

<b>Institution:</b> Newcastle University		
<b>Unit of Assessment:</b> 15 Archaeology		
<b>Title of case study:</b> Historic Landscape Research: Supporting Landscape Planning and Management, Shaping Policy, and Creating New Capacity for Historic Character Assessment		
<b>Period when the underpinning research was undertaken:</b> 2004 – 2020		
<b>Details of staff conducting the underpinning research from the submitting unit:</b>		
<b>Name(s):</b>	<b>Role(s) (e.g. job title):</b>	<b>Period(s) employed by submitting HEI:</b>
Sam Turner	Lecturer (2004); Senior Lecturer (2008); Professor (2013)	2004 – 2020 (Category A)
Graham Fairclough	Visiting Fellow (2006); Strategic Research Advisor (2013); Principal Research Associate (2014)	2006 – 2013 (Category C) 2013 – 2020 (Category A)
<b>Period when the claimed impact occurred:</b> 1 August 2013 – 31 December 2020		
<b>Is this case study continued from a case study submitted in 2014?</b> N		
<b>1. Summary of the impact</b>		
<p>Research on historic landscapes, particularly the theory, method and practice of historic characterisation – a new context-based and non-site approach to the management of landscape heritage – led to impact in several ways:</p> <ul style="list-style-type: none"> <li>• Characterisation methods developed by Newcastle researchers were incorporated by Highways England into the Design Manual for Roads and Bridges, providing an official method used for environmental assessment of all new major roads in the UK from 2007 until September 2019, and for other infrastructure projects including HS2 and airport expansions.</li> <li>• Datasets created during research projects at Newcastle have been used continuously in heritage management and environmental planning by local authorities and national agencies including Historic England, Natural England and the Marine Management Organisation.</li> <li>• Newcastle research on historic characterisation methods and their application shaped public policy and guidelines for practice in countries including Belgium, Ireland, the Netherlands, Spain and Turkey, and research policy in the European Union.</li> <li>• Over 850 person-days of tailored training based on methods developed at Newcastle were delivered to international early-career landscape professionals between 2014-20, enabling them to implement GIS-based historic landscape character assessment in countries including Brazil, China, Italy, Spain and Turkey.</li> </ul>		
<b>2. Underpinning research</b>		
<p>Landscape character reflects the ongoing interaction of cultural and natural processes; approaches which use landscape character are increasingly important in rural, urban and maritime contexts in response to challenges ranging from spatial planning to climate change. Turner and Fairclough's research at Newcastle on historic landscape character has created knowledge about the archaeology and cultural significance of landscapes and thus their significance for heritage management and planning (<b>PUB1</b>). Research on GIS-based historic landscape characterisation (HLC) has developed better methods, created new datasets, and contributed to the translation of research and theory from landscape history and heritage into policy in the UK; it has also demonstrated that historic characterisation can be adapted and used in different contexts around the world (<b>PUB2</b>).</p>		

From 2004-14 research focussed on the development of methods for interpreting and mapping the historic character of landscapes and seascapes in the UK, working in partnership with public sector organisations (especially English Heritage/Historic England). For example, Turner completed the Devon HLC for English Heritage in 2007 in collaboration with Devon County Council, and the Tyne & Wear metropolitan HLC (with Newcastle City Council) in 2014 (e.g. **PUB3**). Drawing on the methodological and theoretical aspects of this research, Turner and Fairclough contributed as authors to the Highways Agency's national guidance *Assessing the Effect of Road Schemes on Historic Landscape Character* (2007). Turner and Fairclough also contributed to the national stakeholder groups which developed methods for seascape characterisation from 2006-10, and Turner was commissioned by English Heritage to lead two Historic Seascape Characterisation (HSC) projects as part of the national programme (Irish Sea HSC (2010-11) and East Yorkshire-Norfolk HSC (2013-14)). During this period, pilot studies led by Turner on the application of HLC in Greece, France, Ireland, Italy and Turkey were funded by research councils in the UK, Ireland, Spain, France and the EU's FP7 and Culture programmes to test and develop methodologies suited to those countries (e.g. **PUB4**; GRANTS 1, 2).

In 2014 the McCord Centre for Landscape was established at Newcastle University with Turner as founding Director. The McCord Centre's aims include fostering inter- and transdisciplinary work with public stakeholders and industry partners in the UK and beyond, in pursuit of the vision of landscape set out in the 2010 ESF/COST Science Policy Briefing *Landscape in a Changing World* (of which Fairclough was a lead author). One primary objective of the Centre is to extend the impact of Newcastle's landscape research. From 2014-2020, the McCord Centre team led by Turner carried out historic landscape research in the UK and further afield, from Atlantic and Mediterranean Europe to western Asia, North America and South America. New interdisciplinary work experimented with modelling future change in rural and urban historic landscapes in Britain, Turkey and Brazil. By combining geoarchaeological approaches and intensive field survey with GIS-based characterisation, research led by Turner has modelled local landscape changes with increased chronological precision in Britain, Spain, Greece and Turkey (e.g. **PUB5**; GRANT 3).

Increasing the efficacy of public and stakeholder participation is recognised as a key challenge, and work at Newcastle has created tools to enable stakeholders to participate more effectively in data collection and landscape management, especially in Greece, Turkey and the UK (e.g. GRANT 4). These transdisciplinary approaches to landscape and heritage were also developed at the European level through collaborations including JPI-CH 'Cultural heritage in landscape – CheriScape' (GRANT 5) and COST IS1007 'Investigating cultural sustainability' (**PUB6**), which both highlighted the value of culture-based approaches and solutions which include stakeholders to the challenges of future sustainability. Turner and Fairclough continue to lead work on the development of participatory tools, particularly digital methods for citizen engagement (e.g. GRANT 6).

### 3. References to the research

References to the research include the following peer-reviewed publications:

- PUB1: Turner S, Fairclough G.** Common culture: the archaeology of landscape character in Europe. In D. Hicks, G. Fairclough and L. McAtackney (eds), *Envisioning Landscapes: Situations and Standpoints in Archaeology and Heritage*, One World Archaeology 52, Walnut Creek, California: Left Coast Press, 120-145, 2007. DOI: 10.4324/9781315429533
- PUB2: Fairclough G,** Sarlov-Herlin I, Swanwick C, ed. *Routledge Handbook of Landscape Character Assessment*. London: Routledge, 2018. DOI: 10.4324/9781315753423
- PUB3: Turner S.** *Ancient Country. The historic character of rural Devon*. Exeter: Devon Archaeological Society, 2007. [Available on request]
- PUB4: Turner S,** Crow J. Unlocking historic landscapes in the eastern Mediterranean: two pilot studies using historic landscape characterisation. *Antiquity*, 84(323), 216-229, 2010. DOI: 10.1017/S0003598X00099889

**PUB5:** Turner S, Bolòs J, Kinnaird T. Changes and continuities in a Mediterranean landscape: a new interdisciplinary approach to understanding historic character in western Catalonia. *Landscape Research*, 43(7), 922-938, 2018. DOI: 10.1080/01426397.2017.1386778

**PUB6:** Auclair E, Fairclough G, ed. *Theory and Practice in Heritage and Sustainability: Between Past and Future*. London: Routledge Earthscan, 2015. DOI: 10.4324/9781315771618

GRANT 1: Heritage Council Irish National Strategic Archaeological Research Programme 'Making Christian landscapes', 16716/AR01049, (EUR124,000), 2008-10, Turner (International CI).

GRANT 2: AHRC Landscape and Environment Programme 'Unlocking historic landscapes in the eastern Mediterranean', AH/E502784/1 (GBP73,000), 2006-7, Turner (CI).

GRANT 3: RCUK-TÜBİTAK Newton Fund 'Cultural heritage in landscape: planning for development in Turkey', AH/P005829/1 (AHRC contribution GBP237,000 of total EUR418,000), 2016-19, Turner (PI).

GRANT 4: AHRC Follow-on Fund 'Co-creating heritage: bottom-up planning for heritage management in rural areas', AH/P014453/1 (GBP80,000), 2017-18, Turner (PI).

GRANT 5: JPI-CH 'Cultural heritage in landscape – CheriScape', AH/L503976/1 (AHRC contribution GBP45,000 of total EUR438,000), 2014-16, Fairclough (PI), Turner (CI).

GRANT 6: 'Heriland' Horizon 2020 MSCA ITN, EC813883 (EUR876,000 of total EUR4,000,000), 2019-23, Turner (PI), Fairclough (CI).

#### 4. Details of the impact

##### *Supporting landscape management and planning*

In 2006-7 Turner and Fairclough were part of the team convened by the Highways Agency which authored new guidance on landscape assessment designed to mitigate the impact of major road construction on historic landscapes. They contributed principally to the methodology based on their research on HLC. The resulting guidance was incorporated directly into the 2007 Design Manual for Roads & Bridges (DMRB, Vol. 11, 3.2.7), which provided the mandatory methodology for environmental assessment in advance of all major road schemes in the UK up to September 2019 (**IMP1**). Among the most significant examples where the guidance has been implemented to inform road design include the A1(M) Leeming-Barton (20km, built 2014-18), A14 Cambridge-Huntingdon (34km, built 2016-20), Lower Thames Crossing (scheme design 2012-20), Oxford to Cambridge Expressway (scheme design 2014-18), A303 Stonehenge (Amesbury and Berwick Down) (scheme design 2015-18). Furthermore, the DMRB text provided the basis for the environmental assessment methodology used for the High Speed 2 (HS2) railway Phases 1 (2012), 2a (2016) and 2b (2018) from London to Birmingham, Manchester and Leeds (e.g. **IMP2**; HS2 Phase 1 enabling works commenced in 2016, construction from 2020). In all these examples, the historic character was used to guide the landscape mitigation design – which includes replicating the field patterns, boundary types and historic woodland disrupted by construction along the line of route. Other major development projects have also used this method for historic environment impact assessment during this REF cycle, for example the strategic Appraisal of Sustainability for the projected Heathrow and Gatwick airport expansions (2018, **IMP3**).

The results of HLC projects for Devon and Tyne & Wear completed at Newcastle University by Turner form part of historic environment records which are used daily by local planning authorities to inform decisions about landscape planning and management, in development control work, and in the production of development plans in line with the National Planning Policy Framework. For example, in 2020 the Devon HLC data supported over 630 development management, 250 strategic planning and 170 Countryside Stewardship Scheme consultation responses (**IMP4**). In 2017 the HLC and HSC data created through four projects led by Turner were incorporated into two national databases which provide consistent historic characterisation for maritime and terrestrial landscapes across England - Historic England's National HSC Database (NHSC) and Natural England's National Historic Landscape Characterisation Database (NHLIC). The HSC databases have been part of the evidence register used by the UK

Marine Management Organisation (MMO) since 2018 as data layers in the national Seascape Character Assessments (**IMP5**) in line with the UK Marine Policy Statement 2011. These data underpin implementation of regional Marine Plans under the Marine and Coastal Access Act 2009, giving the broader historic dimension of maritime environments beyond isolated sites a more significant role in marine planning than ever before.

#### *Shaping international policy*

International activities including participation in Council of Europe meetings and workshops on the European Landscape Convention (ELC) have helped to extend the reach of Newcastle's impact into other parts of the Europe. For example, in Ireland Fairclough was part of the Steering Group convened by the Heritage Council (the state heritage agency) which helped to prepare the 2013 Best Practice Guide for landscape characterisation (which cites Turner's work on method development in Greece and Turkey, and in Ireland through the INSTAR 'Making Christian landscapes' project, GRANT 1); the Guide informs the Irish government's National Landscape Strategy 2015-25 which establishes principles for protecting and enhancing the landscape while positively managing its change (**IMP6**); HLCs have consequently been implemented at local (e.g. Brú na Bóinne UNESCO World Heritage Site) and county scales (e.g. Co. Donegal). From 2010-16 Turner collaborated on the Catalan Landscape Observatory's PaHisCat project, which informed landscape assessment methods used in the Catalan Landscape Catalogues and the implementation of HLCs for several local authorities (for example in Priorat-Montsant-Siurana, where the HLC was created in 2016 to support UNESCO World Heritage nomination as well as local planning and tourism initiatives: **IMP7**). In the Netherlands, the research informed the approach used in the national characterisation programme (e.g. RCE-CHA project 'Panorama Landschap', 2017; **IMP8**). In Belgium, Newcastle researchers have worked with officials from the Government of Flanders on tools to support the implementation of the ELC, including through a workshop co-organised by the McCord Centre in Brussels in October 2019 for 200 government officials. This work influenced the government's 2019 decision to include creation of a participatory landscape characterisation as part of the policy programme legally enacted by parliament for 2019-2024 (**IMP9**).

In 2012-13 Fairclough participated in a Europe-wide advisory network to define the objectives of the Joint Programming Initiative on Cultural Heritage (JPI-CH). Among the first projects funded by the JPI-CH was CHeriScape (GRANT 5, coordinated by Fairclough, 2014-2016), which has influenced EU thinking on rural landscape management through its conclusions on leveraging the relationships between landscape and heritage to overcome sectoral fragmentation through cultural solutions (**IMP10**). The success of CHeriScape resulted in Fairclough jointly authoring the Call text for the JPI-CH's EUR4,500,000 'Changing Environments' programme (2017), whose core aims included partnership and knowledge exchange with non-HEI organisations; the programme resulted in five projects working in 11 countries from 2018-21.

#### *Building international capacity: training early career practitioners in landscape and planning*

From 2013 to 2020 Turner and Fairclough led 19 landscape characterisation projects with 32 partner organisations in 14 countries. These projects included delivery of more than 850 person-days of tailored training based on the research into the theory, methods and practical application of GIS-based landscape characterisation. Through this training early career landscape practitioners in Belgium, Brazil, China, Israel, Italy, the Netherlands, Norway, Spain, Sweden and Turkey learned for the first time how to design, create and use historic characterisations to support landscape planning and management. For example, in Turkey training delivered in the framework of four Newton-funded projects (2014-19) reached more than 100 Turkish early career professionals from 34 institutions working in landscape, heritage and planning. Activities included a week-long 'Researcher Links' workshop for 40 people in 2016, 5 intensive training days with 15 participants each in Istanbul and Izmir between 2016-2019, and 13 person-months of training for 7 Turkish early career researchers on placement in Newcastle. The training has enabled participants to implement HLCs which now underpin landscape management in several regions of Turkey, for example around the UNESCO candidate World Heritage Site at Arslantepe, Malatya (**IMP11**).



## 5. Sources to corroborate the impact

**IMP1:** Highways Agency. 'Cultural Heritage Sub-Topic Guidance: Historic Landscape' in *Design Manual for Roads & Bridges, vol. 11, Environmental Assessment*, section 3, part 2, annex 7. 2007.

**IMP2:** High Speed 2 Environmental Impact Assessments Scope and Methodology Reports.

2a. *HS2 Phase 1: London to West Midlands Environmental Impact Assessment Scope and Methodology Report*. 2012.

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/372981/HS2 London to West Midlands EIA Scope and Methodology Report FINAL.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/372981/HS2_London_to_West_Midlands_EIA_Scope_and_Methodology_Report_FINAL.pdf) (p.79);

2b. *HS2 Phase 2a: West Midlands to Crewe Environmental Impact Assessment Scope and Methodology Report*. 2016.

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/552521/HS2 Phase 2a EIA SMR.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/552521/HS2_Phase_2a_EIA_SMR.pdf) (p.105);

2c. *HS2 Phase 2b: Crewe to Manchester and West Midlands to Leeds Environmental Impact Assessment Report Scope and Methodology Report*. 2018.

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/745450/HS2 Phase 2b Working Draft ES EIA Scope and Methodology Report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/745450/HS2_Phase_2b_Working_Draft_ES_EIA_Scope_and_Methodology_Report.pdf) (p.143).

**IMP3:** WSP Parsons Brinckerhoff. Topic based schemes assessment: AoS for consultation draft airports NPS. Appendix a1 to a12, A-11 Historic Environment, 2018 (pp. 6, 7, 13, 28).

<https://www.gov.uk/government/publications/appraisal-of-sustainability-for-the-proposed-airports-national-policy-statement>

**IMP4:** Testimonial – County Archaeologist & Historic Environment Manager, Devon County Council.

**IMP5:** Marine Management Organisation. MMO1134 Seascape assessments for North East, North West, South East, South West marine plan areas. 2018.

<https://www.gov.uk/government/publications/seascape-assessments-for-north-east-north-west-south-east-south-west-marine-plan-areas-mmo1134>

**IMP6:** Department of Arts, Heritage and the Gaeltacht, Republic of Ireland.

6a. Lambrick G. et al. *Historic Landscape Characterisation in Ireland: best practice guidance*. Kilkenny: The Heritage Council. 2013.

[https://www.heritagecouncil.ie/content/files/historic\\_landscape\\_characterisation\\_guidance\\_2013\\_8mb.pdf](https://www.heritagecouncil.ie/content/files/historic_landscape_characterisation_guidance_2013_8mb.pdf);

6b. *National Landscape Strategy for Ireland 2015 – 2025*. Dublin: The Stationery Office.

2015. <https://www.chg.gov.ie/app/uploads/2015/07/N-Landscape-Strategy-english-Web.pdf> (pp.17-18).

**IMP7:** Observatori del Paisatge de Catalunya, Spain.

7a. PaHisCat. 2020. Priorat County.

[http://www.catpaisatge.net/pahiscat/eng/resultats\\_pr.php](http://www.catpaisatge.net/pahiscat/eng/resultats_pr.php);

7b. Bolós J, Bonales J, Flórez M, Martínez A. 2016. *Caracterització Històrica del Paisatge del Priorat-Montsant-Siurana*. Tarragona: Diputació de Tarragona/Observatori del Paisatge.

[http://www.catpaisatge.net/pahiscat/docs/CHPC PRIORAT-MONTSANT-SIURANA.pdf](http://www.catpaisatge.net/pahiscat/docs/CHPC_PRIORAT-MONTSANT-SIURANA.pdf)

**IMP8:** Testimonial – Senior Advisor & Landscape Researcher, Rijksdienst voor het Cultureel Erfgoed RCE-CHA (State Cultural Heritage Agency), the Netherlands.

**IMP9:** Testimonial – Head of Division, Department of Spatial Development, Environment, Energy, Climate, Green Economy and Animal Welfare, Government of Flanders, Belgium.

**IMP10:** 'Farming the Historic Landscape': EU Reflection Group: EU and Cultural Heritage, 2017.

<http://reflection-group.beniculturali.it/?p=291> (pp. 11-12, 21-22).

**IMP11:** Testimonial – Vice-Dean, Faculty of Architecture, Bolu Abant İzzet Baysal University, Turkey.