

Exploring archaeological methods in the Western Volcanic Plains - Greigs Road, Rockbank VIC

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Outline

- 1. Introduction
- 2. Previous approaches
- 3. CHMP picture
- 4. Explore methodologies
- 5. Salvage picture
- 6. Moving forward





Study area

- 870 hectares
- Mt Atkinson
- Proposed residential development
- Previous VAHR





CHMP 13712

- Cultural heritage sensitivity
 - Within 200 metres of a waterway (Skeleton Creek)
 - Within 50 metres of a previously recorded place
- Residential subdivision
- Mandatory CHMP



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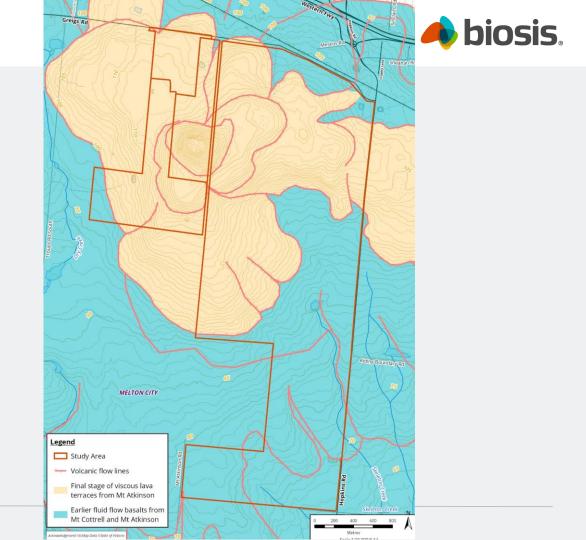
Western Volcanic Plains

- Volcanic activity approximately 10 million to 5,000 years ago
- Lava infilled valleys and watercourses
- Basalt flows can be mapped using magnetics and chemical signatures
- Drainage has incised through basalt over millennia



Geomorphology

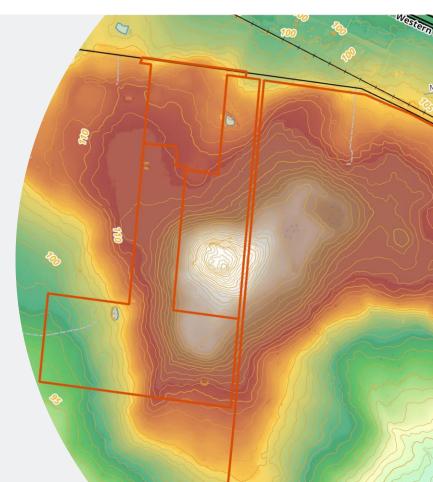
- North, dominated by eruption point (Mount Atkinson)
- Lava formed lobes with plateaus & steep slopes
- South, plains from earlier basalt flows (Mount Cottrell)





Landform features

- Weathered reddish ropy and vesicular basalt
- Water run off from terraces, minor ephemeral drainage
- Natural weathered hollows accumulate water
- Ferrosols, sodosols





Land use

- Grazed since 1840s
- Cropped, north
- Orchard, north
- Rock removal





Previous approaches







Previous approaches



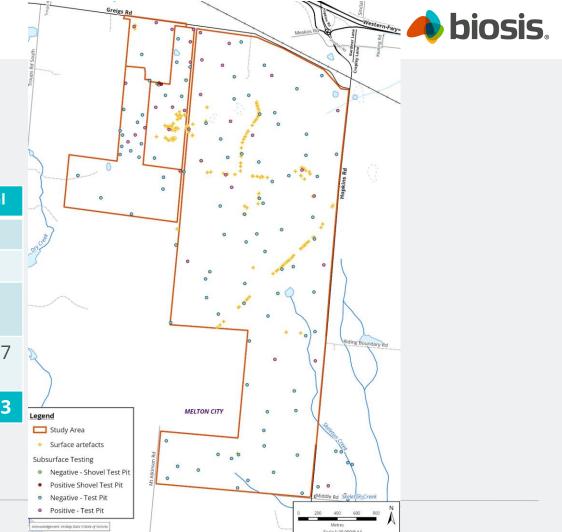




Previous approaches



СНМР					
	Surface	Subsurface	Total	0	٥
Franklin A CHMP	8	10	18	and control	,
Franklin B CHMP	1	7	8	3	۰
Mt Atkinson A CHMP	310	220	530		
Mt Atkinson B CHMP	991	166	1157	3	
Total	1310	403	1713	Legend	MELTO
biosis.com.au © Copyright B	Biosis 2018			Study Area + Surface artefacts Subsurface Testing o Negative - Shovel Test Pit Positive Shovel Test Pit Negative - Test Pit Positive - Test Pit	Mt Akhirson Rd







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Plains - CHMP results







Plains - explore methodologies

Before



Post plough



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Plains - explore methodologies

Fire break

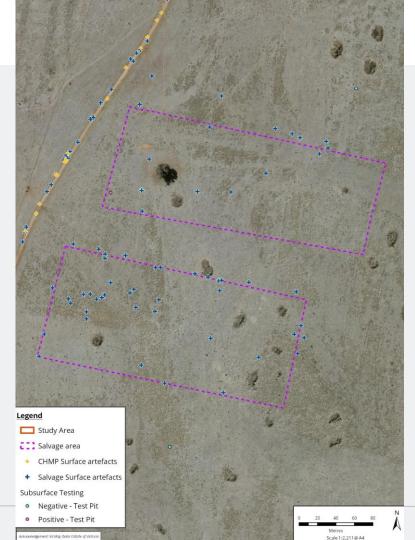


Post burn



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Plains – salvage results







Plains - comparison

CHMP = 0 artefact m2

Plough area = 1 artefact 3060 m2

Burn area = 1 artefact 937 m2





Plains - conclusions

- Reflection of 'background' scatter
- Densities not conducive to SST
- Burn = superior







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Stony rise - CHMP results







Stony rise - explore methodologies

Before



Post burn



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Stony rise - explore methodologies

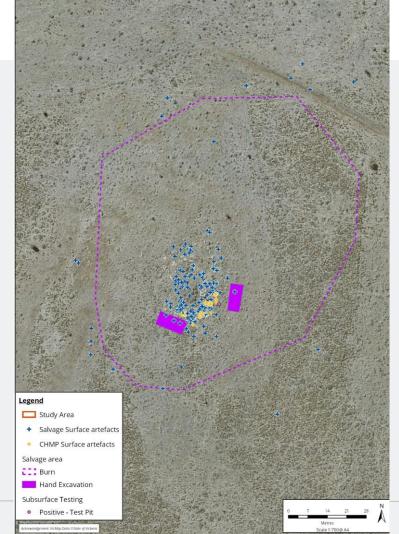
Hand excavation





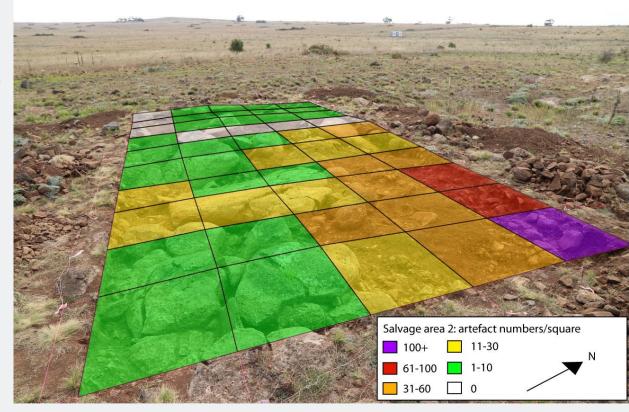


Stony rise – salvage results





Stony rise – salvage results



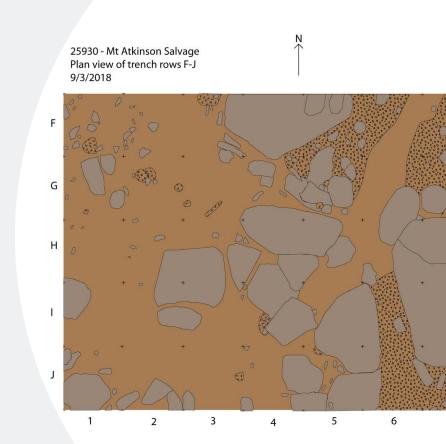


Stony rise - comparison

CHMP = 1 artefact 87 m²

Burn area = 1 artefact 26 m2

Hand excavation area = 1 artefact 4m2





Stony rise - conclusion

- Occupation deposit
- Densities provide for interpretation
- Hand excavation = superior





CHMP & Salvage - comparison







Moving forward

- Landform approach, investigation & registration
- Employ different methodologies earlier
- Understand research questions
- Assemblages that allow interpretation

