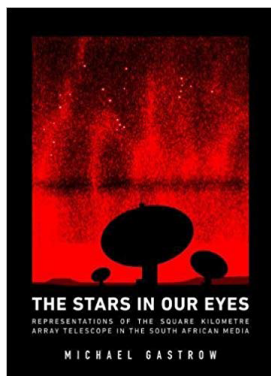


The Square Kilometre Array radio telescope: A media darling

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The stars in our eyes:
Representations of the Square
Kilometre Array telescope in the
South African media

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Michael Gastrow is a member of the Education and Skills Development Programme of the Human Sciences Research Council (HSRC), with a special interest in public relations with science. The subject of his book is the manner in which the Square Kilometre Array (SKA) radio telescope has been presented to the South African public. Enjoying strong political support and as the most expensive scientific project to be constructed in the country, the SKA has been something of a media darling.

Although the international SKA project began in 2000 and construction has yet to start, the book confines itself to a very brief interval in its history, namely September 2011 to August 2012, during which time the decision was reached to site the instrument partly in the Karoo and partly in Western Australia.

The data for Gastrow's thesis-like book comprise 174 articles from print and online media together with 1588 tweets and 27 interviews. These form a rather small core of information that is examined from every conceivable angle. The interviews mentioned were with spokespersons for the government agencies involved, a mere seven science journalists, various managers, public relations people within the SKA project and relevant university staff.

The placing of a scientific story in the print media by a science journalist is the result of a two-step process. Firstly, information has to be accumulated, usually by interaction with individual scientists and organisational spokespersons. The written article then must get over a serious hurdle which is the 'gatekeeping' that takes place in the newsroom: an editor must decide if a story is going to have enough impact to be worth publishing. Of course, tweeting in the electronic media is a less formal route but one that usually has less public impact.

Although the South African media have presented the SKA as a largely South African project, it is very much an international project, with its headquarters at Jodrell Bank in England. The competition, effectively between South Africa and Australia, over its location was easily the most interesting source of news stories so far as local editors were concerned – the leaked details of the penultimate decisions on this issue and the last minute politicking on how the split was to be made between the two countries provided plenty of grist for the editorial mills.

Various peripheral issues have, however, received relatively little attention in the press. The *Astronomy Geographic Advantage Act (2007)*, strongly supported by the South African government, was a potential 'hot potato', impinging as it does on fracking interests and effectively banning cellphones and petrol-engined vehicles from the neighbourhood of the telescope. Local farmers and their workers have been vocal about their concerns and these concerns have had to be taken seriously.

Why this particular project resonated so successfully with the ANC government is a question that has frequently been posed and is also considered here. Gastrow quotes the political scientist Keith Gottschalk who suggested at a symposium of the Astronomical Society of Southern Africa in 2005 that national prestige, the dignity of the African continent and black dignity itself were the considerations with the greatest political appeal. Other justifications frequently mentioned are the technological benefit that the development of the equipment will bring to the country and its aspect as a beacon to attract interest in science and engineering in future generations. This point of view echoes somewhat a widely quoted 1996 White Paper of the then Department of Arts, Culture, Science and Technology:

Scientific endeavour is not purely utilitarian in its objectives and has important associated cultural and social values. It is also important to maintain a basic competence in 'flagship' sciences such as physics and astronomy for cultural reasons. Not to offer them would be to take a negative view of our future – the view that we are a second class nation, chained forever to the treadmill of feeding and clothing ourselves.

The book is quite unusual from a scientist's point of view, in that it is not concerned with the SKA per se, but rather with its treatment in the media. Strictly speaking, the construction of the SKA is not science, but an engineering exercise that is expected to yield a telescope with an unprecedented capability that may reasonably be expected to lead to new insights and discoveries in the fullness of time. Such outcomes have normally been the experience as telescopes of larger and larger diameters have been constructed, as also with more and more powerful particle accelerators.

