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GEOLOGY (ISSN 0091-7613 USPS 994-580 CODEN GLGYB) is published monthly by the Geological Society of America, Inc. (GSA), with offices at 3930 Penrose Place, Boulder, Colorado, USA. Mailing address is P.O. Box 9140, Boulder, CO 80301-9140, USA. Periodicals postage paid at Boulder, Colorado, and at additional mailing offices. Postmaster: Send address changes to GSA Sales & Service, P.O. Box 9140, Boulder, CO 80301-9140, USA.

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Cover: High-resolution (75 m/pixel) synthetic aperture radar image of tesserae in northeast Alpha Regio (Venus) taken during the NASA Magellan Mission. Tesserae are highly deformed materials on Venus (bright regions in the image) that are believed to be some of the oldest materials on the planet. Radar brightness variations in the tesserae (compare the brighter top of the image and the darker bottom of the image) can reveal information about the distribution of crater ejecta in tessera. This, in turn, can be used to identify tesserae that have not been contaminated by crater ejecta; future missions to Venus can then target these uncontaminated regions to measure the composition of the tessera terrains, which has implications for the role of water in the early geologic history of Venus. See “Recent volcanic resurfacing of Venusian craters” by Whitten et al., p. 519–522.

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