

Brex City: Current and Future Urbanities of the United Kingdom/Republic of Ireland Border

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Abstract: The political crisis produced by the UK's June 2016 referendum decision to leave the European Union, 'Brexit', has brought focus on the UK/Republic of Ireland (RoI) border as a microcosm of the renegotiation of the territorial relationship between the EU and UK. The location of the UK/RoI border results from the internationalisation of former county boundaries. Its status reflects shifts in connectivity across a border created from within what was historically a single territory. Settlement around this border reveals spatial utilisation, type, and patterns that are particular to this place. A dispersed urbanism has emerged, actively embodying difference; between legal structures, tax regulations, building and urban codes, currency fluctuations and cultural values, united by freedom of movement. Building types, settlements and localities where access and egress is only possible by passing through another state reflect a relationship with the border that objectively embodies the lived reality of territorial difference. Through a process of critically reviewing the current border condition, identifying latencies and potentialities through enquiry by design, this paper proposes possible futures for this place. Brex City is a unique urbanism embodying a range of possible futures, mirroring the challenges, absolutes, ambiguities, paradoxes and tensions established by Brexit.

Keywords: Brexit; Borders; Frictionless/Seamless; Urbanism

Introduction: Data Mapping the UK/RoI border

One unintended outcome of the 23 June 2016 EU Referendum vote was to place the status of the UK-Republic of Ireland (RoI) border into sharp focus. In the situation of the UK leaving the EU, this border, historically existing as a set of county boundaries before its formalisation with the creation of the Republic of Ireland and the UK province of Northern Ireland, will become the only international land border between the UK, now a third state, and the EU, massively increasing its international importance and status.

The complexity and interconnectedness across this border reflect its historical origins and the reality of the border region acting as an interconnected whole. The historic interdependencies across the border line have been interrupted by periods of military hardening as seen during the establishment of the Irish Republic and the Troubles 1968-98. Since the 1998 Good Friday Agreement the border has reverted to an entirely porous boundary, barely noticeable when it is crossed.

The complexity of the border is often discussed in abstract through news reportage and the border has been mentioned by the UK media on an almost daily basis since the referendum result, but detailed understanding of its spatiality and use is elusive, partly the result of this single place being split between two states. This raises questions around how the border actually operated, how it has informed

communities on either side of it and what is the operational and societal spatiality of the border as seen in Figures 1 and 2.



Figure 1: The Gates of the United Kingdom, near Crossmaglen, looking into the UK from the Republic of Ireland 2018 (photo author's own)



Figure 2: Gateway to the European Union, Killea, looking from the UK into the Republic of Ireland 2018 (photo author's own)

The Data Mapping Method and Research Through Design

This research has two primary goals:

1. To use data mapping as a methodological approach to explore, identify and reveal crosscutting insights into the operation and performance of space and place in the UK-RoI border and its wider regions.

2. To use the findings of these spatial explorations to explore novel approaches to design which tackle multi-dimensional problems in relation to services, physical and invisible infrastructure, and the role of built form.

This work originates from a starting point that considers the UK-RoI border as a form of dispersed urban space, developing an exploration of new and emergent forms of contemporary urbanism undertaken by the Infrastructure Space Research Group at the Manchester School of Architecture since 2015.

Initial desk-based analysis was followed up by immersive fieldwork. This analysis produced exploratory mappings that compare and give spatial context to publicly available, existing data sets to identify contemporary and historical patterns of occupation across the border region, and from this frame opportunities and challenges for the region. The analysis explored thematic approaches to physical and invisible networks and patterns of use and occupation.

With an overarching goal to understand the context and infrastructure that supports activity around and across the border, the study investigated four key themes within the context of the border:

- Health and Lifestyle
- Energy and Power
- Demographics and Economy
- Networks and Connectivity

This enabled patterns of use to be clearly represented, and through this process of representation to establish questions and gaps in knowledge within which further actions can be located.

Mapping Border Settlement

Preliminary data mapping and spatial analysis undertaken between September 2018-January 2019 mapped extant data from publicly available sources, including census and local authority data, against the UK/RoI border and its wider geography. This involved academic staff and postgraduate architecture students from Manchester School of Architecture working with a range of stakeholders and sources. The approach allows the cross-thematic referencing of data sets to give an overview of the border condition which provides initial insights into the way in which spaces along the border are populated, inhabited and occupied on a day-to-day basis. Desk work was tested and developed through extensive fieldwork undertaken October-November 2018 that followed the full length of the 499 km border from Muff in the Northwest to Warren Point in the Southeast and also included a number of N-S and E-W transects through key areas of the border to understand them in more detail, including Derry/Londonderry-Muff, Lifford-Strabane, Armagh-Monaghan and the A1-N1 corridor between Newry-Dundalk. This work has provided a basis for the development of spatial (architectural and urban) proposals which serve as exploratory tools to evaluate the socio-spatial effectiveness of technological and policy mechanisms that have so far arisen from the Brexit negotiations. The process of spatialisation

and visualisation is key to accessible and meaningful communication to a wide range of audiences, to support a better understanding of ‘place’. This work builds on previous data mapping studies undertaken in the Highlands of Scotland and Cornwall in Southwest England between 2015-2018 (Jefferies, Coucill et al 2017). The Data Mapping method affords:

- the engagement of diverse audiences in place-specific data;
- the representation of place-specific, multi-level and cross-cutting spatial and socio-economic relationships;
- the recognition of new and emerging spatial conditions and characteristics.

The preliminary research project exposed many questions about the effect of the border, the spatial integration of technologies and their social and community implications, raising further questions in terms of understanding the effects of potential changes in border demarcation and operations. Evaluation of this data through architectural design methodology based cross-disciplinarily engaged workshops involving stakeholders and academics allowed the understanding of this place to be substantially advanced through the form of the critical design project.

Turning Latency into Opportunity: Research Through Design

A complex understanding of a place through data mapping enables the identification of latency within a situation. This may be the result of types of either realised or potential surplus or the result of two or more factors creating synergies. The examples of proposals discussed below demonstrate that through a focus on maximising the potential of place physical and systemic infrastructural solutions can act as drivers for creating inhabitable and beneficial places that are measurably good. We recognise that technological obsolescence is faster than cultural change, and that society’s view of what is good or bad built form also shifts over time. Consequently, new infrastructures that support the development of culture must be able to both accept redundancy as an inevitable part of their lifecycle, and embody the potential to support culture as future heritage components and spaces in often radically redefined contexts.

The purpose of research through design is to critically test and extend ideas and situations that are identified through the initial Data Mapping phase of the work. The outcome of this are proposals that can be used as mechanisms to explore potential futures of the region and ask questions of current decisions, processes and spatial operational models.

A number of key themes emerged from the data mapping phase, ranging in scope from tightly defined built or policy based proposals, through to significant and potentially radical co-created geopolitical changes, all framed by the reality of Brexit.

- Built infrastructure interventions
- Harmonised cross-border activities
- New spatial, territorial and temporal entities

Built Infrastructure Interventions: Designing the Frictionless Border

Upon completion of the Data Mapping phase of the work, between December 2018-June 2019 design proposals that developed infrastructural approaches to the Border were developed. These were partially triggered from the findings that certain key infrastructures were missing, raising questions about what should be in place. These included a limited rail network, incomplete motorway network, no domestic gas supply network, patchy digital communication coverage and service delivery models that engaged with cross border cooperation on a sector by sector basis. It became apparent that an approach to infrastructure that both acknowledged the border and sought technological advantage would potentially be productive. It was also clear that the costs of developing coherent infrastructural approaches to the Island of Ireland either required significant politically driven prioritisation or a longer-term perspective to justify the cost of implementation.

The Consolidated Solution and Customs Fulfilment Centre. The discussions around the ‘Irish Backstop’ have hinged on the possibility of developing a technological solution to frictionless cross border condition. The spatiality of what such a condition might entail has been left open but is currently seen as a technologically led solution. This is a flawed approach and ignores the necessary interplay between spatial scales and technological provision that could provide the basis for a frictionless border.

This proposal shown in Figure 3 envisages seamless and efficient cross-border logistics through a systematic arrangement of policies, procedures, workflow and technology, coupling architectural typology and scanning technology at both macro and micro scales through designed spatial and technological infrastructure. This design proposes a feasible and proveable alternative to the Irish Backstop proposal by the UK government, thus providing a potential spatio-technical solution to the Brexit conundrum.



Figure 3: Designing the Frictionless Border: The Consolidated Solution Customs Fulfilment Centre (Tan, J supervised by Jefferies, T and Morton, R)

The work was underpinned by an investigation of the present value, nature, demographics, volume and condition of cross-border trade and logistics. Existing customs policy, regulations, border procedures, import and export arrangements, infrastructure and technology adopted by the Republic of Ireland and the UK were analysed, with particular focus on third country trade conditions in preparation for post-Brexit scenario. Scenario-testing reviewed the Kent Resilience Forum Contingency Plan for Dover

Straits Ports as a precedent to anticipate potential disruption at the UK/RoI border. The in-depth understanding and findings informed the proposal of the All-Island Customs & Logistics Network, a series of key macro networks and strategically placed consolidation/distribution nodes that facilitate the possibility of a frictionless border condition for cross-border goods logistics. The macro spatial framework is developed around logistics demand, type and capacity, supported at micro level by buildings and facilities that are crucial to frictionless border operation through the typology of the Customs Fulfilment Centre (CFC).

This is the architectural component enabling the transition from macro to micro scales of the Consolidated Solution. CFCs provide a network of goods consolidation facilities central to future cross-border logistics on the Island of Ireland. The potential handling capacity of these CFCs are established by analysis of cross-border goods trade figures, thereby determining the infrastructural capacity and spatial requirements. This defines a typology that can be applied across the network of CFCs designed to embody scalability to different capacity (i.e. volume and type of goods and freight traffic).

Learning from the innovative retail distribution model of Amazon, the proposed establishment of a network of CFCs throughout the island streamlines customs logistic traffic through designated border crossings as well as distributing customs processes throughout the island. Legislative control of the border is expanded to these CFCs, which receive, check and inspect goods from regional traders. Goods are then consolidated and dispatched across the border via the designated crossings to fulfilment centres on the other side of the border, before being received by private traders to be distributed to the final destination. These CFCs are equivalent to a port for ground logistics and can be nationally or privately owned as representative of the relevant customs authorities just as all sea ports in UK are currently privately owned and operated.

Harmonised Cross-border Activities

The Border Farm. Agricultural production is a key activity of the Border Region. Figure 4 shows this design proposal that envisages a series of spatial interventions along the entire length of the UK-RoI border to form a 499 km long continuous farming region that can prosper irrespective of the hard or soft status of the border. This has material, historical and societal implications in how this situation is addressed at a settlement and architectural scale.



Figure 4: The Border Farm (Moloney, J supervised by Jefferies, T, Morton , R and Brook, B)

The Border Farm design is based on research conducted into identity and the value of agriculture in Northern Ireland and the Republic of Ireland. In a post-Brexit world where there would likely be calls for a form of physical border that is monitored, the new border interventions form a secure barrier, designed to contribute to the physical, social and cultural landscape. The formation of a Border Farm appeals to the common agricultural heritage between the nations either side of the border and the mutually shared identity of caring for the land. The proposal also forms an economic model for continued seamless trade in a post-Brexit landscape, reinforcing the agricultural jobs market and enhancement of the border regions social infrastructure and connecting to the wider landscape through the mechanism of the marketplace and distribution hub.

Tax Free Living. In the context of the U.K/Irish Border Condition and, by Extension, Brexit, What Does a Tax-Free Lifestyle Look like? Fieldwork identified dwellings that can only be accessed by crossing an international border, raising questions of the *raison d'être* for such buildings. What draws houses to be built directly onto the border and what are the benefits that could be developed from this particular situation?

The Tax-Free Living project strategically attempts to identify loopholes and exploit the two jurisdictional tax systems of the RoI and the UK across their border.

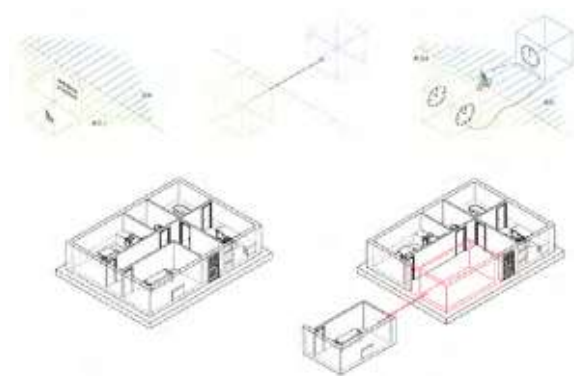


Figure 5: Built Strategies for Tax-Free Living, (Hykin, M supervised by Jefferies, T and Morton, R)

It asks the question, is it possible to construct the physical environment for a tax-free lifestyle as explored in Figure 5? Through the inspection of the spatiality of UK and Irish Tax laws, legislative definitions became design parameters. These designs offer architectural and urban typologies that side-steps tax liability definitions from each jurisdiction through exploiting the immediate border condition. The proposal builds on research of the secretive world of tax avoidance and proposes a strategy and theoretical framework to avoid tax liability.

The research identified definitions in tax legislation of both the U.K and Ireland to provide parameters for spatial design of these laws. This identifies loopholes and contextualises the development of new architectural typologies that build out tax avoidance in their realisation. This strategy exploits the two tax jurisdictions of the U.K and Ireland across an immediate border that sits between the two to test and explore the typologies that allow a tax-free lifestyle. An architectural taxonomy of tax avoidance emerges, one that defies the defining laws on tax, and enables lifestyles directly engaged with the border condition.

New Spatial, Territorial and Temporal Entities

Tibos: The Irish Border State. The departure of the UK from the EU, Brexit, has been recently postponed to October 2019. The issue of the UK-RoI border persists and raises questions, such as national identity, sovereignty, citizenship and migration. This project shown in Figure 6 seeks to redefine the notion of borders and propose an alternative solution to the Brexit stalemate, one that is neither ‘Hard’ nor ‘Soft’, but both.

Tibos is a new citizen-led sovereign and buffer state, that acts as a mediator following Brexit where current deals and agreements between the UK and the EU cease to exist and be valid. Tibos is formed by the declaration of independence of neglected and generally deprived villages and smaller settlements that are located alongside the border region, on either side of the border. This new state does not approach the border as a two-dimensional line a map, but as a complex and dynamic three-dimensional region. Each village located within the state’s territory gains control of the border everything that moves through it. The project investigates what is required across the newly established territory to control and mediate all cross-country movements and flows. It embraces different levels of border control friction and proposes a situation where users have the freedom to decide the speed at which they travel through the new state, and most importantly the level of border control friction they would like to go through.

The journey from the UK to the RoI and vice versa, through Tibos, is used as a focal point. All objects, scenes, landscapes and components witnessed across this journey are compiled as spatial experiences across each village. These spatial interventions range in type, scale, timespan and level of friction, all creating a collective experience-led architectural language that belongs and is governed by its people. By challenging traditional notions of national identity where belonging derives from physical locality and proximity, the project explores and questions the meaning and existence of borders in an age of identity saturation, mass migration and large-scale political upheaval. Tibos demonstrates that to be citizens of virtual space, we need to understand our physical space, and particularly our frontiers, challenging pre-conceived norms of territorial division at political and social scales.

Throughout the 2 years of Brexit negotiations, the Irish border has been a key topic of concern and contention by all parties involved. The UK and therefore Northern Ireland’s exit from the EU has severe social and economic implications, particularly in the event of a no-deal scenario triggering a hard border condition. Apart from contributing to the peace process within the region, current border conditions exemplify significant economic cooperations between UK and the Republic of Ireland, through strong supply chain activity and trade, particularly in the agri-food sector. Therefore, finding a solution to prevent a potential disruption to current frictionless cross-border trade, businesses and operations, is paramount.

However, so far, the UK government in negotiation with the EU has yet to arrive at a plausible solution. Proposals include the highly controversial ‘Irish Backstop’, as well as the customs partnership and maximum facilitation ‘frictionless’ proposals. However, none of these have fully addressed the demands of the border, especially in the event of a hard Brexit.

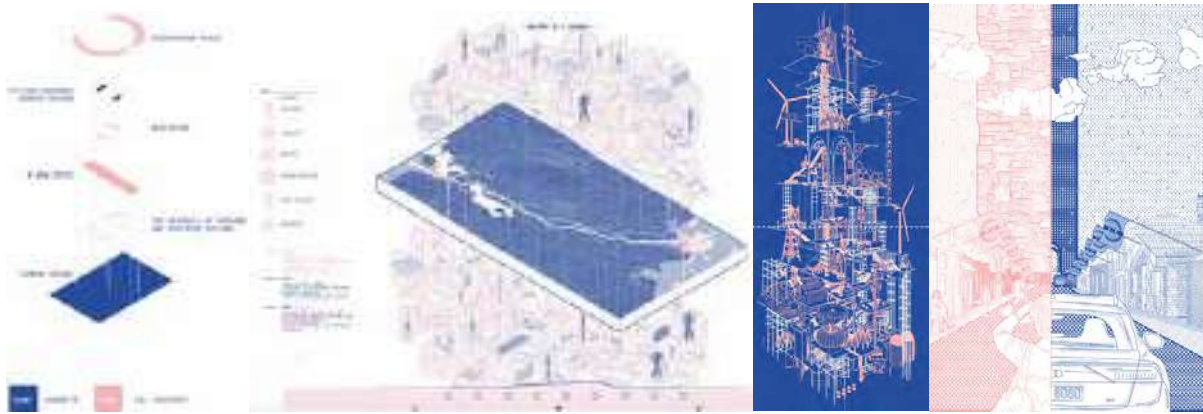


Figure 6: Tibos, The Irish Border State (Leonidou, A supervised by Jefferies, T, Morton , R and Brook, B)

Unity and the Archaeology of Sport. Northern Ireland's religious and political identities have affected migration, housing and education. Although religious segregation can be seen in sport too, certain sports such rugby union and association football are loved and enjoyed by both communities. The project shown in Figure 7 both surrounds and is at the heart of Belcoo (NI) and Blacklion (RoI), twin villages located across the Belcoo River. The design embodies sport and ancient structures common to the whole island of Ireland, preceding contemporary political structures, to directly mirror shared historical memories through the medium of the large-scale earthwork, a form that will outlast contemporary history, producing a future archaeology and urban shape that directly engages with the moment of Brexit.



Figure 7: The Future Archaeology of Sport, Belcoo (NI) and Black Lion (RoI) (Kipic, I supervised by Jefferies, T, Morton , R and Brook, B)

Conclusion

The initial process of data mapping, developed as a basis for testable design proposals has identified the reality of the UK-RoI border as a complex dispersed urban space. In some areas there are clear interdependencies between settlements across the border, with some places straddling the border itself. Muff, Lifford-Strabane, Pettigo, Belcoo-Black Lion, Belleek, Monaghan-Armagh, Jonesborough-Dromad, Newry-Dundalk. This reflects the historic settlement patterns that preceded the creation of the border and that have persisted despite changes to the border's status in the past century. It is also clear, from both data mapping and fieldwork, that economic and social activity freely engages with and

crosses the border to maximise the locational advantages of the extended border region and the status of the two adjoining states.

The mapping and fieldwork process identified significant gaps in infrastructural provision across and along the border, this includes infrastructures that have been removed as a result of policy decisions, e.g. railways and through direct removal e.g. bridges across the border demolished during the Troubles. These physical absences can be considered alongside gaps between data sets produced by governmental methods used to assess produce and capture data in the UK and RoI. This ability of the border to both create ellipsis as a form of space *and* data allows activity and settlement types to emerge that are unique and point towards potential modes of occupation that overtly engage with the quality of ‘borderness’ as a distinctive spatial and societal condition.

The Brexit vote and subsequent negotiations have established the basis to explore the many unintended consequences of the UK leaving the EU. Design research enables the development of testable proposals that engage with both the found condition and possible future trajectories of the UK-RoI border, triggered by the potential status shift of the relationship between the UK, Ireland and the EU. The changes across the border may be significant or imperceptible depending on the final outcome of the Brexit process. Proposals above range from concrete physical interventions to engaging with invisibles such as tax regimes between two neighbouring states. The proposals also establish the rationale for significant regional identities to be recognised as new territories with their own distinct identity, in the case of Tibos as a means of radically resolving the relationship between the EU and a third state. Proposal also exist and can be mapped through time, both in the near term and as future archaeology. Borders are recognised as being places themselves, rather than the edge of two adjoining territories.

The methods discussed above can be applied to numerous contexts, enabling complex locations to be understood both as factual entities and as new places of inhabitation and potential.

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