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THE DRUEY AND CARBINE GROUPS
OF THE
PRECAMBRIAN.

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The Druey Carbine Groups of the Precambrian

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To: Mr. G.F. Hudspeth. 19th May, 1958

THE DAVEY & CARBINE GROUPS OF THE PRECAMBRIAN

I. Elliston. Geology of Dundas District, University of Tasmania, Publication 16, 1954.

1. The Davey Group (p.163)

The Davey Group has been assigned by Hills and Carey (1949) to the basal Tasmanian sedimentary rocks of Precambrian age. The exposure at Dundas is on the western flank of Mount Dundas.....

Originally a group of dominant sandstones with grits and shales, they have undergone low grade dynamic metamorphism to form quartzites, schists and phyllites. They are strongly crumpled and deformed and for the most part bedding is undiscoverable. The original shaley facies are crenulate mica, argillaceous and quartz sericite schists.

2. Carbine Group

The Carbine Group is defined as that group of formations overlying the Davey Group and unconformably overlain by the Dundas Group. It consists of dolomite, dolomitic conglomerate, micaceous quartzites and black slates.

Their age is thought to be late Precambrian extending into the Lower Cambrian, no fossils have been found. The group is named after Carbine Hill, near Zeehan.

This group is referred to by Reid (1925) as the Bischoff Series.

P.178. The name Pieman Group was formerly given to those old closely folded slates and quartzites, volcanics and tillites below the Junee

Group and younger than the old schists. This name therefore included the Dundas and Carbine Group, as at present defined. Reid (1925, p.7) and Finucane (1947) have referred to these rocks as Bischoff Series.

Reid, K.S. 1947 Report on the Dundas Prospect.

Reid, A.M. 1925 The Dundas Mineral Field. Tas. Dept. Mines. Geol. Surv. Bill. 36.

II. Hills and Carey. Handbook for Tasmania. ANZAAS 1949.

1. Davey Group

Composed of quartz-mica-schists and conglomerates with stretched pebbles. Shales are now schists, either sericitic or graphitic. Folding is close and cremulation and contortion are characteristic. Stretches from Port Davey to Port Sorell and Badger Head.

2. Pieman Group (Late Precambrian to Cambrian)

On the geological map which accompanies the handbook the Group is shown in purple (Cambrian) although it has more recently been established that the series goes down below the base of the Cambrian System.

This group is used as a convenient sack in which to place all old sediments below the W.C.R. Conglomerate.

III. Baker: B.Sc, Thesis University of Tasmania., 1954.

The Davey group includes those rocks outcropping east of Port Davey which consist largely of conglomerates, quartzites and slates of very low metamorphic grade (actually phyllites and mica schists). They are rather strongly deformed.

A possible repetition of the conglomerate/shale/quartzite sequence could be broughtabout by assuming tight folding, overturned to the east (similar folding?).

The pebbles in the conglomerates are moderately deformed (stretched).

IV. S.W. Carey. Geology of Australian Ore Deposits. Fifth Empire Mining and Metallurgical Congress, 1953.

P.1108. There is evidence of an older (Davey Group) and younger (Carbine Group) which are probably separated by an unconformity. The Davey Group is not well defined, but includes quartz and mica schists and minor metamorphosed igneous rocks. The Carbine Group, which consists of quartzites, phyllites, graphitic slates and thick dolomites, may extend into the Lower Cambrian.

V. Hydro-Electric Commission Reports

The area east of the King-Sophia synclinorium, south of Linda Faults, north of the Eagle Fault consists of a series of contorted muscovite/quartz/garnet schists, metaquartzites, with thin bands of dolomite and chert in the schists. Undoubtedly members of the Davey Group.

What is the position of the Jane Dolomite here?

VI. Twelvetrees (Dept. of Mines & Surveys Reports 1909-1910)

He reports "reddish and purplish slates with bands of quartzite" and "chocolate coloured silicified slates" in The Needles area (near Mt. Mueller).

At Black Creek (west of Mt. Mueller) he reports limestone and "ferruginous/chocolate slate".

Are these Carbine Group?

VII. Carey & Banks: University of Tasmania Publication 20, 1954.

p.252. The Needles Area: the succession in the Needles anticline is:

Owen Conglomerate Stephens Dolomite Needles Quartzite Clerk Group Undifferentiated	Precambrian

The Humboldt slate of Lewis (1939) is within the Stephens Dolomite. Lewis described this slate as dull grey in colour weathering to purple with interbedded layers of a yellowish colour. This is undoubtedly also the slate which Twelvetrees (1909) describes from this area.

The Stephens Dolomite is described by Spry (University of Tasmania Publication 49, 1957) as buff, grey or pink in colour and very fine grained. It is generally massive and has been silicified to chert in places. The dolomite is approximately 4000 feet thick and is underlain by about a 1000 feet of slates and slatey dolomites (the Humboldt slates) and then by the 1500 feet thick Needles quartzite and then laminated impure quartzites and dolomites (the Clark Group).

Highly probable that these are Carbine Group.

VIII. F. Blake - Mount Picton (1936).

Dolomite is exposed in the bed and banks of the Huon River to the east of Blake's Opening and on the northern slopes of Mount Picton. The rock is again in evidence in the creeks flowing easterly to the Craycroft River. The rock is light grey in colour and is massive or thickly bedded. Occasionally it has been silicified to chert. The dolomite conformably overlies the slate and quartzite.

Normal grey-green and black coloured slates are well exposed in the Huon River Valley from the west side of Blake's Opening to the east side of Harrison's Opening and again where the river skirts Arthur Plains. At numerous points within the slate, bands of grey and pink quartzite, and to a

minor extent, conglomerates occur (interbedded). Red slates occur interbedded with white to pink quartzites ¾ mile south of Scott's Peak.

Narrow beds of grey limestone also occur with the dull red to purple and black slates. Grey green argillaceous quartzites are also mentioned.

Highly possible that these are Carbine Group. From the description conglomerates appear to be oligomitic.

Blake describes a series of schistose rocks (argillaceous, arenaceous and quartz breccia schists) which may represent an older series of rocks (older than those previously described). These could be the Davey Group.

IX. New River Lagoon (F. Blake 1938)

The oldest rocks of the district..... consist of slates (massive, dark grey to grey green and brownish), black cherts, quartzites, conglomerates, dolomites and limestones. From this description the conglomerates appear to be polymictic.

X. Nye, 1929 - The Adamsfield District

The series in the Adam River consist of slates, cherts and fine grained breccias. The slates are typically purple but can also be white, grey, green, brown and red. They are unconformably overlain by the Owen Conglomerate of Clear Hill and Tagged Range and they are undoubtedly younger than the Proterozoic Schists reported further to the west (Junction Range).

These two groups are undoubtedly the Carbine and Davey respectively.