Relationship between Damaged Urban Fabric and Deprivation

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Abstract—The paper starts with the background of segregation within a city (Glasgow, UK) based on inequality gap followed by the generation of different types of deprivation as a consequence. For the initial analysis location of deprived areas closer to City Centre (Inner City[1]) are mapped and the obtained pattern is carefully observed. The pattern is then compared with other equally deprived UK Cities such as Manchester and Liverpool. Based on the inference hypothesis is framed that there is a relationship between damaged urban fabric and deprivation. The research then progressed by developing the better understanding about both the variables that made up the hypothesis and followed by analysis. Also, inter dependence amongst the types or domains of multiple deprivations are analyzed to see if direct impact on one can impact the others indirectly. Subsequently, the paper advances the hypothesis by dividing the involved variables into their sub-parts and analyzing them with each other to see if there is any relationship that exists amongst them. Further, the relationship which is obtained through the analysis [between the variables (sub-parts)] is tested in the selected cities to authenticate the hypothesis if the result duplicates or to refute the relationship if the result fails. Based on the analysis and followed by testing the relationships obtained with the help of case study, certain generalizations are made and it was found that there is a relationship between damage urban fabric and few types of deprivation.

Keywords— *Inequality gap; Segregation; Inner City; Damaged Fabric (Urban); Deprivation*

I. INTRODUCTION

As a consequence of advancement in all fronts of mankind especially in science & technology followed by other inventions in the materialistic world, people's expectation and dream about living in a better city and experience the kind of qualities that it will have, has increased to an unprecedented level. This strong desire and demand has further led to the return of the thoughts/vision for the concept of an Ideal city, if in case that ever has to exist. Notion of an ideal city has its root back to the period of Plato (424/423 BC– 348/347 BC) when he described his ideal city in "The Republic". Since then various philosophers, theorists, etc. have spoken about it and expressed the kind of attributes that it should have. One thing that can be found common in almost all the visions is the acceptance for the existence of inequality (social, economic, etc.) as Plato once said, "A City however small, is in fact divided into two, one the city of the poor, the other of the rich. These are at war with each other". Therefore, promoting equality or equality in itself automatically becomes one of the peculiarities for an ideal world. For instance Thomas More in Utopia (1516), Tommaso Campanella in City of the Sun (1602), and Francis Bacon in New Atlantis (1624) shared similar sensibilities about the major characteristics of the ideal city and the ideal society. They envisaged that the ideal city-state should be systematically and rigidly organized both in terms of its architectural layout and its social hierarchies. It should have strong public management and control to ensure order, **equality** and **fair distribution** of resources to all of its citizens.

To overcome or reduce this existing gap of inequality is very often seen as one of the major challenges for the future cities and for their sustainable development. More recently when European Union released their visions (and challenges) for the cities of tomorrow this issue of segregation/exclusion or inequality can be seen as the major threat as well as challenge for the future EU cities and, therefore, stress on the strategies to overcome such problems can be extensively found throughout the Report. To give a fair idea about the gravity of the problems associated with these issues, report broadly discusses these issues and their possible impacts on the growth of a city.

Various thoughts on Urbanism such as Sustainable Urbanism and Integral Urbanism too, speaks about promoting this concept of better social cohesion and equality within the city to promote better economic and sustainable development. Sustainable Urbanism includes social aspects as one of the factors for sustainability, which is further related to equality and anti-segregation while Integral urbanism explicitly emphasises on promoting better connections, communication and relationships and thus better social understanding.

This inequality, segregation (spatial[2] and aspatial aspects) or exclusion within the city are recognized in the form of

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[1]The inner city is the central area of a major city or metropolis. In the United States, Canada, the United Kingdom, and Ireland, the term is often a euphemism applied to the lower-income residential districts in the city centre and nearby areas. In the United States, the term has the additional connotation of impoverished black and/or Hispanic neighbourhoods (Wikipedia, 2010).

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[2]relating to, involving, or having the nature of space

deprived or depressed urban neighbourhoods. These can also be seen as the isolated pockets filled with various social & economic problems. Furthermore, these various problems (poverty, crime, health issues, etc.) associated with such neighbourhoods hampers the prosperity of the city. Therefore, there is a strong need to look for the reasons as to why such problem exists and how it can be reduced. Since, these neighbourhoods display visible physical, social and economic problems; therefore, the problem can be directly related to urban decay (Urban decay too is a result of the interaction between social, economic and physical changes in cities).

Earlier Research have shown that Urban Decay leads to spatial differentiation[3]/Segregation (although, it is a two way relationship) which then leads to the exclusion/ isolation of places that are commonly known as Deprived Neighbourhoods(Andersen, 2003). The similar pattern was also observed in the other study(Sean F. Reardon, 2004) where deprivation (poverty) is found concentrated (Clustered) in isolation or in excluded form in space.
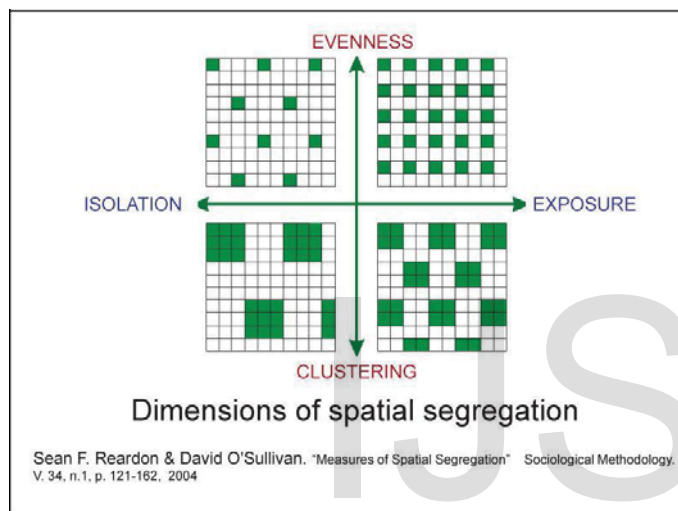

Fig 1.

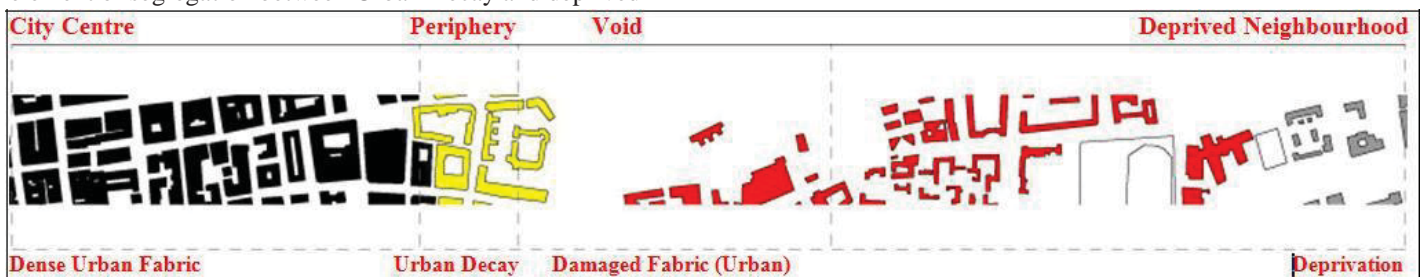As, we can deduce from above relationship that there is an element of segregation between Urban Decay and deprived

neighbourhoods, it becomes important to know about it and its numerous components.

Segregation here is related to both socio-economic inequality as well as spatial (physical) factors that create a kind of separation within the city.

Furthermore, the pattern of deprived neighbourhoods is mapped for the Inner City area in Glasgow. This has also found in accordance with the above literature (Figure -1).

All the above discussion led to the formulation of following Research Questions:

A. Relationship between Damaged Urban Fabric and Urban Decay

B. Relationship between Damaged Urban Fabric and Deprived Neighbourhoods (Deprivation)

For this research paper the later question is adopted. In an urban design context, it becomes important to understand in more depth about the spatial factors that leads to segregation. The Paper therefore, develops the hypothesis that there is a strong connection between the damaged urban fabric and deprived areas or deprivation. A discontinuity or sudden break in an overall smooth fabric can be most often seen in close proximity with the areas that are suffering from multiple deprivations or represent that part of the city which is not very well off or are on the lower side of this existing gap of inequality within the city.

Let us now understand both the variables of hypothesis before moving to the analysis.

II.   DAMAGED URBAN FABRIC

Damaged Urban Fabric can be defined as the significantly large piece of land within a city that suffers from the loss of physical aspect of urbanism, emphasizing building types, thoroughfares, open space, frontages, and streetscapes. It refers to the kind of gap in the fabric which signifies end/termination of something rather than giving it a feel of continuity. Various Factors that manifest this are as follows:

Fig 2.

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[3] Spatial differentiation is an economic term where geographic location is a differentiating factor between competitors. Consumers choose a firm based on transportation costs, which prevent switching for relatively small differences in price.

Consumer preferences are analogous to consumer location and product characteristics are analogous to seller location(Wiki Answers, 2006).

A. High Concentration of Unused Lands(Vacant)

It can be considered to cover all the vacant lands that are underutilised. It all of a sudden breaks the continuity of City fabric and leads to the unexpected and undue termination of otherwise expected continuous precedent character (City). Their contribution in the formation of a physical environment is nil and they can be considered as anti-space(Trancik, 1986)

in urban design context (Anti-spaces - makes no positive contribution to the surroundings or users). They are ill-defined, without measurable boundaries, and fail to connect elements in a coherent way. On the other hand they offer tremendous opportunities to the designer for urban redevelopment and creative infill and for rediscovering the many hidden resources in our cities.

Unused land can also be understood with the help of following terms that are coined by various theorists from time to time to explain the similar phenomenon:

1) Brownfield land

CABERNET, defines brownfields as 'sites that have been affected by the former uses of the site and surrounding land; are derelict and underused; may have real or perceived contamination problems; are mainly in developed urban areas; and require intervention to bring them back to beneficial use'

England and Wales: Previously developed land – land which is or was occupied by a permanent structure (excluding agricultural or forestry buildings), and associated fixed surface infrastructure.

Scotland: Vacant1 and derelict2 land.

(1- Vacant land is defined by the Scottish Executive as 'land within urban settlements (with population over 2000), or within 1 km of settlements, which is vacant e.g. unused, unsightly, or which would benefit from development or improvement'.

(2- Derelict land is defined by the Scottish Executive as 'land in urban and rural areas which is so damaged by development or use that it is incapable of development for beneficial use without rehabilitation, or which is not being used for the purpose for which it is being held or for a use acceptable in the local plan, or land which is not being used where contamination is known or suspected'

2) Cracks

As per Loukaitou-Sideris (1996: 91), they can be perceived as:

a) The gaps in the urban form, where overall continuity is disrupted.

b) The residential spaces left undeveloped, underused or deteriorating.

c) The physical divides that purposefully or accidentally separates the social groups.

d) The spaces that development has passed by or where new development has fragmentation and interruption.

3) Lost Spaces

Roger Trancik (Trancik, 1986) defined lost spaces as the leftover unstructured landscape at the base of high rise towers or the unused sunken plaza away from the flow of pedestrian activity in the city. They are the surface parking lots that ring the urban core of almost all American cities and sever the connection between the commercial centre and residential

areas. They are the no-man's lands along the edges of freeways that nobody cares about maintaining, much less

Fig 3. Lost Space (Highland Park, Detroit)

using. They are also the abandoned waterfronts, train yards, vacated military sites and industrial complexes. They are the vacant blight-clearance sites-remnants of the urban-renewal days-that were for a multitude of reasons never redeveloped. They are the residual areas between districts and loosely composed commercial strips that emerge without anyone realizing it. Lost spaces are deteriorated parks and marginal public housing projects that have to be rebuilt because they do not serve their intended purpose. To sum up, they are the unwanted urban areas that are in need of redesign or redevelopment – anti-spaces.

All these above mentioned unused lands are frequently, the reasons behind the formation of Voids (Picture -1) or a kind of gap in the city fabric and disturb the functional or natural continuity that is most needed in the successful fabric. These voids also develop a physical segregation, which further results into isolated settlements that are very often nothing else but deprived neighbourhoods.
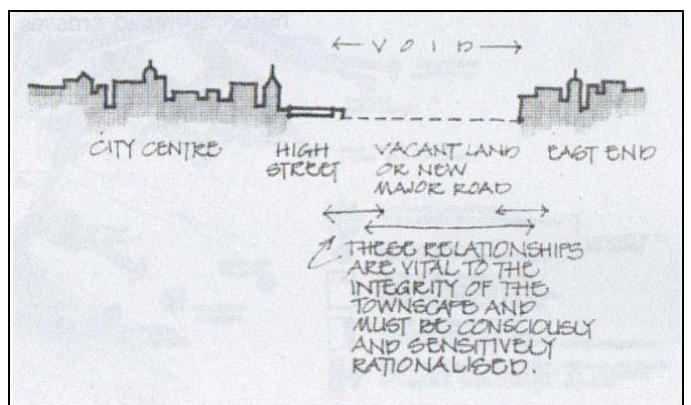

Fig 4.

Reasons behind the existence of these unused or vacant lands, Cracks can be the consequences of walled or gated developments in the words of Loukaitoi-Sideris "assert their privateness by defying any connection with the surrounding landscape". They can also be the outcome of self-conscious design, but, as well as express design and environmental degradation. Roger Trancik (1986), highlights few causes as the major reasons behind the existence of lost spaces. They can be as follows:

a) *An increased dependence on the automobile.*

b) *The attitude of architects of the modern movement towards open space.*

c) *Zoning and land-use policies of the urban-renewal period that divided the city.*

d) *Unwillingness on the part of contemporary institutions-public and private – to assume responsibility for the urban environment.*

e) *Abandonment of industrial, military or transportation sites in the inner core of the city*

4) *Depending on the kind of impact these unused lands can have over the city, it can further be breakdown down into the following sub-points:*

a) *Sudden Loss in Density levels*

Because of the presence of Void, there is unexpected drop in the level of density (Gross). This lower density further contributes in the decay of the area (Physical, Urban, etc.) followed by isolation & separation amongst neighborhoods and spatial differentiation.

b) *Sudden break or loss in the continuity of the Fabric (City) that makes transition smooth from city centre to its periphery.*

This can be understood in connection with the loss in physical infrastructure, appropriate levels of density, etc. (Refer Picture Below)

B. Weak Connectivity (Physical Links) with adjacent areas

This is precisely related with the loss or weak presence of connections (thoroughfares - roads, streets, etc.). Here Voids are seen as impediments in making the smooth connectivity amongst the neighbourhoods and areas of higher opportunities (socio-economic). Weaker connectivity also contributes in bringing a kind of spatial separation and exclusion of neighbourhoods (most often deprived). This also includes the presence of impermeable boundaries such as railway track (with vacant lands along it), topographical difficulties that abruptly causes separation / spatial segregation between the areas and further leads to the development of spatial differentiation.

C. Decayed (ruined or dilapidated) physical environment and buildings

This can be referred to the physical decay of infrastructure. The presence of such condition can be the result of various processes (social, economic, etc.). It can also be seen in continuation with the abandonment of buildings (industrial, military, etc.) by the people and moving to other places within a city due to various reasons.

It can be observed here that Voids can be found related to other factors (Point 2 and 3). Void can contribute in weaker connectivity and can also be the outcome of demolition of ruined or dilapidated structures.

III. DEPRIVATION AND DEPRIVED NEIGHBOURHOODS

The terms 'deprivation' and 'poverty' are sometimes used interchangeably. However, Deprivation is a more broad term that covers range of problems that arise due to lack of resources or opportunities covering health, safety, education, employment, housing and access to services, as well as financial aspects.

It should be noted here that every country which is a part of UK has their own problems and thus has their own parameters or sub-parameters to define Deprivation. Keeping all such considerations, each country within UK has prepared their own tool to calculate deprivation and thus it can be seen independently across each country but comparisons if made would definitely have their own limitations. For this study,
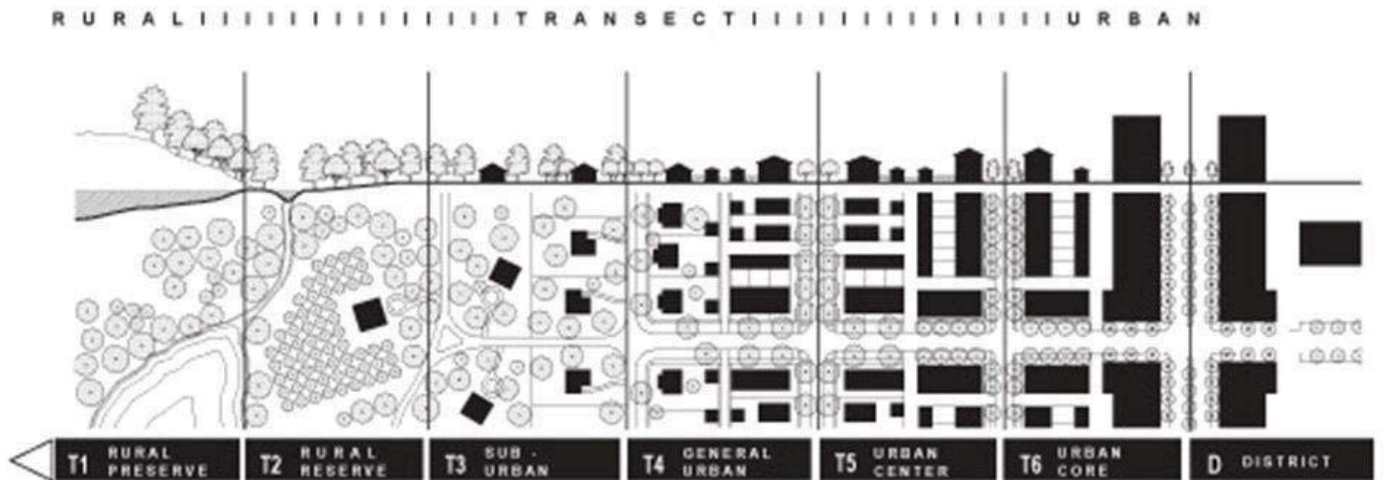

Fig 5.
(Source: Lexicon of New Urbanism)

deprivation in England and Scotland context are considered.

More precisely, as per Scottish Index of Multiple Deprivation, there are 7 parameters (Domains) to measure the multiple aspects of deprivation. They are as follows:

A. Employment

This domain measures employment deprivation conceptualised as involuntary exclusion of the working age population from the world of work. The employment deprived is defined as those who would like to work but are unable to do so through unemployment, sickness or disability.

Worklessness is regarded as a deprivation in its own right, and not simply a driver for low income. Attachment to the labour market confers a number of social and psychological advantages, and it is therefore important to measure the deprivation experienced by individuals who are detached from the labour market.

B. Income

This domain measures the proportion of the population in an area that live in income deprived families. The definition of income deprivation adopted here includes both families that are out-of-work and families that are in work but who have low earnings.

C. Health

This domain measures premature death and the impairment of quality of life by poor health. It considers both physical and mental health. The domain measures morbidity, disability and premature mortality but not aspects of behaviour or environment that may be predictive of future health deprivation.

D. Education, Skills, and Training

This domain captures the extent of deprivation in education, skills and training in an area. The indicators fall into two sub-domains: one relating to children and young people and one relating to adult skills. These two sub-domains are designed to reflect the 'flow' and 'stock' of educational disadvantage within an area respectively. That is, the 'children and young people' sub-domain measures the attainment of qualifications and associated measures ('flow'), while the 'skills' sub-domain measures the lack of qualifications in the resident working age adult population ('stock').

E. Geographic Access

This domain measures the physical and financial accessibility of housing and key local services. The indicators fall into two sub-domains: 'geographical barriers', which relate to the physical proximity of local services, and 'wider barriers' which includes issues relating to access to housing such as affordability.

F. Crime

Crime is an important feature of deprivation that has major effects on individuals and communities. The purpose of this domain is to measure the rate of recorded crime for major crime types representing the risk of personal and material victimisation at a small area level.

G. Housing

This domain measures the quality of individuals' immediate surroundings within the home.

IV. POSSIBLE CONNECTION BETWEEN THE VARIABLES (ANALYSIS)

The next step is the analysis in order to deduce the exact relationship amongst the variables. The analysis will also help in identifying if there is any connection amongst the variables at all. Here, each parameter of Independent variable (Damaged Urban Fabric) is analysed with the dependent variable (Deprivation) to either confirm or refute the relationship amongst the variables of Hypothesis.

A. Void and Employment deprivation

To begin with, void can be seen as potentials for creating newer employment opportunities if developed appropriately.

The void here plays a substantial role in detaching (physical separation) the people who are willing to work from the areas that offer such opportunities as it brings a kind of discontinuity in the fabric.

Creation of employment opportunities depends on lot of other factors that are directly connected with political, economic and other such issues more than just physical ones. Besides, this domain is also related to level of income, health and education, which will be discussed later. Therefore, it is more logical to study this relationship along with the other domains on which it depends.

B. Void and Income Deprivation

Voids bring about the formation of clearly distinguished separation amongst the different areas (neighbourhoods) within a city (Fig.). This separation or segregation further leads to the development of Spatial Differentiation [Apparent Perception distinguishable god and bad areas within a city amongst the people. This is based on various factors beginning from history of place to culture, behavioural, etc. aspects related with the people. Though, the reality may or may not go in accordance with the perception but this has considerable effects on the conditions of such areas(Andersen, 2003)]. This spatial differentiation then leads to the exclusion of some areas that ultimately suffers from various problems such as social, economic, physical, cultural, etc. These areas are known as depressed or deprived areas (Neighbourhoods).

VOID causing physical separation and breaking the integration/ smooth connection amongst them
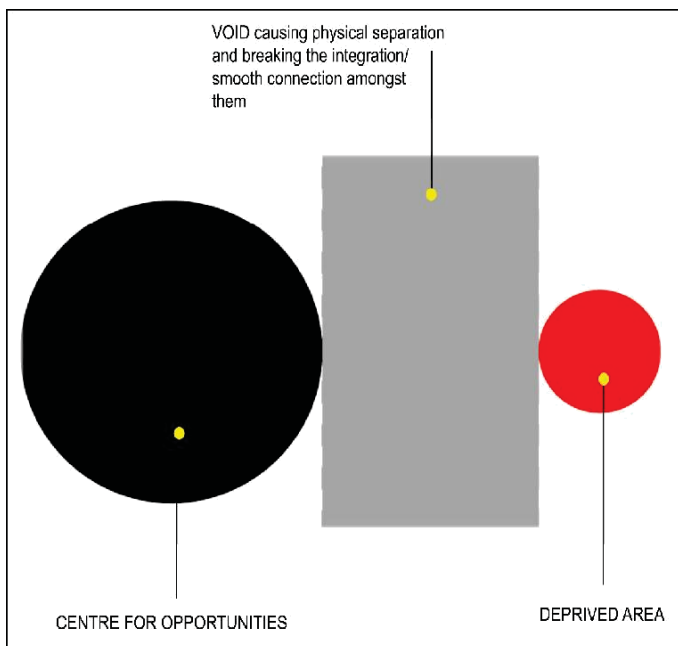
CENTRE FOR OPPORTUNITIES

DEPRIVED AREA

Fig 6.

Such Neighbourhoods has high concentration of families with lower income level and unemployment as spatial differentiation avoids the movement of people (who contributes more in the developmental progress) in them. It can be understood in a way that the character of such neighbourhoods consists of various problems that makes them less attractive and more unacceptable as residential areas for people who have the better choices in the housing market(Andersen, 2003).

Also, the value of property (Housing) and rent in such areas are comparatively lower than other parts of the city (Professor David North, 2006). Similar, phenomena can be observed in Glasgow (figure 2), lower property values are observed in the areas of high deprivation.

Therefore, such neighbourhoods act as magnets to attract more deprivation as people (unemployed) who cannot afford to live anywhere else move in such areas adding more to the already existing problems.

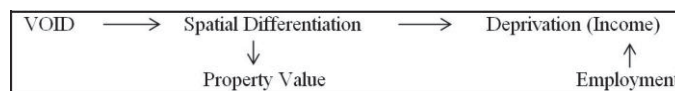The whole process can be summed up with a simple diagram:

Fig 7.

C. Void and Health Deprivation

Unused and left out land (void) can become a serious health hazard especially if it is a derelict land that has been contaminated from past industrial uses. This land has a serious effect on health and well-being of people residing close to it, precisely if that is left untreated or without any use. Many health problems such as respiratory disease, cancer, can even contribute in low life expectancy, etc.

Since health is one of the major factors that constitutes index of multiple deprivation and has an inverse relationship with deprivation, therefore decrease in health results in increasing the deprivation. The recent research conducted by Julianne Maantay has also highlighted the proximity of derelict land to the areas of high deprivation in Glasgow. Her paper emphasis the increasing gap of inequality that exists there and weaker health has a major role to play in that. The bridge that connects Deprivation and the vacant (derelict land) is the generation of poor environmental conditions. Various Researches have linked proximity to contaminated sites with pre-term and low birth weight infants, fetal deaths, congenital malformations, heart disease, various cancers, and respiratory disease(J. Litt, 2002). The paper has also suggested that these vacant and derelict land should be redeveloped keeping in mind the benefits they can offer to the deprived areas so that health aspects can be improved and have positive long term impacts on the city's progress.

Health can also be related to employment (or unemployment) as in the past when recession hit the city (Glasgow), it leads to increase in unemployment and further to various mental and physical health problems. Also, people with poor health cannot work and this infact, separates them from the population that doesn't depend on sustenance

£200,000 - £250,000
£150,000 - £200,000
£100,000 - £150,000
£050,000 - £100,000
£020,000 - £050,000

Property (House) Price across Glasgow, 2007-12 (Average)
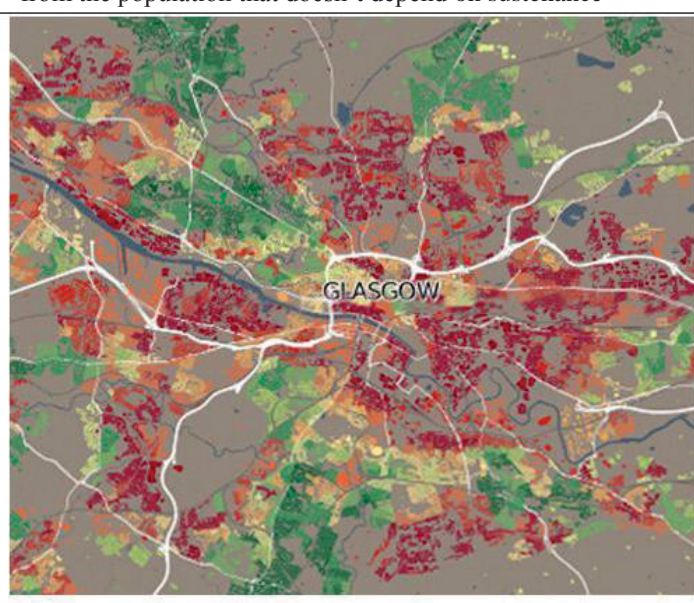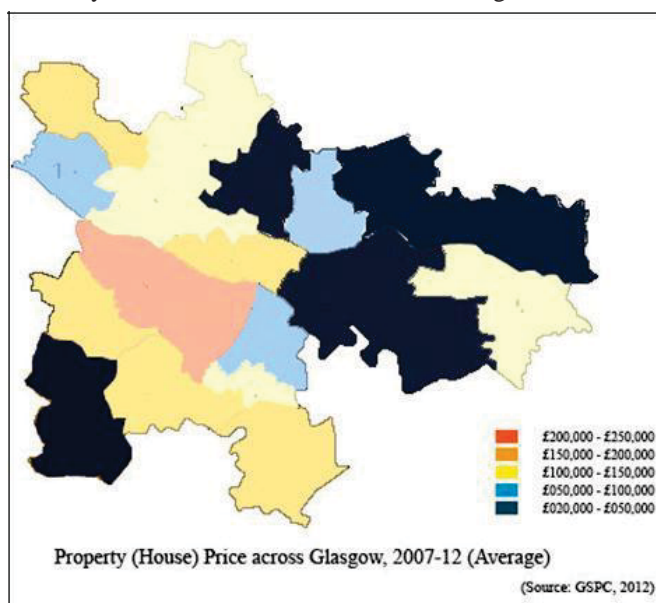
(Source: GSPC, 2012)

Fig 9.

allowance paid by the government and rather contributes to the nation's economy and are thus always seen as an asset for economic prosperity and development. Therefore, it is important to reduce the inequality gap that exists with health domain and further contributes in reducing deprivation. Redevelopment or regeneration of vacant and derelict land has a potential in this regard, even though this step presently seems small but in long term it can yield huge benefits/advantages.

Health has quite a coherent relationship with the education as higher level of education can lead to better health.

D. Void and Education, Skills & Training

Although, Void cannot be found directly related to the education, skills and training, however, Income domain has inter-dependence with this(Eng, 2012). Families with high income level have more affordability to send their kids to school and look after their education. Also, in high income families adults tend to have more education and skills and they also understand the importance of sending their kids to school and university. There are researches (Columbia University, 2006) that relate Low level of parent's education with Lower Income of family despite full time employment. Since, Void directly effects the concentration of low income families in deprived areas therefore; it has a high probability to have an impact on the education, skills and training as well.

E. Void and Crime

The actual crime and fear of crime both strongly impacts the psychology of people to enter an area which is unknown or not much familiar with. As per various studies conducted earlier, it has been discovered that criminals very often attack on people who are alone or in close proximity with the vacant lands and ran away in these areas to hide after committing the crime as such spaces are difficult to access. These incidents, creates the environment of fear and people stop going to such places and then a kind of spatial isolation can be easily observed. This whole leads to a kind of psychological fear that investors run away for investing in such areas because they don't see people coming there and since there are no people, everyone usually avoids going there for apparently being unsafe. So this whole thing ultimately creates a cyclic relationship in which factors involved depends on each other and aggravates the whole problem. The spatial isolation thus widens a kind of virtual boundary between areas which are seemingly safe, full of people and economically prosperous to areas which are unsafe and have less economic and employment opportunities. Because of such ill effects and limited opportunities (and several other factors as well), the population that resides near these vacant lands are more prone to deprivation. As per Scottish Vacant and Derelict Land Survey 2012, 55% of the most deprived population in Glasgow resides within 500m of vacant and derelict land. This support furthers strengthens the conjecture. Study suggests that these lands are often perceived by prostitutes, drug dealers and others as an environment which may tolerate and support their activities. Also, as per 2012 statistics by Strathclyde police many of the deprived areas in Glasgow have high crime

rates as well. In fact, the least crime is recorded in most affluent areas of Glasgow.

F. Void and Housing

Housing basically includes living environment within the house as well as external surroundings (England and Scotland Context). Within the house parameter includes overcrowding and presence/absence of Central Heating. The overcrowding aspect of housing has inter-dependence with other domains such as Income and Employment. Families with low income and less no. of people in employment have lower affordability to have a bigger house and therefore suffer more of overcrowding in house. As per data provided by Scottish Government, revealed that within the sector low-income owner occupiers are more likely to be living in poor housing than high income owner occupiers(Crown, 2006). The publication further suggests that people with low income spend less on maintenance and repairs than other households. Therefore, central heating here too is very often found in not proper working conditions.

External environment/surroundings include presence of various services that contributes in better living conditions. The proximity of voids has a relationship with the physical comfort (Wind movement) in such surroundings as closeness of void would increase the wind movement flowing from that direction towards such neighbourhoods. The research suggests that the wind movement on vacant lands are 30-40% more than in developed areas(Matthew Carmona, 2010).These phenomena results in uncomfortable conditions in the external environment.

V. WEAK CONNECTIVITY (PHYSICAL LINKS) WITH ADJACENT AREAS AND DEPRIVATION

It is found related to the following domains of Deprivation:

A. Employment

Weak connectivity/links does impact the employment domain in deprived areas. It can be seen as a barrier between labour and market for employment opportunities. Better connectivity attracts more investments for the creation of new employment opportunities. On the contrary, clear spatial segregation done by damage in fabric within the city along with other factors acts as a repulsive force for such investments. They further lead to low employment rates in nearby areas which then put those areas closer to being deprived as a consequence.

B. Income

The neighbourhoods or families with low or poor income in them are affected by the weaker connections/links in a sense that it leads to the kind of their cut-off from other parts. This cut-off then leads to isolation of these areas from other parts within a city and affects their overall development with income being the major one. Because of this physical segregation, people in these areas are unable to take the advantages of various opportunities and other advantages which are available at the commercial and business centre of

the city (although, other factors such as health, education, skills level, etc. also affects it).

C. Education, Skills and Training Domain

An area with weak connections to the institutions of supreme status does impact its prosperity by keeping away its youth from the kind of wisdom that can significantly contribute to their upliftment. These areas therefore, have more probability to suffer from low education and skills level.

D. Geographic Access

Poor links/connectivity to certain areas led to the reduction in their commercial value as people would not give them preference when they have apparently better options available. These areas very often develop a difficulty in access to essential services as well. In this way, neighbourhoods closer to damaged fabric have more probability to suffer from multiple deprivations in the long run.

VI. DECAYED (RUINED OR DILAPIDATED) PHYSICAL ENVIRONMENT AND BUILDINGS

Proximity of decayed physical environment can be found related to the following types of deprivation:

A. Crime

Presence of decayed physical environment near the neighbourhoods induces a kind of psychological insecurity and fear for the presence of anti-social activities. People starts avoiding to visitor live near those places until and unless they can't afford to stay somewhere else.

B. Housing

Decayed physical environment affects the commercial value of nearby neighbourhood and thus attracts other types of deprivation to it as a consequence.

VII. CHART GIVING SUMMARY OF THE ANALYSIS

URBAN DAMAGED FABRIC	DEPRIVATION
1. High concentration of Unused Lands (Voids) Housing	Employment Income Health Education Crime
2. Weak Connectivity (Physical links) with adjacent areas and deprivation Geographic Access	Employment Income Education
3. Decayed (ruined or dilapidated) physical environment and buildings	Crime Housing

Fig 10.

VIII. CASE STUDY

Along with Glasgow, two other UK Cities Manchester and Liverpool (Equally Deprived) are chosen to test the validity of hypothesis.

All being post-industrial cities have lot of things in common including levels of deprivation. As per English Indices of Multiple Deprivation, Manchester and Liverpool are amongst the top 3 UK cities with maximum number of deprived zones in them.

Let us begin with the comparison of pattern from where hypothesis for the paper was conceived.

A. Comparison of location of Deprived Areas from City centre

Diagram 1 clearly shows the similarity in the pattern. Also the level of deprivation in the adjacent neighbourhoods in all the three cases is quite high i.e. all of them suffer from multiple deprivations.

B. Urban Decay at the Edge/Periphery

In all the cases (Diagram 2), the decay in urban character can be observed on the edge/periphery of the city centre. It can be seen as a two-way relationship, either urban decay impacts deprived neighbourhoods or the impact of deprivation led to decay on the edge.

C. In all the three cases shifting of industries led to the creation of big Voids and majority of them are Derelict lands. In case of Glasgow, as per the Vacant and Derelict Land survey (2012) majority of deprived zones are found in close proximity with the Derelict lands.

IX. CONCLUSION

The Research paper started with the problem followed by the formulation of hypothesis or research question for the same. The research is carried out for the UK context and thus has its own limitations. For testing the hypothesis post-industrial UK cities are considered (Precisely the Inner City areas). Though the similar phenomena can be observed in Europe (France) and USA cities but the location in case of European city is at the periphery of the city[4] and not near the City Centre while in case of USA (Detroit), the same pattern is observed at the periphery but is not that explicit because of the existence of regular grids.

In UK context, hypothesis holds true that damaged urban fabric is related to deprivation. The paper explained how each parameter of urban damaged can be related to the domains of deprivation. Most Important factor that came into light is the relationship between Void (Derelict Land) and Health Deprivation. The other factor that can be found equally important in relationship is Crime. Since, there is overlapping of domains in deprivation and existence or absence of one has

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[4]The Italian, Spanish, Portuguese, French and Swedish words for suburb (sobborgo, suburbio, subúrbio, banlieue and förort respectively) often have a negative connotation similar to that of the English term inner city, especially when used in the plural (Wikipedia, 2010).

considerable effect on others. Therefore, it is important to see how parameters associated with urban damage in fabric are related to the constituents of deprivation and how factors of deprivation are related to each other. If urban regeneration of such areas are done, probability of reducing the gap and generating positive impact has a higher probability.

Fig 11.

Fig 12. Edge with the presence of Voids

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