

Welcome

Almost one year on from the Brexit vote, and the world hasn't imploded as some predicted. Whilst it would be foolish to ignore the storm clouds on the horizon, London's resilience continues to confound its critics. Although pressure builds to retain single market access, there is a strong sense of reluctance on the part of business to effect substantial relocations from London.

Why is this? Firstly, the complex interconnection of London's economies, developed over many generations, creates significant switching costs, Secondly, London is the capital of the English speaking world, occupying an opportune time zone. Thirdly, London is business friendly. It has a transparent economy, legal and tax system, with fair but flexible labour laws. However. often at the top of any discussion of London's strengths is its culture. London is above all a place where people want to work and live.

In this edition of Capital Watch, we explore the theme of culture from a number of perspectives, and ask how this supports London's real estate. I hope you find this interesting, and please do drop me a line if it sparks any thoughts: richard.pickering@cushwake.com

Enjoy! Richard





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COVER STORY

What comes to mind when you think of culture? For many, this is an abstract notion that might conjure up images of the arts. Alternatively, it might be construed as representing minority traditions. For many, sadly, culture is therefore regarded as 'not for them'. And yet, it is at the heart of everything that we do, and most of all it is a pragmatic commercial consideration that should be at the centre of how we create our places.

Using Culture as a Strategic Asset







The OED describes culture as, 'the ideas, customs, and social behaviour of a particular people or society.' This feels suitably broad and inoffensive. However, in an increasingly homogenous world, how do we identify distinct societies, and how can we manifest ideas and customs into physical places?

A contemporary challenge for developers and local authorities is to create a 'sense of place' in otherwise generic residential ghettos or clone high streets. Sense of place, leads to human attraction. Attraction leads to footfall, and footfall leads to value. Cultural associations have proven themselves to be effective in establishing this sense of place.

Good examples of this are found in locations strongly associated with a distinct ethnic community; for instance Chinatown, or Brick Lane. In these cases the locations, largely through retail or leisure activities, are imbued with an identifiably different culture from other locations.

A second set of examples can be found in locations where there are physical artefacts drawing strong allusions to historic activities; for instance: Battersea Power Station, or areas of the Docklands. Although the associated cultures may have died many years previously, there is enough evidence of their having happened to create a degree of cognitive recognition, which canny developers have celebrated in their schemes.

But what happens when one doesn't have the luxury of either of these? Most regeneration projects are not so fortunate, and in these cases one has to search harder for a formula. Buying in culture is certainly an option. Many large scale projects also contain a planning requirement to provide a cultural element, but this is often not well defined, and not considered well enough from the perspective of value creation. Regardless of this, developers are increasingly aware of the value that is to be gained through sacrificing

immediate receipts in favour of longer term cultural plays.

This is a model that has been running for decades in the world of shopping centres, where department store operators are offered deep discounts to take space, so as to create the environment to attract rent paying shops. However, this model has translated more recently to London's wider urban grain, with Central St Martins' impact on Kings Cross being the frequently cited case.

Conventional business strategy teaches us to create clear brand propositions, with which customers can easily idenitfy. It also teaches us to minimise the prospect for incompatible trade-offs, and inconsistencies in our companies' value chains - if you try to be all things to all men you will fail. There is no reason that a different discipline should be applied to regeneration schemes.

This starts through identifying a specific underserved or growing segment of the market, and creating a proposition (not just a product) that resonates well with that segment and is suitably differentiated. This should include a consistent set of ideas and customs (a culture) that forms the DNA of this proposition, and touches every element of the scheme, from building design, to tenant mix, to events, to public realm, and to services. Disney are masters at such orchestration, capable of creating instantly relatable environments that transcend bricks and mortar and move into storytelling. It is perhaps therefore no coincidence that shopping centre design is increasingly compared to theme parks, and perhaps not too long before urban quarters of London are subject to similar treatment.

That being the case it would be wrong to dismiss the cultural element of placemaking as fluffy. There are significant commercial rewards for those who take a more strategic approach to the essence of place.

★ THE HOT ISSUE

London's Culture Hubs



By Elaine Rossall, Head of Central London

City Core

With evidence of its ancient origins scattered throughout the Square Mile - the oldest coffee house opened in the City 365 years ago, while many of the pubs date back from the 17th century - the area is recognised as a world-leading centre of heritage, imbued with character and authenticity. Historically maligned as a nine-to-five destination, the City is reinventing itself to attract a wider range of visitors and business sectors. The City of London Corporation has created an alliance with the Barbican Centre, the Guildhall School of Music & Drama, the Museum of London and the London Symphony Orchestra to deliver a long-term strategy for improving the cultural hub of the City. Focused on the northern section of the Square Mile, this new cultural hub aims to become the creative heart of the City, with a series of developments such as a new home for the Museum of London and a new Centre for Music. Alongside this, the streetscapes are changing, with independent coffee shops and retailers creating a more vibrant local environment, while the recently opened Ned Hotel is introducing the City to a completely different demographic.

Stratford



The 2012 Olympics was the catalyst for large-scale regeneration in Stratford. The cultural impact of the Olympics was significant, not least because it brought the area into focus for a much wider audience. Five years on from London 2012, the momentum in Stratford has continued, with culture and education at the top of the agenda. We have already seen the repositioning of the Olympic Broadcasting Centre into Here East (a 1.2 million sq ft development, which is now home to Loughborough University's London campus, UCL's satellite campus. Wayne MacGregor's dance studio a number of tech focused companies such as BT Sport and the Plexal innovation hub). The next stage of the journey is the proposed 'Olympicopolis', scheduled to open in 2021. This will add to the legacy of the games as a number of world-class institutions, covering art, education, dance, design and technology head eastwards. The scheme will provide up to 3,000 jobs and visitor numbers are forecast to reach 1.5 million. The centerpiece is a new outpost for the Victoria & Albert East Museum, where it will dedicate space to showcase digital art and design and include a permanent exhibition space from the world renowned Smithsonian. It will sit alongside a Sadlers Wells dance centre and the University of Arts new fashion campus at Stratford Waterfront.

King's Cross

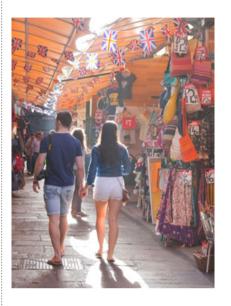
Another area that has benefitted

from a carefully curated and methodical development approach is King's Cross. The upgrading of the buildings and spaces into a truly mixed-use urban area has been critical in creating a sense of place. One of the most noticeable features of the new development is how well integrated the cultural amenities are with the surrounding area, bringing the public into direct contact with music, theatre, art and dance. This is exemplified in King's Place, where the lower floors are host to concert space - the first public concert hall to be built in London for more than 25 years - and art galleries. King's Cross even has its own Musician in Residence, the result of a collaboration between King's Cross and the PRS for Music Foundation, who occupy space in the estate. As well as the arts, the area is developing a reputation as one of the world's leading knowledge clusters. A catalyst for growth was the arrival of Central St Martins to the area, along with the Francis Crick Institute who joined well-established entities such as the British Library and the Wellcome Trust to help drive the dramatic transformation from industrial wasteland to cultural hub.



CUSHMAN & WAKEFIELD

Camden



Camden is the heart and soul of alternative culture in London. Much of the activity is centred on Camden Market; a diverse community of over 1.000 creative sellers, street food traders and independent stores. The market itself is made up of several markets each with a character of its own; from crafts and Japanese pop culture in Camden Lock Village to vintage clothing in the Stables Market. It now draws crowds from all over the world. Camden has long been home to London's after hours music industry. The musical institutions of KOKO and the Roundhouse have been particularly influential. KOKO began life as a Victorian theatre back in the late 1800s and was reincarnated as a music venue in the 1970s enjoying notoriety and providing a platform for many of the first-wave punk bands such as The Sex Pistols & The Clash. The Roundhouse, a Grade 2 listed former railway engine repair shed was transformed into a groundbreaking performing arts venue 50 years ago and now welcomes artists from all over the world. However, in an era where live music venues are increasingly under pressure and increasingly come into conflict from neighbouring residents, reinvention is the name of the game and KOKO is in discussions to develop a hotel as part of a major refurbishment of the club to help preserve not only its future but the cultural identity of the area.

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A contemporary challenge for developers and local authorities is to create a 'sense of place' in otherwise generic residential ghettos or clone high streets

Five years on from London 2012, the momentum in Stratford has continued, with culture and education at the top of the agenda





South Kensington

South Kensington can chart its cultural birth back to the 1850s. The Great Exhibition, held in Hyde Park and organised by Prince Albert, effectively gave rise to the V&A and the term Albertopolis, which was coined for the cluster of iconic institutions established in the area. Today, South Kensington is home to numerous art galleries and museums. As well as the aforementioned Victoria & Albert Museum, the Science Museum and the Natural History Museum are the most well known, while other cultural and educational institutions, including the Royal College of Music and the Royal Albert Hall have established a presence in the area. South Kensington's reputation as a cultural and education cluster brings with it visitor numbers in excess of 20 million. More recently, the main thoroughfare of Exhibition Road became a shared street, where pedestrians and traffic are no longer segregated which has enabled a greater connection between the public realm and the museums.



Southbank's culture is ingrained in its urban fabric and the area has been successful in bringing older obsolete buildings into modern use

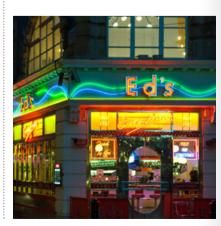
Southbank

Southbank is often referred to as London's 'cultural quarter'. A mix of tourist attractions, artistic venues, bars and restaurants with a river frontage create a vibrant and focal point for visitors and workers alike. At its heart is the Southbank Centre, which comprises of five artistic venues and is the UK's largest arts centre. Numerous theatres sit alongside, with probably the best known being the The Old Vic and the Shakespeare's Globe theatre, which was reconstructed in 1997. Southbank's culture is ingrained in its urban fabric and the area has been successful in bringing older obsolete buildings into modern use. These include the Tate Modern. the world famous home of modern and contemporary art, which is housed in what was originally the Bankside Power Station, while the once derelict Oxo Tower now is home to contemporary designers, restaurants, bars and gallery space. Southbank is also the home to the oldest recognised skateboarding space in the world. The Undercroft, used by skateboarders, BMXers and graffiti artists, recently came under threat from proposed redevelopment but public outcry has ensured that the area is preserved long term for authentic street culture, demonstrating the value that culture can bring to the long-term viability of an area.

Soho

Characterised by bars, cafes.

nightclubs and cabaret, Soho was historically the home of 'low-lifers and high-lifers, romantics and realists. drunks and dreamers'. Its streets are steeped in a rich heritage of the performing arts: but to the dismay of many it is steadily being gentrified and moving on from its salacious past. Soho is also widely known for its position as the heart and soul of the LGBTQ+ scene, with Old Compton Street at its heart. Caravan, a members club which offered refuge for the gay and lesbian community during the early 1930s, was recently recreated by The National Trust, as part of a project celebrating 50 years since the decriminalisation of homosexuality and the importance of 'sidelined culture'. Following the high profile closure of Madam JoJo's, the iconic burlesque nightclub, back in 2014, alongside a number of other venues, the news that it could be reopened in the near term along with the recent relaunch of noughties nightclub, Paper, was music to the ears of many who fight for Soho to retain its night time economy and culture.



Peckham



Peckham has been undergoing a cultural renaissance since the early 2000s, hitting the hipster map in 2007 with the launch of Bold Tendencies, a sculpture project in the multi-storey car park on Peckham Rye. On the car park roof is Frank's Café, a pop up bar providing some of the best views of the city. Something of an institution, the Bussey Building, also known as the CLF Art Café. houses a multitude of primarily arts-based businesses and events such as comedy nights, fringe theatre, dance performances and film screenings. What fuelled this growth and put Peckham on the cool map was the extension of the London Overground that enabled the 'cool' East Londoners to travel there directly. The area is now home to a thriving community of start-ups, while the associated new openings of independent restaurants and bars mean that the area is developing a reputation as a top dining spot. In recent times, Peckham has become one of the most important areas for emerging contemporary art; Hannah Barry, the artist and driving force behind Bold Tendencies opened her own gallery in 2013 in the renovated meatpacking factory on Elm Grove. Other notable galleries include Peckham platform, a podium for artists and communities where accessible social art can be practiced and Asylum, a collective project space.

Not all Peckham's cultural offerings are new however; the well-known South London Gallery was opened back in 1891, with the founding mission to 'bring art to the people of south London'. It features cutting-edge exhibitions, installations and live art and film events giving a platform to both well-known British and International figures and emerging artists.

Shoreditch

Shoreditch's culture is derived from the clustering of start-ups and the multitude of creative and tech companies, who have made the area their home. These companies have been at the forefront of collaboration and flexibility, and colonisation of warehouse space since the recession of 2008. Known for its diverse street art and graffiti scene, which many argue is the nod to its past. Shoreditch still maintains its gritty urban feel. Nevertheless, it is also an area that has seen intense gentrification over a relatively short period. The combination of Spitalfields and Brick Lane markets, as well as the number of street food and pop-up retail vendors has helped provide an alternative hip culture, which sits alongside the areas diverse ethnic culture, with the famous Brick Lane curry houses an example of this. Meanwhile, the advent of independent retailers, restaurants and bars, new hotels and members clubs, such as Shoreditch House, helped complete the transformation of the area. The downside/upside, depending upon your perspective, in creating a place where people want to be, is rising occupational and living costs, which if left unchecked will push the very people who kick started it all into new areas.



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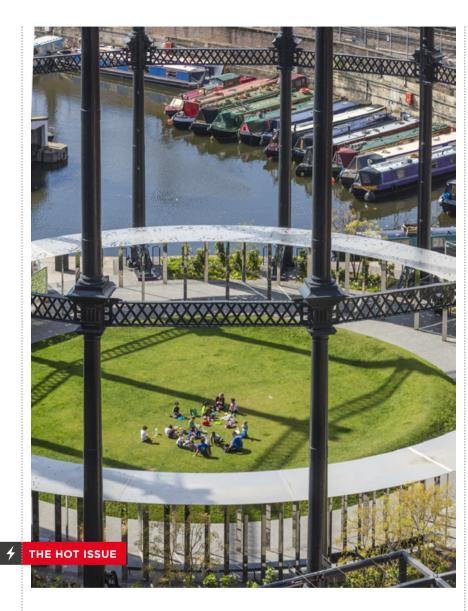
Hackney

Hackney is at the forefront of creativity and innovation; areas such as Hoxton. Dalston and Haggerston epitomise what the area has to offer. From markets to music venues, Hackney has a diverse and unique culture that has evolved organically as the area has welcomed new waves of residents over time. Broadway market, which has been open since the 1890's sells organic and specialist foods such as organic meat and oysters as well as vintage clothes. Its smaller and less known cousin, Netil Market sells vintage finds in an upmarket car-boot sale manner.

Music plays a large part in Hackneys cultural scene; Hackney empire, a 1900s music hall turned modern theatre is a much loved eastend institution, having once hosted Charlie Chaplin, Stan Laurel and Marie Lloyd. It has a vibrant programme of different shows, which reflects the local communities it serves. More recent music offerings come from Oslo, a Nordic chic live music venue located in the old railway station and the Sebright Arms that plays host to up and coming local buzz acts. Victoria Park stretching alongside Regent's canal and Limehouse Cut is home to some of the capitals most thriving music festivals such as Lovebox and Field Day.







Cultural City – A Gallery Without Walls

Mark Davy of leading placemaking agency Futurecity sets out why culture is playing an increasingly important role in the creation of city quarters, and what the property industry, planning authorities and the arts need to do to react.

Successful places, in spite of all their individual particularities, have a common 'taste': a similar atmosphere. At Futurecity we would describe this as 'seductive urbanism', meaning urban space as playful, lucid, varied, beautiful, pleasurable, rewarding and surprising. We believe that whilst culture is the key to unlocking former industrial landscapes and suburban edge city sites, it is still regarded by developers, architects, planners and politicians as 'magic dust', something to be sprinkled on a new development or city quarter, using an approach that has changed little in 30 years.

The late Sir Peter Hall talked of 'the City as Pleasure Principle'* and referred to 18th century Vienna, 19th century Paris and New York in the 20th century, as cities that offered a symphonic experience—formal, creative, adventurous, breath-taking and spectacular even. But in the 20th century planners and architects adopted a more utilitarian approach, building successively the Industrial City, the Hygienic City, the Information City and the Investment City. Now is the time of the city as a blank slate for beauty, an urban theatre for authentic experiences. But a new cultural language is required and the developers of our 21st century cities need to adapt their thinking to a rapidly changing world.

When 20th century architect

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We cannot just look at the world through simplified quasi-professional prisms of transport systems, land use zoning or economic development through sequences of property deals

Kevin Murray, Honorary Professor of Planning Glasgow University



Conrad Shawcross RA has reimagined the power station supplying heat and light to new community

Alvar Aalto spoke of building art as being 'a synthesis of life in materialised form... not a splintered way of thinking, but all in harmony together', he may have sought an innovative and radical model combining art, architecture, creative engineering, science, master craftsmanship and innovative fabrication. In 2017 we need a new system that doesn't discount risk and experiment. Post-crash, investors, buvers and the public have rejected the marketing promise of a 'Truman Show' urban paradise, bathed in eternal sunshine and populated by a CGI community of perfect people. They seek an authentic narrative not authored by a copywriter and real experiences not bland consumerism.

We are seeing the use of 'culture as catalyst' for well designed inclusive public space, promotion of health and wellbeing, community cohesion and local socio-economic development. In Cambridge, artist Ryan Gander leads a team for the new public park in the Cambridge Biomedical Centre; in St James' Market, Studio Swine have designed the street furniture; and on the Greenwich Peninsula, artist Conrad Shawcross RA has reimagined the power station supplying heat and light to new community.

The market is waking up to the power of the arts and the benefits that culture led property development and regeneration can bring. The High Line in New York, Millennium Park in Chicago and King's Cross in London each provide measurable evidence that culture can be a critical ingredient when planning a modern city. Futurecity has led the idea of the 'Rise of the Creative District' and our ideas and strategies will soon be visible on forgotten and neglected industrial sites across London at White City, Greenwich Peninsula, Nine Elms on the Southbank, Barking Riverside and elsewhere.

I have spent 15 years inside London's property boom, watching the knowledge and creative sectors grow in importance whilst the financial sector declined as the city's only economic driver. A new time requires a new approach: I imagine the city as a 'gallery without walls' and seek creative dialogue between developer, planner, architect and artist. In the new Cultural City only community, originality, experience and wellbeing matter. The purpose of cities is changing; shopping is replaced by experience and the high street falls away to be replaced by urban theatre at street level, with experience and encounter informing a place-led approach to design.

It is also time to consider (some) developers as cultural providers; after all, they're already investing in architecture, infrastructure and landscape, in new shops and offices, in street furniture, public art, road systems, parks and public spaces. It is time for an intelligent discussion between private and public sector about how to bring galleries, museums, libraries, studios, creative industries and theatres into our residential mixed use and commercial developments. We have already set the conditions for the English National Ballet to move to City Island (Ballymore), a new theatre in Crossharbour and the RCA Gallery in Riverlight (St James)

This approach has led Apple to move to Battersea Power Station, a fitting replacement of coal fired energy replaced by a company that uses solar, hydro and wind power. Google has selected King's Cross for their new headquarters building and Facebook are moving to Fitzrovia. Each company knows its power in effecting change.

I believe that culture-led placemaking must (and will) drive the debate on urban growth as we move from the city centre to 'Super-urban'. Culture with a small

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Apple's headquarters in London's Battersea Power Station

'c', can help attract businesses and people to our cities, cluster creative industries inside cultural districts, offer fine grain ideas for creative neighbourhoods and reinvent the purpose of contemporary 'downtowns'. The time of the Cultural City is upon us and yet 'culture' is still frustratingly peripheral to our urban planning process. The topdown model persists: a pyramid model, with the developer and architect at the top offering both 'vision and solution'. But the pyramid needs to be upturned, with vision, narrative, content, placemaking and community providing a trickle down narrative to those whose job it is to design and deliver our urban centres. I would call this 'Cultural Masterplanning' and push for a 'software over hardware' approach to planning and development.

However, it's not just about the

property sector. Sixty years of public funding for the arts has had an unfortunate side effect. It has made the arts focus on their survival through government and agency funding and endless grant applications. To make matters worse, sponsorship, European and Lottery funding are diminishing or being spread too thin. The sector has created its own language, structure and reward. The arts yearn for the tax breaks and big bucks philanthropy of the US but seem blind to the opportunities on its doorstep.

In a world where the interchange of disciplines is becoming the norm and a media-savvy public use social media as a tool to circumvent more traditional means of information and persuasion, new disciplines and approaches are needed, cities are now 'factories for ideas', IP rules and place is both King and Queen, 'long live the Cultural City'.

Meanwhile... a Leisurely Use



By Thomas Rose, Partner, Head of Leisure & Restaurants

There is little doubt that leisure is the number one topic on everyone's lips when it comes to meanwhile uses; whether it be SecretCinema taking over the former printing press in British Land's Canada Water development (a use that delivered one of the highest grossing 'cinemas' of the first half of 2015, which is impressive given its one screen and 30-year old film) or BoxPark Croydon which has firmly jettisoned Croydon back into the big-league of London locations. To create a successful place you need activity, energy and most importantly soul.

In new developments meanwhile leisure uses are increasingly becoming the best medium of creating that soul. Landlords and developers need to identify both the local heritage of the area, but also the future target stakeholders of a location before choosing their use. BoxPark Croydon is an excellent example; Croydon was completely devoid of any food culture and BoxPark's significant expansion from their first iteration in Shoreditch has been an overwhelming success at first glance. The combination of food, music, cultural exhibitions and events such as FightKlub fitness has created a sense of place in a long forgotten corner of London.

Further afield, some have looked to PaperIsland (Papirøen) in Copenhagen as a blueprint for meanwhile uses; the whole area is a long term redevelopment site and the occupiers only having term certain until 2017; while the anchor is again food with the Copenhagen Street Food market, other creative industries such as Danish designer Henrik Vibskov have settled adjacent to start to build the sense of place.

These uses are not always easy to deliver: challenging planning laws, costs of development with limited potential financial return, lack of long-term security for the operators and often quirky space at the very earliest stages of development mean the only way to integrate these uses successfully is via a truly collaborative approach between occupier, landlord and the local authorities. If this approach is successful we will only see more and more meanwhile leisure popping up across London's regeneration schemes.



Sam Harper, Senior Surveyor, rounds up the top news stories of the past quarter

London at

a Glance

IN ROUND-UP

The Cheesegrater goes for Record City Price Tag

CC Land, the investment vehicle of Chinese property magnate Cheung Chung-Kui, have completed on their purchase of The Leadenhall Building for a record City price tag of £1.15 bn. This equates to a capital value of £1,893 per sq ft for this iconic piece of London's skyline.

Following British Land's decision to market their 50% stake in The Leadenhall Building in December 2016, the deal subsequently evolved with Oxford Properties agreeing to put the remaining 50% on the table. Since then, Canary Wharf Group has begun marketing a 50% stake in 20 Fenchurch Street ('The Walkie Talkie') with a number of Asian investors reportedly looking at a potential purchase. Aside from the obvious prominence and quality of these two assets, a weakened pound following the vote for Brexit in June 2016 is acting as a significant catalyst for change in the market for London's skyscrapers.



Multi-Storey Sheds

Orchestrating logistics across London, in the face of ever-increasing demand for deliveries, is one of the key issues facing our capital. Along with the well-documented rise of online retail – which has largely accounted for the growth in urban industrial demand, there has been a steady decline in the supply of available land owing to the value arbitrage in relation to alternative uses. This is leading the industry to look for creative solutions, the latest of which is multi-storey sheds.

The concept is not entirely new, with plenty of successful examples in Asian cities, as well as Segro's (formerly Brixton's) 234,000 sq ft X2 scheme in Heathrow which was arguably delivered ahead of its time in 2008. In recent months however there has been renewed push, with Segro launching a paper titled 'Keep London Working' and multi-storey industrial specialists Compagnie Du Parc (CdP) announcing plans to invest £80 million over the next 12 months, principally in Greater London.

Derwent, Arup and Workspace tie up Tripartite Fitzrovia Deal

Derwent London has secured a 133,600 sq ft pre-let (41%) at its 380,000 sq ft headquarters Fitzrovia development, 80 Charlotte Street, to engineering firm Arup. Arup has agreed to a 20 year lease of the lower floors at a headline office rent of £75 per sq ft.

The deal also saw Derwent London agree to a conditional put and call option to sell 8 Fitzroy Street to Arup, who already occupy the building which sits opposite 80 Charlotte Street, for £197 million. Simultaneously Arup has agreed to vacate 13-17 Fitzroy Street which they owner occupy, selling the freehold to Workspace Group for £98.5 million.

This sequence of transactions is a rare example of not two but three parties' interests aligning in the congested central London property market.

HB Reavis Hoovers up London Pipeline



Slovakian developer HB Reavis has had a busy start to 2017, exchanging contracts to buy Elizabeth House in Waterloo, and reportedly putting two further development sites under offer: 120 Moorgate in the City core and Cardinal Tower in Farringdon. Collectively this equates to a consented pipeline of around 1.25 million sq ft.

Elizabeth House is by some way the largest at 945,085 sq ft, comprising 740,630 sq ft of office space, 142 residential units and 12,422 sq ft of retail across two buildings. JV partners Chelsfield and London + Regional gained planning consent for the major mixed use scheme in July 2015, and has now exited its position for a reported price of in excess of £250 million.

HB Reavis has reportedly agreed to pay close to £50 million for 120 Moorgate, a 130,000 sq ft consented office scheme currently owned by Redevco. Pricing is not yet reported on Cardinal Lysander's 12-14 Farringdon Road site, but this will comprise a further 200,000 sq ft office scheme. Both developments are extremely well positioned to benefit from the delivery of Crossrail in 2018.







Future of Living

Earlier this year, we held our 'Future of Living' event in front of a packed auditorium at the Institute of Engineering & Technology. In the section which follows, my colleagues provide their reflections on some of the presentations.

Not in recent history has there been such a wave of change affecting the use, ownership and investment in real estate. Residential property sits on the front line of this change, having a diverse consumer component. On the one hand consumer demands and occupational models are setting an ever higher bar on matters such as flexibility, design and added services. On the other, there has never been a stronger imperative to deliver housing, and to do so in a sustainable and cost effective manner.

We were fortunate to have a world-class rostrum of speakers to give their views on some of these issues, to cast a glance into how we might live in the future, and to offer their views on what this might mean for investment in residential property.

The current pace of change is disruptive and unsettling for many incumbents, but with change comes both opportunity and threats. Navigating a path through this change is something that we are very focussed on at Cushman & Wakefield, and the 'The Future of...' conference series sits as an important component of our wider Futures programme. Our next event is on the Future of Shopping, to be held in Autumn. We hope to see you there!



Pickering,
Head of Futures
Strategy

Proximity to transport nodes will be less important going forward

Breaking the Real Estate Value Chain

Dror Poleg, a New York based expert on emerging real estate business models, presented his views on disruption in the residential sector. Richard Pickering, who leads our Futures programme gives his reflections on Dror's presentation, and what this might mean for UK property companies.

It was the best of times, it was the worst of times'. So started Dror Poleg in his presentation on disruption. The reference relates to his expectation of a booming residential market over the next 10 years, but one in which there will be winners and losers; the latter being the incumbents who aren't able to adapt. However, the literary reference to Dickens' tale of revolution is perhaps not to be overlooked. The changes which Dror goes on to highlight might feel that way for some.

Highlighting a shifting demographic that creates a new focus for demand in residential with increased expectations, Dror points to how long term commitments are losing favour in the modern world. This should be of concern to a real estate industry which relies on long term commitments. The property industry has done well so far to isolate itself from the impacts of change, but Dror suggests that these fundamentals are now being challenged. Even once sacrosanct differentiators such as proximity to transport nodes will be less important going forward, he argues, with the increased adoption of autonomous vehicles.



By Candice Matthews, International Partner, Head of Residential, UK

CUSHMAN & WAKEFIELD

CUSHMAN & WAKEFIELD

However, his point is bigger than technology driving change. He questions the inherent structure of the real estate business model, and points a finger at those who fail to add value for their customers. The real estate sector has been largely defended by factors such as location, visibility. accessibility, customer switching costs, access to information, access to capital and regulatory inhibitors to competition. These shields are being beaten away by societal and disruptive trends, leaving incumbents now needing to focus harder on how they serve their customers.

In particular, he asks us to look at where there are deficiencies in our value chain, and highlights these as opportunities for new players to not only create space, but to capture the majority of the profit pool. A large share of residential real estate is gradually becoming a commodity in the modern world. Beyond location, most of our buildings conform to similar specifications, which are adequate, safe, and functional. In these conditions,



suppliers Dror Poleg at The Future of Living

The warning is a stark one: be bold and or be disrupted

there is greater opportunity downstream of bricks and mortar to capture the market by providing end-consumers the differentiated product that they seek. In this way, the Ubers and WeWorks of the world transition from being intermediaries into being principals, leaving traditional property landlords as commoditised suppliers.

The points of differentiation vary by market; however, Dror points to a couple. Firstly, providing a frictionless consumer experience is essential in a world of increased convenience. Why, he asks, as a tenant would you go through the pain of securing a traditional letting, with complex procedures, unknown landlords, and longer commitments, when you can spend two minutes on AirBnB and be done. The former would in this context be 'unsufferable'.

Secondly, the mass market is not tailoring its products to consumer needs. He believes that developers have a propensity to overspecify their product. Historically, higher margins have been available at higher price points for less effort, which is what has driven this approach. However, in stretched housing markets such as London and New York, there is now opportunity to be found at lower price points, which are susceptible to low level disruption. By unbundling elements of the traditional home, better (more segment-specific) solutions can be provided to the consumer. For instance, the kitchen was once an essential part of the urban home. However, with changing lifestyles and increasing unaffordability, it becomes an optional extra, where there is a legitimate trade-off between having a shared kitchen and paying a higher rent.

As a whole the presentation asks some searching questions of the property industry, and the points made about residential are equally applicable to other sectors. The underlying call to action is to evaluate your environment, spot poor performance and react before others do. For many established property owners, which are less nimble and operate with higher cost bases, it may be challenging to move vertically within their value chain. However, the warning is a stark one; be bold and or be disrupted. Or as another Dickens' character put it: 'A man can well afford to be as bold as brass, my good fellow. when he gets gold in exchange!

Ifall the world were to live a lifestyle akin to that of the average European, we would need

three planets

to sustain us



Murray Grove - the first urban housing project to be constructed entirely from pre-fabricated solid timber. Image: © Will Pryce

FUTURE OF LIVING

Sustainable Structures

C&W's lead residential researcher Lee Layton provides his reflections on presentations by Pooran Desai OBE regarding 'One Planet Living' and Andrew Waugh on innovations in the use of timber in construction.

ever have presentations both alarmed and inspired me in equal measure quite like those of Pooran Desai and Andrew Waugh at our Future of Living event in April.

Pooran, who is the co-founder of Bioregional and International Director of One Planet Communities set the scene with some of the stark ecological realities facing us on a global level.

Some of the most powerful statistics from Pooran's presentation related to the unsustainable consumption levels of the global middle-class. Pooran educated us in inescapably clear language about how we as a world began to consume in excess of our planet's carrying capacity during the early 90s, and how if all the world were to live a lifestyle akin to that of the average

66 Leaving traditional property landlords as commoditised



Pupils at Credo High School in California, which is working towards becoming the world's first One Planet School.

European, we would need three planets to sustain us.

These statistics are enough to make even the most blasé amongst us to sit up and take notice, but when we consider that the size of this global middle class club is in the process of exploding, the prospect of managing a hugely unsustainable planet rears its head. Most of us are intuitively aware that the global middle class is expanding rapidly, but the actual figures are quite astonishing. Between 140-170 million people are joining annually, adding approximately 20% to the current 3.2bn total by just 2020.

The prospect of the potential consumption levels from this enlarged group is daunting. It is therefore vital that the way in which this section of the world lives changes dramatically if we are to avoid significant global issues. While re-thinking practices within the property and construction worlds can only ever offer part of the solution, it is clear that we are contributing significantly to the current problem, and it is incumbent upon us to devise solutions.

However, Pooran doesn't leave us with challenges; he offers demonstrable solutions in the form of his One Planet Living concept.
Starting with the BedZED eco-village in south London, Pooran and his team have helped deliver schemes from California to the Serengeti using his guiding principles of sustainable, zero carbon development. These include features such as car clubs, roof-top allotments, renewal energy, the cultural induction of construction workers, and self-sustaining communities.

In terms of

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Beyond the clear environmental

benefits Pooran points to: community benefits (the average resident in BedZED knows 19 neighbours by name) and health benefits (weight loss is encouraged through a focus on walking and healthy eating options). However, importantly he also cites strong financial performance. describing 'latent demand' for sustainable products as underpinning the price point, and driving presales / take-up rates beyond that of conventional developments. There is perhaps an underserved market segment here, which has previously been ignored due to cost issues.

With the backdrop set by Pooran, we moved on to Andrew Waugh's presentation about Cross Laminated Timber (CLT) and how his company,



Andrew Waugh at The Future of Living



Pooran Desai at The Future of Living

Waugh Thistleton Architects is helping to build increasingly impressive and sizable structures using this ecologically sound material.

CLT is a strong and durable material made using the same secondary grade timber that is used in paper production. And it was this relationship that provided one of Andrew's most remarkable statistics: the amount of secondary grade timber used to construct Waugh Thistleton's 121 unit Dalston Lane, CLT built development is equal to that used for just one day's worth of free newspapers handed out in London. Perhaps someone should issue a challenge to Messrs Osborne and Young along these lines, as I'm sure we could all survive without our free paper for a day.

Other quite remarkable statistics followed regarding decreased build time, shallower foundations, CO2 savings etc, which will certainly be of interest to those appraising the financial viability of schemes. Andrew's passion for the subject was evident in his detailed responses to questions regarding supplychain provenance and lending/ insurance issues. However, it was the one question that was on most of our minds that provided possibly the most important response flammability. Andrew described how the slow burn-rates, the predictable behaviour of a CLT fire. and the favourable fire fail point of a CLT built structure compared with steel and concrete equivalents, combine to make building in CLT an incredibly safe option. His response comprehensively put to bed any lingering worries a number of the audience would no doubt have had regarding this issue.

The growth in using CLT as a construction material appears rapid, with mainstream adoption of this practice sure to accelerate once more schemes of this nature are built out and analysed. This will allow us to further understand the benefits from both an environmental and occupier perspective. Of equal importance we can also then clearly establish how the latent demand for ethical and healthy buildings will fuel demand, whilst saving cost.

In summary, what was clear from the whole event is that in terms of achieving global sustainability, time is certainly not on our side, but technology and many smart and enthusiastic minds are.



Dane Andrews of Roam presented on the increasingly nimble global worker who is served by his business model. Ted Harding of Cushman & Wakefield's Residential Investment team provides his thoughts on what this might mean for UK residential property.

Right to Roam



tment & lopment Dane Andrews at The Future of Living



By Ted Harding, Graduate Surveyor, Residential Investment & Development

CUSHMAN & WAKEFIELD





ast your mind back a decade, five years, or even twelve months ago. What do you remember more vividly, the big holiday, or the shiny new phone you bought?

The realisation that experiences bring more enduring happiness than material possessions is becoming a defining feature of the age. Ownership is being replaced by subscription - why buy a single album when I can access most of music history for the same price?

Dane Andrews, co-founder of coliving developer and operator Roam, is taking this shift and using it to ask a necessary question, 'When was the last time we really took everything we knew about housing, put it aside. and started with a blank slate?' His answer is another, more fundamental question: 'What actually makes us happy?' Is it being tied to a 30-year mortgage in a location dictated to you by affordability, or is it the freedom to move around some of the world's greatest cities?

This is a trend that we have also identified. Institutional investment into the Private Rented Sector (PRS) is creating a sea of change in the way people in the UK live, towards a model already widely adopted in places such as the coastal cities of the United States. Professionally managed developments, taking care of bills and offering concierge services, is taking the hassle out of living and giving more time for experiences. Simultaneously renting is allowing a more footloose generation the ability to live and work more flexibly.

In the trailblazing PRS schemes in the UK, we are seeing the most wellused amenity spaces not necessarily being the swimming pools, gyms and cinema rooms that may initially attract customers, but the more functional working spaces. As a higher proportion of the workforce have the option to work from home, spaces offering good Wi-Fi, a printer and work space are absolute essentials in any PRS scheme.

This theme of becoming untethered from the office was widely explored in our Future of Work event. Dane Andrews and Roam has taken the trend to its logical conclusion - if the working element of "working from home" can be anywhere, then why **blank slate?** I not the home part?

Three types of Roam customers

If the working element of "working from home" can be anywhere, then why not the home part?



GUPPIE (Global Urban Professional) Young, single, location independent



Sabbatical Sam 30-40ies, family, questioning priorities

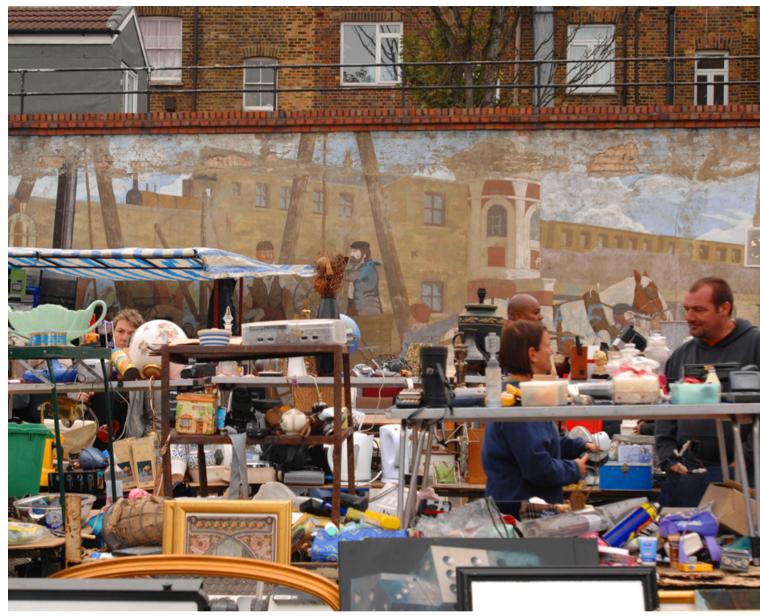


Empty Nester Active, financially independent

The Roam model is a global co-living subscription, currently offering the opportunity to call London, Tokyo, Miami or Bali home, while locations such as New York, Singapore and Buenos Aires are in the pipeline. Once approved for a "Roam Passport", and for between \$500 to \$850 a week, or \$1,800 to \$3,200 a month, paying as you go, you can become a resident in any of Roam's schemes around the world with a few simple clicks, no deposit or contract required. In return you get a private room and bathroom (think boutique hotel), co-working space with "battle-tested" Wi-Fi, and shared spaces such as professionally equipped kitchens. These kitchens are the heart of the concept, providing the social interaction so often missed by home workers, while the more intimate setting creates stronger, closer communities than co-working spaces.

These communities are also more diverse than you might think. Just as we have observed in the PRS, it is not just millennials attracted by this lifestyle. The average Roam subscriber is in their late thirties. and Dane's own father has sold up and become a full time "roamer", representing a large demand from empty nesters for this kind of lifestyle.

For those of you who dream of Bali whilst sitting at your desk, sitting at your desk whilst actually being in Bali may seem like a pipe dream. Indeed, many people may still need convincing that this isn't a futurist utopia: but then, as Dane says, 'Roam wasn't built in a day'



Deptford Market



By Richard Howard. International Partner, Head of **Emerging London**

Deptford: Rough and Ready

Follow the artists, as the saying goes, and you will find London's next exciting areas. This has happened to Shoreditch, Hackney and Peckham, and many other areas throughout history. But an area of London is so culturally vital that it is not so much where the artists go, as where they come from in the first place.

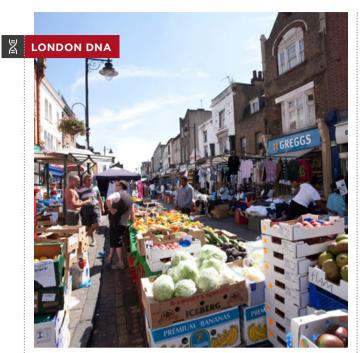
When was the last time we really took everything we knew about housing, put it aside, and

started with a

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Dentford Market

One criticism that is sometimes made of London is that as it has become a global city, its different areas have lost their identities as they have become colonised by outsiders, and gentrified in what legendary American film director Spike Lee has called (referring to Brooklyn) as "Christopher Columbus Syndrome" - where the young middle classes "discover" an area that has in fact been home to large communities for years. "Good Neighbors: Gentrifying Diversity in Boston's South End" by Sylvie Tissot is an excellent study of the issues surrounding this kind of rapid gentrification.

But Deptford has so far managed to hold on to its identity and retains a gritty reality that makes it very attractive, while enjoying some of the highest-calibre cultural offerings London can boast. On its doorstep is Goldsmiths, whose alumni is a roll call of British culture - Lucien Freud. Antony Gormley. Sam Taylor-Johnson. Damien Hirst, most of Blur and Vivenne Westwood all studied here - and six Goldsmith's alumni have gone on to win the Turner Prize in their later careers.

The influence of this hotbed of talent is significant - some highly interesting artistic and cultural venues have sprung up in the immediate area. Cockpit Arts goes beyond art and into the realms of craft and maker culture - located on Creekside which is a creative and cultural focal point in itself, it is described as an "incubator for craftspeople."

The Art Hub (also on Creekside), is a cultural beacon; it is a Community Interest Company (CIC) and was started by two artists, Deborah and Adrian Morris-Thomas, who in the late 80s were running Framework Picture Framing in an industrial warehouse in Deptford and recognised the need for affordable creative studios in the area. From 1999, they started to provide artists' spaces, along with a gallery, under the name of Framework Studios. This later became Art Hub, which evolved to supporting and promoting its 100+ artist members. It is hugely well-loved.

Art in Perpetuity Trust, (again, based on Creekside) also known as APT, is a London-based charity focusing **attractive** i on developing visual arts. Made up of 37 studios for visual

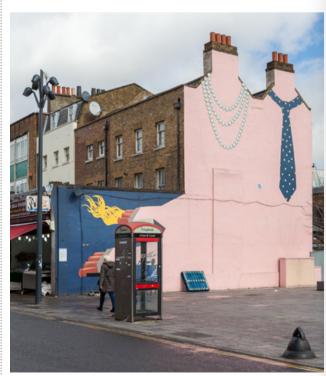
Apart from its art culture, the fact that Deptford is home to so many communities gives it a diversity and vibrancy that is increasingly rare in London

artists and a gallery, it was founded in 1995, when Harold Works was put on the market in the early 90s and group of artists from the Greenwich Artists Studio Association (GASA) negotiated to buy it.

For more of an insight into what is happening in SE8 and beyond, SLAM - The South London Art Map www.southlondonartmap.com/tours - organises walking tours of the key galleries and venues in the area, led by a local artist or creator

Apart from its art culture, the fact that Deptford is home to so many communities gives it a diversity and vibrancy that is increasingly rare in London. It is impossible to walk through the market in Deptford High Street (home to Bearspace, another very exciting gallery working with emerging artists, and around the corner from Enclave, an experimental artist-run infrastructure that aims to promote contemporary critical art practice) and not be blown away by the sheer range and depth of what is on offer.

There is some sign of gentrification at Deptford Market Yard, but SE8 still remains a determinedly rough and ready, take-it-or-leave-it place, which will hopefully retain its identity while continuing to be an independent beacon for culture and the arts.



His and Hers, an artwork on Deptford High Street

London in Figures

Our team of experts delve into the latest market stats and more...



Deptford has so far managed to hold on to its identity and retains a gritty

reality that makes it very





Quantifying Culture

London cultural facts



01

The London night-time economy contributes £26.3bn to London's annual GDP and supports 1 in 8 jobs. The night-time economy will deliver a £3bn boost to the capital by 2029.



Trips

02

The growth of the night-time economy will be supported by the opening of the night tube, with over 100,000 trips made on its first weekend. (Source: TfL)



_

250+ Festivals per year

03 Over

Over 250 festivals take place in London every year. The largest is the Notting Hill Carnival which attracts 2.5 million people every year and is the second largest carnival in the world. (Source: VisitBritain)



50% of Nightclubs shut down

0450% of nightclubs in London have

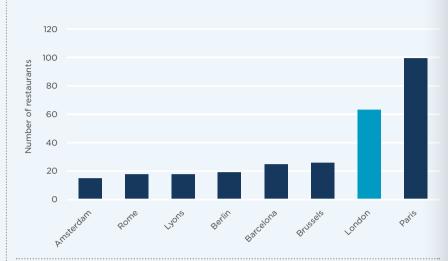
shut down in the last five years. Of the 430 music venues which traded in London between 2007 and 2015, only 245 are still open (43% have closed). (Source: London Mayor, London Assembly)



05

London is home to 4 UNESCO world heritage sites, which are the Tower of London, Maritime Greenwich, Westminster Palace and Kew's Royal Botanic Gardens.

Michelin-star Restaurants

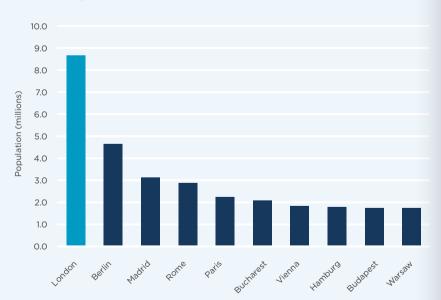


ξ **63**

06

London is home to 63 Michelin-star restaurants, which has almost doubled over the last 10 years, from 32 to 63. (Source: Michelin Guide main Cities of Europe 2016)

Total Population





07

London has overtaken New York as the world's second city in terms of Airbnb listings. In 2016 there were 47,000 Airbnb listings.

(Source: Airbnb Data & Analytics)



6 of top 20 museums are in London

08

There are 173 museums and 857 art galleries available and open to the public. Six of the top 20 museums and galleries in the world are in London. These are The British Museum, The National Gallery, the Natural History Museum, Tate Modern, the Victoria & Albert Museum and the Science Museum (South Kensington).

(Source: TEA/AECOM 2015 Theme Index and Museum Index: The Global Attractions Attendance Report)

£100m+

of orders

09

London Fashion Week generates over £100m of orders and over 32,000 hours of digital content watched in the UK from more than 100 countries. (Source: BFC, 2015 & Google Internal Data, 2015)



10

Open House Weekend – which opens up parts of the City not normally accessible to the public has been held on one weekend each September since 1992 with a total of 292,885 visits over the 2016 event. (Source: Open House London 2016 Annual Review)



spent

11

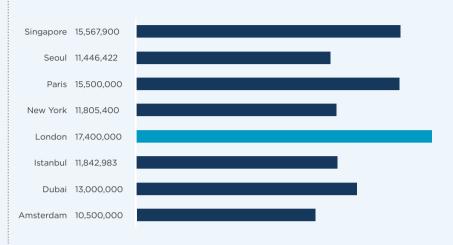
Cultural tourists spend £7.3bn per year, generating £3.2bn for the economy and supporting 80,000 jobs in the capital.



12

London has more green spaces than any other European city. Roughly 47% of Greater London is green. (Source: Greenspace Information for Greater London 2015)

International Tourists per year

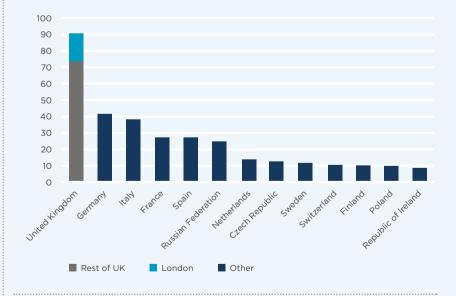




13

London has the highest proportion of International Tourists per Year. (Source: World Cities Culture Report 2015). London was the top-ranked city in Europe for Inbound Arrivals 2015, with international arrivals growing by just under 7% in 2015. (Source: Euromonitor International "Top 100 City Destinations Ranking")

Top 200 Universities in Europe





14

London is home to 43 universities which is the largest concentration of higher education in Europe. (Source: Top 200 universities in Europe; Times Higher Education World University Rankings 2016-2017)

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Rising Supply – a Threat to the Market?

Beyond 2018, there is scope for an upswing in development completions

London Markets

Supply levels have increased across the capital during 2017, to reach 13.5 million sq ft at the end of April. This increase (16%) was to be expected due to the pipeline of new developments approaching completion, (a total of 1.9 million sq ft is now within 6 months of completion - but this also reflects the geographical expansion of Central London to include White City). Nevertheless, high levels of pre-let space (around 48% of space completed in the 18 months to 2017 Q3) has helped to alleviate the impact of new completions.

The volume of speculative space under construction contracted quarter on quarter by around 700,000 sq ft and the speculative pipeline remains relatively constrained into 2018. Eight million sq ft of completions are expected in 2017, but the majority of this is already included in supply data and therefore its impact has already been felt. 2018 could see up to 8.5 million sq ft delivered, albeit at this stage only 6.3 million sq ft is under construction. Currently, 61% of space already under construction has been pre-let or is under offer, leaving just 2.4 million sq ft of speculative space under construction. This suggests that there is potential for the recent upswing in supply to be reversed in the short term, even allowing for an increase in second hand space. Beyond 2018, there is scope for an upswing in development completions but much will depend upon the confidence of developers and available funding in these uncertain political and economic times.

We have already seen an uplift in sublet space across Central London with 3.1 million sq ft available at the end of Q1 compared with 2.1 million sq ft during the same period last year. Much of this sublet space was as a direct result of changes in business strategies and M&A activity,

for example, rather than as a direct result of the vote to leave the EU, we estimate that sublet space currently accounts for 24% of supply; which while seemingly high, is virtually on a par with the average proportion since 2009 (and only falling back to volumes recorded as recently as 2015).

There is likely to be further tenant-sublet space brought to the market as occupiers reassess their holdings in relation to the changing business environment. However, we also anticipate a proportion to be taken up by cost sensitive tenants who continue to pursue value or seek short-term overflow space. It is useful to note that over half (54%) of the sublet space currently on the market is available for a term of less than five years and in absolute terms this is at a similar level to the volume of short term space that has

been let over the last 12 months. Sublease space has a part to play in the market. This is certainly true as economic uncertainty, coupled with the cost of relocating and the relatively limited choice particularly for larger companies, has supported the trend for overflow space rather than committing to a full-scale move. To date in 2017, 16% of leasing volumes have been for sublease space, of which two thirds, by both volume and number, have been for a term of less than 5 years.

Looking forward, the market appears relatively insulated from any significant supply side shocks with limited volumes of speculative development due online over the next 18 months and some schemes pushed back, but not cancelled. As a result, although we expect supply to trend upwards, it will be at a relatively benign rate.

Central London Vacancy Rates





industry



The traditional supply chain involves moving products from suppliers through distribution centres to retail stores, from where the customers choose their items and then transport them from the store to their homes. Business to consumer delivery has until recently been limited, with catalogues providing the interface and delivery times of up to a month accepted as the norm by the consumer.

-commerce has completely changed this model. The internet is increasingly the customer interface, with the retailer's role being one completing the customer's pick and delivering the item through the last mile of its journey to the customer's home, or another convenient location. Importantly, all of this now happens within hours, not months.

Resourcing this last mile of the supply chain is one of the greatest challenges to face the logistics industry and is all the more acute in major urban centres like London. High population density creates significant demand. However, there is acutely constrained land supply upon which to develop new facilities to meet this growing need, and competing land uses provide market constraints.

Whilst Amazon continues to grow its in-house final mile delivery offering, the majority of retailers outsource this process to parcel carriers such as DPD, Yodel and Hermes. These operations need sites to be able to receive goods, delivered by 40' HGVs overnight and then move them to smaller vehicles for onward dispatch to the customer within the working day. The closer these parcel hubs can be to the final delivery address, the more efficient



Reynolds, Partner, National Logistics & Industrial

CUSHMAN & WAKEFIELD



The construction of 22 Bishopsgate will also see a consolidation centre employed for the delivery of construction materials. Image: The Architects' Journal

the operation, leading to significant demand around the outer ring road and arterial routes into the capital.

The parcel hub bucks the trend for high density development in locations of constrained land supply. Sites need to be able to accommodate parking for a huge number of small delivery vehicles prior to being loaded. Traditional industrial units do not have the parking

The principle of consolidation could be of benefit to London, improving efficiency and reducing traffic

capacity for this type of operation and therefore either a bespoke unit is required, or the current building stock needs to be adapted. Some online retailers have resorted to using the inside of buildings as van parking, due to a lack of external space.

Amazon's success brings an imperative to consolidate deliveries. Due to the extent of the range, different product lines are stored in geographically diverse distribution centres across the country. A customer order of three items, could potentially be coming from distribution centres in Swansea, Daventry and Dunfermline. To avoid three separate deliveries there is an economic incentive to combine the order at some point prior to final mile of the delivery.

The principle of consolidation could be of benefit to London, improving efficiency and reducing traffic on the roads. London's Regent Street already operates a consolidation centre scheme for a number of retailers on the street. Product from multiple retailers is delivered to Clipper Logistics' site in Enfield before being combined to a single load and then delivered to the various stores on the street. The participants of the scheme saw an 80% reduction in the number of individual deliveries, through the use of the consolidation centre.

The construction of 22 Bishopsgate, will also see a consolidation centre employed for the delivery of construction materials and this operation will continue for the delivery of supplies once the building is in use. This has the potential to become an increasingly used planning requirement for high density development and if so will only increase the need for further distribution facilities to meet demand.

This is a fast evolving sector and there is the potential for significant further change. Deliveroo and Uber now have a vast capacity and could form part of the final mile solution in the future. Whatever the transport mode of the final step in the delivery chain, there will always be a need to be some form of distribution hub from which the final mile can begin, and our challenge as an industry is to delivery these.



London in 1866, with the Royal Exchange in the background.

PAST, PRESENT, FUTURE

London's Industrial Revolutions

It is said that we are on the cusp of a new fourth industrial revolution, with technology such as digital automation and artificial intelligence, a key driving force that is expected to have a fundamental impact on the way in which companies occupy buildings and spaces. The three previous industrial revolutions – centred on mechanisation, mass production and computing – each had their part to play in London's evolution into the global mega city that is today.



By Christopher Dunn, Senior Research Analyst

CUSHMAN & WAKEFIELD

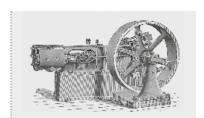
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1760
Industrial Revolution



London population now 5 million



1960s

Beginning of the third industrial revolution



2020+

Industries now fully implement technologies such AI, robotics, 5G,

nanotechnology and

blockchain

1694

First Central Bank established in England



1840

Second Industrial Revolution



1908

Henry Ford mass produces the Ford Model T



2010s

Beginning of the 4th industrial revolution



The legacy of these revolutions, evident in London today, can be traced back to the 1760s. While the first industrial revolution was primarily associated with the north of the country, London was not immune from its impact. While the mechanisation of processes was transforming the economies of the north, London benefitted from rapid urbanisation, with migration from around the globe creating a multi-cultural population base. Meanwhile, rising wealth led to the need for credit and industrial finance and to the rise of the banking and financial system. The City became increasingly focused on its international financial role, with the London Stock Exchange emerging in 1760 to complement institutions such as The Royal Exchange, the Bank of England and the Lloyds Insurance Market.

The second industrial revolution, which started around 1840, was largely an evolution of the first, but with greater technological and economic progress. Steam power continued to play a significant role in the large-scale manufacture of goods but was complemented by the use of electricity. This led to improvements in the transport network, especially railways and canals that radiated from London, connecting the commercial capital with the growing provinces. There were wider improvements

to infrastructure, with telegraph lines, electricity, gas, water and sewage systems all aimed at supporting the rapid population growth occurring in key cities, as well as enabling unprecedented travel and communication across the country. For London, these new roads and bridges led to the infilling of the capital with new housing and the absorption of suburban parishes into the urban fabric. Daily commuting into London using the new Royal Mail coaches, and later the omnibus become viable - the latter frequently overcrowded to increase the profitability of the route.

The total population in London saw huge growth during this period, with 2 million people living in London in 1840 rising to 5 million by 1880. In 1841, less than two-thirds of the capital's inhabitants had been born there and, much like today, young people were attracted to the city to take advantage of both employment opportunities and the entertainment and shops that were available. However, this population growth left many urban areas struggling to keep pace with the flow of workers arriving from the countryside, often resulting in overcrowded, unsanitary and polluted conditions. The parallels with today's shortage of affordable housing are obvious.

The increased use of coal for both domestic and industrial purposes increased air pollution levels in London

66

The parallels with today's shortage of affordable housing are obvious causing a number of problems including; respiratory disease, poor visibility on the roads and an increase in traffic-related deaths. Legislation including the 1875 Public Health Act and the 1926 Smoke Abatement Act was aimed at reducing pollution, but it was not until the Great London Smog of 1952 and the subsequent Clean Air Acts of 1956/1968 that any positive changes were seen. These improvements have since been largely reversed by the use of motor vehicles across the capital, although green initiatives such as the congestion charge help to reduce the overall impact.

There is often confusion surrounding the difference between the third and fourth industrial revolutions, but the characteristics of each era are subtly different. The third industrial revolution was responsible for the shift away from reliance on physical products, marking the start of the Information Age. It was characterised by the use of electronics and IT to automate production, prompted by the advent of computers in the late 1960s. London was a huge beneficiary from the subsequent process changes, which shifted its economy in the direction of the service industries, where it continues to excel. The introduction of home computing, mobile phones and widespread use of the internet radically changed the way we live and

66

The fourth industrial revolution takes this a stage further by implementing a fusion of emerging technologies across the digital, physical and biological spheres

CUSHMAN & WAKEFIELD

work. The media sector, so long a stalwart of Fleet Street, adapted new computerised printing and relocated to Wapping; banking migrated to electronic screen based trading, word processers replaced the typing pool, e-mail supplanted the letter, while teleworking was the hot new trend. All of which enabled historic location ties and clusters to be disrupted, and new areas of London opening up to businesses.

The fourth industrial revolution takes this a stage further by implementing a fusion of emerging technologies across the digital, physical and biological spheres. These technological advances are occurring at an ever-increasing rate, with a transition from linear to exponential growth seen in recent years. The scope of this high-velocity change will affect all sectors, but also the processes within organisations. This will inevitably lead to changes in the way we work and live, with technologies such as artificial intelligence, blockchain, robotics, internet of things, 5G mobile networks, nanotechnology, autonomous vehicles and quantum computing all acting as catalysts for shifts in management, production and governance.

Many of these technologies deliver automation of work processes, particularly low value or low skill tasks such as data entry; however the impact is wider. Many traditional





Each
quarter we
take you
into one of
London's
villages.
This time
our mystery
manabout-town
showcases
the best

of Stoke

Newington

quarter we take you into one of London's villages. Stoke Newington

This liberal and cosmopolitan enclave of Hackney, once home to Daniel Defoe, has some of the worst transport connections in London. Nevertheless, media, advertising, PR, film and fashion types who have outgrown the hustle and bustle of London Fields and Dalston, have arrived in an unbridled wave of gentrification and white window shutters; raising families of children with unique names, and weaving baskets to carry their weekly shop of artisan sourdough from the local farmers' market.



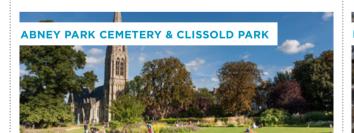
The best place to go and watch Stokies (as the locals are known). Observe the ageing male hipster in action; stroking his handlebar moustache whilst wearing a fishing anorak, contemplating the works of Keats and drinking an artisan porter ale flavoured with marshmallow (£6.80). Or the high-flying fashion mum having Sunday lunch with her four children, whilst providing her latest copy for the Guardian's Style editorial to her PA.



On Saturday night expect to queue for the best pizzas in the world at L'Antica Pizzeria da Michele, an Italian institution from Naples originally opened by Salvatore Condurro in 1870. They only have two pizzas on the menu which featured in the film *Eat Pray Love* with Julia Roberts. Stop off for a few craft beers and see a local indie band at The Lion, then later head to The Waiting Room, Stokey's only nightclub with regular techno sessions which last year hosted a secret gig by Lady Gaga. Get there early as this sweatbox holds a maximum of about 25 people.



London's best climbing and bouldering facility, housed in an old reservoir pumping station, this palace is a mecca for those with a penchant for chalk and calloused hands from all over London. It's more than just a climbing centre. It's a community, with an organic café, full fruit and vegetable garden with yoga, meditation and spiritual classes to help you release your inner yoghurt weaver.



Abney Park is an undiscovered gem, if you're into graveyards. One of the 'Magnificent Seven' graveyards in London (apparently this is a thing), laid out in the 1800s, it is non-denominational with an entrance styled in the 'Egyptian Revival'. Its many interesting grave and tomb styles make this a great place for a creepy walk in the twilight. Stokey is also lucky enough to also have the nearby Clissold Park, home to some local goats, deer, a butterfly dome, two ponds with fish, ducks and an angry swan. It also boasts London's best adventure playground and supreme skate bowl, the offer of a really basic cheese sandwich and marriage ceremonies at the beautiful Grade II listed Clissold House.

BOTANIQUE FLORIST (AKA THE STICK SHOP)

Whilst this flower and plant shop has been only open a matter of weeks, it has already reached global recognition, largely due to a retweet by Jeremy Vine which details the shop's 'artisan sticks' which are marketed to clueless Londoners and tourists for the competitive price of £18 each*. Apparently gathered in a sustainable method by expert local craftsmen, to show your London friends how you just love to get back to nature.

The scope of this high-velocity change will affect all sectors



GATEway autonomous vehicles are tested on Greenwich peninsula

London occupiers, including legal, banking and insurance, are expected to face upheaval in the face of AI and automation. At the same time young nimble and digitally focused businesses are emerging to challenge decadesold incumbents. The trend will over time lead to a very different occupier mix, and requirement for property in the capital, which will need to adapt once more to maintain its position as a vibrant centre of commerce.

According to Boston Consulting Group, cost reductions in labour, logistics and operations could lead to productivity gains of 5-8% of manufacturing costs by 2025. The fourth industrial revolution, or 'Industry 4.0', is not just about the potential economic benefits of new technology – its impact could be wide reaching on a human level. The rapid advances in technological capabilities could help fight climate change, cure diseases, and provide affordable clean energy, as examples.

In order to achieve these goals in the face of global competition, there needs to be considerable public and private investment in the infrastructure and platforms that unlock these new industries. In the Spring Budget, the Chancellor announced £300 million for new academic research, £200 million for the expansion of high-speed

broadband as well as an additional £4.7 billion to be spent on research and development by 2021. The All-Party Parliamentary Group, founded my Alan Mak MP, has the challenging task of making our political and economic structures fit for purpose in the change to come.

For London specifically, the fourth industrial revolution has the potential to provide solutions for many of the problems that currently faces the capital. Interconnected devices, smart buildings and smart cities could provide data for improving healthcare, traffic and over-population. With unprecedented processing power and data storage, as well as access to the shared knowledge of the increasingly connected population, the opportunities are significant.

It is clear that the implications of the fourth industrial revolution are yet to be widely felt, but the evidence shows that we will see dramatic changes in all areas of our lives. Perhaps this is why Klaus Schwab, Founder and Executive Chairman of the World Economic Forum, stated that: "We must develop a comprehensive and globally shared view of how technology is affecting our lives and reshaping our economic, social, cultural, and human environments. There has never been a time of greater promise, or greater peril."

think £18 is a bit keen for a stick, and as numerous national newspapers noted, you can also walk 200 metres to Clissold Park to try your hand at gathering and crafting your own stick collection

for free

*For those who

