Remote Sensing and Photogrammetry Society Annual Conference 2009

London, UK
8-11 September 2009

ISBN: 978-1-61567-583-8

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571

Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2009) by the Remote Sensing and Photogrammetry Society
All rights reserved.

Printed by Curran Associates, Inc. (2009)

For permission requests, please contact the Remote Sensing and Photogrammetry Society
at the address below.

Remote Sensing and Photogrammetry Society
c/o Department of Geography
The University of Nottingham
Nottingham NG7 2RD UK

Phone: +44 (0)115 951 5435
Fax: +44 (0)115 951 5249

rspsoc@rspsoc.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

Proceedings of RSPSoc 2009 Annual Conference, 8-11th September 2009, Leicester, UK			
ID	Title	Author(s)	Pages
120	High accuracy recording for heritage applications – Dover Castle graffiti	Hope, Cory David	1-11
121	Uses of change detection techniques for monitoring forest cover changes in the Peak Wilderness area of Sri Lanka	Ratnayake, Ranitha Lalanganie; Malthus, Timothy J.	12-25
122	Loess spectroscopy and its use as a proxy for past climate change	Smith, Michael J; Stevens, Thomas	26
123	Field calibration of zoom cameras for two camera-photogrammetric applications	Chong, Albert Kon-Fook	27-31
124	Haymarket Interchange – realistic simulation of pedestrian and vehicle movements in 3D visualisation	Ridgway, Tom	32-40
125	Spatial modelling of small mammal distributions in relation to parasite transmission and long-term landscape change in western China	Marston, Chris; Armitage, Richard; Danson, Mark; Craig, Philip; Pleydell, David; Patrick, Giraudoux	41-48
126	St Kilda - mapping on the edge	Leith, Alan	49
127	Very high resolution and 8 multispectral bands – how WorldView-2 will change the way we think about and use satellite imagery	Allan, John	50
128	Remote sensing analysis of active deformation using river networks	Mahmood, Syed Amer; Glaoguen, Richard; Siddiqui, Saima	51
129	Laser scanning of the Hung-e Azdhar rock relief	Ardissone, Paolo; Bonfanti, Cristina; Rinaudo, Fulvio	52-59
130	Appraisal of spatial patterns of river networks to characterize the vulnerability of surface deformation	Mahmood, Syed Amer; Shahzad, Faisal; Siddiqui, Saima; Glaoguen, Richard	60
132	Fuzzy change detection in Tripoli city, Libya	Khmag, Abdulhakim; Fisher, Peter; Comber, Lex	61-67
133	Mapping mangrove forests and coastal landscape, São Francisco River estuary, northeast Brazil	Santos Cavalcanti Maia, Luciana; Cunha-Lignon, Marília; Schaeffer-Novelli, Yara	68-76
134	Multi-scale analysis and validation of the ENVISAT MERIS	Almond, Samuel; Doreen, Boyd; Dash, Jadunandan; Curran, Paul	77-82
135	Fuel moisture content estimation: a land-surface modelling approach applied to African savannas	Ghent, Darren; Spessa, Allan; Kaduk, Joerg; Balzter, Heiko	83-88
136	Assimilation of land-surface temperature in the land-surface model JULES	Ghent, Darren; Balzter, Heiko; Kaduk, Joerg	89-93
137	Intercomparison of modelled land-surface temperature with remote sensing products over Africa	Ghent, Darren	94-99
138	Evaluating the relational parameters in 3D reconstruction of archeological objects using photogrammetry	Daneshgar Asl, Samira; Varshosaz, Masood; Asgari, Mohammad Hasan	100-105
140	Laser scanning of vegetation pattern along a hydrological gradient in a rain-fed peatland	Anderson, Karen; Bennie, Jon; Wetherelt, Andrew	106-111
141	Uncertainty in proximal measurements of vegetation reflectance factors measured in the field	Anderson, Karen; Dungan, Jennifer	112-117

142	Quality assessment of CHRIS/PROBA image and recommendation for landcover classification	Gupta, Niladri; Milton, E.J.	118-126
144	New digital aerial cameras by Vexcel Imaging / Microsoft	Gruber, Michael; Wiechert, Alexander	127
145	Augmenting the direct use of remote sensing in flood risk management	Schumann, Guy; Di Baldassarre, Giuliano; Stephens, Liz; Bates, Paul	128-134
146	Photogrammetric potential of the Canon EOS 5D MKII for precise still and video measurements	Taha, Ahmad; Smith, Martin	135-140
147	The potential of medium resolution satellite data for monitoring woodland leaf area index in the UK	Danson, Mark; Ogunbadewa, Yemi; Armitage, Richard	141-144
148	Exploring the influence of irrigation on AVHRR NDVI time series Fourier parameters in Zimbabwe	Carreira, Joao; Wright, Jim; Dash, Jadunandan	145-150
149	Updating the geology of the Volta and Keta Basins of Ghana using remote sensing and focussed field mapping	Jordan, Colm; Carney, John; Thomas, Chris; Turner, Paul	151-158
150	Wheat index based on green and red spectral bands	Ashourloo, Davood; Matkan, Ali; khanboluki, Gelare; Mobasheri, Mohammad Reza	159-163
151	Spatial resolution controls on the accuracy of land cover type mapping of riparian zones	Arroyo, Lara A; Johansen, Kasper; Phinn, Stuart	164-170
152	Metric evaluation and calibration of the time-of-flight SR-4000 camera	Piatti, Dario; Chiabrando, Filiberto; Chiabrando, Roberto; Rinaudo, Fulvio	171-179
153	Space academy: using earth observations in science teaching	Muller, Catherine; Ojha, Anu; Hill, Sarah; Remedios, John; Moore, Terry; Wells, Alan; Barstow, Martin; Jarvis, Tina; Brown, Cathy; Allan, Sophie; Green, Judith; Althorpe,...	180-189
154	Photogrammetry for Ichnology - recovering detailed digital surface models of dinosaur footprints using advanced image matching algorithms	Remondino, Fabio; Petti, Fabio; Rizzi, Alessandro; Avanzini, Marco; Girardi, Stefano	190-196
155	Applying close range digital photogrammetry in soil erosion studies	Heng, Boon Chong Peter; Chandler, Jim H.; Armstrong, Alona	197-206
156	Unmanned aerial vehicle based mapping – recent developments	Park, David; Pinchin, James; Stowers, John; Lennox, Barry	207
157	Terrain characterization and vegetation structural analysis with full-waveform airborne laser scanners	Wagner, Wolfgang; Hollaus, Markus; Höfle, Bernhard	208-213
158	Estimation of albedo from multiple view angle airborne imagery spectrometry	Khavarian Nehzak, Hassan; Atkinson, Peter; Milton, Ted	214
159	Further applications of satellite imagery to monitor the effects of mining on indigenous peoples, and human rights abuse on vulnerable people groups	Lavers, Christopher; Bishop, Christopher; Cox, Baroness Caroline; Thomas, David; Mazower, Jonathan; Hawkins, Owen; Grealey, Elaine	215-219

160	Advances in remote non-destructive thermal imaging techniques to evaluate wildlife and delicate biological samples	Lavers, Christopher; Plowman, Amy; Shepard, Steven; Fields, David	220-223
162	The role of remotely sensed data in reporting on the status of coastal habitats under the Habitats Directive	Shine, Oliver; Cawkwell, Fiona	224
164	What is a shingle ridge? The importance and difficulty of defining vague landforms for monitoring change	Petchey, Sarah; Brown, Kyle	225-234
165	Assessment of automated and semi-automated methods of coastline extraction	Glanfield, Graham; Smith, Michael J.	235-243
166	On a methodology to extract measures of seasonality from MERIS reduced resolution data to characterise seasonal trends in Irish vegetation	O' Connor, Brian; Dwyer, Ned; Cawkwell, Fiona	244-249
167	Remote assessment of slope failure hazard in transport corridors	Miller, Pauline; Mills, Jon; Barr, Stuart; Birkinshaw, Stephen; Parkin, Geoff; Glendinning, Stephanie; Hall, Jim	250
168	The Lost Emperor: approaches to detecting, counting and monitoring emperor penguins by remote sensing	Fretwell, Peter	251-255
169	Evolution of validation data centres for earth observation data processing: generic environment for cal/val analysis (GECA)	Busswell, Geoff; Williams, Ivan; Koopman, Rob; Meijer, Yasjka; Pellegrini, Alberto; De Maziere, Martine	256-260
170	ATSR and L3JRC algorithm for global burned area estimates	Bradley, Andrew; Kevin, Tansey; Leigh, Roland	261
171	Identifying tolerance limits in gappy time series	Bradley, Andrew; Gerard, France; Weedon, Graham	262-267
172	Lithologic mapping of eastern Adelaide Island, Antarctic Peninsula using ASTER data	Haselwimmer, Christian; Riley, Teal; Liu, Jian Guo	268-271
173	A measurement physics view of earth observation	Hobbs, Steve	272-277
174	A system trade-off analysis for radar imaging from GEO	Hobbs, Steve; Bruno, David	278-283
176	Assessing soil and vegetation characteristics in Breckland, UK using ASTER thermal infrared imagery	Lovett, Andrew; Turner, Jenni	284-288
177	Estimating evapotranspiration of spring potatoes in Paphos, Cyprus using remote sensing, spectroradiometric and meteorological data	Papadavid, Giorgos; G. Hadjimitsis, Diofantos; Agapiou, Athos; Themistocleous, Kyriacos	289-295
178	Application of the empirical line atmospheric correction using non-variant targets for ASTER images	Hadjimitsis G., Diofantos; Themistocleous, Kyriacos; Agapiou, Athos; Papadavid, Giorgos; Hadjimitsis, Marinos	296-302
179	The use of interferometric spaceborne radar and GIS to measure ground subsidence in peat soils in Indonesia	Dahdal, Bashar; Tansey, Kevin; Balzter, Heiko; Page, Sue	303-308
180	Atmospheric correction algorithms intended for air pollution monitoring in Cyprus using satellite remotelely sensed data	Themistocleous, Kyriacos; G. Hadjimitsis, Diofantos; Papadavid, Giorgos; Agapiou, Athos	309-314
183	Non-rigid surface matching without control point with	Ang, Kim Siang	315-320

	application in scoliosis monitoring		
184	Terrestrial laser scanning for use in virtual outcrop geology	Buckley, Simon; Enge, Håvard; Carlsson, Christian; Howell, John	321-324
185	Mapping land use using object-oriented classification of remote sensing data	Comber, Lex	325-329
186	Hyperspectral remote sensing of river macrophyte vegetation: towards an assessment of wildfowl and fish habitat quality	Hill, Ross; O'Hare, Matthew; Stillman, Richard; Gozlan, Rudy	330-334
187	The Fragile Crescent Project (FCP): the rise and decline of Bronze Age urban settlements in the ancient Near East	Galiatsatos, Nikolaos; Donoghue, Daniel N.M.; Wilkinson, Tony J.; Philip, Graham	335-341
188	Land cover as a type 2 fuzzy set	Fisher, Peter F.	342-349
189	Three-dimensional modeling of reflection and transmission of light through the air-water interface, incorporating sea surface waves across the gravity-capillary range	Kay, Susan; Hedley, John; Lavender, Samantha	350-357
190	Using persistent scattering InSAR to map subsidence in the Yellow River delta region, China	Liu, Peng; Li, Zhenhong; Hoey, Trevor	358-362
191	High resolution remote sensing for landscape scale restoration of peatland	Lowe, Beth; McMorrow, Julia; Evans, Martin; Bonn, Aletta	363-369
192	Remote sensing for the study of fluvial landscapes in Lower Khuzestan, SW Iran	Walstra, Jan; Heyvaert, Vanessa; Verkinderen, Peter	370-378
193	The application of photogrammetry for process quantification in geomorphology – examples of modern applications	Rieke-Zapp, Dirk; Reiterer, Alexander; Berger, Catherine; Bommer, Bastian	379-387
194	Mapping, monitoring and visualising the decay of limestone in the built environment: examples from the limestone project	Meneely, John; Smith, Bernard; Gomez-Heras, Miguel; Viles, Heather	388-392
195	Driving a forest microclimate model using gap and canopy properties derived from LiDAR and multispectral data	Abd Latif, Zulkiflee; Blackburn, George Alan	393-403
197	Hyperspectral remote sensing for measuring fuel moisture content: case study, fire risk assessment in the UK	Al-Moustafa, Turkia; Armitage, Richard; Danson, Mark	404-408
198	The comparison of PSInSAR time series data with the results of a groundwater abstraction related subsidence model	Bateson, Luke; Barkwith, Andrew; Hughes, Andrew; Aldiss, Don	409-417
199	Characterising phenological changes in UK forests using multi-temporal laser scanning	Ramirez, F. Alberto; Armitage, Richard P.; Danson, F.Mark; Bandugula, Vishal	418-423
200	The use of meteorological data to improve contrail detection in thermal imagery over Ireland	Whelan, Gillian M.; Cawkwell, Fiona; Mannstein, Hermann; Minnis, Patrick	424-429
201	An assessment of ice surface roughness from optical and microwave imagery	Cawkwell, Fiona; Rivera, Andres; Wendt, Jens;	430

		Casassa, Gino	
202	Characterising soil moisture as an indicator of transport corridor slope instability using remotely sensed data	Hardy, Andrew J.; Mills, Jon; Barr, Stuart	431
203	Mapping reedbed habitats using textural based classification of QuickBird imagery	Onojeghuo, Alex; Blackburn, Alan	432-439
204	Observing atmospheric CO2 from space	Cogan, Austin; Boesch, Hartmut; Monks, Paul; Parker, Robert; Knappett, Diane; Hewitt, Alan	440-447
206	Exploiting thermal and spectral responses of crops for the early detection and discrimination of stress induced by oil pollution and water deficit	Emengini, Ebele; Blackburn, George; Theobald, Julian	448-454
207	Uncertainty propagation in a physics-based shallow water mapping algorithm applied to CASI and Quickbird imagery of Heron Island reef, GBR	Hedley, John; Roelfsema, Chris; Phinn, Stuart	455-462
208	Low cost real-time web-cam photogrammetry to determine the locations of optical topography sensors located on the human head	Wong, Sen; Robson, Stuart; Gibson, Adam; Hebden, Jeremy	463-470
209	Developing unmanned aerial vehicles for local and flexible environmental and agricultural monitoring	Gay, Alan; Stewart, Tim; Angel, Rod; Easey, Mark; Eaves, Adrian; Thomas, Neil; Pearce, Dan; Kemp, Alexander	471-476
210	Unmanned aerial vehicle platforms for acquisition of very fine spatial resolution imagery over arid rangelands	Steele, Caitriana; Rango, Al; Laliberte, Andrea; Winters, Craig; Maxwell, Connie; Slaughter, Amalia	477-482
211	Evaluating the potential of EO-1/ALI, Hyperion and ASTER data to characterise post earthquake effects using multivariate alteration detection technique	Mahmood, Syed Amer; Liesenberg, Veraldo; Shahzad, Faisal; Poreh, Davod; Gloaguen, Richard; Siddiqui, Saima	483-486
212	A phytoplankton size class model: exploring beyond the view of a satellite	Brewin, Robert; Lavender, Samantha; Hardman-Mountford, Nick; Barciela, Rosa; Hirata, Takafumi	487-493
213	Slopes survey and analysis using photogrammetrically derived digital surface models	Zucca, Francesco; Remondino, Fabio; Zizioli, Davide; Meisina, Claudia	494-500
214	An investigation into the effects of hurricane damage on subtropical mangroves and their potential protective role through remote sensing and GIS: The Cayman Islands	Buxton-Smith, Joseph; Lavender, Samantha; Schuwerack, Petra-Manuela	501
215	Spatial and temporal variability of burned area in relation to ecosystems type in the Colombian Llanos savannas	Romero Ruiz, Milton Hernan; Tansey, Kevin	502-508
217	Web processing of remotely sensed data on the National Grid Service (NGS): applying SARoNGS project on Landmap service at Mimas	Alroichdi, Amer; Rowley, Andrew; Le Blanc, Anja; Jones, Mike; Millin, Gail; Schumm, James; Kitmitto, Kamie	509-515
219	Evaluation of an operational method to minimise reflectance anisotropy on multi-swath airborne imagery	Choi, Kyu Young; Milton, Edward	516

220	Assessing magnitude of burn severity in tropical forests subject to multiple fires	Hoscilo, Agata; Page, Susan; Tansey, Kevin	517-520
221	The Geo-Knowledge project: providing E-learning resources for UK academia	Millin, Gail; Tun, Yin; Petch, Jim; Hume, David	521-529
222	Imagery and enterprise: the view from a multi-disciplinary consultancy	Graham, Alastair; Schmid, Gesche	530-534
223	Equivalence of data assimilation techniques in land remote sensing problems	Quaife, Tristan; Lewis, Phillip	535-540
224	Detecting submerged macrophytes in a UK chalk stream using field spectroscopy	Visser, Fleur; Smolar-Žvanut, Nataša	541-547
225	Low-level LiDAR surveying of archaeological sites	Burton, Trevor; McNally, John; Corns, Anthony; Boreland, Chris; Shaw, Robert	548-555
226	An evaluation of snow cover mapping in Central Chile from multiple image sources	Cawkwell, Fiona; Lhermitte, Stefaan	556
231	Satellite remote sensing as a tool for habitat mapping and subsidence measurement in raised bogs	Dwyer, Ned; Alonso, Jose; Cawkwell, Fiona	557-562
234	Building sustainable constellations: two new 20-metre satellites join the Disaster Monitoring Constellation (DMC) to extend its capacity	Stephens, J. Paul; Mackin, Stephen; Crowley, Gary; Holmes, Gary	563-567
235	Quantifying surface change in a debris flow channel with terrestrial laser scanning – what is the volumetric error?	Schürch, Peter; Rosser, Nick J.; Densmore, Alexander L.; McArdell, Brian W.	568-574
236	Planet surface 3D modelling and visualisation with PANGU	Parkes, Steve; Dunstan, Martin; Martin, Iain; McCrum, Mark	575-581
237	Monitoring microtopographic surface change and rill erosion development using digital photogrammetry	Gessesse, Gizaw Desta; Fuchs, Helmut; Rieke-Zapp, Dirk; Mansberger, Reinfried; Klik, Andreas	582-589
238	Observing the global distribution of atmospheric methane from space	Knappett, Diane; Monks, Paul; Boesch, Hartmut; Hewitt, Alan	590-596
239	Where has the carbon gone? Monitoring biomass and emissions from conversion of rainforest to oil palm in Sabah, Malaysia	Morel, Alexandra; Fisher, Josh; Malhi, Yadvinder	597-603
241	Automated texture classification and landform taxonomy for populating a GIS	Vickers, Martin; Cook, Tony; Gibbens, Michael	604-610
242	Detecting trees in LIDAR data – a foundation for a forest inventory based on remote sensing data	Bücken, Arno; Rossmann, Jürgen	611-615
243	Detailed lithological mapping using airborne LiDAR data: application to the Troodos ophiolite, Cyprus	Grebby, Stephen; Cunningham, Dickson; Naden, Jonathan; Tansey, Kevin	616-621
244	Unmanned aerial vehicle technology: potential and constraints for riparian vegetation mapping	Dunford, Robert; Michel, Kristell; Matthieu, Gagnage; Piégay, Hervé	622-629
245	GPS-supported photogrammetry for monitoring deformation of the Brunt Ice Shelf near Halley V Research Station, Antarctica	Fox, Adrian; Gudmundsson, Hilmar; Anderson, Ryan; Cook, Alison J.	630-63
246	Assessing gross primary productivity in North American	Harris, Angela; Dash,	636

	ecosystems using a chlorophyll-based vegetation index	Jadunandan	
247	GeoVisionary™ software for 3D visualisation and petroleum exploration in southern Tajikistan	Jordan, Colm; Bateson, Luke; Bow, Jennifer; Napier, Bruce; Johnson Sabine, Rosemary	637-642
248	A critical review of geospatial techniques for landscape character assessment	Davey, Faye; Lavender, Samantha; Martin, John; Teverson, Rosemary	643
249	The estimation of Teak plantation biomass from Landsat TM data	Srisuwan, Saovanee; Liangrocapart, Sompong; Nakapakorn, Kanchana	644-652
250	Applications of statistical imaging of the sea using a robotic telescope	Cook, Anthony; Vickers, Martin; Stevens-Bulmer, Grant	653-660
251	Remote Sensing and GIS-assisted modelling to address the physical vulnerability to the action of debris flows, Sarno, Italy, May 1998	Toyos, Guillermo; Gunasekera, Rashmin; Zuccaro, Giulio; Zanchetta, Giovanni; Sulpizio, Roberto; Oppenheimer, Clive	661-671
252	Sensitivity analysis and application of remotely derived global population datasets in risk assessment of natural phenomena	Gunasekera, Rashmin; Toyos, Guillermo; Saito, Keiko	672-677
254	VIS –SWIR hyperspectral data for K emission band in the wildfires	Amici, Stefania; Piscini, Alessandro; Buongiorno, Maria Fabriziza; Wooster, Martin	678-689
255	Investigating Variations in Suface Reflectivity from Terrestrial Laser Scan Data on Actively Failing Rock Slopes	Norman, Emma; Rosser, Nick; Lim, Michael; Petley, David	690-694
256	Lies, damned lies, and ground truth	Foody, Giles	695-697
257	Establishing farm spatial characteristics using Landsat and local data for north-west Romania for initialisation of an agent-based land-use change model	Perryman, Anita; Pintea, Sebastian; Stoica, Adrian; Dawson, Terry	698-701
259	Pre-launch testing of an ocean salinity retrieval algorithm for the SMOS satellite.	Spurgeon, Paul; Lavender, Sam; McCulloch, Mike	702
260	Effects of haze on landcover classification in Malaysia	Ahmad, Asmala; Quegan, Shaun	703
261	Comparison of snow mapping methods in the upper Rio Grande Basin	Steele, Caitriana; Rango, Al; Bleiweiss, Max	704
262	Synthetic stereoscopic visualisation of multispectral satellite and geophysical data applied to geological mapping	Tragheim, Douglas; Chacksfield, Barrie	705-709
263	Applications of earth observation data for insurance and reinsurance	Foote, Matthew; Shaw, Fiona; Saito, Keiko	710-717
264	The application of thermal remote sensing for the enhanced mapping and monitoring of volcanic terrain	Smith, Kay; Vye, Charlotte; Loughlin, Sue; Ager, Gisela	718-723
265	Explorations in space and time: stack sites link local in situ measurements to global monitoring through integrated multi-scale Earth Observation	Smith, Geoff; Lamb, Alistair	724
266	Application of terrestrial laser scanning for the evaluation and planning of blast mitigation on unstable rock slopes	Kos, Andrew; Tompkinson, William; Conforti, Dario; Lunghi, Auro; Neanni,	725-732

		Christophe	
267	Investigating controls on the spatial distribution of landslides triggered by the Wenchuan earthquake, Sichuan Province, China	Parker, Robert; Rosser, Nick; Densmore, Alex; Petley, Dave	733-739
268	Assessing Glacier Retreat and Morphometric Change at Kvíárjökull, Iceland	Bennett, Georgina; Evans, David; Carbonneau, Patrice; Twigg, Dave	740-745
269	LandBase: the development of a high resolution, generic land cover classification	Tewkesbury, Andrew; Hinchliffe, Graham	746-755
270	Remote sensing of chlorophyll in saline lakes, with applications to Flamingo ecology: a feasibility study	Tebbs, Emma; Remedios, John; Harper, David	756-758
271	Rendering city models with MIDAS oblique imagery	Anstee, Andrew	759
272	An investigation of the performance characteristics of MODIS Fire Radiative Power (FRP) measurements, and their use in determining the effect of regional anthropogenic and natural drivers of fire	Sperling, Samuel; Wooster, Martin; Malamud, Bruce	760
273	ESA earth observation programmes and climate change	Doherty, Mark	761
274	Global fire: a remote sensing research and applications perspective	Justice, Chris	762
275	Measuring forest degradation using ALOS PALSAR data	Waldram, Matt; Page, Susan; Tansey, Kevin	763
276	Monitoring the Regrowth of Vegetation after Disturbance using Radar Time Series Data for Peatlands in Indonesia	Fuchs, Richard; Tansey, Kevin; Balzter, Heiko; Hoscilo, Agata; Schmuliius, Chris; Page, Susan	764-774
277	TerraSAR-X spotlight mode DEMs: an initial accuracy assessment	Paredes Hernandez, Cutberto Uriel; Tansey, Kevin; Tate, Nicholas J.; Salinas Castillo, Wilver E.	775
278	The People's Map: collaboration with universities	Mewse, Chris	776