
***What impact can critical design have
on consumer citizens and the way they
influence the social narrative?***

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For me design research is relevant as it gives us the opportunities to speculate on how we as a consumerist society can have an active role in sparking fundamental change within the world we live. It enables us to use science and social studies which question ideas about biohacking, politics, the environment, society and government and manifest these into digital or physical proposals that act as a catalyst for questioning these ideals by which we live. In their project *Between Reality and the impossible*, Dunne and Raby wish to “facilitate reflection on the kind of technology mediated world we wish to live in” and take into consideration “the complex troubled people we are”(Dunne & Raby, 2010) by applying thorough research about the environment and the progress of technology to fix their projects in the real world in order to make them resonate with consumers.

I have recently become very invested in the idea of critical design. Whether it be architecture, product design, fashion design or even literature. I have become fascinated in how spaces, objects and interfaces can be used to make people think about the culture and politics of today and what that could lead to. I believe the year 2020 has made me a more considerate, sensitive and enlightened designer. It's highlighted to me the responsibility I have to create a foundation for meaningful and fundamental change. It's made me more passionate about ensuring my design makes people think, not just about what's happening in politics, or the economy, but how we behave as individuals and what sort of future that is manifesting.

I would like to better understand how critical design can get individuals to seriously consider the type of future we want, and thus the types of changes we have to make within our lives to make this happen. Through this I am not seeking to understand how critical design can predict the future, but instead how it can be used to develop test beds for experimentation and a redevelopment of the social standard in all areas of living. I want to further understand how small changes and grass roots initiatives can be implemented into daily life and enable a mobilisation of architecture and design that can provoke large scale enlightenment.

Through my research I am aiming to develop a broad understanding of critical design as a practice and the different ways designers work within this specialism. It is important for me to take a look at more local and ‘grounded’ approaches to critical design in addition to more speculative proposals that take on global issues of politics, economics and the environment.

For my design proposal / intervention I hope to develop a profound connection to the space I am working with. Both in terms of understanding its importance within the context of Sheffield and also understanding the value of the materials and structures that inhabit the framework of the building. Exploration and development through material interaction is a practice I feel will enable me to develop a thoughtful and reflective critical design proposal/ concept and narrative that will have long term potential outside of my project.



Figure 01. Object from the 'Do you want to replace the existing normal?' series by Dunne and Raby. (Dunne & Raby, 2007/08).

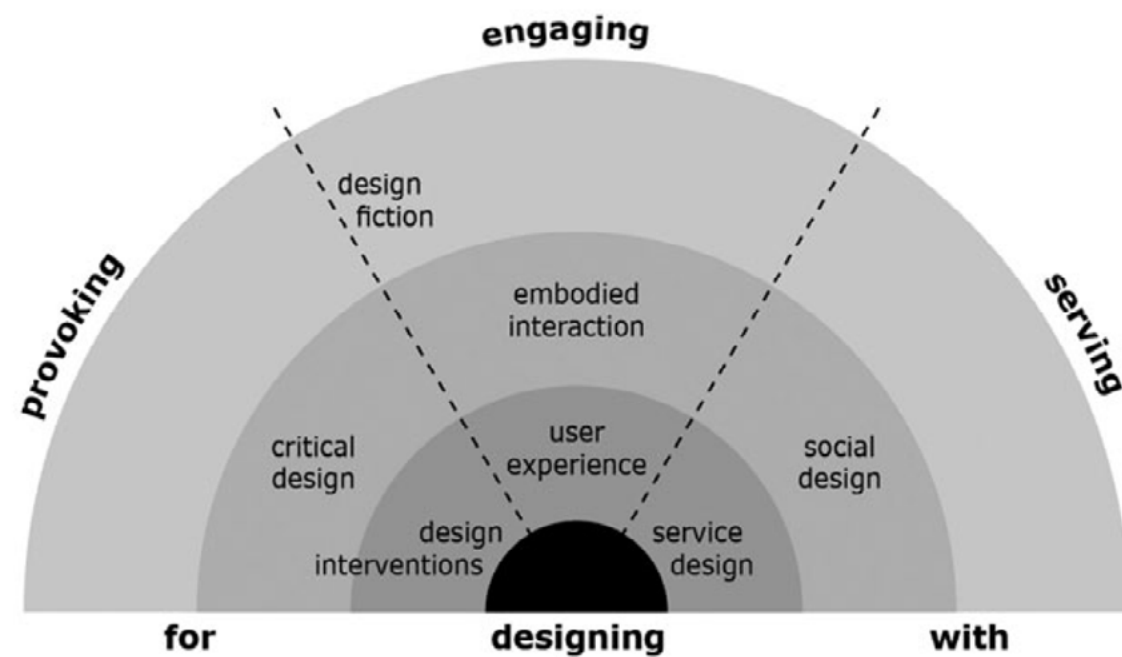


Figure 02. Diagram showing different emerging design approaches in relation to varying time frames. Inner circle - design today, Middle - design for the near future, Outer - Design for speculative scenarios. (Leon Karlsen Johannessen, Date Unknown).

Speculative design is an umbrella term that refers to a variety of types of design and specialisms, as shown in figure 02.

I want to explore how design fictions can be applied to thought experiments and critical concepts as a way to make individuals step back from reality and question what it means to be human and our role in governing that discourse. Dunne and Raby refer to the application of negativity through design as a way to “Jolt the viewer out of a cozy complacency that all is well” (Dunne & Raby, 2014, p.43).

In further reference to the concept of appealing to the citizen rather than the consumer they state that they are interested in “liberating this story making potential... from purely commercial applications and redirecting it towards more social ends” (Dunne & Raby, 2014 p.80). To design critically proposals must appeal to the human side of consumers, their ideals, morals and ethics, rather than “view people as obedient and predictable users and consumers” (Dunne and Raby, 2014, p.38).

The phrase design fiction and speculative design are used interchangeably, with design fiction being considered a narrower topic. Dunne and Raby refer to Design fiction as “suffering from the issues associated with film props... a dependence on referencing the already known” (Dunne & Raby, 2014, p.100).

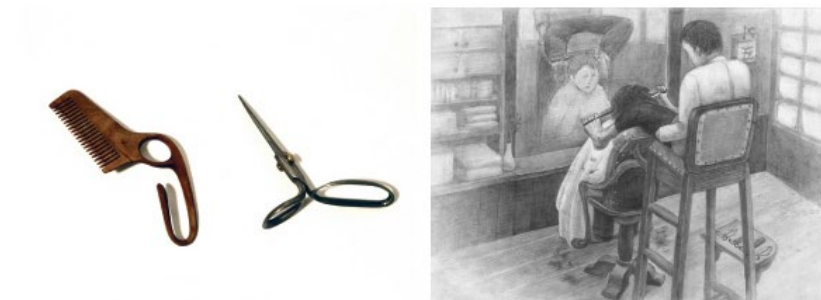
Whereas Bruce Sterling, the proprietor of the term, argues that “Design fiction is the deliberate use of diegetic prototypes to suspend disbelief about change” (Coles, 2016, p.95). This view promotes the idea that Design fiction has a broader potential with its application of the already known.

For critical design to be successful and thought experiments to be potent they need to be anchored in reality, such as design fiction, as to humanise the subjects they address. In doing this individuals are able to comprehend the full dimensions of the proposal within a real world context, and thus develop a dialogue for change and a consideration of what ideals we hold as citizens.

As Hiroko Shiratori remarks when talking on the topic of their project 'Unusual Objects' they state "For this project I was looking at the possibility of the design function to be 'speaking to your heart and brain'" (Coles, 2016 p.114). For these fictions to have an impact they must be rooted in what makes us human; love, fear, doubt, as Dunne and Raby put it, "To be human is to refuse to accept the given as given" (Dunne & Raby, 2014, p.3).

Vilém Flusser has an interesting view on where the line is drawn between reality and fiction as they state "The reality of the table is the sum of all the fictions that shape it"(Coles, 2016, p.137). This idea brings to light the notion that everything is fiction until materialised, or even that 'without any objects, we are mere fiction. More virtuality" (Coles, 2016, p.138).

Within my research and my proposal I do not wish to necessarily enter into a debate regarding terminology or what can be classed as design fiction, speculative design or critical design. Instead I wish to understand the extents to which each can be implemented and what impact can be achieved. I wish to explore a variety of examples ranging from projects based in reality, that speak on a community level regarding social and political intervention, and also look at projects that speak to humans on a more personal level to make us think about ourselves within such narratives. My research will aim to look into such a broad variety of projects as a way to help me develop a deeper understanding of exactly what is most important to me, what issues I want to address or what social practices I want to question. My hope is that in looking at such vastly differing projects for my research, I will be able to take ideologies from each and reapply them into the context of my proposal.



the handless tools were designed to be manipulated with the feet by a tokyo barber. he lost both hands as the result of an accident sustained during his compulsory military service in the early meiji period. the local community helped him develop the special tools, allowing him to continue his profession.

rickshaw was invented by three japanese men in 1870 and was one of the main transportation devices at the time. at the height, there were more than 200,000 rickshaws in town. this particular rickshaw was designed for marriage celebrations, which attract people for its authentic festival quality.



Figure 03. Images from Hiroko Shiratori's Unusual objects series. (Shiratori, 2006.)

Case Studies

Critical design is the practice of finding problems and suggesting possible alternatives, as a way to explore the extents of critical design I plan to look at a number different projects/ designers and how they interpret this meaning. Critical design in juxtaposition with design fiction often creates quite existential narratives, that focus more on the dark side of future technologies as a way to make consumers become less passive towards the world that is evolving around us. Other designers take a different approach with critical design and focus more on local issues and ask why aren't we as a society actively questioning the way we live, why are we so compliant to the rules society has decided on.



Figure 04. People cooking and consuming. (Studio Polpo, 2014 - 2015).

Studio Polpo is a social enterprise architectural practice based in Sheffield, who in 2015 with their project OPERA questioned the complicit nature of '[Mark] why we don't live in the city, why are we living in houses that are provided for us, not having so much of a say of the space we are in' (Nesbitt, 2015). OPERA is a project that took over an abandoned supermarket in the centre of Sheffield and used it as a prototype for how these empty spaces could be occupied, and how we can benefit from living in such a way that encourages community and shared thought and expression. The project is one that in itself highlights the awareness designers must have in acting as catalysts to this type of change, 'In the same way we introduce unfamiliarity into OPERA, this is a way for us to

introduce unfamiliarity into architecture, or the processes if architecture'. Similarly Design Futuring author Tony Fry 'argues conventional design has been central to the current defuturing project. Designers have failed to fully understand the disaster of the hyper- consumer economy.' (White, Critical Design and the Critical Social Sciences). It is important that designers of all specialisms are able to acknowledge the extents that their designs have and that the impact they have goes a long way.



Figure 05. Opera Entrance. (Studio Polpo, 2014 - 2015).



Figure 06. Construction of sleeping quarters. (Studio Polpo, 2014 - 2015).

“[Hannah Fox] The construction of these spaces and everything is not simple its been carefully considered and thought about, and you can tell, and that also enables you then to trust it more because you know that its been thought about and considered” (Nesbitt, 2015). The idea that critical design is something that pushes fear as a way to scare people into having a social awaking doesn’t always have to be true. In the case of OPERA is shows just how grounded critical design can be, and that instead of fear, it can generate comfort as a foundation for debate and start a dialogue for change in a safe space.

I feel as though critical design in this setting could be very successful. It shows governments how prototypes such as this can be designed and built for a relatively low cost, as well as encouraging people to think twice about our passive acceptance of societal norms in a sympathetic environment, making the idea of change less disconcerting.

‘[Hester Reave] There is something quite rigorously understood and thought about, very thoughtful in terms of why we might come together and the type of space, but actually when we come together it’s just very familial and open and dialogic’ (Nesbitt, 2015).

There are several ways critical design can present itself, one of which is manifested in the form of a design fiction. Design fiction can be used as a tool for manifesting ideas that transpire from the questioning and dismantling of ideological constructs (Jakobsone, 2019, p.572).

Happylife by James Auger is a design fiction project that questions a reality where electronics are able to have a deeper understanding of our relative emotional state than we are. The development is able to use profiling technology based on biometric information, where cameras and sensors are able to take thermal images that analyse changes in slight facial expressions. The technology could be implemented on a legal and judicial level to detect future crimes. In this narrative however it has been adapted for a domestic environment.



Figure 07. Illustration from James Auger's Happy Life (James Auger, 2010).

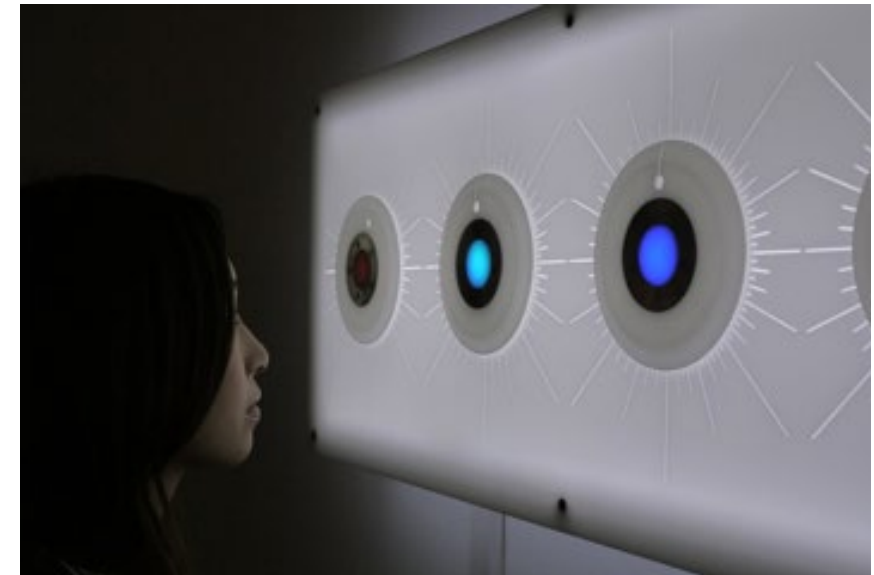


Figure 08. Image from James Auger's Happy Life (James Auger, 2010).

Design fictions such as this one have the power to turn consumers as spectators in technological process, into active participants. Critical design in this form can be very powerful as it challenges the normative state of acceptance of information and encourages individuals and companies, who are fixed on their idealistic intentions for the project, to provoke this discourse and explore the extents of the designs potential. Writing on the topic of critical design together with science and technology, Malpass references 'Material beliefs', a project that brought together designers and scientists, such as Happy life, in discussing the impact of Design fictions in science and technological studies. He writes, "Material Beliefs normalizes science, domesticating it and, at times, making it seem somewhat mundane in order to make themes accessible to broad audiences. In this way, the design work acts as a boundary object that fosters a more democratic discussion about science and technology." (Malpass, 2017, p.60).

Such as Malpass I believe there is a real quality in design fiction in its ability to place scientific and technological research into a more digestible context, with real life implications. It establishes a sense of transparency through which people are able to understand it instead of acknowledging it as something that doesn't concern them due to its current contextual state, that resides in a future dictated by industry. Projects such as 'Happylife' and 'Material beliefs' are pivotal in the standardisation of design fiction and critical design practices being implemented into all sectors of industry. Examples such as these highlight why it is important to question ideological values as designers. In their article Liene Jakobsone writes:

'Design that is created within certain ideological context supports the cultural conditioning of society, and promotes the ruling ideology... it gives physical shape to every artificial object we use or encounter... It is ubiquitous, it forms the idea of norm, and therefore it is a perfect medium for ideological propaganda.' (Jakobsone, 2017).

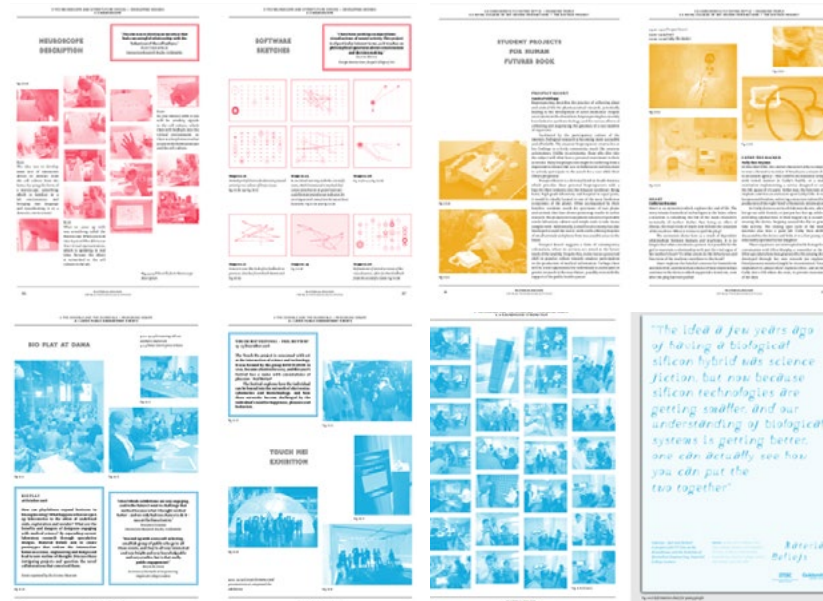


Figure 09. Clipped shots from the 'Material beliefs book' reflecting on the actives of the two year research project (Material Beliefs, 2009).

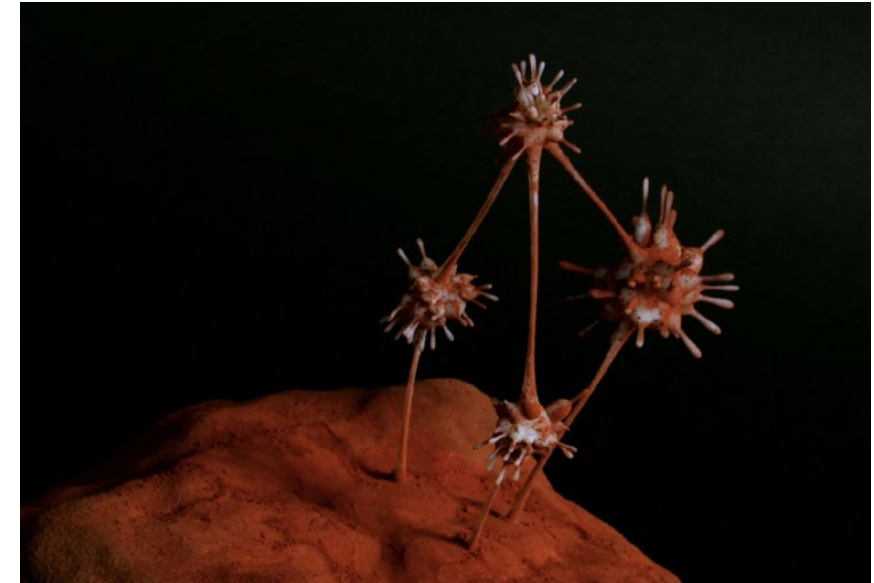


Figure 10. 3D print and clay model of 'Space Bacteria' (Raphael Kim, 2012)

Another Design fiction project that also offers criticism is Space Bacteria by Raphael Kim. The project centres around transporting natural resources that are found on earth to harsh environments such as Mars. Through the harvesting of microbial colonies found in the human body and the implementation of synthetic biology human microbes will be modified to increase tolerance levels in hostile environments. The project could present promising health care benefits in addition to establishing an interdependence between human microbes and space.

The project is an example of critical design that doesn't represent possible predicted uses for science and technology, it doesn't follow a 'dark' narrative such as Happylife. Instead as Kim describes it, "It is a story that celebrates the poetry of space travel and our biological identities, and the beauty of microbial life forms". It is still critical however, but not of technology, instead it is critical of our openness as humans to reconsider our fidelity towards our morals that have been constructed based on our current environments.

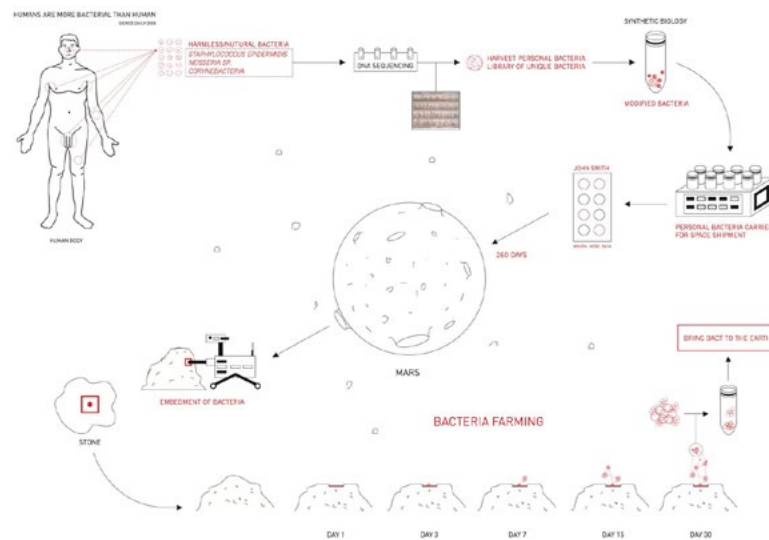


Figure 11. Diagram explaining the logistics of Space Bacteria. (Raphael Kim, 2012).

‘Space Bacteria’ introduces this idea of humans giving up materials that make them who they are as humans in a relatively unfamiliar context. In doing this I believe it makes the project more appealing to consumers as it doesn’t necessarily clash with the systemic ideology with which humans align their morals. The project acts almost as a trojan horse that ultimately gets us to consider as Kim says,

‘That we are already interchanging our own microbes constantly... I see it as a sort of dynamic ongoing cycle... think about our daily contact and exposure with people... we live in a fast paced constantly changing world... our identities are constantly being switched, so would it not be a natural part of our microbial cycle for our microbes to be spread, exchanged, grown and adapted?’ (Buntaine, 2016)

Projects such as this are key in highlighting the impact critical design can have on consumers. They are pioneers in a type of reflective design as Anne Marie Willis states, ‘a double movement- we design our world while our world designs us’.

This leads on to a type of dismantling of design I will discuss further on. In making individuals question why we truly have the ideals we do, design is able to incite a reconsideration of morality and persuasion.

“[Revell] In order to best understand a technology, it’s important to consider unintentional uses.” (Dublin Science Gallery, 2012).

The Science and technology industry has a tendency to use consumer trends as a means to reflect the projected success of a design in making our lives better. This works because we as consumers live by the ideology that runs parallel to the ambitions of such an industry. The problem however is that not all design is contextualised in a variety of environments, hence not acknowledging its global potential. This is where design fictions and critical design act as a tool that re-evaluates this practice, Stuart Reeves reflects on this as such, ‘Fiction guards against the teleological tendencies of forecasting, against explaining away ‘bad’ predictions and lauding ‘accurate’ ones.’ (Reeves 2012, p1580).



Figure 12. Mutated Mushroom providing the spaces of Mumbai with essential services. (Tobias Revell, 2012)

New Mumbai is a project by Tobias Revell that brings to light the extensive publication of the prospects for synthetic biology within developed communities and in lowering environmental impact, and the lack of investigation into how this will impact less developed areas (Dublin Science Gallery, 2012). “[Revell] New Mumbai comes from a culture of what the Indians call ‘Jugaad’ (a term applied to a creative or innovative idea providing a quick, alternative way of solving or fixing a problem)... It’s the lower end of the glamour spectrum where innovation and change happens most vitally and viscerally.” (Dublin Science Gallery, 2012).

The narrative is centred in the Dharavi slums of Mumbai, where the criminal networks have acquired biological samples, originally intended for use in narcotics. Due to the intellect of the refugees they were able to genetically modify the fungal samples and turn them into a new type of infrastructure, that would be able to power buildings, and provide building materials for refugees. As a result a mushroom micro-economy was able to thrive.

The project is presented through a documentary style video that involves interviews with individuals experiencing the innovation first hand. ‘New Mumbai’ presents a refreshing

take on the applications of genetic modification, its rhetorical nature and use of ‘relational ambiguity’ (Malpass, 2017, p.66) inadvertently acknowledges the negative sides of genetic modification in industry but through juxtaposition and slight contradiction* shows how it could become pivotal to positive change when normal individuals are included in the narrative. By narrating the inhabitants as the Dharavi slums as educated and enlightened individuals it questions how democratic-industrialised countries and their governments view these citizens.

*(Its contradictory because on the face of it the project is about why less developed areas aren’t being considered in bio development, but also acknowledges that industry isn’t the right place for discussions to exclusively take place).

Obviously it is a fictional narrative, however the issues that are addressed are still present within real world industry. I think the visual style taken by the project goes a long way in instilling this in the audience, Malpass even writes: ‘The documentary has a familiar and almost mundane quality in its narrative and production. This is successful in making the fiction all the more believable’ (Malpass, 2017, p.55/56).



Figure 13. Mutated Mushrooms providing the spaces of Mumbai with essential services. (Tobias Revell, 2012)

‘There is always an invisible and even intangible side of every designed product which coheres or interferes with its utilitarian functionality. This means that even a perfectly functional object, service or system can be imperceptibly but steadily promoting undesirable living conditions, without the user and the designer themselves even being aware of it.’ (Jakobsone, 2019, p.563)

One studio who are very aware of the significance of this statement and the need for a reconstruction in architectural practice is The office for political innovation (OFFPOLINN) run by Andrés Jaque. The ambitions and aims of the work of Jaque not only position themselves in the deconstruction of the way architecture is practiced but also as he regards ‘we have to learn to extinguish in a way, how to leave our hegemony, how do we coexist with new forces that are becoming immensely powerful like climate change... and to make a decision where some of the values of accountability, politics are still a part of that is very difficult’. (Itinerant Office, 2019).

As a society we are aware of issues such as climate change. But at the same time there is a sense of unenlightenment and almost ignorance due to these issues not always being obviously present, and sometimes hidden in our daily lives. Designers are pivotal in the appending of this out of sight out of mind narrative. By designing systems that transport waste away from life instead of recognising its involvement preserves the existence of passive consumerism.

Jaque puts it as such, ‘In the last years, the infrastructures that deal with wastewater in New York have been totally centralised and black-boxed. They have been made inaccessible, and even imperceptible, making people think that waste can disappear, when what happens is that is sent to other places that have less capacity to make decisions about their environmental quality. This segregation of toxicity is a way of producing inequality... We can design cohabitation with toxicity and by doing that we can have a say in the way our societies are dealing with inequality.’ (Jaque, LA+ interdisciplinary Journal of Landscape Architecture, 2019).

One project by OFFPOLINN that perpetuates an inclusion and acceptance of waste in our daily life is COSMO. The project highlights the beauty in cohabitation with waste. The system is designed to treat 3000 gallons of water, through conglomerate of ecosystems that metabolise suspended particles increasing the dissolution of oxygen. It was designed as a ‘device to experience the cultural and political value of replacing the pursuit of purity’ (Andres Jaque/ Office for Political Innovation, 2015).



Figure 14. COSMO water + algae exhibition that reflects the idea of living with waste and bringing it back to NYC. (OFFPOLIN, 2015).



Figure 15. COSMO water + algae exhibition that reflects the idea of living with waste and bringing it back to NYC. (OFFPOLIN, 2015).



Figure 16. Staged scene of how the Rolling House for a Rolling Society project may look. (M. De Guzman, 2009).



Figure 17. Elevated view of the Sweet Parliament Home (OFFPOLIN, 2011).

Andres Jaque has very considered ideas on the importance of design, particularly architecture in enabling discussion through experimentation. Through his work especially ‘Rolling House for a Rolling Society’ and ‘Sweet Parliament home’, he acknowledges the importance of domestic spaces in our current lives. In his project ‘Ikea Disobedients’ he questions the conventional idea of a home being a safe place disconnected from the political world, and also poses a reconsideration of how design is marketed. As a result of this he challenges the idea that a home can only be in one place and only have certain functions. In doing this he visualises and constructs such experiments and contextualises everyday human life, politics, emotions and social encounters into situations that we haven’t considered as they aren’t what is marketed to us as consumers.

He examples that architecture isn’t stagnant or stationary, its impact is far reaching and thus it should be mediated by all disciplines and individuals. There shouldn’t be an urgency to create, instead as he states ‘intervention is not a process that can happen in one take. It’s a long-term process in which the work of architects acts as a player; it mediates and is mediated by many others.’ (Hirsch, N & Jaque, A, 2019).

He also states on the topic of revision, “We can consider that repeated revision will concentrate efforts on the problematic evolution of articulations, and that “discussion” does not necessarily mean human deliberation but, for instance, the putting in place of alternative versions of the compositions so that they can gain a place in which to be experimented with.”(Yaneva, A. & Zaera- Polo, A. 2015).

Jaque’s Ideas and thoughts are very extensive, but what I have taken away from his work is a need for humans to live closer to the questions presented about the societies we live in. That we also need to move away from comfort in order to establish a more considered evaluation on how we live together as humans and how we interact with the world around us through the intervention of design and architecture. There needs to be a symbiotic relationship, where there is an intervention into society through architecture an intervention into architecture through society.

‘There’s a lot we can do. I think that, in a way, brings an energy and a feeling of connection with others that also creates momentum; and I think that momentum is a good current alternative to optimism.’ (LA+ interdisciplinary Journal of Landscape Architecture, 2019).

Despite the many beneficial outcomes of critical design, some highlighted in the previous case studies, there are still criticisms of critical thinking as a design practice. These criticisms range in reasoning, with some being more established than others. For example it has been described as “‘mainly male western visions on global futures” that present no understanding of the privileged status their authors have.’(Jakobsone, 2017). This is a very justified assertion given that the practice of critical design mainly comes out of democratic - industrialised countries.

Due to its often fictional nature critical design may be misapplied to work that lacks a rhetorical function. On the topic Malpass writes, ‘using critical and speculative design as a handy label to hide behind when the work does not come from a critical position inherent in the designer and is not the product of a rigorous process.’ (Malpass, 2017, p.129/130). This then results in the assumption that ‘it is an egocentric and useless practice, carried out for its own sake; a waste of time, effort and money for making things that do not solve any problems or do not have any function’,(Jakobsone, 2017). Assumptions such as this are grounded in two things, the first being a lack of education on critical design as a problem finding exercise. Criticism of design is often aligned with the essentialist ideal of function

and efficiency and the implementation of frameworks that determine what makes an object suitable for purpose (Malpass, 2017, p.76).

Critical design however as a hybrid of many design, scientific and psychological practices should not be compared to the same standards of functionality as industrial design, as Malpass further states, ‘function is an ill-defined and open concept; it extends beyond optimization and efficiency into social existential and cultural contexts’ (Malpass, 2017,p.126).

The debate over the functionality of critical design is considerably extensive, however the general consensus is that to critique critical design a new set of parameters need to be set out that understand the rhetorical functionality of the practice and take less reference from the frameworks under which fine art and product design is critiqued. Also, as previously mentioned functionality can be interpreted in different ways. In creating a basis for debate and experimentation critical design has fulfilled its function to mobilise individuals and enlighten them to the questions surrounding our adherence to consumerist values.



Figure 18. The living space of an industrial worker who lives in The Republic of Salvation. (Stroom Den Haag, 2012)

The Republic of salvation project was an example of when Speculative design narratives become jaded by privilege associated to the western world. The project focused on what would happen if our society were confronted by famine. This is obviously highly insensitive and uninformed due to the fact that for millions of people around the world famine is daily reality, and through labelling this as ‘fiction’ it implies that it doesn’t exist or isn’t relevant.



Figure 19. Ikea Disobedients critical design project by OFFPOLIN which questions the idea of homes being 'independent republics'. (OFFPOLIN, 2012).



Figure 20. Ikea Disobedients critical design project by OFFPOLIN which questions the idea of homes being 'independent republics'. (OFFPOLIN, 2012).

I think the following reflection from Andres Jaque on the intentions of his studio convincingly outlines a strategy for successful Critical design practice. He states, 'Architecture should be treated not as an origin but as a trajectory. We try to develop a methodology in which we can mobilise the trajectory of the built environment and register the changes in its evolution, it's accidental or unstated transformations.' (Hirsch, N & Jaque, A, 2019). By creating an object or a space with a strategy, that actively seeks to work beyond its materialistic scale, or as Jaque states postulates 'decouple their material investment from the social mobilisation they are able to initiate' (LA+ interdisciplinary Journal of Landscape Architecture, 2019), and also provoke its trajectory and then respond to such stimulation, is where critical design can be powerful. In letting citizens respond to critical design such as this it allows new evolutions based on unfiltered genuine human response, which is where fundamental reconstruction of ideology in the built environment can take place.

Another major factor in the success and standardisation of critical design is not just new design practices and metrologies, but to a certain extent the dismantling of the old. Tony Fry puts it as such, 'critical design futurism has to involve the continued, relentless search for re-directive practices at multiple spatial scales. This will involve systematically retrofitting and redirecting our personal habitus, our homes, our cities and our broader socio-ecological systems to reclaim the future... it will also ensure that in the future design needs to involve not just making, but unmaking. We will need eliminative design.'

***'Aspects of Critical design that are proposed as valuable include the awareness of ideological constructs and the capability to critically analyse them in order to avoid biased designs; understanding of the advancement of futures and the design's potential of steering it; principles of design fiction; and a deliberate use of design product as means of communication.'* (Jakobsone, 2019).**

Through my research I have developed a more sophisticated understanding of critical design and the ways it is interpreted into practice and manifested into reality through the use of design fictions. In my project I want to explore the ideas of Andres Jaque in decoupling my material investment from the type of social mobilisation my design is able to insight. I want to be able to develop a greater understanding of the applications of inter- scalar architecture through practice and so understand how this social mobilisation evolves in a variety of environments. I also however want to interact with my chosen building. I want to work on a detailed scale and ensure my intervention is respectful of its context. I think it will be a challenge to bring together these almost opposing actions but I feel that through connection to the material environment I will be able to develop a more insightful and relevant cause for social mobilisation.



The Brief + Site Analysis

No parking is a theatre for craft. The space emphasises the practices of observation, reflection and dismantling in an attempt to establish a re-appraisal of how designers, architects, artisans and makers as a whole, interact and consider materiality in the spaces they create. The space is designed to host master crafts people and give them the facilities to create. From this young designers, students and beginners in their respective fields will be invited to use the space as a place to work and experiment through the development of 1:1 prototypes and also through a considered and deliberate dismantling of the building framework.

The spatial and material composition allows for unique methods of individual reflection and observation to take place. Such interventions which frame artisans in unique ways that allow for a break down in techniques and processes. Breaking down the different elements of practices allows not only for a more profound understanding to be established but also for a more unique interpretation to develop and evolve. There is a lot of value in learning exactly how an individual works but even more so in taking the parts of their practices and applying these to the parts of others in order to develop a new programme of working which is more considerate of material re-use.

The site I have chosen for my project is 90 Trippet Lane. The site was demolished in 2019 to make-way for a new student housing development. Its initial development dates back to the late 19th century, with the most recent iteration (prior to demolition) dating back to 1945.

Part of the reason I chose the building despite its demolition is exactly because the framework didn't exist anymore. I felt as though there was a lot of potential for critical analysis through an intervention into the space. I think I saw the building as part of what I have come to label 'The abandoned Vernacular of Sheffield'.

In my project this is how I have come to identify spaces that are yet to be re-developed or are deemed unfit for adaptive reuse, such as Trippet Lane, which in a 2016 Archaeology report was described as such, 'The external facade has simple decorative details... this architectural style is not unusual, nor is it associated with any notable architect... The interior of the building is in a dangerous and dilapidated condition and has limited heritage value'. (The JESSOP Consultancy, 2016).

I think this reflects a sense of almost complacency when it comes to wanting to spend time and money understanding the building and its material elements and how these can be reformed rather than simply deeming it to be a case of unsuitability.



Figure 21. Image showing the street facing facades of 90 Trippet Lane. (The JESSOP Consultancy, 2016)

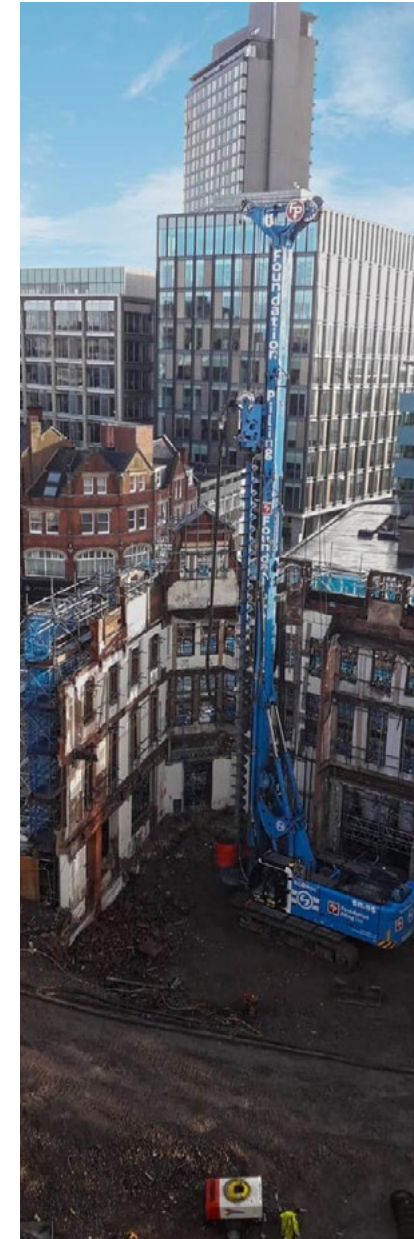


Figure 22. Demolition works nearing completion on the Moorhead, Sheffield. (Leonard Design Architects, 2020)



Figure 23. Fireplace in Sheffield's Old Town Hall. (Dan Circa, Date Unknown)



Figure 24. Staircase and pillars in Sheffield's Old Town Hall. (Dan Circa, Date Unknown)

Regarding the physical details of the building, the street facing facades have several decorative elements such as moulded brick transoms, mullions, sills, lintels, archways and roof edgings. The front facades are built up using flemish bond which run down and around the site gradient. By contrast the rear of the building lacks the same clean lines, edges and attention to detail. The rear is built up using bricks of varying colour and texture and are organised in a stretcher formation, with varying degrees of constancy. I am drawn to this contrast of mastery and attention to detail and almost a sense of apprentice level exploration and development. I almost think that aesthetically the rear holds just as much value as the front as it is almost a more honest representation of the building. Together the juxtaposition of the two is something that inspired my design choices and conceptual direction.

Regarding my brief I feel the natural evolution of the space is a deconstruction for the good of craft and learning through reinterpretation. As it sat with elements missing and needing repair and preservation it seems as though the materials, that still have potential need to be extracted from the building form and reestablished into new frameworks.



Figure 25. 90 Trippet Lane image showing the small window on the rear of the flat roof single storey space. (E. Anderson 2019).

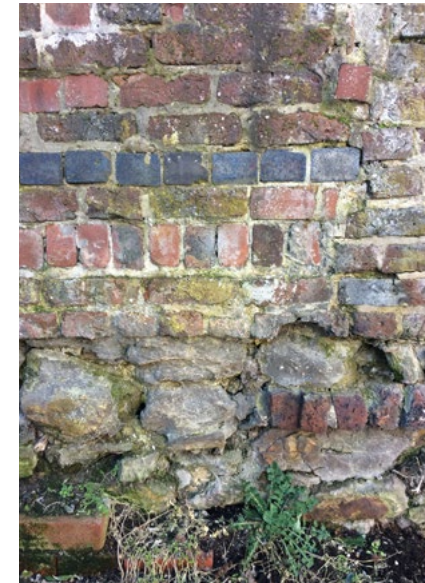


Figure 26. 90 Trippet Lane image showing the inconsistency in brick wall construction. (E. Anderson 2019).



Figure 27. 90 Trippet Lane image showing the arched entrance on the Bailey Lane facade. (E. Anderson 2019)



Figure 28. 90 Trippet Lane image showing the front facade facing onto Bailey Lane. (E. Anderson 2019)

The Concept

My concept is influenced by a number elements and areas of research but at its core I would say that it aims to break down stigmas attached to abandoned buildings, their forms, materials and purpose within the context of a developing Sheffield through means of reinterpretation of artisanal craft. In order to best explore the details of the narrative that forms my concept I have broken my concept down into 3 main themes:

1. Circular material economies

Circular material economies is central to my concept. The way materials are used and forms are made throughout my design is very much dictated by what is available on site and what is available from other places around Sheffield where materials are deemed as ‘waste’. This focus was very much derived from seeing the site as it stands today - a cohort or broken materials waiting to be disposed off. Reflecting back on the words of Andres Jacque,

‘Although we are largely aware of the extent to which architecture has pervaded every aspect of contemporary existence...in order to remain functional members of society we need ignore all this information, to avoid being paralysed by it.’ (Andres Jaque)(H, Harris & R, Hyde. 2020. p74).

This idea of being very passive to the standard framework of construction, which puts an emphasis on material redundancy, and accepting this is something we need to move past as designers and consumers as a whole. Through accepting these ideas we lose our ability to criticise and see beyond these bounds.

‘Architecture is but waste in transit existing in its intended form for only a brief time, before being demolished and disposed of’ (Rotor p147 AAA). What I have tried to achieve with this project is a breaking down of this idea that once materials are set into a particular orientation or framework they no long have future potential. Materials are not fixed assets, even in the case of bricks they don’t have to remain in the form they are used for building, they can be broken up or dusted, and used as material substitutes in concrete mixes, as I tested. Seeing materials for more than their value within a composition in a singular building is where designers can start to expand how we define our design on a materialistic level.



Figure 29. Image showing the remains of 90 Trippet Lane after it was demolished in 2019. (J. Fisher, 2021).



Figure 30. Image showing the removal of Tiles from an unused building by Rotor DC. (Rotor DC, Date Unknown)

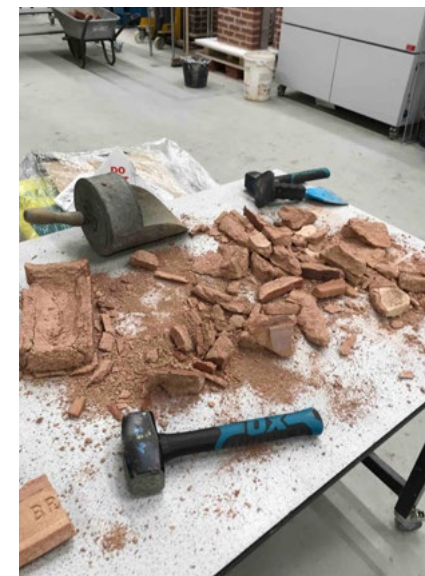


Figure 31. Image showing the breaking apart of bricks ready for material testing studies. (J. Fisher, 2021).

2. The Abandoned Vernacular of Sheffield.

Sheffield is a city undergoing substantial architectural redevelopment, and for the most part this work is focused on demolition and rebuilding from scratch. This has left a plethora of buildings in Sheffield either stood empty waiting for demolition or lone facades stood as a figure of what used to be. I have labeled this ‘The Abandoned Vernacular of Sheffield’. For the most part these buildings reflect neo-classical architectural styles which are associated with the Enlightenment and a revival of the style of the Ancient Greeks, *Renaissance* or *Italianate*, and were developed

during 1800’s implementing artisanal methods to achieve finer details in form.

Of late however these buildings have lost a sense of validity within a changing Sheffield. To maintain and adapt such spaces to the requirements of modern society has not been prioritised and as a result such spaces have been labelled redundant. I also don’t think the fact Sheffield is renowned for its industrial history aids in the redevelopment of these buildings in that they are not valued in the ways they should be for their display of craftsmanship due to their historical and locational context.



Figure 32. Image showing a stand alone facade of a building recently demolished on the Moorhead, Sheffield. (J. Fisher, 2020).



Figure 33. Image showing a stand alone facade of a building recently demolished in Castlegate, Sheffield. (J. Fisher, 2020).



Figure 34. Image shows the interior of the abandoned Cannon Brewery, Sheffield. (Tom Blackwell, 2014)



Figure 35. Image showing the Salvation Army building in Sheffield. (English Buildings, 2018)

Facades that employ grand decorative elements also carry a sense of ambiguity when it comes to their spatial purpose. These facades almost act as a barrier to the interior. This can disconnect the space from how people perceive it’s worth and potential. Through revealing the interiors and retaining the decoration, it opens these spaces up to the street and frames the activities within the space, which works towards changing stigmas related to these facades and their spatial and material potential.

‘The use of imperfect or incomplete tools draws on the imagination in developing the skills to repair and improvise... resistance and ambiguity can be instructive experiences; to work well, every craftsman has to learn from these experiences rather than fight them’ (R. Sennett, 2009).

3. Reflection and perspective.

What I am aiming to do with this space is take away the necessity to learn exactly how an individual completes a task, through this comes a sense of comparison and this hinders the design as it lacks the personality which is derived from a unique individual thought process. This idea of working with incomplete pieces of information needs to be viewed in a higher regard. Too often the process of letting the design guide the designer is undervalued in favour of a need for control of a project. In order for new practices and processes to prosper designers need to have a deeper trust in their abilities and knowledge to push a small piece of information to its limits.

Many of these ideas of reflection on ones involvement and impact within artisanal processes are derived from John Ruskin, William Morris and the Arts and Crafts movement. Morris strived for a continuation of hand crafts through an industrial age, however was unable to develop products that appealed to the masses due to cost. This is something I have been seeking to challenge through my concept. Through pairing ‘waste’ with forms associated with wealth I have aimed to release stigmas related to how a building should look based upon function and how a building should be interpreted based on its current material composition - Pairing classic forms with modern ideals to reinstate relevance and reflect the beauty of waste.



Figure 36. The image shows a clipped selection of Nova Reperta: Invention of Oil painting. (J. Stradanus & A. Phillips, 1600).

I have clipped it as a means of reflecting the idea that a lot can be taken from a small fragment of a big picture.



Figure 37. The Image shows The Academy of Baccio Bandinelli. (Enea Vico, 1550).

I have clipped it as a means of reflecting the idea that a lot can be taken from a small fragment of a big picture.



Figure 38. Image showing the Austrian curtain that is draped over the Centres for traditional music by Office Kersten Geers David Van Severen (Bas Princen, 2017)



Figure 39. Image showing Housing Project Maiengasse, with its minimal sliding shutters that allow for light to soak the interiors (Kuster Frey Fotografie, 2018)

Design Strategy / Approach

My main aim with my approach to the design was to manifest the key parts of my concept into the form and material of my intervention. It was important to develop a spatial strategy that would set up a foundation for craft and further dismantling, but also develop decorative elements that would frame moments within the space and break down these crafting processes into isolated movements and decisions to be contemplated and reflect upon.

The cast frames I developed to achieve this also go some way to embracing the compositional nature of the building itself and giving it a higher value. Through the process of framing I believe I was able to give new meaning and release negative stigmas relating to waste and imperfections in building composition.

Framing is something that was also carried through to the front exterior facades, though the implementation of rotary shutters constructed out of floor joists taken from the space and interior and exterior translucent curtains. These simple interventions allow for a manipulation in perspective and so allow for a break down of practices into individual movements. Simple interventions such as this are valuable in the sense that the individual is able to detach themselves from the environment and become more interpretive to what they see.



Figure 40. Image shows a 19th Century Bottega, from 'The Artist's Studio' (G. Courbet, 1854 - 55).

With my approach I also was seeking to draw from the structure of medieval and enlightenment workshops. In the 15th century artists work was carried out in a workroom known as a 'Bottega', where as a 'Studiolo' was a space used for contemplation. I tried to implement this spatial strategy into my work through level changes and soft divisions in space, in some instances these spaces blended where there were moments for observation through cuts in workshop walls as a means of playing with the idea of immediately responding to visual stimuli.



Figure 41. Image shows a theatre of the Enlightenment period in England. (Microcosm of London Vol 1, 1808)

I have taken much inspiration from the way the stages are layered to create depth within a scene and really focus the audience.

In addition to this I wanted to draw from the 15th century practice of inhabiting the space you are designing for, such as Donatello did with he took up residence in one of the Duomo's chapels of the Florence cathedral when he was commissioned to develop sculptures for the buildings exterior. There is a lot of value in this method of work with regards to building material relations with the space you are preserving, maintaining or developing through explorational material intervention. This is what my concept and design reflects at its core, the benefit of being surrounded by the materials and forms you are going to be working with as it allows for an elevated understanding of material potential.

With the design for the extension I tried to stage and manufacture this type of workshop structure in a more dramatised manner than what is reflected throughout the main body of the space. In doing this it allowed for me to reflect these ideas into similar building and facade structures to that of the abandoned buildings around Sheffield. The design was very much influence by forms featured in these facades, and was also inspired by the layered nature of theatre sets, that create a sense of depth and dimension all owing for a manipulation in perspective.

I hope to explore this concept further through iterative and speculative development as I see it having the potential to be implemented into a number of buildings and stand alone facades throughout Sheffield as almost like a spectacle of craft. I think it will allow for a deconstruction of how these buildings are viewed both from a social and functional perspective.



Figure 42. Image shows a 15th Century Studiolo, from 'San Girolamo nello Studio'. (Antonello da Messina, 1474 -75).

***'Sociologist George Simmel remarks, The stranger... learns the art of adaptation more searchingly, if more painfully than people who feel entitled to belong, at space with their surroundings.'* (The Craftsman, p.13)**

Influences

Regarding my more specific design influences I took references from a number of developments, but also from social practices and renaissance art and representation, as I felt it held a lot of value in relaying the moments I was attempting to forge through my intervention.

I started my research and the development of my concept by looking into the practice of squatting and its influence as a form of non normative architectural practice.

A lot can be learnt from squatter communities and the way they organise themselves and work through spontaneous intervention. I think in my work I tried to establish a similar mindset when it came to material testing and refinement and found it to be the most constructive and informative part of my development. Squat groups are highly organised and develop sophisticated means of inhabitation though considered choreographed frameworks.

The inhabitation of squat communities in old derelict buildings allows for a conservation of building framework and material, and I feel is something that should be encouraged rather than deterred. Unscripted spatial tactics such as theirs are of huge benefit not only to the fabric of city centres but also to how designers and architects approach design. I plan to further implement such tactics into evolutions of my concept which look at the abandonment landscape of Sheffield in relation to material practices.



Figure 43. Image shows the procedures squatters would organise as a means of choreographing inhabitation. (A. Kubrak & J. Schwartz, Date Unknown)



Figure 44. An Image showing an America operating Theatre after the arrival of anesthetic surgery. (T. Eakins, 1889). - With this image I drew a lot of inspiration from the way the observers were moving and positioning themselves to attain a heightened perspective.

As previously stated I took a lot of inspiration from scenes from images and paintings for the design of my space, as such:

Doctor training theatres - There is very little room for interpretation when it comes to the observation of medical practices, however the way the students would reposition themselves to gain a better perspective in what it is they are observing was a early influence in the way I designed the openings and view points into the ‘Mastercrafts space’

Renaissance paintings and workshops - Something I noticed in these images is the way they reflect a connection to the street and a sense of openness regarding their work, which is something I wanted to try and reflect to a certain degree with the Trippet Lane and corner facades. This sort of a framework in juxtaposition with that of figure [45+ 46], which again reflect an openness of practice have a lot to say about modern design practices and the strict confidential procedures they have to follow which almost create a disconnect from the immediate physical and communal context. I don’t think these procedures should be stripped completely, however it could be beneficial to have more of a long term commitment to these spaces, materials and communities. I plan to further my research into these spatial strategies in my work on the evolution of this concept.



Figure 45. Image shows ‘Mercury, from “The Planets” (Baccio Baldini, 1465).

The image inspired the idea to have craft at different levels throughout the space, in a very open and transparent configuration. Looking onto this image you are able to take in a number of different elements and develop individual focuses, this was the aim with the spatial design.



Figure 46. Image showing Artisans in their workshops (Alfredo Dagli Orti, 1470).

I took a lot of inspiration from the way these activities are framed within these constructed spaces as a means of developing a sense of theatre and focus onto these considerate acts of making. It’s an idea that has manifested itself into further research I plan on pursuing.



Figure 47. Image showing the exterior courtyard of Alvar Aalto's Muuratsalo Experimental House. (Nico Saieh, date Unknown).



Figure 48. Image showing the rear exterior of Alvar Aalto's Muuratsalo Experimental House. (Nico Saieh, date Unknown).

Alvar Aalto's Muuratsalo Experimental House is an example of how exploration and letting the process lead the designer can result in the testing of iterative processes at scale in order to better understand material composition. As a concept I have tried to apply this to my space as an existing structure, however I feel it has a lot of potential to be implemented into larger structures around Sheffield that can offer a more varied range of building typologies and material elements to be harvested. Within my design working in a such way that was very explorational and based on iterative development, particularly in material development, allowed me to make decisions that were influenced by external factors rather than presumptions regarding material availability and suitability. Moving on from this I am able to use this knowledge and treat it as a foundation for further exploration.

Techtonics / Materials

The constructional technologies lie more within the materials I have used in my design and how I have given materials which no longer have purpose in the original structure new value. In addition to this a high level of understanding of the existing building is what I deemed to be most valuable when intervening in the space, from this better decisions can be made.

As a standard I set for myself with the composition of timber structures I aimed to ensure that where possible the connections required between different materials, such as the beams, would be made using wooden rod / dowel joints. This would allow for an ease of dismantling and is a less destructive way of connecting the wood, ensuring it has the potential to take different forms in the long term. I also aimed where possible to utilise the existing structures within my interventions. For example when attaching the extension to the roof, I ensured that the beams and rafters would align and could be fixed together through non destructive means (Dowel joints). Where possible I also tried to keep the internal floor joists in place which had originally within the walls. In order to support these once walls were dismantled I inserted wooden beams which spanned the width of the space. These joists could then be used to support the balcony structure and timber railings which spanned from the ground floor up to the roof rafters where they were fixed.

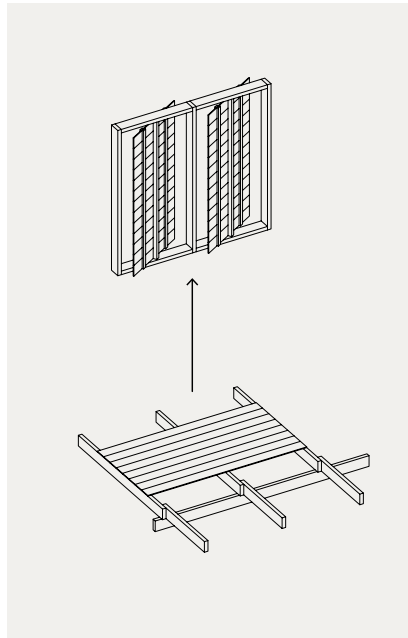


Figure 49. Diagram reflecting on material re-use. (J. Fisher, 2021).

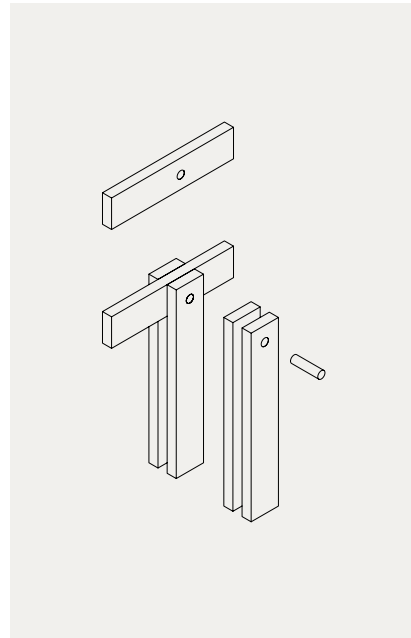


Figure 50. Diagram showing how joints are connected in the assembly of the exterior extension framework + the interior balcony (J. Fisher, 2021).

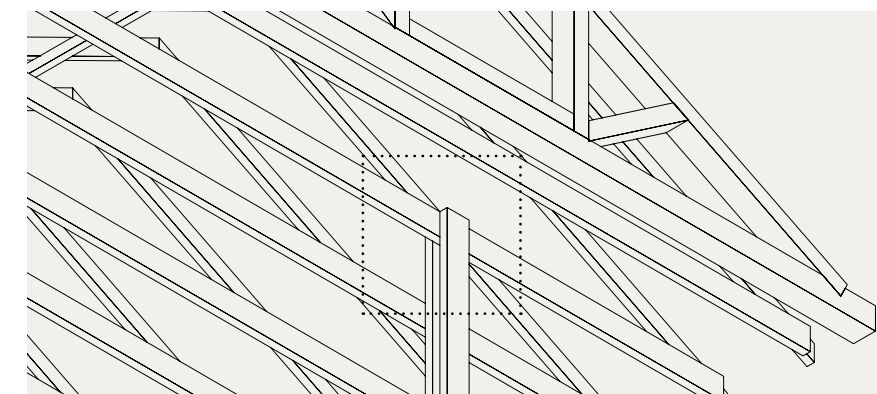
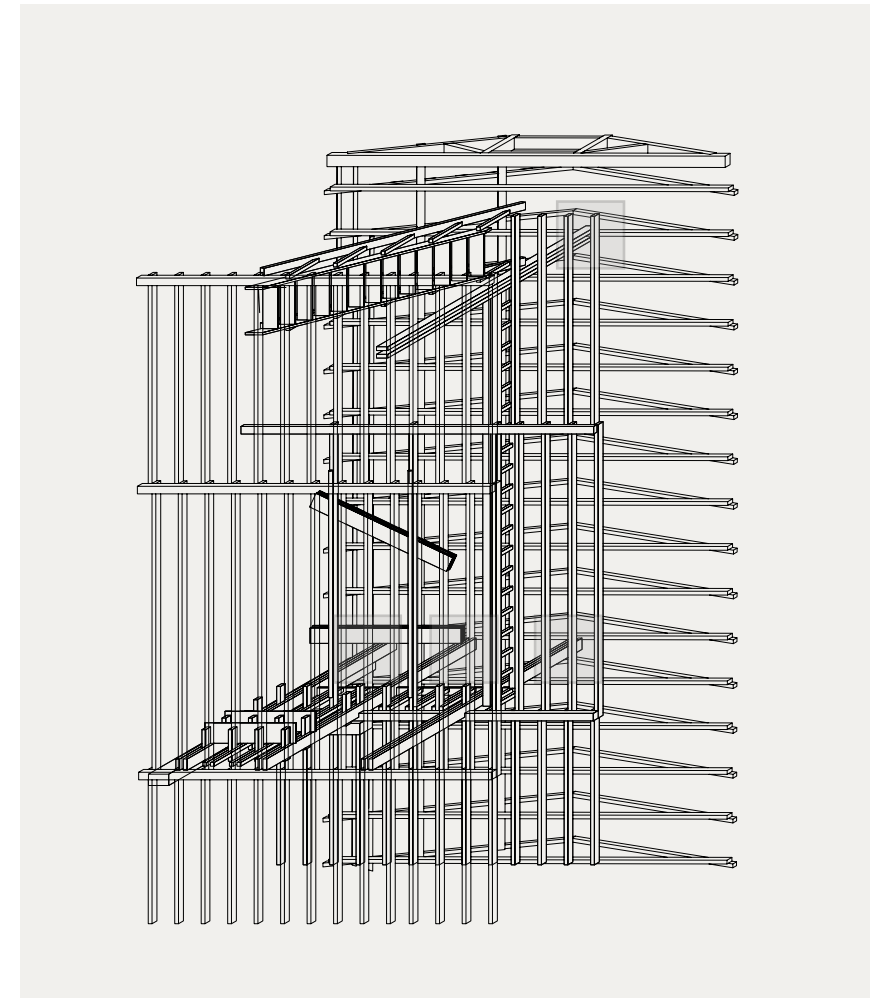


Figure 51. Diagram showing how the balcony beams are connected to the roof rafters - making use of the original building framework. (J. Fisher, 2021).



Figure 52. Image showing the process of cleaning the wood using broken glass to scrape off old paint. (Critical Concrete, 2020).



Figure 53. Image showing the wood being sanded down ready for protective treatment. (Critical Concrete, 2020.)



Figure 54. Showing the charring station in use. (Critical Concrete, 2020).



Figure 55. Showing the wood post charring. (Critical Concrete, 2020).

Wood Charring

As a means of protecting the wood that would be harvested from the interior of the space and have exterior applications I wanted to ensure that I treated the wood in a way that would provide long term protection. Wood charring makes use of the bricks taken from the original building frame work and to develop a small wood burning flash oven.

Charring allows for fire protection - Through burning the surface of the timber allows carbonation to take place and so lowers the thermal conductivity of the material, meaning in the event of a fire it would take longer for the material to burn. It also allows for mould and termite protection by lowering the nutritional value of the material, and the charring acts as a water resistant layer meaning water rolls off the material as if it were an oily surface. Other natural oils can be used for a less destructive protection for the internal elements such as, Orange Oil and Linseed oil which respectively provide pest protection and humidity and sunlight protection.

Due to the aged nature of the wood and possible damp that may have penetrated the surface over the best few decades a process of wood cleaning wood need to take place prior to protection. The wood must not have a humidity over 20% which can be assessed using a hydrometer. Nails, screws and other fixings that are attached to the wood should be removed, and then the surface should be cleaned using either a scraper or a broken piece of glass, which should be in abundance on site. Smoothing out the wood is a step that will ensure it is receptive to the natural oils, whilst also creating a nicer finish for interior surfaces.

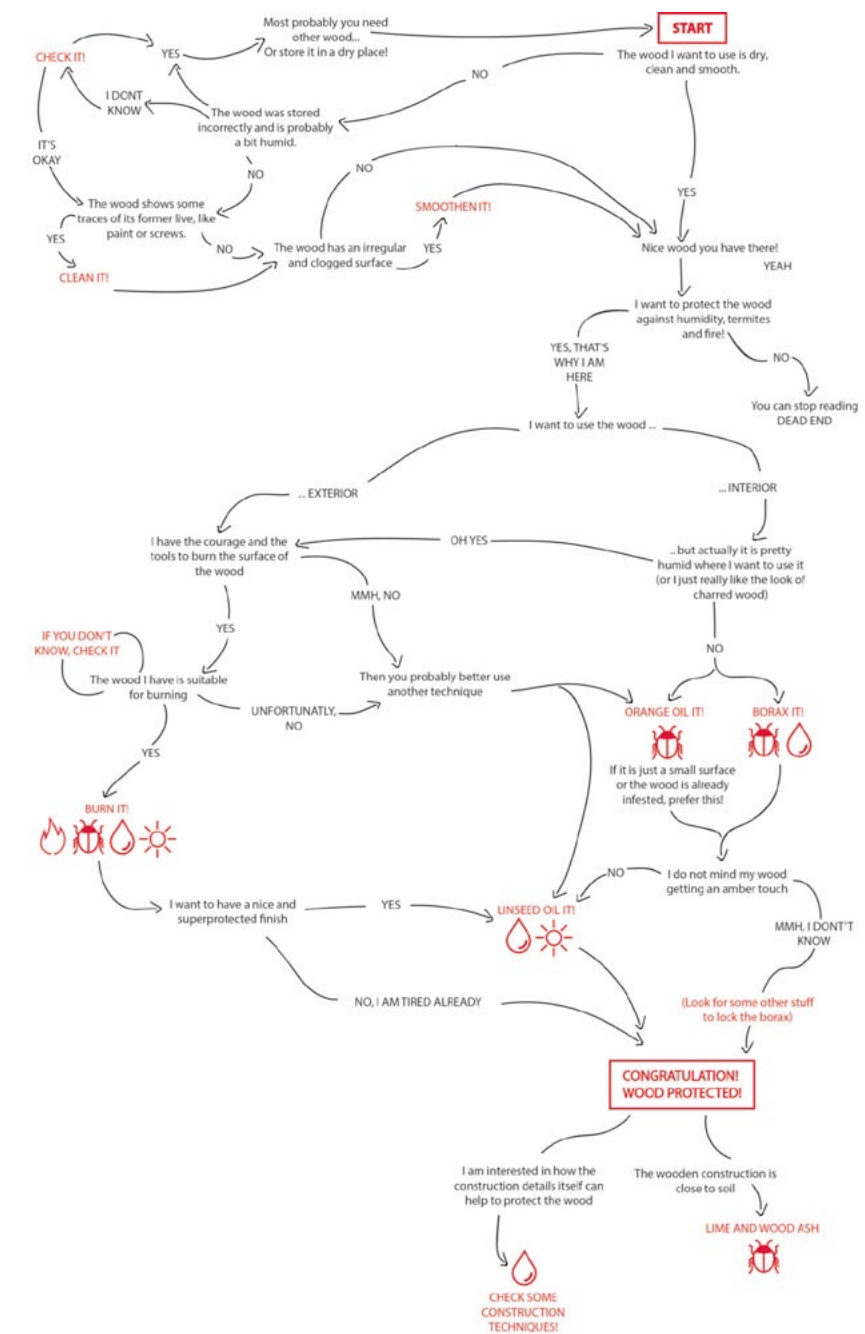


Figure 56. Diagram reflecting on different methods for protecting wood. (Critical Concrete, 2020)



Figure 57. Texture of a concrete lintel made using materials left on site. (J.Fisher, 2021).



Figure 58. Texture of a material test composed of brick dust, broken down brick and cement to bind. (J .Fisher, 2021).

Casting

In terms of the material compositions of the casts I trialed a few materials combinations that implemented 'waste' products from site. The functions of my cast elements determined what materials would be most appropriate from a structural perspective. For the Lintel there was a necessity to ensure strength was the most important feature if the end product, however I wanted to try and include some materials from site as a means of giving them new life and adding a higher aesthetic value to these forms. Most of the frames / forms I designed however were very much intended to feed the concept and thus required less structural integrity.

From this came experiments with creating a material made from brick dust, smaller pieces of brick and cement to bind. This resulted in a very light, brittle material as shown in figure [00], that could have positive results if cast on a larger scale, and is something I think could be worth trialing in my further material exploration.

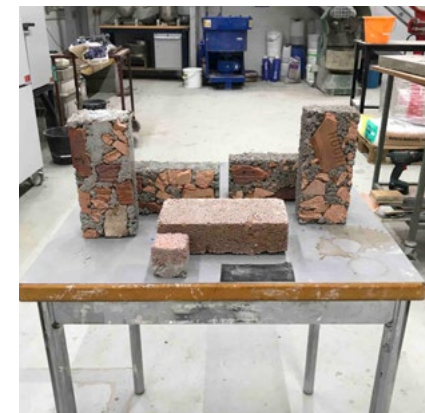
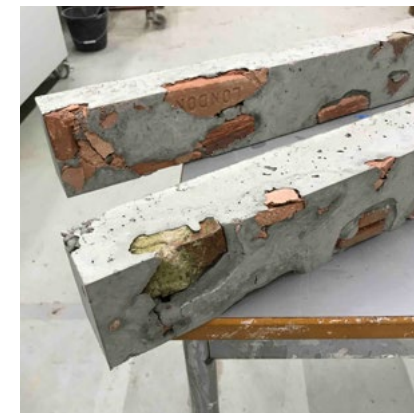


Figure 59. Material testing outputs. (J .Fisher, 2021).



Figure 60. The process of casting my final 1:1 model - form making, material selection, material combination and casting (J .Fisher, 2021).

Moving on from this as I started to develop 1:1 casts of decorative forms used in the extension of my proposal. I wanted to test a wider variety of materials particularly materials relevant to site.

For my first cast I created a 28kg mix for the mould:

- 7kg aggregate
- 7kg Old plaster (Horse Hair)
- 5kg brick dust
- 5kg sand
- 4kg cement
- 43% reused materials
- 43% Natural materials
- 14% inorganic



Figure 61. Images exhibiting the first of the two cast elements and issues which arose with the material (J .Fisher, 2021).

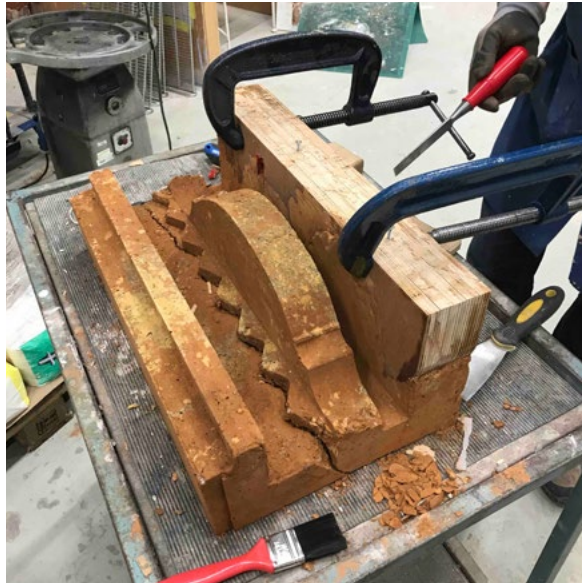


Figure 62. Images Reflecting on the processes after casting, the issues with releasing the form from its cast, and then leaving the two elements to anneal

For the second I once again created a 28kg mix to fill the mould:

- 4kg Old plaster (Horse Hair)
- 4kg Crushed Resin Cotswold mix (left over material product from a failed project)
 - 4kg sand
 - 4kg Cotswold sand
 - 4kg Cement
- 29% reused materials
- 57% natural materials
- 14% in organic materials

(Further information regarding the forms and construction of the moulds can be found in my project portfolio).

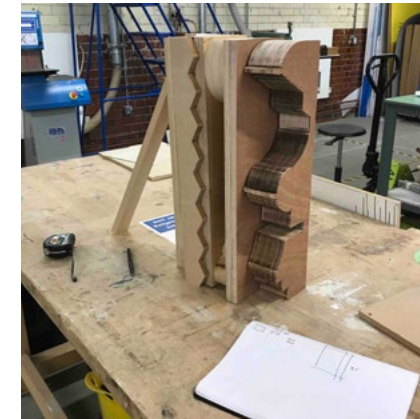


Figure 63. Images reflecting on the process of developing the second of the two cast elements

The results of the casting were quite promising, for the first cast the brick dust gave it a nice natural pigment which was achieved with the second through pigment. In both cases the horse hair acted as a further binding agent to cement. Both are much more brittle than standard concrete, and if they were to be implemented into the scheme with structural intention, there would need to be further material testing carried out.

Overall I am happy with the results as an initial trial of the materials and their properties, with further refinement and exploration these mixes could have greater aesthetic and structural potential, which is something I plan to refine as a long term project.

In spite of the fact these materials are being given new life, rather than being wasted, there is still a lot more that can be done in making the end results more sustainable. Through further material testing I plan to use materials that are 100% either classified as 'waste' or from a sustainable source. This would mean replacing even natural materials such as aggregate and sand. There are many binding alternatives to cement also, such as silica fume, Metakaolin, slag cement (waste product from blast furnaces) and fly ash.

Critical Report

In the world in which my project is situated I believe it stands as a solid foundation for further dismantling of architectural standards and regulations. From my design I feel there could be potential for further material interaction with abandoned buildings across Sheffield, there is a lot of vacant space which could be employed for the purpose of testing and trialing alternative methods and compositions of material technologies.

Through my research I have taken a keen interest in the demolition process, how facades are left, free standing as almost an unintentional gesture to the original space. Designing into these facades could be a way to further this idea of deconstructing stigmas surrounding such architecture. Using these facades as a means of preserving artisanal craft methods can provide a space for these techniques to live and evolve alongside modern technologies and ideas. Opening these spaces up to the streets will provide a spectacle and hopefully make clear to those who are not as invested or understanding of the narrative of demolition the value of these space as they once stood and how they could be reformed from their own material resource.

Regarding my progression as a designer and what I have learnt through this process, I think it has been made clear to me throughout this project my passion for reuse, material exploration and dissecting design practices as a whole.

Material testing is something I have immersed myself in this semester and has been the most valuable part of my project in terms of understanding how my work fits into the genre of critical design and problem finding as a means of dismantling passive architecture practices.

I think in today's social and economic climate more than ever it is important to reflect on how we respond to our environments. The world and its inhabitants are not predictable, thus designing according to trend forecasts seems futile and more of a means of controlling rather than responding. I want to be a part of practices that develop frameworks for individual exploration and testing, and encourage people to question the conventions under which we live and are deemed standard practice.

Relaying back to my theory writing - I had planned to achieve a deeper understanding of social mobilisation through a deeper material connection and I feel as though I achieved this through the project and hope to further this practice.



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Figures

Figure 01. Dunne & Raby (2007 /08). Object from the ‘Do you want to replace the existing normal?’ series by Dunne and Raby [Photo]. Retrieved from: <http://dunneandraby.co.uk/content/projects/75/0>

Figure 02. Leon Karlsen Johannessen (date unknown). Diagram showing different emerging design approaches in relation Varying Time frames [Diagram Illustration]. Retrieved from: <https://www.ntnu.edu/documents/139799/1279149990/16+TPD4505.leon.johannessen.pdf/1c9221a2-2f1b-42fe-ba1f-24bb681be0cd>

Figure 03. (Shiratori, 2006.) Images from Hiroko Shiratori’s Unusual objects series [Photo]. Retrieved from: <http://hirokoshiratori.com/projects/unusual-objects/>

Figure 04. Studio Polpo, 2014 - 2015. People cooking and consuming [Photo]. Image retrieved from: <http://www.studiopolpo.com/#opera>

Figure 05. Studio Polpo, 2014 - 2015. Opera Entrance [Photo]. Image retrieved from: <http://www.studiopolpo.com/#opera>

Figure 06. Studio Polpo, 2014 - 2015. Construction of sleeping quarters. [Photo]. Image retrieved from: <http://www.studiopolpo.com/#opera>

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Figure 15. OFFPOLIN (2015). COSMO water + algae exhibition that reflects the idea of living with waste and bringing it back to NYC [Photo]. Retrieved from: <https://officeforpoliticalinnovation.com/work/cosmo-moma-ps1/>

Figure 16. M. De Guzman (For OFFPOLIN), (2009). Staged scene of how the Rolling House for a Rolling Society project may look [Photo]. Retrieved from: <https://officeforpoliticalinnovation.com/work/rolling-house-for-the-rolling-society/>

Figure 17. OFFPOLIN (2011). Elevated view of the Sweet Parliament Home [Photo]. Retrieved from: <https://officeforpoliticalinnovation.com/work/sweet-parliament-home/>

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Figure 21. The JESSOP Consultancy (2016). Image showing the street facing facades of 90 Trippet lane [Photo]. Retrieved from: https://archaeologydataservice.ac.uk/archiveDS/archiveDownload?t=arch-1602-1/dissemination/pdf/thejesso1-222907_1.pdf

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Figure 24. Dan Circa (Date Unknown), Staircase and Pillars in Sheffield’s Old Townhall [Photo]. Retrieved from: <http://sheffieldoldtownhall.co.uk/gallery/>

Figure 25. E . Anderson (2019). Trippet Lane image showing the small window on the rear of the flat roof single storey space [Photo]. Retrieved Via correspondence with the image owner.

Figure 26. E . Anderson (2019). 90 Trippet Lane image showing the inconsistency in brick wall construction.[Photo]. Retrieved Via correspondence with the image owner.

Figure 27. E . Anderson (2019). 90 Trippet Lane image showing the front facade facing onto Bailey Lane [Photo]. Retrieved Via correspondence with the image owner

Figure 28. E . Anderson (2019). 90 Trippet Lane image showing the arched entrance on the Bailey Lane facade. [Photo]. Retrieved Via correspondence with the image owner.

Figure 29. J. Fisher (2021). Image showing the remains of 90 Trippet Lane after it was demolished in 2019 [Photo]. Sheffield, UK.

Figure 30. Rotor DC (Date Unknown). Image showing the removal of Tiles from an unused building by Rotor DC [Photo]. Retrieved from: <https://rotordc.com/kinderdorp-molen-berg-1948-tiles/>

Figure 31. J. Fisher (2021). Image showing the breaking apart of bricks ready for material testing studies [Photo]. Sheffield, UK.

Figure 32. J. Fisher (2021). Image showing a stand alone facade of a building recently demolished on the Moorhead, Sheffield. [Photo]. Sheffield, UK

Figure 33. J. Fisher (2021). Image showing a stand alone facade of a building recently demolished in Castlegate, Sheffield. [Photo]. Sheffield, UK.

Figure 34. Tom Blackwell (2014). Image shows the interior of the abandoned Cannon Brewery, Sheffield [Photo]. Retrieved from: <https://www.flickr.com/photos/tjblackwell/12135030386/in/photostream/>

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Figure 37. Enea Vico (1550). The Image shows The Academy of Baccio Bandinelli [Etching]. Retrieved from: <https://artmuseum.princeton.edu/collections/objects/58883>

Figure 38. Bas Princen (2017). Image showing the facade of the Centres for traditional music by Office Kersten Geers David Van Severen [Photo]. Retrieved from: <https://divisare.com/projects/349522-office-kersten-geers-david-van-severen-bas-princen-centres-for-traditional-music>

Figure 39. Kuster Frey Fotografie (2018). Image showing Housing Project Maiengasse, with its minimal sliding shutters that allow for light to soak the interiors [Photo]. Image retrieved from <https://www.archdaily.com/956661/housing-project-maiengasse-esch-sintzel-architekten>

Figure 40. G. Courbet (1854 - 55). Image shows a 17th Century Bottega, from ‘The Artist’s Studio’ [Painting]. Retrieved from: https://www.artspace.com/magazine/art_101/art_market/the-evolution-of-the-artists-studio-52374

Figure 41. Microcosm of London Vol 1 (1808). Image shows a theatre of the Enlightenment period in England [Illustration]. Retrieved from: <http://www.cambridgeblog.org/2019/08/ireland-enlightenment-and-the-english-stage-1740-1820/>

Figure 42. Antonello da Messina (1474 -75.) Image shows a 15th Century Studiolo, from ‘San Girolamo nello Studio’ [Painting]. Retrieved from <http://www.stefaanvanbiesen.com/studiolo-skin.html>

Figure 43. A. Kubrak & J. Schwartz (Date Unknown). Image shows the procedures squatters would organise as a means of choreographing inhabitation [Illustrations]. Retrieved from: <https://architecture-appropriation.hetnieuweinstituut.nl/en/squatting-spatial-practice>

Figure 44. T. Eakins (1889). An Image showing an America operating Theatre after the arrival of anesthetic surgery [Painting]. Retrieved from: <https://www.scientificamerican.com/article/how-ether-transformed-surgery-from-a-race-against-the-clock/>

Figure 45. Baccio Baldini (1465). Image shows ‘Mercury, from “The Planets”’ [Etching]. Retrieved from: <http://www.italianrenaissanceresources.com/units/unit-3/essays/what-made-a-vibrant-artistic-center/>

Figure 46. Alfredo Dagli Orti (1470). Image showing Artisans in their workshops [Painting / Illustration]. Image retrieved from: <http://www.italianrenaissanceresources.com/units/unit-3/essays/what-made-a-vibrant-artistic-center/>

Figure 47. Nico Saieh (Date Unknown). Image showing the exterior courtyard of Alvar Aalto’s Muuratsalo Experimental House [Image]. Retrieved from: <https://www.archdaily.com/214209/ad-classics-muuratsalo-experimental-house-alvar-aalto>

Figure 48. Nico Saieh (Date Unknown). Image showing the rear exterior of Alvar Aalto’s Muuratsalo Experimental House [Image]. Retrieved from: <https://www.archdaily.com/214209/ad-classics-muuratsalo-experimental-house-alvar-aalto>

Figure 49. J. Fisher (2021). Diagram reflecting on material re-use [Illustrated Diagram]. Sheffield, UK.

Figure 50. J. Fisher (2021). Diagram showing how joints are connected in the assembly of the exterior extension framework + the interior balcony [Illustrated diagram]. Sheffield, UK.

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Figure 52. Critical Concrete (2020). Image showing the process of cleaning the wood using broken glass to scrape off old paint [Image]. Retrieved from: <https://criticalconcrete.com/natural-wood-protection/>

Figure 53. Critical Concrete (2020). Image showing the wood being sanded down ready for protective treatment [Image]. Retrieved from: <https://criticalconcrete.com/natural-wood-protection/>

Figure 54. Critical Concrete (2020). Showing the charring station in use [Photo]. Image retrieved from <https://criticalconcrete.com/charring-station/>

Figure 55. Critical Concrete (2020). Showing the wood post charring [Photo]. Image retrieved from <https://criticalconcrete.com/charring-station/>

Figure 56. Critical Concrete (2020). Diagram reflecting on different method for protecting wood [Image]. Retrieved from: <https://criticalconcrete.com/natural-wood-protection/>

Figure 57. J. Fisher (2021). Texture of a concrete lintel made using materials left on site [Photo]. Sheffield, UK

Figure 58. J. Fisher (2021). Texture of a material test composed of brick dust, broken down brick and cement to bind [Photo]. Sheffield, UK

Figure 59. J. Fisher (2021). Material test outputs [Photo]. Sheffield, UK

Figure 60. J. Fisher (2021). The process of casting my final 1:1 model - form making, material selection, material combination and casting [Photo]. Sheffield, UK

Figure 61. J. Fisher (2021). Images exhibiting the first of the two cast elements and issues which arose with the material [Photo]. Sheffield, UK

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UREC 1 RESEARCH ETHICS REVIEW FOR STUDENT RESEARCH WITH NO HUMAN PARTICIPANTS OR DIRECT COLLECTION OF HUMAN TISSUES, OR BODILY FLUIDS.

All University research is required to undergo ethical scrutiny to comply with UK law. The SHU [Research Ethics Policy](#) should be consulted before completing the form. Answering the questions below will confirm that the study fits this category and that any necessary approvals or safety risk assessments are in place. The supervisor will approve the study, but it may also be reviewed by the College Teaching Programme Research Ethics Committee (CTPREC) as part of the quality assurance process.

The final responsibility for ensuring that ethical research practices are followed rests with the supervisor for student research.

Note that students and staff are responsible for making suitable arrangements to ensure compliance with the General Data Protection Regulations (GDPR), for keeping data secure and if relevant, for keeping the identity of participants anonymous. They are also responsible for following SHU guidelines about data encryption and research data management. Information on the [ethics website](#)

The form also enables the University and College to keep a record confirming that research conducted has been subjected to ethical scrutiny.

The form may be completed by the student and the supervisor and/or module leader (as applicable). In all cases, it should be counter-signed by the supervisor and/or module leader, and kept as a record showing that ethical scrutiny has occurred. Students should retain a copy for inclusion in the appendices of their research projects, and a copy should be uploaded to the module Blackboard site for checking.

Please note if it may be necessary to conduct a health and safety risk assessment for the proposed research. Further information can be obtained from the Safety Co-ordinator.

1. General Details

Name of student	Jessica Fisher
SHU email address	b8004596@my.shu.ac.uk
Course or qualification (student)	Interior Architecture and Design BA
Name of supervisor	Tony Broomhead
email address	t.broomhead@shu.ac.uk
Title of proposed research	What impact can critical design have on consumer citizens and the way they influence the social narrative?
Proposed start date	Oct 2020
Proposed end date	May 2021

Brief outline of research to include, rationale & aims (250-500 words).

I would like to better understand how critical design can get individuals to seriously consider the type of future we want, and thus the types of changes we have to make within our lives to make this happen. Through this I am not seeking to understand how critical design can predict the future, but instead how it can be used to develop test beds for experimentation and a redevelopment of the social standard in all areas of living. I want to further understand how small changes and grass roots initiatives can be implemented into daily life and enable a mobilisation of architecture and design that can provoke large scale enlightenment.

Through my research I am aiming to develop a broad understanding of critical design as a practice and the different ways designers work within this specialism. It is important for me to take a look at more local and 'grounded' approaches to critical design in addition to more speculative proposals that take on global issues of politics, economics and the environment.

For my design proposal / intervention I hope to develop a profound connection to the space I am working with. Both in terms of understanding its importance within the context of Sheffield and also understanding the value of the materials and structures that inhabit the framework of the building. Exploration and development through material interaction is a practice I feel will enable me to develop a thoughtful and reflective critical design proposal/ concept and narrative that will have long term potential outside of my project.

I confirm that this study does not involve collecting data from human participants __X

2. Research in Organisations

Question	Yes/No
1. Will the research involve working with/within an organisation (e.g. school, business, charity, museum, government department, international agency, etc.)?	No
2. If you answered YES to question 1, do you have granted access to conduct the research? <i>If YES, students please show evidence to your supervisor. PI should retain safely.</i>	N/A
3. If you answered NO to question 2, is it because: A. you have not yet asked B. you have asked and not yet received an answer C. you have asked and been refused access. <i>Note: You will only be able to start the research when you have been granted access.</i>	N/A


4. Research with Products and Artefacts

Question	Yes/No
1. Will the research involve working with copyrighted documents, films, broadcasts, photographs, artworks, designs, products, programmes, databases, networks, processes, existing datasets or secure data?	Yes

<p>2. If you answered YES to question 1, are the materials you intend to use in the public domain?</p> <p><i>Notes: 'In the public domain' does not mean the same thing as 'publicly accessible'.</i></p> <ul style="list-style-type: none"> Information which is 'in the public domain' is no longer protected by copyright (i.e. copyright has either expired or been waived) and can be used without permission. Information which is 'publicly accessible' (e.g. TV broadcasts, websites, artworks, newspapers) is available for anyone to consult/view. It is still protected by copyright even if there is no copyright notice. In UK law, copyright protection is automatic and does not require a copyright statement, although it is always good practice to provide one. It is necessary to check the terms and conditions of use to find out exactly how the material may be reused etc. <p><i>If you answered YES to question 1, be aware that you may need to consider other ethics codes. For example, when conducting Internet research, consult the code of the Association of Internet Researchers; for educational research, consult the Code of Ethics of the British Educational Research Association.</i></p>	Yes
<p>3. If you answered NO to question 2, do you have explicit permission to use these materials as data?</p> <p><i>If YES, please show evidence to your supervisor.</i></p>	N/A
<p>4. If you answered NO to question 3, is it because:</p> <p>A. you have not yet asked permission B. you have asked and not yet received and answer C. you have asked and been refused access.</p> <p><i>Note You will only be able to start the research when you have been granted permission to use the specified material.</i></p>	N/A

Adherence to SHU policy and procedures

Personal statement	
<p>I can confirm that:</p> <ul style="list-style-type: none"> I have read the Sheffield Hallam University Research Ethics Policy and Procedures I agree to abide by its principles. 	
Student	
Name: <i>Jessica Fisher</i>	Date: 03/10/20
Signature: 	
Supervisor or other person giving ethical sign-off	
<p>I can confirm that completion of this form has confirmed that this research does not involve human participants. The research will not commence until any approvals required under Sections 3 & 4 have been received and any health and safety measures are in place.</p>	
Name: Tony Broomhead	Date: 03/10/20

Signature: 	
Additional Signature if required: N/A	
Name:	Date:
Signature:	

Please ensure the following are included with this form if applicable, tick box to indicate:

	Yes	No	N/A
Research proposal if prepared previously			X
Any associated materials (e.g. posters, letters, etc.)			X
Health and Safety Project Safety Plan for Procedures			X