Institution: The University of Leeds

Unit of Assessment: UOA14

Title of case study: Government policy and homebuilding practices influenced by the Lilac Model of community-led, sustainable and affordable mutual housing

Period when the underpinning research was undertaken: 2005-2015

Details of staff conducting the underpinning research from the submitting unit:

Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Paul Chatterton	Professor	2003 – present
Sara Gonzalez	Associate Professor	2006 – present
Rachael Unsworth	Lecturer	1994 – 2014

Period when the claimed impact occurred: 2014-ongoing

Is this case study continued from a case study submitted in 2014? Y/**N**

1. Summary of the impact (indicative maximum 100 words)

Ensuring future housing is environmentally sustainable, affordable, and considerate of community needs are major policy challenges. To address this agenda, our research created a low-carbon housing model incorporating a pioneering mutual ownership approach (Low Impact Living Affordable Community: Lilac). Lilac residents have reported increased financial security, wellbeing and carbon savings compared to typical UK households. The Lilac Model led to GBP180,000,000 of further investment from the UK government, new community housing policies, and the first city-region hub for community housing. Twelve further projects have since been initiated, representing >1,200 homes and >GBP431,000,000 investments, with reach now extending to the Republic of Ireland.

2. Underpinning research (indicative maximum 500 words)

In 2004, the landmark Barker Review of Housing Supply (HM Treasury, 2004) pointed to the need to increase the supply of good quality, secure, affordable housing in the UK. Work by Paul Chatterton and Jenny Pickerill (Sheffield) directly addressed this agenda. Securing ESRC funding (Autonomous Geographies. Activism and everyday life in the city, 2005-07, GBP120,978), their research assessed the benefits of community housing activists in delivering sustainable and affordable housing. Community activists were found to create 'autonomous geographies' where projects solve societal challenges more effectively than governments in isolation **[1]**. Subsequent research found that housing projects that were community-led, used mutual finance, collective decision-making, and natural building materials, could significantly reduce carbon emissions, deliver affordability and security of tenure, and address wellbeing and social isolation **[2]**. Chatterton, Gonzalez and Unsworth further tested this approach through an AHRC Connected Communities project (Communities in Crisis, 2010, GBP17,934), finding an urgency amongst community activists to respond to financial austerity and reduce carbon emissions **[3]**. This research recommended setting up community-led, co-produced research platforms including learning resources, training and funding mechanisms so community activists could directly tackle the housing crisis.

Findings were actioned between 2008-13, when Chatterton deployed a co-production research approach with a group of Leeds residents to develop a test project called 'Lilac', and creating a model for community-led, affordable and low impact living that responds to the housing, social and climate crises (the Lilac Model). Using **[1-3]** and a Higher Education Investment Fund (HEIF) Award (2011, GBP15,000), Chatterton co-produced a series of Project Plans with Lilac members. Subsequent funding from the UK Homes and Communities Agency (GBP45,000) and

Triodos Bank (GBP1,600,000) then enabled development of the Lilac housing scheme **[4]**. Lilac comprises 20 homes on a 0.7 ha site at Lilac Grove, Leeds, LS5 3AG.

Key factors (low impact, permanent affordability and tenure security, community belonging), when combined, have now been demonstrated to create a model of community-led housing that successfully builds in local resilience and community self-management **[5]**. First, the use of natural, high insulating materials achieved an energy demand of 30 kWh/m^2/year, a 2/3 reduction compared to a typical UK house, and limiting cars to 0.5 cars per household more than halved carbon emissions from vehicles compared to a typical housing development. Second, a mutual home ownership model allowed residents to buy equity in their home linked to average earnings rather than local house prices, ensuring financial security as home values remained permanently affordable. Third, the use of cohousing design to create shared facilities such as a common house and car free communal areas led to higher levels of reported wellbeing compared to their previous housing context. An accessible research monograph **[6]** documents the successful Lilac Model from inception to completion, to directly inform professionals and community groups on best practice in creating community-led, low impact mutual housing.

3. References to the research (indicative maximum of six references)

[1] Pickerill, J. and **Chatterton, P.** 2006. Notes towards autonomous geographies: Creation resistance and self management as survival tactics. *Progress in Human Geog.* 306: 1-17.

[2] Chatterton, P. and Pickerill, J. 2010. Everyday activism and transitions towards post-capitalist worlds. *Transactions of the Institute of British Geographers* 35: 475–490.

[3] Chatterton, P., Gonzalez, S. and Unsworth, R. 2010. *Connected Communities. Communities in Crisis*. Arts and Humanities Research Council project report. Available at https://ahrc.ukri.org/documents/project-reports-and-reviews/connected-communities/communities-in-crisis

[4] Lilac Mutual Home Ownership Society Ltd. is registered with the Financial Conduct Authority (IP030689). See https://mutuals.fca.org.uk/Search/Society/5761 (2014: FCA Annual report and accounts). Lilac Ltd. built the Lilac Grove community situated in Leeds (LS5 3AG). **Chatterton, P.** is also a member of the community.

[5] Chatterton, P. 2013. Towards an agenda for post-carbon cities: lessons from Lilac, the UK's first ecological, affordable cohousing community. *International Journal of Urban and Regional Research* 37: 1654-1674.

[6] Chatterton, P. 2015. *Low Impact Living: A field guide to ecological affordable community building*. Routledge, London. ISBN: 0415661617.

4. Details of the impact (indicative maximum 750 words)

Influencing UK community-led housing policy and planning: The research base has underpinned widespread growth in community-led housing. This was first evidenced when the UK housing minister (2011-2014) launched a GBP14,000,000 Community Led Project Support scheme at the Lilac opening. The Lilac Model influenced the minister to broaden the Community Right to Build (2012) policy. This enabled community groups who were applying for planning consent, rather than using a Community Right to Build Order, to apply for government funding. The UK housing minister stated: *"I trailed this change when I visited the LILAC co-housing self build project…This exciting community project clearly shows that self-builders are often at the forefront of innovative housing design and environmental building techniques"* **[A]**. As a result, 91 groups nationally were funded to develop projects. Furthermore, as a consequence of his research developing the Lilac Model, Chatterton was invited to join the steering group of the National Community Homes Alliance in 2015 to scope out the community housing market size and design a funding programme. This Alliance lobbied the Housing, Communities and Local

Government Secretary of State to expand government funding, leading to the GBP163,000,000 Community Housing Fund in July 2018 **[B].**

Leeds Community Homes (LCH) CEO corroborated this impact on funding by stating: **[C]** "*Some of the key achievements of LCH that would not have happened without your input and research include…turbo boosting the CLH* [Community Led Housing] *movement in Leeds and the region to foster and inspire groups progressing their ambitions through a variety of routes. Your energy and participation directly fed into the creation of various national steering groups and campaigns, resulting in alliances, definitions and wins for the sector including the £163 million Community Housing Fund that the government introduced in 2018. The CLH sector has grown massively over recent years, for example the number of Community Land Trusts has doubled in the UK in the last four years to over 300, and there are now 23,000 CLH homes in the pipeline*"; this represents ~14% of the 160,000+ new UK homes completed each year.

The Lilac model and Chatterton's wider research informed a UK planning precedent, meaning that developers and cohousing communities benefit from lower costs and risks when developing new schemes, as explained by the current CEO of Agile Homes, who is the former CEO at Sustainable Britain Ltd, a subsidiary of the Connolly & Callaghan (C&C) Group which develops high quality housing with strong social and environmental values **[D]**: "*Sustainable Britain won planning approval at appeal, after concerns were resolved around whether the scheme and its co-housing component could be counted as an affordable housing model. This is a significant decision in terms of planning precedent as the Planning Inspector found that cohousing was a proxy for the affordable housing demanded by the local authority. LILAC's Mutual Home Ownership Society (MHOS) model and Professor Chatterton's work, as a reference point, underpinned the Inspector's decision*".

New community-led housing and impact on housing developments: The Lilac Model led to multiple projects seeking support from Chatterton, representing >1,200 housing units and >GBP431,000,000 investments (Table 1).

Table 1. Summary of developments known to have drawn on the research base and Lilac Model

Developer and location	No. units	Approx. value (GBP 000,000)
Citu (Climate Innovation District, Leeds)	800	250
Citu (Kelham Island, Sheffield)	155	34
Vallis Park (Frome)	64	15
Citu (Canal Wharf, Leeds)	51	12
Common Ground (Wicklow, Ireland)	20	5.5
Chaco (Leeds)	29	5.3
Yorspace (York)	19	3.6
Terrace 21 (Liverpool)	5	2.5
Modcell (Shirehampton)	14	2.1
We Can Make (Bristol)	16	0.6
Quaggy (London)	1	0.5
Agile Properties (Bristol)	114	100
Total	**1288**	**431.1**

(1) Eco developer Citu used the Lilac Model as a *'point of reference'* when developing plans for car usage, site design and community management **[E].** Three schemes totalled 1006 units

and GBP296,000,000 investments. Lilac's affordability and Mutual Home Ownership Scheme "*played a part in Citu developing its Community Interest Company and Multi-Utility Service Company models*" and "*Evidence from LILAC on car usage and parking provision was fundamental in helping to secure planning permission for Canal Wharf*" according to Citu Group Development Manager **[E]**.

(2) Between 2014-18, the former CEO at C&C group/Sustainable Britain, now CEO of Agile Property, used Lilac's approach to mutual finance, green-space, car segregation and community design to underpin Modcell, Vallis Park, We Can Make and Agile representing >200 units and GBP117,000,000 investments **[D]** (see Table 1).

(3) The Chair of Chapeltown Co-Housing (Chaco), drawing from the Lilac Model, stated that the group directly adopted Lilac's design and group decision-making approach, and confirmed the value of the preceding research in making this happen **[F]**: "*Chapeltown Cohousing would never have got off the ground if Lilac hadn't blazed the trail. The impact of Paul's knowledge and expertise on our community has been a key part in our success to date*".

(4) In 2016, Yorspace adopted Lilac's mutual finance model and cohousing approach. Visits to Lilac by the City of York Council (CYC) leader later led to an exclusive land deal for Yorspace and a community share-offering raising GBP420,000. The Yorspace director stated that **[G]**: "*YorSpace would not have been able to develop its own take on the mutual home ownership (MHO) model without the work that your project did in making the concept of MHO work in reality. I believe that the visit to LILAC in November 2015 in which you took the time to answer CYC officer and Councillor questions was a key breakthrough in CYC making the site at Lowfield Green available for our first project*".

(5) Lilac's financial model, governance structure and design approach was adopted internationally for the first time in 2017. Common Ground Cohousing (Ireland) approached Lilac's Learning team for support to replicate and adopt elements of the Lilac Model as explained by a member of the Board of Directors **[H]**: '*Being able to use Prof Chatterton's work as the basis for our practices is highly beneficial… we are actively looking at development sites to build 20 homes with an estimated value of 6 million Euros'.*

Impact on the environment and residents [I]:

(1) Energy use (3-bed Lilac home) is 66% lower than the UK average (CO_2e saving 2.9T/home/yr), and water use is 48% lower (64m^3/home/yr).

(2) Limiting car spaces to 0.5 per dwelling (cf. area averages of 1.2) saves 36 T/yr CO_2 and 71% of residents commute through active and public transport (cf. 40% nationally).

(3) Lilac average non-recycled waste is 48kg/home/yr, 10x lower than the UK average; Lilac has nearly 250m^2 of greenspace per household, nearly double the ward average (142m^2); 10% of food consumed is home grown, 3x the average UK household.

(4) Lilac links housing cost to national wage increases rather than market value, creating more affordable housing. Between 2013-19, homes in Lilac increased by 2%/yr versus 4.5%/yr in Leeds in general, with a home GBP21,500 cheaper than the Leeds average in 2019.

As a result, 76% of Lilac residents are mostly or completely satisfied with their health versus 47% nationally. Residents reported 96% satisfaction with their accommodation, higher than all other tenure types in the UK. 96% of Lilac residents felt they could influence local decisions (cf. 27% nationally), and 88% felt a very strong sense of neighbourhood belonging (cf. 18% nationally). These features offer further specific benefits to support COVID recovery and social resilience including access to greenspace, inter-generational care, tenure security and lower living costs.

New learning and training schemes: Since 2013 the Lilac team has run 25 learning days for 679 participants, hosted 65 site tours, and won 13 industry awards, enabling wide uptake of the underpinning research and the Lilac Model. Attendees at these learning days have included members of developments listed in Table 1.

Chatterton was approached to work with UK charity UnLtd 'Building Futures' programme in 2016. As part of the role, Chatterton provided peer mentoring, training and decision-making on the distribution of GBP172,000 to 10 projects as evidenced by the UnLtd Award and User Journey Manager: "*We invited you to join our awards committee at our Birmingham office, to assess the applicants and help us select award winners. This was because of your work at Lilac and in particular the research in your 2015 book 'Low Impact living' and the way you laid down a systematic model for how communities could build their own projects*" **[J]**. The project subsequently supported projects including WikiHouse, the UK's first distributed home manufacture system. Using a digitally-manufactured building system. WikiHouse allows anyone to design, manufacture and assemble low-impact, customised homes.

In 2016, a group of housing professionals established LCH, a registered community benefit society with the direct aim of broadening the uptake of community-led housing models. As further noted in **[C]** by the director of LCH, incorporating Chatterton's research expertise has led to achievements including "*Securing £105,000 of grant funding from UK charities Power to Change and UnLtd to establish a regional hub to promote community led housing and create the UK's first community-led housing share offer"* and *"Bringing and developing resources to LCH that we are using as part of our 'user journey' for over 30 groups in the region and now employing 5 staff*". To date LCH has delivered training to 30 groups, launched the UK's first community-led housing share offer raising GBP360,000 in 2016, and built 16 affordable homes. Groups that LCH are helping have established "*a pipeline of over 700 homes between them, representing an estimated investment of £70 million*" **[C]**.

5. Sources to corroborate the impact (indicative maximum of 10 references)

[A] UK government Department for Communities and Local Governance (DCLG) documents: (2014) *Community Led Project Support Funding Guidance* (updated 2014).
[B] UK government press release (2018): *£163 million affordable home fund available to communities across England*.
[C] Letter from the director of Leeds Community Homes, explaining the role of the research influencing LCH's work as well as community-led housing across the UK.
[D] Letter written by the CEO of Agile Homes, detailing Innovation and Impact in Community-led Housing Models arising from the research.
[E] Letter from the Development Manager, Citu, summarising the impact that the Lilac Model had on working practices at Citu Group Developments.
[F] Explanation of how the Lilac Model has stimulated and nurtured the growth of the UK's cohousing movement, in a letter provided by the Founder of Chaco.
[G] Letter provided by the Yorspace director, explaining the importance of the research in enabling this housing development in York.
[H] Letter from the Common Ground Cohousing, Ireland, Board of Directors, explaining how Chatterton's research and knowledge have enabled the group to develop their housing scheme.
[I] Lilac Learning Team report (2020) '*The impact of the Lilac project*'.
[J] Letter from the Award and User Journey Manager, UnLtd, The Foundation for Social Entrepreneurs, corroborating the impact of the research on the organisation's work.