















































































































































































































Expectations: AAPG style poster

- ① Facies description
photo micrographs
- ② Depositional model
- ③ Lithostratigraphic x-section
- ④ Wheeler diagram
time-space diagram
- ⑤ Paleogeographic model
 $T_1 \rightarrow T_2$
- ⑥ Record of Margin collapse
- ⑦ Collect notebooks





































































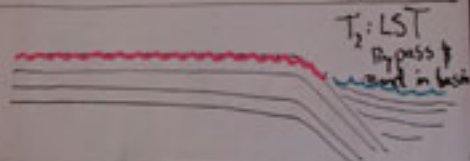
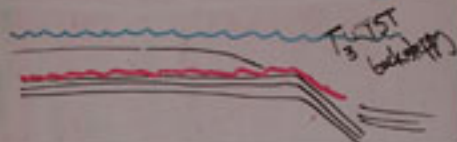




















Legend

- 1. Dark Sandstone
- 2. Light Sandstone
- 3. Siltstone
- 4. Claystone
- 5. Shale
- 6. Limestone
- 7. Dolomite
- 8. Gypsum
- 9. Salt
- 10. Coal
- 11. Conglomerate
- 12. Breccia
- 13. Tuff
- 14. Lava
- 15. Granite
- 16. Basalt
- 17. Metasandstone



FACIES MODEL



Legend

- 1. Dark Sandstone
- 2. Light Sandstone
- 3. Siltstone
- 4. Claystone
- 5. Shale
- 6. Limestone
- 7. Dolomite
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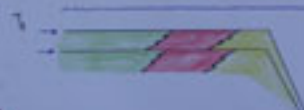
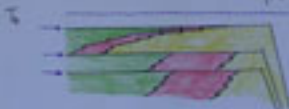
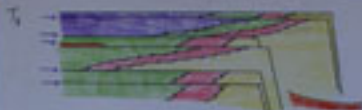
MEASURED SECTION WITH OUTCROP PHOTOS



MEASURED SECTION
WITH
OUTCROP PHOTOS
DARF CANYON
194





PALEOGEOGRAPHIC
EVOLUTION

→ **Highly specific**
→ **Very sensitive**

 100%
 100%
 100%
 100%
 100%

Lithostratigraphic Cross-Section, Tinsell Formation,
Dark Canyon, N.M.



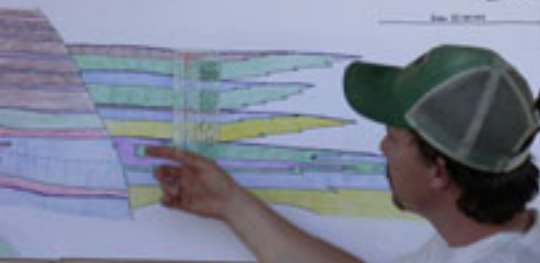








East



Archaeological Cross-Section, Tassell Formation,
Dark Canyon, NM.



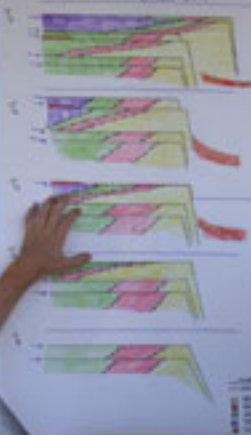
Stratigraphic Cross-Section, Tonal Formation,
Dark Canyon, N.M.







PALEOZOIC ROCKS OF THE COLUMBIA









JACKSON







Early

1



Deposition of G-26 HFS: highland conditions

2



Catastrophic platform margin collapse during late G-26 highland to G-27 lowland

3



G-27 outer shelf sediments erode collapsed margin G-27 sediments have abundant brachiopods, corals, etc. (F-G & C looking zone). G-26 HFS contains Parahoplites, etc. (F-G & B looking zone)

4



Shelf eventually flooded during latest G-27 HFS time

5

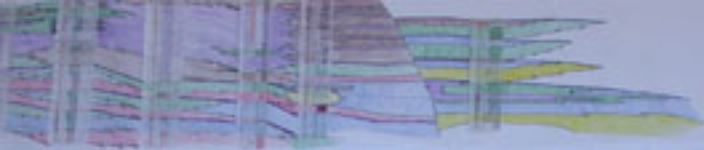


G-27 highland systems tract progresses during latest depression. Again, lowland conditions predominate outer shelf as indicated by corals, brachiopods, etc.

6



Flooding initiates but was restricted causing an open fracture which was subsequently filled with pyroclastic breccias and clasticites. Clasticites were derived across shelf during lowland and dived down into fracture system







































GUADALUPE PEAK

GUADALUPE PEAK, TEXAS' HIGHEST MOUNTAIN AT 8,749 FEET ABOVE SEA LEVEL, DOMINATES ONE OF THE MOST SCENIC AND LEAST-KNOWN AREAS OF THE STATE. IT LIES BEHIND AND TO THE RIGHT OF EL CAPITAN (8,078 FEET), THE SHEER WALL THAT RISES MORE THAN 3,000 FEET ABOVE THIS SPOT TO MARK THE SOUTH END OF THE GUADALUPE RANGE. THE STARKNESS OF THE MOUNTAINSIDE BELIES THE LUSHNESS THAT THE GUADALUPES CONCEAL TUCKED AWAY IN THEIR INNER FOLDS ARE WATERED CANYONS SHADED BY BIGTOOTH MAPLES, VELVET ASH, JUNIPERS AND PONDEROSA PINES. JUST BEYOND THE RIDGE LIES A FOREST OF DOUGLAS FIR AND PINE THAT IS HOME FOR BLACK BEARS, MOUNTAIN LIONS AND DEER.

LEGENDS OF HIDDEN GOLD IN THE MOUNTAINS GO BACK TO SPANISH RULE. ONE RELATES THAT APACHE CHIEF GERONIMO BELIEVED THE RICHEST GOLD MINES IN THE WESTERN WORLD LAY HIDDEN IN THE GUADALUPES. THE TRUE VALUE OF THE AREA IS THE SCENERY AND ASSOCIATED LIFE THAT RESEMBLE THE SAME LANDSCAPE EXPERIENCED BY EARLY INHABITANTS. EXCAVATORS HAVE FOUND SPEARHEADS, PICTOGRAPHS AND HUMAN REMAINS TOGETHER WITH THE BONES OF LONG-EXTINCT BISON, DIRE WOLF AND MUSK OX IN CLIFF CAVES, AND CARBON-14 DATING OF REMAINS INDICATES HUMANS OCCUPIED THE AREA 12,000 YEARS AGO.

GEOLOGICALLY, THE GUADALUPE MOUNTAINS PRESENT SPECTACULAR EXPOSURE OF THE CAPITAN REEF, FORMED BY ALGAE AND SPONGES ALONG WITH OTHER ANCIENT MARINE LIFE DURING THE PERMIAN PERIOD (OVER 200 MILLION YEARS AGO), WHEN MUCH OF WEST TEXAS AND NEW MEXICO WAS PART OF THE PERMIAN SEA. FOR CENTURIES, EL CAPITAN HAS ACTED AS A GUIDEPOST FOR NATIVE AMERICANS, SPANISH EXPLORERS, THE U.S. CAVALRY AND GEOLOGISTS. TODAY, VISITORS TO GUADALUPE MOUNTAINS NATIONAL PARK USE THE SAME GUIDEPOST TO EXPLORE THE TIMELESS WILDERNESS SURROUNDING IT, THE HIDDEN OASIS FOUND IN THE MOUNTAINS.