THE DEGLACIATION OF THE TWEED

DRAINAGE AREA WEST OF INVERLEITHEN

By

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MAPS AND DIAGRAMS
Meltwater features near the Wolf Creek Glacier, Alaska
(After Sharp 1947)

Fig. 3

Landforms produced by downwasting ice
(After Flinte 1929)

Glacial Map of Scotland (Gelkis)

1. Areas of the Lowlands across which ice-borne fragments of Highland rock are found.
2. Areas over which blocks from the Southern Uplands have been strewn.
3. Areas in which there is a mingling of erratics according as the ice from one side or the other predominated.
4. Areas in which the boulder-clay contains sea-shells, showing that the Ice-sheets moved along the sea-bottom.
5. Indicates direction of ice-flow as preserved on rock surfaces.
Fluvialglacial deposits
Mounds
Steep slope
Esker
Morainic mounds
Meltwater channels

Boundary of thesis area
Boundary of subdivision of thesis area
Fig. 6

RELATIVE RELIEF
- 200-400 ft.
- 400-600 ft.
- over 600 ft.

Fig. 7

Profiles of the ridge between the Tweed and Kincledons valley
A - North of Tweedsmuir  B - South of Tweedsmuir

6 inches = 1 mile
<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alluvium</td>
<td>Fluvio-glacial deposits</td>
</tr>
<tr>
<td>●●●●</td>
<td>Till</td>
</tr>
<tr>
<td>P</td>
<td>Lowland peat</td>
</tr>
<tr>
<td>▲</td>
<td>Exposure</td>
</tr>
<tr>
<td>→</td>
<td>Meltwater channel, Bar indicates crest in up-down long-profile</td>
</tr>
<tr>
<td>♂♂♂♂♂</td>
<td>Steep slope in drift</td>
</tr>
<tr>
<td>♂♂♂♂♂♂♂</td>
<td>Mounds in fluvioglacial deposits</td>
</tr>
<tr>
<td>♡♡♡♡</td>
<td>Mounds in till</td>
</tr>
</tbody>
</table>

Channels and exposures referred to in the text are numbered.
Spurs and ridges referred to in the text are lettered.
Fluvioglacial deposits
Mounds
Steep slope
Esker
Morainic mounds
Meltwater channels
Boundary of thesis area
Boundary of subdivision of thesis area
- Alluvium
- Fluvio-glacial deposits
- Till
- Exposure
- Meltwater channel. Bar indicates crest in up-down long-profile
- Steep slope in drift
- Mounds in fluvio-glacial deposits
- Mounds in till
- Kettle

Channels and exposures referred to in the text are numbered
Spurs and ridges referred to in the text are lettered
The superimposition of an englacial stream on to a spur resulting in a meltwater channel with an up-down long profile.
Alluvium
Fluvioglacial deposits
Till
Exposure
Meltwater channel. Bar indicates crest in up-down long-profile
Steep slope in drift
Mounds in fluvioglacial deposits
Mounds in till
Kettle

Channels and exposures referred to in the text are numbered
Spurs and ridges referred to in the are lettered
**Fig. 61**

- Localities where Tinto felsite found in drift
- Localities where felsites that could have originated from Tinto or other outcrops of felsite found in the drift

1. The Biggar Gap
2. The Lochurd Gap
3. The Melbourne Gap
PHOTOGRAPHS
   (Garwood 1899, p.690)

   (Garwood 1899, p.690)

   (Von Engeln 1912, p.137)

   (Von Engeln 1912, p.129)

   (Von Engeln 1912, p.115)


AREA I

7. Rounded spurs and ridges near Talla Valley.

8. Tweed Valley - looking south from Polmod.

9. Tweed Valley - looking north from spur F.

10. Tweed Valley - looking south from spur F.


12. Talla reservoir.
AREA I

16. Loom Skene from head of Talla Valley.
17. Rotten bottom - the head of the Gameshope Valley.
18. The head of the Pruid Valley - looking south-east.
24. Gameshope Valley
AREA I


27. Low Morainic Mounds at Manor Head.

28. Exp'd Fig. 13 - material forming a morainic mound.

29. Channel C.15.


31. Channel C.16.

32A Channel W.7.

32B Channel W.7.

33. Channel J.7 - looking north-east.

34. Channel J.4 - looking south-west.

35. Channels J.5 and 6 - looking south-west.
AREA I


37. Vertical Air Photographs (1:10,000)

38. of spars H, I, J and K.

39.
AREA I

40. Channel K.3.
42. Channels on Orange Hill.
43. Channel J.32 - looking north-east.
44. Exp. 35 - Kinglodge Valley - fluvioglacial sands and gravels resting on till.
45. The junction of the Tweed and Kinglodge Valleys - looking south-west.
46. Valley-fill in the upper Tweed Valley near exp. 7 - looking south.
47. Exp. 7.
48. Exp. 1. Talla Moss. Fig.11.
49. Terraces in valley-fill in the Tweed Valley north of Tweedsmuir.

AREA II

50. The Manor Valley looking north.
51. Hatchell Hill and spur C from Hochan.
AREA II

52. Stobo Hope Head.
53. The Biggar Gap from Machen Hill.
54. Manor Valley looking north.
55. Manor Head.
56. Channel N.1 - looking south.
57. Channel N.2 - looking south.
58. Channel N.2 - looking north.
59. Channel N.3 - looking north.
60. Looking towards the southern ends of N.1, 2 and 3.
61. The Tweed flood plain and channel. D.7 - looking south-west.
63. Channel I.12.
AREA II

64. Channels on spur I.
65. Channel I.5.
66. Ridge F from the north-east. (Channel is F.8).
67. Channel F.8 - looking east.
68. Stobo eaker.
69. Exp. 5 in Stobo eaker.
70. She riff Muir.

AREA III

71. The Central Lowland - looking north-west towards the Pentland Hills.
72. The Central Lowland - looking east from West Linton.
73. The Southern Upland-edge looking north-east.
74. Channel G.13.
75. Channel F.1 - looking east.
76. Channel P.2 - looking west.
77. Channel G.11 - looking west.
78. Channel G.11 - looking north-east.
79. Channel H.2 - looking east.
80A Channel H.5.
80B Channel H.5 - looking north.
81. Channel H.1 - looking north-east.
82. Channel H.10 - looking north-east.
83. Channel H.8 - looking north-east.
84. Channel H.22 - looking south-west.
85. Channel H.26 - looking north-east.
86. Channel H.28 - looking south-west.
AREA III

87. Channel N.28 - looking south-west.
88. Channel N.30 - looking east.
89. Channel N.24 - looking south-west.
90. The Lyne Valley near the south-west end of N.8.
91. Channel N.32 (North Esk Valley) - looking north-east.
92. The Ladyurd gravel deposit.
93. Exp. 1 in the Ladyurd gravel deposit.
94. Dead Burn Valley eker - looking north-east.
95. Dead Burn Valley eker - looking north-east.
96. Dead Burn Valley eker - looking south-west.
97. The West Linton eker.
98. Channel F.19 - looking north.
AREA III


100. Slipperfield Loch.

101. Knobs south-east of Slipperfield Loch - looking north-east.

102. The West Water Valley where it cuts through a mass of sand and gravel - looking north across White Moss.

103. The tongue of sand and gravel between the Lyne and the West Water - looking north.

104. Knobs to the east of West Linton.

105. Exp. 12 in West Linton eater.


107. West Linton gravel pit.

108. West Linton gravel pit.

109. Exp. 30.

110. Exp. 30.