

MATERIAL

TOURISM

ADM06
SUSTAINABLE FUTURES

STATEMENT OF INTENT

Transitioning to sustainable futures necessitates a shift in how we use and think about materials in the design community.

While this is widely understood, the uptake on sustainable materials being used by designers is slower than needed. Can we accelerate this transition by changing the narrative surrounding sustainable materials and create a more networked collaborative approach to sustainable design?

The aim of the model is to contribute to the discourse surrounding localization and sustainable materials by encouraging the uptake of sustainable materials by local design communities.

The target users of the model are local design communities.

Elements of output:

The interactive embodiment of the model is a series of demonstrative postcards

The model is aimed at local design communities wishing to explore sustainable materials.

The model consists of diagrams, theoretical context, and demonstrative interactive artefacts.

The model is critical of capitalist and neoliberal materialism and consumerism and takes heavy influence from critical regionalism and structuralist positions.

Theoretical Context

Object and Material Cultures, Sustainable Materials, and Material Identities are all areas of significance concerning materials and sustainability. Design activism, structuralism, critical regionalism, vernacular architecture, are significant areas for theoretical context.

Key comparators include:

Caroline Till and Kate Franklin: highlighting designers that work on sustainable disruptive materials

Alastair Fuad Luke: Design Activism

Daniel Miller: Material Cultures

Alison J Clarke: Design Anthropology and Object culture

Roland Barthes: Semiotics

Kenneth Frampton: Critical regionalism and phenomenology in architecture

Success of the model would be determined long-term by the transition to regionally or community focused sustainable design practices, mid-term success would be measured on the basis of community uptake on sustainable materials, and short-term success would be based on communication and collaborative plans being made between communities.

CONTEXT

Material and Us

Our relationship to the material world is governed by use, in a variety of different contexts. What we tend to use was previously dictated by what was locally available and the affordances it offered us i.e. “what is nearby that can do what I need to do”. This is why materially diverse building styles were the norm for millennia and in-turn we created material profiles linked to geographic restrictions and cultural needs.

Our immediate environment decided what we interacted with and the materials that were available, the material properties established our limitations with what we could do, and our social/cultural practices set out our needs.

However, as we industrialised, we began eroding the natural diversity in our material landscapes in favour of a more homogenous material world culminating in the prevalence of select materials irrespective of culture or geography –i.e. the ubiquitously present concrete, glass and steel. These materials have colonised urban environments across the globe, eroding material diversity and with it our material cultures – not to mention having a widely acknowledged negative impact on the environment.

Use has an interesting impact on materials themselves. By choosing to use a material we make a statement about its value. Materials have a human value imposed on them based on the affordances they hold and the functions it can perform. This is the difference between materials and resources: resources are materials imbued with human value. What kind of value we bestow on them dictates how they are perceived by us, and the socio-cultural context they're perceived in. Natural, raw materials are not only valued based on their physical potential – whether it be financial, energy producing, or as a building material – but also on their connotative powers.

The forum of the futures ‘Five Capitals Framework’¹ is a means for identifying where design interventions have impact but they also function as a structure for identifying how we value the world around us. Natural, human, social, financial, and manufactured are the primary capitals, with man-made, cultural, and symbolic being identified as others which aren't as significant in the context of design activism.

Adopting this structure as a way of identifying the ways in which we propose value in materials is useful as it highlights the hierarchical nature of value that is born out of our capitalist ideological context. We value materials predominantly for their financial value, eschewing the great human, social, and natural value that materials hold. This is generally the foundation of sustainable practices, the rebalancing of the ‘triple bottom line: people, planet, profit’ (Elkington, 1994) . What I believe has had less focus despite its significance is the symbolic and cultural value that materials have in our society and how our relationship to materials can only move toward sustainability is by addressing this disconnect.

Worth noting is how in this project and in the colloquial sense, when we talk about material use, we are imposing an anthropocentric material-use hierarchy. Human use of material and the environment is given priority over the use of other species.

This is a significant part of our current unsustainable practices – the refusal to take into consideration the needs of other species and the needs of the environment. While this is important in the more physical sense – issues such as pollution, biodiversity, etc. – this also is an issue in our thinking of the natural world. For this project, the focus will be on the anthropocentric context with a mind to explore a more inter-species perspective at another time.

Our post-industrial society still maintains the 18th century belief of man as a separate observable character to the natural world, free to impact and impose its jurisdiction over the environment and its inhabitants. Descartes’ dualism of the enlighten “bred the belief that man has dominion over the natural world and unintentionally gave industrialists moral permission to exploit the natural environment for human gain. Ironically, Descartes acknowledged the responsibility of man to limit our interests for the ‘wider good’, could be considered a forerunner to modern eco-centrism”².

It is crucial for the development of sustainable futures that we rethink our relationship to the natural world and incorporate a more materially diverse identity will be an essential part of dismantling the dualism that made material exploitation permissible.

Affordance

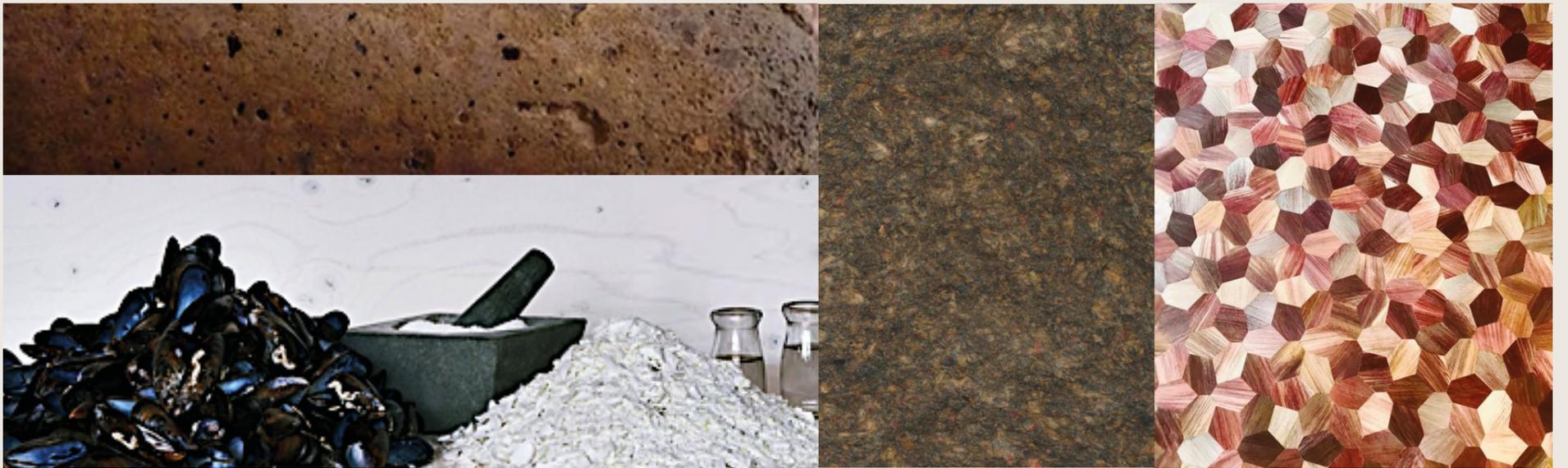
Affordance is the notion that the physical properties of an artefact accommodate or dictate the artefact be used in certain ways relative to the desired user. “The idea is that material objects have certain properties that can accommodate some uses more easily than others; they “afford” actors the possibility of interacting in certain ways with the object.”³ Originating in JJ Gibson’s work *The Ecological Approach to Visual Perception*, ‘Affordance’ bares significant responsibility for dictating the materials and matter we choose to use and acknowledges that for most of history, we were bound to materials which we could physically interact with: what we could lift, hold, carry, form, etc. While Gibson focusses on affordance in the context of environmentalism, it is relevant here to examine how our relationship with the material landscape has changed.

In pre-industrial times the human impact on the natural world was limited by what the human body could do with tools, and by how many bodies you had to work with – what the human body could ‘afford’. In an industrial or post-industrial era, we are able to circumvent the limitations of the human body and create machines which have accelerated and enhanced our ability to affect the natural world by an enormous degree.

While this is problematic for a variety of reasons, one which has garnered less attention is how when we transcended our physical limitations we began dismantling the intimate relationships we had formed between the material landscape and ourselves. No longer did we gather, form, and work with matter in the same way that humans had done for thousands of years, but instead we relinquished our responsibility to create for ourselves and outsourced it to manufacturers.

The industrial revolution began eroding the collective knowledge we had gathered as a species over thousands of years, leaving the vast majority of craftsmanship to a small minority of manufacturers and their machines. While this didn’t happen at the same rate across countries and cultures, through industrialisation we disconnected from our own materiality and from a big part of our identity as a ‘maker species’.

Future Materials and Identity



This collection of projects show how designers are currently using sustainable materials around the world. These projects have been chosen based on the significance in relation to identities – whether that is through geographical, historical, cultural, or environmental motivations.

Terroir:

Seaweed is transformed into a biodegradable material composite for use in furniture. Designers actively sought out materials that were local and abundant. Minimal processing required and it is a scalable system (harvest, drying, ground, heated, merged with recycled paper, and moulded). The system is entirely circular, and designs can either be broken down and re-used or composted as natural fertilizer.

The variations in seaweeds/paper used in its creation give it different textures and colours. Seaweed being a very accessible material to coastal communities allows the possibility for local experimentation and adaptation. Not only will the material contain a geographical identity based on the variety of seaweed but also the malleable nature allows for culturally diverse forms in the objects it creates.

A material such as this could aid in the restoration of coastal economies that suffered with the decline in tourism in the latter half of the 20th century and so there is the potential. Environmentally the project is excellent and allows for a circular system, but there is the obvious barrier where its availability is limited to coastal communities.

Totomoxtle

Taking its name from its source material, Totomoxtle is a veneer material created from heirloom Mexican corn husks. Its application is in furniture design and as a sheeting material.

The project was devised as a way to revitalise a local economy, whilst improving biodiversity and undoing the aggressive mono-culture farming that had seen the destruction of the natural variety of heirloom corn varieties.

The designers national and cultural identity are significant in the design of the project as the produced material celebrates the rich culture and diversity of the Mexican biome.

Baked into the material are the history, geography, politics, and culture of Mexico whilst promoting both a sustainable economic venture for the local community alongside a new material product that promotes sustainable environmental practices through the farming and production processes.

Materia Madura:

The material is an organic material composite made from plantain peels and coffee grounds inspired by both the indigenous culture and abundant waste she saw in her home country of Puerto Rico.

The material is originally used in furniture and housewares but can be cast in various forms for different uses. While inspired by the designers Puerto Rican culture, the development of the project took place in London where the materials were sourced from local cafes and Cuban/Latin restaurants.

What is significant here is that not only did the designers identity inspire and motivate the project, but also the immigration of culturally significant materials across the world made it possible to perform. The designer recognises that the material could prove significant across other plantain/coffee rich nations, but in a post-globalisation world, access to culturally diverse and distinct materials is now easier than ever.

Beyond the Mainland:

The project examines how we can revitalise community and economy through reviving heritage using locally resourced materials. Designer sought out locally abundant material (mussel shells) and created a new plaster-like material that can be formed into products to be sold by community. Ground shells are mixed with a natural binding agent to create the material and so it is an organic composite, and as well as being locally significant to the area, the new products can then be sold to open up new revenue streams.

Similar to Terroir, Pheobe Quare's Beyond the Mainland project explores materials as a way of revitalising the economy of a small island community. The products created using this sustainable plaster-like material were initially made into a series of military inspired design to reflect on the island's history as a former military base.

Remembering the islands past through material forms, encapsulating the islands present through the waste mussel shells, and creating a future for the islands inhabitants that is inclusive of their identity. The material itself could be easily replicated in other coastal communities.

Place

Place, identity and material are all intertwined. Our socio-cultural identities are inter-linked with the materials we use, where we are geographically, and the physical/tangible landscape we create and exist in.

Historically settlement positions were informed by the landscape, defensive possibility and resources locally available. Place and materials have remained linked throughout history and the use of locally available material gave rise to the formation of many vernacular building and design styles that are a key part of our identities, and how we perceive places.

The connection between place and our identity in contemporary society has changed significantly. Globalism, the rise of the Internet and digital culture, and the rapidly expanding awareness of environmental issues has led to deep social changes in regards to how we view, manage, and perceive places - not to mention our position within them.



NATIONALISM

Materials and national identities are intimately linked in a number of ways, nationalism could be considered a jointly social and spatial identity narrative, that serves to naturalize the link between people and a place⁴ through materials or resource. Resources as foundational to creating national identity as well as instrumental to nation progress/development, which in turn affects how they and the materials are perceived within the global network.

Resource nationalism – understood as collective belonging expressed through the idiom of national resources⁵ – has embedded material narratives into our collective identities. This relationship that we have cultivated with materials has been primarily focused on extraction and exploitation of fossil fuels because of their economic and geopolitical significance, and this focus has been slow to shift onto renewables. Resources have meaning only in relation to specific social, economic and political configurations⁶ and so a significant part of the process to re-construct our material narratives around sustainable materials and practices will be to change the underlying ideological principles in which these identities are constructed.

Materials change in significance due to the ongoing ‘cultural appraisal’⁷ of their significance and functionality naturally as society progresses, however we need to take a more direct approach to this transition and actively manage the cultural material appraisal to produce a more sustainable outcome.

With the current political discourse displaying nativist ideologies, the idea of a ‘way of life’ to protect and preserve inhibits our ability to move past current social and cultural norms that are detrimental to sustainable development. Could nativism be useful? If we can replace the content of the ideology, i.e. preserve the way of life; the way of life being sustainable?

Plastic is a ‘native material’ in so far as that there are predominantly no people left who didn’t/don’t interact with the material and so there is a tendency to be unable to imagine life without. We have become attached and dependent on unsustainable materials and they are part of our core material memory. Countering and dismantling these material dependencies will not only be a political/material problem but also one that seeks to re-structure our national/local identity around sustainable materials by creating an ideological shift.

Victor Turner’s attention to the capacity of a given symbol— such as the milk tree for the Ndembu—to yoke ideological and affective forces together so that the material icon holds a charged meaning for members of a society (Turner 1967, 54)⁸. Integration of sustainable material symbols into the national identity could enable us to create the new sustainable narrative, this in turn generates sentiments of national belonging and resonant emotional attachments to what is otherwise merely a distant imagined community.⁹

The problem is that nationalism is generalised and doesn’t allow for the fluidity of identity expression and so you get long lingering ideals that don’t necessarily reflect current contemporary values.

Ultimately, nations are fictions, but they allow us to extend our families so that we could loyalties and identities based on the new complex energy communication revolutions we have that annihilate time and space¹⁰. While useful, these fictions were built around economic development and so they necessitate an economically orientated mode of value.

Re-appropriating nationalist identity to perpetuate sustainable values and practices will involve the decoupling of nationalist identities and economics – we shouldn’t base who we are and what we do solely on a financial rational but instead on a more comprehensive human-value based system that promotes the longevity of our species, let alone our collective identities.

The conversation for sustainable materials is not new. Awareness is higher than it has ever been, yet we remain attached and anchored to materials which we actively know are detrimental to our own survival, and that actively erode the diversity of our material profiles.

VERNACULAR THINKING

Vernacular architecture is a sign of identity; it is the “mirror” of nations that reflects place, time, and culture... Each material embedded its physical and aesthetical characteristics into the environment and helped establish a place in space¹¹.

Rather obviously, the current material homogeneity in our built environments envelop the smaller, traditional, vernacular building styles and become monuments to uniformity at the expense of diversity.

Whereas the globalist model of architecture and arguably design writ large has become an anchor to our unsustainable. Where standardisation has failed, vernacular architecture was built on inherently sustainable principles such as resource limitations [and] succeeded in offering rational solutions to harsh climates and human needs¹². A return to ‘vernacular thinking’ could enable us to begin to revive our cultural identities through material use.

Our relationship to materials happens at a variety of scales as well as different contexts. Our identities are influenced by cultural, political, and social norms at a range of scales from the individual to the national.

Just as the different socio-cultural elements impact our identity in relation to materials, the scale at which we consider identity changes how we think of materials because of their significance to different groups. Individuals experience historical narratives and national myths through their visual depictions and material embodiments, as well as in the built environment ... “national sensorium” (Zubrzycki 2011)¹³ and through our material uses we create a tactile material profile of our nations that impacts how we perceive and value those materials.

REGIONALISM & INDIGENISM

Regionalism in architecture reflects local features related to place, culture, climate, and technology in a certain era; the result a timeless architecture [16]. If imported materials and high technology are not used smartly, then architecture, as a place definer, will lose relation to its region and ambient environment [4]¹⁴.

This is not just true in architecture but in design in general. To think more regionally or to develop our design communities to focus on materials that have regional/sustainable value can begin to affect how the materials around us can be rethought of as useful and valuable to us beyond their practicality. They can move from being where we are to who we are.

Generally, our empathic tendencies tend to fall short as soon as things are absent from our lens of experience –we tend to care about what is around us and what we interact with. The more we make sustainable local materials part of our main tactile interactions, the more we will care about those materials, what Ruskin called extending our empathy to ‘the biosphere as our common community’¹⁵.

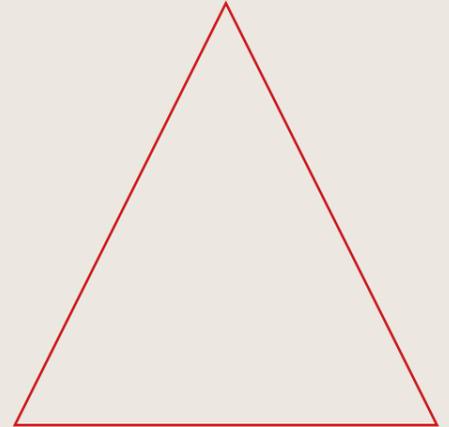
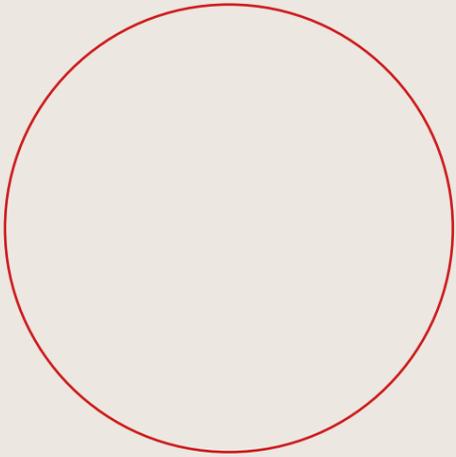
This used to be the case where local knowledge formed the basis of how we existed. The undoing of local knowledge that was intimately linked to place, also undone our empathic emotional connections to the materials around us. Movements like Radical Indigenism/LO-TEK and critical regionalism both stress the significance of this relationship between place and our identities.

Radical Indigenism ‘argues for the rebuilding of knowledge and explores indigenous philosophies capable of creating new dialogues’ focussing on ‘indigenous technologies [that] could offer a new path to exponentially shrink the ecological footprint of human-kind’¹⁶. Minimising our species ecological footprint is arguably a very material problem.

In adopting a more regionally focussed material identity, we can begin to shrink our ecological footprint by shrinking the distance between ourselves and the materials we use.

This is evoking a critical regionalist perspective which emphasises the need for place creation through vernacular building. If we can ‘present a different approach to the task of place creation in late-capitalist urban economy by resisting the placelessness of Megapolitan development’¹⁷, then we are more likely to establish sustainability as a core material-cultural value.

Semiotics



The act of curating a material environment in a place adds meaning beyond the material form to the materials that are used. Not just in an ideological way but materials are porous and absorb meaning depending on the stories we tell around them.

Barthes in *Mythologies* discusses the notion of signs, signifiers and the signified. If we can change the way in which our material 'signifiers' are perceived – i.e..... change the message being signified– then we can alter the cultural narratives they portray to have different, more sustainable meaning.

The mythologies that surround materials such as concrete and signify notions such as modern, contemporary, strong, stable could be dismantled for things like 'unsustainable, inefficient, unnatural'. To re-contextualise materials from a capitalist/neoliberal context to a contemporary sustainable one, would allow us to change the narratives that perpetuate unsustainable materials and practices.

The 'cultural codes' (Barthes, 1957)¹⁸ that relay these ideas to us are in constant flux and can be changed, they are not a fixed asset of our societies. In the same way that the perception of plastic has changed from wonder material to enemy of the environment, we can go on to not just vilify the unsustainable but promote and energise communities around sustainable materials and practices.

Adapting the globalist homogeneity that created the unsustainable material hierarchies that are in place to instead instil sustainable values, could address the value-action gap that has limited the progress of our transition to sustainability. In the same way that capitalist and consumerist ideologies exploit symbols and narrative in order to sell us products, we could re-purpose this model of communication and implement it in a way that focuses on sustainability instead of profit.

Materials that are intertwined with specific cultural ideas can attribute those connotations to the objects that are created with them.

Jeffrey Alexander (2008b) analysed the intersection between aesthetics and materiality, a process by which an aesthetically shaped materiality comes to signify a social value¹⁹.

Through the process of manipulating a material we create a narrative about that material – we think of materials and they connote certain uses, in the same way that objects evoke certain materials. Over time our materials gain "symbolic meaning beyond functionality and aesthetics; they became part of the "cultural memory."²⁰

So in this instance, the connotations of an object are a distillation of the material its made from. The material and object meaning are mirrored in a way that links our perception of the object and of the material.

Through the material "meaning is ... made visible and tangible; it can be seen, felt, touched—in other words "experienced."²¹ The material quality of an object allows certain meanings to take hold. We cannot attribute the same connotations to wood as we can to plastic, and by extension a wooden rocking chair would mean something different to a plastic one.

Webb Keane's theory of "bundling" proposes that an object's very materiality, that is, the specific aspects of its form—its weight, colour, the materials of its composition, relative malleability, permeability, mobility, and so on—endow the object with a life of its own and allow it to potentially acquire different significations than the abstract ones social actors initially "filled" it with²²

The 'bundling' of material and formal qualities to signify meaning is how designers can have an impact on our perception of materials. What we choose to create and the medium we choose to create it in have a great impact on how that object is perceived, but also how the material is perceived.

Repetitive design of modern buildings with the same material profile, embody the materials used to mean 'modern'. By altering what

we use and when we use it we can embed new meanings into contemporary materials.

Not only do these symbols change across cultures "...the semiotic potential of an object, as its manifold material properties can become socially significant at different moments"²³ in time. The way in which we materialize collective representations of materials has changed significantly over the course of history.

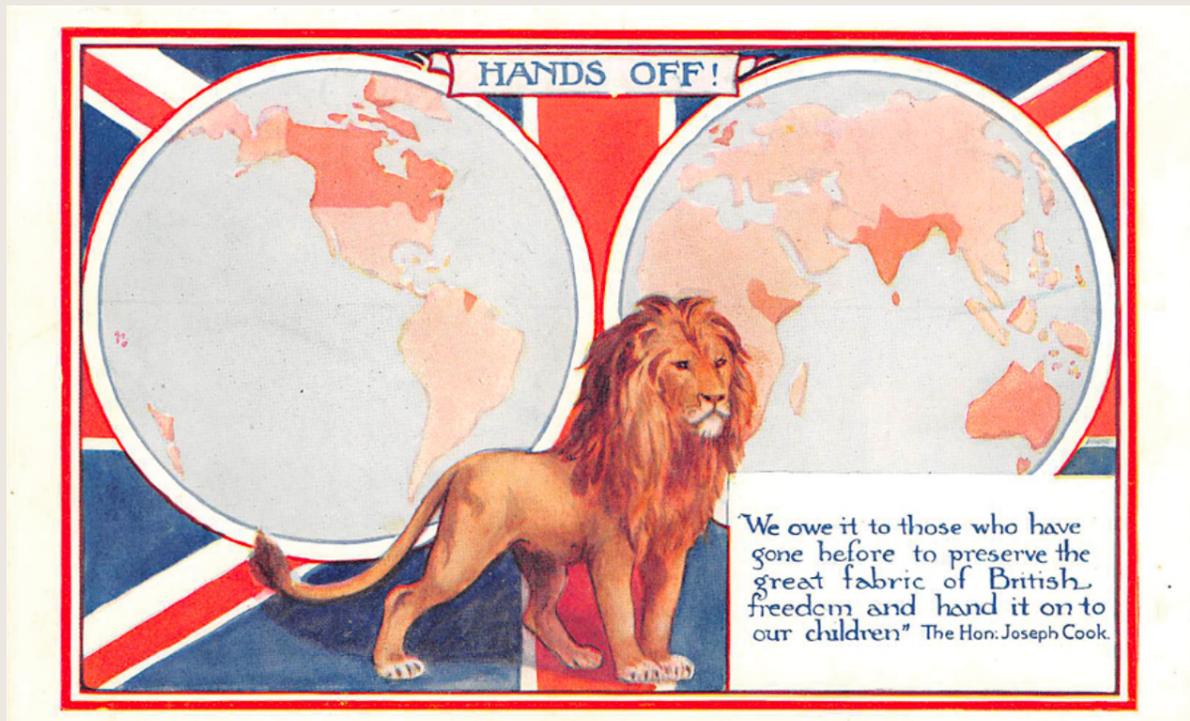
For example, Coal was once an integral part of British identity. It was the resource that propelled the industrial revolution, it employed a significant part of the population, it fuelled the country for the better part of 3 centuries.

Compared to now, we recently celebrated our longest running stretch without coal energy (18 days as of April 2020), employment in coal industry has dropped 2000%, and a commitment from the UK to have no coal industry by 2025 (Gaurdian, 2020).

However, while coal no longer is significant in our energy production or economy, the dismantling of such a large industry in such a quick time has seen our pride change to disgust. Thatcherism in the 1980s saw mass closures of coal mines across the country and suddenly, both people and places were left without the cornerstone to their identity. The relationship between us and materials was one of exploitation.

We formed identities around material exploitation, a material that was unsustainable, and through unsustainable practices, and this has tainted the wider perception of coal in the UK. This serves as an important case study for unsustainable material identities, and how intertwined our materials are in our national and individual identities.

Postcards & Propaganda



The postcard was chosen as the interactive element for the model based on several criteria. Postcards historically have a strong connection with identity and were frequently used as "vehicles for the nationalist propaganda"²⁴ and were often imbued with the "ideological content and emotional resonance of nationalism"²⁵.

In discussing Jaworski's work on the postcards of the German and Czech nationalist movements of the 1900s, Zahra recognises the important ideological function that postcards played to the movements: "Nationalists used their postcards to compete for the loyalties of the population, to mobilize financial support and contributions, to campaign for schools and welfare institutions, and finally, to claim victories in the nationalist battle to embody the values of economic development, technological innovation, and cultural progress"²⁶.

Postcards were "a form of photojournalism--publicizing, interpreting, and often sensationalizing contemporary events" formed of "symbols often [serving] to render the nation's imagined character traits and assets concrete and visible"²⁷. They were a socially, culturally and politically significant communications tool not only between the public but also as a method of communicating complex ideas about the national identity in a distilled and simple way.

Jaworski acknowledges that postcards "transported, conveyed and popularized already existing models for identification, but did not first create them, [that they] were more platform than reality"²⁸ that the nationalist movements used to their own agenda. The ideological sentiment conveyed by the postcards is contextually dependent on the circumstances of their creation, the symbols used in their

form/content, as well as the motivations behind the creation of them. This is what made the postcard a useful tool for disseminating cultural narratives.

Not only that but they were distributed independently by consumers and required no large scale planning. They organically exchanged between peoples and communities as souvenirs and personal stories. I would argue this is what makes them an effective mode of sharing culturally significant narratives as it is done so colloquially, and informally. They are not perceived as ideological propaganda but they function as it.

DESIGN FUNCTION OF THE POSTCARDS

The model is intended an act of design activism by definition of Fuad-Luke: actions to catalyse, encourage or bring about change, in order to elicit social, cultural, and/or political transformations²⁹. The changes that are being encouraged is the shift from unsustainable materials to sustainable materials in both use and in perception.

Allowing design communities to explore their material/knowledge assets in a transparent/collaborative/shared way-- creating a kind of material tourism - to aid in the uptake of sustainable materials, but also to increase awareness and to hopefully problem solve. The idea is that it's unusual for solutions and problems to be found in the same place. By creating a network of material and knowledge exchange, we allow more for the possibility of discovery of solutions to long standing local societal/cultural/practical problems through design outputs and explorations.

Material sustainability is not only an environmental necessity but the idea of cultivating a more considerate/empathetic perception of material use and how it impacts us now and in the future: "deeply rooted within sustainability is the question of equity, between and within generations"³⁰.

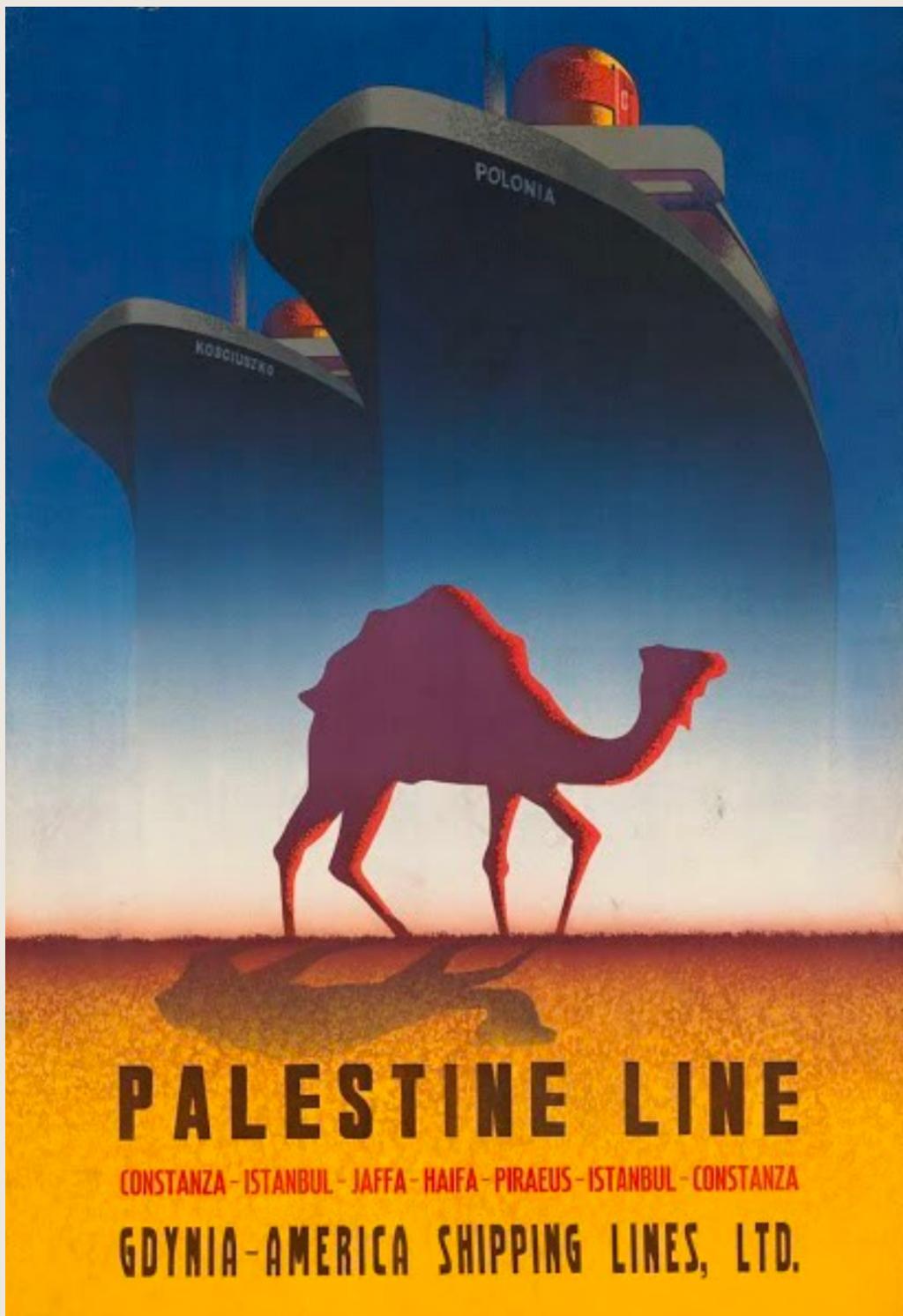
With regards to the present, the model seeks to establish a culture of sharing materials and material knowledge to encourage the uptake of sustainable materials and through the exposure and transfer of knowledge, lower the barrier to entry for designers hoping to work sustainably.

The postcards themselves would act as "activism artefacts"³¹ but they would shift between different categories at different stages of the model: The postcards I create are situated between "propositional artefacts: vehicle for exploration of theoretical ideas /demonstrative artefacts: reveals positive alternatives that are superior to the status quo"³².

In the application of the model communities would decide internally what materials are of value to them in the context of the community, which would move them into the space of protest artefacts: deliberately confrontational to prompt reflection on the status quo -- 'design explorations'³³

If as, Fuad-Luke argues, design "mediates the flow of capitals"³⁴ then through design we can exert influence not only on how much value these capitals receive but also what capitals we maintain in the present and sustain into the future. The model's goal is to contribute to the process of crafting new material stories and socio-cultural habits surrounding sustainable material use.

The “Golden Age of Travel”



<https://boredbug.com/30-amazing-vintage-travel-posters-20s-40s/4/>

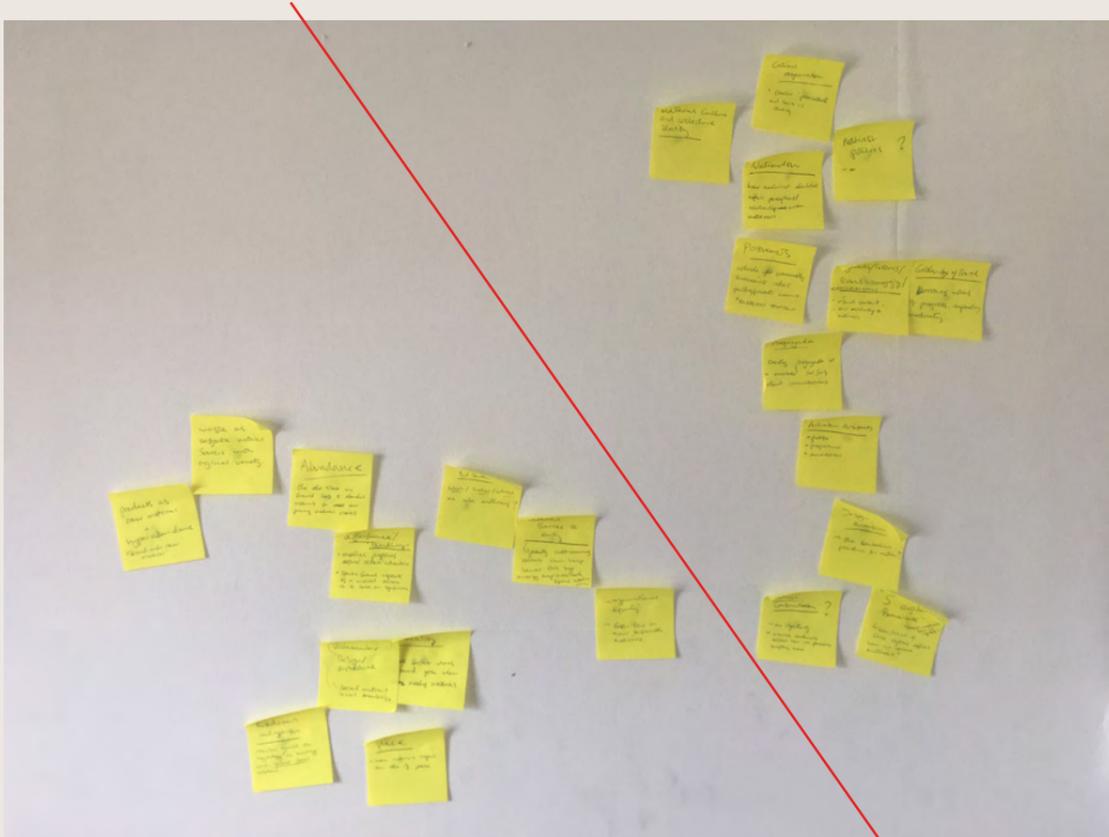
In determining an aesthetic profile for the project, inspiration came from looking at the historical peak of the postcard and also the rise of industrial scale consumer culture – the period of 1920-1940. Dubbed the “golden age of travel” this was an “age of expanding mass travel, tourism, and consumption”³⁵. It was the accessibility of travel that contributed to the rise in depictions of cultural identity as sales/marketing collateral from travel companies. The content of these posters depended heavily on the place being depicted but overall it was dominated by images that represented progress, modernity, and culturally significant objects.

The city scape, the ship, and natural scenery are ubiquitous throughout. Adopting this aesthetic for the postcards is to evoke those ideas of travel and exploration but in the context of materials, to create ‘material tourism’, whilst also demonstrating sustainable conceptions of modernity and progress.

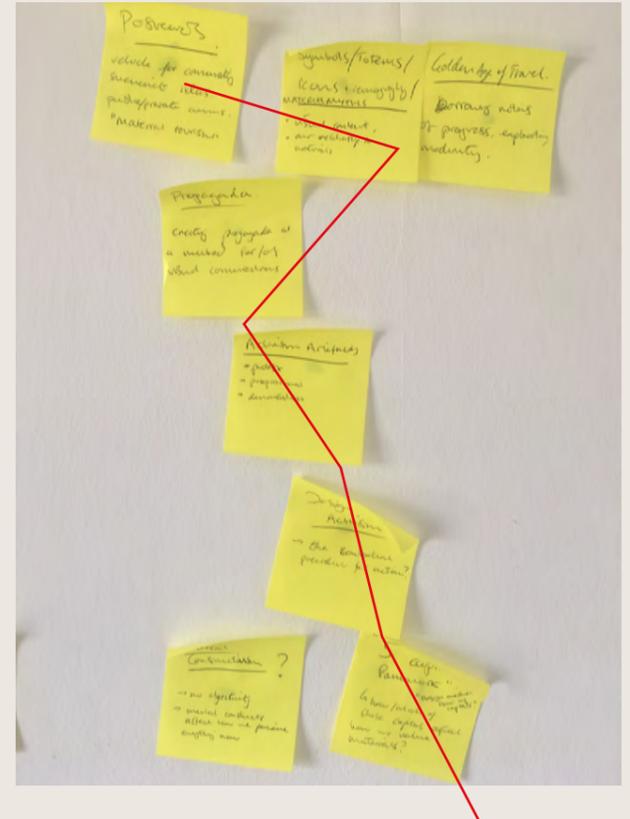
Having a highly aestheticized appearance is a method to get people to engage and interact with the postcards, drawing on Bjarke Ingles idea of ‘hedonistic sustainability’³⁶ in order for sustainability to be an achievable future, it needs to benefit people, it has to improve life, it has to be enjoyable.

This time period characterised by modernisation and a burgeoning consumer culture is also where we see a lot of our current unsustainable practices and materials taking hold of the material landscape – the emergence of steel and concrete as primary building materials allowing the vertical expansion of urban areas being the most obvious. The adoption of this visual style is a way of re-contextualising the narrative of progression for a kind of ‘sustainable propaganda’.

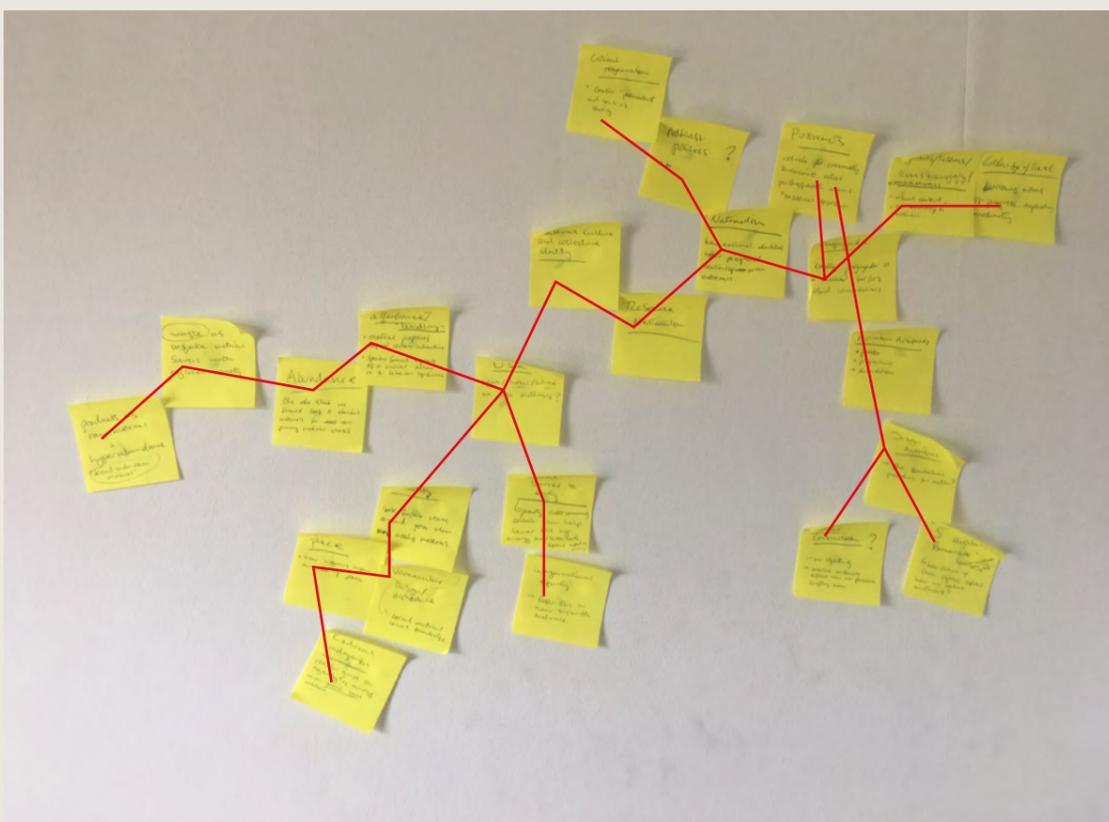
Research Exercise



So initially the idea was to try to bring some structure to the research of the project. In the exercise, first had to get all of the research topics out. The only distinction I made were topics which were more 'practical' and those which were more 'ideological/theoretical'.



Then once the topics were out and visual, i began seeing thematic links or paths between the topics that could help in structuring the conversation i wanted to have.



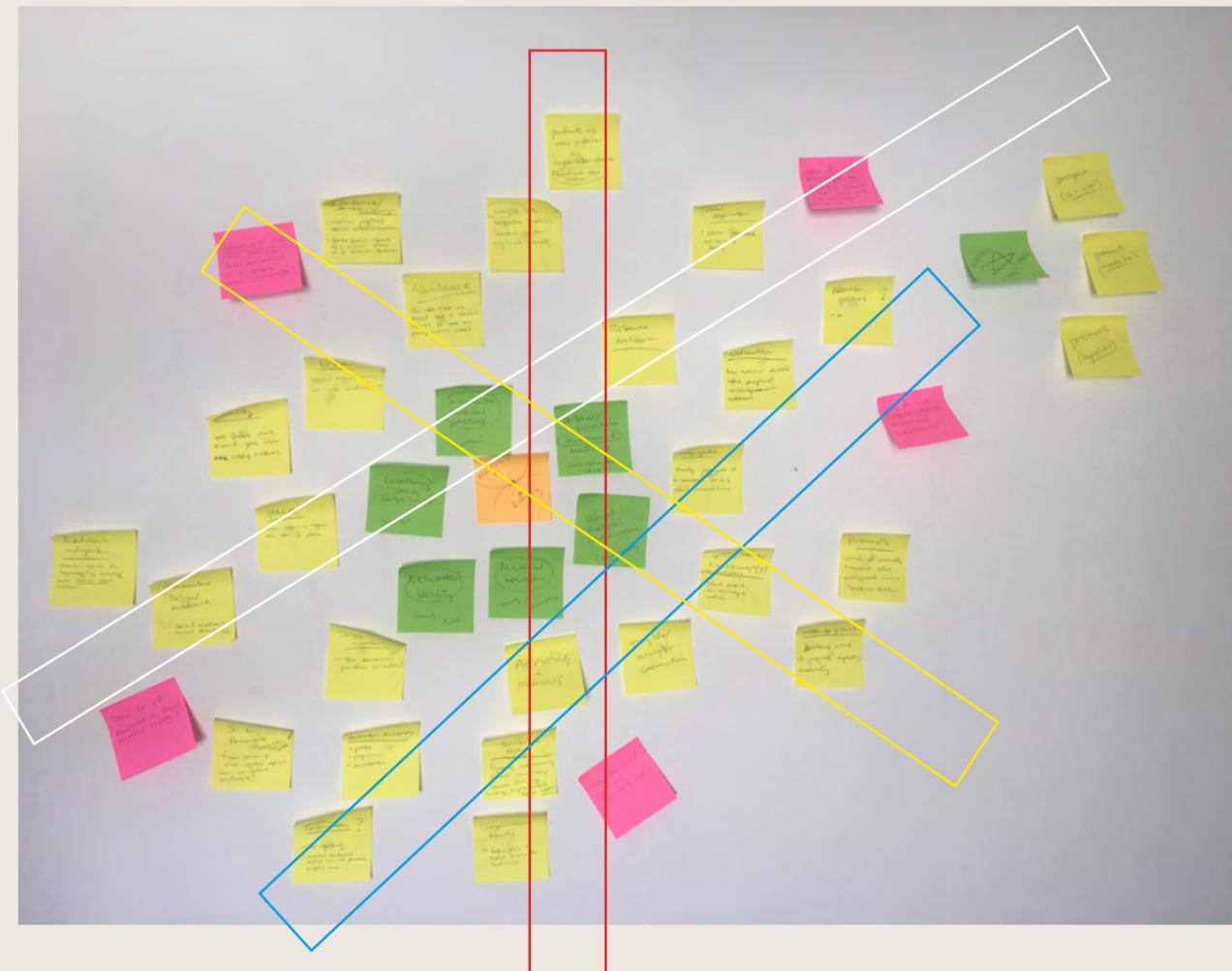
Then the more these pathways were mapped out, the more of a network I could create that could trace how seemingly separate and distinct research areas are related by this train of thought.



Then added in key questions to create areas of research. The key questions relate to the themes in the centre.



So then from the sections I started thinking about relevance/significance. The lighter the area, the more relevant it is to the model.

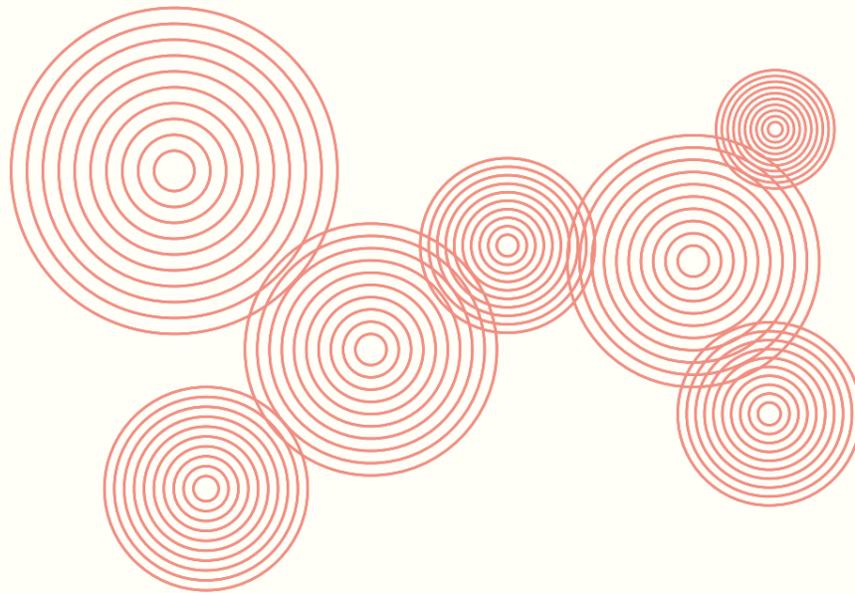


Then also, just because topics seem far away doesn't mean they are not related. They are very related topics that sit separate.



Then finally placing the model within the 'research map' and deciding where my core interest is.

Postcards



matter makes us

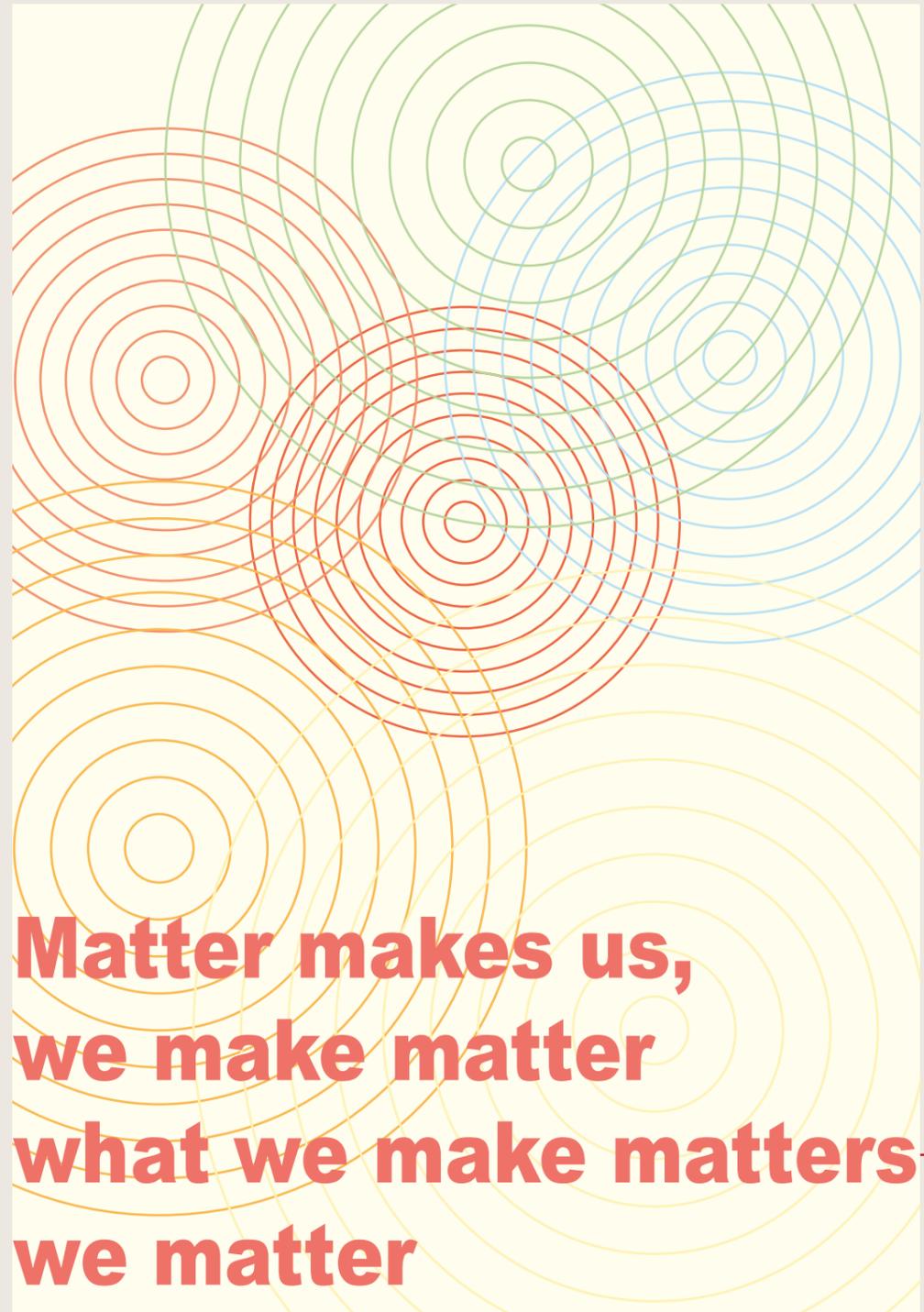
we make matter

what we make matters

we matter

We are a 'maker species' and we need to acknowledge the profound relationship we have with materials and making.

We need to recognise that we are physical beings. In a world where the digital realm is so prevalent, it's easy to forget we are tangible and tactile.



**Matter makes us,
we make matter
what we make matters
we matter**

In the pursuit of sustainability, we cannot neglect the deep emotional connections we have with materials and things. We need to put more of 'us' - our identities, our communities, our histories - into our materials and forge long lasting sustainable material identities.

A somewhat obvious observation but a message that gets lost. We have had a devastating impact on the environment and - whilst an old message, recognising our impact on the world via the things we create is more important than ever.



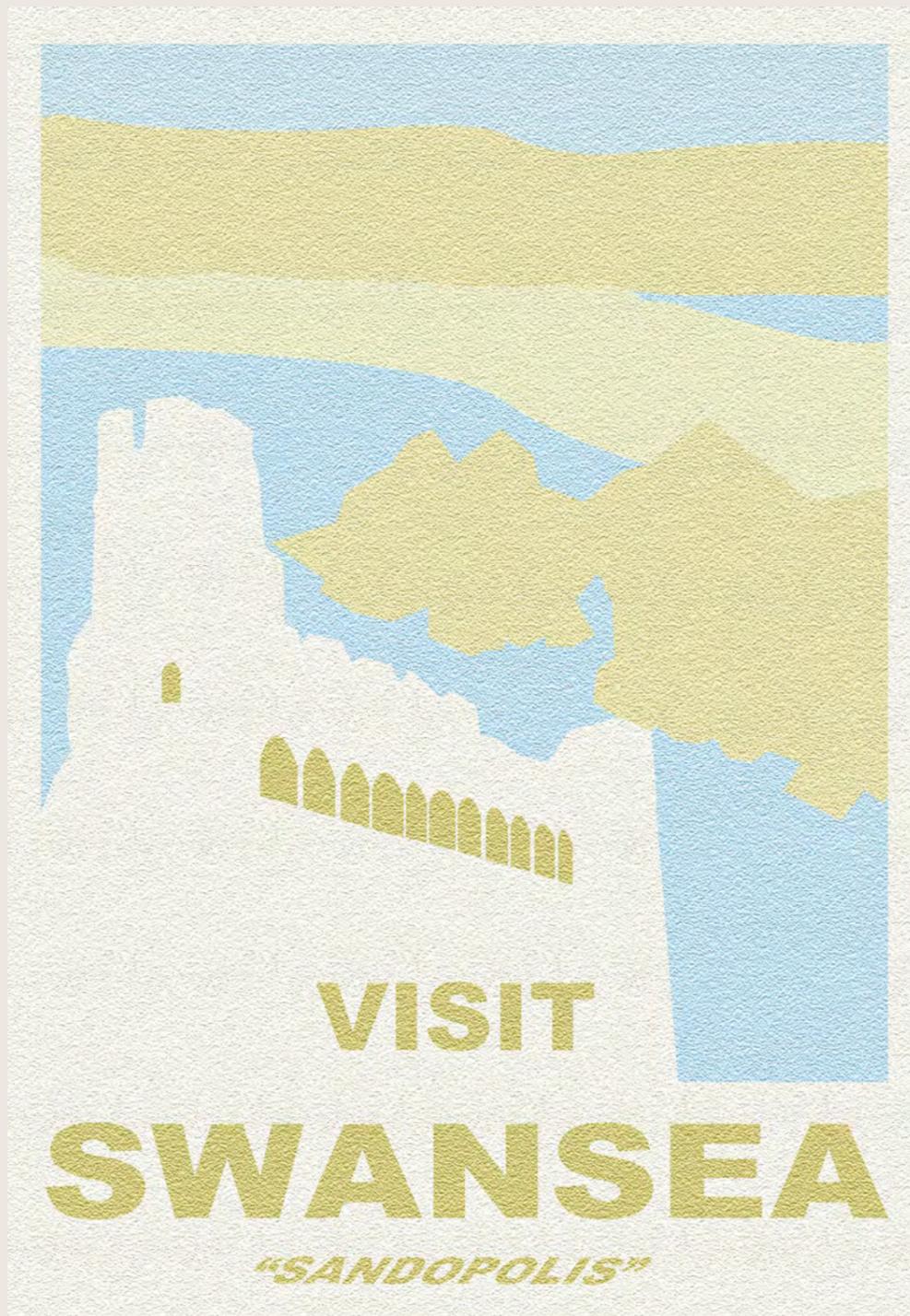
We need to encourage communities to share more - whether it is knowledge about vernacular materials or the materials themselves. This postcard would be intended as promotional material, to spread awareness and forge connections between communities about creating material networks.



As before, not only do we need to encourage sharing, but care will be equally important. We as communities need to start caring more about our material landscapes and seeing the tactile world we inhabit as a reflection of our value systems. As before, this would be promotional material intended to instigate contact and raise awareness.



The first of the regionally specific postcards. For this demonstrative work, I was drawing on Belfast's rich history as a ship building/engineering city. The ship is also a symbol often used during the 20-40s to connote progress, achievement, and modernisation. The three ships here symbolise the slogan's three pillars of 'feeding, fuelling and forming'. Behind it all, anchoring the image is a gradient of seaweed, the material here being promoted. Ireland has a long history of using seaweed as a food stuff (feeding), there is a lot of potential for seaweeds to be used in the manufacture of bio-fuels (fuelling) and more research is coming to light showing the possibility of seaweed being processed into a crafting material (forming) that is bio-degradable and adaptable. Due to its geography Belfast (and Ireland in general) is in an excellent position to integrate seaweeds' sustainable potential into their national and regional identities.



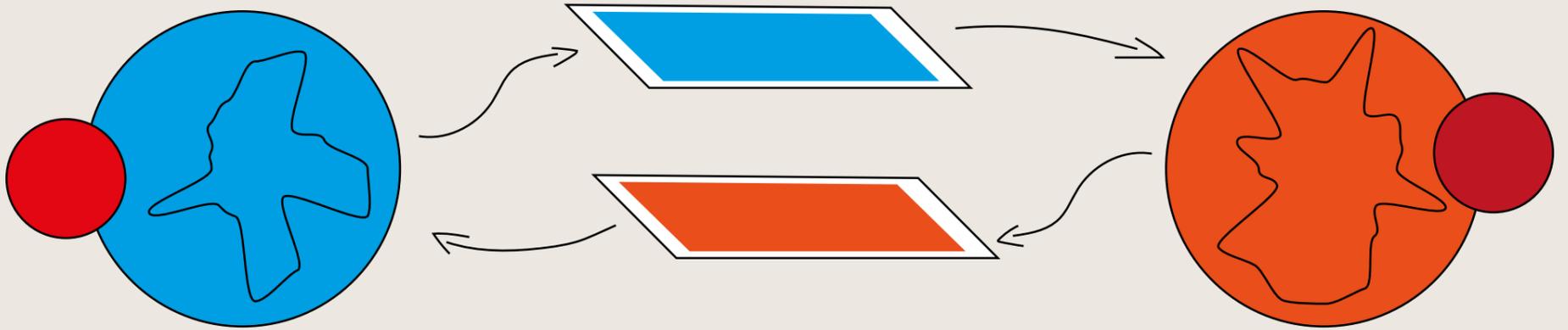
For this postcard, I wanted to acknowledge the connection between resource extraction and regional identity. Currently the main exports that surround swansea are sand, sandstone, and limestone primarily used for aggregate in the cement and concrete industry. What if we used these materials to instead create a regionally specific material landscape as opposed to feeding into an unsustainable material production? The slogan "sandsopolis" is a nod to the material metropolis' of the industrial era, where cities were adorned with nicknames that identified key processing or trading materials (swansea formerly being 'copperopolis' due to its significance to copper processing).



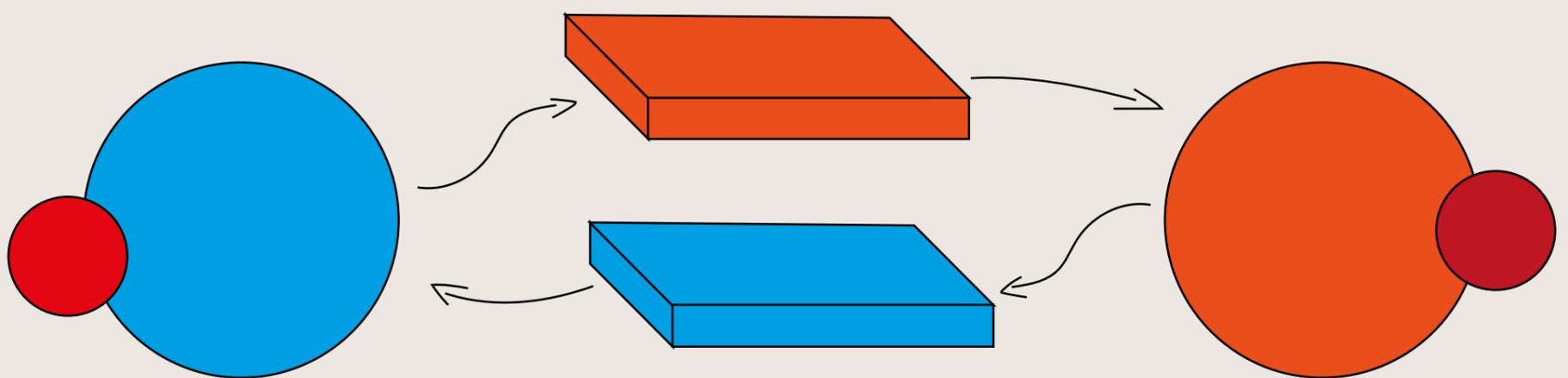
For the third and final regional postcard, I wanted to draw a link between cultural exports and sustainable materials. Mersea Island is an area dominated by oyster farming, and due to their potential as a main ingredient in sustainable ceramics/plastering substitutes, there is potential to create a more regionally specific material landscape. Mersea depends heavily on sailing tourism and so adorning the postcard with the twin pillars of the sailboat and oyster identifies the region's character and survival. Across the postcard, there is the line work to connote the patterns found on oyster shells.

Development

Phase 1

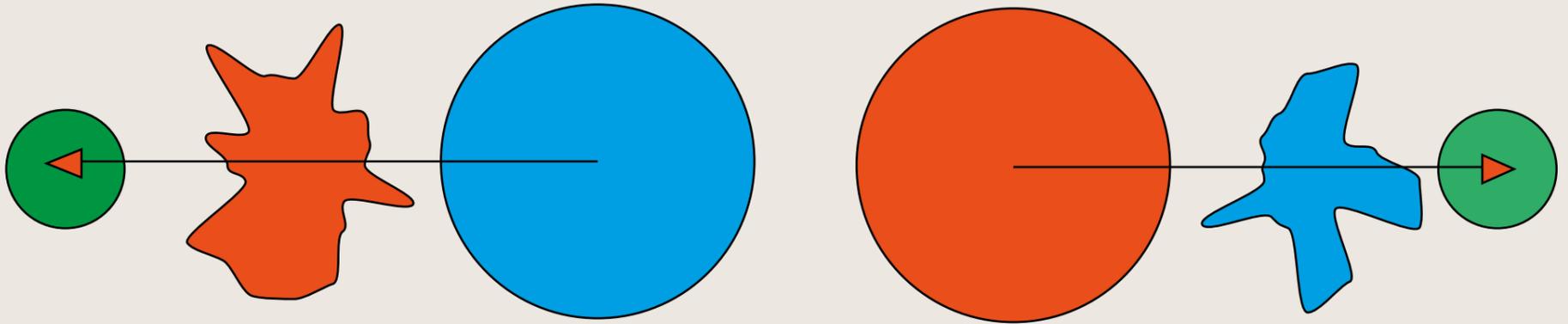


Two distant communities have an internal problem they would like to solve via a material output. They instigate contact with one another via the postcards, identifying the problems they face, and the potential solutions they have.

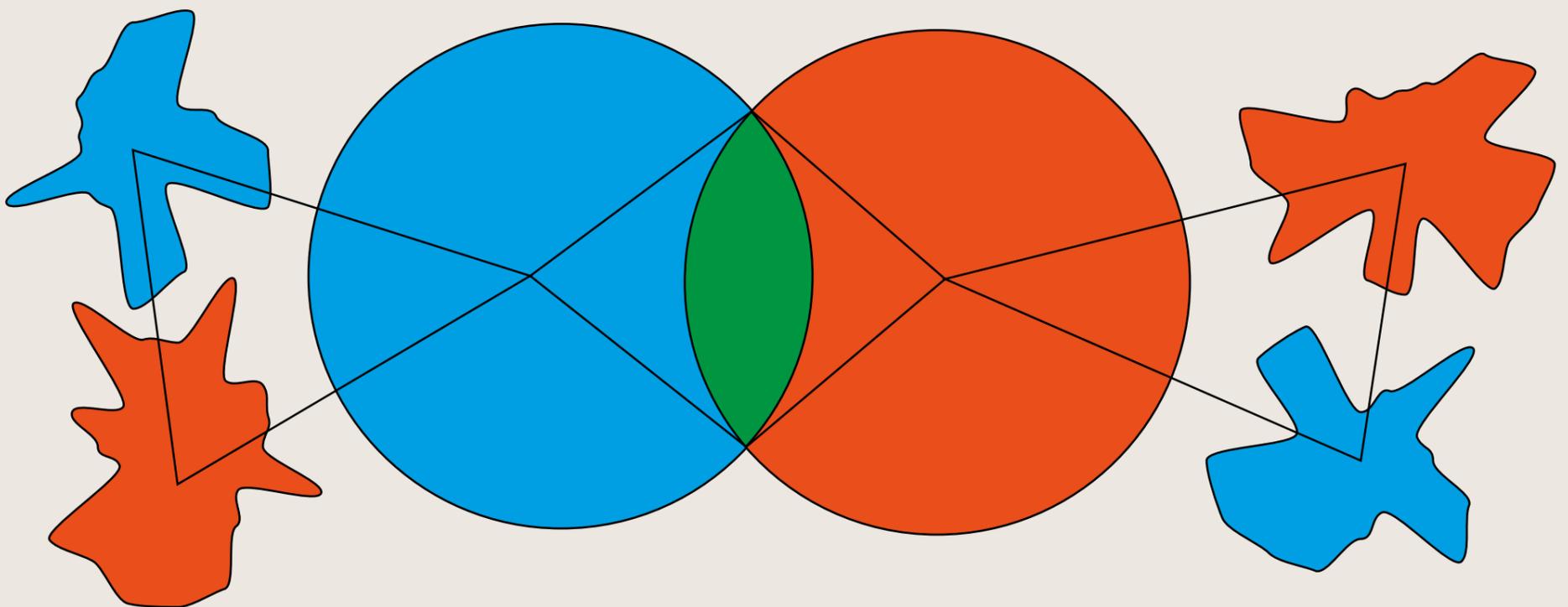


After establishing contact, the communities internally arrange a material exchange to assist with one another's material problems.

Phase 2

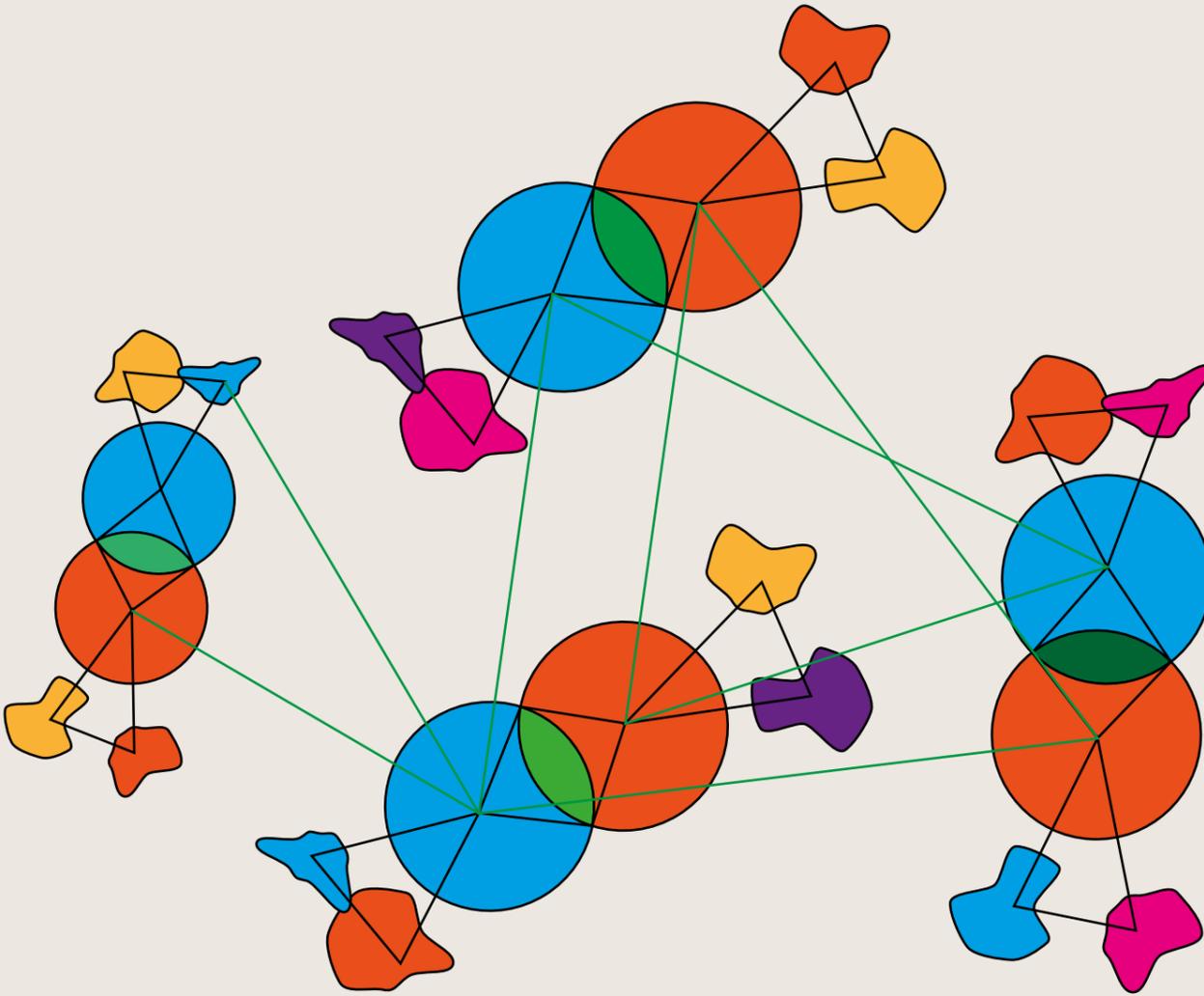


Communities then 'solve' their material problems with guidance from one another.

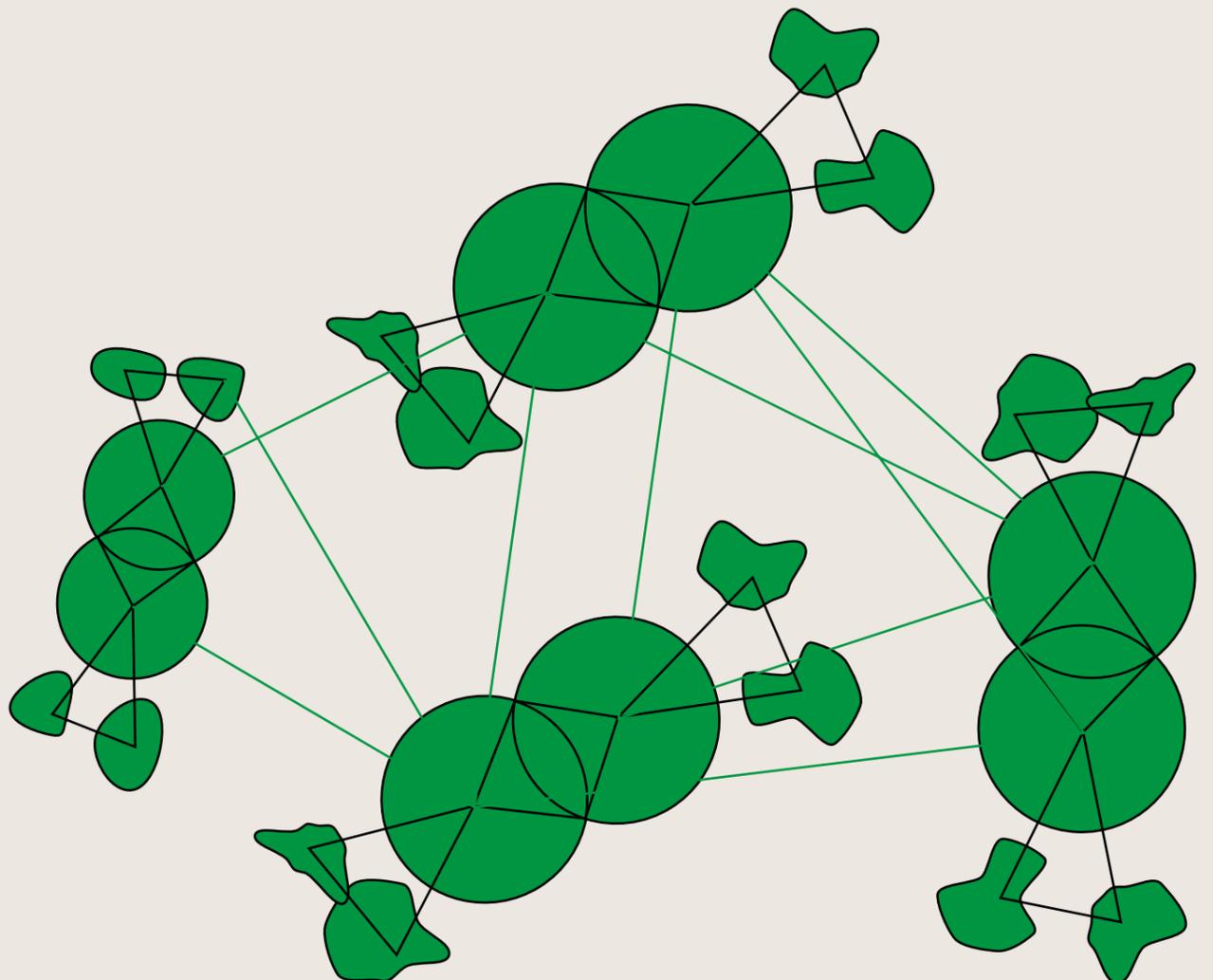


The material exchange continues and develops into a small-scale sustainable trade system. This creates a collaborative working partnership between the two regionally distinct communities.

Phase 3



Over time more communities become involved, creating a material exchange network that promotes connectivity, collaboration, community pride, whilst encouraging the uptake of sustainable materials and practices on a local or regional level.



Eventually, these material networks become the modus operandi of how communities collaborate to problem solve, creating a larger sustainable network whilst preserving diverse material identities.

Notes

- 1- Fuad-Luke, Alastair. 2009. *Design Activism*. New York: Taylor & Francis.
- 2- Wee, Cecilia. 2001. "Cartesian Environmental Ethics". *Environmental Ethics* 23 (3): 275-286. doi:10.5840/enviroethics200123316.
- 3- Zubrzycki, Geneviève. 2017. *National Matters: Materiality, Culture, And Nationalism*. Stanford University Press.
- 4- Koch, Natalie, and Tom Perreault. 2018. "Resource Nationalism". *Progress In Human Geography* 43 (4): 611-631. doi:10.1177/0309132518781497.
- 5- Koch, Natalie, and Tom Perreault. 2018. "Resource Nationalism". *Progress In Human Geography* 43 (4): 611-631. doi:10.1177/0309132518781497. 6-
- 6- Koch, Natalie, and Tom Perreault. 2018. "Resource Nationalism". *Progress In Human Geography* 43 (4): 611-631. doi:10.1177/0309132518781497.
- 7- Koch, Natalie, and Tom Perreault. 2018. "Resource Nationalism". *Progress In Human Geography* 43 (4): 611-631. doi:10.1177/0309132518781497.
- 8- Zubrzycki, Geneviève. 2017. *National Matters: Materiality, Culture, And Nationalism*. Stanford University Press
- 9- Zubrzycki, Geneviève. 2017. *National Matters: Materiality, Culture, And Nationalism*. Stanford University Press
- 10- Rifkin, Jeremy. 2014. *The Empathic Civilization*. New York: Jeremy P. Tarcher.
- 11- Salman, Maha. 2019. "Sustainability And Vernacular Architecture: Rethinking What Identity Is". *Urban And Architectural Heritage Conservation Within Sustainability*. doi:10.5772/intechopen.82025.
- 12- Salman, Maha. 2019. "Sustainability And Vernacular Architecture: Rethinking What Identity Is". *Urban And Architectural Heritage Conservation Within Sustainability*. doi:10.5772/intechopen.82025.
- 13- Zubrzycki, Geneviève. 2017. *National Matters: Materiality, Culture, And Nationalism*. Stanford University Press.
- 14- Salman, Maha. 2019. "Sustainability And Vernacular Architecture: Rethinking What Identity Is". *Urban And Architectural Heritage Conservation Within Sustainability*. doi:10.5772/intechopen.82025.
- 15- Rifkin, Jeremy. 2014. *The Empathic Civilization*. New York: Jeremy P. Tarcher.
- 16- Watson, Julia. 2019. *Julia Watson. Lo--TEK. Design By Radical Indigenism*. TASCHEN
- 17- Shirazi, M. Reza. (2013). *Critical Regionalism, Raum, and Tactility: Kenneth Frampton's Contribution to Phenomenological Discourse in Architecture*. *Environmental and Architectural Phenomenology* 24 (3).
- 18- Barthes, Roland, and Richard Howard. 2012. *Mythologies*. New York, N.Y: Hill and Wang.
- 19- Zubrzycki, Geneviève. 2017. *National Matters: Materiality, Culture, And Nationalism*. Stanford University Press.
- 20- Salman, Maha. 2019. "Sustainability And Vernacular Architecture: Rethinking What Identity Is". *Urban And Architectural Heritage Conservation Within Sustainability*. doi:10.5772/intechopen.82025.
- 21- Zubrzycki, Geneviève. 2017. *National Matters: Materiality, Culture, And Nationalism*. Stanford University Press
- 22- Zubrzycki, Geneviève. 2017. *National Matters: Materiality, Culture, And Nationalism*. Stanford University Press
- 23- Zubrzycki, Geneviève. 2017. *National Matters: Materiality, Culture, And Nationalism*. Stanford University Press
- 24- Tara Zahra. Review of Jaworski, Rudolf. *Deutsche und tschechische Ansichten: Kollektive Identifikationsangebote auf Bildpostkarten in der spǟten Habsburgermonarchie*. *H-German, H-Net Reviews*. July, 2007. <https://www.h-net.org/reviews/showpdf.php?id=13369>
- 25- Tara Zahra. Review of Jaworski, Rudolf. *Deutsche und tschechische Ansichten: Kollektive Identifikationsangebote auf Bildpostkarten in der spǟten Habsburgermonarchie*. *H-German, H-Net Reviews*. July, 2007. <https://www.h-net.org/reviews/showpdf.php?id=13369>
- 26- Tara Zahra. Review of Jaworski, Rudolf. *Deutsche und tschechische Ansichten: Kollektive Identifikationsangebote auf Bildpostkarten in der spǟten Habsburgermonarchie*. *H-German, H-Net Reviews*. July, 2007. <https://www.h-net.org/reviews/showpdf.php?id=13369>
- 27- Tara Zahra. Review of Jaworski, Rudolf. *Deutsche und tschechische Ansichten: Kollektive Identifikationsangebote auf Bildpostkarten in der spǟten Habsburgermonarchie*. *H-German, H-Net Reviews*. July, 2007. <https://www.h-net.org/reviews/showpdf.php?id=13369>
- 28- Tara Zahra. Review of Jaworski, Rudolf. *Deutsche und tschechische Ansichten: Kollektive Identifikationsangebote auf Bildpostkarten in der spǟten Habsburgermonarchie*. *H-German, H-Net Reviews*. July, 2007. <https://www.h-net.org/reviews/showpdf.php?id=13369>
- 29- Fuad-Luke, Alastair. 2009. *Design Activism*. New York: Taylor & Francis.
- 30- Fuad-Luke, Alastair. 2009. *Design Activism*. New York: Taylor & Francis.
- 31- Fuad-Luke, Alastair. 2009. *Design Activism*. New York: Taylor & Francis.
- 32- Fuad-Luke, Alastair. 2009. *Design Activism*. New York: Taylor & Francis.
- 33- Fuad-Luke, Alastair. 2009. *Design Activism*. New York: Taylor & Francis.
- 34- Fuad-Luke, Alastair. 2009. *Design Activism*. New York: Taylor & Francis.
- 35- Tara Zahra. Review of Jaworski, Rudolf. *Deutsche und tschechische Ansichten: Kollektive Identifikationsangebote auf Bildpostkarten in der spǟten Habsburgermonarchie*. *H-German, H-Net Reviews*. July, 2007. <https://www.h-net.org/reviews/showpdf.php?id=13369>
- 36- Kloppenburg, Joanna. 2016. "Hedonistic Sustainability: Bjarke Ingels Discusses Designing A New Vernacular In The Face Of Climate Change". *Blog. Architizer*. <https://architizer.com/blog/inspiration/stories/bjarke-ingels-hedonistic-sustainability/>.

Bibliography

Alesina, Inna, and Ellen Lupton. 2010. *Exploring Materials*. New York: Princeton Architectural Press.

Ambrose, Julian, and Niko Kommenda. 2020. "Britain Breaks Record For Coal-Free Power Generation". *The Guardian*, , 2020. <https://www.theguardian.com/business/2020/apr/28/britain-breaks-record-for-coal-free-power-generation>.

Barthes, Roland, and Richard Howard. 2012. *Mythologies*. New York, N.Y: Hill and Wang.

Cartesian Environmental Ethics, September 2001 *Environmental ethics* 23(3):275-286, DOI: 10.5840/enviroethics200123316, Cecilia Wee

Clarke, Alison. 2018. *Design Anthropology - Object Cultures In Transition*. London: Bloomsbury Academic.

Clarke, Alison J. 2011. *Design Anthropology: Object Culture in the 21st Century*. Wien: Springer.

Fuad-Luke, Alastair. 2009. *Design Activism*. New York: Taylor & Francis.

Gibson, James Herome. 1986. *The Ecological Approach To Visual Perception*. Hillsdale, N.J.: Lawrence Erlbaum Associates

Holt, Steven, and Mara Holt Skov. 2008. *Manufactured*. San Francisco: Chronicle Books.

Isabel Meirelles. 2013. *Design For Information: An Introduction To The Histories, Theories, And Best Practices Behind Effective Information Visualizations*. Rockport Publishers.

Keane, Webb. 2003. "Semiotics And The Social Analysis Of Material Things". *Language & Communication* 23 (3-4): 409-425. doi:10.1016/S0271-5309(03)00010-7.

Kloppenburg, Joanna. 2016. "Hedonistic Sustainability: Bjarke Ingels Discusses Designing A New Vernacular In The Face Of Climate Change". *Blog. Architizer*. <https://architizer.com/blog/inspiration/stories/bjarke-ingels-hedonistic-sustainability/>.

Koch, Natalie, and Tom Perreault. 2018. "Resource Nationalism". *Progress In Human Geography* 43 (4): 611-631. doi:10.1177/0309132518781497.

Miller, Daniel. 2009. *Anthropology And The Individual*. Oxford: Berg.

Miller, Daniel. 2003. *Material Cultures*. London: Routledge.

Rifkin, Jeremy. 2014. *The Empathic Civilization*. New York: Jeremy P. Tarcher.

Salman, Maha. 2019. "Sustainability And Vernacular Architecture: Rethinking What Identity Is". *Urban And Architectural Heritage Conservation Within Sustainability*. doi:10.5772/intechopen.82025.

Shirazi, M. Reza. (2013). *Critical Regionalism, Raum, and Tactility: Kenneth Frampton's Contribution to Phenomenological Discourse in Architecture*. *Environmental and Architectural Phenomenology* 24 (3).

Smith, Rachel Charlotte, Kasper Tang Vangkilde, Mette Gislev Kjaersgaard, Ton Otto, Joachim Halse, and Thomas Binder. 2016. *Design Anthropological Futures*. London: Bloomsbury Academic.

Sweeting, B., Oct 2018, *Proceedings of Relating Systems Thinking and Design (RSD7) 2018 Symposium*. Barbero, S. (ed.). Turin, Italy: Systemic Design Association, p. 563-570 (*Proceedings of Relating Systems Thinking and Design Symposium*).

Tara Zahra. Review of Jaworski, Rudolf. *Deutsche und tschechische Ansichten: Kollektive Identifikationsangebote auf Bildpostkarten in der späten Habsburgermonarchie*. H-German, H-Net Reviews. July, 2007. <https://www.h-net.org/reviews/showpdf.php?id=13369>

Thomas, Nathalie, Leslie Hooks, and Chris Tighe. 2019. "How Britain Ended Its Coal Addiction". *Financial Times*, , 2019. <https://www.ft.com/content/a05d1dd4-dddd-11e9-9743-d5a370481bc>.

Watson, Julia. 2019. *Julia Watson. Lo-TEK. Design By Radical Indigenism*. TASCHEN.

Zubrzycki, Geneviève. 2017. *National Matters: Materiality, Culture, And Nationalism*. Stanford University Press.