Researching Craft:

An analysis of Research Excellence Framework impact case studies relevant to craft

Wayne Full
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The Crafts Council is the national development agency for contemporary craft.

Our goal is to make the UK the best place to make, see, collect and learn about contemporary craft.

www.craftscouncil.org.uk

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1. Executive summary

Research is vital to an understanding of the role and evolution of craft. It helps us understand changes in practice and how craft is viewed, exhibited, collected and exchanged. A robust craft evidence base helps to inform those interested in craft about how it is best supported and to demonstrate its social, economic and cultural value to government, policy-makers, funders and investors.

In order to understand and share the impact of some of the craft research undertaken in higher education (HE) in the UK, the Crafts Council commissioned this analysis of craft impact case studies in the Research Excellence Framework (REF), the system for assessing the quality of research in UK higher education institutions (HEIs).

The report is intended to bring together and summarise the impact of craft research for makers and partners in HE and beyond.

The range and depth of craft research identified in the REF database illustrates the continuing relevance, distinctiveness and importance of craft as a leading creative industries sector.

Key findings

1.1 Research breadth

Thirty-nine impact case studies in the REF database were identified as being relevant to craft. The largest number relate to textiles, general craft and ceramics. The report analyses the breadth of the studies and suggests they might be grouped into six broad categories derived from the frequency with which some terms appeared in the impact case studies. The categories reflect the diversity and breadth of the nature of craft research:

- Business: research developed with industry and having an economic impact on markets, including healthcare (ten case studies).
- Culture: most case studies (28) had an impact within the cultural and creative realm. Practitioners in art, craft and design contributed to new forms of visual expression.
- Learning: several impact case studies (11) emphasised knowledge and skills and were delivered with the aim of enhancing crafts education and personal development for creative practitioners.
- Location: research involved a range of geographic scales: some research developed international partnerships and impacted on
countries other than the location of the research institution. Other projects were conducted at national or community level and at different sites including the museum or the gallery.

- Practice: practitioners focused on contemporary and traditional practice, as well as new tools and materials. Practice was showcased through the mediums of exhibitions, collections, publications, conferences, events and online.

- Reach: artists, practitioners and directors were involved in the underpinning research. Some impact studies also reported record visitors and audiences. 28 impact case studies reported a positive impact on society and a strong social aspect.

The impact case studies are categorised in the REF under six of eight impact types: cultural, societal, economic, technological, environmental and political.

The majority of craft-related impact case studies were tagged as having a primarily cultural impact (twenty-eight), accounting for 72% of the total impact case studies identified. The second most commonly tagged impact type for craft-related impact case studies was technological (six). While the majority of impact case studies cite a cultural impact, they may also have additional impacts such as societal, economic, environmental and political. Most of the studies show the impact of craft beyond the cultural.

It is possible to identify a set of at least 12 further sub-types of impact which might sit under the six overall REF impact types in which craft is formally identified as having an impact. These are set out in the table below:

<table>
<thead>
<tr>
<th>Cultural</th>
<th>Societal</th>
<th>Economic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. New artistic/cultural expression</td>
<td>5. Education and outreach</td>
<td>8. Contribution to economic prosperity</td>
</tr>
<tr>
<td>3. International profile</td>
<td>7. New audience development</td>
<td></td>
</tr>
<tr>
<td>4. Interdisciplinary dialogue</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Technological</th>
<th>Environmental</th>
<th>Political</th>
</tr>
</thead>
</table>

The report discusses how trends in craft practice and understanding are reflected in these groupings and considers the diversity of the
underpinning research. An intuitive reading across the case studies identifies at least 30 types of underpinning research/practice, ranging from technical and applied research papers (as one might expect in many HE research disciplines) to exhibitions, collections, residencies, installations and films, that might be seen as more typical in craft and visual arts research.

Each impact case study is categorised in the REF into Research Subject Areas (RSAs). The craft-related impact studies were most commonly categorised as Language, Communication and Culture: Cultural Studies (ten) and History and Archaeology: Historical Studies (ten).

1.2 Underpinning research/practice

The underpinning research/practice informing the impact case studies is diverse, often interdisciplinary in nature and uses a substantial range of theoretical and practical research approaches. New and established researchers, scholars, curators, makers, designers, artists and practitioners were involved in the underpinning research, conducting research into materials, technology, methods, concepts, history, conservation, and curatorial practice.

1.3 Location

The report gives breakdowns of the locations both of the submitting HEIs and the impact of the research, nationally and internationally.

Thirty-three HEIs across the UK submitted craft-related impact case studies to the REF. The UK regions and nations with the most craft-related impact case studies were: London (seven); South East (five); East of England (five) and Scotland (five). Together, these regions and nations accounted for over 50% of craft-related impact case studies identified. Northern Ireland and Wales had one impact case study each. (It should be noted that the regional location of the HEI does not necessarily mirror the location of the research impact.)

It is notable that some HEIs with a recognised specialist interest in craft do not feature in the REF database. While it is not expected that all such HEIs would be published in the REF, this suggests that some significant HE research in craft is not accounted for in this report. Therefore, the report’s conclusions may not reflect the wider pattern of craft research in HE.

The relatively low number of craft-related impact case studies reported for some UK regions may be linked to the decline in the number of craft HE courses available and the sharper decline in particular in the West Midlands, East Midlands and North West.
The case studies demonstrate research impact at both national and international levels as well as locally to specific towns and cities. Research is also informed by regional and national considerations. 77% (30/39) of craft-related impact case studies were tagged with an impact in Europe, 51% (20/39) in Asia, 31% (12/39) in North America and 15% (6/39) in Oceania.

1.4 Craft disciplines and practice

Textiles featured most frequently in the craft-related impact case studies identified in the REF database. There are more undergraduate students on craft textiles courses than on courses in other craft disciplines,\(^1\) which may reflect the academic specialisms in submitting institutions.

General craft (i.e. with relevance across multiple craft disciplines) was the second most frequently featured craft discipline in the REF database. This may reflect the increasingly interdisciplinary nature of craft production and the blurring of boundaries between specific craft disciplines.

Impact case studies linked to glass or ceramics were less prominent in the REF database. Again, this may be linked to the decline in ceramics, glass and combined courses in HE in recent years.\(^2\) However, the small number of impact case studies linked to furniture contrasts with the fact that furniture is the discipline with the highest number of HE undergraduate craft courses.\(^3\)

Some craft disciplines did not feature in the REF database at all (e.g. model-making, wax crafts, wood crafts, animation and leather). This may indicate a decline in participation in these disciplines. This seems to be supported by the fact that in recent years more specialist craft courses have closed (for reasons including cost, lack of demand, lack of space, and health and safety issues) than have opened.\(^4\)

1.5 Trends

The impact case studies demonstrate a continuing focus on hand-made objects, at the same time as illustrating the role of new thinking, techniques and technology, such as digital technology and 3D printing, pioneering innovative design production processes and products. This reflects wider trends in which makers are utilising digital technology in

\(^1\) TBR and Pomegranate 2014
\(^2\) Ibid.
\(^3\) Ibid.
\(^4\) Burns Owen Partnership 2012
their practice or production, leading to new forms of creative and cultural expression.

The increasingly interdisciplinary nature of craft production and the blurring of boundaries between craft, art, design and sculpture are mirrored in the impact case studies. The international focus and profile of UK craft research is also visible across the impact case studies.

New audiences are being developed, and these new audiences appear to be engaging with craft across platforms which include exhibitions, online viewing and participation in a wide range of educational and outreach initiatives. Craft is developing knowledge-based services, and many makers are using their specialist knowledge and skills in alternative and non-traditional ways.

Businesses in the craft sector are learning to exploit innovations within craft in order to improve existing products and to further commercial opportunities across a range of industrial sectors. Makers are responding to economic pressures to create commercial products and make increasing use of new technology.

The impact case studies reflect how craft practitioners are changing their practice in response to environmental concerns, with a shift toward sourcing sustainable or sensitive materials, and producing more environmentally friendly products, where possible.

Several of the impact case studies noted how research findings were used to lobby and influence government policy and strategy relating to craft.
2. Introduction

Research is vital to an understanding of the role and evolution of craft. It helps us understand changes in practice (materials, tools and technologies), the nature of support needed (educational, financial or otherwise) and how craft is viewed, exhibited, collected and exchanged. A robust craft evidence base helps to inform those interested in craft how it is best supported and to demonstrate its social, economic and cultural value to government, policy-makers, funders and investors.

The Crafts Council commissions and shares research about craft to help support makers and emerging makers, as well as those able to influence and shape the experience of making. In doing this, we work closely with HEIs as partners and consumers of research.

In order to understand and share the impact of some of the craft research undertaken in HE in the UK, the Crafts Council commissioned an analysis of craft impact case studies in the Research Excellence Framework (REF), the system for assessing the quality of research in UK HEIs.

The REF was the first national exercise to assess the impact of research beyond academia. The REF defines impact as ‘any effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia’. The REF was conducted for the first time in 2014 and replaced the Research Assessment Exercise last conducted in 2008.

This report sets out the findings from an analysis of those impact case studies that were identified with a craft focus in the REF database. It considers the impact sub-types which can be identified in the studies, the types of research undertaken and the location of its impact.

The report is intended to bring together and summarise the impact of craft research for makers and partners in HE and beyond.

2.1 How does the REF work?

HEIs submit impact case studies to the REF as part of their broader research submissions. In this round of the REF, HEIs submitted four-page documents describing impacts that occurred between January 2008 and July 2013. The submitting HEI must have produced high quality research since 1993 that contributed to the impacts. Impact case studies are

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5 http://www.ref.ac.uk. Descriptions of the REF in this introduction are, for the most part, taken directly from the REF website.
6 http://www.rae.ac.uk.
assessed in terms of the reach\textsuperscript{7} and significance of the impacts.

The four HE funding bodies\textsuperscript{8} use the assessment outcomes from the REF to inform the selective allocation of their grant for research to the institutions which they fund, with effect from 2015-16.

The assessment provides accountability for public investment in research and produces evidence of the benefits of this investment. The assessment outcomes provide benchmarking information and establish reputational yardsticks, for use within the HE sector and for public information.

People outside academia working in other sectors may also use the REF to help make use of university research in their area of work or interest.

HEIs across the UK make submissions to the REF under 36 subject-based Units of Assessment (UOAs). Panels of experts assess these submissions and produce an overall quality profile for each submission assessed.

Research submissions are assessed against the quality of outputs, impact and environment criteria. Research outputs are diverse and wide-ranging and may include exhibitions and presentations, as well as articles. REF guidelines provide an indicative list.\textsuperscript{9} The research environment refers to the strategy, resources and infrastructure that support research activity in the submitted unit and contribute more widely to the discipline.

The quality profile awarded to each whole submission is derived from the outputs, impact and environment criteria, which are weighted as follows:

- The quality of research outputs - 65% of the assessment;
- The impact of research beyond academia - 20% of the assessment;
- The research environment, accounting - 15% of the assessment.

Each quality profile shows the proportion of research activity judged by the panels to have met each of the four starred quality levels,\textsuperscript{10} in steps of 1%.

\textsuperscript{7} The extent and diversity of communities, environments, individuals, organisation or other beneficiaries that have benefited or been affected.

\textsuperscript{8} These are: the Higher Education Funding Council for England (HEFCE), the Scottish Funding Council (SFC), the Higher Education Funding Council for Wales (HEFCW) and the Department for Employment and Learning, Northern Ireland (DEL).

\textsuperscript{9} Books (authored or edited); Chapters in books; Journal articles; Working papers; Published conference papers; Electronic resources and publications; Exhibition or museum catalogues; Translations; Scholarly; Creative writing and compositions; Curatorship and conservation; Databases; Grammars; Dictionaries; Digital and broadcast media; Performances and other types of live presentation; Artefacts; Designs and exhibitions; Films, videos and other types of media presentation; Software design and development; Advisory report; Creation of archival or specialist collections to support the research infrastructure.

\textsuperscript{10} 4* represents quality that is world-leading; 3* represents quality that is internationally excellent; 2* represents quality that is recognised internationally; 1* represents quality that is recognised nationally; unclassified indicates quality that falls below the standards of nationally recognised work. Overall quality was judged, on average across all submissions, to be: 30% world-leading (4*); 46% internationally excellent (3*); 20% internationally recognised (2*) 3% nationally recognised (1*).
Following publication of the results, impact case studies of submissions are published on the online REF database.

2.2 Approach to the report

The Crafts Council commissioned an analysis of the REF database to identify craft-related impact case studies. The report does not present an exhaustive or encyclopaedic list of craft-related impact case studies, but identifies those with the greatest reach and significance for craft.\textsuperscript{11}

A search was conducted of the REF database\textsuperscript{12} which revealed 39 case studies relevant to craft. The underpinning data are presented in the Appendix.

\textsuperscript{11} While every effort has been taken to identify the craft-related impact case studies with most reach and significance, it is acknowledged that some omissions may have occurred due to classification protocols within the REF.

\textsuperscript{12} The simplest form of search is to enter a single-word search term. The results are ranked according to the number of occurrences of the single-word term in the impact case study document. Single-word searches undertaken as part of the study included: craft; ceramics; glass; furniture; jewellery; silversmithing; metal crafts; model making; paper crafts; textiles; toys and instruments; wax crafts; wood crafts; animation; digital crafts; leather; antiques; fashion; and stone. A simple textual analysis was also conducted.
3. Findings

3.1 Craft disciplines\textsuperscript{13}

Thirty-nine craft-related impact case studies were identified from the REF database. (Details of individual impact case studies are set out in the Appendix, with hyperlinks (column A) to the REF website. Study numbers are in brackets (e.g. Study 1, Study 2 etc.), referring to the relevant case study.)

Textiles features most frequently in the craft studies identified in the REF database (15) followed by general craft (13) and ceramics (five).

Other disciplines included jewellery, glass, stone, paper and furniture, but these featured less frequently in the REF database. Several impact case studies bridged multiple craft disciplines - the \textit{Autonomic} case study (Study 7), for example, drew on ceramics, glass, metals, textiles and mixed media.

\textbf{Figure 3.1: Number of impact case studies by craft discipline}

\footnotesize
\textsuperscript{13} The discipline categories used for this report were based on those used for course categories in TBR and Pomegranate 2014. Courses that were not specific to a particular discipline were categorised in a broad ‘general craft’ category. The same term has been used here to indicate research with wider relevance across a number of disciplines.
3.2 Categories of research

The following word cloud\(^\text{14}\) shows the 50 key words identified across the 39 craft-related impact case studies. The larger the words in the cloud, the more frequently they appeared within the impact case studies.

**Figure 3.2: Word cloud of key words**

\(^{14}\) This word cloud was produced using Nvivo. A word frequency query was undertaken across all 39 craft-related impact case studies. As the purpose was to identify themes, a number of exclusions were applied: 1) process words (e.g. developed, used, based, indicative); 2) references to specific craft subsectors (e.g. ceramics, glass, textiles); 3) references to specific countries (e.g. British, Japanese); 4) references to common words likely to be identified (e.g. ‘research’, ‘impact’, ‘case’, ‘study’, ‘university’); 5) prepositions (e.g. with, to, from); and 6) dates (e.g. 1999, 2005).
Table 3.1 (below) lists the number of occurrences of these 50 key words across the 39 craft-related impact case studies.

<table>
<thead>
<tr>
<th>Word</th>
<th>Count</th>
<th>Word</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Museum</td>
<td>319</td>
<td>26. Technology</td>
<td>78</td>
</tr>
<tr>
<td>2. Art</td>
<td>302</td>
<td>27. Conference</td>
<td>74</td>
</tr>
<tr>
<td>3. Exhibition</td>
<td>300</td>
<td>28. Collections</td>
<td>71</td>
</tr>
<tr>
<td>4. Public</td>
<td>259</td>
<td>29. Engagement</td>
<td>71</td>
</tr>
<tr>
<td>7. International</td>
<td>191</td>
<td>32. Traditional</td>
<td>65</td>
</tr>
<tr>
<td>8. Cultural</td>
<td>158</td>
<td>33. Audiences</td>
<td>63</td>
</tr>
<tr>
<td>9. Practice</td>
<td>145</td>
<td>34. Local</td>
<td>60</td>
</tr>
<tr>
<td>10. Contemporary</td>
<td>141</td>
<td>35. Products</td>
<td>56</td>
</tr>
<tr>
<td>11. History</td>
<td>129</td>
<td>36. Techniques</td>
<td>56</td>
</tr>
<tr>
<td>12. Development</td>
<td>127</td>
<td>37. Events</td>
<td>54</td>
</tr>
<tr>
<td>15. Gallery</td>
<td>103</td>
<td>40. Practitioners</td>
<td>52</td>
</tr>
<tr>
<td>16. Creative</td>
<td>101</td>
<td>41. Culture</td>
<td>51</td>
</tr>
<tr>
<td>17. National</td>
<td>98</td>
<td>42. Online</td>
<td>51</td>
</tr>
<tr>
<td>18. Material</td>
<td>91</td>
<td>43. Society</td>
<td>51</td>
</tr>
<tr>
<td>19. Knowledge</td>
<td>84</td>
<td>44. Sustainable</td>
<td>51</td>
</tr>
<tr>
<td>20. Heritage</td>
<td>83</td>
<td>45. Skills</td>
<td>50</td>
</tr>
<tr>
<td>21. Visitors</td>
<td>82</td>
<td>46. Economic</td>
<td>49</td>
</tr>
<tr>
<td>22. Artists</td>
<td>79</td>
<td>47. Education</td>
<td>47</td>
</tr>
<tr>
<td>23. Director</td>
<td>79</td>
<td>48. Visual</td>
<td>47</td>
</tr>
<tr>
<td>24. Publication</td>
<td>79</td>
<td>49. Industrial</td>
<td>46</td>
</tr>
<tr>
<td>25. World</td>
<td>79</td>
<td>50. Social</td>
<td>45</td>
</tr>
</tbody>
</table>

Table 3.1: Word frequencies across the impact case studies

Using each of the 50 key words once (presented in italics below), six overarching categories of research can be identified:15

- **Business**: Ten of the impact case studies had commercial significance, some of which were developed with *industry*. Impact was recorded in several *industrial* sectors including healthcare and consumer markets. The *economic* impact of the craft sector was demonstrated across several impact case studies, with new *technology* and *techniques* being exploited for the purposes of income generation. Craft can be seen to be adding *value* to

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15 These categories are based on the researcher’s subjective interpretation.
businesses, which have developed innovative *products* and created new *sustainable* business models using craft.

- **Culture**: Twenty-eight case studies had an impact on *culture*, creating new forms of *cultural* and *creative* expression. Practitioners in *art, craft* and *design* were involved in ground breaking projects, some leading to *visual innovation*.

- **Learning**: Eleven of the impact case studies emphasised *knowledge* and *skills* and were delivered with the aim of enhancing crafts *education* and personal *development* for creative practitioners. Many impact case studies included educational and outreach components, working with schools, further education (FE) and HE as well as the general public. These activities explored the *history* and *heritage* of craft. Students, researchers and spectators were brought together in a process of *engagement* and *collaboration*.

- **Location**: Some of the underpinning research had links with different countries across the *world*, and developed *international* partnerships. Other underpinning research was conducted on a *national* level. Many impact case studies demonstrated impact in the *community* or on a *local* level. The underpinning research was delivered at different sites including the *museum* or the *gallery*.

- **Practice**: The impact case studies show a diversity of *practice* including both *contemporary* and *traditional* methods, using new tools and *material*. Practitioners showcased work through the medium of *exhibition, collections, publication, conferences, events* and *online*. Makers are increasingly utilising *digital* technology in their practice or production.

- **Reach**: The impact case studies had considerable reach, and involved a wide range of *people*. *Artists, practitioners* and *director(s)* were involved in the underpinning research. The *public* actively participated in, benefitted from and enjoyed the different aspects of the underpinning research, with some impact studies reporting record *visitors* and *audiences*. Twenty-eight impact case studies reported a positive impact on *society* and a strong *social* aspect.
3.3 Impact types

There are eight impact types\textsuperscript{16} within the REF. These follow the PESTLE convention (political, economic, societal, technological, legal, and environmental). Health and cultural impact types (otherwise subsumed within societal) have been added to the six standard categories. The craft impact case studies are categorised in the REF under six of eight impact types: cultural, societal, economic, technological, environmental and political.

The majority of craft-related impact case studies were tagged as having a primarily cultural impact (28), accounting for 72\% of the total impact case studies identified. The second most commonly tagged impact type for craft-related impact case studies was technological (six).

However, it should be noted that most of the craft-related impact case studies relate at some level to more than one type of impact. While the majority of impact case studies cite a cultural impact, they may also have additional impacts such as societal, economic, environmental and political. It is interesting and salient that craft does not only have cultural impact - indeed, most of the studies have impact beyond the cultural.

Figure 3.3: Number of impact case studies by impact type

It is possible to identify a set of at least 12 further sub-types of impact which might sit under the six overall REF impact types in which craft is formally identified as having an impact. These sub-types (not formal REF sub-types) are set out in the table below:

Table 3.2: Impact sub-types across the craft-related impact case studies

\textsuperscript{16} In the REF impact is defined as an effect on, change or benefit to the economy, society, culture, public policy or services, health, the environment or quality of life, beyond academia. Case studies are assigned to a single ‘Summary Impact Type’ by text analysis of the ‘Summary of the Impact’ (Section 1 of the impact case study template). This is an indicative guide to aid text searching and is not a definitive assignment of the impact described.
### Cultural

<table>
<thead>
<tr>
<th>1. New artistic/cultural expression</th>
<th>5. Education and outreach</th>
<th>8. Contribution to economic prosperity</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. International profile</td>
<td>7. New audience development</td>
<td></td>
</tr>
<tr>
<td>4. Interdisciplinary dialogue</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Societal

|-----------------------------------------------|-------------------------|---------------------------------------------------|

### Economic

<table>
<thead>
<tr>
<th>Funding mechanisms and streams, business and enterprise directives, internal funding models, budgetary restrictions, income generation. See jiscinfonet.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Societal attitudes to and impacts of education, government directives and employment opportunities, lifestyle changes, changes in populations, distributions and demographics, the societal impact of different cultures. See jiscinfonet.</td>
</tr>
<tr>
<td>Major current and emerging technologies of relevance for teaching, research or administration. See jiscinfonet.</td>
</tr>
<tr>
<td>Local, national and international environmental impacts, outcomes of political and social factors. See jiscinfonet.</td>
</tr>
<tr>
<td>Worldwide, European and UK national and local Government directives, public body policies, national and local organisations’ requirements, institutional policy. See jiscinfonet.</td>
</tr>
</tbody>
</table>
Table 3.3: Craft-related impact case studies mapped against REF impact types and possible sub-types

Table 3.3 details the full set of impact case studies, mapped against the REF impact types and the 12 further sub-types of impact which it is possible to identify (not formal REF sub-types).

<table>
<thead>
<tr>
<th>IMPACT CASE STUDIES</th>
<th>CULTURAL</th>
<th>SOCIETAL</th>
<th>ECONOMIC</th>
<th>TECHNOLOGICAL</th>
<th>ENVIRONMENTAL</th>
<th>POLITICAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Study 1</td>
<td>Seals in the medieval world</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Study 2</td>
<td>Live ceramics</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Study 3</td>
<td>Andean textiles</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Study 4</td>
<td>Craft informed 3D printing and digital reconstruction</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Study 5</td>
<td>Exploring the decline of British ceramics</td>
<td>✓</td>
<td>✓</td>
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\textsuperscript{23} This mapping is based on a subjective, interpretative reading of the impact case studies by the researcher. While every effort has been made to acknowledge the wide-ranging impact of each case study, it is recognised that there may be some omissions and submitting HEIs may have categorised their impacts differently.

\textsuperscript{24} Full titles of impact case studies have been shortened for convenience of presentation. Please see the Appendix for full titles of the impact case studies.
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<tr>
<th>IMPACT CASE STUDIES</th>
<th>CULTURAL</th>
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<td>Study 32</td>
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| Study 36           | Fashion and textiles Sustainability | ✔ | | | | | ✔
| Study 37           | A new range of outdoor clothing for the active ageing | | ✔ | ✔ | | | ✔
| Study 38           | The impact of research into digitally printed 3D ceramics | | | | | | ✔
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3.4 Illustration of impact types and sub-types

In this section all 39 craft-related impact case studies are grouped into types and sub-types to illustrate the nature, breadth and diversity of the reported impacts described in sections 3.3 and 3.4. Some studies have impact in more than one type and/or sub-type. So, not all impact types relating to a single impact case study are covered in the illustrative categorisation below. The aim of the following section is to offer insight into the range of impact across the case studies rather than to be comprehensive.

IMPACT TYPE: CULTURAL

Impact sub-type 1: New artistic/cultural expression

- *Live ceramics* (Study 2): live public experiments undertaken in the museum setting, demonstrating and expanding the scope of ceramics as a discipline.

- *Shaping a new understanding of sculpture* (Study 17): new forms of artistic engagement with sculpture, using materials from familiar, non-art, urban contexts.

- *V&A Dundee Design, industry and the cultural economy* (Study 23): establishment of a major new cultural centre for design in Dundee.

Impact sub-type 2: Cultural preservation

- *Seals in the medieval world* (Study 1): preservation of seals as valuable heritage assets.

- *Exploring the decline of British ceramic manufacture* (Study 5): preservation of artefacts, practices and heritage linked to North Staffordshire ceramic manufacturing.

- *The Norfolk medieval stained glass project* (Study 25): protection of the long-term future of the medieval stained glass of Norfolk, a major aspect of world heritage and once under threat.

- *Accessing ancient art* (Study 33): creation of a database for gathering and storing data about the collection history of ancient Greek vases and engraved gems.

Impact sub-type 3: International profile

- *Crafting the contemporary* (Study 10): creation of a major, multi-
stranded international festival, the Ahmedabad International Arts Festival (AIAF).

- Enrichment of public awareness and understanding of textiles heritage (Study 31): substantial international impact, influencing curatorial practice worldwide, stimulated through the launch of the International Textiles and Costume Congress (ITCC) in 2011.

- Knowledge exchange among Kyrgyz women craft producers (Study 34): increased international profile for local Kyrgyz women practitioners and enhanced links with international agencies such as UNESCO.

**Impact sub-type 4: Interdisciplinary dialogue**

- Challenging the disciplines (Study 12): artistic work exploring the creative intersection between the worlds of sculpture, ceramics, architecture and craft.

- The textile stories project (Study 19): exploration of how textiles, crafts, fashion, and costume drama influence public understanding of the significance of nineteenth-century literature.

- Material, theory and practice (Study 39): utilisation of material practices in textile, glass and ceramics/brick, combining formal, conceptual and social concerns through artistic/design-based material practices.

**IMPACT TYPE: SOCIETAL**

**Impact sub-type 5: Education and outreach**

- Expanding scale and surface in contemporary ceramics (Study 5): delivery of an educational programme for the general public and craft specialists.

- Crafting the digital (Study 8): extension of the project by partnering and sharing technical know-how with local arts organisations.

- Knitted textiles in the culture and economy of Scotland (Study 27): series of public engagement activities including educational workshops and public study days.

- Raising public awareness of medieval dress and textiles (Study 32): engagement with non-professional historians, re-enactors, textile practitioners and creative writers through public lectures, consultancy work and collaborations with museums.
Impact sub-type 6: Skills development for craft practitioners

- *Andean textiles* (Study 3): improvement of the training and service development skills of UK and South American museum curators, archaeologists and technical staff.

- *Communities of practice on contemporary craft* (Study 20): professional and creative development for a range of craft practitioners.

- *Combining printmaking and waterjet cutting glass for the development of creative practice* (Study 35): promotion of new methods and practice for the glass and printmaking sectors, benefitting creative industries practitioners.

Impact sub-type 7: New audience development

- *Bringing Kabuki prints to modern audiences* (Study 15): increased and enhanced international market and audience for Osaka prints.

- *Colouring the nation* (Study 26): online exhibition attracted c.12,000 page views in just three months with online visitors from Edinburgh, Sao Paulo, Melbourne, New Delhi, Darwin, Perth, Bilboa and Alexandra.

- *Threads of feeling* (Study 28): 11,600 visits in the first six months (approximately 6,000 being from the USA and 2,000 from the UK).

IMPACT TYPE: ECONOMIC

Impact sub-type 8: Contribution to economic prosperity

- *Lost in lace* (Study 21): £948,283.56 worth of economic activity generated through this one-off exhibition.

- *Spirits of clay* (Study 24): £5 million of economic activity generated through these two major exhibitions.

- *Advanced textiles* (Study 35): market growth in the advanced textiles market is estimated as 28.3% annually and in 2009 had an international market value of €469million.

Impact sub-type 9: Creation of commercial opportunities

- *Argentium silver project* (Study 11): development of new jewellery designs retailing in over 1,220 high street shops in the UK alone.

- *Developing technical textiles products and processes* (Study 9): 452 companies with new products created/improved (e.g. patents
awarded, research and development sustained) through the advancement of sustainable Technical Textiles (TT).

- **Designing new non-woven fabrics** (Study 30): new commercial joint ventures independently established and co-funded, resulting in the development of new IP-protected products.

**IMPACT TYPE: TECHNOLOGICAL**

Impact theme 10: **Innovation of new products and technologies**

- **Craft-informed 3D printing and digital reconstruction of precious objects** (Study 4): development of new applications of digital scanning, CAD processes and rapid prototyping.

- **Autonomic** (Study 7): new creative uses of digital design, data capture, digital production and digital network technologies to pioneer design production processes and new aesthetic qualities.

- **Applied Textiles** (Study 22): exploration of the deployment and hybridisation of advanced digital imaging processes to create control data for output devices, from looms to lasers.

- **A new range of outdoor clothing for the active ageing** (Study 37): creation of a new range of functional clothing based on research on wearable technologies for the active ageing.

**IMPACT TYPE: ENVIRONMENTAL**

Impact sub-type 11: **Sustainable practice**

- **Sustainability practices in the furniture manufacturing industry** (Study 6): development of environmentally friendly practices in furniture manufacturing for developing countries such as Bosnia, Ghana, Malaysia, Thailand, Romania and Vietnam.

- **Creative and technical research into silicates-based materials** (Study 18): expansion of the aesthetic and technical boundaries of ceramic materials and their impact on sustainable practices and materials within contemporary design.

- **Fashion and textiles sustainability** (Study 36): development of design-led practice and theoretical concepts underpinning sustainability in the fashion and textile sectors.
IMPACT TYPE: POLITICAL

Impact theme 12: Influence on cultural or public discourse/policy

- *Understanding craft skills* (Study 16): contribution to UK and US debates on the downgrading of craft skills in government and economic policy.

- *Cultural enrichment through public engagement* (Study 29): attraction of 14,300 visitors with an additional 1,100 attending outreach events.

- *Impact of research into digital printed three-dimensional ceramics* (Study 38): government policy influenced through the wider dissemination of innovative practice integrating artistic experimentation and industrial methods.

3.5 Underpinning research/practice

The underpinning research/practice for each of the 39 craft-related impact case studies varies considerably, and most individual impact case studies describe the use of multiple methods and approaches. The Appendix to this report (column I) sets out the multiple approaches used in each case.

For example: the underpinning research/practice for the impact case study *V&A Dundee-Design, industry and the cultural economy* (Study 23), included:

- the Past-present-future-craft-practice research project;
- a residency programme funded by Scottish Arts Council;
- a symposium with V&A Museum (*Prototype: craft in the future tense*); and
- a conference and exhibition (*‘Making it Happen’*).

An intuitive reading across the case studies identifies at least 30 types of underpinning research/practice:

Table 3.4: Types of underpinning research/practice

|--------------------|----------------------|-----------------------|
The REF states that: ‘the underpinning research must be conducted by staff working within the submitting HEI. The individuals need not be working in the submitting HEI on the census date but must have been at the time they carried out the underpinning research’. (Research undertaken by research students is not considered as having been carried out by staff while working in the submitting HEI.)

### 3.6 Research subject areas by REF category

Each impact case study is categorised in the REF into Research Subject Areas (RSAs). The craft-related impact studies were most commonly categorised as Language, Communication and Culture: Cultural Studies (ten) and History and Archaeology: Historical Studies (ten).

The **Appendix** lists the RSA classifications for each craft-related impact case study (see column K).

### 3.7 Unit of assessment

The majority of craft-related impact case studies (25 in total) were categorised as Art and Design: History, Practice and Theory, accounting for 64% of the total impact case studies identified.

Practice ‘encompasses all disciplines within art and design, in which methods of making, representation, interrogation and interpretation are integral to their productions. History and Theory encompass the history,
criticism, theory, historiography, pedagogy and aesthetics of architecture, art, craft, and design in their widest chronological and geographical framework.’

Subject areas within practice, theory and history of art and design include: ‘animation; applied and decorative arts; architecture; conservation, the study of materials and techniques; crafts; creative and heritage industries; critical, historical, social and cultural studies; entrepreneurship and enterprise; film and broadcast media; fine arts; landscape and garden design; museology and curatorship; photography; policy, management and innovation studies; product design; spatial, two- and three-dimensional design; textile, dress and fashion; time-based and digital media; visual and material culture.’

The Appendix provides a breakdown of Unit of Assessment (UOA) classifications for each craft-related impact case study (see column E).

Figure 3.4: Number of impact case studies by unit of assessment

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3.8 Quality assessment

Each of the 39 craft-related impact case studies was submitted to the REF as part of a wider submission. The REF only publishes results at whole submission level. The quality assessment results for the individual craft-related impact case studies are therefore not available.

3.9 Higher education institutions featured in the impact case studies

Thirty-three HEIs across the UK submitted craft-related impact case studies to the REF. The Appendix (column C) lists all submitting HEIs.
Five HEIs submitted more than one craft-related impact case study to the REF. These were: University of Creative Arts (UCA); Buckinghamshire New University; Falmouth University; Leeds University; the School of Oriental and African Studies; and University of East Anglia.

Submitting HEIs can be grouped by UK nation or region (Northern Ireland, Scotland, Wales, and the nine regions for England). The UK nations and regions with the most craft-related impact case studies in the REF were: London (seven); South East (five); East of England (five) and Scotland (five). These accounted for over 50% of craft-related impact case studies identified. Northern Ireland and Wales had one impact case study each.

Figure 3.5: Number of impact case studies by location of higher education institute

The variation by region in the number of craft-related impact case studies may be linked to the higher rate of decline in the number of craft HE courses in some regions. Between 2007/08 and 2011/12, for example, the number of courses available in the West Midlands, East Midlands and North West fell by 50% or more.\(^{27}\) Relatively few craft HE courses are available in the North East.\(^{28}\) The availability of craft HE courses is concentrated in the South East and London (38% of courses available in England).\(^{29}\)

The regional location of the HEI does not necessarily mirror the location of the research impact and there is no obvious correlation between the location of the submitting university and the location of impact. (This point is picked up in the next section.) For example, *Crafting the digital* (Study 8) was submitted by Falmouth University in the South West, yet its

\(^{27}\) TBR and Pomegranate 2014  
\(^{28}\) Ibid.  
\(^{29}\) Ibid.
focus and impact was recorded in London and Newcastle-upon-Tyne (North East); *Live ceramics: exploring the processes of firing clay in live public experiments in museums and galleries* (Study 2) was submitted by Bath Spa University and its impact was recorded in Bexhill-on-sea, London and Middlesbrough.

### 3.10 Impact location

The case studies demonstrate research impact at both national and international levels as well as locally to specific towns and cities.

Thirty-four of the identified impact case studies were tagged with an impact in England, six in Scotland and five in Wales. No impact was noted for Northern Ireland.

**Figure 3.6: Number of impact case studies by UK impact location**

![Pie chart showing distribution of impact case studies by UK location: England (34), Scotland (6), Wales (5), Northern Ireland (0)](image)

The following UK towns and cities were tagged as impact location across the 39 impact case studies:

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33 REF impact case studies are tagged with one or more UK locations on the basis of places (UK cities and towns, as found in the GeoNames database [http://www.geonames.org](http://www.geonames.org)) referenced in the text of either Section 1 ("Summary of Impact") or Section 4 ("Details of the Impact") of the impact case study. The REF, therefore, does not provide a definitive identification of where UK Impact Location has occurred as some text makes passing references to associated locations; other text references impact beneficiaries without a specific location.
The Appendix indicates UK impact locations for each craft-related impact case study. Some towns and cities are tagged on multiple occasions (see column M).

Figure 3.7: Map of geographical spread of impact across the UK

Globally, 77% (30/39) of craft-related impact case studies were tagged with an impact in Europe, 51% (20/39) in Asia, 31% (12/39) in North America and 15% (6/39) in Oceania. Only 5% (2/39) of case studies were tagged with an impact in Africa and 3% (1/39) in South America.
The UK was the most commonly cited nation of impact in Europe, making up 73% (20/30) of case studies tagging Europe as a global impact location, followed by Norway with 13% (4/30), then Denmark, Sweden, Netherlands, Italy and Germany, all with 10% (3/30).

Japan was the most commonly cited nation of impact in Asia with 35% (7/20), followed by China with 30% (6/20) and India with 25% (5/20).

The US was the most commonly cited nation of impact in North America (ten references across the 12 case studies tagging North America as a global impact location) followed by Canada (with four).

In Oceania, Australia was the most commonly cited nation of impact (with five references across the six studies case studies tagging Oceania as a global impact location) followed by New Zealand (with two).

Mali and Ghana were highlighted in the two case studies tagging Africa as a global impact location. Argentina, Peru, Bolivia and Chile were the countries impacted by the single case study tagged as having an impact in South America.

The Appendix (see column O) indicates global impact locations for each craft-related impact case study. Some countries are tagged on multiple occasions.

Figure 3.8: Number of impact case studies by global impact location

![Pie chart showing global impact locations](image)
4. What do we learn from the impact case studies?

4.1 Craft disciplines

Textiles featured most frequently in the craft-related impact case studies identified in the REF database. There are more undergraduate students on craft textiles courses than on courses in other craft disciplines,\(^{31}\) which may reflect the academic specialisms in submitting institutions.

General craft (e.g. relevance across multiple craft disciplines) was the secondly most frequently featured craft discipline in the REF database. This may reflect the increasingly interdisciplinary nature of craft production and the blurring of boundaries between specific craft disciplines.

Impact case studies linked to glass or ceramics were less prominent in the REF database. Again, this may be linked to the decline in ceramics, glass and combined courses in HE in recent years.\(^ {32}\) However, the small number of impact case studies linked to furniture contrasts with the fact that furniture is the discipline with the highest number of HE undergraduate craft courses.\(^ {33}\)

Some craft disciplines did not feature in the REF database at all (e.g. model-making, wax crafts, wood crafts, animation and leather). This may indicate a decline in participation in these disciplines. This seems to be supported by the fact that in recent years more specialist craft courses have closed (for reasons including cost, lack of demand, lack of space, and health and safety issues) than have opened.\(^ {34}\)

4.2 Impact types and sub-types

The impact case studies are categorised in the REF under six of eight impact types: cultural, societal, economic, technological, environmental and political. The majority of craft-related impact case studies were tagged as having a primarily cultural impact (28), accounting for 72% of the total impact case studies identified. The second most commonly tagged impact type for craft-related impact case studies was technological (six).

Twelve impact sub-types were identified across the 39 craft-related case studies. These 12 impact sub-types are influenced by cultural, societal, economic, technological, environmental and political determinants.

\(^{31}\) TBR and Pomegranate 2014  
\(^{32}\) Ibid.  
\(^{33}\) Ibid.  
\(^{34}\) Burns Owen Partnership 2012
Cultural: Whilst the impact case studies demonstrate a continuing focus on hand-made objects, they also show the growing role of digital technology; 14 impact case studies cited the use/development of digital technology, and 3D printing features in seven of the case studies. This reflects wider trends in which makers are utilising digital technology in their practice or production, leading to new forms of creative and cultural expression. The increasingly interdisciplinary nature of craft production and the blurring of boundaries between craft, fine art, design and sculpture are reflected in the impact case studies, as is the international focus and profile of UK craft research.

Societal: New thinking, techniques and technology are being utilised by craft practitioners, who, in turn, are: developing new skills and knowledge; re-inventing practice; and using new materials and tools. New audiences are being developed, and these new audiences appear to be engaging with craft across different platforms: attending exhibitions; viewing online; participating in a wide range of educational and outreach initiatives. Craft is developing knowledge-based services, and many makers are using their specialist knowledge and skills in alternative and non-traditional ways.

Economic: Some of the impact case studies describe the economic returns of specific initiatives. Businesses in the craft sector are learning to exploit innovations within craft in order to improve existing products and to further commercial opportunities across a range of industrial sectors. Makers are responding to economic pressures to create commercial products and make increasing use of new technology.

Technological: A high proportion of impact case studies illustrated that craft practitioners were making creative uses of digital design, data capture, digital production and digital network technologies, pioneering innovative design production processes and products.

Environmental: The impact case studies reflect how craft practitioners are changing their practice in response to environmental concerns, with a shift toward sourcing sustainable or sensitive materials, and producing more environmentally friendly products, where possible.

Political: Several of the impact case studies had political components, and the research findings were used to lobby and influence government policy and strategy relating to craft.

Most of the studies show the impact of craft beyond the cultural.

4.3 Underpinning research/practice

The underpinning research/practice informing the impact case studies is diverse.
Much of the underpinning research/practice is interdisciplinary in nature and a substantial range of theoretical and practical research approaches were employed. New and established researchers, scholars, curators, makers, designers, artists and practitioners were involved in the underpinning research, conducting research into materials, technology, methods, concepts, history, conservation, and curatorial practice.

The underpinning research was explored from a number of perspectives (e.g. process; aesthetic; functional; and technical) and presented to the public via multiple platforms (e.g. exhibitions; installations; online; talks; and demonstrations). Some of the underpinning research was conducted in discipline areas of the applied arts and crafts, including craft education or applied textiles. These applied case studies investigated the creative application of contemporary and traditional craft processes as well as new technologies.

4.4 Higher education institutions

It is notable that some HEIs with a recognised specialist interest in craft do not feature in the REF database. While it is not expected that all such HEIs would be published in the REF, this suggests that some significant HE research in craft is not accounted for in this report. Therefore, the conclusions in this report may not reflect the wider pattern of craft research in higher education.

The relatively low number of craft-related impact case studies reported for some UK regions may be linked to the decline in the number of craft HE courses available and the sharper decline in particular in the West Midlands, East Midlands and North West.

The location of HEIs does not necessarily mirror the location of their research impact.

4.5 Impact location

The case studies demonstrate research impact on both national and international levels. Research is also informed by regional and national considerations.

The range and depth of craft research identified in the REF database illustrates the continuing relevance, distinctiveness and importance of craft as a leading creative industries sector.
References


### Appendix: Key data across the 39 craft-related impact case studies

All impact case study (Study) reference numbers in column A are hyperlinked to the REF.

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| STUDY 22  | Applied textiles - architectural surfaces       | University of Derby      | East Midlands |    | 34      | Technological         | 1. Innovation of new products and technologies  
2. Creation of commercial opportunities  
3. International profile  
4. New audience development | Technical research        | Textiles               | 1. Engineering: Civil Engineering  
2. Built Environment and Design: Architecture, Design Practice and Management | England  
1. Derby  
2. London  
3. Nottingham | 1. Europe  
2. North America | 1. Germany  
2. Canada |
| STUDY 23  | V&A Dundee-Design, industry and the cultural economy | University of Dundee     | Scotland    |    | 34      | Cultural              | 1. Contribution to economic prosperity  
2. New audience development  
3. Creation of commercial opportunities  
4. New artistic/cultural expression | 1. Research in craft, design and business  
2. Exhibitions  
3. Event  
4. Conferences | General craft            | 1. Studies In Human Society: Policy and Administration  
2. Studies In Creative Arts and Writing: Film, Television and Digital Media | 1. England  
2. Scotland | 1. London  
2. Dundee  
3. Glasgow | Europe  
United Kingdom |
| STUDY 24  | Spirits of Clay: ceramics figures from Japan and the Balkans | University of East Anglia | East        |    | 34      | Cultural              | 1. Contribution to economic prosperity  
2. International profile  
3. New audience development  
4. Education and outreach | 1. Exhibitions  
2. Workshops  
3. Publications  
1. London  
2. Norwich | 1. Europe  
2. Asia | 1. Albania  
2. Kosovo  
3. Macedonia  
4. Poland  
5. Slovenia  
6. United Kingdom  
7. Japan |
| STUDY 25  | The Norfolk medieval stained glass project      | University of East Anglia | East        |    | 30      | Cultural              | 1. Cultural preservation  
2. Inter-disciplinary dialogue  
3. Innovation of new products and technologies | 1. Archival research (photographing, measuring and describing all the known examples of medieval stained glass)  
2. Online/website development | Glass                   | 1. Language, Communication and Culture: Literary Studies  
2. History and Archaeology: Historical Studies | England  
1. London  
2. Norwich | 1. Europe | United Kingdom |
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<td>Textiles</td>
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| STUDY 58 | The impact of research into digitally printed three dimensional ceramics for creative practitioners, industrial applications and policy makers | University of West England, Bristol | South West |     |         | Technical                 | 1. Innovation of new products and technologies  
2. Creation of commercial opportunities  
3. Skills development for craft practitioners  
4. Influence on cultural and public discourse/policy | Technical research                                           | Ceramics                                                      | England                                                      | Bristol                  | Asia                        | China                  | |
| STUDY 59 | Material theory and practice (MTP): The impact of innovation in creative practice through material experimentation | University of Wolverhampton, West Midlands | West Midlands |     |         | Cultural                  | 1. Innovation of new products and technologies  
2. Skills development for craft practitioners  
3. Interdisciplinary dialogue | Applied research                                              | General craft                                                   |                                            |                                              | 1. England  
2. Scotland                                                                                                        | 1. Gateshead  
2. Kingswinford  
3. London  
4. Edinburgh                  | 1. Europe  
2. North America                                                                                      | 1. Norway  
2. United Kingdom  
3. United States              | |
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