

LARGE-SCALE VOLCANIC PROVINCES ON VENUS: IMPLICATIONS FOR PLAINS EMBLACEMENT

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The plains of Venus are dominated by volcanism; the significance of the styles and timing of this volcanism are a subject of much debate. As plains terrains cover over 80% of the surface of Venus, their histories hold important information on the thermal and mechanical evolution of the planet. Through geologic mapping and detailed study of full-resolution Magellan radar data, we have identified the major sources of large-scale volcanic provinces on Venus.

The four major types of sources are small edifice fields, central volcanoes, rift zones, and coronae. The scales of these volcanic provinces range from 100's to 1000's of kms. All of the types of volcanic **provinces can be seen to occur at different positions** in the stratigraphic history of Venus. Our preliminary results suggest that the venusian plains are built up of multiple scale large-volcanic provinces with identifiable but differing source regions, and that these styles of volcanism have not **varied significantly in** the portion of venusian history revealed by Magellan data.