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The following review appeared in the May 2013 issue of CHOICE:

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Clancey, William J. **Working on Mars: voyages of scientific discovery with the Mars Exploration Rovers.** MIT, 2012.
310p bibl index afp ISBN 9780262017756, \$29.95

From 2002 to 2005, computer and social scientists watched natural scientists and engineers direct two Mars Exploration Rovers (MERs). After 90 intense days working together at the Jet Propulsion Laboratory, the scientists continued directing the rovers for years from their home institutions. Clancey (NASA Ames Research Center), the lead observer, uses this experience and in-depth interviews with seven of the natural scientists to argue that investigating a planetary surface through a rover constitutes a new kind of field science. There are parallels with exploration in the days of Alexander von Humboldt and previous interplanetary voyages of discovery, but the MER mission required hundreds of people to use virtual reality software collaboratively to assimilate results and chart a new course daily. It also differed from conventional field science in the snail's pace of the rovers and the in situ chemical analyses they carried out. Clancey draws lessons for future missions, but they seem limited and mechanistic. It is an interesting case study of how "big science" gets done, focusing on social dynamics, but the account gets repetitive. It is most engaging when detailing the joys and frustrations of scientists learning to work with the MERs and each other, but the methodological analyses seem ponderous. **Summing Up:** Recommended. Graduate students and above. -- *B. M. Simonson, Oberlin College*