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(SEE ALSO 4957)

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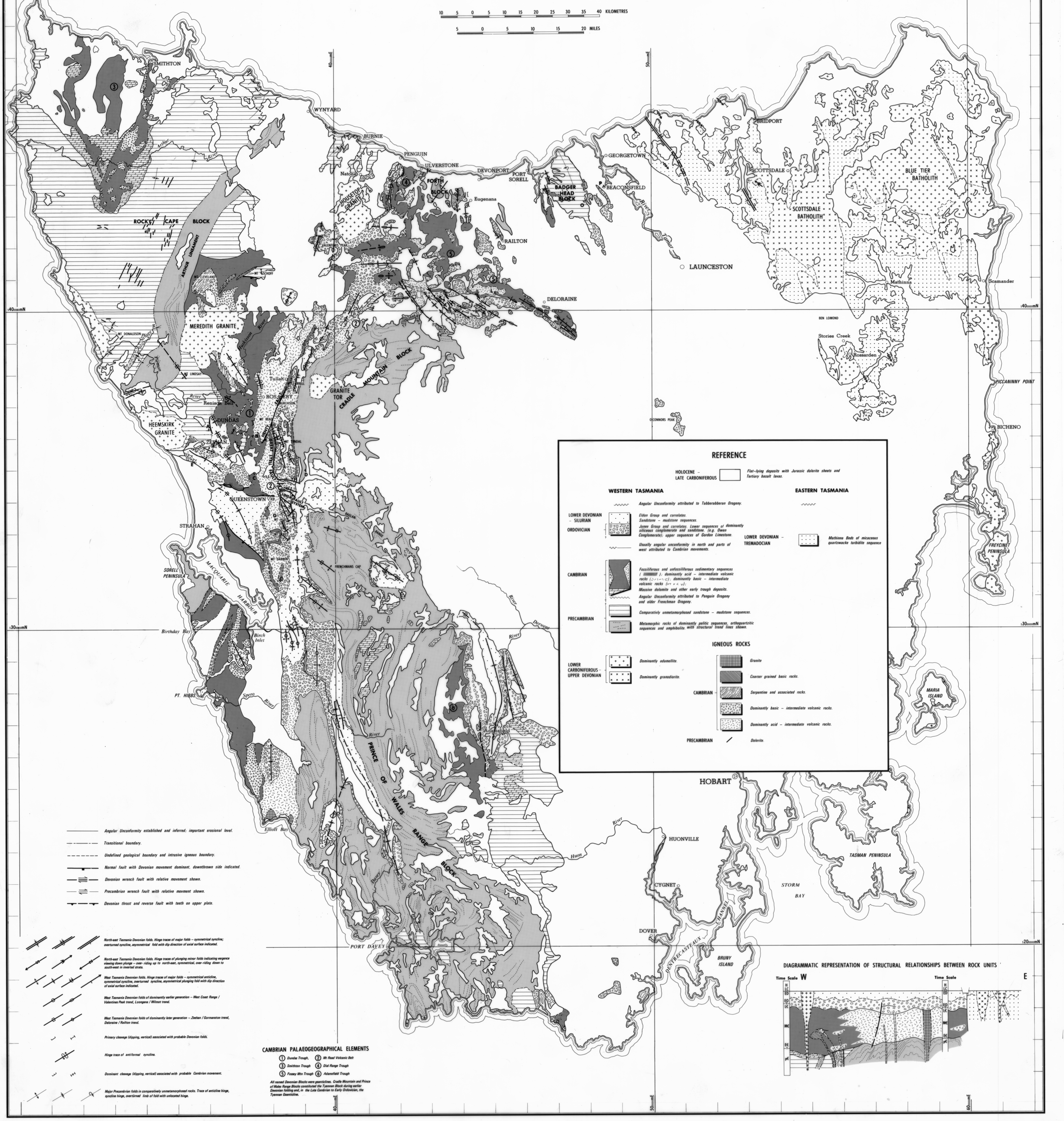
STRUCTURAL MAP OF PRE-CARBONIFEROUS ROCKS OF TASMANIA



REFERENCE

HOLOCENE – LATE CARBONIFEROUS: Flat–lying deposits with Jurassic dolerite sheets and Tertiary basalt lavas.

WESTERN TASMANIA

Angular Unconformity attributed to Tabberabberan Orogeny.

LOWER DEVONIAN – SILURIAN: Eldon Group and correlates. Sandstone – mudstone sequences.

ORDOVICIAN: Junee Group and correlates. Lower sequences of dominantly siliceous conglomerate and sandstone. (e.g. Owen Conglomerate); upper sequences of Gordon Limestone.

Usually angular unconformity in north and parts of west attributed to Cambrian movements.

CAMBRIAN: Fossiliferous and unfossiliferous sedimentary sequences (▨); dominantly acid – intermediate volcanic rocks (⌐⁄\–\<); dominantly basic – intermediate volcanic rocks (>< v < v); Massive dolomite and other early trough deposits.

Angular Unconformity attributed to Penguin Orogeny and older Frenchman Orogeny.

PRECAMBRIAN: Comparativly unmetamorphosed sandstone – mudstone sequences.

Metamorphic rocks of dominantly pelitic sequences, orthoquartzitic sequences and amphibolite. with structural trend lines shown.

EASTERN TASMANIA

LOWER DEVONIAN – TREMADOCIAN: Mathinna Beds of micaceous quartzwacke turbidite sequence

IGNEOUS ROCKS

LOWER CARBONIFEROUS – UPPER DEVONIAN:
- Dominantly adamellite.
- Dominantly granodiorite.

CAMBRIAN:
- Granite
- Coarser grained basic rocks.
- Serpentine and associated rocks.
- Dominantly basic – intermediate volcanic rocks.
- Dominantly acid – intermediate volcanic rocks.

PRECAMBRIAN: Dolerite.

Angular Unconformity established and inferred; important erosional level.

Transitional boundary.

Undefined geological boundary and intrusive igneous boundary.

Normal fault with Devonian movement dominant, downthrown side indicated.

Devonian wrench fault with relative movement shown.

Precambrian wrench fault with relative movment shown.

Devonian thrust and reverse fault with teeth on upper plate.

North-east Tasmania Devonian folds. Hinge traces of major folds – symmetrical syncline; overturned syncline, asymmetrical fold with dip direction of axial surface indicated.

North-east Tasmania Devonian folds. Hinge traces of plunging minor folds indicating vergence viewing down plunge – over- riding up to north-east, symmetrical, over-riding down to south-west in inverted strata.

West Tasmania Devonian folds. Hinge traces of major folds – symmetrical anticline, symmetrical syncline, overturned syncline, asymmetrical plunging fold with dip direction of axial surface indicated.

West Tasmania Devonian folds of dominantly earlier generation – West Coast Range / Valentines Peak trend, Loongana / Wilmot trend.

West Tasmania Devonian folds of dominantly later generation – Zeehan / Gormanston trend, Deloraine / Railton trend.

Primary cleavage (dipping, vertical) associated with probable Devonian folds.

Hinge trace of antiformal syncline.

Dominant cleavage (dipping, vertical) associated with probable Cambrian movement.

Major Precambrian folds in comparatively unmetamorphosed rocks. Trace of anticline hinge, syncline hinge, overtûrned limb of fold with unlocated hinge.

CAMBRIAN PALAEOGEOGRAPHICAL ELEMENTS

① Dundas Trough, ② Mt Read Volcanic Belt
③ Smithton Trough ④ Dial Range Trough
⑤ Fossey Mtn Trough ⑥ Adamsfield Trough

All named Devonian Blocks were geanticlines. Cradle Mountain and Prince of Wales Range Blocks constituted the Tyennan Block during earlier Devonian folding and, in the Late Cambrian to Early Ordovician, the Tyennan Geanticline.

DIAGRAMMATIC REPRESENTATION OF STRUCTURAL RELATIONSHIPS BETWEEN ROCK UNITS