Fig. 1  Algal pisolite, Massive Dolomite Member.  
Loc. Dohana, x \( \frac{1}{4} \).

Fig. 2  Algal pisolite under microscope.  
Loc. Dohana, x \( 2\frac{1}{4} \).

Figs. 3-4  Microsection of chert, Chert Member showing syndepositional folding. 
Loc. Mishwa (3), and Kathwar (4). x 40
Fig. 1  Oolitic phosphorite in microsection. Carbonaceous Member.
Loc. Shaliyan, x 45

Fig. 2  Phosphatic nodule, with argillaceous rim. Note chert-pressure shadow. Carbonaceous Member. (x Nicols)
Loc. Kandi, x 60

Fig. 3  Chert spherulite showing isogyres, occurring as filling in phosphatic shale.
Carbonaceous Member. (x Nicols)
Loc. Mishwa, x 45

Fig. 4  Sagging in shale and phosphorite bands under oolitic phosphate.
Carbonaceous Member.
Loc. Shaliyan, x 45
PLATE 3

Fig. 1  Collophanite.
        Carbonaceous Member.
        Loc. Shallyan, x 35

Fig. 2  Microsection of graywacke.
        Graywacke Member. Grains of quartz, a few felspar (cloudy and showing cleavage) in chloritic matrix. (x Nicols)
        Loc. Mishwa, x 35

Fig. 3  Graded bedding, Graywacke Member. Note abrupt beginning of coarse-grained band. (x Nicols)
        Loc. Gundahan, x 40

Fig. 4  Graded bedding.
        Banded Siltstone Member.
        Loc. Mishwa, x 60
| **Fig. 1** | Syndepositional deformation in shale.  
Graywacke Member.  
Loc. Mishwa, x 3.5 |
| **Fig. 2** | Syndepositional deformation in shale.  
Graywacke Member.  
Loc. Skandon, x 3.5 |
| **Fig. 3** | Syndepositional deformation in shale probably under the weight of a siltstone granule.  
Graywacke Member.  
Loc. Dabrog, x 3.5 |
| **Fig. 4** | Convolute lamination in shale as seen along bedding plane.  
Graywacke Member.  
Loc. Gundahan, x 3.5 |
<table>
<thead>
<tr>
<th>Fig.</th>
<th>Description</th>
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| 1    | Horse shoe shaped flute cast.  
Graywacke Member.  
Loc. Hiyona |
| 2    | Conical flute casts.  
Graywacke Member.  
Loc. Kandi |
| 3    | Lingoid flute casts.  
Graywacke Member.  
Loc. Dohana (6" scale is kept across the casts). |
| 4    | Cross-bedding.  
Banded Siltstone Member.  
Loc. south of Skandon (25 paise coin as scale). |
Fig. 1  Graywacke in Banded Siltstone Member. Cloudy grains represent felspar, there is one grain of plagioclase felspar in left lower corner. Right and top corner shows a rounded volcanic glass (isotropic). (x Nicols) Loc. Skandon, x 40

Fig. 2  Flame structure and horizontal lamination in the Banded Siltstone Member (25 paisa coin as scale). Loc. Skandon, x ½

Fig. 3  Siltstone, Banded Siltstone Member. The lower half shows larger number of framework grains, they decrease towards top showing a type of grading. Loc. north of Kathwar, x 40

Fig. 4  Orthoquartzite, Lower Quartzite Member. One ferruginous pisolite is also seen. Authigenic silica has filled in the space in between grains. Loc. Sankholi, x 35
PLATE 7
(All under x Nicols)

Fig. 1 Protoquartzite, Lower Quartzite Member. Authigenic growth of silica over rounded edges of grains. Loc. Sankholi, x 40

Fig. 2 Orthoquartzite, Lower Quartzite Member showing sutured outline of quartz grains due to authigenic growth. Loc. Pab, x 40

Fig. 3 Protoquartzite, Lower Quartzite Member, showing sutured outline of quartz grains due to authigenic growth. Loc. Pab, x 40

Fig. 4 Orthoquartzite, Lower Quartzite Member showing authigenic growth over microcline. Loc. Deona, x 40
Fig. 1  Protoquartzite, Lower Quartzite Member. Matrix is diagenetic chlorite, which is being replaced by silica.
Loc. Charag Dhar, x 45

Fig. 2  Poorly sorted protoquartzite (?) Lower Quartzite Member. (x Nicols)
Loc. Koti Dhuman nala, x 45

Fig. 3  Rouded and angular, well sorted to poorly sorted grains existing in some slides in Lower Quartzite Member.
Loc. Oddu Dhar, x 45

Fig. 4  Orthoquartzite, Lower Quartzite Member. Diagenetic chloritic-sericitic matrix left as discontinuous strips around quartz grains due to authigenic growth of silica. (x Nicols)
Loc. Deona, x 45
<table>
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<tr>
<td><strong>Fig. 1</strong></td>
<td>Dassycladaceae algae, Lower Quartzite Member. Calcite has replaced quartz. Loc. Deona, x 30</td>
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<tr>
<td><strong>Fig. 2</strong></td>
<td>Dassycladaceae algae, Lower Quartzite Member. Loc. Phalach, x 30</td>
</tr>
<tr>
<td><strong>Fig. 3</strong></td>
<td>Algal remains, Lower Quartzite Member. Loc. Kota, x 40</td>
</tr>
<tr>
<td><strong>Fig. 4</strong></td>
<td>Dassycladaceae algae, Lower Quartzite Member. Calcite has partially eaten up quartz. Loc. Deona, x 30</td>
</tr>
</tbody>
</table>
Fig. 1  Dassycladaceae algae, Lower Quartzite Member. Ghost of quartz grain can be seen above algal thallus, two undigested quartz fragments are within calcite mass. Loc. Sakhon, x 30

Fig. 2  Calcareous, Lower Quartzite Member. Calcite appears to have eaten up tourmaline (triangular grain) through crack. Loc. Dana, x 30

Fig. 3  Two oolite in a common sac in calc-arenite band. Lower Quartzite Member. Loc. Oddu, x 40

Fig. 4  Compound oolite in calc-arenite band, Lower Quartzite Member. One oolite has quartz as nucleus. Loc. Deona, x 40
PLATE 11

Fig. 1  Orthoconglomerate.
Lower Quartzite Member.
Loc. Charag Dhar, x 40

Fig. 2  Cross-bedding.
Lower Quartzite Member.
Loc. Sankholi

Fig. 3  Cross-bedding.
Lower Quartzite Member.
Loc. Near Hiyona

Fig. 4  Ripple Mark.
Lower Quartzite Member.
Loc. Baga Dhar
Fig. 1  Mould of tadpole nest.
Lower Quartzite Member.
Loc. north of Kathwar.

Fig. 2  Mould of tadpole nest
in side view.

Fig. 3  Wax cast of moulds shown
in fig. 1.
**Fig. 1** Syndepositional deformation of shale.
Loc. Charag Dhar, x 3.5

**Fig. 2** Worm trails in Shale Member.
Loc. Charag Dhar, x 0.75

**Fig. 3** Worm burrows and *Trigonia* impressions.
Loc. Kota

**Fig. 4** Rain prints. Shale Member.
Loc. Sankholi ridge, x 0.75 (approx.)
Fig. 1  Worm burrows, Shale Member.
Loc. Kota-Pab (6" scale in view).

Fig. 2  Flute casts, Shale Member.
Loc. Charag Dhar, x 3/4

Fig. 3  Arkose, Arkosic Sandstone Member. (felspars are cloudy grains, besides those showing lamellar twinning) also in microgranite grain. (x Nicols)
Loc. Giltu ka Tibba, x 40

Fig. 4  Arkose, Arkosic Sandstone Member. (x Nicols)
Loc. Charag Dhar, x 40
Fig. 1  Subarkose, Arkosic Sandstone Member.
Loc. Oddu Dhar, x 40

Fig. 2  Authigenic growth over microcline.
Arkosic Sandstone Member.
Loc. north of Dabrog, x 40

Fig. 3  Authigenic growth over orthoclase.
Arkosic Sandstone Member.
Loc. south of Tatwa, x 40

Fig. 4  Orthoquartzite showing sutured contact between quartz grains.
Upper Quartzite Member.
Loc. Tarmalti ridge, x 40
Fig. 1
Stromatolites,
Limestone Member.
Loc. △7,200, x ¼

Fig. 2
Contact of Krol
(Massive Dolomite) and
Carbonaceous Member at
Skandon ridge.

PLATE 16

Figs. 1-2
Views of Upper Tal forming
precipitous cliffs in
contrast to Middle Tal.
1 - from Skandon ridge.
2 - above Sækholi group
of villages.