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1992 and 1993 Caspar Headlands near Mendocino , N California:
-
- location of EWM scale-independence images used in PhD research (also originally used by Eric Lindquist in his Franciscan fractal studies)
-
-Franciscan Complex broken formation of sheared shale matrix and sandstone blocks. Broken formation is composed of rocks are compatible stratigraphically/lithologically. In general in the Franciscan broken formations are shale matrix and sandstone blocks which once belonged to a inter-bedded shale and sandstone (e.g. turbidite seqeuence).
-
- A melange contains blocks that "do not belong". For example limestone or chert or greenstone or serpentinite. These blocks are of rocks that originally formed in very different geological conditions than the surrounding sandstone blocks and shale matrix.

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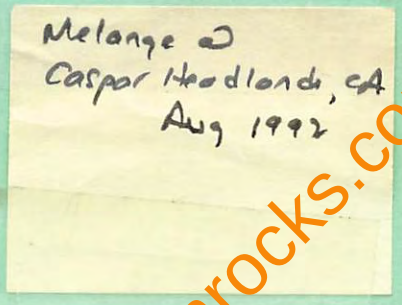

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Mendocino coast (S. of Fort Bragg)

9/8/92

@ Caspar Headlands.

Melange

formally not melange but "broken formation" since no exotic blocks

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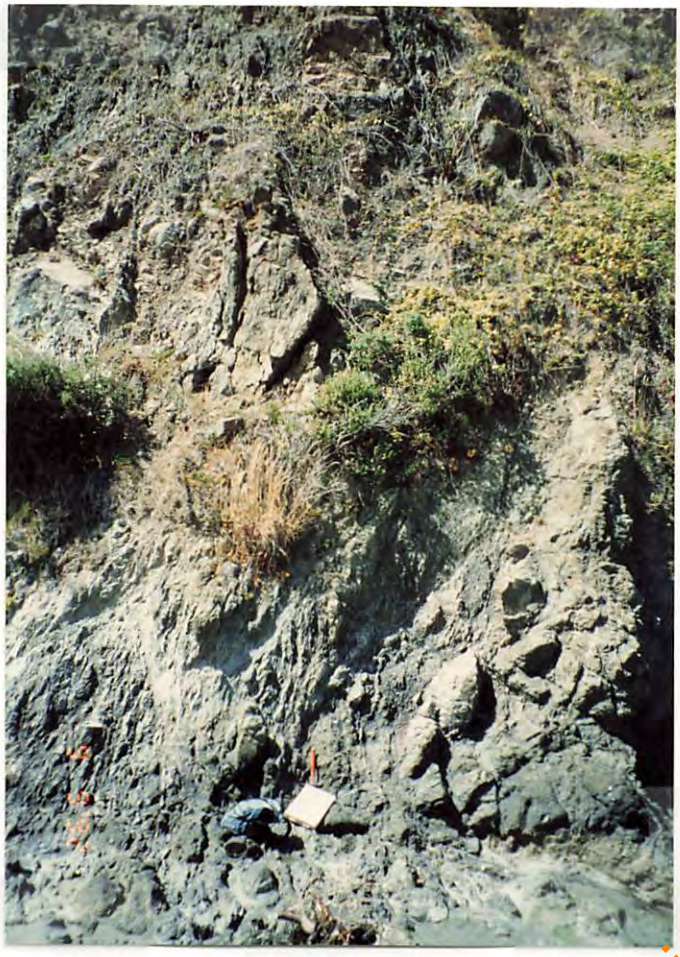
Eocene coast
(S. of Fort Bragg) August 92



Caspar Headlands

melange

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1993

Caspar Headlands, Near Mendocino, California

-

- 1993 observations for scale-independence studies atr scale of the outcrop measured

-

see Medley (1994) PhD dissertation and Medley & Lindquist (1995) for details of analysis

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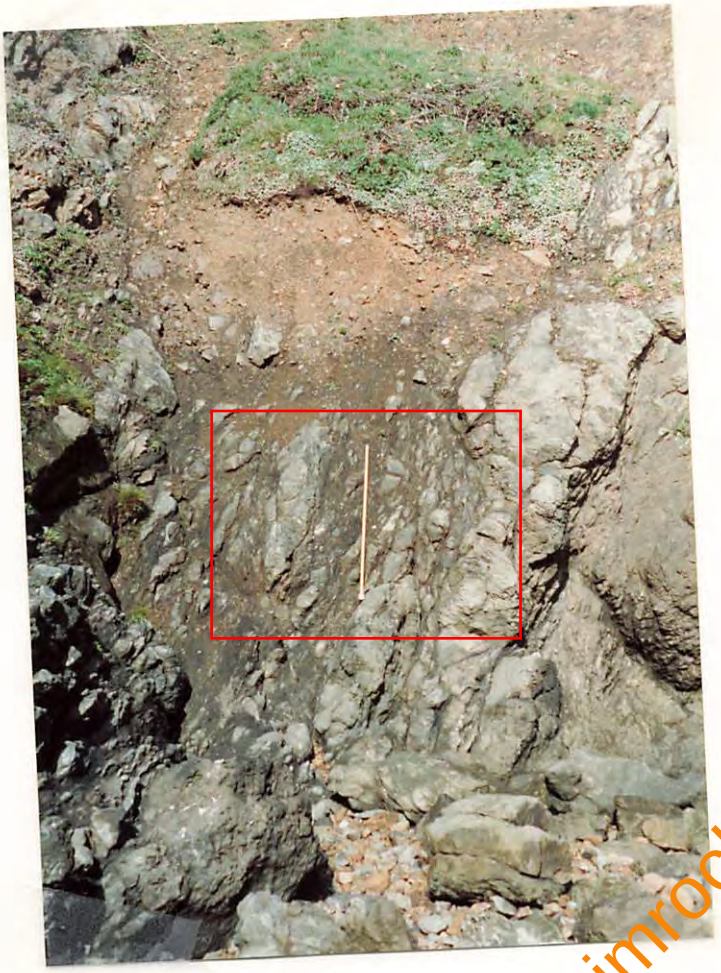
3/28/93.



smallest scale of series of "scale-shots"

(7) (caspar1.tif)

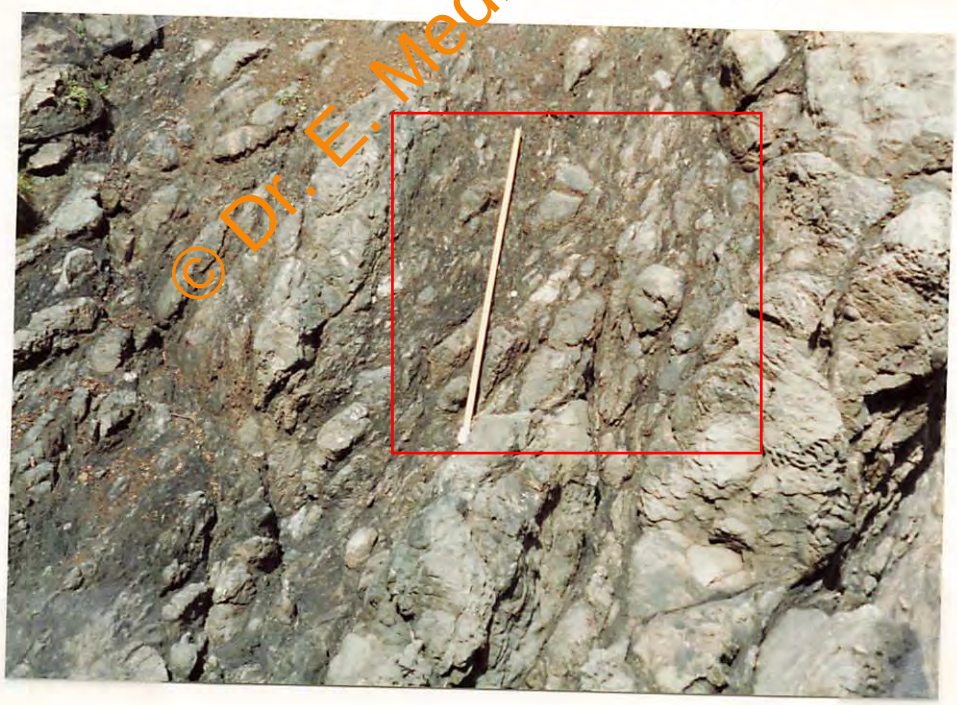
Scale =

Caspar Headlands
S. side
scale shots

(A)

5' scale.
2.4 cm coin

B4



(8) caspar2.tif

zoomed-in on red-outlined area in photo above

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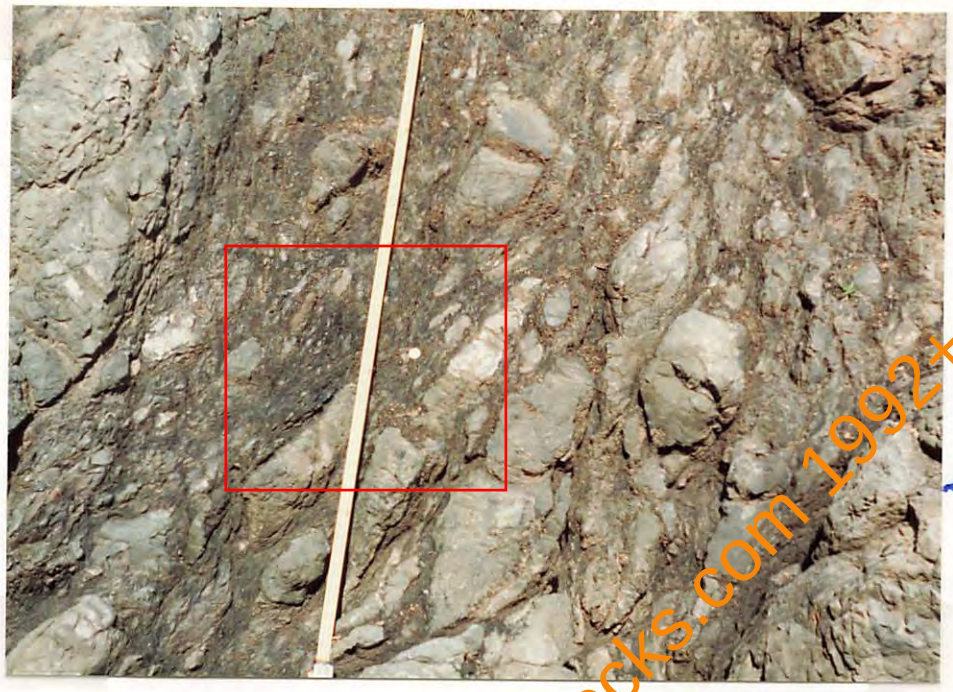
3/28/93

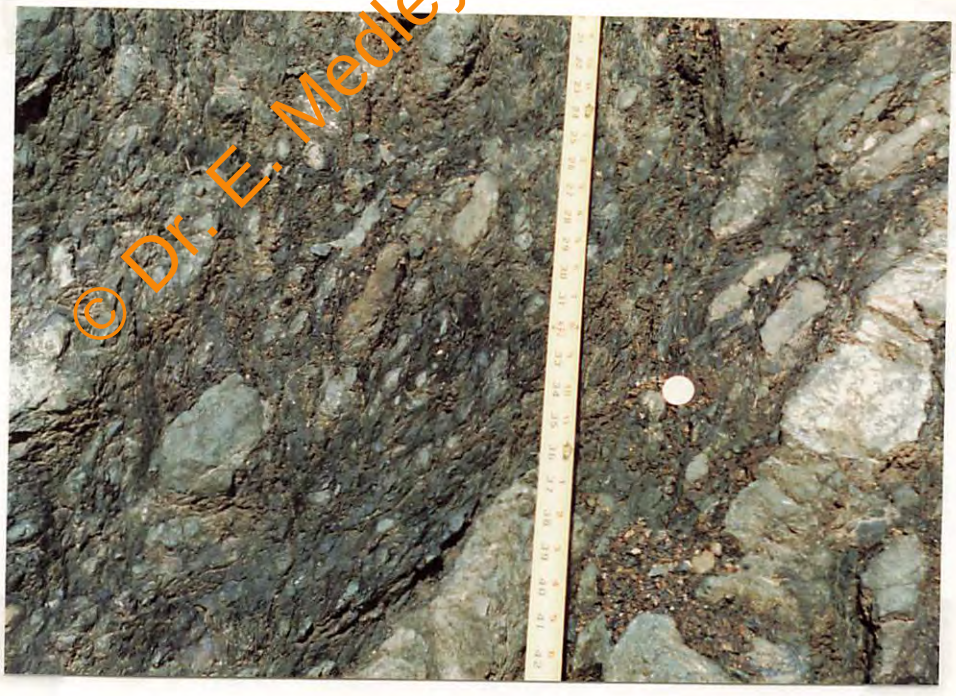


zoomed-in on red-outlined area in photo above

(9)

caspar3.tif

~~(D)~~ (C)



zoomed-in on red-outlined area in photo above

(10)

caspar4.tif

(D)

see (E) following

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3/20/93

(11)

Caspar S. 4f

(E-)

[some locale as.
(A) → (D) ?

Scale = 1 US quarter = 24mm

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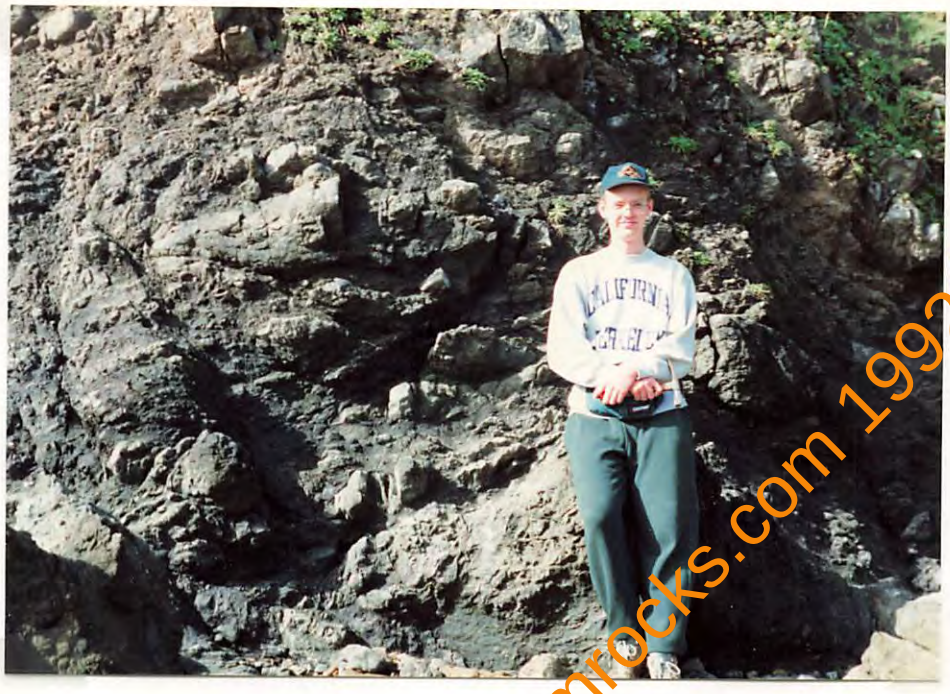

(9)* (X) = (9) on notes.....

Caspar Headlands, (South end)
Eric Lindquist Memorial No longer Photo Location....

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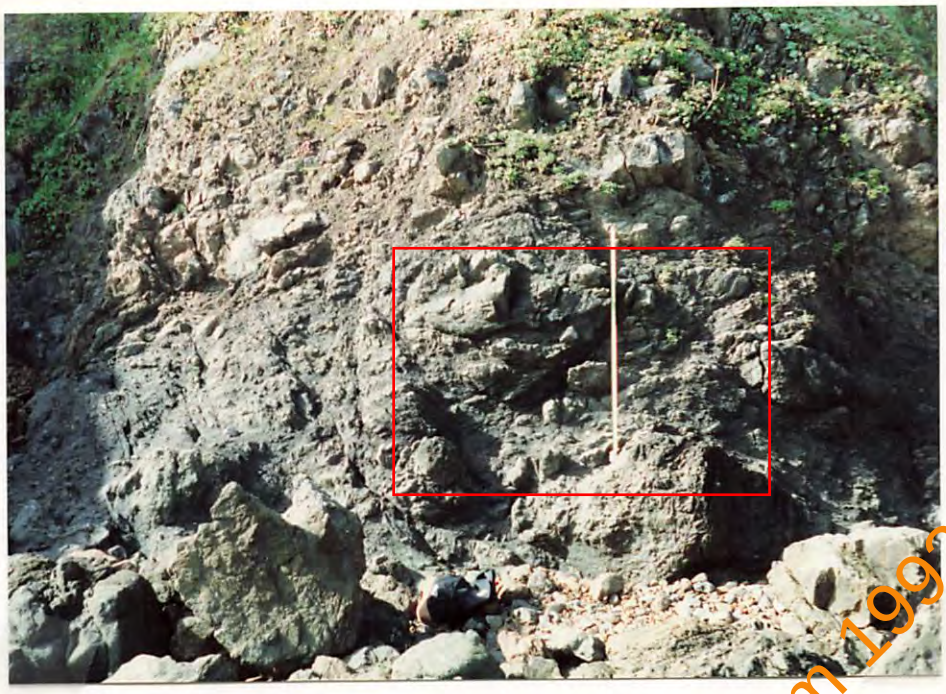
3/28/93

smallest scale of series of "scale-shots"



(12)

(A)

Caspar Headlands
ESL Memorial Melange Photo Spot...
Scale shots

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zoomed-in on red-outlined area in photo above

(13)

(B)

see also stereogram photo-pair next page (PDF page 11)

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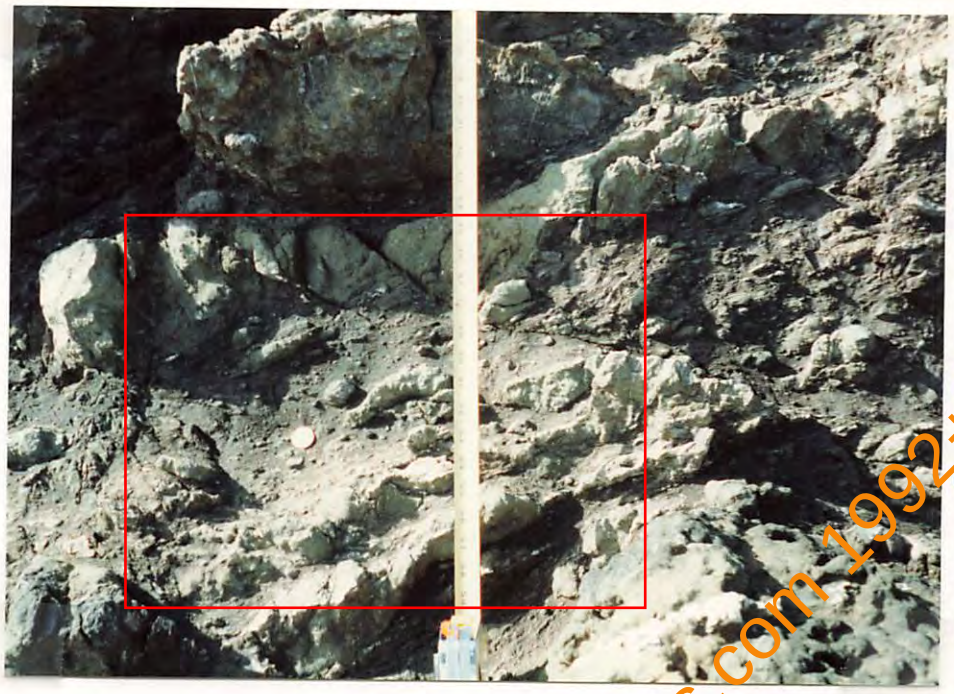
(18) (17)

Stereo shots of melange at ESL Memorial Photo spot (some 95 photo. 14

observe relative resistance of knockers blocks → relief.

3/20/03

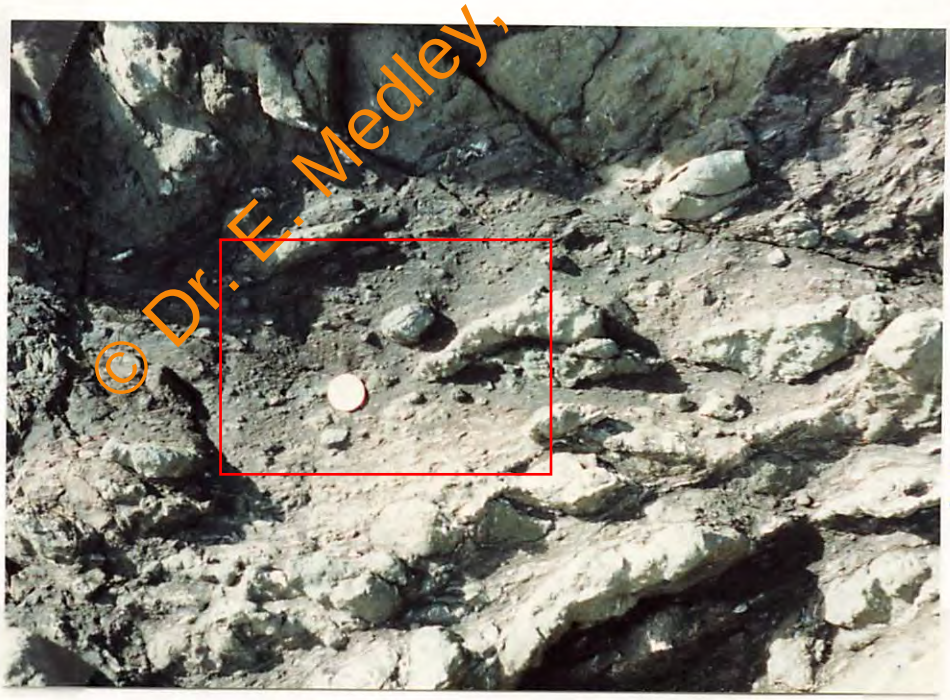
stereo pair of detail shot on page 10 above. Viewable best with a pair of portable stereo viewer (or if you have good "free-stereo" ability to see stereo pairs with stereo viewers.



zoomed-in on red-outlined area in photo bottom page 11

(14)

[C]



zoomed-in on red-outlined area in photo above

(15)

[D]

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3/28/03

zoomed-in on red-outlined area in photo above

(6)

[E]

coin = 2.4 cm

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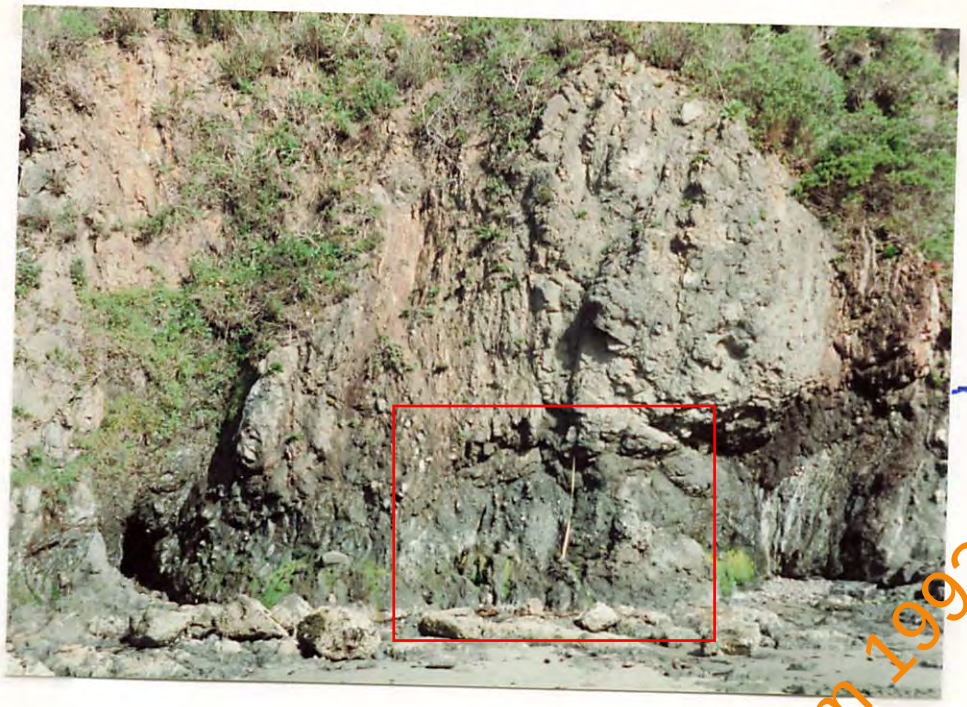


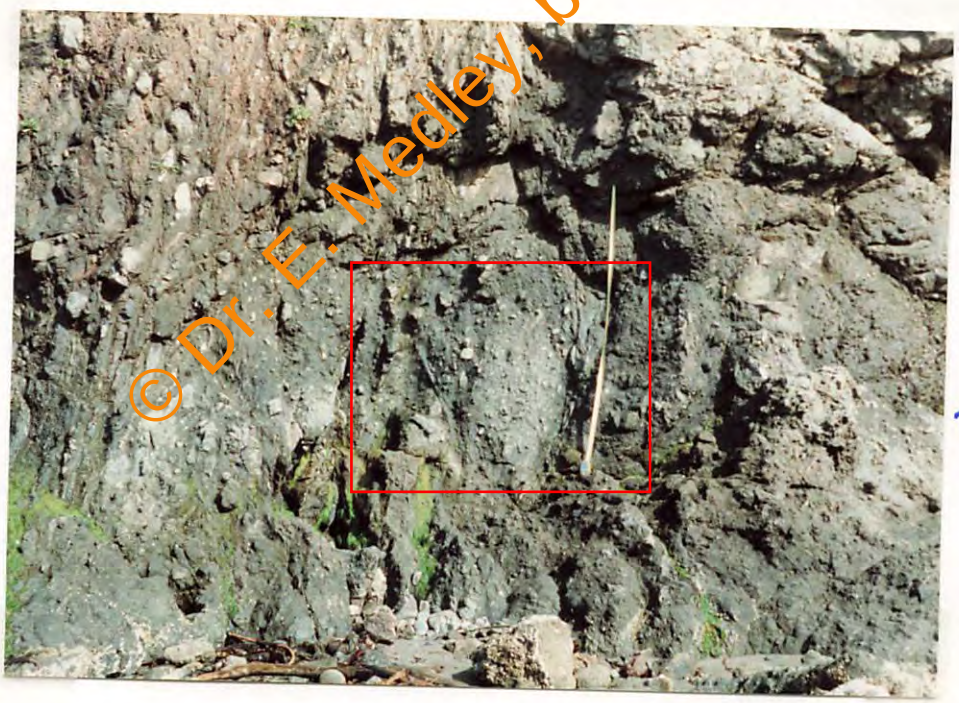
smallest scale of series of "scale-shots"

(19)

(A)

5' scale
2.4cm coin.

Caspar Headlands (North side)
Debris flow material entrained in melange



zoomed-in on red-outlined area in photo above

(20)

B

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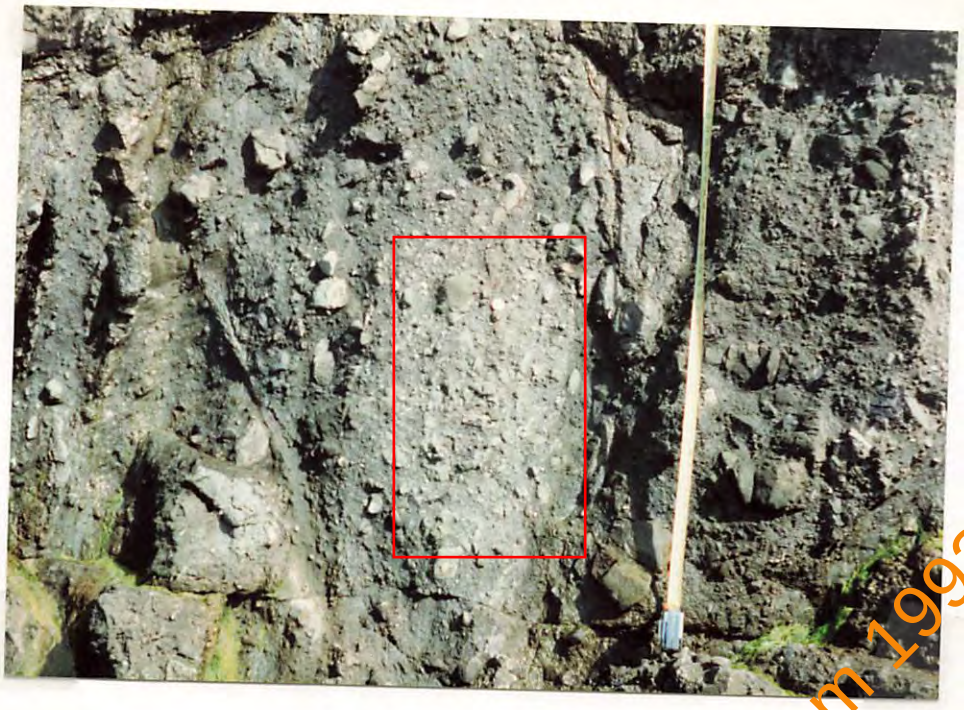
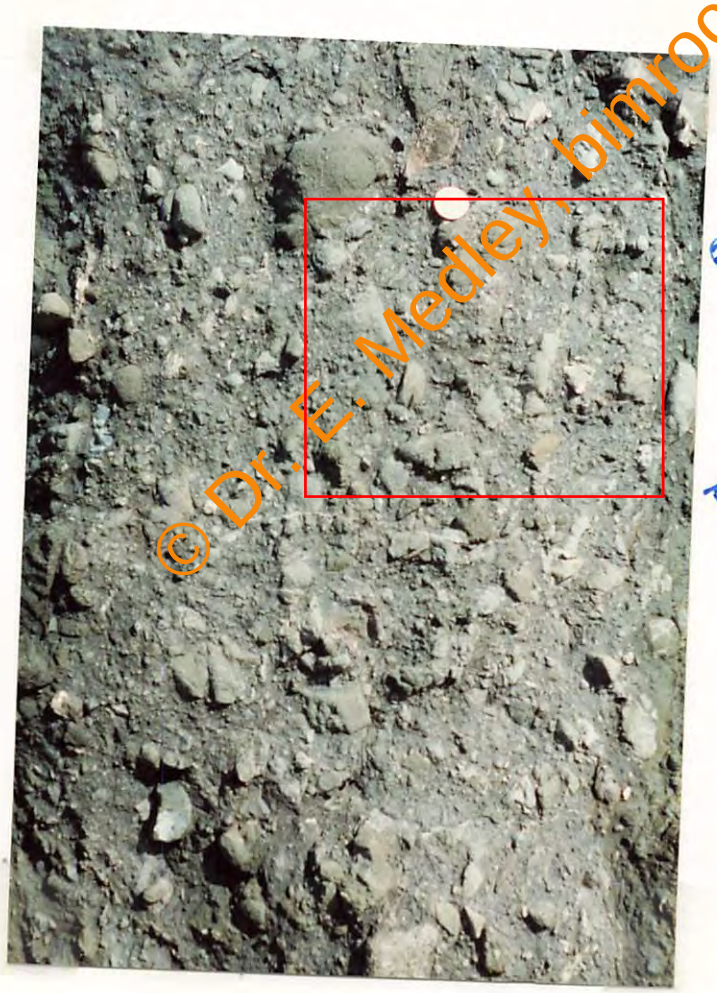
3/28/93



zoomed-in on red-outlined area in photo above

21

(C)



zoomed-in on red-outlined area in photo above

22

(D)

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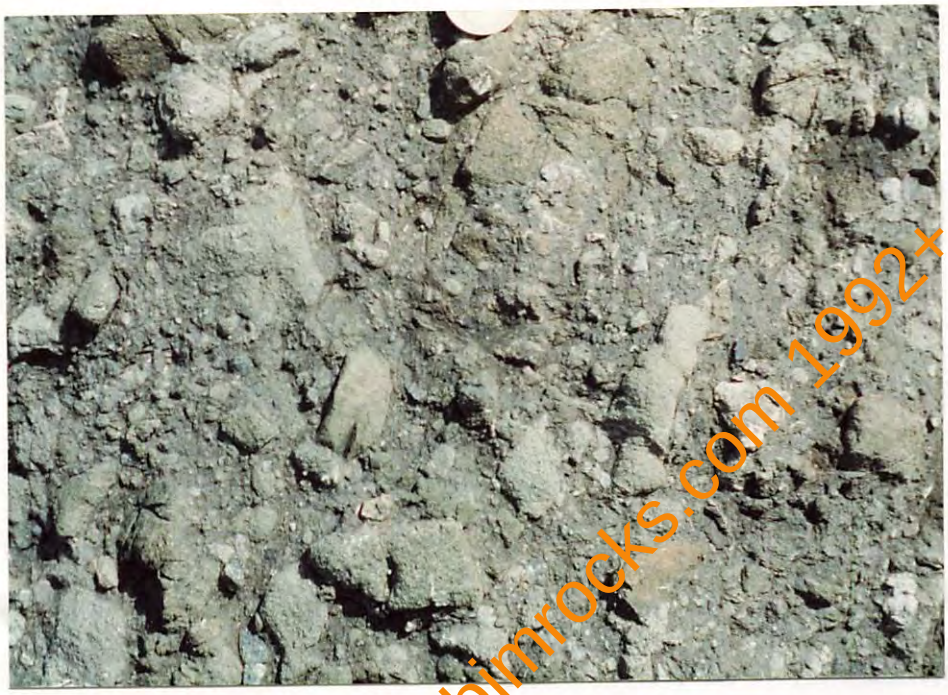

zoomed-in on red-outlined area in photo above

last photo of "Scale" series

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photo 23.
3/28/93
N. Casper Beach

[see photo album #50]

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(23.)

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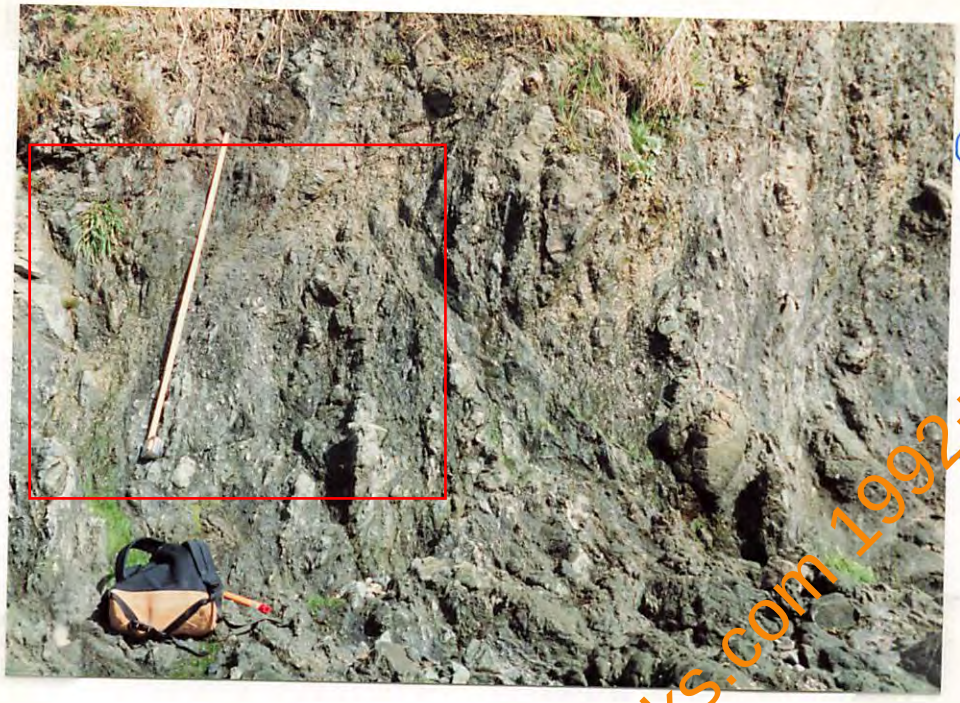

24

A

N. Side Caspar Headland Beach

5' Rule

~~2¼ dem coin~~

25

B

zoomed-in on red-outlined area in photo above

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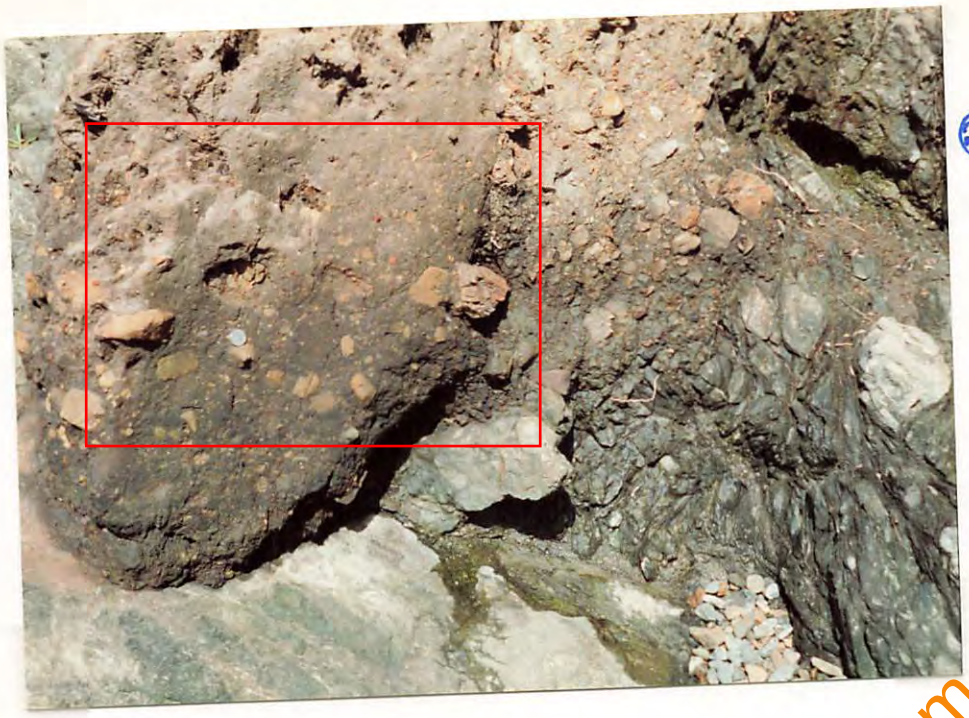

(26)

(A)

Caspar Headlands Beach – N side

Colluvium near debris [illegible] material – 2 scales of shale

(27)

zoomed-in on red-outlined area in photo above

B

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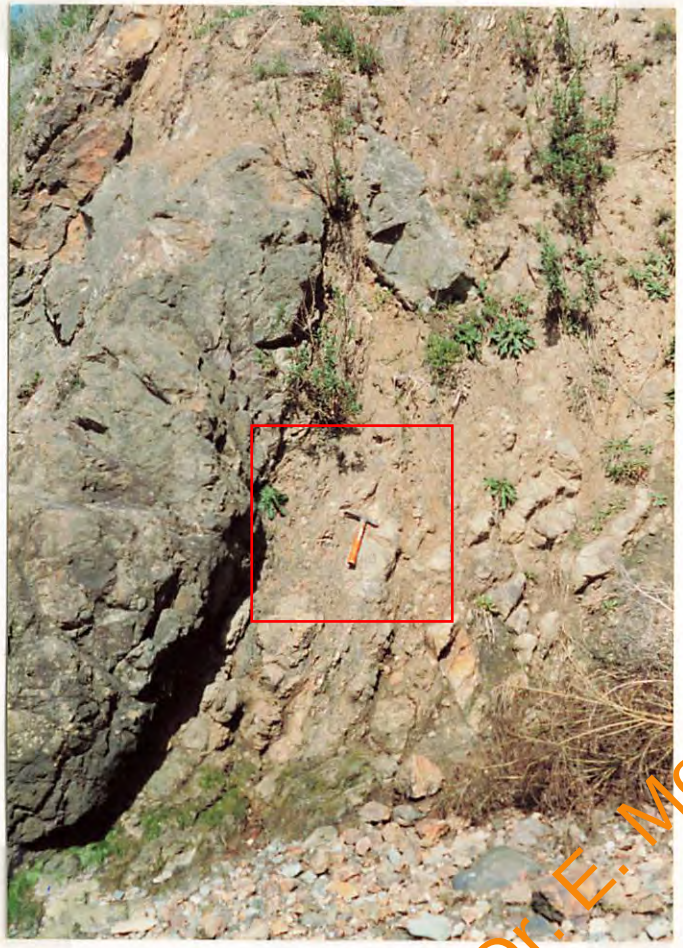
(28)



A 1

(29)

zoomed-in on red-outlined area in photo to left

apparent contact colluvium and melqange bedrock (see below)

B 1

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N. side Coaspar Headlands Beach

Colluvium / melange — how to discriminate them!?

see (c)

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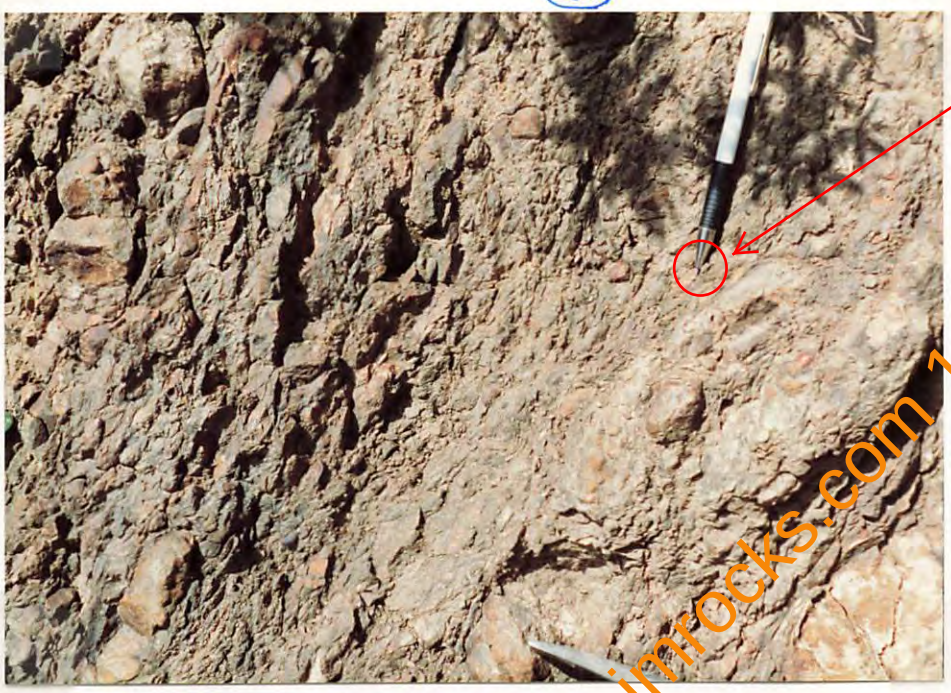
30



same location as red circle in photo previous page

(c)

pencil at contact of debris flow material and melange ... (melange below)

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