CITIES IN RECESSION:

URBAN REGENERATION IN MANCHESTER AND OSAKA AND THE CASE OF ‘HARDCORE’ BROWNFIELD SITES

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It has become clear that, during the recent recession, urban regeneration in many parts of the world has been hit hard. With funding from the RICS Education Trust and the Kajima Foundation, research was conducted by Professor Tim Dixon of Oxford Brookes University, with Professor Hirokazu Abe of Osaka University and Dr Noriko Otsuka, University of Basel to compare the approaches to bringing long term derelict and vacant ("hardcore") sites back into use in Manchester, England, and Osaka, Japan, which are comparable cities in their respective national contexts, and in terms of their shared history. The research also places its findings in the context of differences in approach in England and Japan to; planning and regeneration; property markets; and brownfield and contamination.

The research is important in providing a comprehensive description of the Japanese property and planning context and suggests that both cities can share from their experiences in terms of successful urban regeneration.

The key messages from the research are:

- Hardcore brownfield sites have been badly hit by the recent recession in both Manchester and Osaka
- Despite this, there is not only evidence that hardcore sites have been successfully regenerated in both cities, but also that the critical success factors operating in both cities in bringing sites back into use share a large degree of commonality.
- Both England and Japan would benefit from better data and information on brownfields and contamination
- Both countries need to explore new vehicles for funding infrastructure and clean-up during a period when public purses are severely constrained
- There are lessons the UK can learn from the Japanese experience of the ‘lost decade’ of the 1990s.

The full report is available free of charge from www.brookes.ac.uk/schools/be/oisd/
HE PROMINENCE of sustainable development in the UK policy agenda is strongly linked to the emphasis on brownfield regeneration, and in particular, the drive for new housing on such sites. In the UK government’s Sustainable Development Strategy, ‘Securing the Future’ (HM Government, 2005), for example, brownfield redevelopment was viewed as vital in promoting environmental justice by removing environmental degradation in deprived communities. Consequently, the UK government has adopted a strategic approach to tackle the problems of brownfield land in England, especially long-term derelict or vacant land, which is often uneconomic to redevelop because of site size and/or contamination issues, i.e. hardcore sites.

Although previous research has shown that brownfield issues are clearly a global problem, there has been little or no research that has sought to compare experiences and lessons between western countries and south-east Asia where, in developed economies such as Japan, there are potentially severe environmental issues arising from previous industrial use. This is an important gap to address because increasingly, foreign investment in Japan is experiencing problems with environmental liabilities in an already depressed market, and both the UK and Japan currently face problems with hardcore brownfield sites which suffer from long term dereliction and contamination. There are therefore important lessons to be learned from sharing experiences between England and Japan, as both countries will have to deal with these problematic brownfield sites, not only during an economic recession, but also at a time when affordable housing shortages are a real issue.

In comparison with the UK (or for the purposes of this research, England), Japan is relatively inexperienced in tackling contaminated brownfield sites. Both countries, however, also suffer from a lack of information and data on contaminated sites. In England brownfields are not necessarily contaminated, whereas in Japan (as in the USA) the two terms are synonymous. In England a key hotspot for ‘hardcore’ sites is Greater Manchester. Manchester is England’s third largest conurbation after Greater London and the West Midlands (the City of Manchester has a population of 441,200, while the wider Greater Manchester Urban Area has a population of 2,240,230). With its rich industrial legacy, it faces substantial brownfield problems. Turning to Japan, a key city which shares a certain degree of history with Manchester is Osaka. Osaka is the capital of Osaka Prefecture and the third-largest city in Japan, with a population of 2.7 million. It is located in the Kansai region of the main island of Honshū, at the mouth of the Yodo River on Osaka Bay.

The parallels between the two conurbations are substantive. Manchester is historically notable for being the world’s first industrialised city and for the vital role it played during the industrial revolution and is the UK’s ‘third city’. Osaka also followed a similar rapid growth trajectory industrially and during the 1930s earned the name ‘Manchester of Japan’ or ‘Manchester of the Orient’. Both cities therefore have similar identities and ‘brands’ in terms of their regeneration.

In summary, this research focused on England and Japan because of the close parallels between the two countries in terms of the problems they face in regenerating hardcore brownfield sites, and the opportunity to study two cities which face similar issues in terms of the broader regeneration agenda at a time of economic recession. The research examined Manchester and Osaka and contrasts their regeneration experiences in the context of detailed case studies of hardcore sites set in the wider regeneration context of each city.
HE RESEARCH was based on an extensive review of literature and policy from England and Japan. More than 30 key stakeholders were interviewed (17 in Manchester and 14 in Osaka) and ten case studies (five in each city) were analysed to identify examples of best practice. In both the Manchester and Osaka case studies the concept of ‘critical success factors’ was used to summarise key elements which can lead to successful regeneration. This term was used initially in data analysis and business analysis (Daniel, 1961) and is defined by Boynton and Zmud (1984: 17) as:

‘Those few things which must go well to ensure success for a manager or organisation, and therefore they represent those managerial or enterprise areas that must be given special and continual attention to bring about high performance.’

Table 1 lists the Manchester and Osaka case studies.

Table 1: Case studies sites (start and completion dates)

<table>
<thead>
<tr>
<th>Manchester</th>
<th>Osaka</th>
</tr>
</thead>
<tbody>
<tr>
<td>Holt Town (undeveloped but with Masterplan)</td>
<td>Universal Studio Japan (1995–2001)</td>
</tr>
<tr>
<td>Jacksons Brickworks Site, Briscoe Lane (undeveloped)</td>
<td>Kaizuka Kitamachi (2008–ongoing)</td>
</tr>
</tbody>
</table>
Box 1 illustrates one of the case study examples from Manchester and Box 2 one of the examples from Osaka.

**Box 1: First Street, Manchester:**
First Street within the Southern Gateway of Manchester is the key highway conduit from Manchester airport and the national and regional motorway network from the south and to London. The area, about 8ha in total, has excellent road and rail accessibility but is characterised by significant amounts of vacancy and dereliction, and has been used for surface car-parking. Historically it has failed to connect with the rest of the city centre, Hulme or City South. Manchester City Council has therefore formed a partnership with Ask Developments (who bought all land and buildings previously owned by Henderson Global Investors) to establish a detailed masterplan for the area which updated the original Development Framework.

The cleanup of the site was carried out by Celtic Remediation in 2007 at a cost of £5.4m, and involved an estimated 36 000 tonnes of soil treated on site by cement-based stabilisation and re-used to backfill remedial excavations. The site was complex because of the presence of an underground aquifer and also Japanese Knotweed on site. Some 99% of the site excavated material has been recycled on site.

**Box 2 Hotarumachi, Osaka:**
The Hotarumachi project is based on the regeneration of a former University hospital site located in central Osaka. The site covers some 3.2ha and had been vacant since the University hospital was relocated in 1993. This site was divided into two regeneration areas: east and west districts. The east district (11 240 sq m) was successfully regenerated and included accommodating Nakanoshima joint government buildings in 1998. The cost of the clean up of the contaminated site was paid for by the polluter, the University Hospital. The Urban Renaissance Agency (a Japanese Government agency which tackles urban renewal issues in partnership with regional public institutions and private businesses) subsequently organised a competition for the development framework for the site in 2003, and a joint venture of Asahi Broadcasting Corporation and Orix Real Estate won the bid. The project was completed in April 2008 and comprised 631 homes in a high-rise building, 43 000 sq m of office space and 37 614 sq m of retail and cultural space, including a concert hall. Hotarumachi is also part of one of the Emergency Urban Revitalization Areas (i.e. the area based around the West Section of Nakanoshima Island), which were designated by Osaka City Council for the purpose of promoting regeneration in 2002.
Comparing contexts: England and Japan
Planning and Regeneration

Japan’s planning system is not only less restrictive than in England, it is also relatively less well-integrated with environmental policy. Although planning law has been amended from time to time, the basic structure has remained relatively unchanged: the national government in Japan sets a framework, which is then applied nationally and locally (through municipalities and prefectures).

In contrast to England, there has not been a strong explicit focus on brownfield redevelopment within the context of a sustainable development agenda, but the economic recession of the 1990s was seen as a broader opportunity to re-invent Japan’s urban areas with a liberal, relatively unregulated ‘competition’ policy built around the Urban Renaissance Special Measure Law. Japan’s relatively weak planning system and its ‘lost decade’, following the bubble economy of the late 1980s have therefore led to a policy emphasis on ‘competition’ in urban regeneration. This has seen the emergence of ‘zones of exception’ which comprise ‘Urban Revitalization Zones’ underpinned by tax breaks and other financial incentives.

Property markets

In Japan, land is regarded as a separate asset from the building and so the term ‘land price’ is usually used instead of ‘property price’. Therefore ‘property price’ in Japan usually comprises land price plus building price which are calculated separately. As far as the residential market is concerned the separation of land and building value in Japan, combined with the cultural distinctiveness of short housing lifespan (i.e. ‘scrap and rebuild’), means that residential building values depreciate very rapidly, usually over 10–15 years.

Japan’s recession after the peak of 1991–2 was long-lived, and the lost decade during the 1990s saw annual rates of growth of less than 2%. Although the economy began to recover during the first part of the 2000s, the current economy is still not as strong as it once was. The Japanese property recession following the peak of 1991–2 has lasted a considerable time, and the recent bottoming-out (as evidenced by land price movements) in 2007–2008 preceded a more recent fall in 2008–2009 (Figure 1). In contrast, the recent downturn in England (and Wales) has been relatively more dramatic.

Figure 1: Residential land price index: Japan (data: MLIT)
Brownfields and contamination

Japan’s environmental history is perhaps best encapsulated by two themes: the tragedy of sustained environmental damage during the rapid period of economic growth during the 1950s and 1960s, followed by the country’s success in combining the control of industrial pollution with, at least until recently, continued economic growth.

In terms of contaminated sites in both England and Japan, voluntary cleanup continues to predominate. In Japan, exemptions within the Soil Contamination Countermeasures Act (SCCA) of 2002¹ (the Japanese equivalent of the UK’s Environmental Protection Act 1990) appear to have contributed to the relatively slow progress in the clean-up of contaminated sites. In both countries, ‘hardcore’ sites pose a particular issue, particularly in the context of an economic recession which makes it less likely that marginal sites will be cleaned up and redeveloped. Moreover there is not the same focus on housebuilding on brownfields as there is in Japan and in any event the nature of the Japanese housebuilding industry is also very different to that in England, with modern methods of construction and offsite techniques more common, and a ‘scrap and rebuild’ culture with significantly shorter lifetimes for houses in Japan.

Japanese companies have also focused very clearly on proving their environmental credentials through the detailed analysis of site cleanup in their corporate responsibility reports which focus on business units to be sold, closed or demolished. Much of this work is voluntary, however, and Japan also suffers a lack of basic data and information on the nature and extent of both contaminated and brownfield sites.

Key comparisons are made between the two countries in Figure 2.

Figure 2: Comparative analysis of brownfields: England and Japan (based on 2007 data)

1*The Act was amended and, to some extent, strengthened in April 2010.*
Findings

Comparing Practice: Manchester and Osaka

Attitudes towards brownfield regeneration and redevelopment

The majority of development land in Manchester is brownfield land and developers are used to developing such sites. Niche players have emerged but it is important to note that brownfield is just a part of the wider regeneration landscape in Manchester, which is focusing on place-making and projects which seek to increase demand in areas of low demand.

Osaka is starting from a relatively lower level of knowledge and understanding of brownfields and contamination given the more recent introduction of relevant legislation. Nonetheless, awareness of soil contamination countermeasures has been gradually raised amongst real estate and development professionals since the launch of the Soil Contamination Countermeasures Act (SCCA) in 2002. In Japan, however, the concept of sustainable development has not yet widely been recognised, in contrast to the UK where sustainable development is positioned as a part of key government strategies for delivering urban regeneration programmes. Although the term ‘sustainable development’ is used in Japan, the terminology does not convey an explicit link between the reuse of previously developed land and the prevention of greenfield development, for example.

Contamination and other barriers to regeneration

Contamination, although important, is not the only issue when it comes to regenerating sites in Manchester. Low demand and a downward spiral in social and economic conditions in areas are difficult to reverse, particularly in a recession. However, poor knowledge on the availability of tax relief on contaminated land was acting as a barrier, and there were other issues of poor and under-resourced infrastructure acting as a further barrier. As regards the public sector, the convention of offering 250 year leaseholds might be relatively less appealing than freehold or 999 year leasehold for new housing, and Design for Access (DFA) 2 provisions may make some homes relatively more costly for some purchasers.

Similarly in Osaka, it was found that contamination, although recognised as one of the key barriers to redevelopment by developers, is not always seen as the biggest obstacle to brownfield re-use. Rather, fragmented ownerships and development control as well as lack of agreement with landowners were seen as acting as bigger barriers. In Japan, there is a marked lack of government-led incentives (e.g. tax relief, policy instruments) for developers to develop brownfield sites. Developers have to follow the same procedure in dealing with brownfield sites as they do with more ‘normal’ and less ‘problematic’ sites, i.e. greenfield sites. In addition, Osaka faces severe economic decline affected by the world-wide recession in 2008, despite the fact that the Japanese property market temporarily recovered after 2005.

Hardcore brownfield sites

Viability was being hit in the recession and so hardcore sites in particular in Manchester were suffering. Linking and merging such sites could lead to more advantageous outcomes and the public sector had a role to play here. The boom in prices had led to unrealistic expectations and some sites had changed hands at inflated prices which were now caught in the overhang of the recession. Even in areas which were perceived as having successful masterplans, varying site levels, fragmentation of ownership, contamination and other issues became more important when there was a market recession, often therefore making such schemes more ‘marginal’ in terms of potential success. This was a particular issue in East Manchester where old industrial buildings, different ground conditions and groundwater issues could make site assembly and remediation more complex. Some developers saw the recession as offering opportunities to acquire sites at reduced prices.

The experience in Osaka is very similar. In the current recession, it is extremely difficult for financial institutions to make any lending decisions for brownfield redevelopment which have inherent risks. On the other hand, some developers see the decline of land prices as a new business opportunity and can acquire land at very low prices.

The role of the public sector in regeneration

The ‘Manchester model’ of regeneration, which is founded on a strong public-private partnership basis, was a vitally important part of the regeneration landscape in the city and beyond, and is seen by developers as one of the key advantages of doing business in Manchester. The North West Development Agency was also seen as playing an important role. Developers did, however, suggest that the public sector needed to become more flexible and take a greater share of risk in the recession.

The Japanese public institutions which are promoting regeneration tend to put substantial emphasis on project profitability, and this has resulted in the public sector being seen as replicating the role of private developers. In order to regenerate risky brownfield and hardcore sites which many developers are unwilling to undertake, it is essential to have strong support from the public sector. To justify and maximise the public sector’s support, it is necessary to clarify the social goals, responding to a variety of public interests. Nevertheless, it is problematic to formulate a roadmap for regeneration since Japan, in contrast to England, lacks a national strategy or slogan for promoting urban regeneration.

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Land and property markets and recession

The crisis in liquidity and confidence is hitting property markets hard in Manchester and making more marginal sites difficult, if not impossible, to bring back into use. Bank lending on contaminated sites could not be expected. Oversupply issues, driven by speculation during the boom, had fuelled the current crisis. The recession was also affecting remediation techniques carried out, with more standard techniques or less costly techniques holding sway. It was felt that the worst of the recession was still to be felt and that the existing skills base of regeneration had been depleted in the recession as staff were laid off. Some interviewees pointed out that regeneration was a long term process and that market cycles were inevitable. Riding out the storm would be difficult but there were also some advantages, with cheaper site assembly now possible.

Real estate prices in Japan had been falling since the bursting of the bubble economy in the 1990s. Despite a subsequent recovery, the credit crunch of 2008 led to a further fall in real estate prices. In the current economic recession, it is extremely difficult to borrow money from any financial institutions for the development of high-risk land such as hardcore sites in Osaka, and regeneration of these high-risk sites has become much harder than before. In particular, contamination is considered to be a serious drawback and bank lending on such sites is difficult to achieve. In the next few years a large amount of new office space will be supplied in Osaka, but the demand for the office space will be comparatively low. In this situation new regeneration projects in Osaka may well not be feasible in the near future.

Getting the fundamentals right and moving beyond recession: critical success factors for brownfield regeneration

There is a strong commonality between the critical success factors (CSFs) that can lead to successful regeneration of hardcore sites in both Manchester and Osaka. A summary is shown in Figure 3.

![Figure 3: Critical success factors in hardcore brownfield regeneration](image-url)
Findings

In summary, the keys to success are:

- **Strong market:** for regeneration to work there has to be a strong potential market for the product. Although the property market is subject to booms and slumps, ensuring long term demand for housing and other uses is essential. Location of a site becomes even more important when the market is in a downturn and it is clear that more marginal sites face an uncertain future in the current market.

- **Seeing the recession as an opportunity:** in Osaka falling real estate prices have been seen as an opportunity for regeneration. It may also be the case that similar falls in Manchester may in due course help promote a more vibrant regeneration platform for ‘opportunity funds’, although depleted liquidity and confidence are key issues in both cities. In Japan some initiatives, such as Sumitomo Trust’s Eco-Land REIT, offer innovative ways of financing clean-up.

- **Long term vision:** despite the importance of market demand it was important not to lose the long term vision of regeneration. Successful schemes are the ones which continue to act as anchors for further development and regeneration in an area, despite market cycles.

- **Strong brand and individuality of product:** allied to the first two critical success factors it is important to ensure the regeneration product is individual enough to tap into effective demand and that a strong brand underpins this. In both Manchester and Osaka, ‘flagship’ projects have helped regenerate hardcore sites.

- **Partnership:** the Manchester model of regeneration has formed the basis for successful regeneration projects for many years and continues to underpin the ongoing regeneration projects in the City, despite the current recession. This private-public partnership model has enabled risk to be shared and for heavily contaminated sites to be cleaned up through the input of both sectors. In Osaka the most successful projects have involved the Urban Renaissance Agency (URA) which has partnered the private sector.

- **Linking sites in a coherent whole:** linking sites which require regeneration is more successful than simply a piecemeal approach. This is true of hardcore sites which are often relatively small in size. Regenerating isolated sites and relying on overheated market valuations has led to speculation and then recession, particularly in the housing market in Manchester. Projects which have linked anchors of activity are likely to be more successful. For example, Larger ‘flagship’ projects which link sites have proved successful in both Manchester and Osaka.

- **Getting infrastructure in place:** community building and re-shaping is not just about a focus on brownfields in isolation: it is about bringing an improved social fabric back into a community, and so building social capital and ensuring infrastructure is in place is essential. In East Manchester some sites continue to lie derelict and vacant because they have become stigmatised, not only through contamination, but also through a lack of infrastructure investment. In a recession both public and private funds are limited, so alternative methods of financing are required. In Osaka, land readjustment methods have played an important role in adding value to sites.

The Emergency Urban Revitalization Zones (URZs) in Osaka offer a taste of how Japan has tried to kickstart the regeneration process during a period which became known as the ‘lost decade’. Our interviews suggested that recent changes in political administration allied with the recession itself had made progress difficult. In Japan the designation of the Urban Revitalization Zones (URZs) was limited to urban centres in large cities which had the potential for successful outcomes. The future application of such zones should therefore be extended to urban areas in more marginal locations. This type of site really needs central government support and can benefit from the concept of URZs, and there is also a need for a better mechanism for the application of tax reliefs. Although many developers are familiar with the nature of tax reliefs (eligibility), the application is currently limited to funding for the construction phase of a development, for example.

In the UK, although such ‘zones of exception’ have not been promoted there has been much debate over Tax Increment Financing (TIF) and empty rates. It is clear that empty rate relief need to be re-examined as empty rates are hitting regeneration projects. Moreover, TIF (and Accelerated Development Zones) should also be examined in more detail in a UK context to determine their feasibility.

Finally, alongside CSFs, it is important that strategies are put in place in both cities to ensure that risk management and due diligence procedures are followed when brownfield sites are redeveloped. This is important for both national regeneration policies in both cities, and particularly in Osaka where foreign investment is very important. In terms of a generic process, English Partnerships’ Preparation, Options, Design and Delivery (PODD) toolkit is an exemplar which enables stakeholders to understand and place decision-making in context.
Implications

In the Manchester interviews it was universally agreed that there were no ‘quick fixes’ for moving out of the recession. Increasing liquidity and confidence were the key to this, and currently hardcore brownfield sites were continuing to suffer continued vacancy and dereliction. Although TIF and Local Asset Backed Vehicles (and other tax incentives) were also mentioned as a possible measure to rekindle regeneration it was felt that the recession would continue to impact through reduced liquidity and confidence and until confidence returned, and the banks starting lending, that recovery would be slow. In summary the main policy implications of the research are that there should be:

• Improved knowledge and understanding of tax relief and other related incentives for contaminated land
• Reconsideration of the implementation and impact of the proposed Community Infrastructure Levy
• Further reform of empty rates is required; and
• Consideration of Accelerated Development Zones and TIF.

In Osaka the private developers who were interviewed suggested that there is a need to implement government policies based upon a long-term national vision for brownfield regeneration. Since local governments now face financial difficulties, it is not enough for the central government to simply unilaterally implement policies, and the central government really needs to encourage public-private partnerships much more than it has in the past.

The different approaches to brownfield regeneration in each city are best understood in the context of important differences in the planning, sustainable development and environmental agendas in England and Japan. Moreover, the lost decade of Japan’s property recession after the 1992 peak offers important lessons for those countries (including England) seeking to underpin recovery in their property markets. During that period Japan’s response to the recession was to focus on urban redevelopment policy as a key platform for revitalising its large cities. UK policy could do well to learn from these lessons as the economy struggles to move out of recession.

Finally, both England and Japan would benefit from better data and information on brownfields and contamination. Whilst England has a relatively well-developed system in the National Land Use Database (NLUD) its limitations are well known. Japan still has no equivalent national system and both countries lack data on contaminated sites. Moreover both countries will need to re-examine their respective fiscal and legislative systems relating to brownfield urban regeneration during a period when public purses are severely limited.
Further Information

The research was led by Professor Tim Dixon of Oxford Institute for Sustainable Development (Dept of Real Estate and Construction, School of the Built Environment), Oxford Brookes University, in conjunction with Professor Hirokazu Abe of Osaka University and Dr Noriko Otsuka, University of Basel.

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Further information on the project can be found in the full report available from the RICS website or the project website:

http://www.brookes.ac.uk/schools/be/oisd/workshops/brownfields/index.html

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