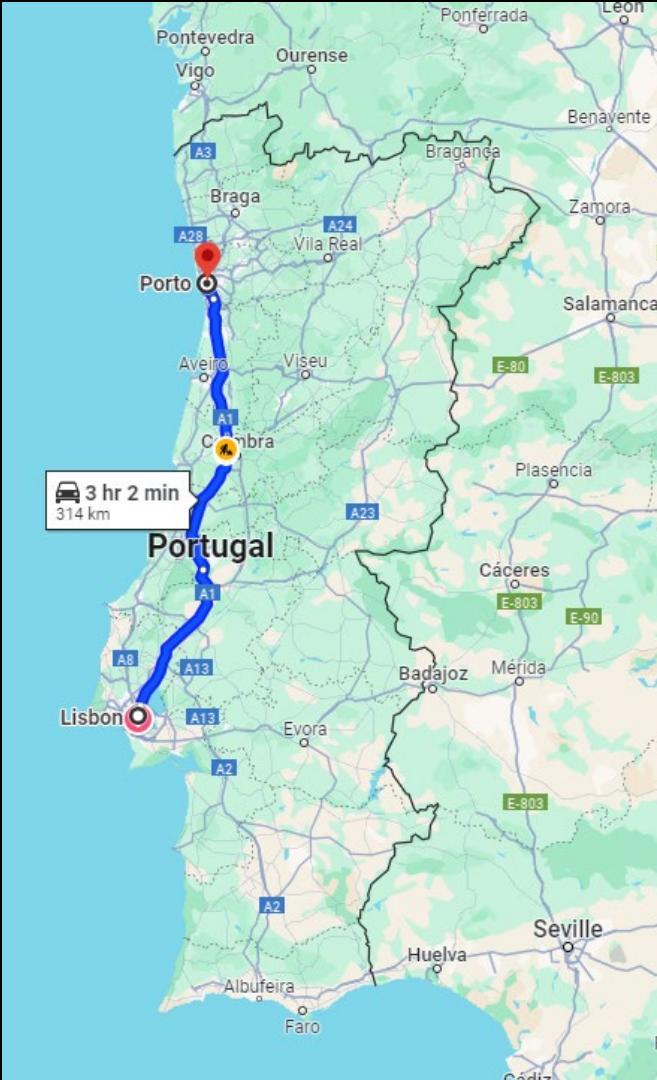




Spring Break Trip to Portugal 2024

Trip Highlights:

- Porto
- Wineries in the Douro Valley Schists
- Gneisses at the Foz do Douro



Day 1: Friday, March 8th, 2024 – Board flight
Depart from Dulles, Washington, DC

Day 2: Sunday, March 9th, 2024 – Porto –
Stop 1: Lisbon Airport (10:15 am) - Bus to Porto
Stop 2: - Free day in Porto - Hotel at city centre
(Hotel Sé Catedral Tapestry Collection by Hilton)

Avery







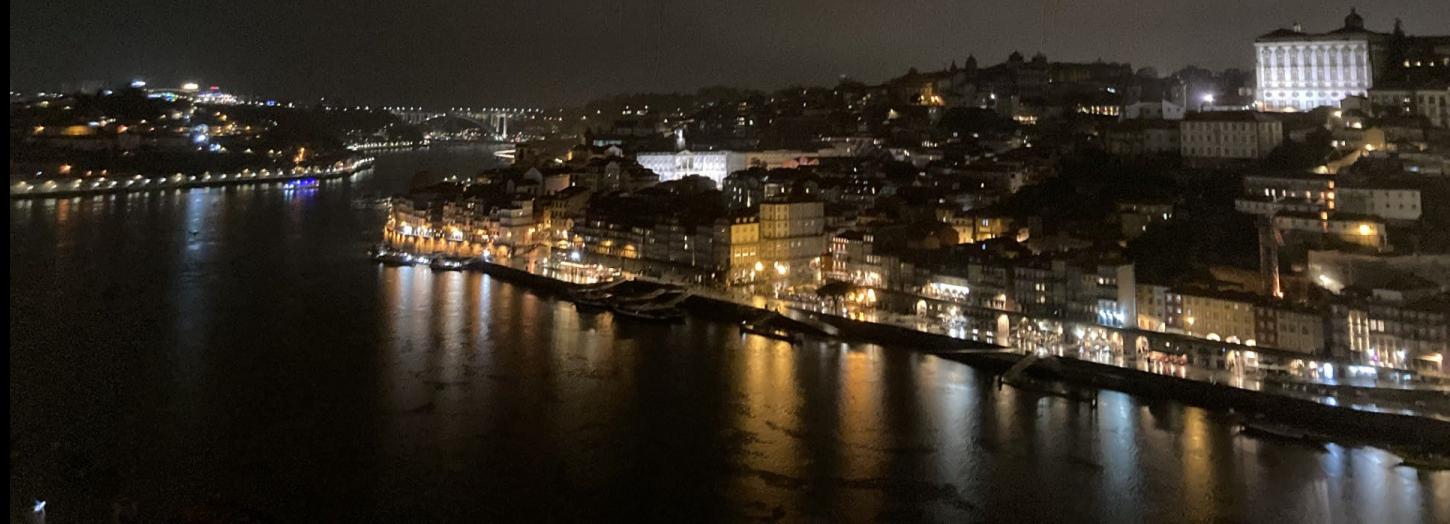














Day 3: Sunday, March 10th, 2024

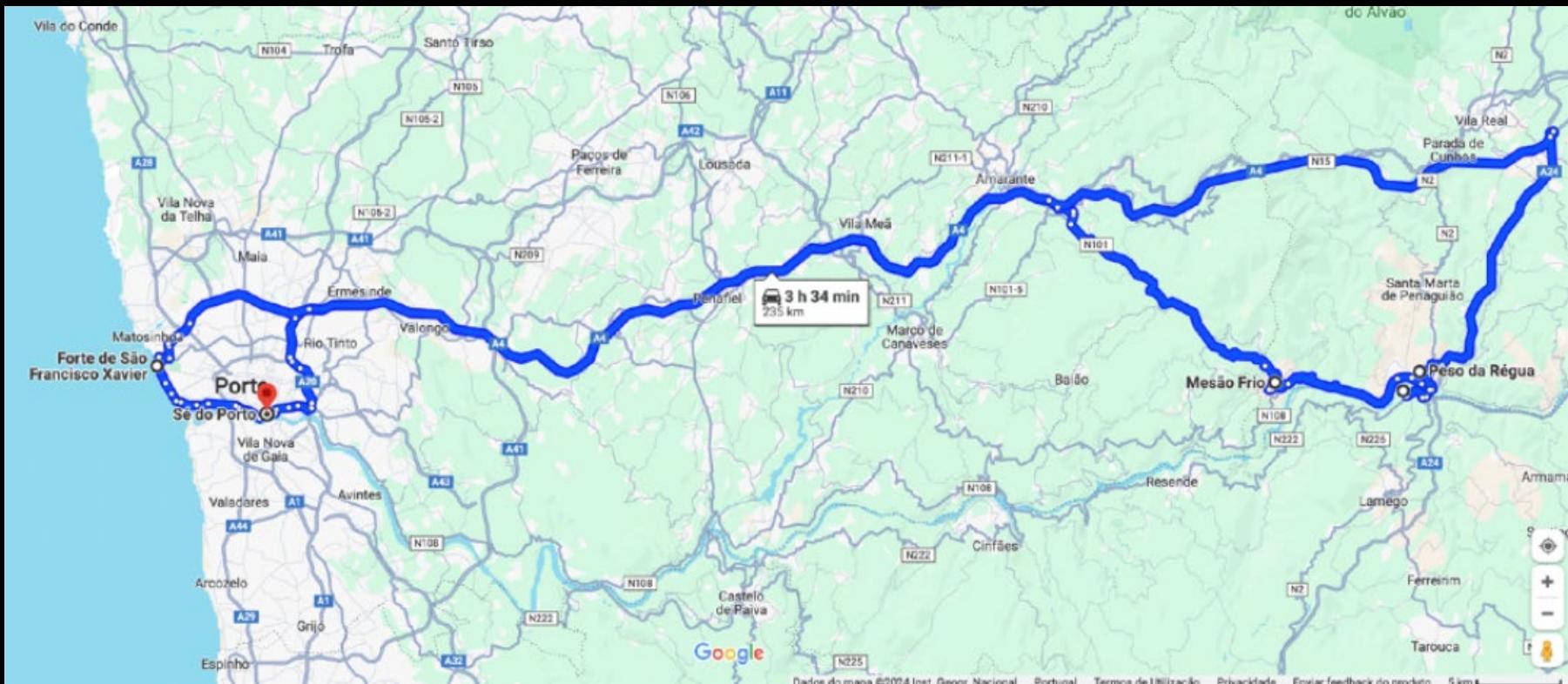
Trinity

Stop 1: Drive to Régua via Mesão Frio

Stop 2: 10:30 - Winery Visit

Stop 3: 16:00 - Foz do Douro Geosite

Stop 4: 20:00 - Dinner at Cervejaria Brasão



Day 2: Douro Valley, Winery Tour, and Foz do Douro



Day 2: Douro Valley, Winery Tour, and Foz do Douro



Day 2: Douro Valley, Winery Tour, and Foz do Douro



Day 2: Douro Valley, Winery Tour, and Foz do Douro



Day 2: Douro Valley, Winery Tour, and Foz do Douro



Day 2: Lunch and Lectures the Winery



Day 2: Douro Valley, Winery Tour, and Foz do Douro



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Day 2: Douro Valley, Winery Tour, and Foz do Douro



Day 2: Douro Valley, Winery Tour, and Foz do Douro



Day 2: Douro Valley, Winery Tour, and Foz do Douro





Day 4: Monday, March 11th, 2024

- Stop 1:** 10:00 - Mina D'Azeche oil field cliff section
- Stop 2:** 12:00 - Senhora da Vitória headland section
- Stop 3:** 13:00 - Lunch at Somar (Paredes de Vitória)
- Stop 4:** 14:30 - Pedras Negras Section
- Stop 5:** 15:30 - Praia da Concha Section
- Stop 6:** 17:00 - Promontory Nazaré Promontory
- Stop 7:** 19:00 - Your Hotel in Alcobaça
- Stop 8:** 20:30 - Dinner at Alcobaça (António Padeiro)

Tyler and Jess

Portugal: Day 4

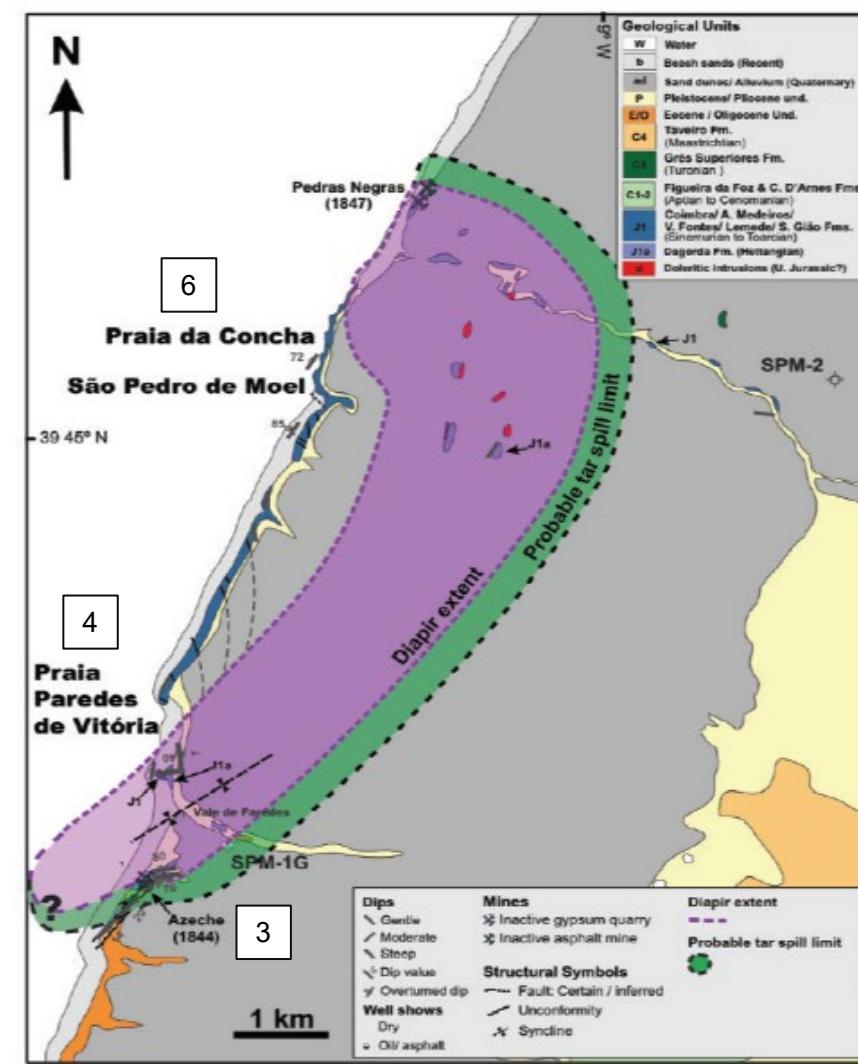
São Pedro de Moel and Nazaré

Jess and Tyler

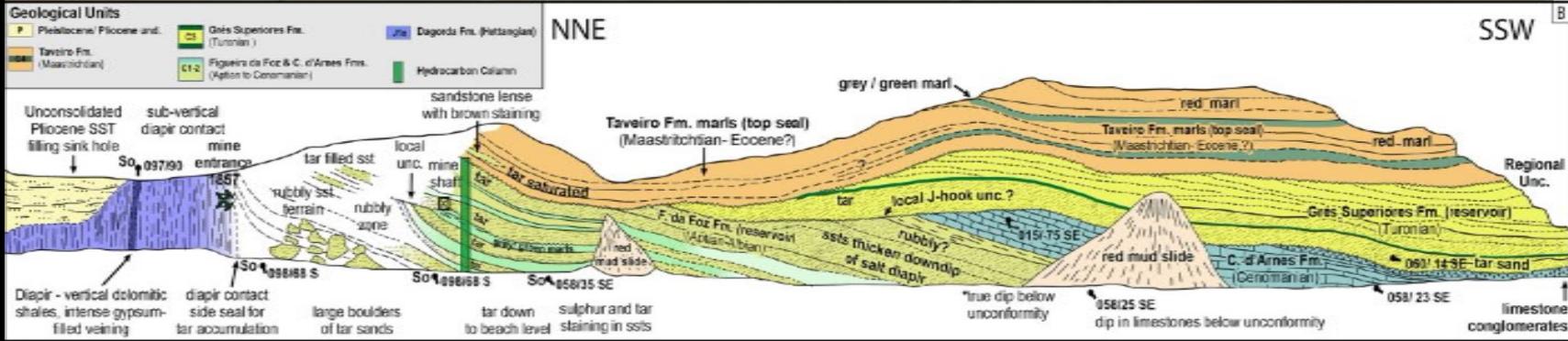


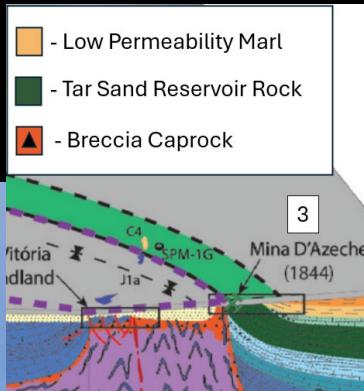
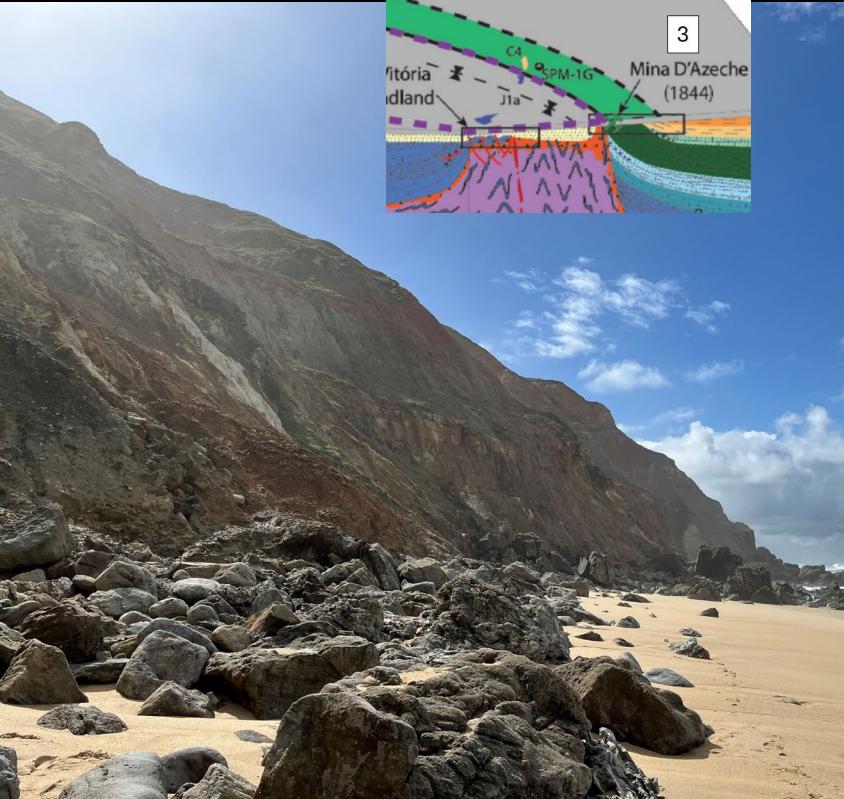
São Pedro de
Moel salt
diapir





Locality 3: Mina D'Azeche cliff section





Canto D'Azeche Asphalt Mine

Azeche tar sands discovered in 1843 by French engineer,
Joseph Pezerat

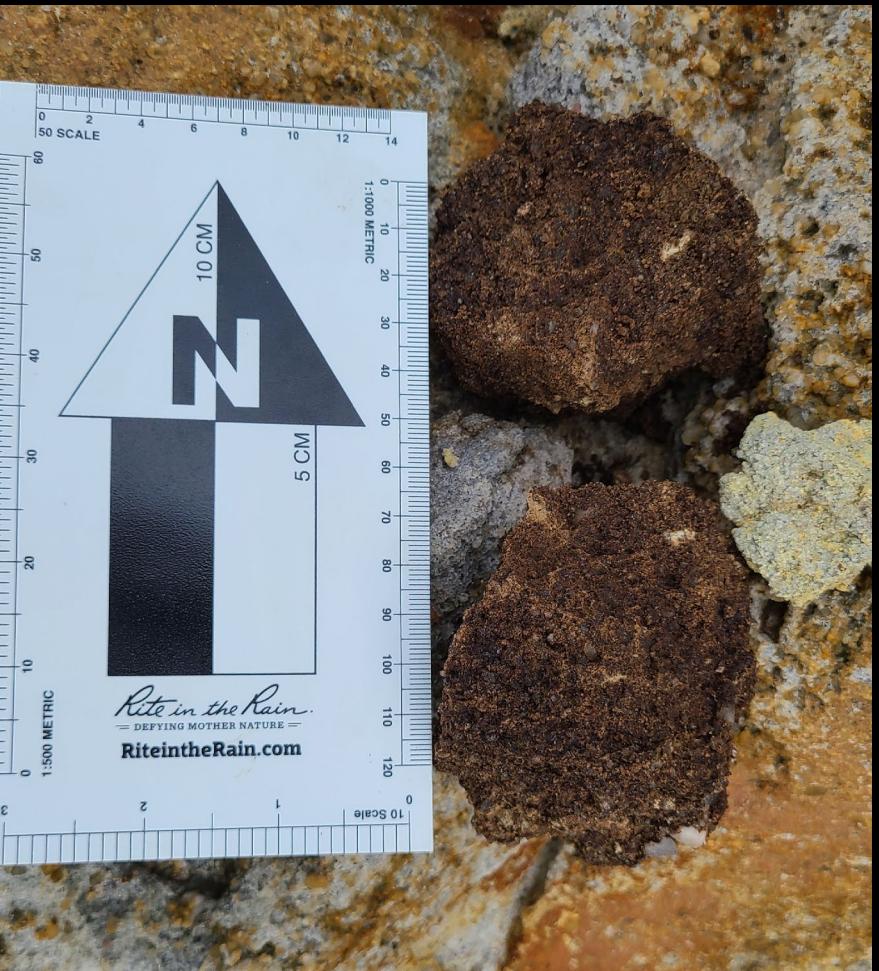
Unprofitable until 1857, dolomitic bituminous shales under
reservoir

Asphalt mined here paved the first tarmac road in Lisbon: Rua
da Emenda







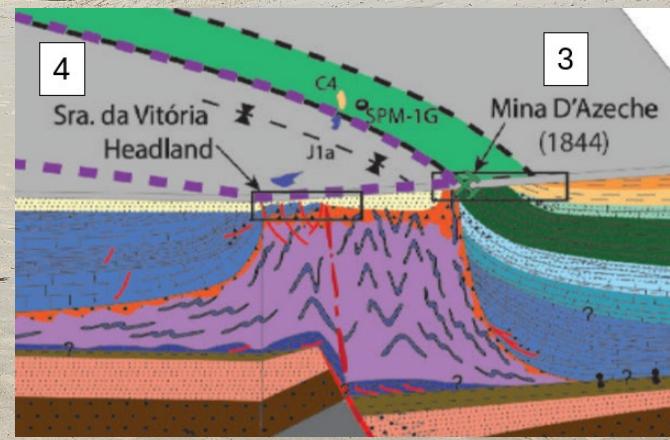


Locality 4: Senhora da Vitória Headland



Pleistocene / Pliocene sands infill the depressions
Caused by inter-diapir dissolution

Brecciated top of diapir visible

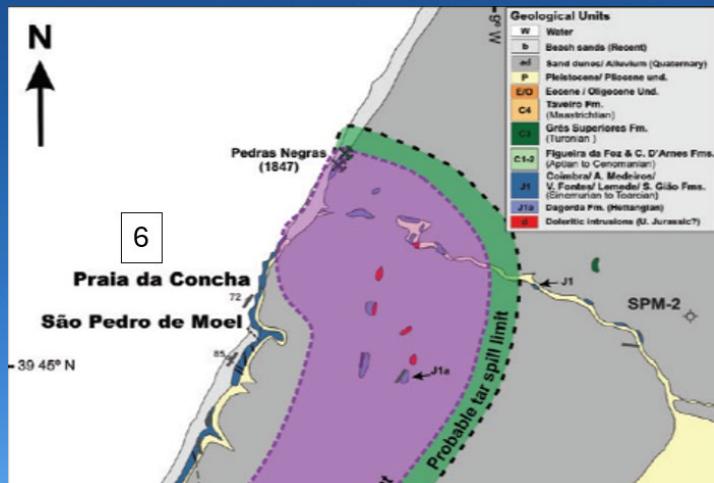


Locality 6: Praia da Concha



Outcrop of upturned Jurassic carbonate sequence

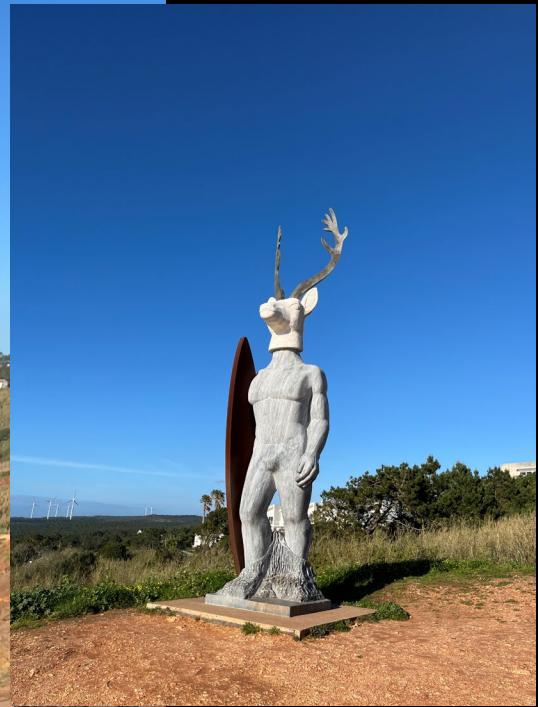
Western flank of diapir does not contain hydrocarbons like those found south in locality 3





Pitt-Johnstown
Geology Club

Locality 7: Nazaré Promontory



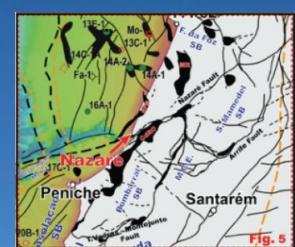
Nazaré - Praia do Norte

American Garrett McNamara set the record for largest wave ever surfed in 2011

Wave measured 78 ft.

Only foreigner to receive the Vasco de Gama Medal of Honor from the Portuguese Navy





Age	Litho strat.	Environment
Maastrichtian	Fm. Cong. Nazaré	Alluvial fans (Conglomerates around diapirs)
	Basaltos	
	Hiatus	
Campanian	Fm. Grés Gross. Sup.	Fluvial (Arcos)
	Hiatus	
Sant.		Foreshore
Con.	Mb. Superior	Upper shore
Tur.	Mb. Inferior	Lower shore (megabreccia/ paleokarst)
Cenomanian	Fm. Carbonatada	Inner lagoon
	Mb. Caldelas	Carbonate platform
Alb.	Fm. Grés Belasianos	Braided deltaic plain
		Marine
		Continental



Pitt-Johnstown
Geology Club

POR FAVOR NO ULTRAPASSAR
LINHA AMARELA
PLEASE DO NOT GO BEYOND
THE YELLOW LINE



Nazaré Seagulls

thugs

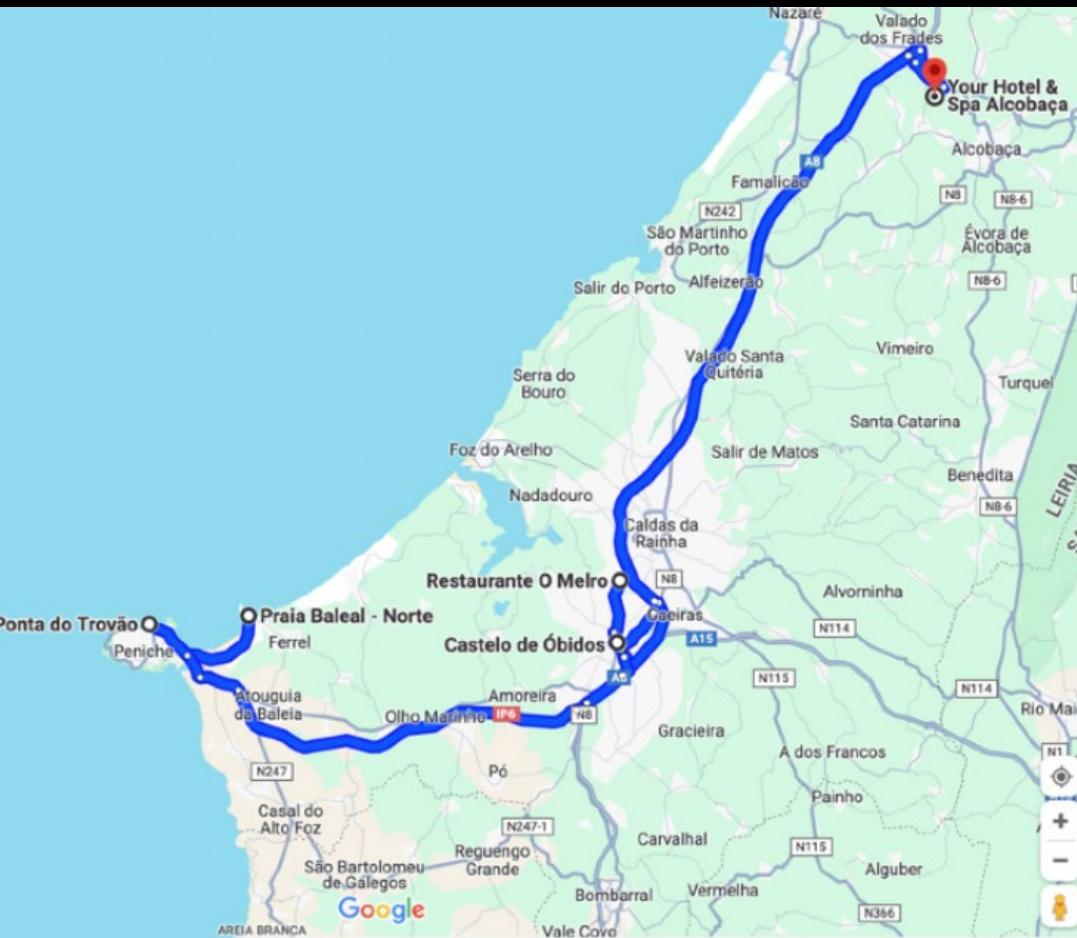
Rats of the sky

Still pretty cute

Liked to fight each other



Day 5: Tuesday, March 12th, 2024



- Stop 1: 10:00 - Baleal Section**
- Stop 2: 11:00 - Peniche section**
- Stop 3: 13:00 - Lunch (O Melro)**
- Stop 4: 14:00 - SOGERELA mine**
- Stop 5: 16:30 - Óbidos Castle outcrops**
- Stop 6: 19:00 - Thermal SPA**
- Stop 7: 20:30 - Dinner at Hotel**

Luka

Location One: Baleal







Location One: Baleal



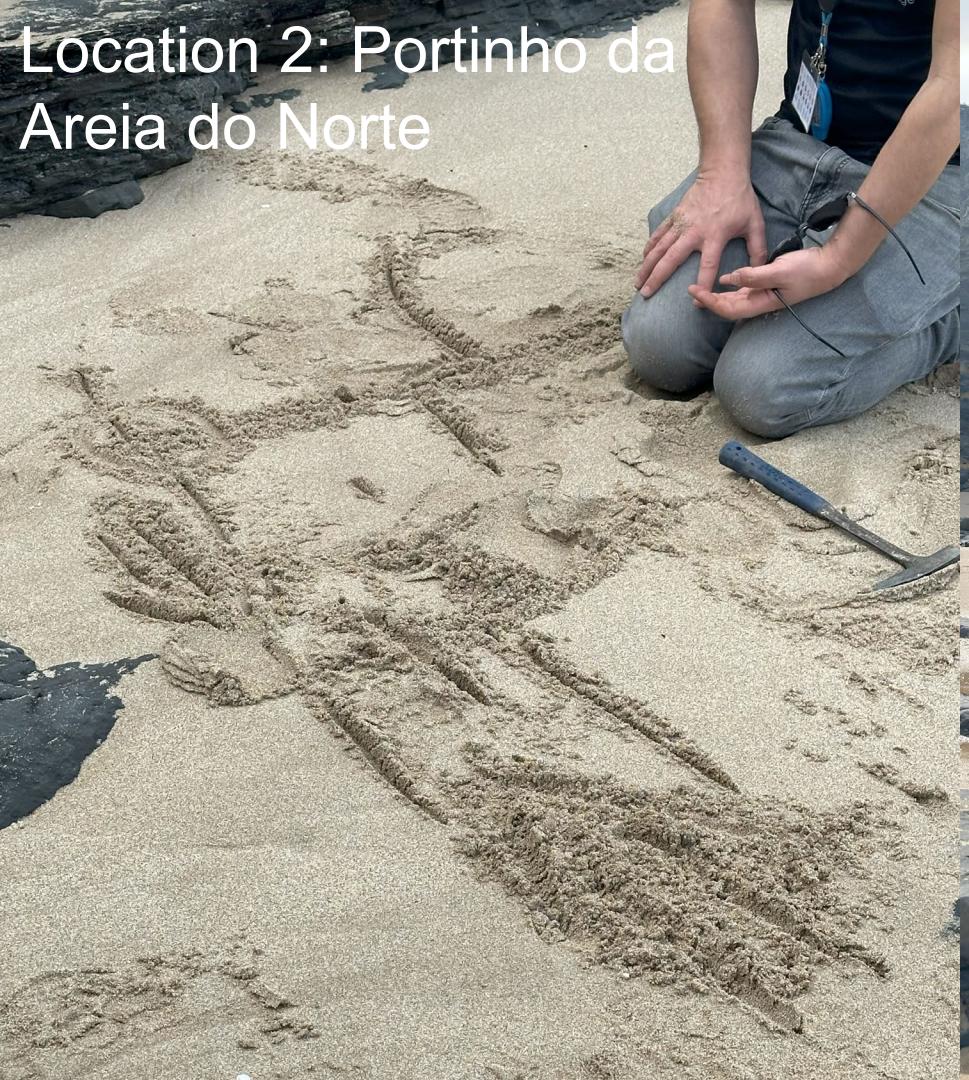


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Location 2: Portinho da Areia do Norte



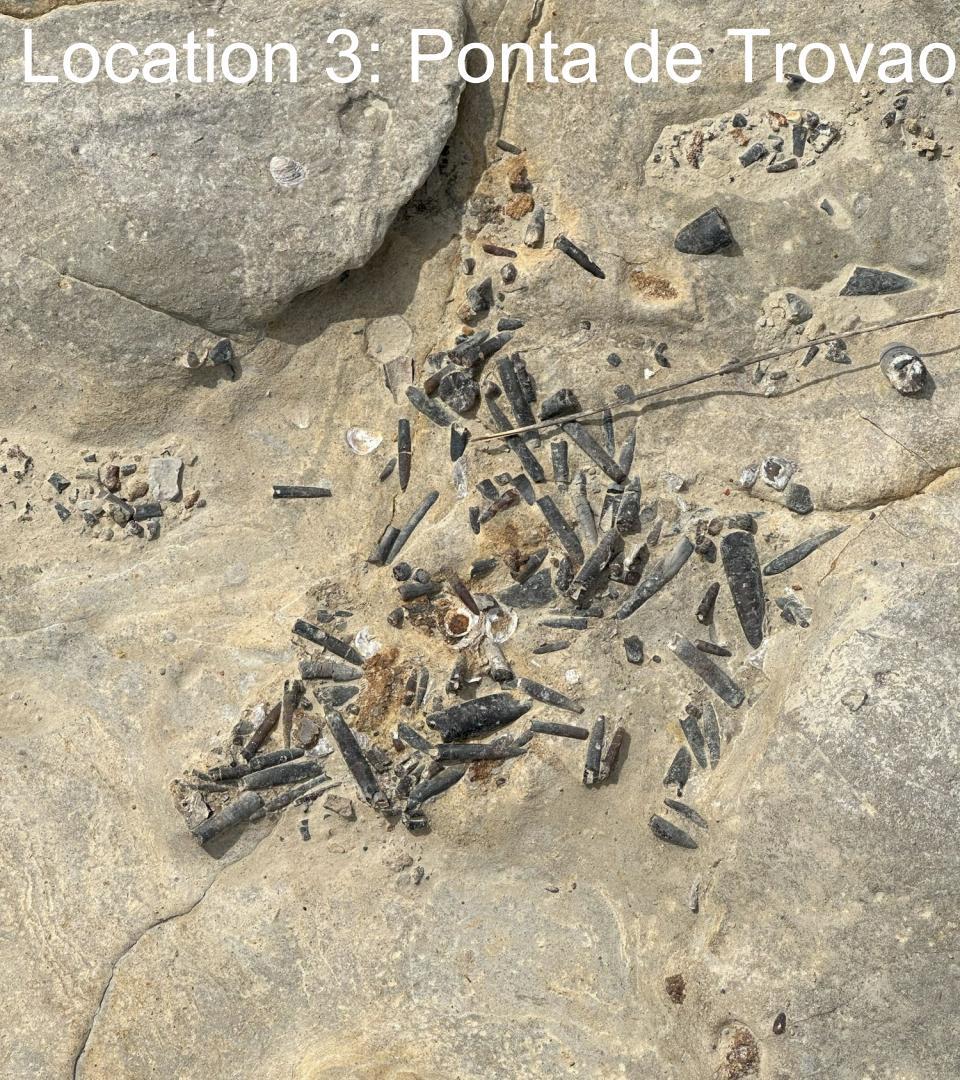




Location 2: Portinho da Areia do Norte



Location 3: Ponta de Trovao



Location 3: Ponta de Trovao



Location 3: Ponta de Trovao



LUNCH: O Melro



Location 4: Mine turned quarry

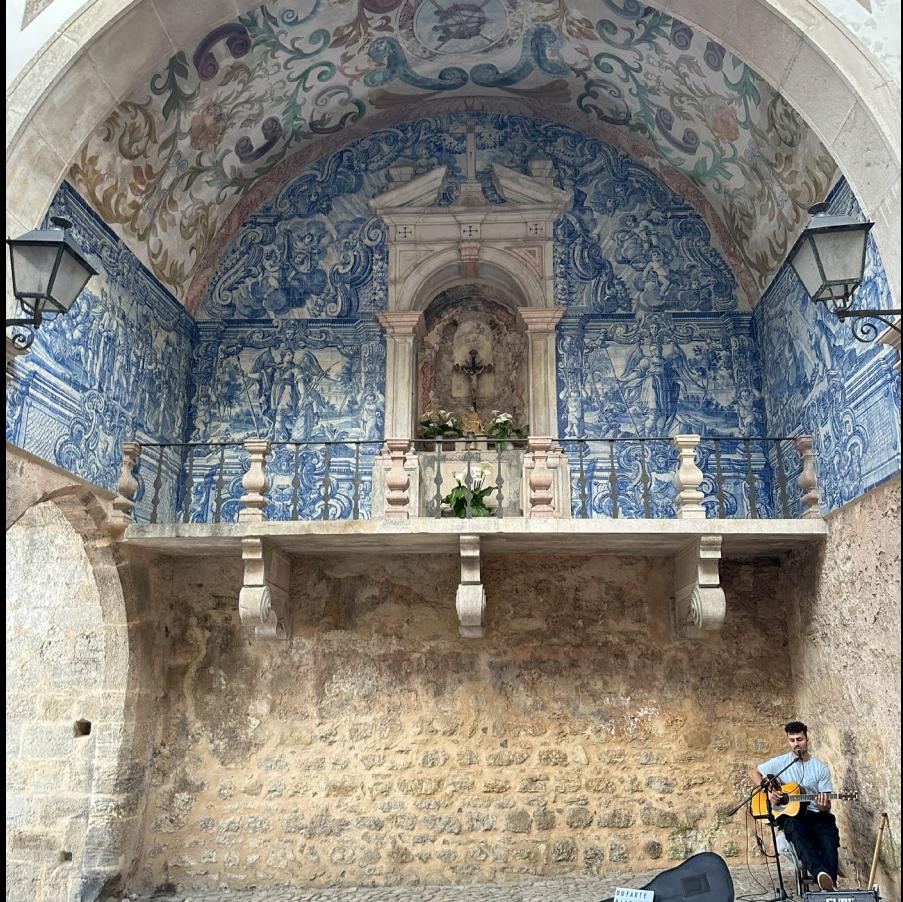


Location 4: Mine turned quarry





Location 5: Obidos Castle







Location 6: Salt Spa

Nice steam room

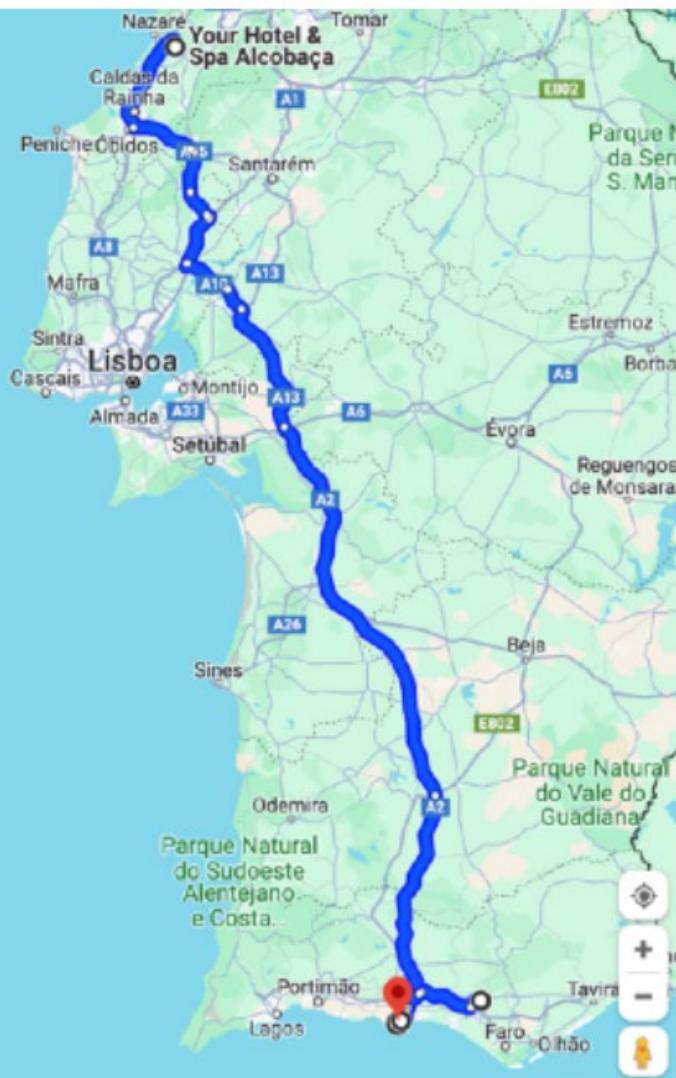
The bubbles in the main pool beat up and I nearly drowned

The vapor room was full of thinking, very quiet

The leg water massager bruised my legs for the next couple days and wasn't that relaxing



Day 6: Wednesday, March 13th, 2024



**Stop 1: 12:30 - Lunch at Loulé
(Churrasqueira Leonel)**

Stop 2: 14:00 - Tech Salt Mine (Loulé).

Stop 3: 16:00 - Depart Tech Salt Mine

**Stop 4: 18:30 - Arrival to Hotel Nau São
Rafael Atlântico.**

**Stop 5: 20:00 - Dinner at Praia dos Arrifes
(O sardinha)**

Ilia

Salt Tech Mine, Loulé



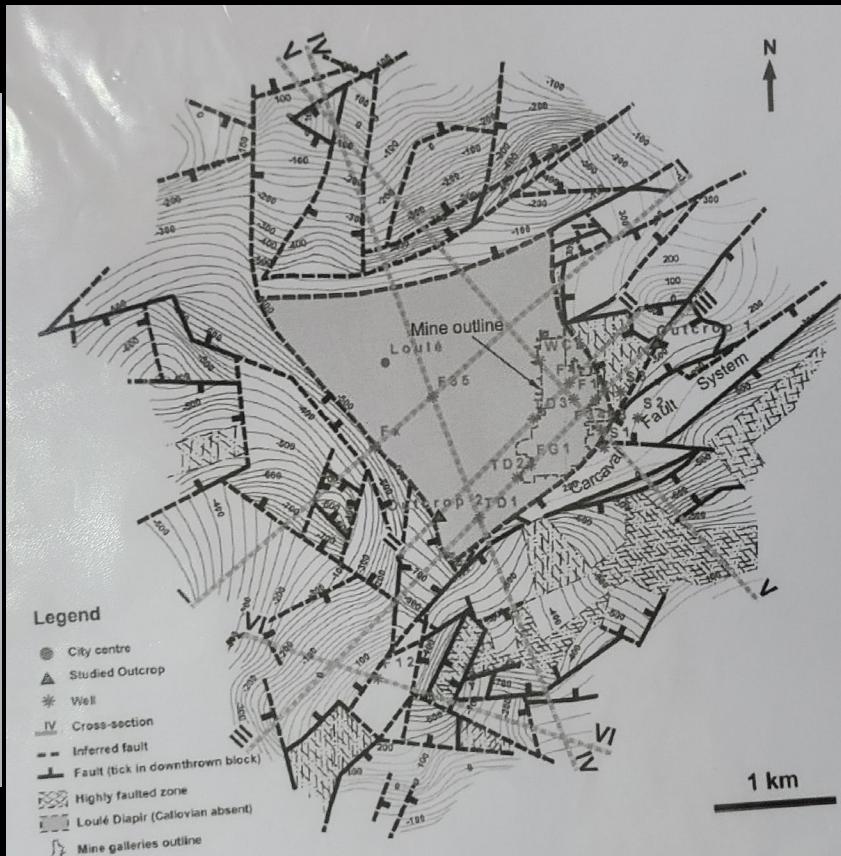
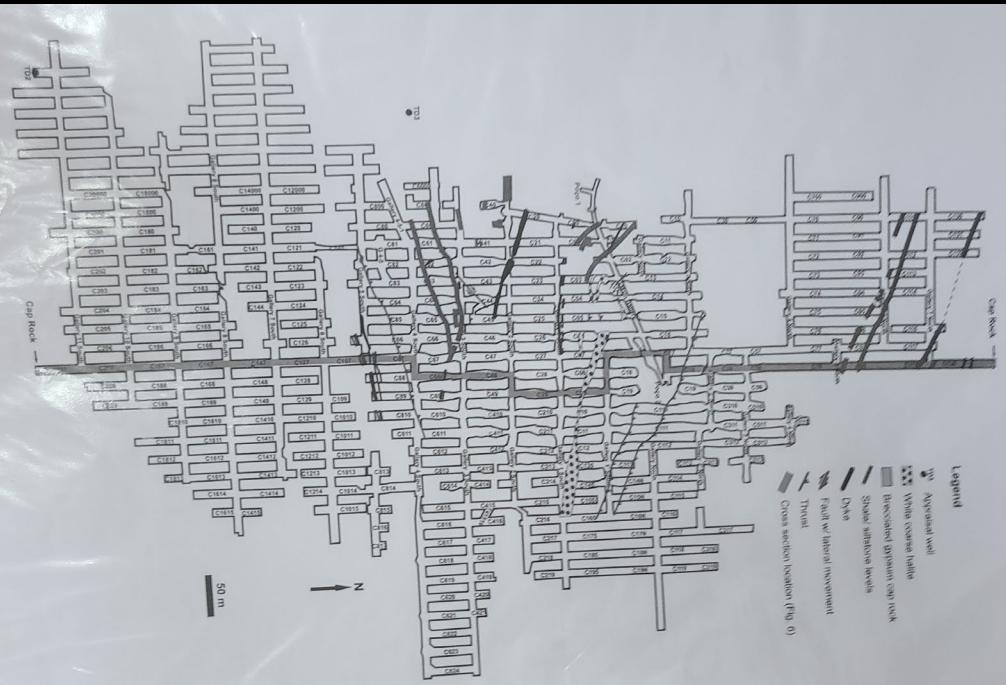
Salt Tech Mine, Loulé



Salt Tech Mine, Loulé



Salt Tech Mine, Loulé





Salt Tech Mine, Loulé



Salt Tech Mine, Loulé



Salt Tech Mine, Loulé





Salt Tech Mine, Loulé

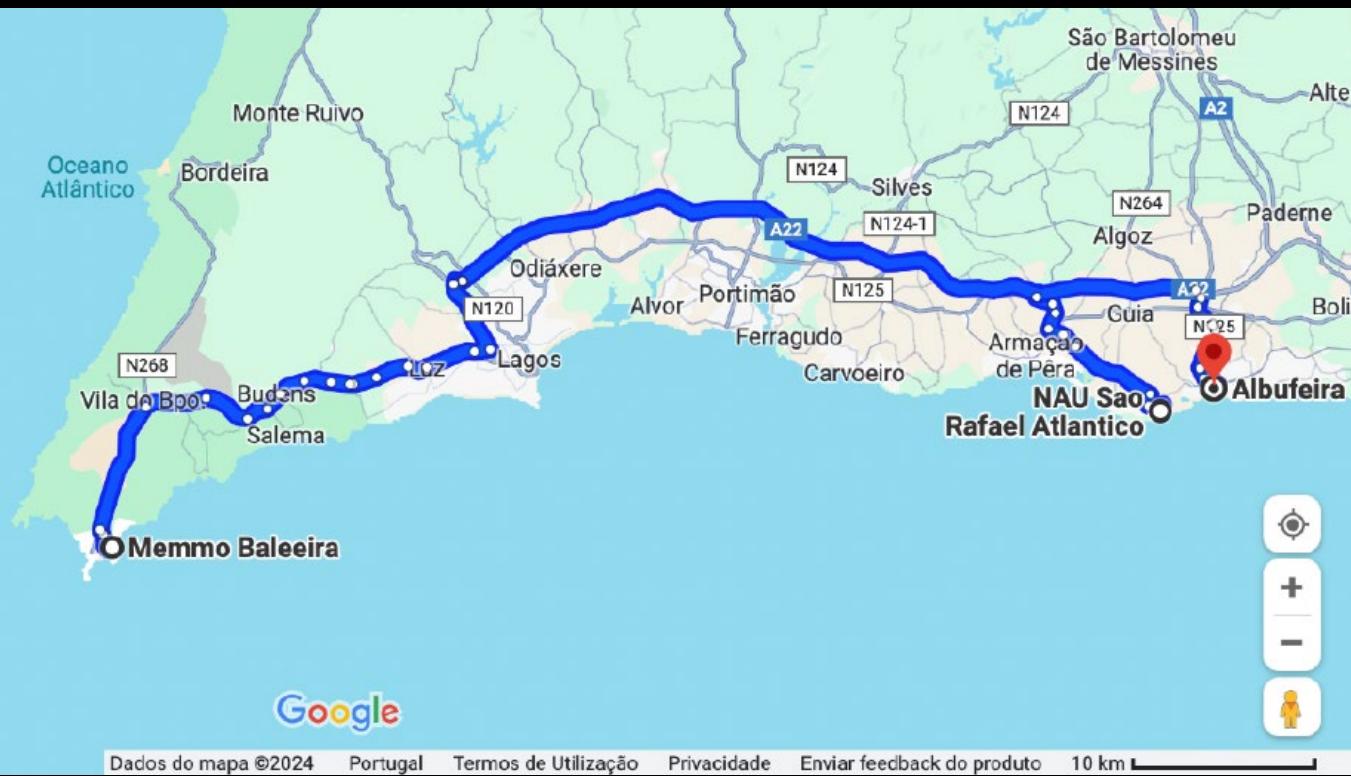




Hotel at Albufeira



Day 7: Thursday, March 14th, 2024



Stop 1: 10:30 – Hike to Praia do Telheiro Unconformity

Stop 2: 12:30 - Lunch at Sagres

Stop 3: 15:00 - Boat Trip (speed raft) from Albufeira to Benagil Cave

Stop 4: 20:00 - Dinner at Hotel

Nick

Praia do Telheiro



















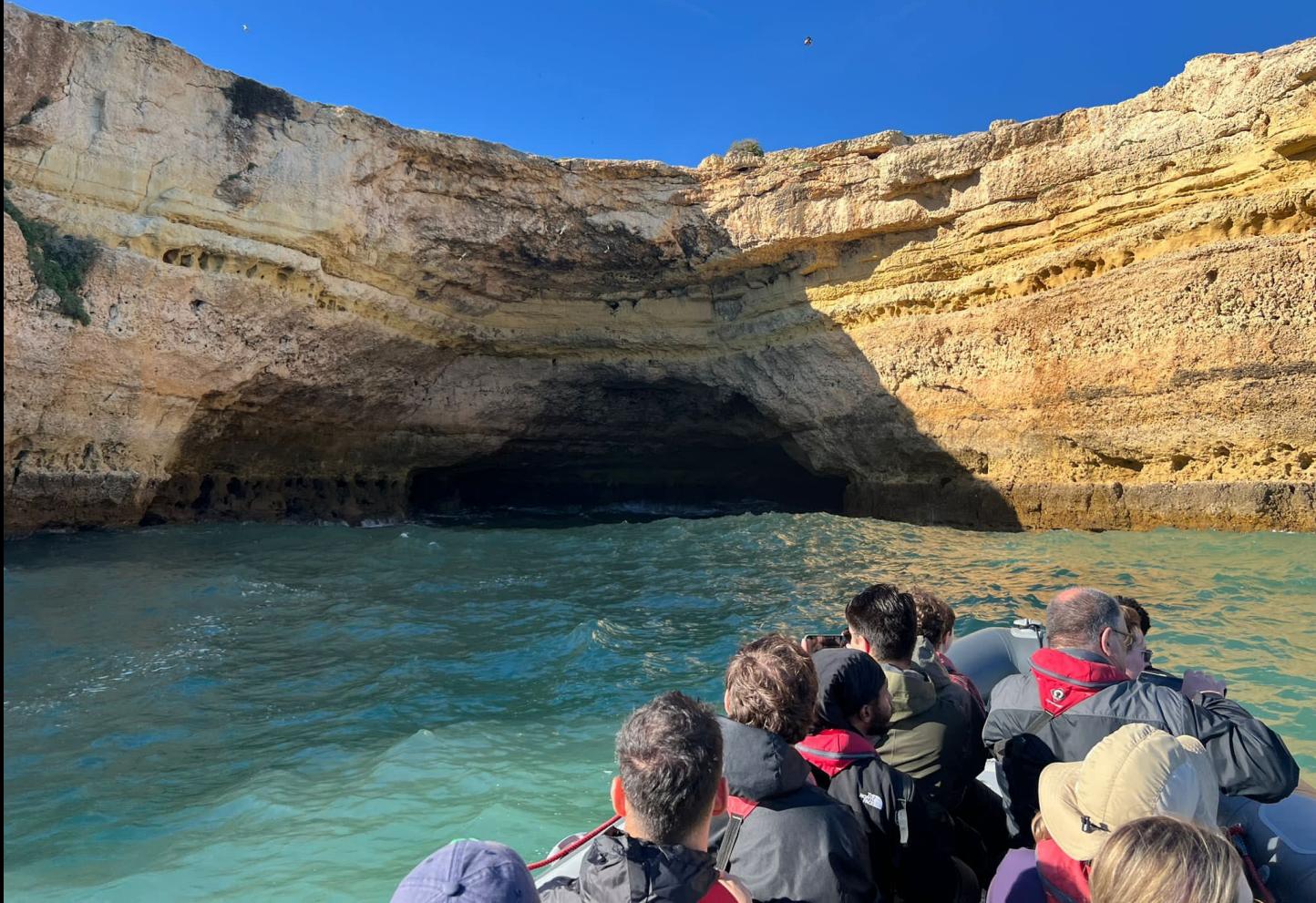


















Day 8: Friday, March 15th, 2024



Drive to Lisbon

Free Day in Lisbon

Dinner at the Lost In Restaurant

Donovan

Friday Day 8: Lisbon



Don asleep while In route to Lisbon
after visiting Algarve



Jerónimos Monastery: Built in 1983 by order of King Manuel I to honor
Infante Dom Henrique.

Lunch in Lisbon at Honorato



Hotel Fènix



Our temporary residence in Lisbon.

Exploring Lisbon!!



Once settled in, we were given the opportunity to explore the city of Lisbon.

Dinner at Lost In



Day 9: Saturday, March 16th, 2024



Free Day in Lisbon

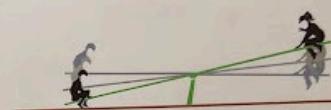
Jordan and Ryan

National Museum of Science & Natural History



Construa um quebra-cabeça de equilíbrio. Observe a relação entre a massa, a distância de equilíbrio, os valores dos pesos utilizados e das respectivas distâncias do fulcros.

Tente encontrar a relação matemática entre os valores de P e R e as distâncias a e b dos seus pontos de aplicação ao fulcro F .



National Museum of Science & Natural History



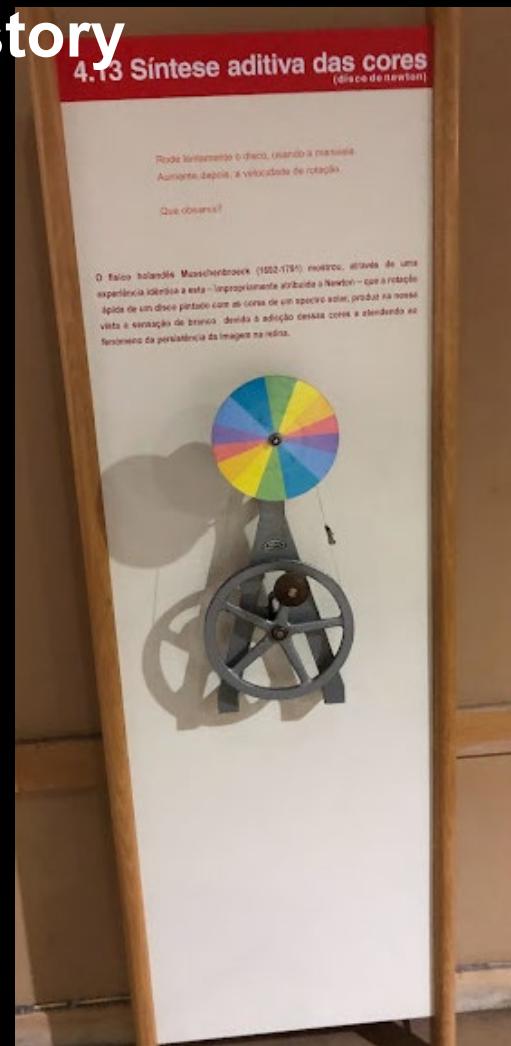
National Museum of Science & Natural History

2.9 Ver o som

Perceba o dispositivo e veja o que acontece no painel do osciloscópio.
Que observa?
Tudo, barra ou assente juntou ao microfone.
Que observa?



National Museum of Science & Natural History



National Museum of Science & Natural History



Réplica de crânio de dinossauro | Dinosaur skull replica

Giganotosaurus carolinii

Patagônia, Argentina | Patagonia, Argentina

Cretáceo Superior (93 – 89 Ma) | Upper Cretaceous (93 – 89 Ma)

Coleções de Paleontologia | Collections of Palaeontology

Museu Nacional de História Natural e da Ciência

Universidade de Lisboa



National Museum of Science & Natural History



National Museum of Science & Natural History



National Museum of Science & Natural History



National Museum of Science & Natural History



National Museum of Science & Natural History



National Museum of Science & Natural History



Travelling by Subway



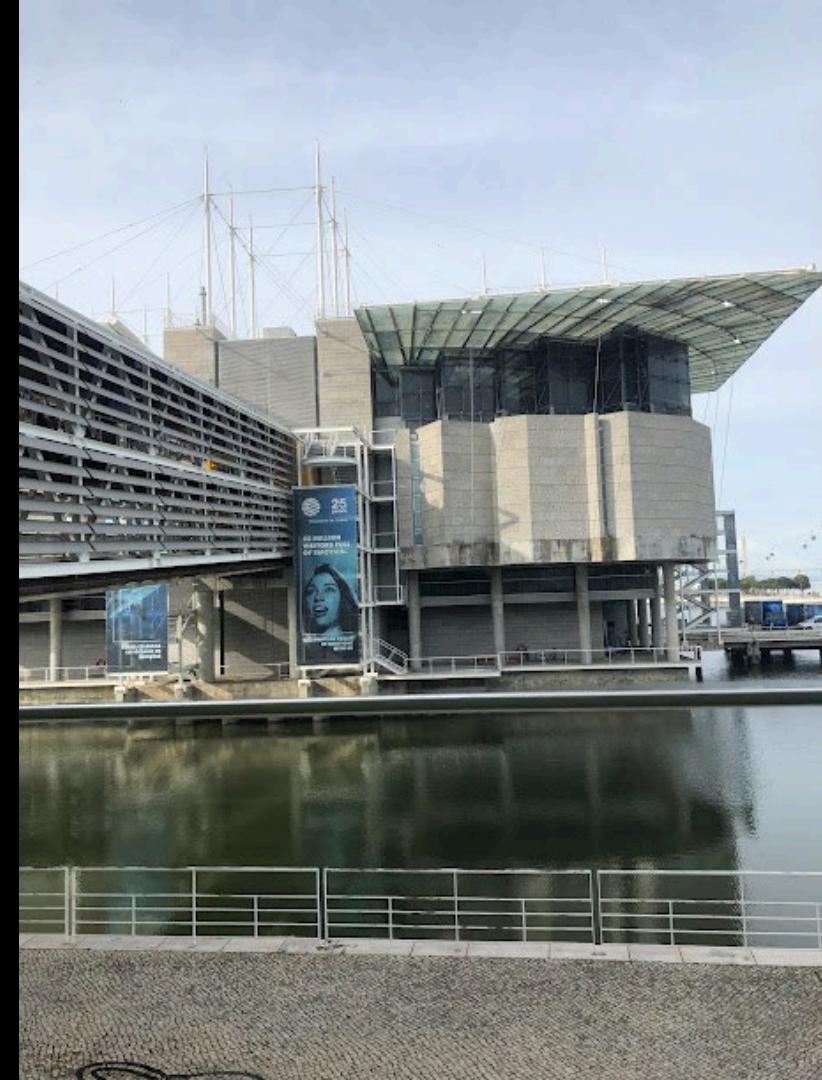
Travelling by Subway



Lisbon Aquarium



Lisbon Aquarium



Lisbon Aquarium



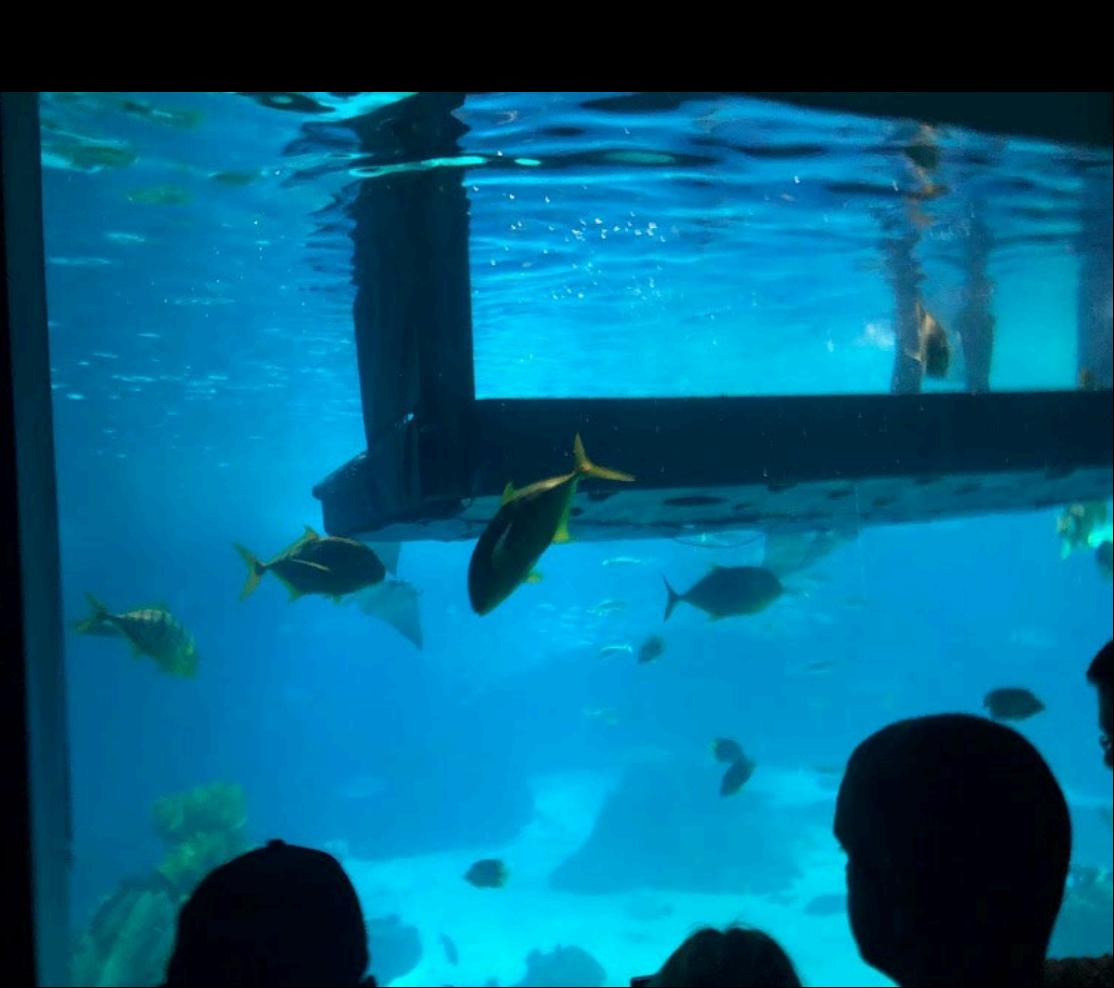
Lisbon Aquarium



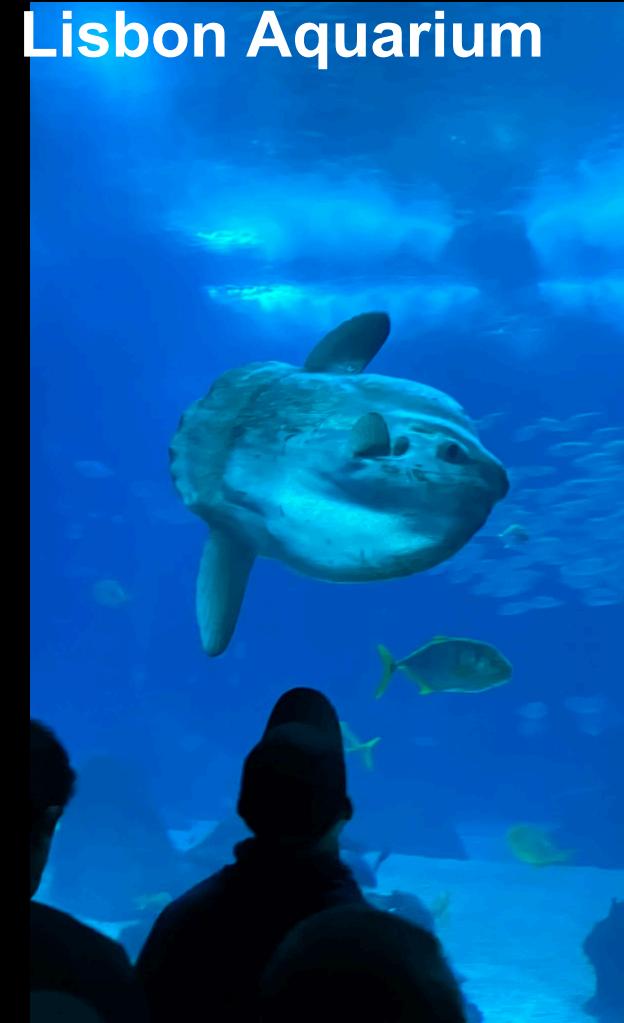
Lisbon Aquarium







Lisbon Aquarium



Lisbon Mall and Surrounding Buildings



Lisbon Mall and Surrounding Buildings



Lisbon Mall and Surrounding Buildings



Lisbon Mall and Surrounding Buildings



Old Folks in Lisbon









FOOD IN PORTUGAL

The big ones MEAT and FISH along with appetizers and
desserts



DAY 2

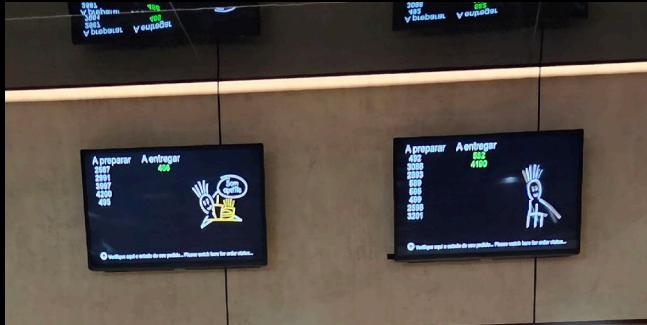
Bifanas are traditional Portuguese sandwiches



Generally
served with
Piri -Piri sauce



McDonalds...worldwide



Day 3- Sunday Lunch Pacheca Vineyard on the Douro River

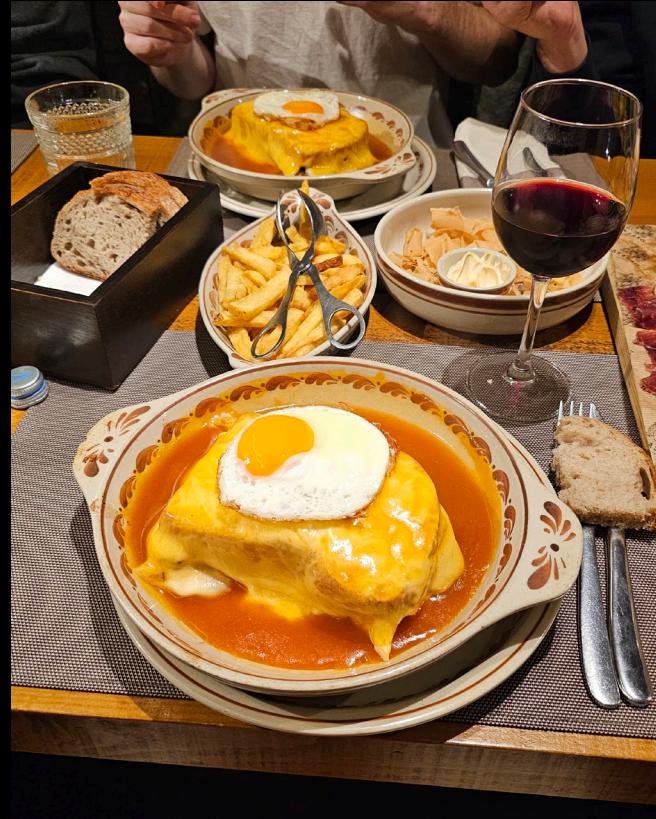
These large
rooms and
tables are good
for more than
eating...





Day 3-Douro Valley- Dinner

Our 1st Francesinha
“Little Frenchie”
Meat: Ham, sausage,
steak, roast beef,
cheese and egg covered
with rich gravy and served
with French fries



Every meal starts with an appetizer- cheese, bread and crackers and...

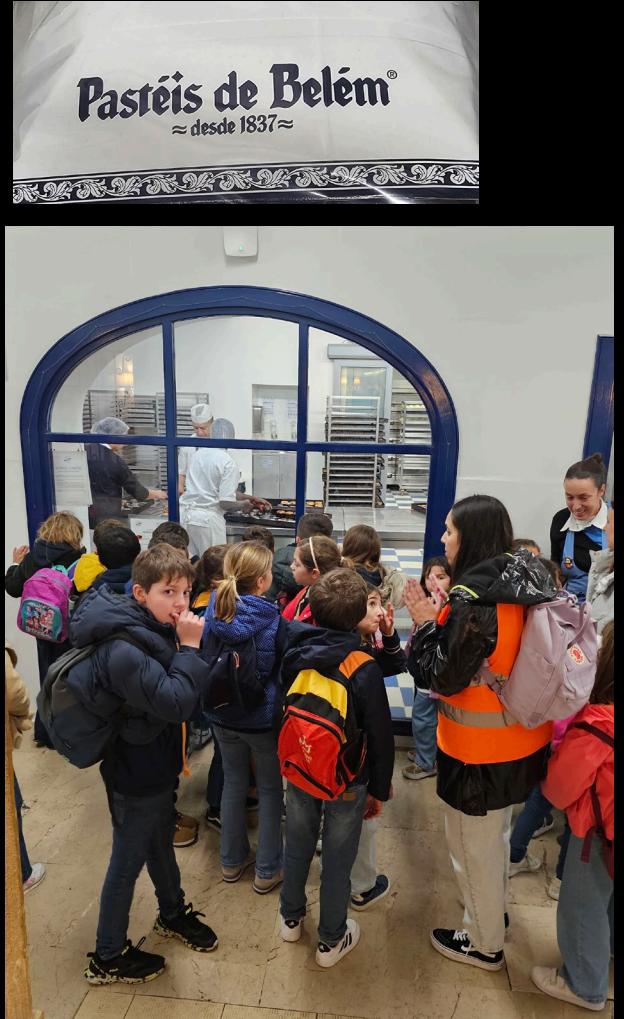




and DESSERTS



The Portuguese Tart Belem's Pastel de Nata







How many do they make each day?



VIDEO



THANK
YOU
MARILYN



Thursday Day 7 – Lunch at Sagres (in Villa do Bispo)



Breakfast buffet



Not everyone enjoyed all the food!!



Percebes - gooseneck barnacle, an Iberian delicacy



Pedro, got some percebes (an amazing local delicacy) from some of the fisherman at the beach with the folds

7:52 PM

They should be ready around 8PM

7:53 PM

Ryan Kerrigan Cell



Lots of expresso and fancy coffee



And for those willing to pay for it,
alcohol; Ginja, Port and Grappa





Hotel Nau-Praia dos Arrifes (A Sardinha)



Lost In



THANK YOU

Pedro and
Dr. Kerrigan



Thank you Pedro and Rodrigo!!!



Thank you Pedro and Rodrigo!!!



Thank you being a great group!!!!



DEPARTMENTAL AWARDS

Jonathan Lee Groft Memorial Scholarship

The Jonathan Lee Groft Memorial Scholarship Fund was established by Judy Groft, Jason Groft (Jonathan's twin brother), and family in memory of Jonathan Groft who was a passenger and tragically passed in October of 1996. He was a senior and geology major, as well as an avid outdoorsmen and cyclist.

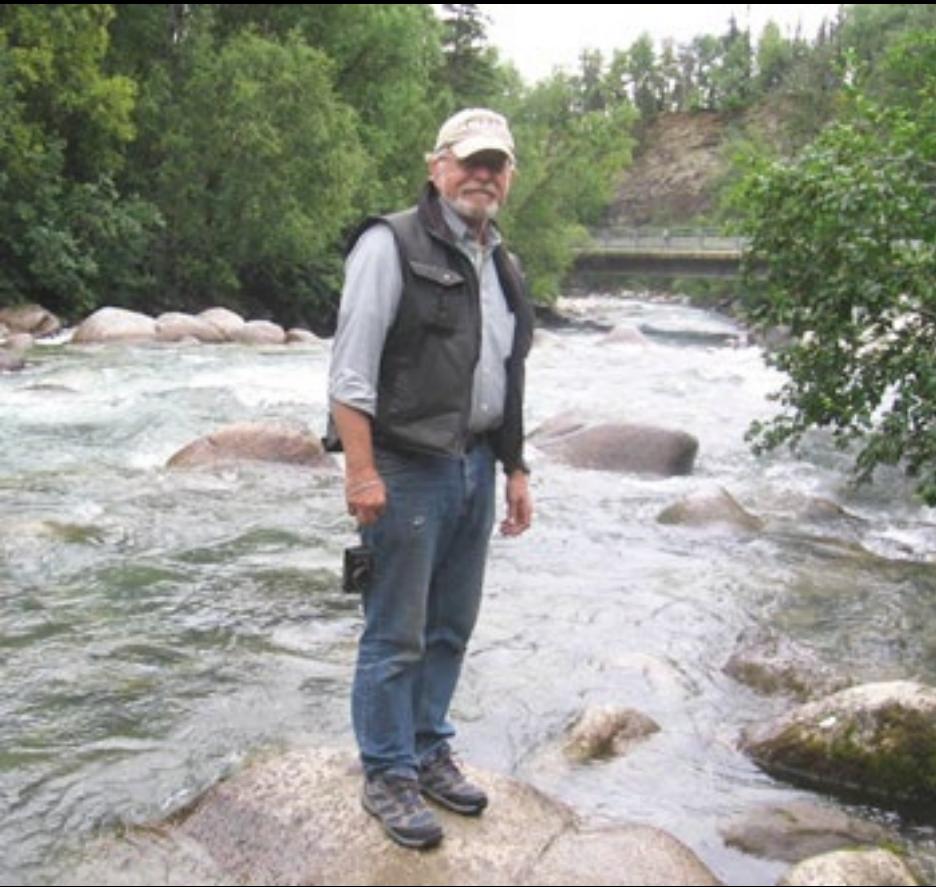


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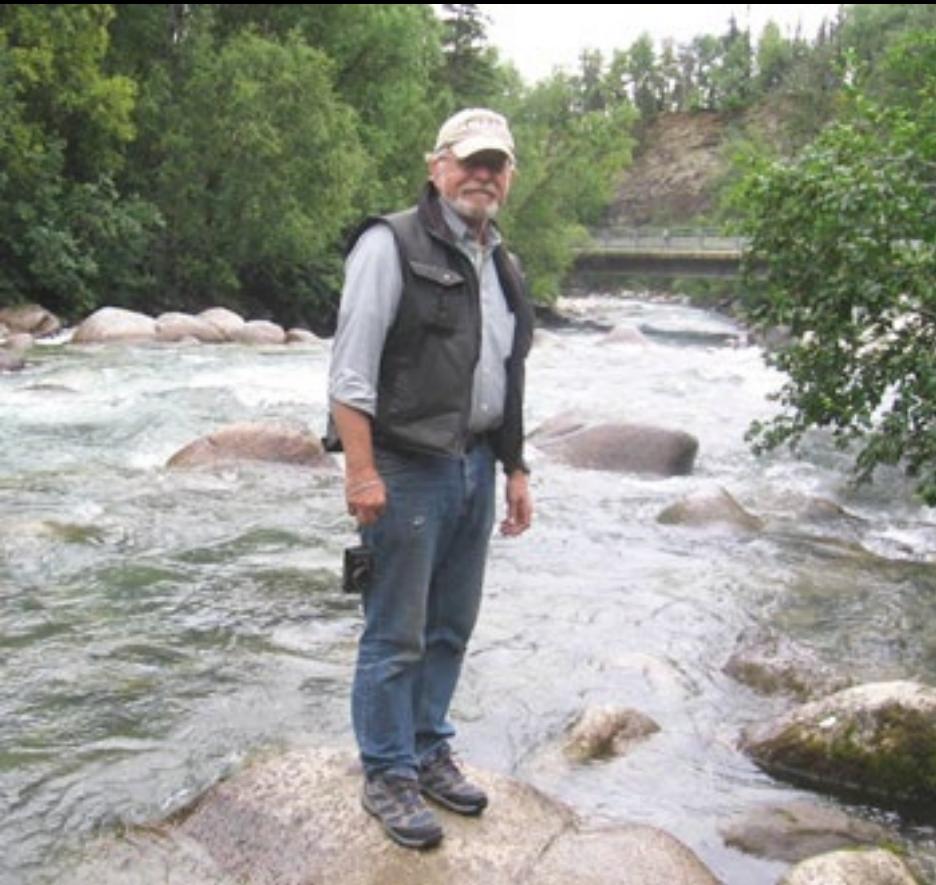


Chris Howard



Uldis Kaktins Field Scholarship

Dr. Kaktins was a professor at UPJ for over 30 years and specialized in hydrology and geomorphology and taught our Field Methods course for many years. He left a strong legacy of teaching and research and was remembered for encouraging those around him to always think critically and carefully about the world around them. His family and friends have set up this award to help a deserving student each year offset costs associated with taking a Field Methods course or doing field research.

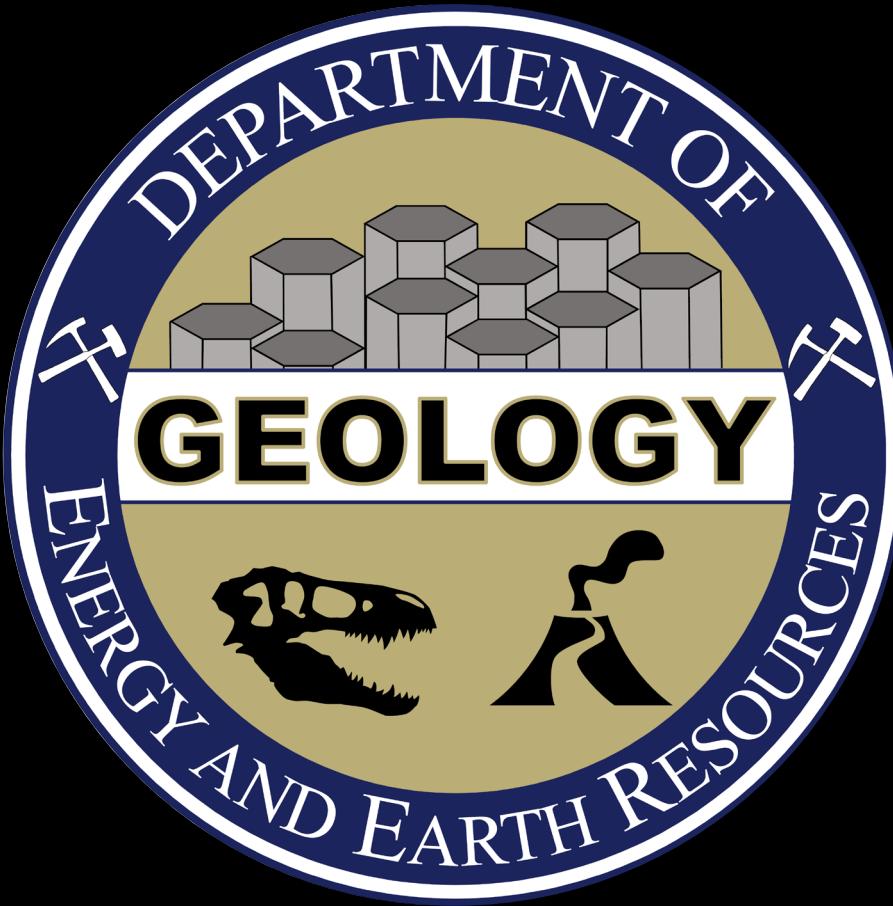


Chris Howard

Uldis Kaktins Field Scholarship

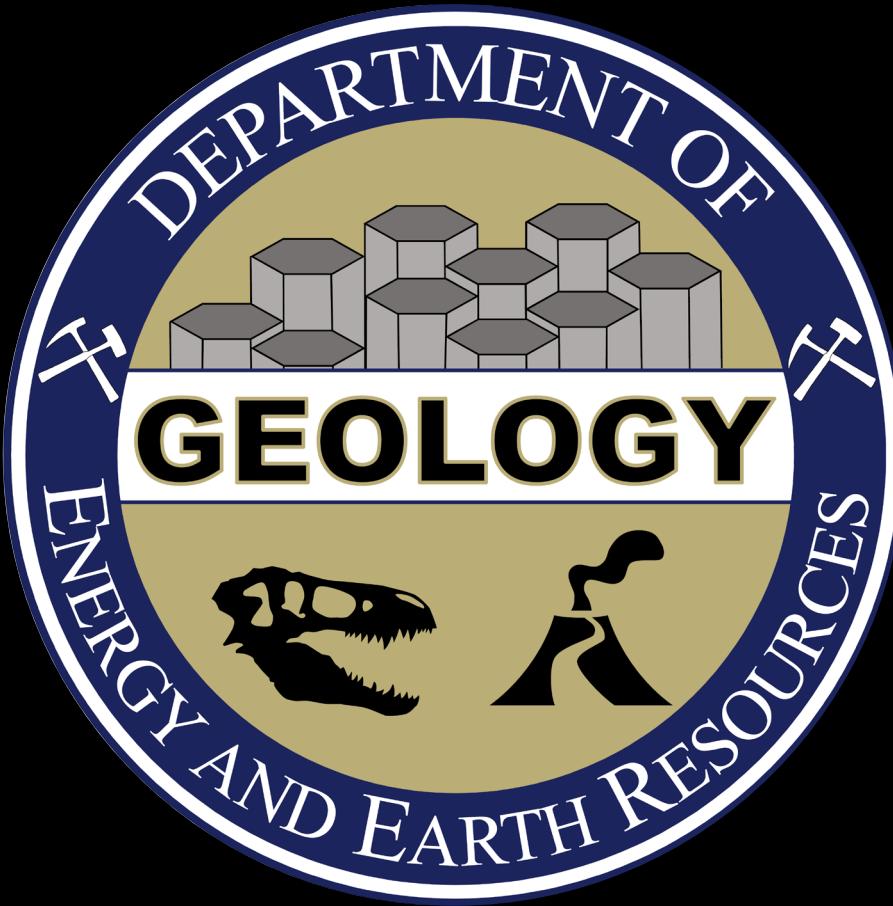
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Energy and Earth Resources College Scholar Award



The **College Scholar Award** is presented annually to the “distinguished graduate” in our discipline. This award is given to the senior Geology major that demonstrates excellence in academics and shows considerable promise.

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Isabelle Boyer

Energy and Earth Resources – Geology Graduates

The William R. Brice Award for Excellence in Geology



Presented to a junior student who has a GPA of 3.25 or higher and exhibits the greatest promise for success in the field of geology.