

# Northumbria Research Link

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# ASSET



## THE AUTHOR:

Paul is a founding member of URBaNE, the Urban Regeneration research group in the School of the Built and Natural Environment. He qualified as a general practice surveyor in 1992 whilst working for the British Rail Property Board before joining Northumbria University in the same year.

He is a member of the RICS national Urban Regeneration Policy Panel and Planning and Development, Valuation and Commercial Property Professional Groups. He is also a member of the Regional Studies Association, Fellow of the Higher Education Academy and, of course ACES!

Paul is a Reader in Property Economics at Northumbria University. His specialism is the evaluation of the impact and performance of physical regeneration, a subject on which he has published many academic papers and professional and consultancy reports. He is responsible for the delivery of modules in Urban Regeneration, Property Development, Property Economics and Research Methods, to both under-graduate and post-graduate students across a variety of programmes in the School.

Paul's PhD investigated property occupier chains and market filtering in Tyne and Wear, generated by office

## INVESTIGATING THE IMPACT OF VACANT OFFICE BUILDING ON TOWN AND CITY CENTRES IN THE UK

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and industrial development. He was awarded funding from the RICS Education Trust to explore the potential to analyse the chaining data using GIS (Geographical Information Systems) with colleague Dr Helen King.

For further information see Paul's University and Academia home pages:

<http://www.northumbria.ac.uk/sd/academic/bne/study/ps/psstaff/paulgreenhalgh>

<http://northumbria.academia.edu/PaulGreenhalgh>

ACES Paper No 12.05/6 by

## DR PAUL GREENHALGH

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## Introduction to the Subject

I am here to launch a new research project, investigating vacant office buildings in town and city centres in the UK. My main message is to seek support for this project from ACES members which, I believe, is in our mutual benefit. In contrast to other presentations at the conference, many of which have dealt with residential development, I intend to focus on commercial property.

## Introduction to the Speaker and the University

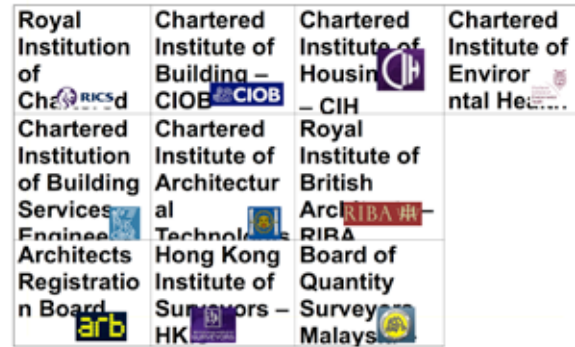
You can collaborate with the University in a number of ways. By working with us you can access our expertise, for example the bimacademy (see <http://collab.northumbria.ac.uk/bim2/>), Virtual NewcastleGateshead (see <http://virtualng.northumbria.ac.uk/>) and URBaNE (see [www.urbane.uk.com](http://www.urbane.uk.com)). Every year we award hundreds of degrees to students graduating from vocational, professionally accredited programmes in the Built and Natural Environment. We also offer lifelong learning opportunities for you to enhance your own knowledge and expertise. We collaborate with external partners to deliver research and consultancy projects; we can enter into Knowledge Transfer Partnerships where a PhD student is embedded in a firm or organisation that has a problem that needs solving. This model usually delivers a solution as the student investigates the problem whilst working for the firm, at the same time they are doing a PhD that we supervise.

- 21 undergraduate programmes
- 20 post graduate programmes
- over 50 PhD students
- over 150 academic staff
- over 4000 students
- 80 nationalities represented



The school is one of 8 in the University, which are currently being reorganised into 4 faculties. The new Faculty of Engineering and Environment will cover the Built and Natural Environment, Computing, Engineering and Information Science. The image on the slide shows the recently pedestrianised Northumberland Road in Newcastle. We are based in Ellison Building on the right of the image.

## Professionally accredited programmes



We have strong links with educational institutions in Europe and Sweden in particular. These are the professional bodies that are accredited to our programme. Every undergraduate honours programme and postgraduate programme in the Built Environment part of the school is professionally accredited. The slide shows the multitude of professional bodies that accredit our programmes. You would do very well to recognise the Architects Registration Board or the Hong Kong Institute of Surveyors. We also have franchise arrangements for some of our degrees to be delivered in Singapore.

## Northumbria University ACES Prize

ACES kindly offers a prize the best piece of course work that has been done by a student on a public sector related topic in their final year. I deliver one module in urban regeneration and a colleague delivers a module in land acquisition and compensation. The prize is awarded to the best bit of work from either of those 2 modules. Thank you for offering the prize and we hope you continue to do so and hopefully get some publicity. There is a summary of the award winning piece of work published every year in The Terrier, so we do make a contribution to your publication.

## bimacademy – with Ryder Architecture



The bim academy led by Professor Steve Lockley is at the cutting edge of national innovation in BIM (Building Information Modelling). It is possible to visualise buildings in 3D but what bim does is to build up a model from a building's individual components. Every component has a variety of

characteristics, be that dimension, material performance, embedded energy etc. BIM can model a construction project using such characteristics. The project has been given additional impetus by the recent Government edict that BIM is to be used for the procurement of all new public sector projects from 2015. The BIM Academy was involved with the launch of a new specification tool called NBS Create at this year's Eco Build. A national BIM library has also just gone live. This is all really clever stuff that it is going to make a big difference to the way that a lot of people in the construction sector work in the future.



You might recognise the skyline of Newcastle/Gateshead and this is what it looks like as a 3D model. This is an ongoing project, funded by the 2 authorities. The 3 partners are listed on the slide. The project business plan indicates further development to come to allow the system to mature, adapt and adjust to changes. With this model you can view it in 3D if you have a special screen and the glasses on. You can fly around the city centre and, for example, you can make buildings disappear without using a wrecking ball. This gives the opportunity to see how things would look if a particular building was obliterated or replaced with a new building.

### Virtual NewcastleGateshead



Website: [www.virtualng.co.uk](http://www.virtualng.co.uk)  
 Contact: [yng@northumbria.ac.uk](mailto:yng@northumbria.ac.uk)

Expanded 3D model coverage from Scotswood and Blaydon in the west to Byker and Gateshead Stadium in the east.

Being used in the urban planning process to support development of Gateshead Quays, Science Central, Gateshead Boulevard, Trinity Square, Grey Street

Potential to be used in a variety of applications

The coverage of VNG is being expanded as shown in the slide, adding and updating fly-over data to build up a fantastic resource. Any type of development can potentially feed into this model such that developers can come along with their own model and insert it in to that 3D model.

Finally, along with some colleagues, we have just launched a new urban research group called URBaNE, to fill the void in the

regeneration sector left by the demise of urban regeneration companies, housing renewal pathfinders and regional development agencies, to offer knowledge and expertise of urban matters and host an archive of relevant materials and documents.

## Are you URBaNE?



### Who is URBaNE?

a new multidisciplinary group of academics and practitioners with a background in, experience of, and passion for urban matters.

### What do we do?

We conduct both funded and unfunded academic research projects and offer a consultancy service to external clients in the field of urban regeneration and renewal.

We have developed a suite of tools that may be employed for policy and project appraisal.

We host an archive of material produced by both the group and external partners and organisations that have been active in the North East of England.

## Investigating the Impact of Vacant Office Buildings on Town and City Centres in the UK

The University wants to develop closer working relationship with external organisations such as ACES and its members. To facilitate this the University is funding a PhD studentship to investigate the incidence, impact and options available to address office vacancy in town and city centres in the UK. This issue was initially brought to our attention by Brian Ablett, outgoing chair of ACES North East Branch. It aligns well with our expertise of modelling commercial property markets using GIS (see RICS FIBRE paper 2010) and coincides with the appointment of Ernie Jowsey as Professor in Property Economics, author of the key real estate economics textbook for undergraduate and postgraduate students (Palgrave Macmillan 2011), who is the principal supervisor of the PhD. Ernie and I successfully bid to the University funded studentship and have recruited a student to commence in October.

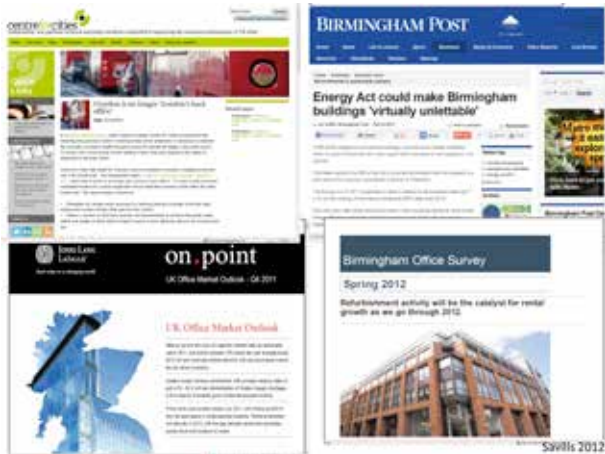
### Context for the proposed investigation:

- The accelerating functional and economic obsolescence of commercial buildings; for example you can now see the situation where the buildings that are not yet 15 years old being demolished which is absolutely crazy but that is the world that we live in.
- Poor market conditions, weak demand within the office market and for alternative uses such as residential and leisure.
- Constrained lending for property (re)development/refurbishment.
- Public sector contraction and rationalisation, and it is not just quangos that are being abolished, with their former accommodation now lying vacant, but there is also lots of contractual rationalisation going on, as you might recognise from this quote by Francis Maude, Government



does not need more office space ..... we need fewer and better work places; so something has got to give.

- The National Audit Office (NAO Jan 2012) in their recent report on public sector offices recorded that there were 222,000 sq m of vacant office space in the civil estate.
- If staff numbers fall and space per employee is reduced to 10 sq m then the above figure would rise to 560,000 sq m by 2020 (NAO 2012).
- And after 2018 under the Energy Act of 2011 it will be unlawful to re-let commercial property with an EPC rating below E; this will have a profound effect.



## Specific problems

- overhang of vacant secondary office stock particularly acute in towns and cities in the north of England due to weak demand & public sector cuts
- causing blight and negative externalities in their immediate proximity and impact across wider property market
- represent high embodied energy in their production and demolition/replacement
- constitute a wasted economic resource (both land and buildings)
- generate high holding costs for landlords
- refurbishment and redevelopment options not commercially viable
- undermines efforts of local authorities to promote and encourage sustainable development



## Research Questions

- How much vacant office stock is there? I am not sure if anyone knows,
- Where is it? What type of buildings? I am not sure that we know that either.
- What impact is it having on the local property market and the wider economy of town and city centres? Again I am not sure that we know.
- Do these buildings have a viable future? Well maybe not in Croydon.
- What is going to happen to them? Are you going to demolish them? Or is the something else that can be done?

- How are landlords and investors responding to the challenges? These are the people who have the financial stake in the buildings; it is their decision working within all the constraints of whether it is occupied or vacant, subject to planning and so on.
- What options are available to rehabilitate such buildings?

## Searching for Solutions

There is quite a literature on this topic. When scoping out the studentship proposal, I had to put a case together and so am familiar with some of it. One author, a Dutch academic, has produced a lot of research working with a variety of co-authors. And there is research coming out of Australia on the rehabilitation of traditional office buildings and how well they lend themselves to adaptation and reuse. There is some terminology that we might not recognise but they are talking about the same sort of thing.

In 2011 the Urban Land Institute suggested in a report that market conditions are becoming more favourable for office to residential change of use, or even retail to residential change of use; something in our favour clearly.

Many of these subject buildings are secondary investment market properties. There is a stigma attached to secondary investments, but there is another way of thinking about it. A lot of prime investments are over-priced, because in times of uncertainty there is a flight towards quality and investments at the prime end of the market attract investment which lowers their yield. Conversely, the yield for secondary investments has increased as investment values have fallen. The resulting under-pricing of secondary investment means that there is only one way direction for values to go. There are opportunities for investors to adopt counter cyclical behaviour, pick up 'cheap' secondary properties and with proactive management and strategic rationalisation of secondary portfolios get value out of them.

There may also be some lessons emerging from the asset Pathfinders and GPU (Government Property Unit) vehicle pilots in London and Bristol.

We could also use bim modelling. I am not suggesting that the PhD studentship will be about the use of bim but clearly as we have got a bimacademy in our school in talking to Steve Lockley he suggested that there are opportunities to perform parametric modelling. For example it might be that you look at vacant offices and see that there are broadly 6 types of building construction involved. If we then develop a bim model for those 6 types then you can start using that to indicate the sort of challenges, costs, and opportunities involved with rehabilitating buildings that fit into that category. It would be just too expensive and too time consuming to do that analysis separately for each project.

Potentially there are a number of case studies that we could explore, such as the Century Building in Manchester and the Angel building in London. There is also the RICS SKA rating which is like a BREAM but for fit outs. There is a SKA rating you can use for office fit outs, and now for retail. Lush, the cosmetic store, had a very high rating for their fit outs as you would probably expect them to have, so there are tools out there,

there are lots of case studies and indeed we have heard about some further case studies that can be added to this list.

## Phase 1 Scoping study

I suggest that the studentship scoping study would involve the following.

- A review of policy documents from Government and academic studies on the legacy of vacant office buildings both in the UK and internationally. I think it is very important to look abroad for international comparisons.
- Capturing the scale and extent of office property vacancies in towns and city centres in the UK using commercial property market data already in the public domain. Then is it possible to determine how much there is, where it is, what is it like, and can it be categorised? We do not know of any one database that can provide all this information. But there are some data providers that we subscribe to, that you may be familiar with, for example Focus, Estate Gazette Interactive, the VOA, commercial surveying practices and local authorities.
- Then there is an opportunity to use GIS to offer a spatial representation of the problem. Some of the research that has been done in the Netherlands has done this and has identified where most of the vacant office stock is and then mapping it out. Then there are various ways of analysing and representing that using GIS and use it as a tool to shed a light on to the problem in ways that perhaps you had not really appreciated before.

## Phase 2 Primary Data Collection

- Any student pursuing a PhD needs to understand the complex conditions within which these buildings exist. It is not simple is it? There are a variety of different pressures and possibly each individual case is unique. There will be a unique blend of conditions causing each vacant office building to be vacant and perhaps also inhibiting its potential to be redeveloped if going for the change of use option. The study will initially concentrate on the North of England where the problems of vacant offices appear to most acute, but this would not be to the exclusion of towns and cities elsewhere in the UK.
- There is potential to use focus groups and the Delphi method (expert) multi-phase data collection. Some of you will have participated in focus groups already and they can be a bit chaotic but you can get some very good stuff out of them, as long as one or two people do not hog the limelight. The Delphi method is not a tool that is used all that often, but I like it as it involves experts, but the experts are anonymous. It works as follows. I could recruit a dozen ACES members to be part of the Delphi study. Experts can participate electronically if they wish. I will then send each expert a series of questions to which each would then reply anonymously. I then analyse the responses, summarise them collectively and circulate the summary. As a result the summary inevitably brings to mind other relevant questions and as you dig deeper, more new questions emerge. These are then re-submitted to the expert group, and again they will respond. This is a two way process and participants will get something out

because they are sharing feedback from the group and as here is anonymity each expert is able to speak honestly without having to wear a corporate hat.

- We are particularly interested in how landlords and investors are responding to the challenge of vacant offices. What options are they pursuing? What decisions are they making? If we can identify what some of the options are we can then get into appraising and evaluating them and that could lead back to somebody's BIM modelling and suitability options.
- The research from the Netherlands has certain indicators relevant to types of buildings even down to the concrete floor beams. For example and if you have got one type of concrete floor beams you can punch holes in them and get access to the services needed for residential change of use but with another type of floor beam you cannot punch holes in them because the building falls down. In this way you might get into some sort of decision making model that could help people make decisions about what to do with these buildings.

This all sounds very ambitious and we are right at the front end of it at the moment with lots of questions and not many answers. This is where you come in. Part of the reason I am here today is to encourage ACES members to get involved and support the research. Is there an overhang of vacant offices in your area? Does your authority recognise this as a problem? Croydon does, and I imagine quite a few of you will do so too. What are you doing about it? Should you be doing anything about it? Collectively we know you have got huge expertise, market knowledge, and a good network contacts.

Collectively you offer a significant resource with which to support this project and you may be able to help us in one of the following ways:

- Do you have quantitative and qualitative data that you could supply us with?
- Could you offer a case study?
- Are you aware of a project where an old office building has been or could be rehabilitated?
- Would you be prepared to participate in a scoping interview to help the research gain some traction?
- Would you participate as an expert in the Delphi study?
- Can you donate some time and resources to the study?

If so please contact:

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