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What will the effect of Brexit be on the possibility of Britain's transition into a localized mode of design and production practice?
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Introduction

It's believed that all sustainability is local (McDonough and Braungart, 2002). The subject of sustainability has been around for a while however many struggle to define it never mind to put it into practice. In 1987 The World Commission on Environment defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Shuman, 1998, p22). Transition Design movement speaks of sustainability practice to be able to bring "the more beautiful world our hearts know is possible" (Du Plessis, 2015, p2). As a designer yarning to change the world to be a better place I have been searching for a way to create and develop sustainably. Traditionally, product design goes hand in hand with one of the most socially, environmentally and economically disruptive industry – manufacturing. Fabrication nuances tend to be an afterthought for the designers busy working at their drawing boards and are usually driven by the capitalistic intentions to produce efficiently and cheaply in order to guaranty lavish returns on the shareholders' investments and drive the economy infinitely up. However, given the current state of our planet and society, we can no longer afford to operate with the 19th-century mindset of taking, making and thoughtlessly disposing. So where do we start and what could be our first step into a planet nurturing future of design and production practice. I believe the first and foremost thought should concern the locality of the given practice. To focus on the nearby lands can be a difficult concept in itself considering how borderless and global our lives have become. The global infrastructure has made us blind to the values of 'here' and the transition to localization seems hard to consider or even altogether pointless. However, in the hindsight of the recent political events I've wondered whether we could be almost forced to transition. On the 23rd of June 2016, the UK withdrew from the EU and that caused shock and despair in the country. Nevertheless, I would like to explore how such groundbreaking changes in politics can be seen as an opportunity for the country to become self-sufficient, resilient and sustainable at long last.

Localisation is by no means a simple task. It has been overlooked or even avoided by the industry and the government; however, I believe it bears a huge potential for a prosperous way of living. In this

body of work, I would like to discuss the core concepts of localisation, compare different economic and political systems as well as examine how design and production can be localized.

It's useful to start the journey with a comprehensive analysis of what localisation is as a concept. Localisation is defined by Hines as "a process which reverses the trend of globalization by discriminating in favour of the local" (Hopkins, 2010; Hines, 2000, p27). It is also an activity of "nurturing locally owned businesses which use local resources sustainably, employ local workers at decent wages and serve primarily local consumers. It means becoming more self-sufficient, and less dependent on imports. Control moves from the boardrooms of distant corporations back to the community where it belongs" (Hopkins, 2010; Shuman, 2000, p6). Localisation is a way to appropriate most if not all social activities to their geographical locality. Although the above-mentioned activities mostly concern the ones of material nature the ideas and awareness, on the other hand, must remain global (Irwin, 2015). Truly, global awareness ought to prevail, as we can no longer indulge in individualistically detached lifestyles. Over the last century, we have learned that no ones single action stays untraceable on the grand scale of things. Thus, localisation by no means suggests community isolation from other cultures (North, 2010b). Instead, it underlines the importance of people making connections between their neighbourhood, workplace and what's happening globally (Porritt, 2005). Global awareness would help us stay cautious whilst idea sharing would be beneficial for educational purposes.

Localisation is a socio-economic movement however it requires the support of a strong government. Neither society nor its economic activity exists outside of the political system. Moreover, Hopkins (2010) believes that the national politics is considered a best-fit enabler and accelerator of relocalisation. Currently, Britain is over centralized and requires a political economy if national localization is going to work (Hopkins, 2010).

Chapter I: Globalization vs. Localization in the post-Brexit Britain.

Is localization a well-suited system for the post-Brexit Britain and is discussing sustainable economy even relevant at the difficult times of unsettling political events and public unrests? It would seem that economic, political and social stability should be prioritized at the parliament, not ecological well being. However, according to Porritt (2005), the matters of sustainable development can no longer be ignored by the state as social sustainability depends on the ecological one. If the later degrades it will directly affect the social well being and consequently cause unrest and conflict. Although neoconservatives believe that instead of developing sustainable economics the dominance over natural resources can be preserved with military forces (North, 2010b). However, such brutal approach cannot be considered as a strategic option for a civilized government especially since the world is already torn by wars and terrorism.

Back in 1973, Britain formally joined the EEC (European Economic Community) but it did so out of economic necessity not because the country shared the ideology of the EU (Clegg, 2017). So after 43 years, Brexit was declared to be “a victory for the little people, real people…the ordinary, decent people" by N. Farage as cited by Clegg (2017, p58). The results of the referendum demonstrated that people believed in sovereignty to provide the nation with control over its future (N.Clegg, 2017). And whilst such actions can be criticized for being nationalistic they can also be considered as a logical and rational response to the need for regional development (Schumacher, 1974).

The referendum has also exposed how divided the county is at the moment. This is not the problem unique to the UK; Schumacher (1974) concludes that an imbalance between cities and countryside (in terms of wealth, power, culture, attraction and hope) is a disease prevailing in the modern society. Evidently, the balance between the two is important as the countryman has been long exploited and this is noticeable in the rich countries more than the poor ones (Schumacher, 1974). If the above is true then localisation could act as a vehicle to bring communities together and create a particular neighbourly culture. Localisation can help restore the balance by creating vibrant livelihoods (North, 2010b) where people won't feel the need to move away due to a necessity to survive and thus solve the problem of migration from villages to cities.

The vote didn't only reveal the division between people it also worsened it. Many EU citizens have felt unwelcomed since the vote. According to Fraser (2017), misunderstandings within the nation and break down of values have led to Brexit in the first place. People tried to fight the establishment and they did so with their votes. Consequently, North (2010b) admits that the concept of localization is somewhat controversial because it could potentially trigger further disconnection and xenophobic practices in politics. Internationalism, on the contrary, is associated with connection and solidarity (North, 2010b). The cultural input of the EU citizens has been extremely valuable and without it, the British society might become homogenous (Fraser, 2017). However, it's not nationalism but fear and loneliness that divides the country (Hopkins,2016a) and respectively results in such events as Brexit. Hopkins (2016a) concludes that the culture of deep listening is capable of aiding further public uneasiness.

David Cameron, as cited by The Guardian (2017), has expressed in his speech that being a part of the EU meant that "many big decisions that affect their [citizens] lives being made somewhere else". He then affirmed the intention of the British government to "redistribute power from the EU to Britain" (The Guardian, 2017). The nation's desire for independence would be described by some political commentators as "adolescent emotionalism, political naivety, phoney economics and sheer bare-faced opportunism" (Schumacher, 1974, p59). However, no state or nation needs to justify its viability because it's only the viability of people to stand on their own feet and earn their keep that matters (Schumacher, 1974).

It's believed that a healthy government's agenda should be not about expanding the economy by trading globally but making it better by adapting it to serve nation's well-being (Prugh & Costanza, 2000). However traditional politics across the west have been driven by capitalistic intentions for decades because governments get mesmerized by economic growth and turn citizens into consumers whose satisfaction is then measured by national income (Porritt, 2005).

So what is likely to happen if the UK moves from the EU's single market economy into the global one? Porritt (2005) believes that when faced with globalization, governments tend to compete with each other in order to attract international corporations by giving away tax reliefs. As a result, nations are forced to lower their social and environmental standards in order to appeal to the multinational brands (Porritt,

2005). May (2017) considers that after Brexit, Britain will find itself fighting for its economic life, trying to get trade from wherever it can and it will be ready to compromise. Consequently, county's sustainability program is likely to be demoted among the first ones. Currently, the commercial landscape in the UK is made up of just a few homegrown blue chips and most of them are owned by the companies abroad thus the trade rules will be dictated by their foreign agendas, not the UK's (May, 2017). Furthermore, the benefits of global trade will be unlikely to benefit the public as it's designed to primarily enrich the privileged few (Fraser, 2017).

Shuman (1998) is certain that international corporations devastate the environment of its natural resources and blur community's identity. Undoubtedly, they provide temporally economic benefits by employing locals however they lower the quality of life overall once they relocate. The free market's philosophy resides in the belief that what may devastate individuals and local small businesses is good for the society (Shuman, 1998). That proves to be controversial because the individuals collectively form the society thus cannot be deducted from the overall number. Schumacher (1974, p61) points out that "the economics of giantism and automation are leftovers of nineteenth-century conditions and […] thinking and it is totally incapable of solving many of the real problems of today. An entirely new system of thought is needed, a system based on attention to people, and not primarily attention to goods – (the goods will look after themselves!)".

At the moment, the UK's intentions are to open borders further into the world without the bureaucracy of the EU (Fraser, 2017). The EEF (The manufacturer's Organization) has outlined that the UK "needs to establish itself as a fully-fledged WTO (World Trade Organisation) member in its own right" and it needs to do so in order to free trade within WTO's framework (EEF, 2017a). However global trading should not be considered an alternative to the EU's single market. Shuman (1998) notes that the WTO favours corporations, not states and its people. The author explains that WTO gives any given private organization a license to relocate factories however they please and sell products anywhere they wish. Such practices limit or even eliminate entirely the power of local authorities and its regulations (Shuman, 1998). Evidently, the UK would be getting into a highly unsustainable tango with the WTO and by that diminishing its people.

Global trading might also come across as an opportunity for the UK's economy to grow and progress. However, Schumacher (1974) reckons that growth and progress can indeed be defined very differently. Modern industries pursue rather destructive notions of development such as “ever-greater size, ever-higher speeds, […] in defiance of all natural harmony" (Schumacher, 1974, p131), which is simply the opposite of progress. Furthermore, he confirms that growth should be of a qualitative nature.

Moreover, the UK's active participation in the global trading arena will feed even more into a cancerous problem of modern culture - consumerism. Chomsky (2012) believes that business leaders invented "fashionable consumption” to control the public because people are considered to be stupid to do it themselves. Consequently, there are not enough natural resources in the UK to satisfy the nation's appetite for consumption (Gregson, 2017). However, the amount of recourses we need for production depends on how many of us there are and how much we choose to consume (Prugh & Costanza, 2000). Moreover, a cultural shift to consuming less will seem like a move backwards to many (Fraser, 2017). Although, it’s down to the personal choice, the system is set to push us into consumerism by making it cheap and convenient (Gregson, 2017). Nevertheless, consumerism is not natural to humans, it's learned (Prugh & Constanza, 2000) and thus could be dealt with on the cultural level.

In addition, Porritt (2005) predicts the decline of the international trade in the future, which is expected to steer economics towards self-reliance. Nevertheless, a self-reliant economic system would still entail trade with nearby countries whilst maintaining the local supply of immediate necessities such as energy, food and manufacturing (Porritt, 2005). It has been common amongst the western economists to neglect physical constraints of ecosystems. However the struggles of the Far East have now been felt around the world and thus, in the long run, the size of any given economic system will have to be determined by its immediate ecosystem (Porritt, 2005).

Aside from establishing itself as a global trader, Britain could also nationalize its industries. But nationalization tends to develop into "a mere ‘grab' organized by frustrated politicians" (Schumacher, 1974, p217). Schumacher (1974) believes that when discussing the future prosperity of a nation its not only economics that is at stake but culture. Then not the standard of living is of importance but the quality of

life. Thus the above is essential to bear in mind when deciding on the economic course of the country because the state of the prosperity in culture is what's really to be achieved (Schumacher, 1974).

Having painted a rather ill-looking picture of the global trading future of the UK, the idea of the sustainable economy might become rather appealing and perhaps even logical. According to Prugh and Constanza (2000), the biosphere is unlikely to collapse and disappear due to destructive activities of a modern man. Evidently, human-caused change on the climate is unavoidable but it can be minimized and that's why the most important dimension of sustainability remains political and economical (Prugh & Constanza, 2000). Moreover, the economic activities and environment have become largely interdependent (Prugh & Constanza, 2000) thus one cannot be examined without the other.

Walker (2014) suggests that a radical system should be implemented; it should significantly differ from capitalism and accommodate steady state or low to no growth economy. However, conventional environmentalism has proven to be incapable of rising up to the challenge and resolving economic, political or cultural issues. Porritt (2005) believes that conventional environmentalism's strategies such as steady-state economy are all too narrow, anti-business (but with no real alternative) and depressive (to most people). There should be a balance between environmental approaches, modern economics and politics (Porritt, 2005). Conceivably, the creative industry has the capacity to establish the middle ground between conventional environmentalists, policymakers and businesses men. Carlson (2010) alarms the design industry to take the responsibility and start doing the right thing. But he urges not to make the design better but to make it matter. Last but not least, there are examples of policy rejecting movements but those are prone to remain insignificant unless they gain a wider public and political support (Walker, 2014). Evidently, neither of the extremes is going to take the nation out of the uncertainty of its societal and economic future. Porritt (2005) blames sustainable development activists for pushing governments down the conservative by proposing rather ideological development methods. Once on that path, sustainability becomes an enemy to conventional strategies (Porritt, 2005).

The UK has been called the land of shopkeepers by Adam Smith and rightly so. The entrepreneurial spirit has been flourishing in the market-based, for-profit economic system for many years and the whole

nation has benefited from it. Porritt (2005) believes that sustainable economy doesn't require a complete transformation of the system but a transition into an updated capitalistic model that has worked for a long time. Sustainable development and localism can perhaps coexist with capitalism as they can harness its strengths. But for the above to work a new political convergence is needed (Porritt, 2005).

The market economy is based on the idea of choice, not just a consumer or producer choice but also a political one (Shuman, 1998). A sustainable economy should embrace the idea of free choice and work with it not against it (Porritt, 2005). And whilst many have predicted the collapse of global capitalism it remains the most adaptable economic system and thus sustainability and increased prosperity can only be realistically achieved through a market-based economy. In this case 'reform from within' remains the most realistic [political] option" available (Porritt, 2005, p13).

British nation has invented the corporation with the establishment of the East India Company back in 1600. So having pioneered what has been driving the business world, the country can once again introduce a new idea of how to do business for a sustainably prosperous nation and the world (Porritt, 2005). The new green industrial evolution could arise in the UK and help the country and the world overcome social, economic and environmental challenges. Just as Britain has brought to the world mass production and railways the country now has the opportunity to lead the world in the sustainable development and governance (Porritt, 2005; Blair, 2004).

Chapter II: Localizing Britain

This chapter aspires to explore in depth whether localisation is a realistic future model for a prosperous British society, how the transition into vernacular production could work and what could be the potential challenges.

Sustainability is believed to be a cultural imperative (Gregson, 2017). May (2017) believes Europe is one of the most advanced places when it comes to sustainable development because it's embedded in the

continent's culture. The UK is said to fall behind and mostly play catch up with the rest of the European countries. Being a member of the EU England was obliged to keep up with the union's sustainable economic standards and regulations (May, 2017). Nevertheless, Porritt (2005) stresses that the EU's political and economic priorities are based on the idea of growth at all costs. The above is reflected in the weak electoral performance of the green parties across Europe and the fact that environmental issues are given very little attention throughout the election campaigns. The situation in the UK is somewhat similar (Porritt, 2005). However, "the UK's Government's understanding of sustainable development has moved forward significantly" in the recent years (Porritt, 2005, p27). The Government's sustainable development goals outline a focus on "living with environmental limits" for "a strong, healthy and just society" (Porritt, 2005, p28; Government, 2005). So Brexit might just let politics of sustainability and localisation happen because as the county's economic reach shrinks, the parliament will have an opportunity to look at things differently and choose to focus on the promotion of nations well being. Moreover, the UK is home to a lot of innovative thinking and one of the biggest environmental foundations focused on the circular economy – Ellen MacArthur Foundation (May, 2017). Furthermore, Schumacher (1974) believes that the true poverty is not caused by material factors but by deficiencies in education, organization and discipline. Consequently, it all comes down to the idea of simpler living, where the focus is on the quality of life not an obsession with personal wealth (Prugh & Constanza, 2000). So with localisation being a simpler economic system (North, 2010b), greater attention could be paid to non-materialistic factors.

Undoubtedly there will be a lot of changes once Britain leaves the EU. Porrite (2005) emphasized the importance of making grand changes desirable. The nation is in the state of uncertainty and it's the government's responsibility to make the right choices towards the prosperous future. Perhaps the future that develops communities and offers and an opportunity to enrich the small people will make the impending changes desirable to the wider public.

Unavoidably, Brexit is going to bring about shortages and create a number of needs. However, societal needs or gaps in the market tend to trigger entrepreneurship. The benefits of a transition into a localized economy are indeed exciting - new businesses, new jobs, higher quality of life for people, safer

and self-resilient communities. (Porritt, 2005). The localized economy will flourish when confronted with the ecological and economic constraints of Brexit that are upon the UK. It will do so because it would operate on ‘more-from-less” (Porritt, 2010, p70) kind of approach.

Generally**,** sustainability in business is considered as an expense. Schumacher (1974) confirms that to most modern capitalists it's an out of their reach kind of expense even if they are genuinely eager to engage in sustainable business activities. However, he believes that when looking after natural and social capital it is not the question of whether any given business can afford it but whether it prioritizes to do so. Nowadays there is an abundance of knowledge about ecology and thus there should be no excuses for not managing those precious capitals. "It's not a question of what we can afford but of what we choose to spend our money on” (Schumacher, 1974, p96). Knowledge, time, and willingness are what truly important when applying sustainability to business (North, 2010a). According to May (2017), businesses tend to practice sustainability when it proves to save money and sustainability is easier to achieve for a new company rather than for an established business. Evidently, any company would need to firstly survive in the world of business in order to then implement sustainability, as pointed out by Porritt (2005). So the sequence of the events is as follows: make and stabilize profits then add the green and social "stuff" as a bonus. Unfortunately, sustainability as an afterthought doesn't help the companies or the society to be on the clear course of overall economic sustainability (Porritt, 2005). In addition, Fraser (20017) insists that the bigger the business the higher should be the responsibility to conduct its activities sustainably. Lastly, May (2017) explains that if the solemn purpose of business is to make money then the purpose of being a human is to breed and stay alive which is far from being a wholesome fact. Thus, he believes that business aspirations shouldn’t be trivial; any business should be driven by fulfilment and strive to provide social cohesion and development (May, 2017).

Hopkins (2016b) gives an example of the craft beer movement which proved that business can to get "big enough", that it should favour local to global trade and it doesn't have to dominate the market to be successful. The movement was radical but it worked. Hopkins (2016b) describes the big beer brands wanting a piece of the hype once they saw the little breweries flourish. But the key to success is that the

craft breweries stand for everything that big beer brands do not. The craft beer movement manifested that the shift is underway and it's small-scale, local, independent, high quality, lower carbon, delicious and bottom up. The locality of the business is considered almost romantic for being rooted to a place as it celebrates its culture, history and its people (Hopkins, 2016b).

Furthermore, Porritt (2005) is certain of localized businesses being better equipped to conduct their activities in a genuinely sustainable way. He supposes local businesses would be able to answer even harder questions than "how" something is produced but "why" it is produced. And they would be able to do so because a small scale local business wouldn't have ambitions to satisfy the gluttony of the wide and blind in its consumerism world but supply the local customer's needs (Porritt, 2005). Fraser (2017) mentions Design Festivals being vivid displays of international brands never asking themselves the "why" question. The festivals look absurd because each year companies rat race to present new products. Although the design industry has itself to blame for creating this vicious cycle, it is also responsible to recognize how to break out of it (Fraser, 2017).

Modernist designers had a vision for the future and it took shape as Bel Geddes' Futurama at the World's Fair in 1939. Those visions have been successfully materialized since then and for decades people have been living in "unsustainable, concretized and 'designed' systems" (Carnegie Mellon's School of Design, 2015). Having learned from the pitfalls of the past, designers of today should derive inspiration and form future visions from local and existing conditions as opposed to creating one size fits all kind of systems (Carnegie Mellon's School of Design, 2015).

Rossi (2017) credits making as being central to the human nature and essential to survival however its importance has been overlooked in post-industrial economies. She points out that In the UK people's survival is mostly built on the ability to buy rather than to make. The idea of self-sufficiency has prevailed across the west however the continent relies heavily on resources and manufacturing capabilities of the Far East. The above makes the independence of the rich only a myth (Rossi, 2017). Perhaps "making-within-limits" approach (adopted by the novel character Robinson Crusoe) could be appropriated for the UK's design and production industry. Firstly, limits offer an opportunity for innovation and can potentially

eliminate the need to rely on infinite resource availability and offshore manufacturing (Rossi, 2017). Secondly, local producers could use a number of methods to help their immediate customers make better choices. For instance, they could use labels and introduce local currency to make it easier to shop locally. Lastly, vernacular production will communicate an efficient use of resources through its products which will demonstrate that import reliance is unnecessary and unattractive (Shuman, 1998). In the General Theory of Employment, Interests and Money J.M, Keynes said: "Ideas, knowledge, art, hospitality, travel – these are the things that should of their nature be international. But let the goods be homespun wherever it is reasonable and conveniently possible" (Porritt, 2005, p77; Keynes, 1936).

The fascination with the place and what it provides in terms of culture and natural resources are reflected in the work of the designer Phoebe Quare. Her project 'Beyond the Mainland' (Fig. 1) demonstrates that localization can inspire, lead and make the design truly visionary. The project was built around the economically declining Bere Island in Ireland. Phoebe explored what the island had to offer and used waste mussel shells to develop a new clay-like material. She then produced 'Mussel Plaster' - a collection of lights, the design of which was influenced by the military heritage of the Bere Island (Edelkoort, no date). The resemblance of army tableware can be observed in the clean-cut, minimal shapes of the objects. The handles and glass detailing also add a touch of poetry to the design by inviting the user to take the lights around with him/her. The project serves as a practical illustration of the limits being creatively exploited to the innovative advantage of the final product and process. The designer managed to create meaningful artefacts that are unique to the island. Furthermore, Phoebe intended for the locals to replicate her designs and fabrication processes and sell the products in order to contribute to the revival of the local economy (MA Material Futures, no date). The photograph of the local mussel farmer with the production line of Phoebe's lights set up on his boat (Fig. 2) is an example of the possibility of soft integration of localisation into the existing systems. Moreover, the use of such material as mussel shells can be adopted and replicated by designers and makers in other seashore locations alike, which would be an example of the local to global concept of localisation.

Fig. 1 – ‘Mussel Plaster’ by Phoebe Quare.

Fig.2 – Mussel Farmer making lights by Phoebe Quare.

The possibility of vernacular production appears to be greater after the referendum than before it. Recent surveys show the rise of domestic orders by 22% and they are predicted to increase in the future whilst the export orders will see a further decline (EEF, 2017b). Moreover, many domestic companies have

been already reshoring their manufacturing back to Britain. Some of the reasons for relocating production are the difficulty of building relationships with suppliers and manufacturers overseas, logistics cost and time frames (EEF, 2014). Furthermore, the fall of the British currency will make imports more expensive and thus domestic services and products will be able to compete for the local market share (Scott Cato, America first). Moreover, Britain's manufacturing industry is also considered to be flexible and better placed to adapt to the changes (EEF, 2014). The UK's producers are lean and quick to respond, they are less susceptible (May, 2017) which will make it easier for them to transition into using local input materials, processes as well as adjust to domestic trading. Last but not least, local manufacturers will be able to mirror local ecology whilst experimenting and developing appropriate processes and models (North, 2010b).

When the production was moved away it made the producer almost alien. Consequently, people are only conscious of the product in front of them and unaware of the invisible things that make the visible possible (Schumacher, 1974). Thus bringing production closer to people's homes would shine the light on the invisible and revive the public's attention. Furthermore, being close to various sources of production will reinforce and inspire local shopping culture (Hopkins, 2017).

So how could production be localized on the national level? Schumacher (1974) believes that masses, on the whole, cannot be helped by mass production. However, he reckons the wider society can be nurtured with an introduction of the production by the masses. Firstly, democratized means of production would mobilize the priceless natural resources, human craft and skill whilst supplying them with sophisticated tools. Secondly, production by the masses would allow people to make a full use of their experience, knowledge and talent, it would be conducive to decentralization and it would be compatible with the ecology. Lastly, it would serve people rather than make people servants of machines (Schumacher, 1974). So giving making power back to people and allowing production to be owned by many, not a few will be very important for the transition into vernacular manufacturing (May, 2017).

Hopkins (2017) points out that regional development will benefit from understanding what and how much of it can be done in any given bioregion. He believes that regions can establish their unique identities

by identifying available resources in the area and developing production of appropriate goods. The above will allow economic activities become diverse and agile as opposed to monoculture economies that are very dependent and vulnerable to changes (North, 2010a).

In order to transition current manufacturing industry needs to employ a creative "exploration of small-scale, more decentralized, more labour-using forms of organization" (Schumacher, 1974, p146). Schumacher (1974) confirms that the above methods have proven to be highly effective in the course of the Japanese economy and have contributed to the country's vigorous growth. He believes in the simple approach to also concern matters of organization, local raw material supply, financing and marketing. Consequently, the demand for highly skilled labour will decrease if production methods are minimal. The above could remedy the reliance of the design and manufacturing industry on skill exchange with the EU. Currently, the UK counts on 25-90% European professionals who are considered to be key to the design companies' success (Fraser, 2017).

May (2017) considers that production by the masses can be reinforced by such sophisticated technological developments as prosumer manufacturing. Prosumer technology is modular and nomadic production cells that would allow local designers and makers to pick appropriate robots/ equipment, set up a production line and dismantle when the needed quantity is fabricated (May, 2017).

The democratization of production has partially been started with the rise of maker spaces across the world. Rapid prototyping machines have allowed people with basic designing and making skills transform their ideas into reality. Indeed, everyone should design because that would allow people to avoid being designed (Rossi, 2017). However, May (2017) is concerned that due to the lack of skills important stages of product development get bypassed. Many products don't make it past the first demonstration because they are not designed for the real world manufacturing (May, 2017). However, maker spaces also attract skilled craftsmen along with designer/makers and small production runs are a reality for many of them. Although, Gregson (2017) believes maker spaces in the UK remain rather weak and mostly operate for education rather than economic purposes. He reveals that maker spaces tend to compete rather than collaborate to establish a working network. Nevertheless, he supposes maker spaces

have the potential to become adequate production hubs but they need investment and realistic economic organization to be fully operational. On the other hand, maker spaces also remain a privileged facility for the big cities, which discriminates regional production. Nevertheless, they are still an appealing option for vernacular production because they go hand in hand with crowdfunding platforms like Kickstarter which has proven to commercially liberate the public as they give a chance to anyone with a product/service idea (Gregson, 2017).

Even though maker spaces are plausible to become local production hubs they probably won't have the capacity to cater for the whole country. Many believe that automation could bring sustainable manufacturing into existence on the large scale. Automation or Industry 4.0 is both scary and exciting, it's in the top agendas in the parliament, it's become a buzzword in the media and it's the hottest development across the industries including design and manufacturing. As mentioned above, the modern man has become very detached from the means of making and automation being on the horizon understandably causes public neurosis. The reason for that lies within the understanding of a human being with a beautiful brain and skilful pair of hands, defined by Thomas Aquinas, a human being that "enjoying nothing more than to be creatively, usefully, productively engaged with both his hands and brains." (Schumacher, 1974, p124). Even though people are detached from making they struggle to imagine the world of not being involved in the creation at all. Nevertheless, Industry 4.0 is expected to become a big contributor to the circular economy realization. To begin with, it will make production wasteless due to connectivity and big data flow between factories, suppliers, designers and customers (EEF, 2016b). Moreover, industry experts see smart factories to be a solution to skill shortages experienced by many manufacturers (EEF, 2017b). On the other hand, it threatens to eliminate most jobs and potentially crash the whole market economy because the consumers will have no monetary means to buy the goods (May, 2017). Nevertheless, high technological developments such as Industry 4.0 are counted upon to solve the problems with natural shortages and climate change (North, 2010b).

To the contrary, environmentalists tend to demonize technology and hold it responsible for the breakdown of nature and society (Porritt, 2005). However, a skilful manipulation of technology could pave

the way for the sustainable production of the future (Davison, 2008). People have the ability to improve the machines and make them organic and biological (Davison, 2008). Davison (2008) believes that the crisis of man-made technology derives from the reason behind the very creation of it. Machines, he explains, were originally designed to free humanity from worldly limits and harsh nature, which in return made them destructive. Nowadays the modern man should embed moral reasons into the new machines, the morality of sustaining nature and man (Davison, 2008). What's more, designers are envisioned to contribute into the creation of healthy automated manufacturing by developing a deep understanding of its history in order to plan the effects of the new technology on the society (Carnegie Mellon's School of Design, 2015). Nonetheless, there still prevails a concern that once the creative and manufacturing industries become local they are going to find themselves moving back in time, almost becoming traditional and not fit for the 21st century (Gregson, 2017). Although they might achieve sustainability yet they will be confused because the world is very high tech, in the end, it's the world of Google's driverless cars, drones, Amazon and Tesla. Gregson (2017) questions whether the two worlds could coexist. On the other hand, it's necessary to remember that localism and sustainability don't equate to pre-industrial methods of living. The focus should be "on the need for "cosmopolitan localism", a lifestyle that is place-based and regional, yet global in its awareness and exchange of information and technology" (Irwin, 2015).

Manufacturing industry exists in parallel with design, both fields are largely interdependent. As outlined in the Brexit Design Manifesto (Dezeen, 2016), the Design industry in the UK is the most creative and dynamic in the world and contributes heavily to the economy (£71.7 billion in goods and services per year). It has the capacity to deliver quality, efficient and enduring infrastructure for Britain. After Brexit designers will be needed to strengthen the UK industries as their expertise is in solving problems and thriving in challenging circumstances (Dezeen, 2016).

Porcelijn (Fairs, 2017) believes that Designers have helped create the material world and thus have a huge responsibility for the environmental and social damages. According to the research presented at the Dutch design week in 2017, products have the number one impact on the environment (Fairs, 2017). However, it's not only the products themselves but the "hidden impacts" of their fabrication (Fairs, 2017).

The design has historically been rather passive; it mostly sat on the fence of the creative industry and served the capitalists in their economic ventures as an aesthetic course. However, the true potential of the design resides in its problem solving and even problem re-framing capabilities. An empowered designer can integrate all those capabilities and act as "a creative change agent for the purpose of the project" (Mateu, 2017), in this case, transition into a localized British economy. Thus, Brexit Design Manifesto was an important document because it expressed the intention of designers and architects to build the bridge between the creative industry and politicians (Fraser, 2017). At the launch of the manifesto in the Somerset house (Dezeen, 2006), the question of whether the creative industry had ideas for political and economic infrastructure was answered negatively. Marcus Fairs, the editor of Dezeen magazine, admitted that neither he nor anyone from the industry present at the event tends to get involved in politics. He also pointed out that the creative industry needs experts and government representatives to collaborate in order to address the worries and concerns outlined in the manifesto (Dezeen, 2016). However, Porcelijn (Fairs, 2017) believes that the change should come from bottom up and designers should act independently from governments and industry. She points out that systems tend to be rigid and unwilling to change thus designers should stay autonomous and build systems from the ground up. Porcelijn urges designers to work locally - " keep it small, keep it close. Then maybe think about how you can scale it up" (Fairs, 2017).

"Looking at the historical trajectory of design's role in society, Findeli's outlined the following purposes for the three main design schools of thought: a new world, a new 'man' and a new culture." (Mateu, 2017). Evidently, modern design is ought to do more than just cater to transaction-based, retail economies. In the twentieth century, designers were creating a new 'man' influenced by the Bauhaus' philosophies (Carnegie Mellon's School of Design, 2015). Nowadays, the design should aim to help that new man face and resolve the complex problems. As pointed out at the launch of the Brexit Design Manifesto (Dezeen, 2006), creative strategies and design thinking ought to be applied to politics and business as the existing ways of thinking and acting within those institutions struggle to move the society forward and out of the crisis.

It's recognized that for a long time design problems have been ill-defined and ill-structured (Wolfenden, 2015; Rittel & Webber, 1973). An important step in the evolution of design has to be a development of an ability to articulate the value of creative practices to businesses (Carnegie Mellon's School of Design, 2015). The design's value and potential are in delivering consequences not just artefacts (Carnegie Mellon's School of Design, 2015). Walker (2006) believes that design and making should be seen as means to an end. He confirms that such approach requires better relationships with the material world and it's best achieved at the local level. Moreover, the close proximity between design and manufacturing will have a positive effect on both industries. May (2017) supposes the product design will be able to achieve better competency because it won't be just handed over to the client with a manufacturer being far away but materialized around the corner. Designers will have the responsibility to resolve production problems and assist with product implementation, which in return will make it easier for the manufacturer (May, 2017).

With the Brexit Design manifesto, the creative industry has stated that the positive outcome is only possible with the active government involvement (Dezeen, 2016). Thus, it's useful to discuss how the government could assist the transition into a localized economy and what administrative frameworks would be appropriate.

There are two types of localisation: imminent and intentional. North (2010b) explains that immanent localization is the kind that happens in business due to changes in the market. Intentional localization is a political project where the government makes it happen. "Intentional localization is seen as both necessary and desirable" (North, 2010b, p585).

One of the options for the UK's government could be devolution. It would allow the government to free itself from social, economic and political problems that can be solved at the local level. It would also allow the communities to stop looking up to higher levels of government for handouts and take ownership over their own fate (Shuman, 1998). According to EEF (2016a), many principles of devolution are already in place and in May 2017 the new Prime Minister has expressed that the government's great ambitions are in developing regions. Moreover, "different areas will know their capabilities and capacity to deliver " so the

tailored approach should be exercised (EEF, 2016a, p3). Indeed taping into already existing local networks will be important for overcoming barriers that will follow the loss of connection with the EU (Hopkins, 2016a). Furthermore, decentralization of power, global and national regulation of large corporations and community –based and local enterprise could still be complementary to essential international trade (Porritt, 2005).

All meaningful policymaking is local because when politics is exercised on a small, community-based level then there is a better chance "to overcome forces of corruption, money, and apathy", and to practice true democracy (Shuman, 1998, p179). However decentralizing can also lead to communities becoming very different which will make it difficult to manage and provide help if needed (Fraser, 2017). On the other hand, North (2010b) argues that local diversity and distinctiveness are very positive as opposed to "McDonaldization" of societies and economies.

Apart from redistributing its power, the government would need to invest in the industry and regional development. However, Schumacher (1974) believes that money won't make it right if the policy is wrong. So the investment should be of qualitative, not quantitative nature. Once a local government is committed to the transformation of the regions it will need to guarantee that community corporations benefit from local investment, contracts and purchases (Shuman, 1998). Shuman (1998) states that the government's role will be to match local input suppliers, workforce, local producers and investors. He also alerts the communities to be prepared for a very powerful enemy they will encounter once on the path to transformation – multinational firms. Multinationals will be losing local markets and consequently use their financial leverage to fight back. At such times money tends to win unless the government chooses to protect its own and impose appropriate regulations. Firstly, the government could tax consumption and the use of recourses rather than income, which would result in accurate prices for goods and services (Prugh & Constanza 2000). With an access to cheap oil and transport, corporations have been able to move the goods all around the world. However, if the carbon tax is enforced then local producers would gain a competitive advantage and the government will be able to internalize environmental costs. Long distance trade will no longer be a bargain because it would reflect true environmental costs (Shuman, 1998).

The localized economy might still appear ideological and incapable of replacing multinational brands and corporations that dominate global and domestic markets. However, as Shuman (1998) points out, any given corporation collapses once it loses its customers and investors. Thus people have the power to make localisation a reality by choosing what to buy and what to invest into. Some might question whether communities would be able to deliver complex goods such as computers, smartphones or cars. People might have no choice but to keep buying their home appliances from abroad. Nevertheless, Shuman (1998) believes that whilst small community corporations can look after the immediate needs, the big ones or even the network of corporations can deliver goods such as computers and aeroplanes. It's going to be down to the effectiveness of the framework built around those community corporations by the government (Shuman, 1998). Indeed an intensive collaboration between communities will create "interdependent networks of enterprises that collaborate, exchange resources, recycle, and use each other's waste as inputs" (North, 2010b).

Looking at the trends in the history of humankind all civilizations have seen the decline because people tend to destroy the environment in which they reside for long period of time. To maintain the dominance over the environment people need to learn how to conform our actions to the laws of nature and to do so we shall start with the nature close to home (Schumacher, 1974).

Conclusion:

The concept of sustainability has been around for decades however it hasn't been materialized and remains current in the modern age. Evidently, sustainability has proven to be a very complex challenge for the humanity to overcome in order to survive.

Fighting for sustainability is considered romantic and utopian. However, the dreams of the world where nature is taken care of and the society is just are the foundation stones for the new life systems. On the contrary, the world without the sustainable visions is neither promising nor proving to be capable of providing a solution for its own survival (Schumacher, 1974).

Such life-changing and controversial events as Brexit charge the air with electricity; fill the hearts with hope and minds with an urge for action. Energies like that are ought to be harvested and channelled into the creation of a better place to live than the one there could have been if Brexit never happened. A huge amount of transformation can be accomplished from the bottom up. Even an insignificant amount of people moving forward in tiny degrees will inevitably impose a noticeable change over time (Gregson, 2017). As discussed in the main body of work, designers along with makers have the power and expertise to instigate the cultural and economic shift, to revolutionize the system from the bottom up. The change, of course, could also be imposed from the top down, as the government is the most powerful institution. However, the truly prosperous future won't come into existence without the balance between the top and the bottom. Participation of the two parts of the society is crucial because without it the country will crumble under the footsteps of its own apathy, internal conflicts and incoming foreign agendas. Although, if the nation collaborates and transitions then the UK could just end up with a united, supportive, diverse and sustainable network of communities consisting of Scotland, Wales, England and Northern Ireland (Hopkins, 2016).

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Appendix

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