Modeling the Construction and Evolution of Distributed Volcanic Fields on Earth and Mars

Jacob A. Richardson

School of Geosciences
University of South Florida

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Team

Introduction

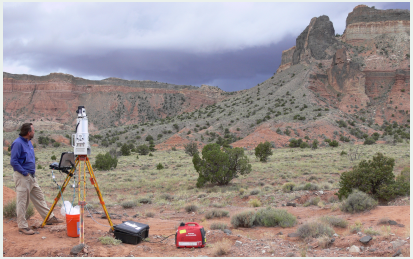
- Distributed Volcanism Definition
- Vertical Subregions can be detailed in volcanic systems

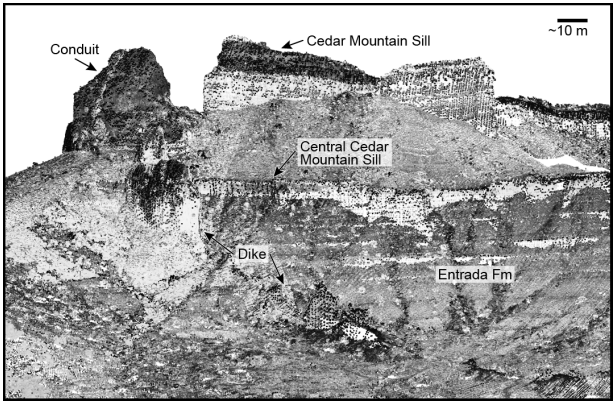
Outline of Talk

- Overview of Dissertation
- Arsia Mons
- Conclusions

Sills in the San Rafael Swell

- Lidar
- Sills
- Total volume, geometry
- Modulation of eruption style





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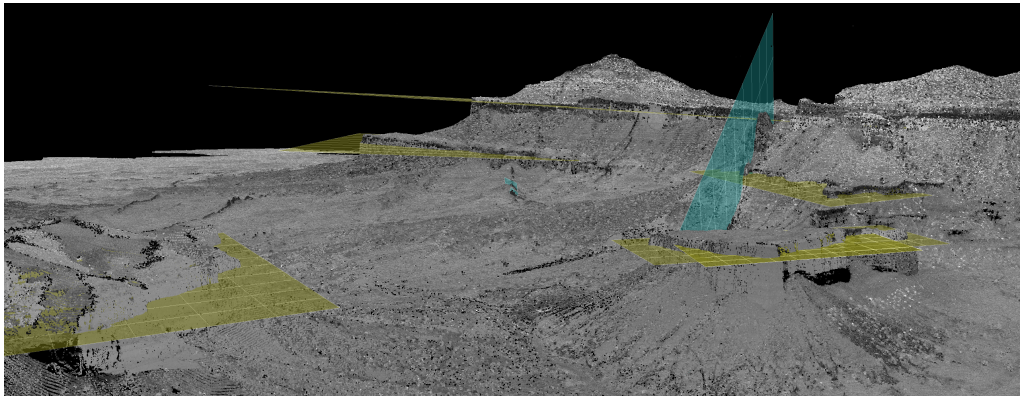

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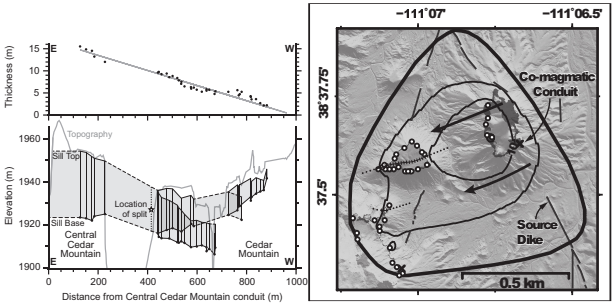

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- Sills
- Total volume, geometry
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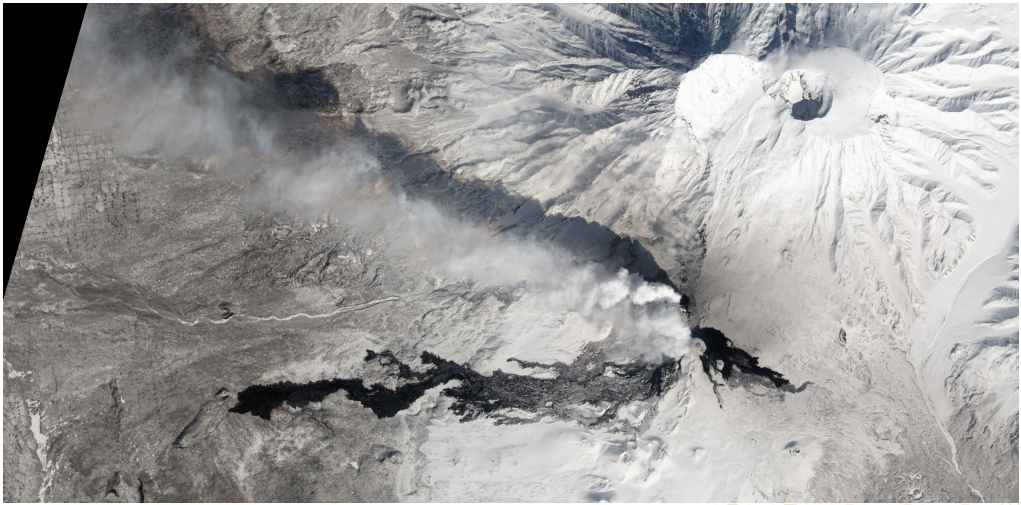
Lava Flows/Simulators



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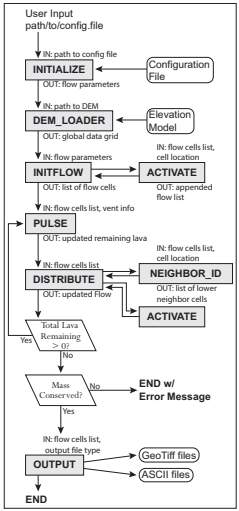
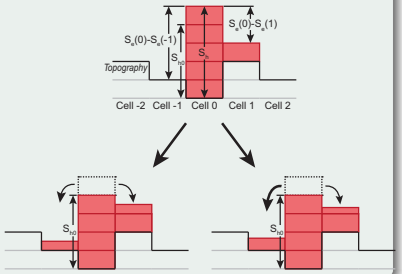


MOLASSES — Modular Lava Simulation Software

- MOLASSES
- CA Code



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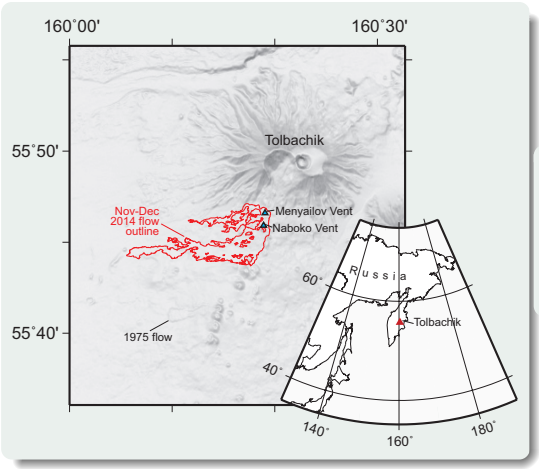
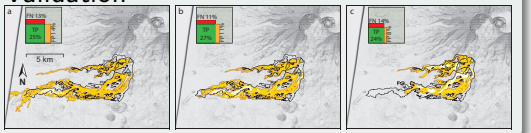
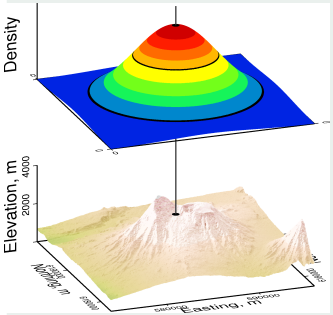
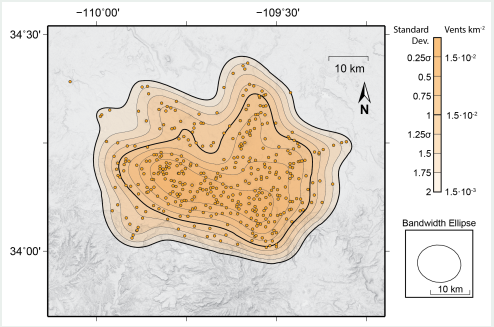


Validation



Spatial Density of Clusters





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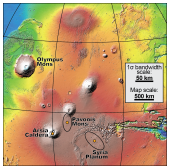

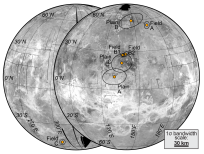

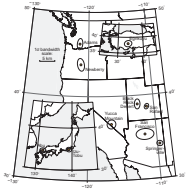

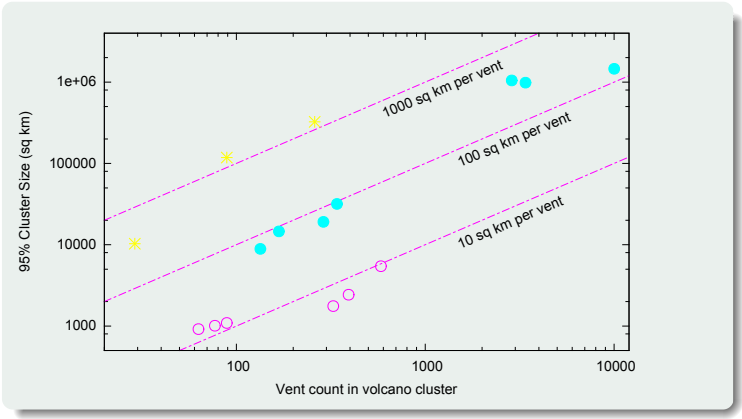

Syria Planum

- catalog
- trend in crater age dating
- spatial density, possible reccurrence rate

Arsia Mons: An introduction

Questions

- How?
- Can?

Mapping

Volume

Ages

VERRM

Recurrence Rate

Volume Flux

Tie in with Ashes and glaciers?

Model of waning volcanism of Arsia

Arsia Specific Conclusions

Other Conclusions

Additional Thanks

Questions?