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Qm-F-Lt Qt-F-L

(Basu 2003)

.(Weltge and Eynatten 2004)

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Huckriede et al.)

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.(Stocklin and Setudehnia 1971)

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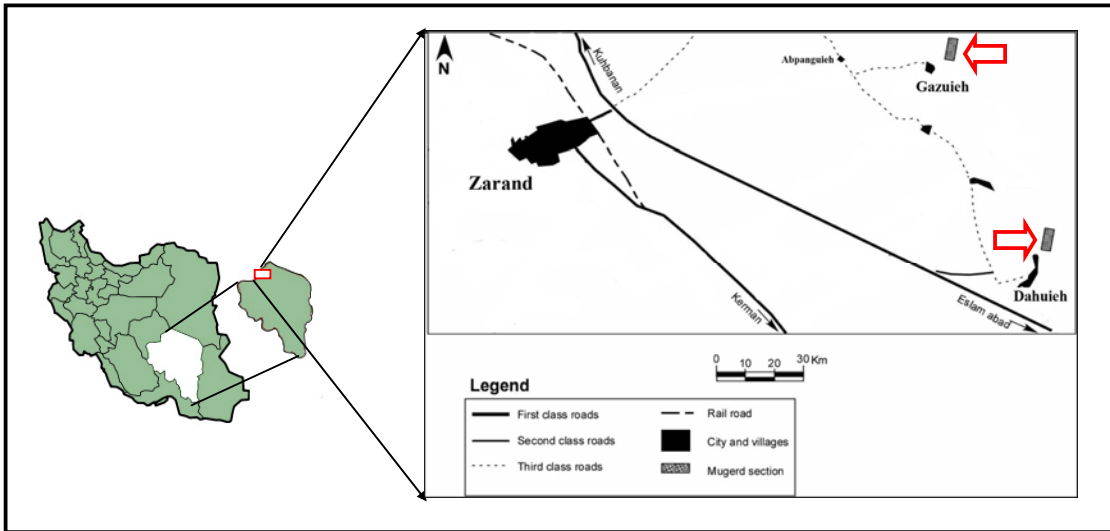
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(Pettijohn

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(Dickinson 1985)

(Miall 1996,

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(Ingersoll et al. 1984)

(Folk 1980)

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(Husseini 1989)

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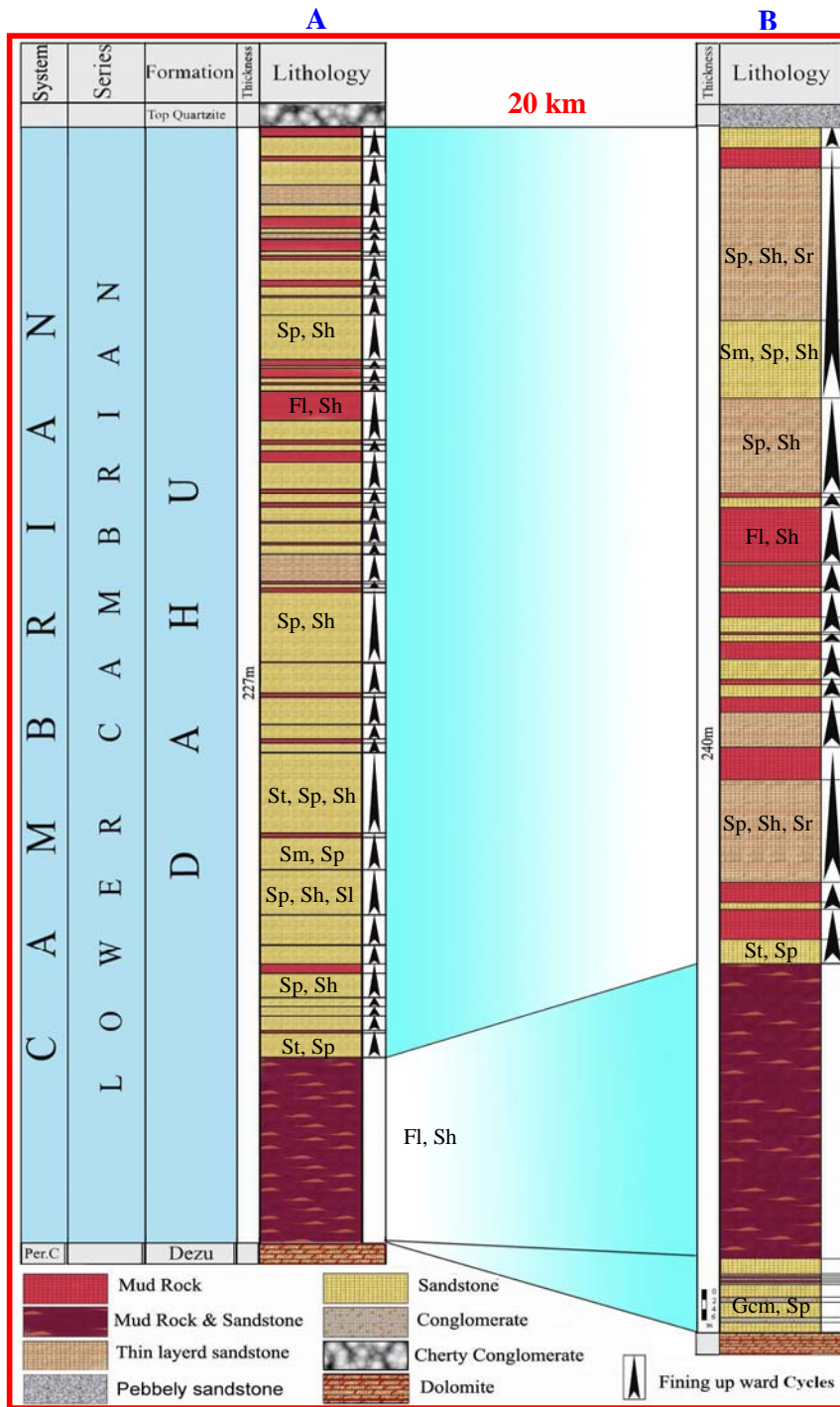
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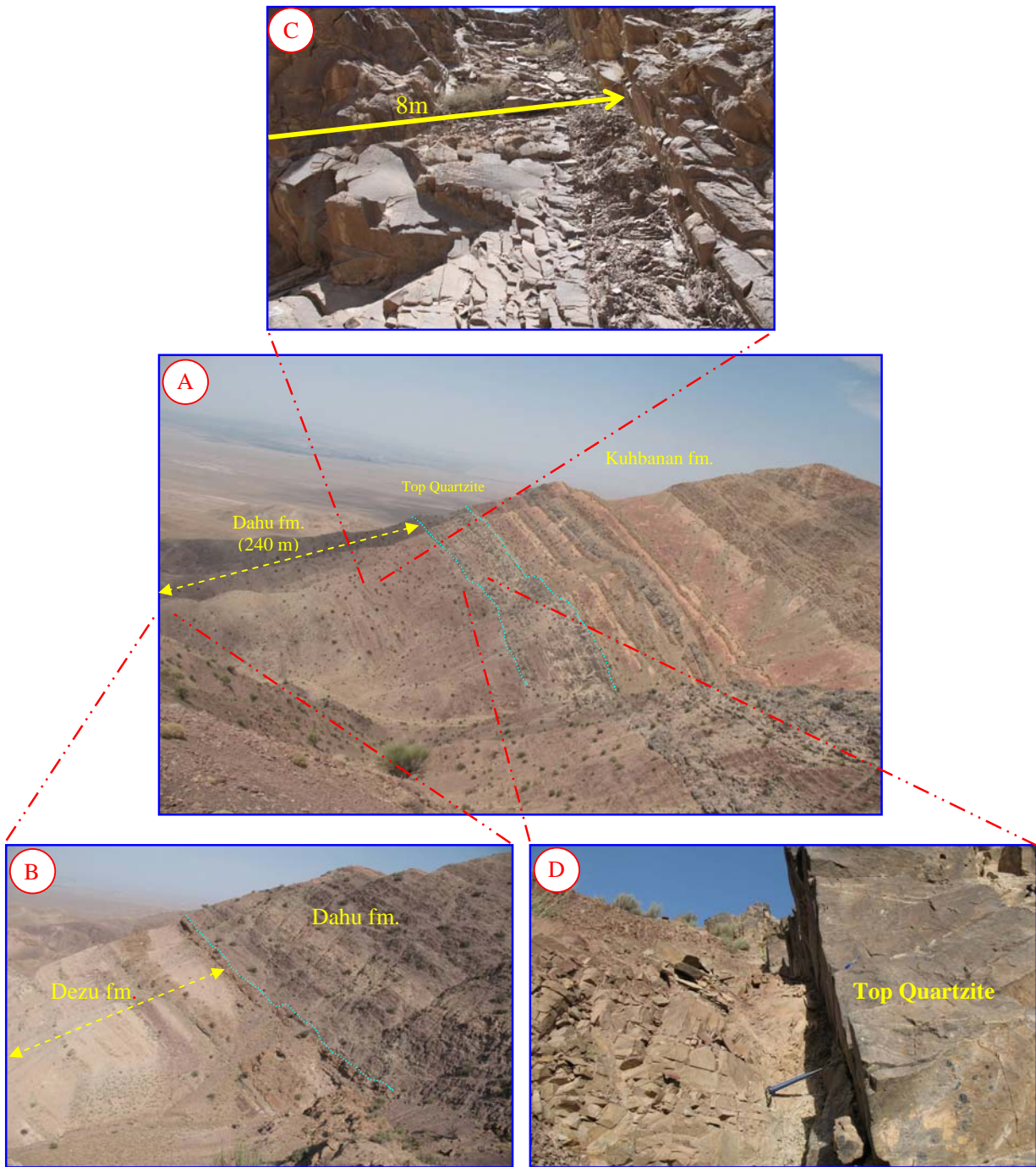
(A, B)

(Husseini, 1989, 2000)

A,)

(D


(B)
(A)



A.

B.

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D.

(Sp)
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 .(Catuneanu 2006)
 .(C,E
 (Ghosh et (a)
 (St) .al. 2006)
 .(B)
 .(Ghosh et al. 2006)
 St Sp
 .(Khalifa and Catuneanu 2008) (Miall 1996, 2000)
 (A,B,C) (Sh)
 (SI) (Gcm)
 (C)
 .(Miall 2000)
 (Sr)
 .(D)
 .(B)
 .(Harms et al. 1982) (Petit et al.
 .2005)

Gcm Sl, St, Sr, Sm E) (Sm)

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(LA)

.(Miall 2000)

(Miall 1996; Roberts

.2007)

FF

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Sp, Sh

(Lag deposits)

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.(Lowey 2007)

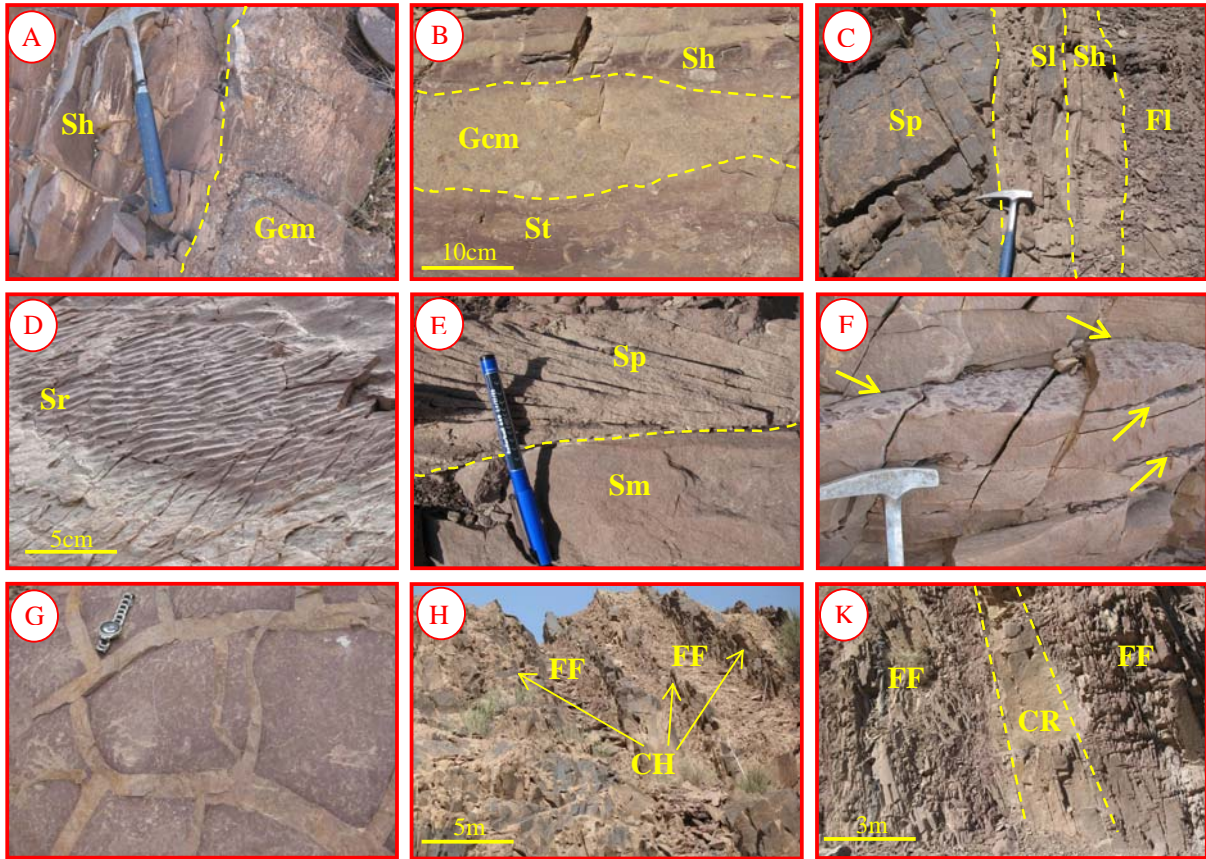
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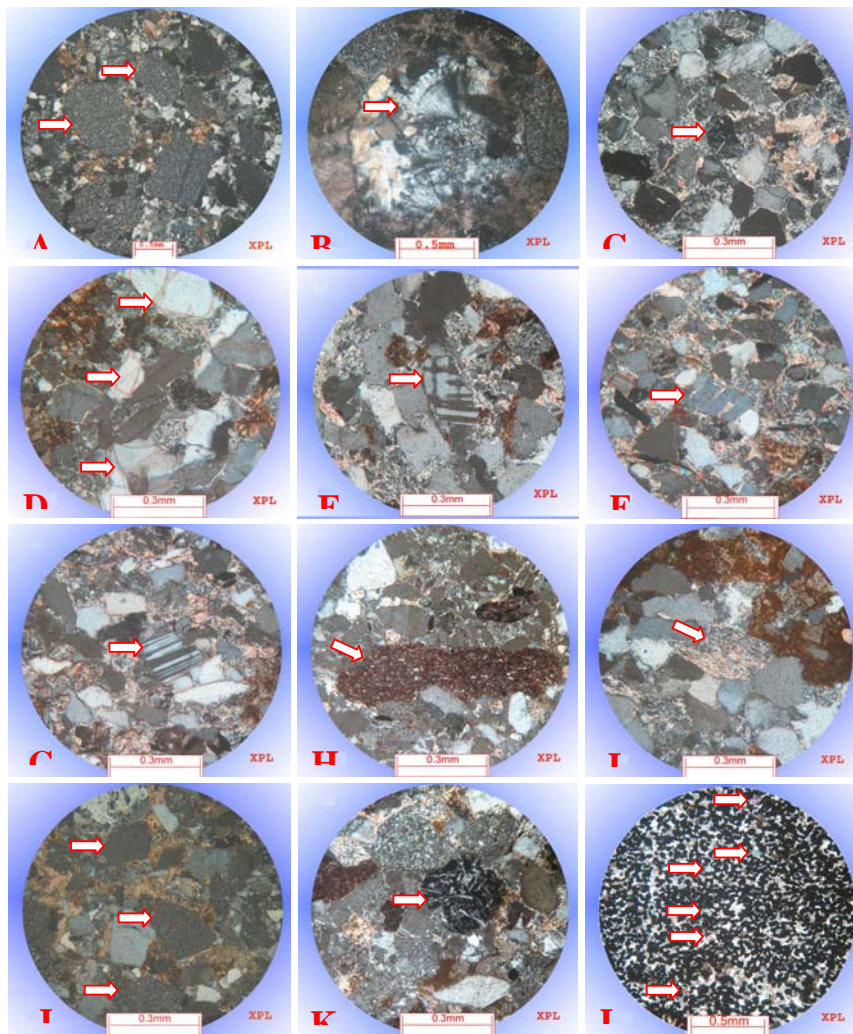
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(H, IJ, K)



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(Afif Terrane)

(Nabitah)

(Ar Rayn Terrane)

(Idsas)

(Husseini 1989, 2000)

(Berberian and King 1981; Husseini 1989,

()2000; Abed 2005)

(Kushan 1978)

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(Terrane accretion and

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plate collision)

(Hijaz Terrane)

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(Stosser

and Camp 1985; Johnson et al. 1987)

(Stosser and Camp 1985)

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(Husseini 1989)

(Stosser and Camp 1985)

(Asir) (island arc)

(Nabitah)

(Midan)

(Hijaz)

(Nabitah)

(Birumq)

(Yanbu)

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(Bernet and Bassett, 2005; Bernet et al.,
.2007)

(Al Amar)

Husseini 1989, 2000; Sharland et al.)

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(Husseini 1989, 2000)

(Tucker 2001; Ahmad and Bhat)

.2006

(Hesse 1989)

(Fatima)

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(Rowland

and Gangloff 1988)

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(Schmidt and Soffel 1983)

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(Dickinson and Suzek 1979; Yan et

) .al. 2006)

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Qm-F-Lt

Qt-F-L

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Qm-F-Lt

Qt-F-L

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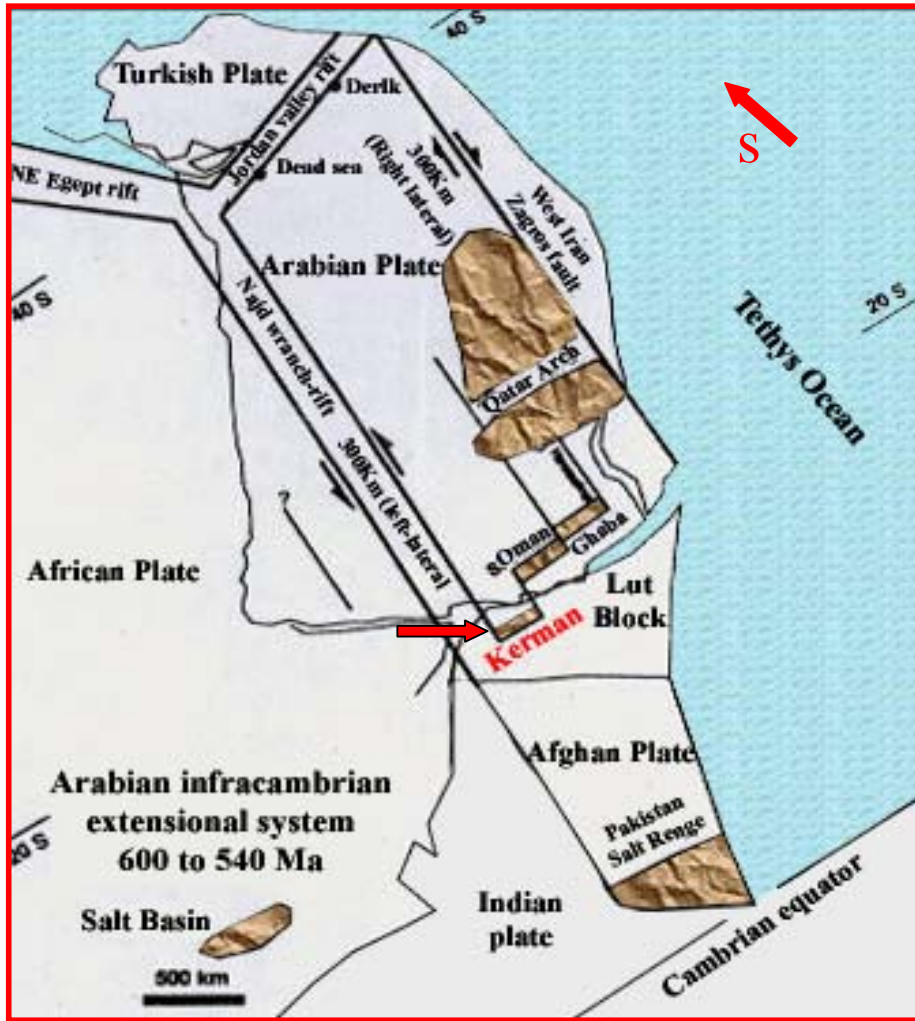
.(Avigad et al. 2003)

(Amireh et al. 2008)

(Umm Gaddah)

(Husseini

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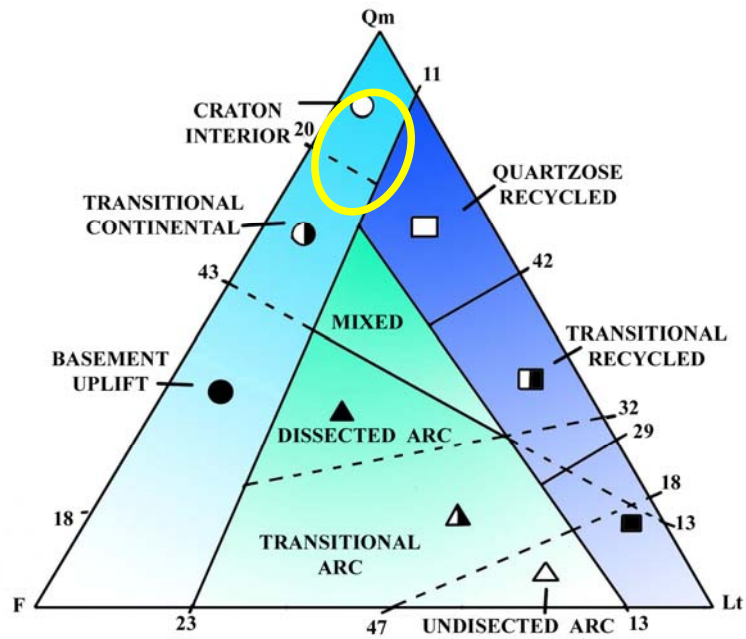
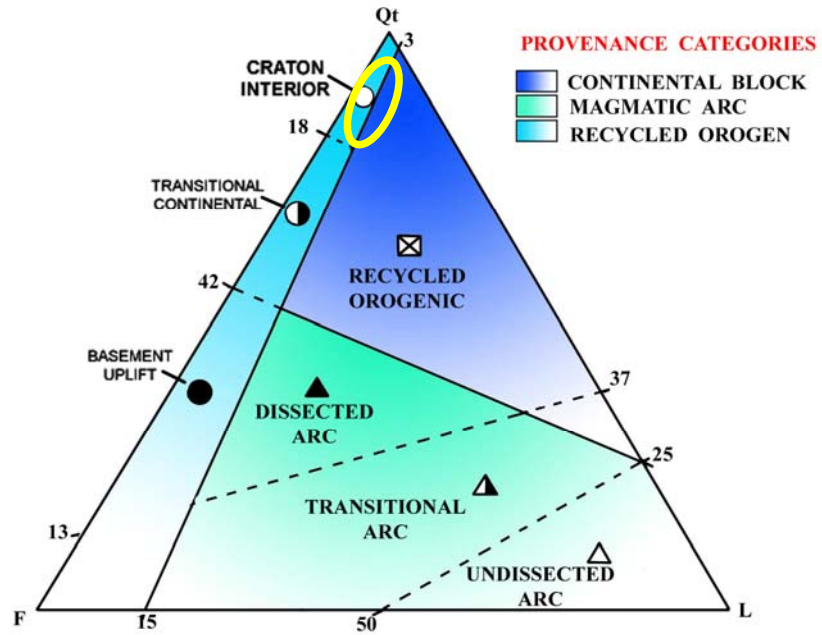
No.	Qt	Qm	F	Lt	L
Dd ₃	85	77	11	12	4
Dd ₅	84	80	13	7	3
Dd _{6/1}	92	83	7	9	3
Dd ₈	85	81	13	6	2
Dd ₉	91	84	9	5	2
Dd _{9/1}	89	87	10	3	1
Dd ₁₀	83	78	12	10	5
Dd _{10/1}	85	75	14	15	6
Dd ₁₁	90	89	6	5	4
Dd ₁₂	86	84	8	8	4
Dd _{12/1}	82	75	14	10	4
Dd _{12/2}	86	81	10	7	5
Dd ₁₄	84	80	13	7	3
Dd ₁₅	84	79	14	7	2
Dd ₁₆	85	80	11	9	4
Dd _{17/1}	91	86	8	6	3
Dd _{17/2}	90	80	4	15	5
Dd _{17/3}	92	89	6	5	2
Dd _{17/4}	87	84	9	6	3
Dd ₁₈	93	60	5	32	2
Dd _{19/1}	82	70	13	16	2
Dd _{19/2}	86	73	7	20	7
Dd _{19/3}	89	83	6	11	5
Dd _{19/4}	92	87	5	7	3
Dd ₂₀	94	86	4	10	3
DG _{2/1}	81	75	11	8	2
DG _{2/2}	85	81	11	8	3
DG _{3/1}	93	88	3	7	4
DG _{3/2}	91	88	6	5	2
DG _{5/1}	85	82	5	13	10
DG _{5/2}	84	75	7	14	9
DG _{6/1}	87	78	4	16	9
DG _{6/2}	90	85	5	9	5
DG _{7/1}	90	83	3	13	7
DG _{7/2}	91	87	7	5	2
DG _{9/1}	90	86	5	9	5
DG _{9/2}	89	93	5	11	6

No.	Qt	Qm	F	Lt	L
DG _{9/3}	93	90	5	5	2
DG _{10/1}	93	88	3	8	5
DG _{11/1}	91	85	5	9	4
DG _{11/2}	89	84	6	9	5
DG _{11/3}	89	87	7	6	4
DG _{12/1}	87	80	7	11	6
DG _{12/2}	85	77	9	13	5
DG _{13/1}	89	82	5	11	6
DG _{13/2}	87	80	9	10	4
DG _{19/1}	87	84	8	8	5
DG _{19/2}	92	87	5	7	3
DG _{19/3}	85	83	12	5	2
DG _{19/4}	84	78	13	7	3
DG _{19/5}	81	76	14	9	5
DG _{19/6}	84	81	12	7	4
DG _{25/1}	85	82	10	7	5
DG _{25/2}	80	76	14	10	6
DG _{26/1}	83	77	12	10	5
DG _{26/2}	88	83	5	11	6
DG _{26/3}	88	82	7	11	5
DG _{29/1}	87	78	6	16	7
DG _{29/3}	85	73	5	20	10
DG _{29/4}	85	78	10	11	5
DG _{34/1}	85	82	13	5	2
DG _{34/2}	89	83	8	8	3
DG _{34/3}	80	72	16	12	4
DG _{34/4}	82	78	11	11	5
DG _{34/5}	88	83	9	6	2
D _{40/1}	85	82	13	4	2
D _{40/2}	83	77	10	12	5
D _{40/3}	85	77	8	15	7
D _{40/4}	82	80	16	4	2
D _{40/5}	85	81	11	9	5
D _{40/6}	92	89	5	5	3
D _{40/7}	88	83	5	12	7
D _{40/8}	94	89	3	8	3
D _{40/9}	86	80	9	11	5

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Layer(field data)		Cross-bedding		Layer(after correction)		New cross-bedding	
Strike	Dip	Strike	Dip	Strike	Dip	Strike	Dip
N62E	50	250	4	23.5	0	157.2	49.6
N80E	50	265	3	61	0	173.9	49.8
EW	60	270	12	346.1	0	193.8	60.7
EW	50	270	30	336.3	0	217	56.2
EW	60	270	5	265.6	0	185.9	65.1
EW	60	270	10	346.1	0	191.5	50.5
N86E	63	246	30	287	0	205	76.1
N70E	62	250	40	332.6	0	203.5	68.9
N85E	75	165	40	252.7	0	348	65.6
N45E	85	225	78	106.7	0	213	89
N75E	70	265	35	284.7	0	202.5	68.1
N70E	65	250	45	169.6	0	207.8	72.6
N70E	72	250	52	281	0	213.4	79
N70E	64	250	35	327.3	0	197.9	69
N80E	50	250	40	61	0	213.9	66
EW	56	265	25	201.4	0	208.6	61.6
N80E	35	260	9	37.7	0	185.4	36
N75E	45	260	22	287	0	195.5	47.3
EW	55	270	26	335.8	0	210.8	59
N80W	63	260	16	93.2	0	206.1	69.4
N75E	65	265	45	250.9	0	214.8	65.8
N80W	40	255	10	30.8	0	185	41.9
EW	45	270	40	347.8	0	229.9	57.2
N70E	52	280	45	294.3	0	218.4	46
N70E	52	290	55	180.7	0	238.5	39.8
N75E	35	250	45	260.5	0	222.1	57.1
N80W	67	260	10	103.7	0	200	70.7
N85E	46	260	17	311.9	0	194.4	49.8
N75E	35	250	45	260.5	0	227.9	57.1
EW	55	290	20	335.8	0	204.6	50.6
N85W	45	270	35	15.9	0	227.9	57.1
N80E	47	340	30	92.3	0	186.3	18.1
N65E	46	300	10	309.3	0	164.3	38.1
N80E	50	210	30	61	0	159.5	74.7
N75E	65	320	50	250.9	0	213.2	25.7
N70E	64	250	43	327.3	0	206.1	71.3
N70E	66	250	42	293.8	0	204.6	72.4
N85E	72	265	49	316.8	0	194.9	73

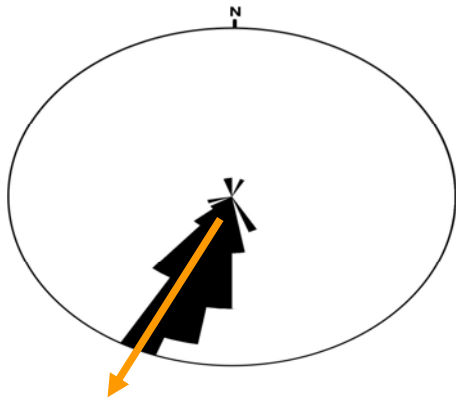


Qm-F-Lt Qt-F-L

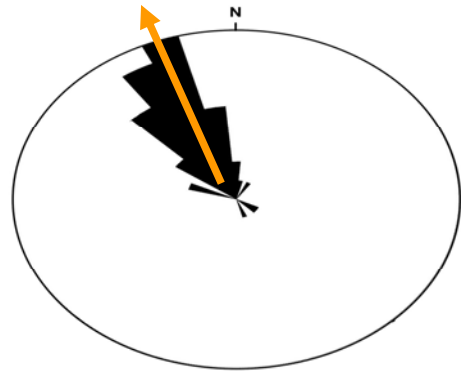
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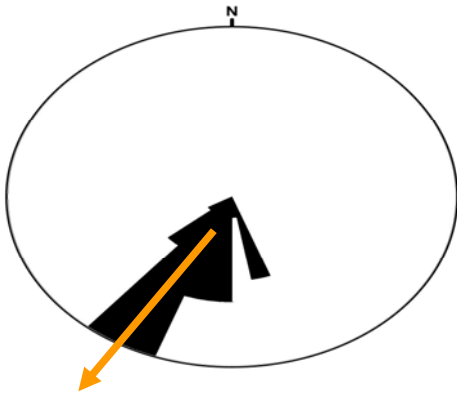
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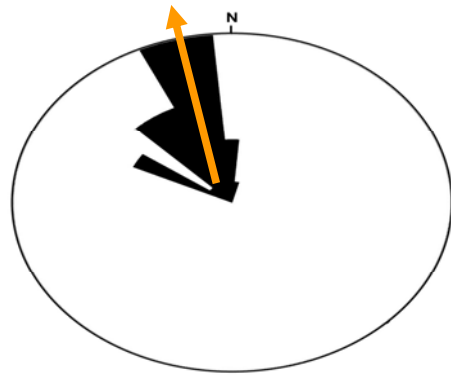
A₁



A₂



B₁



B₂

A₁

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A₂

B₂

B₁

(a)

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Qt-F-L

()

Qm-F-Lt

a .

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b .

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