

LANDSCAPES OF PRODUCTION

On the Origins of Spaces of Labour

S.O.L like its predecessor G.L.A.S, (Glasgow Letters on Architecture and Space), emerged out of a postgraduate design studio at Strathclyde University's Department of Architecture where we have endeavoured over the past fifteen years to provide a critique of the contemporary built environment.¹ (Fig 1) One of the recurring themes of the studio has been the history of work places and the spatial consequences of de-industrialisation, issues that informed G.L.A.S' contribution to the international travelling exhibition *Shrinking Cities* and the development of the S.O.L project². (Fig 2)

S.O.L began life as a series of mapping exercises. Students were asked to select a natural resource or commodity, research it and then develop a strategy for the transformation of the built environment based around the history and production of their chosen subject.

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The projects displayed in the exhibition and explored in more detail in the catalogue and website represent only a sample of the work produced, but are nevertheless representative of the different types of response that vary from the development of new forms of agricultural production to ideas for new building typologies. For example the investigations into coal and fishing are primarily observational and document the traces of vanishing lives, the work on seaweed, slate and recycling are propositional, whereas the projects that feature broad rural and urban panoramas are clearly speculative and try to envision more general transformations in our agricultural and industrial landscapes.

The Architecture of Work

Of all the profound changes and upheavals that hit northern Europe in the latter quarter of the twentieth century and which signalled the end of the post world war two expansionary wave of capital accumulation, it is probably the process of de-industrialisation that had the greatest impact on the social and economic welfare of communities. The crisis that enveloped the UK economy in the nineteen seventies and eighties caused irreparable damage to the social fabric of Britain. It tore families apart and destroyed individual lives. The ensuing social and economic catastrophe prompted economists and sociologists to re-examine the social and technological history of the capitalist labour process and to

re-engage with debates about the dynamics of capital accumulation.³ But whilst the social history and critique of work gathered pace, there seemed to be something missing. That absence was the notion of geography, of space, and of architecture, the reality that capital accumulation and production possess both temporal and spatial dimensions. (Fig 3)

This was particularly important for understanding the devastating flight of capital and the spatial restructuring of the division of labour that occurred from the 1970s onwards and finally put paid to the remnants of heavy and light industry in Scotland including the slate, fishing, coal and textiles industries. However although considerable energy went into understanding the geographical dimensions of capitalist production in terms of the socio-spatial division of particular branches of industrial production and manufacturing, very little attention was devoted to the design of actual work buildings, which to date still represents the biggest omission in most histories of architecture and building.

This is all the more remarkable when we think that for those of us in regular employment we spend a third of our adult lives at work. Until the shift in the nineteen seventies when historians began to reflect upon the architecture of everyday life, most architectural history had been confined to distinctions and judgments of taste or monographs about particular



Fig 1 — G.L.A.S and its agit-prop truck at the Govanhill Pool Occupation, 2001



Fig 2 — 'Industrial' palette of G.L.A.S
Paper 08 on Industrialisation, Shrinking Cities
Exhibition Berlin 2003

architects and their iconic buildings. Typical books on the history of architecture in Scotland might well contain an image of Templeton's 'Venetian' Carpet factory or Gardner's pioneering cast-iron warehouse in Glasgow but it is unlikely that they would devote more than a few pages out of hundreds to industrial architecture and work buildings.⁴ Such books tell us virtually nothing about the illustrious MacFarlane's Foundry and Saracen works that pre-cast iron buildings for export all over the world and supported a population of fifty thousand people in the north of Glasgow, or the equally grand Singer machine factory in Clydebank that manufactured sewing machines for the world market. (Fig 4) Not surprisingly even fewer examples exist of historians who have sought to penetrate beyond the facades of such 'industrial' buildings to understand how capitalist work practices were organised spatially on the shop floor in both a social and technological sense. This is work that still needs to be done.⁵ The work of S.O.L represents one very small contribution to this project.

Memory and Heritage

How we remember, commemorate, and record our social and architectural history is one of the central concerns of the S.O.L project. As in all history the question arises as to whose history is being recalled and how it is being represented. Although in the field of social history considerable progress was made during the latter half of the twentieth century in ensuring that working class history, women's history and the history of the marginalised and excluded found its way onto the library shelves, the physical and material history of working class culture in Britain has been less satisfactorily dealt with.

Although there is now a European wide organisation that is seeking to document and in some cases preserve the remnants of nineteenth century and twentieth century industrial production there is a feeling that we are somehow embarrassed about this aspect of our history in Britain.⁶ Compare for instance what we have done or rather ignored and demolished in the central belt of Scotland and what has been

accomplished in the Ruhr valley in Germany. (Fig 5) There they have created a seven hundred kilometre network of canals, footpaths and cycle ways that link the former sites of coal, chemical, steel and iron production into an extraordinary industrial park joining Duisburg in the west with Dortmund in the East.⁷ This is the equivalent of joining up the mills of Paisley with the coalfields of Fife and Lothian to create a green corridor that celebrates industrial culture and that stretches across the whole of the central belt of Scotland.

If this sounds implausible imagine one of the largest cast iron and steel works in the Ruhr reopened as a public park with climbing walls, a pool, and bars. Imagine club nights taking place inside gasometers, diving centres in water storage towers, pithead baths transformed into restaurants, bings turned into viewing platforms, and steel washing basins into winter ice rinks. Not only that imagine forty metre high towers, furnaces and engineering structures that the public is free to roam over and ascend to gaze across the whole of the Ruhr valley.⁸ In contrast there isn't a trace of the cathedral size structures that once dominated the horizon around Ravenscraig, or the extraordinary brick buildings such as the Granaries and the Harland and Wolff yards that once flanked the Clyde.

It is as if in the vain battle to re-image Glasgow as a vibrant post-industrial city, all remnants of its working class and rebellious history have to be physically removed from the urban landscape apart from the odd sad and solitary crane. (Fig 6) The reason often given for the demolition of such monuments to industrial prowess is that there was no obvious way of re-using these structures. However this was often little more than a mask for a paucity of imagination and the fact that they stood on potentially valuable real estate.

There is of course a danger when dealing with industrial history of fetishising it and turning everything into a theme park where the visitor gets a taste of coal and steel in the midst of a gift and souvenir shop (although even this is better than there being no trace what so ever).



Fig 3 — Gable end wall celebrating the Saracen Works, North Glasgow.



Fig 4 — Cast Iron water fountain, one of a number of structures exported all over the world from Glasgow.

It is equally important to be wary of romanticising working life in the pits, steel industry and shipyards. It took generations of organised struggle to improve working conditions and even then work was hard. Neither would we want to objectify the landscapes that emerged from these often toxic processes of industrial production as art objects. However it is hard to deny the extraordinary phenomenological quality and impact of these sites of industrial construction that even if they weren't built with an artists' intent nevertheless were testaments to extraordinary engineering skill and craftsmanship. (Fig 7)

Either way the majority of our industrial heritage has been swept away making it all the more important that we try and deal creatively with what's left of Scotland's industrial past including preserving the oral memories of those who are still alive and remember what it was like to work in the factories, mills and yards.⁹ It is after all human labour in all its creative guises making tangible commodities that ultimately produces wealth, not as we have seen the extraordinary baroque mechanisms of the finance markets.

The Crisis Of Neo-Liberalism

Alongside questions of historical memory and the architecture of work, the critique of the neo-liberal project lies at the heart of the S.O.L agenda. Neo-liberal economic policy was driven by three deeply ideological obsessions; trade liberalisation, the pursuit of (largely mythological) free markets, and privatisation. This as we know greatly accelerated the process of local industrial decline, the consequences of which in Scotland were devastating in terms of the corrosive effects of long-term unemployment and poverty.

However the story of closures, redundancies and 'geographical switch' in the pursuit of cheaper labour power is as old as capitalism itself. Indeed it is one of ways in which capitalism periodically restructures itself when faced with a decline in profitability and the threat of economic crisis. It is a tragic tale that has been replayed throughout the twentieth century

in Scotland, a century that began with the decline of the textile industry put out of business by the importation of cheaper fabrics and ended with the virtual eradication of heavy industry that was unable to compete in the global market for steel, ships, or cars. (Fig 8)

And if more evidence were needed of the fickle nature of capital investment we only have to remember the echoes of the much vaunted 'silicon glen' that was going to revitalise Scotland's economy through electronics along with the equally exaggerated claims of the 'call centre' revolution that quickly ran into trouble as firms relocated to India.¹⁰ This economic opportunism is the leitmotif of capitalist development. It comes as little surprise then that capital in the twenty first century is no more loyal to employees and regions trying to rebuild an economy through new information and financial services than it was during earlier periods of industrial expansion. It is simply that capital being mobile and amoral will inevitably seek out regions where it can rent land and produce such commodities more cheaply. This all suggests that the idea that Scotland like the regions of England can regenerate its economy through a combination of civic boosterism, tourism, retail and service industries is at best wishful thinking and at worst myopic.

Although economic planning and forms of public ownership are not panaceas or guarantees of economic survival in a global and competitive world economic system, it is equally the case that leaving it to largely unregulated markets does not provide a solution. In fact despite what we hear, far from being 'free' these markets are in reality regulated just as the economic activities of major corporations are planned, it is simply that they are regulated and planned in line with the profit interests of directors and shareholders rather than in the social interests of the broad mass of the population.

There are alternatives even within the context of capitalist economic development to a service based economy. There is still a need for coal and steel. But even if it is unlikely that we will be either able or willing to reopen pits and steel mills, there is clearly an alternative to old school



Fig 5 – Beer and five asides in the ruins of a former steel plant, Ruhr valley, Germany.



Fig 6 – Derelict football pitch, Yarrow yard, Glasgow.

heavy industrial production that is informed not least by the imperatives placed upon us by climate change and threats to our immediate social and environmental survival. There is no shortage of imagination and creativity within the economy, what we need is political will and economic investment.

The S.O.L project then is self consciously idealistic and considers it imperative that we begin to think more creatively not just about what we do with the remains of past enterprises but about new possibilities for transforming our built environment whether urban or rural, hence the subtitle for this exhibition “re-imagining a productive landscape for Scotland”. It might not be immediately commercially viable to reopen slate quarries, generate power from harbour walls, farm dyes from indigenous crops, or build recycling centres to manufacture green building materials, but there is no reason why we shouldn't begin to speculate about what new types of industrial and agricultural production could develop that exploit Scotland's abundant resources.

The point being that the global division of labour upon which capitalism operates can change radically and swiftly. When the central belt of Scotland was renowned as one of the industrial powerhouses of the world economy, there were few who could have thought or imagined that in the space of two generations it would be reduced to a virtually invisible ruin. It is not difficult to imagine a scenario spinning out over the next couple of decades where Chinese and Indian labour costs rise, the Korean ship building industry ceases to be competitive, energy and transportation costs rise exponentially, new environmental imperatives emerge, hitherto unseen conflicts erupt and any number of bank crises, stock market crashes occur that will throw the world economy into a bout of seizures with unknown consequences. Such a sequence of events will demand a very different response from national governments. But changes in economic and environmental priorities need not be provoked by catastrophe. They can be planned, democratically and with care and foresight as to potential long term advantages rather than what guides current economic policy which is pragmatic political expediency and

short term profits. A simple shift in government policy can radically alter both industrial and environmental landscapes.¹¹ Crucially architecture has an important role to play here in terms of documentation, strategic planning and providing a visual language to accompany the possibility of new places of work and industrial production. Ultimately, despite the bizarre claims made about the nature of ‘knowledge’ led economies, and miraculous ‘cure all’ service sectors, it is impossible to imagine a productive society and a healthy economy without a vibrant manufacturing sector making useful things.¹²

Landscapes of Production

It is apposite given the twenty-fifth anniversary of the miner's strike that part of the exhibition is devoted to the history of the coal industry. Although we now have a Scottish mining museum near Newtongrange, it is difficult within a single museum to capture the profound influence of coal production on the Scottish landscape. For many perhaps it is a history that they would rather forget. But for others it represents a proud chapter in working class history. Either way as the photographic study shows we have virtually eradicated all traces of how the coal industry impacted and formed part of the Scottish landscape. A few of the winding gears remain, the odd bing, but virtually all of the modernist pithead baths which nowadays would probably be listed and protected as buildings of architectural merit have long since been demolished. The project on the history of fishing also takes the form of a photographic survey of nearly two hundred harbours down the east coast of Scotland. Virtually all of them are now disused, put out of business by the capitalisation and industrialisation of the fishing industry and the development of massive factory ships. Despite this, such a photographic record raises a number of important rhetorical questions about what we find of historical value and how in this particular instance hundreds of years of industry and the memories of thousands of families is in danger of being erased. It also poses questions about the future and the opportunities that we are missing to develop an alternative maritime culture along the six thousand miles of Scottish coastline.¹³ The work on



Fig 7 – Crane in the remains of the John Brown Yard, Clydebank.



Fig 8 – Ruins of Vale of Leven mill.

Seaweed provides a partial response to this dilemma and suggests that with appropriate investment and political will there is no reason why a thriving seaweed industry could not develop off the marine areas on the west coast providing much needed employment that is environmentally sensitive, self sustaining in terms of energy requirements and designed in a manner that points to the possibility of a contemporary maritime vernacular architecture.

In a similar spirit the projects on slate and paper recycling ask questions about the relationship between old and new industries. Slate is one of the most long lasting and durable construction materials we have. Although there is a finite supply within the earth there is enough to roof Scotland for centuries. It is also reusable and recyclable. The main reason that the slate industry closed in Scotland was because of the availability of cheaper slate and composite products from abroad along with the development of the concrete roof tile, both of which were cheaper to produce and highly profitable for the manufacturing firms involved. Although such substitutes are reasonably long lasting, they are incomparable in terms of longevity and the extraordinary blue, grey, purple aesthetic qualities of indigenous Scottish slate. In addition although the slate industry wasn't the biggest employer in the building industry, areas that historically developed in close connection with the industry such as at Ballachulish experienced a relative economic catastrophe with the closure of the quarries. It is clearly possible with advanced cutting and mining technology to rework them, just as quarries were reopened to provide indigenous stone for the construction of the Scottish parliament

As for timber and paper, we hear much about recycling but very little about any creative engagement with how it could become an important part of economic regeneration. As hopefully the papercrete project demonstrates not only is it possible to recycle waste paper to produce a variety of commodities with potential applications within the building industry but with very distinctive and innovative aesthetic qualities that are dependent on the quality, colour and texture of the paper used.

The two other projects on show take a slightly different approach. The first collages a sequence of utopian scenarios that re-imagines Glasgow in the future, re-invented as a twenty first century eco-industrial city. The second is more of a methodological statement that can be applied to other regions. It starts by mapping a slice of Scotland from Ardnamurchan to Fife, locates natural resources, speculates about what types of commodities could be produced and then imagines in a sequence of four panoramic images what new types of rural and maritime landscape could emerge.

Clearly the sectors of the economy that S.O.L has begun to investigate represent a small fragment of the Scottish economy and landscape, but we hope that the exhibition and catalogue make a constructive contribution to the debate about Scotland's economic and social future and the role that architecture can play.

Jonathan Charley

1 — Over the twenty years I have been teaching architecture I have endeavoured to synthesise a politically radical and socially engaged programme with a commitment to formal and technological innovation. Critical engagement for me is the whole point of education. It should aspire to asking impossible 'what if' questions, to speculating about uncertain and unpredictable futures. It should resemble a voyage into the unknown organised in the spirit of an experimental laboratory. Like S.O.L, G.L.A.S was organised and registered as a co-operative. We ran a paper for five years, organised workshops and participated in a number of actions and exhibitions. G.L.A.S' first project the Urban Cabaret, involved the transformation of Piaggio Ape van into an agit-prop vehicle that we drove around Glasgow distributing copies of the paper, making tea and engaging with community struggles such as the campaign to save the Govanhill Pool. See website for more information and an archive of G.L.A.S activities. www.glaspaper.com

2 — See Glaspaper 08, GLASPAPER 08, Spaces of Labour-Arbeitsstätten, Summer, 2004, ISSN 1476-3206. www.glaspaper.com

3 — For a classic and more recent summary and critique of post Second World War economic history see Mandel, Ernest, *Late Capitalism*, Verso, London, 1999 (1972) and Brenner, Robert, *The Economics of global turbulence- A special report of the world economy, 1950-1998*, NLR, No 229, 1998. It was in the 1970s that attention was refocused on the technological and social history of the capitalist labour process. Amongst other things it looked at the impact of new technology on productivity and the necessary re-skilling of workforces, at the extent of political control of the means of production, and at the introduction of new forms of work place organisation and management. See the collected Proceedings of the B.I.S.S, Bartlett International Summer School, Volumes 1-17, 1979-1995, ISBN 0 903 109 various, that contain numerous articles on the labour process in general but in particular its historical transformation in the construction industry. Three useful introductions at the time were Littler, Craig, *The development of the Labour Process in capitalist societies*, Gower, Aldershot -1982, Mackenzie and Wajcman, J, *The social shaping of technology*, OUP, 1988, and Burawoy, Michael, *The Politics of production - Factory regimes under capitalism and socialism*, Verso, 1985

4 — To take two well known books on the architectural history of Scotland. See for instance *A history of Scottish Architecture*, Glendinning, MacInnes and MacKechnie, Edinburgh University Press, 1997, or *The Buildings of Scotland*; Glasgow, Williamson, Riches and Higgs, Penguin 1990.

5 — One of the exceptions is Tom Markus' analysis of industrial buildings in *Buildings and Power; The origins of Freedom and Control in Modern Building Types* (1993) There is in contrast a growing body of works that looks at the health risks and problems associated with particular working environments. Asbestosis lying at one end of the spectrum and new types of 'sick building syndrome associated with sealed office environments at the other. See for instance numerous articles by Taylor, P and Bain P including *Trade Unions and sick building syndrome- The developing struggle for workers health*, in *Resistance*, Proceedings of the B.I.S.S, Bartlett International Summer School, Volumes 17, 1979-1995, ISBN 0 903 109 38 7

6 — See ERIH, European Route of Industrial Heritage www.erih.net

7 — See the website <http://www.route-industriekultur.de> for a detailed map and guide. Two highlights are the Zollverein coal plant now a UNESCO world heritage site, and the giant former iron and steel works at the Landschaftspark Duisburg-Nord.

8 — Remarkably the pig iron pits near Bochum now have a preservation order since they boast a floral subculture featuring species of flowers and plants that are only found in South Africa where much of the original iron ore was mined.

9 — See for instance the work of McIvor, Arthur et al Scottish Oral History Project, University of Strathclyde.

10 — In fact call centre companies have even less commitment to local economies than old 'industrial' capitalists. Indeed the absence of any need to invest extensively in fixed capital makes it easier for them to relocate. However in the past even this didn't stop legendary capitalist adventurers like the Angus Jute Works in Dundee that in 1919, dismantled their looms shipped them across the world and re-erected them in factories on the Hoogly Delta in Kolkata.

11 — Following the Brazilian governments initiatives over recent years a remarkable seventy five per cent of all fuel sold for domestic cars in is already being produced from bio crops like sugar cane which will mean in the very near future Brasil will be free from oil dependence in the light vehicle sector.

12 — Although manufacturing still figures more highly in the Scottish economy than some might think, it still only accounts for a about a quarter of economic activity.

13 — A useful contribution to the debate about Scotland's untapped coastline was made in the exhibition and catalogue *6000 Miles* hosted by the Lighthouse Scotland's Centre for Architecture and Design. See *Six Thousand Miles*, Exhibition Catalogue, The Lighthouse, Glasgow, April 2005, ISBN 1-905061-05-6

14 — To take one more profoundly contradictory example of the way in which contemporary capitalism operates; in the on going mission to repave the city centre of Glasgow it has proved cheaper to mine the granite in China and ship it across the world than to employ local craftsmen by reopening quarries in Scotland.