

# **Rock art conservation and management resource kit (version 1.0)**

Cybèle McNeil and Paul S. C. Taçon

PERAHU, School of Humanities, Griffith University, Queensland, Australia.  
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## **Introduction**

This document was produced as a resource on rock art conservation and management. It may be freely distributed without permission. Many references listed below are also listed in David Lambert's (2007) 'Rock art conservation guidelines' (DECC, Sydney South). This resource has lots of information on many of the topics listed below and can be considered one of the best general references. Note that we use a \* to indicate an Australian source for references. The database is by no means exhaustive and is intended to be an ongoing project. Any general feedback or suggestions for improvement are welcome.

## **Animal and Insect Impact Management**

\*Brady, L.M., Thorn, A., McNiven, I.J., & Evans, T.E. 2010. Rock-Art Conservation and Termite Management in Torres Strait, NE Australia. *Rock Art Research*, vol. 27, no.1, pp. 19-34

\*Slater, P 1992, *The Slater field guide to Australian birds (revised editions)*, Weldon Publishing, Sydney.

\*Naumann, I D 1983, 'The biology of mudnesting Hymenoptera (and their associates) and Isotoptra in rock shelters in the Kakadu region, NT', in *The Rock Art Sites of Kakadu National park: some preliminary research findings for their conservation and management*, ed. D A Gillespie, Australian National Parks and Wildlife Service, Canberra, pp. 127-189.

\*Watson, J A & J M Flood 1987, 'Termite and wasp damage to Australian rock art', *Rock Art Research*, no.4, pp. 17-28.

## Conservation General

\*Bednarik, R G 1991, 'The Paroong Cave Preservation Project', in *Rock art and posterity: conserving, managing and recording rock art*, eds C Pearson & B K Swartz, Jr, *Proceedings of Symposium M, Conservation and Site Management' and Symposium E, Recording and standardisation in rock art studies, Darwin 1988*, Occasional AURA Publication no. 4, Australian Rock Art Research Association, Melbourne pp. 66-70.

\*Blanks, T & Brown, S 1991, 'Mt Cameron West Rock Art Protection Project: an assessment of the conservation program undertaken to June 1988', in *Rock art and posterity: conserving, managing and recording rock art*, eds C Pearson & B K Swartz, Jr, *Proceedings of Symposium M, Conservation and Site Management' and Symposium E, Recording and standardisation in rock art studies, Darwin 1988*, Occasional AURA Publication no. 4, Australian Rock Art Research Association, Melbourne pp.45-51.

\* Clarke, J & North, N 1991, 'Chemistry of deterioration of post-estuarine rock art in Kakadu National Park', in *Rock art and posterity: conserving, managing and recording rock art*, eds C Pearson & B K Swartz, Jr, *Proceedings of Symposium M, Conservation and Site Management' and Symposium E, Recording and standardisation in rock art studies, Darwin 1988*, Occasional AURA Publication no. 4, Australian Rock Art Research Association, Melbourne pp. 88-92.

\*Clarke, J & North, N 1991, 'Pigment composition of post-estuarine rock art in Kakadu National Park', in *Rock art and posterity: conserving, managing and recording rock art*, eds C Pearson & B K Swartz, Jr, *Proceedings of Symposium M, Conservation and Site Management' and Symposium E, Recording and standardisation in rock art studies, Darwin 1988*, Occasional AURA Publication no. 4, Australian Rock Art Research Association, Melbourne pp. 80-87.

\*Clarke, J, Lambert, D, Haydock, P & Flood, J 1991, 'Yiwalalay: an assessment of the current state of preservation and recommendations for future conservation', in *Rock art and posterity: conserving, managing and recording rock art*, eds C Pearson & B K Swartz, Jr, *Proceedings of Symposium M, Conservation and Site Management' and Symposium E, Recording and standardisation in rock art studies, Darwin 1988*, Occasional AURA Publication no. 4, Australian Rock Art Research Association, Melbourne pp. 93-96.

Ernfridsson, E , Hagelia, P, Bårdseth, G A, Enzensberger, T & Berg, K M, 'Protection of Scandinavian rock art using marine clay', *Rock Art Research*, vol. 27, no. 2, pp. 195-206.

\*Fourmile, H, 1995, 'The Politics of Managing Aboriginal Rock Imagery', in *Management of Rock Imagery*, eds. G. K. Ward, & Ward, L.A, Australian Rock Art Research Association [Occasional AURA Publication No. 9], Melbourne, pp. 39-41.

Getty Conservation Institute Newsletter 2006, vol. 21, no. 3. Available from:  
<[http://www.getty.edu/conservation/publications/newsletters/21\\_3/](http://www.getty.edu/conservation/publications/newsletters/21_3/)>

Gibbons, G S 1984, 'Research needs for physical conservation of rock art', *Rock Art Research*, Vol 1, no. 1, pp. 46-49.

\*Hall, N 1999, 'Building blocks and stepping stones: some key foundations in the development of rock art conservation in Australia.', *Archaeology in Oceania*, vol. 34, no.1, pp. 61-170.

\*Hascovec, I P 1991, 'On some non-technical issues of conservation', in *Rock art and posterity: conserving, managing and recording rock art*, eds C Pearson & B K Swartz, Jr, *Proceedings of Symposium M, Conservation and Site Management' and Symposium E, Recording and standardisation in rock art studies, Darwin 1988*, Occasional AURA Publication no. 4, Australian Rock Art Research Association, Melbourne pp. 97-99.

Hygen, A 1996, 'Conservation, intervention or destruction of rock art? Some Scandinavian experiences', *Rock Art Research*, vol. 13, no.1, pp. 49-52.

\*Hughes, P J, Flood, J, Sullivan, S, Lambert, D, Morwood, M J, Coutts, P J F, Gunn, R G, Gillespie, D A, Clarke, J, Ambrose, W R & Gordon, J L 1984, 'The state of Australian rock art research and conservation in 1980', *Rock Art Research*, vol. 1, no. 2, pp. 119-140.

\*Lambert, D 2007 'Introduction to rock art conservation: a guide to the preservation of Aboriginal rock art', Department of Environment and Climate Change, Sydney South.

Loubser, J 1995, 'A tale of two shelters: contrasting site management in South Africa and Lesotho', in *Proceedings of Symposium H – Management of Rock Imagery, Second International Congress of the Australian Rock Art Research Association, Cairns 1992*, eds G Ward & L Ward, Occasional AURA Publication No. 9. Melbourne: Australian Rock Art Research Association, pp. 22-5.

Loubser, J 2001, 'Management Planning for Conservation', in *Handbook of Rock Art Research*, ed. D. Whitley, Altamira Press, Lanham, pp. 80-115.

Ritter, E W 1991, 'Conservation and Protection within the American Rock Art Research Association', in *Rock art and posterity: conserving, managing and recording rock art*, eds C Pearson & B K Swartz, Jr, *Proceedings of Symposium M, Conservation and Site Management' and Symposium E, Recording and standardisation in rock art studies, Darwin 1988*, Occasional AURA Publication no. 4, Australian Rock Art Research Association, Melbourne pp. 7-15.

Schwartzbaum, P M 1985, 'The role of conservation techniques in rock art preservation', *Rock Art Research*, vol. 2, no. 1, pp. 65-70.

Soleilhavoup, F 1985, 'Les paysages de l'art rupestre de plein air: vers une normalisation des méthodes d'étude et de conservation (with Comments by Josephine Flood, Whitney Davis, F. L. Virili and Andrée Rosenfeld)', *Rock Art Research*, vol. 2, no.2, pp. 119-140.

Strecker, M & Taboada, F 1999, 'Rock art protection in Bolivia', *Rock Art Research*, vol. 16, No. 1, pp. 36-41.

Tyagi, G S 1991, 'Conservation of Indian rock art', in *Rock art and posterity: conserving, managing and recording rock art*, eds C Pearson & B K Swartz, Jr, *Proceedings of Symposium M, Conservation and Site Management' and Symposium E, Recording and standardisation in rock art studies, Darwin 1988*, Occasional AURA Publication no. 4, Australian Rock Art Research Association, Melbourne pp.28-29

Walderhaug Saetersdal, E M, 2000, 'Ethics, politics and practices in rock art conservation', *Public Archaeology*, vol, 18, no. 3, pp. 163-180.

\*Walsh, G L 1984, 'Archaeological site management in Carnarvon National Park: A case history in the dilemma of presentation or preservation', in *Visitors to Aboriginal Sites: Access, Control and Management. Proceedings of the 1983 Kakadu Workshop*, Ed. H Sullivan, Australian National Parks and Wildlife Service, Canberra, pp.1-14.

Ward, G K & Ward, L A (eds), 1995, 'Management of Rock Imagery', Australian Rock Art Research Association [Occasional AURA Publication No. 9], Melbourne.

\*Ward, G K 2011, 'The role of AIATSIS in research and protection of Australian rock art', *Rock Art Research*, vol. 28, no. 1, pp. 7-16.

### **Damage from Industry**

\*Bednarik, R G 2011, 'The Dampier campaign', *Rock Art Research*, vol. 28, no. 1, pp. 27-34.

Faulstich, P 1991, 'From ashes to gravestones: the charcoal drawings of Gua Badak, Malaysia', in *Rock art and posterity: conserving, managing and recording rock art*, eds C Pearson & B K Swartz, Jr, *Proceedings of Symposium M, Conservation and Site Management' and Symposium E, Recording and standardisation in rock art studies, Darwin 1988*, Occasional AURA Publication no. 4, Australian Rock Art Research Association, Melbourne pp. 24-27.

\*Mulvaney, K 2011, 'Dampier Archipelago: decades of development and destruction', *Rock Art Research*, vol. 28, no. 1, pp. 17-26.

## Education and Training

Fossati, A 2003, ‘ “But they are only puppets ...”’. Problems of management and educational programs in Rock Engraving National Parks, Valcamonica and Valtellina, Lombardy, Italy’, , *Rock Art Research*, vol. 20, no.1, pp. 25-30.

\*Franklin,N 2003, ‘Current initiatives in rock art management and public education in Queensland’, *Rock Art Research*, vol. 20, no.1, pp. 48-52.

Hygen, A S 2003, ‘Co-operation for education—filling the demand for educational tools: a joint Swedish-Norwegian program for rock art education, information and tourism’, *Rock Art Research*, vol. 20, no.1, pp. 31-33.

Olsson, C 2003, ‘Education, museums and schools: new approaches in the Tanum World Heritage Area, Sweden’, *Rock Art Research*, vol. 20, no.1, pp. 37-40.

\*Pearson, C 1991, ‘Graduate Diploma in conservation of rock art: a joint project between the Canberra College of Advanced Education and the Getty Conservation Institute, in *Rock art and posterity: conserving, managing and recording rock art*, eds C Pearson & B K Swartz, Jr, *Proceedings of Symposium M, Conservation and Site Management’ and Symposium E, Recording and standardisation in rock art studies, Darwin 1988*, Occasional AURA Publication no. 4, Australian Rock Art Research Association, Melbourne pp. 104-108.

Price, N P S 1991, ‘Training for rock art conservation: recent initiatives of the Getty Conservation Institute’, in *Rock art and posterity: conserving, managing and recording rock art*, eds C Pearson & B K Swartz, Jr, *Proceedings of Symposium M, Conservation and Site Management’ and Symposium E, Recording and standardisation in rock art studies, Darwin 1988*, Occasional AURA Publication no. 4, Australian Rock Art Research Association, Melbourne pp. 100-103.

\*Watchman, A 1989, ‘The Post-Graduate Diploma Course in Rock Art Conservation’, *Rock Art Research*, Vol. 6, no.2, pp. 104-105.

\*Ward, G K. and S. Sullivan, 1989, ‘The Australian Institute of Aboriginal Studies Rock Art Protection Program’, *Rock Art Research*, vol. 6, no. 1, pp. 54-62.

\*Ward, G K 2010, ‘Rock paintings near Wadeye, Northern Territory: site management and educational aspects of research and tourism’, *Rock Art Research*, vol. 27, no. 2, pp. 229-237.

## **Fire Management**

\*Franklin, N R 2011, 'Visitor books in the management of rock art sites: an evaluation using Carnarvon Gorge as a test case', *Rock Art Research*, vol.28 , no. 2, pp. 251-264.

\*Gunn, R G, 'The impact of bushfires and fuel reduction burning on the preservation of shelter rock art', *Rock Art Research*, vol. 28, no. 1, pp. 53-69.

Lambert, D & Welsh, B 2011, 'Fire and rock art', *Rock Art Research*, vol. 28, no. 1, pp. 45-52.

\*Sefton, C 2011, 'The effects of fire on the rock art of the Woronora Plateau', *Rock Art Research*, vol. 28, no. 1, pp. 49-52.

## **Highlighting Engravings for Public Display**

\*Lambert, D J 1994, *Conserving Australian rock art: a manual for site managers*, Aboriginal Studies Press.

\*Rosenfeld, A 1985, *Rock art conservation in Australia*, Special Australian Heritage Publication, no. 2, Australian Government Publishing Service, Canberra.

## **Lichen Impact and Treatment**

Childers, B 1994, 'Long-term lichen-removal experiments and petroglyph conservation: Fremont County, Wyoming, Ranch Petroglyph Site', *Rock Art Research*, vol. 11, no. 2, pp. 101-112.

\*Ford, B, Officer, K & Macleod 2002, *A study of lichen invasion at Nursery Swamp 2, Aboriginal rock art site, Namadgi National Park, ACT*, Unpublished Report for ACT National Parks Association.

\*Lambert, D J 1994, *Conserving Australian rock art: a manual for site managers*, Aboriginal Studies Press.

Tratebas, A M & Chapman., F 1996, 'Ethical and conservation issues in removing lichens from petroglyphs', *Rock Art Research*, vol. 13, no. 2, pp.129-133.

## **Monitoring and Recording**

\*Brady, L. M., 2007, 'A Different Look: comparative rock-art recording from the Torres Strait using computer enhancement techniques', *Australian Aboriginal Studies*, vol.1, pp. 98-115.

\*Chandler, J H, Fryer, J G & Kniest, H T, 'Non-invasive three-dimensional recording of Aboriginal rock art using cost-effective digital Photogrammetry', *Rock Art Research*, vol. 22, no. 2, pp. 119-130.

Henderson, J W 1995, 'An improved procedure for the photographic enhancement of rock paintings', *Rock Art Research*, vol. 12, no.2, pp. 75-85.

\*Lambert, D J 1994, *Conserving Australian rock art: a manual for site managers*, Aboriginal Studies Press.

\*Lambert, D 1995, 'Colour monitoring', in *Management of Rock Art Imagery, Second International Congress of the Australian Rock Art Research Association (AURA)*, publication no.9. (\*\*pages?)

Lambert, D 1991, 'Monitoring Cave Paintings for Pigment Loss and Deterioration', in *Rock Art – the way ahead*, South African Rock Art Research Association, Occasional Publication, no.1 , pp.18-23.

McLaren, K 1983, *The colour science of dyes and pigments*, Adam Hiliger Ltd, Bristol.

\*McNiven, I J, David, B & Brayer, J 2000, 'Digital Enhancement of Torres Strait Rock Art', *Antiquity*, vol.74, pp. 759-60.

Minolta Camera Co Ltd 1988, *Precise colour communication*.

Trinks, I, Díaz-Andreu, M, Hobbs, R & Sharpe, K E 2005, 'Digital rock art recording: visualising petroglyphs using 3D laser scanner data', *Rock Art Research*, vol. 22, no. 2, pp. 131-140.

### **Other Environmental Factors**

Bastian, F & Alabouvette, C 2009, 'Lights and shadows on the conservation of a rock art cave: The case of Lascaux Cave', *International Journal of Speleology*, vol. 38, no. 1, pp. 55-60.

Hall, K, Meiklejohn' I &Arocena' J 2007, 'The thermal responses of rock art pigments: Implications for rock art weathering in southern Africa', *Geomorphology*, vol. 91, no. 1-2, Pp.132-145.

Hoerle, S & Salomon, A 2004, 'Microclimatic data and rock art conservation at game pass shelter in the kamberg nature reserve, kwazulu-natal', *South African Journal of Science*, vol. 100, no.7-8, pp. 340-341.

Hoerle, S 2006, 'Rock temperatures as an indicator of weathering processes affecting rock art', *Earth Surface Processes and Landforms*, vol. 31, no. 3, pp. 383–389.

Vidal, P, Vouve, J & Brunet, J 1991, 'Les Grottes des Combarelles (Les Eyzies, France): apports de la connaissance de l'environnement a la conservation des gravures', in *Rock art and posterity: conserving, managing and recording rock art*, eds C Pearson & B K Swartz, Jr, *Proceedings of Symposium M, Conservation and Site Management' and Symposium E, Recording and standardisation in rock art studies, Darwin 1988*, Occasional AURA Publication no. 4, Australian Rock Art Research Association, Melbourne pp. 57- 65.

Zilhao, J 1998, 'The rock art of the Côa valley, Portugal: Significance, conservation and management', *Conservation and Management of Archaeological Sites*, London, Vol. 2, pp. 193-206.

### **Repainting of Rock-Art Imagery**

\*Blundell, VJ & Woolagoodja, D 2005, *Keeping the Wanjinias fresh. Sam Woolagoodja and the enduring power of Lalai*, Fremantle Arts Centre Press, Fremantle.

\*O'Connor, S, Barham, A, & Woolagoodja, D 2008, 'Painting and repainting in the west Kimberley', *Australian Aboriginal Studies*, vol. 2008, no. 1, pp. 22-38.

\*Vinnicombe, P 1992, 'Kimberley ideology and the maintenance of sites' in *Retouch: Maintenance and conservation of Aboriginal rock imagery. Occasional AURA Publication No. 5*, ed GK Ward, Australian Rock Art Research Association, Melbourne, pp. 10-11.

\*Walsh, GL 1992, 'Rock art retouch: Can a claim of Aboriginal descent establish curation rights over humanity's cultural heritage?' in *Rock Art and Ethnography. Occasional AURA Publication No.5*, eds MJ Morwood & DR Hobbs, Australian Rock Art Association, Melbourne, pp. 47-59.

\*Ward, G 1988, 'Retouch: an option to conservation?', *Rock Art Research*, vol. 5, no. 1, p. 69.

### **Rock-Art Management & Community Engagement**

\*Brady, L M, David, B, Manas, L & Mualgal (Torres Strait Islanders Corporation) 2003, 'Community archaeology and oral tradition: commemorating and teaching cultural awareness on Mua island, Torres Strait', *Australian Journal of Indigenous Education*, Volume 31, pp. 41- 49.

Gwasira, G 2003, 'Community involvement in rock art site management in Namibia', *Rock Art Research*, vol. 20, no.1, pp. 34-36.



\*Palmer, D, Watson, J, Watson, A, Ljubic, P, Wallace-Smith, H & Johnson, M 2006, "Going Back to Country with Bosses": The Yiriman Project, Youth Participation and Walking along with Elders', vol. 16, no. 2, pp. 317-337.

Zilhão, J 2003, 'The Côa valley: research and management of a World Heritage rock art site', *Rock Art Research*, vol. 20, no.1, pp. 53-68.

### **Salt Decay and Treatment**

Amoroso, G G & Fassina, V 1983, *Stone decay and conservation*, Elsevier, Amsterdam.

\*Lambert, D J 1980, 'The influence of groundwater salts in the formation of sandstone shelters near Gosford, NSW', *ICCM Bull.*, no. 6 (3, 4), pp. 29-34.

Lewin, S Z 1982, 'The mechanism of masonry decay through crystallisation', in *Conservation of Historic Stone Buildings and Monuments*, ed. N S Baer, National Academy Press, New York, pp. 120-144.

\*Rosenfeld, A 1985, *Rock art conservation in Australia*, Special Australian Heritage Publication, no. 2, Australian Government Publishing Service, Canberra.

Schwartzbaum, P M 1985, 'The role of conservation techniques in rock art preservation', *Rock Art Research*, no. 1, pp. 65-70

Winkler, E M 1973, *Stone: properties, durability in man's environment*, Springer Verlag, New York.

### **Soil and Vegetation Impact Management**

Ollier, C D 1976, *Weathering*, Longman, London.

\*Walsh, G L 1984, *Managing the archaeological sites of the sandstone belt*, Central Queensland Aboriginal Corporation for Cultural Activities and Queensland National Parks and Wildlife Service, Canberra, pp. 32-40.

Winkler, E M 1973, *Stone: properties, durability in man's environment*, Springer Verlag, New York.

## **Vandalism and Graffiti Management**

\*Clarke, J 1978, 'Conservation and restoration of paintings and engraving sites in Western Australia', in *Conservation of Rock Art, proceedings of the International Workshop on the conservation of Rock Art, Perth, September 1997*, Institute for the Conservation of Cultural Material, Sydney, pp. 89-94.

\*Ford, B 1995, 'Portable air abrasive for rock art graffiti removal, in Preservation of Rock Art', *Proceedings of Symposium G-Preservation of Rock Art, Second International Congress of the Australian Rock Art Research Association, Cairns, 1992*, eds Thorn & Brunet, Occasional AURA Publication, no. 9, Melbourne, pp. 72-76.

\*Godwin, L 1992, 'Carve your name with pride? Visitor behavior at Blacks Palace art site complex, Central Queensland Highlands', *Rock Art Research*, Vol. 3, pp. 3-19.

Griswold, J 1999, 'Camouflaging Graffiti: The Problem of Outdoor Inpainting', in *Rock Art Preservation and Conservation Symposium (1994: Flagstaff, Ariz.), Images Past, Images Present: the Conservation and Preservation of Rock Art. Proceedings from the Roc Art Preservation and Conservation Symposium, International Rock Art Congress, Flagstaff, Arizona, 1994*, ed. C Dean, Tucson. American Rock Art Research Association, pp. 41-6.

\*Morwood, M J & Kaiser-Glass, Y 1991, 'The use of graffiti in the monitoring of community attitudes towards Aboriginal rock art', *Rock Art Research*, vol. 8, no.2, pp. 94 -95.

\*Thorn, A 1991, 'The removal of recent overpaint from the image of Bunjil', in *Rock art and posterity: conserving, managing and recording rock art, eds C Pearson & B K Swartz, Jr, Proceedings of Symposium M, Conservation and Site Management' and Symposium E, Recording and standardisation in rock art studies, Darwin 1988*, Occasional AURA Publication no. 4, Australian Rock Art Research Association, Melbourne pp. 71-79.

## **Visitor Management**

Bahn, P G, Bednarik, R G & Steinbring, J 1995, 'The Peterborough petroglyph site: reflections on massive intervention in rock art', *Rock Art Research*, vol. 12, no. 1, pp. 29-41.

Brown, R, Flinders, C, Swartz, J & Wilkinson, R 2003, 'Visitor books – a tool for planning and evaluating visitor management at rock art sites', *Rock Art Research*, vol. 20, pp. 41-47.

\*Buhrich, A 2001, Monitoring visitor behavior at the remote rock art site of Split Rock, Laura', Unpubl. BA (hons) thesis, School of Human and Environmental Studies, University of New England, Armidale.

\*Buhrich, A 2002, 'The use of visitor books as management tools at rock art sites in Australia', in *Barriers, borders, boundaries: proceedings of the 2001 Australian Archaeological Association Annual conference*, Tempus 7, eds. S Ulm, C Westcott, J Reid, A Ross, I Lilley, J Prangnell & L Kirkwood, Anthropology Museum, University of Queensland, Brisbane, pp. 121-125.

\*Caldicott, E 1991, 'Aboriginal art sites near Adelaide, South Australia', *Rock art and posterity: conserving, managing and recording rock art*, eds C Pearson & B K Swartz, Jr, *Proceedings of Symposium M, Conservation and Site Management' and Symposium E, Recording and standardisation in rock art studies, Darwin 1988*, Occasional AURA Publication no. 4, Australian Rock Art Research Association, Melbourne pp.30-33.

\*Clark, I D, 'Naming sites: Names as management tools in indigenous tourism sites – An Australian case study', *Tourism Management*, Volume 30, Issue 1, pp. 109-111.

Dragovich, D 1986, 'A plague of locusts, or manna from heaven? Tourists and conservation of cave art in southern France (with Comments by Paul G. Bahn, Jacques Brunet, Jean Clottes, Fay Gale, Jane Jacobs, David Lambert, Michel Lorblanchet and François Soleilhavoup; with author's reply)', *Rock Art Research*, vol.3, no. 2, pp. 141-157.

Dragovich, D 1995, 'Site management and the visitor book, Mootwingee', in *Management of Rock Imagery*, eds G Ward & L Ward, Occasional AURA Publication No. 9. Melbourne: Australian Rock Art Research Association, p. 103-106.

\*Franklin, N R & Simmons, A 1996, *Baloon Cave, Carnarvon Gorge: a visitor survey to determine future management directions for a visited Aboriginal art site*, Unpubl. Report to the cultural Heritage Branch and Roma District Office, Queensland Department of Environment.

Franklin, N (ed.) 2003, 'Rock art management and education programs for site visitors', *Rock Art Research*, vol. 20, no. 1, pp. 23-52.

Gale, F & Jacobs, J. 1986, 'Identifying high-risk visitors at aboriginal art sites', in *Australia. Rock Art Research. Melbourne*. Vol. 3, No.1, pp. 3-12.

\*Gale, F 1983, 'The protection of Aboriginal rock art from tourists at Ubirr, Kakadu National Park', in *Visitors to Aboriginal Sites: access, control and management, proceedings of the 1983 Kakadu Workshop*, ed. H Sullivan, Australian National Parks and Wildlife Service, Canberra, pp. 32-40.

\*Gale, F & Jacobs, J M 1987, *Tourists and the national estate: procedures to protect Australia's Heritage*, Australian Government Publishing Service, Canberra (Special Australian Heritage Publication Series).

\*Gunn, R G 2001, 'Visitor books and visitor numbers in the Grampians National Park', *Rock Art Research*, vol. 18, no.2, pp. 107-113.

\*Randolph, P & Wallam, J 1991, 'Padjari Manu (formerly Bunbury) Cave, North West Cape, Western Australia: planning for tourism', in *Rock art and posterity: conserving, managing and recording rock art*, eds C Pearson & B K Swartz, Jr, *Proceedings of Symposium M, Conservation and Site Management' and Symposium E, Recording and standardisation in rock art studies, Darwin 1988*, Occasional AURA Publication no. 4, Australian Rock Art Research Association, Melbourne pp. 52 -56.

\*Sullivan , H 1991, ' Site Management in Kakadu and Uluru National Parks', in *Rock art and posterity: conserving, managing and recording rock art*, eds C Pearson & B K Swartz, Jr, *Proceedings of Symposium M, Conservation and Site Management' and Symposium E, Recording and standardisation in rock art studies, Darwin 1988*, Occasional AURA Publication no. 4, Australian Rock Art Research Association, Melbourne pp. 3-6.

\*Sullivan, H 1995, 'Visitor management at painting sites in Kakadu National Park', in *Management of Rock Imagery*, eds G Ward & L Ward, Occasional AURA Publication No. 9. Melbourne: Australian Rock Art Research Association, pp. 82-5.

Ucko, P J 2000, 'Enlivening a "dead" past', *Conservation and management of archaeological sites*, London. 4, pp. 67-92.

Vidal, P, Vouve, J & Brunet, J 1991, 'La Grotte des Combarelles I aux Eyzies; aménagement et contact direct du public avec les oeuvres pariétales', in *Rock art and posterity: conserving, managing and recording rock art*, eds C Pearson & B K Swartz, Jr, *Proceedings of Symposium M, Conservation and Site Management' and Symposium E, Recording and standardisation in rock art studies, Darwin 1988*, Occasional AURA Publication no. 4, Australian Rock Art Research Association, Melbourne pp.16-23.

\*Walsh, G L 1991, 'Flinders Group National Park site management: regional cultural resource evaluation, preservation and selective presentation in far north Queensland', *Rock art and posterity: conserving, managing and recording rock art*, eds C Pearson & B K Swartz, Jr, *Proceedings of Symposium M, Conservation and Site Management' and Symposium E, Recording and standardisation in rock art studies, Darwin 1988*, Occasional AURA Publication no. 4, Australian Rock Art Research Association, Melbourne pp. 34-44.

## **Water Impact and Treatment**

\*Lambert, D J 1973, 'Natural silica formation over Aboriginal charcoal drawings near Gosford, NSW', *ICCM Bull.* Vol. 5, no. 2, pp. 45-48.

\*Rosenfeld, A 1985, *Rock art conservation in Australia*, special Australian Heritage Publication, no. 2, Australian Government Publishing Service, Canberra.

Wainwright, I N M 1985, 'The state of research in rock art: rock art conservation in Canada', *Bolletino del Centro Camuno di Studi Preistorici*, vol 22. Pp 15-46.

Winkler, E M 1973, *Stone: properties, durability in man's environment*, Springer Verlag, New York.

### **Websites**

\*Aura, *Rock-art conservation guide*, <<http://mc2.vicnet.net.au/home/conserv/web/index.html>>

\*Australian Institute for the Conservation of Cultural Material, *Rock-art conservation in South Africa*, <[http://www.aiccm.org.au/index.php?option=com\\_content&view=article&id=433:rock-art-conservation-in-south-africa&catid=93:rock-art-conference-1977&Itemid=47](http://www.aiccm.org.au/index.php?option=com_content&view=article&id=433:rock-art-conservation-in-south-africa&catid=93:rock-art-conference-1977&Itemid=47)>

Getty Conservation Institute, *Conservation of rock-art*, <<http://www.getty.edu/conservation/education/rockart/index.html>>

Rock Art Conservation Centre of Tanzania, <<http://www.racetz.org/>> and <[http://www.youtube.com/watch?v=ufI\\_wA3deIc](http://www.youtube.com/watch?v=ufI_wA3deIc)>