fossils attributed to *Cloudina* (Grant, 1990) have been documented from Caborca, Mexico (McMenamin et al., 1983). These fossils occur at a level thought to be stratigraphically equivalent to the lmWCF, in the lowest member of the La Ciénega Formation (Stewart et al., 1984). Furthermore, the faunal succession presented in Figure 1 closely matches the Caborca succession of Stewart et al. (1984), perhaps suggesting a coeval onset of bed-parallel bioturbation, appearance of tubular fossils, and appearance of "*Nevadella*" zone trilobites in southwestern Laurentia.

Biogeographic implications.—Rifting of the supercontinent Rodinia occurred in the late Proterozoic, separating the Cordilleran margin of Laurentia from east Gondwanaland. This rifting may have begun 150–200 million years before the Cambrian (Rogers, 1996; Dalziel, 1997), or possibly much later, in the Vendian (Veevers et al., 1997). Testing of these conflicting hypotheses has been hampered by lack of biogeographically restricted fossils. If rifting occurred in the Vendian, faunas from the recently rifted adjacent margins should be similar. If rifting occurred significantly earlier, endemic faunas would be expected to develop along the different rifted margins, and might co-occur with wide-ranging cosmopolitan forms. *Ernietta* and *Swartpuntia* are not cosmopolitan forms; rather, they are currently known only from Namibia and southwestern North America. The Great Basin assemblage of tubular fossils also resembles that of Namibia; cloudiniids and *Archaeichnium* are common to both regions, further supporting this biogeographic link (Fig. 6; Waggoner, 1999). *Corumbella* and cloudiniids are also known from Brazil, suggesting a link between southwestern Laurentia and South America—both of which are thought to have been adjacent to or along the same rift zone (Hahn et al., 1982; Hahn and Pflug, 1985; Grant, 1990). Co-occurrence of these forms only on cratons thought to be adjacent to one another is even more dramatic when one examines the nearly global distribution of Ediacaran faunas (see overview by Narbonne, 1998). The taxa described herein are restricted to three of the 28 principal Ediacaran-bearing occurrences documented in Narbonne (1998). Although these observations do not disprove an earlier date for rifting, the restricted range of these taxa suggests a significant biogeographic connection between southwestern Laurentia and these Gondwanan cratons in late Vendian time.

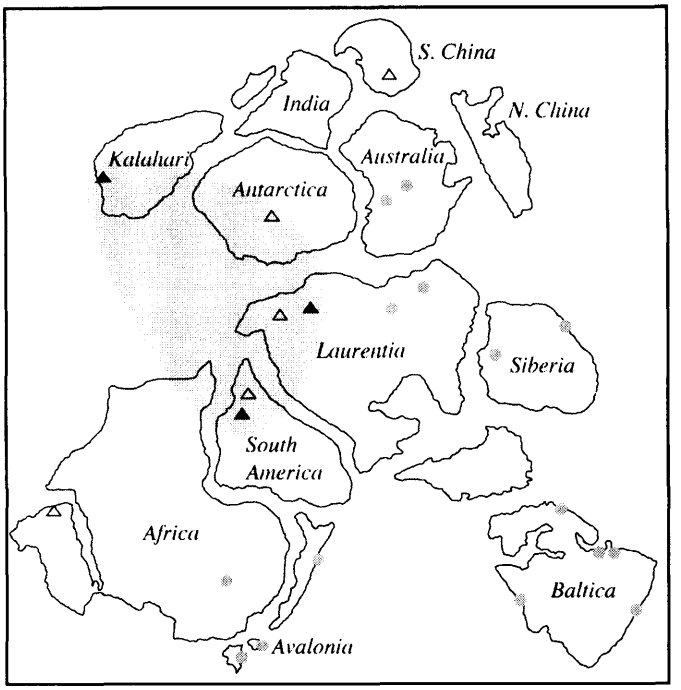

FIGURE 6—Reconstruction of the supercontinent Rodinia in the late Proterozoic (after Rogers, 1996). Open triangles are localities where cloudiniids have been reported (Grant, 1990); solid triangles represent localities where a shared fauna occurs, including *Cloudina, Corumbella, Ernietta,* and/or *Swartpuntia.* Circles indicate other Ediacaran-type faunas of Proterozoic age (modified from Hahn et al., 1980; Grant, 1990; Narbonne, 1998).

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FIGURE 5—Ediacara-type tubular and trace fossils from the southwestern Great Basin. All specimens are from LACMNH loc. 17130 unless otherwise specified. *1–3,* cf. *Cloudina* sp. (smooth type); *1,* LACMNH 12799, ×1; *2,* LACMNH 12800, ×1; *3,* LACMNH 12801, ×1.7. *4, 5, 6, Corumbella* n. sp. A, LACMNH 12802; *4,* part, with lines indicating position of transverse section, ×1; *5,* counterpart (in hyporelief), ×1; *6,* transverse section through part, ×20. *7, Onuphionella* sp., LACMNH 12803, part, ×1.5. *8, 9, Treptichnus pedum; 8,* LACMNH 12804, loc. 17134; note branching of trace in left portion of photograph, ×0.5; *9,* LACMNH 12805, loc. 17134, ×0.5. *10, Helminthoidichnites* sp., LACMNH 12806, loc. 17132 (NH_4Cl coated), ×1.67. *11,* bilobate trace fossil similar to *Scolicia,* LACMNH 12807, loc. 17133, ×1.5. *12,* group of bilobate trace fossils, LACMNH 12808, loc. 17133, ×2.33.

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APPENDIX

LACMNH locality 17129.—Montgomery Mountains. NW¼, NW¼, sec. 15, T18S, R52E. Mt. Schader 7.5" quadrangle. Large boulder of Stirling Quartzite near head of a SW-trending canyon. 4 km (2.5 mi) SW of ghost town of Johnnie, Nye County, Nevada.

LACMNH locality 17130.—Montgomery Mountains. SW¼, NW¼, SW¼, sec. 11, T18S, R52E, Mt. Schader 7.5" quadrangle. Talus slope on E side of an unnamed wash. 3.4 km (2.1 mi) SW of ghost town of Johnnie, Nye County, Nevada.

LACMNH locality 17131.—Spring Mountains, SW¼, sec. 34, T18S, R54E, Horse Springs 7.5" quadrangle. Talus slope immediately NE of Santa Clara Spring, just W of the approximate border between Nye and Clark Counties, Nevada.

LACMNH locality 17132.—Nopah Range. SE¼, SE¼, SW¼, sec. 11, T20N, R8E, Tecopa Pass 7.5" quadrangle. Talus exposed on N-trending ridge about 2.4 km (1.5 mi) NNE of Noonday Mine, Inyo County, California.

LACMNH locality 17133.—Nopah Range. NE¼, NE¼, NE¼, sec. 14, T20N, R8E, Tecopa Pass 7.5" quadrangle. Exposures along floor of deep W-draining gully, approximately 2 km (1.2 mi) NE of Noonday Mine and 3 km (1.8 mi) W of Mesquite Valley Road, Inyo County, California.

LACMNH locality 17134.—Montgomery Mountains. NW¼, SW¼, SW¼, sec. 11, T18S, R52E, Mt. Schader 7.5" quadrangle. W-facing exposure on E side of incised canyon. 3.3 km (2.0 mi) SW of ghost town of Johnnie, Nye County, Nevada.