

Daniel P. Dugas

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Education:

Ph.D., Geography, University of Oregon, Eugene, 1993. *Formation Processes and Chronology of Dune Islands at Malheur National Wildlife Refuge, Harney County, Oregon.*

M.S., Geology, Geography, and Anthropology, University of Oregon, Eugene, 1989. *Middle-Miocene Fossil Grasses and Associated Paleosol from Fort Ternan, Kenya: Geology, Taphonomy, and Taxonomy.*

B.S., Geology, University of Southwestern Louisiana, Lafayette, 1981. *The Geology of the Clear Creek Oil and Gas Field, Allen and Beauregard Parishes, Louisiana.*

Professional Positions:

- 1996 - 2012 **Tenured Assistant Professor**, Department of Geography, New Mexico State University, Las Cruces. Teaching of Geography of the Natural Environment (Geog. 111), World Regional Geography (Geog. 112), Map Use and Analysis (Geog. 281), Geomorphology (Geog./Geol. 353), Climatology (Geog. 357), Aerial Photo Interpretation (Geog. 382), Applied Geomorphology (Geog./Geol. 553), and Advanced Geographic Field Methods (Geog. 583); creation of lab units for physical geography, map use, aerial photo interpretation, geomorphology, climatology, and advanced geographic field methods; supervision of graduate assistant lab instructors; Graduate Program Director; graduate advising; graduate committee chairing; administration of Geomorphology Laboratory; initiation and continuation of research projects. Current research: Dune Pattern Dynamics; Predictive GIS modeling of geomorphic landforms and vegetation from remote satellite imagery.
- 1988 - 1996 **Senior Geomorphologist**, Intermountain Research, Silver City, Nevada. Geologic, geomorphic, and pedologic research at archaeological sites as part of heritage resource management projects; principal investigator directing research activities of field crews and office staff; formulation of comprehensive research designs and project proposals; contract bidding; site survey, cartography, computer mapping, and geographic information system applications; soil and sediment lab analysis; and report production on behalf of various clients.
- 1987 - 1991 **Graduate Fellow/Instructor**, Department of Geography, University of Oregon, Eugene. Instructor and graduate fellow lecturing and conducting labs for Introductory Map Reading, Introduction to Physical Geography, Geomorphology, Climatology, and Soil Genesis and Geography.
- 1988 **Paleontology Collections Manager**, Condon Museum of Paleontology, University of Oregon, Eugene. Curation of fossil collections, fossil preparation, and cataloging.
- 1987 **Research Assistant**, Department of Geology, University of Oregon, Eugene. Geologic, paleontologic, and paleopedologic research in Kenya.

- 1984 - 1985 **Surveyor**, R.C. Spikes Inc., Lafayette, Louisiana. Operation of total station and standard surveying equipment. Property survey, oil well locations, and pipelines.
- 1983 - 1984 **Exploration Geologist**, Petrolog Inc., Lafayette, Louisiana. Geologic analysis on offshore drilling rigs. Oil and gas detection; micropaleontology; subsurface logging; and petrologic analysis.
- 1981 - 1983 **Exploration Geologist**, Coffee Oil Company, Lafayette, Louisiana. Preparation of oil and gas prospects and reservoir maps.

Publications, Papers, Abstracts, and Professional Reports:

- Dugas, D.P. 2012. "The remarkable, hypotheses, and critical thinking. (Abstract) *Southwest Division of the Association of American Geographers Annual Meeting*.
- Dugas, D. P. 2012. "Influences of Scale and Spatial Attractors on *Pogonomyrmex rugosus* Nest Distributions in the Chihuahuan Desert, New Mexico". *Southwestern Geographer*, Vol. 15.
- Dugas, D. P. , DeMers, M. N , Greenlee, J. C., Whitford, W. G., and A. Klimaszeski-Patterson 2011. Rapid Evaluation of Arid Lands (REAL): A Methodology. *International Journal of Applied Geospatial Research*, 2(3): 32-49.
- DeMers, M. N., Dugas, D. P., Whitford, W. G., and J. C. Greenlee 2010. Landform-Based Eco-Regional Mapping in Arid Environments: Lessons from the Chihuahuan Desert. Papers of the 33rd Applied Geography Conference, Vol. 33: 1-8.
- Dugas, D. P., 2012. "Climate Change: New Mexico and the Southwest", *Annual Meeting of the New Mexico Chapter of the American Planning Association, American Planning Association, Las Cruces, NM*. Invited paper.
- Dugas, D. P., 2010. "Dune Dynamics at White Sands, New Mexico". *Natural History Speaker Series, Las Cruces Museum of Natural History, Las Cruces, NM*, Invited speaker.
- Rachal, D. M., and D. P. Dugas 2009. Historical Dune Pattern Dynamics, White Sands Dune Field, New Mexico. *Physical Geography*, 30(1): 64-78.
- Dugas D.P. 2008. "State of New Mexico", entry in *The World Book Encyclopedia*, Contributor/Editor.
- Dugas D. P. 2007. Geological Assessment Report and Remoteness Test Of the Mitchell Property, Taos County, New Mexico.
- Dugas D. P. 2007. Geologic and Economic Mineral Assessment for the Circle-A Ranch Land Conservation Easement", on behalf of Barber Consulting, Salt Lake City.
- Dugas D. P. 2006. Horse Spring Easement - Geologic Assessment, on Behalf of the Trust for Public Land, Albuquerque.
- Dugas D. P. 2005. Geologic and Economic Mineral Assessment for the Mesilla Valley Bosque Park (Harris Farm Property), Mesilla Valley, New Mexico.
- Dugas, D.P. 2003. The Spatial Interpretation of Site Formation Processes Using Stratigraphic Relationships: An example from north-central Nevada. *Journal of California and Great Basin Anthropology*, 23(2):
- Dugas, D. P. 2003. "Landforms and Vegetation Relationships in the Chihuahuan Desert of Southern New Mexico",

AAG Annual 100th Meeting abstracts.

- Dugas, D.P. 2003. "Geomorphologically-Based Mapping of Desert Plant Communities Using Landsat TM" U.S. Forest Service SW Regional Geospatial Conference. Las Cruces, NM
- Dugas, D.P. 2002. The Fall of Threatening Rock: A Geomorphic Adaptation Exercise. *Journal of Geography*, 101(3): 117-120.
- Dugas, D.P. 2001. The Influence of Arroyo Edges on *Pogonomyrmex rugosus* Nest Distribution in the Chihuahuan Desert, New Mexico. *Journal of Arid Environments*, 47:153-159.
- Dugas, D.P. 1998. Late Quaternary Variations in the Level of Paleo-Lake Malheur, Eastern Oregon. *Quaternary Research*, 50(3):272-283.
- Dugas, D.P. 1998. Landform Convergence Among Dune Islands at Malheur Lake, Oregon. (abstract) *Association of American Geographers 94th Annual Meeting*.
- Dugas, D.P. 1996. Formation Processes and Chronology of Dune Islands at Malheur National Wildlife Refuge, Harney County, Oregon. *U.S. Department of the Interior, Fish and Wildlife Service Cultural Resource Series, Number 12*. U.S.D.I. Fish and Wildlife Service Region 1, Portland, Oregon.
- McDowell, P.F. and D.P. Dugas 1996. Holocene Eolian and Lake Level Variations in the Oregon Great Basin. In *Ongoing Paleoclimatic Studies in the Northern Great Basin*. U.S.G.S Water Resources Investigation Circular 1119, editor L. Benson.
- Retallack, G.J., E.A. Bestland, and D.P. Dugas 1995. Miocene Paleosols and Habitats of *Proconsul* on Rusinga Island, Kenya. *Journal of Human Evolution* 29:53-91.
- Dugas, D.P., R.G. Elston, J.A. Carter, K. Ataman, and M. Bullock 1995. Stubblefield Lookout Tower Site: Archaeological Testing of 35Ha53. *U.S. Department of the Interior, Fish and Wildlife Service Cultural Resource Series, Number 11*. U.S.D.I. Fish and Wildlife Service Region 1, Portland, Oregon.
- Dugas, D.P. 1995. Dune Island Formation Processes, Malheur Lake, Oregon. (abstract) *Association of American Geographers 91st Annual Meeting, Supplement to February AAG Newsletter*.
- Dugas, D.P. 1994. Holocene Lake and Soil Episodes in Harney Basin, Oregon: A Geoarchaeological Perspective from the Headquarters Site. (abstract) *24th Great Basin Anthropological Conference*.
- Dugas, D.P. and M.B. Bullock, editors 1994. Headquarters Site: An Archaeological and Stratigraphic Assessment of HA403. *U.S. Department of the Interior, Fish and Wildlife Service Cultural Resource Series, Number 10*. U.S.D.I. Fish and Wildlife Service Region 1, Portland, Oregon.
- Dugas, D.P. and G.J. Retallack 1993. Middle Miocene Fossil Grasses and Wooded Grassland at Fort Ternan, Kenya. *Journal of Paleontology* 67(1):113-128.
- Elston, R.G. and D.P. Dugas, editors 1993. Dune Islands and the Archaeological Record in Malheur Lake. *U.S. Department of the Interior, Fish and Wildlife Service Cultural Resource Series, Number 7*. U.S.D.I. Fish and Wildlife Service Region 1, Portland, Oregon.
- Dugas, D.P. and R.G. Elston 1992. Geoarchaeological Investigations at the Malheur National Wildlife Refuge, Harney County, Oregon. (abstract) *23rd Great Basin Anthropological Conference*.
- Dugas, D.P. 1991. Modeling Site Formation Processes at the Tosawihl Quarries, Nevada. (abstract) *Proceedings of the Society for American Archaeology, 56th Annual Meeting*.

Retallack, G.J., D.P. Dugas, and E.A. Bestland 1990. Fossil Soils and Grasses of a Middle Miocene East African Grassland. *Science* 247:1325-1328.

Dugas, D. P., and G. J. Retallack 1988. Mid-Miocene Fossil Grasses and Paleosols from Fort Ternan, Kenya. (abstract) *Proceedings of the Geological Society of America* 20(3):157.

Dugas, D. P., and G. J. Retallack 1988. Mid-Miocene fossil grasses from Fort Ternan National Monument, Kenya. (abstract) *American Journal of Botany* 75(6):107.

Dugas, D. P., and G. J. Retallack 1988. Fossil grasses of the *Kenyapithecus* locality near Fort Ternan, Kenya. (abstract) *American Journal of Physical Anthropology* 75:229.

Archaeological Professional Reports:

Dugas, D.P. 1995a. Landscape Evolution and Its Consequences. In *Behind the Argenta Rim: Prehistoric Land Use in Whirlwind Valley and the Northern Shoshone Range*. eds. C. Raven and R.G. Elston, pp. 14-1 to 14-8. Prepared for Santa Fe Gold Corporation, Reno Nevada. Intermountain Research, Silver City, Nevada.

1995b. A Class III Inventory of 685 Acres within the Trenton Canyon Project study Area, Humboldt County, Nevada. Prepared for Santa Fe Pacific Gold Corporation, Reno, Nevada. Intermountain Research, Silver City, Nevada.

1995c. A Class III Inventory of Section 21, T.33N R.43E for the Trenton Canyon Project, Humboldt County, Nevada. Prepared for Santa Fe Pacific Gold Corporation, Reno, Nevada.

1994a. A Cultural Resource Review of Twenty Proposed Exploratory Drill Sites and Associated Access Routes for the Newmont/Touchstone Ivanhoe Joint Venture, Elko County, Nevada. Prepared for Newmont Exploration Limited, Carlin, Nevada. Intermountain Research, Silver City, Nevada.

1994b. A Cultural Resource Review of Four Proposed Exploratory Drill Sites and Associated Access Routes for the Newmont/Touchstone Ivanhoe Joint Venture, Elko County, Nevada. Prepared for Newmont Exploration Limited, Carlin, Nevada.

1994c. A Cultural Resource Review of Five Proposed Exploratory Drill Sites and Associated Access Routes in the Jackson NOI Area, for the Newmont/Touchstone Ivanhoe Joint Venture, Elko County, Nevada. Prepared for Newmont Exploration Limited, Carlin, Nevada. Intermountain Research, Silver City, Nevada.

1994d. A Cultural Resource Review of Four Proposed Exploratory Drill Sites and Associated Access Routes in the Hollister Mine Phase I EA Area, for the Newmont/Touchstone Ivanhoe Joint Venture, Elko County, Nevada. Prepared for Newmont Exploration Limited, Carlin, Nevada. Intermountain Research, Silver City, Nevada.

1994e. A Cultural Resource Review of Six Proposed Exploratory Drill Sites and Associated Access Routes in the Rimrock NOI Area, for the Newmont/Touchstone Ivanhoe Joint Venture, Elko County, Nevada. Prepared for Newmont Exploration Limited, Carlin, Nevada. Intermountain Research, Silver City, Nevada.

1994f. A Cultural Resource Review of Twenty-Four Proposed Exploratory Drill Sites and Associated Access Routes for the Newmont/Touchstone Ivanhoe Joint Venture, Elko County, Nevada. Prepared for Newmont Exploration Limited, Carlin, Nevada. Intermountain Research, Silver City, Nevada.

1994g Geoarchaeology. In *1993 Archaeological Testing at 26Or9, Carson City, Nevada*. Prepared for Lumos and Associates, Carson City, Nevada. Intermountain Research, Silver City, Nevada.

1993. A Cultural Resource Review of Six Proposed Exploratory Drill Sites and Associated Access Routes

for the Newmont/Touchstone Ivanhoe Joint Venture, Elko County, Nevada. Prepared for Newmont Exploration Limited, Carlin, Nevada. Intermountain Research, Silver City, Nevada.

1992a. Bedrock Geology, Geomorphology, and Site Formation Processes. In *Archaeological Investigations at Tosawihi, A Great Basin Quarry, Part 3: A perspective from Locality 36*, eds. R. G. Elston and C. R. Raven. Prepared for the Bureau of Land Management, Elko Resource Area, on behalf of Ivanhoe Gold Company, Winnemucca, NV. Intermountain Research, Silver City, Nevada.

1992b. Geomorphic Map of the Harney Basin. In *Land and Life at Malheur Lake: Preliminary Geomorphological and Archaeological Investigations*, eds. C. Raven and R.G. Elston. U. S. Department of the Interior, Fish and Wildlife Service Cultural Resource Series, Number 8. U.S.D.I. Fish and Wildlife Service Region 1, Portland, Oregon.

1991. Geological and Geomorphic Setting. In *Sites 26EK3032, Localities 26 and 27, and 26EK3516: An Archaeological Testing Program at Tosawihi Quarries*, eds. M. Leach and S.T. Botkin. Prepared for the Bureau of Land Management, Elko Resource Area, on behalf of Ivanhoe Gold Company, Winnemucca, NV. Intermountain Research, Silver City, Nevada.

1991. Stratigraphic Analysis. In *Sites 26EK3032, Localities 26 and 27, and 26EK3516: An Archaeological Testing Program at Tosawihi Quarries*, eds. M. Leach and S.T. Botkin. Prepared for the Bureau of Land Management, Elko Resource Area, on behalf of Ivanhoe Gold Company, Winnemucca, NV. Intermountain Research, Silver City, Nevada..

1989. Geologic and Geomorphic Setting. In *An Archaeologic Data Recovery Plan for the Ivanhoe Project: Data Recovery in the USX West and USX East Activity Areas*, ed. R.G. Elston. pp. 8-10. Prepared for Galactic Services Inc., Reno. Intermountain Research, Silver City, Nevada.

Dugas, D.P., M. Bullock, and R.G. Elston. 1995. Natural and Cultural Distributions of Lithic Materials. In *Behind the Argenta Rim: Prehistoric Land Use in Whirlwind Valley and the Northern Shoshone Range*. eds. C. Raven and R.G. Elston, pp. 14-1 to 14-8. Prepared for Santa Fe Gold Corporation, Reno Nevada. Intermountain Research, Silver City, Nevada.

Dugas, D.P., R.G. Elston, K. Ataman, and J. C. Carter. 1995. *Arsenic and Old Lakes: An Archaeological Inventory and Evaluation in Pueblo Valley, Harney County, Oregon*. Prepared for Bureau of Land Management, Burns Resource Area, on behalf of Anadarko Petroleum Corp., Santa Rosa, California. Intermountain Research, Silver City, Nevada.

Ataman, K., M. Bullock, D.P. Dugas, and R.G. Elston. 1995. *Archaeological Excavations at Tosawihi, A Great Basin Quarry, Part 7: 26EK5040, A Middle Archaic Reduction Station and Campsite*. Prepared for Newmont Exploration, Ltd., Carlin, Nevada. Intermountain Research, Silver City, Nevada.

Ataman, K., M. Bullock, J.A. Carter, D.P. Dugas, R.G. Elston, J.E. Hammett, E.E. Ingbar, C. Raven, and S. Stornetta. 1994. *Patterns of Prehistoric Activity in a Changing Landscape: An Archaeological Survey in Whirlwind Valley*. Prepared for Santa Fe Pacific Gold Corporation, Reno, Nevada. Intermountain Research, Silver City, Nevada.

Ataman, K., M. Bullock, D. P. Dugas, and C. Raven. 1992. *An Archaeological Evaluation of Site 26EK5040*. Prepared for the Bureau of Land Management, Elko Resource Area, on behalf of Ivanhoe Gold Company, Winnemucca, NV. Intermountain Research, Silver City, Nevada.

Botkin, S. and D.P. Dugas. 1991. Archaeology of the Eastern Periphery. In *Archaeological Investigations at Tosawihi, A Great Basin Quarry*, eds. R. G. Elston and C. Raven, pp. 443-562. Prepared for Ivanhoe Gold Company, Winnemucca, Nevada. Intermountain Research, Silver City, Nevada.

Carter, J. and D.P. Dugas. 1994. Holocene Occupation at Sodhouse Spring: Results of the 1993 Field Season. *24th Great Basin and California Anthropological Conference*.

Clay, V., S. Stornetta, P. Mires, and D.P. Dugas. 1995. *The Archaeological Survey of a Fiber Optic Cable Route from Thorne to Tonopah, in Esmeralda and Mineral Counties, Nevada on Behalf of Nevada Bell (NV4-AC-272E)*. Prepared for North Star Telecomm Services, Inc., Reno, Nevada. Intermountain Research, Silver City, Nevada.

Elston R.G. and D.P. Dugas. 1991. Creation and Transformation of Toolstone Extraction and Processing Features at Tosawihī Quarries. In *Archaeological Investigations at Tosawihī, a Great Basin Quarry*, ed. R. G. Elston and C. Raven, pp. 655-678. Prepared for Ivanhoe Gold Company, Winnemucca, Nevada. Intermountain Research, Silver City, Nevada.

Elston, R.G., S. Stornetta, D.P. Dugas, and P.M. Mires. 1994. *Beyond the Blue Roof: Archaeological Survey on the Mt. Rose Fan and Northern Steamboat Hills*. Prepared for Toiyabe National Forest on behalf of American Land Conservancy, San Francisco, California. Intermountain Research, Silver City, Nevada.

Elston, R.G., D.W. Zeanah, J.A. Carter, and D.P. Dugas. 1995. Paleoenvironmental Variation and Human Land Use in Toedokado Territory. In *An Optimal Foraging Model of Hunter-Gatherer Land Use in the Carson Desert*, ed. D.W. Zeana, pp. 293 to 326. Prepared for U.S. Fish and Wildlife Service and U.S. Department of the Navy. Intermountain Research, Silver City, Nevada.

Leach, M., D.P. Dugas, and R.G. Elston. 1991. Archaeology of the Western Periphery. In *Archaeological Investigations at Tosawihī, a Great Basin Quarry*, eds. R. G. Elston and C. Raven, pp.335-442. Prepared for Ivanhoe Gold Company, Winnemucca, Nevada. Intermountain Research, Silver City, Nevada.

Obermayr, E. and D.P. Dugas 1995. A Cultural Resource Inventory in the Trenton Canyon Area, Humboldt and Lander Counties, Nevada. Prepared for Santa Fe Pacific Gold Corporation, Reno, Nevada. Intermountain Research, Silver City, Nevada.

Schmitt, D.N. and D.P. Dugas. 1991. Archaeology of the Northern Corridor. In *Archaeological Investigations at Tosawihī, a Great Basin Quarry*, eds. R. G. Elston and C. Raven, pp. 563-598. Prepared for Ivanhoe Gold Company, Winnemucca, Nevada. Intermountain Research, Silver City, Nevada.