The public health residency: a novel way to focus attention on sustainability and wellbeing in the architectural studio

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Abstract

Creative residencies have been used in many different settings to provide new perspectives amongst communities, in a workplace, historic site or cultural venue. This project took the concept as a spur to a new pedagogic approach. With the aim of bringing issues of health and well-being into architectural education, a joint fifth and sixth year studio cohort was provided with a public health practitioner in residence. The practitioner framed lines of enquiry and contributed to design investigations through the use of learning materials, seminars, workshops and tutorials. Architectural projects were developed on selected sites in Stroud, Gloucestershire. Using a mixed methods approach, assessment of this experiment was provided from analysis of students' reactions, a final reflective workshop, presentations to the community in Stroud and the project work itself. Findings show that this intervention was successful in widening students' notions of the role of the architect as an actor in creating a healthy society; it also proved valuable as a means of unlocking sustainable development in new ways to these architectural students. The public health practitioner in residence is presented as an effective new design practice where architectural education meets the wider challenges of sustainable development and population wellbeing.

Keywords: Sustainability, Health, Stroud, Residency, Architecture, Wellbeing, Public Health, Architectural Education, Supra-client values, Ethics

Introduction

This paper describes and discusses a project that sought to use an architectural studio residency for a public health practitioner as a vehicle to introduce public health issues and concepts into the curricula of a group of fifth and sixth year architecture students. A pilot for future educational practice evaluation of its impact was important. Student responses were collected, a final reflective workshop was held and the outcomes were tested with members of the community in Stroud, Gloucestershire, where the student projects were located.

The approach was found to be very effective in terms of the degree to which concerns for public health and wellbeing were responded to within the final schemes. Unexpectedly, this approach was also found to be valuable in bringing alive the concept of sustainable development for students in a new way. The project provides a model for engaging students, who are training in the built environment design professions, with a range of issues affecting public health and wellbeing. This case study demonstrates that such an approach could transform the way in which built environment professionals conceptualise public health and view their future role in supporting better population level wellbeing.

The context

This project was undertaken as a piece of action research. Three researchers consisting of a public health practitioner, the leader of the architecture studio and an action researcher formed a research group chaired by a Reader in public health. As action research, there was a focus on communicating with both audiences suggested by Huang (2010): firstly, the ‘local practitioners’ (in this context the students themselves and the community in Stroud); and secondly the ‘cosmopolitan community of scholars’ (built environment and public health academics and professional bodies).

This project was transdisiplinary in nature (Lawrence, 2004) and sits within a multidimensional theoretical environment. This paper can only attempt to deal with a few key elements and focuses on the disciplinary context and professional values. Other aspects of the project have already been discussed, architectural praxis (Marco et al., 2011) and public health advocacy (Pilkington et al., 2011). In terms of disciplinary context setting, the relationships between health, as a societal endeavour, and built environment and sustainable development need to be explored. In terms of professional contexts, it will be valuable to briefly outline a few of the parameters of the public heath and architectural professions, with a focus in particular on underlying ethics and values.

Health and sustainable development

At the root of this project is the definition of health taken from the Constitution of the World Health Organisation, “Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, 1946, s2 p100).

Our focus has not been on infectious disease, or the services that treat illness, but the wider determinants of health. Factors such as climate stability, lack of everyday physical activity, poor quality access to healthy food, problematic community infrastructure, non-inclusive public realms, poor air quality and noise pollution, are now all widely acknowledged to present risks and challenges to health in our towns and cities (Braubach and Grant, 2010).

Reports such as the NESTA funded report “Danger and Opportunity” (Murray 2009) clearly identify the spiralling costs of the country’s deteriorating health, and the economic benefits that incorporating health into public realm and building design could have, as well as the dangers of not acting quickly (Murray, 2009). This echoes the warnings given in the Wanless report to the UK treasury, that unless wider societal action is taken, with engagement across a broad range of professional sectors, to better prevent ill-health, healthcare in the future will become unaffordable (Wanless, 2004).

Health, well-being and the environment are interdependent and we need to take care to design for them together. In this context it is important to distinguish between the architecture for health and the architecture of healthcare. The founder of the Maggie’s Centres, Charles Jencks, emphasises the importance of reconnecting architecture with drivers based on health, which go right back to the Enlightenment when it was first proposed that good design of the built environment could do more for public health than the medical profession could (Jencks and Heathcote, 2010). This wisdom is succinctly captured by Berry's holistic argument (Berry 1999) that you can't hope to have healthy humans on an unhealthy planet.

Sustainability is already a curriculum requirement by the architectural accreditation bodies (RIBA, ARB, EU Qualifications Directive), even though it is currently taught with a very narrow focus on environmental design and materials. A need to broaden the teaching of sustainability in the built environment has been identified by CEBE and the HEA through its project on Education for Sustainable Development (Lewis et al., 2009).

Much work has been done to establish the links between health and sustainability (SDC, 2008). In order to address health and wellbeing in this broader and more holistic sense, a wider determinants of health model is called for. The ‘health map’ (Barton and Grant, 2006) captures such a concept and was used to underpin the approach in this project (figure 1).

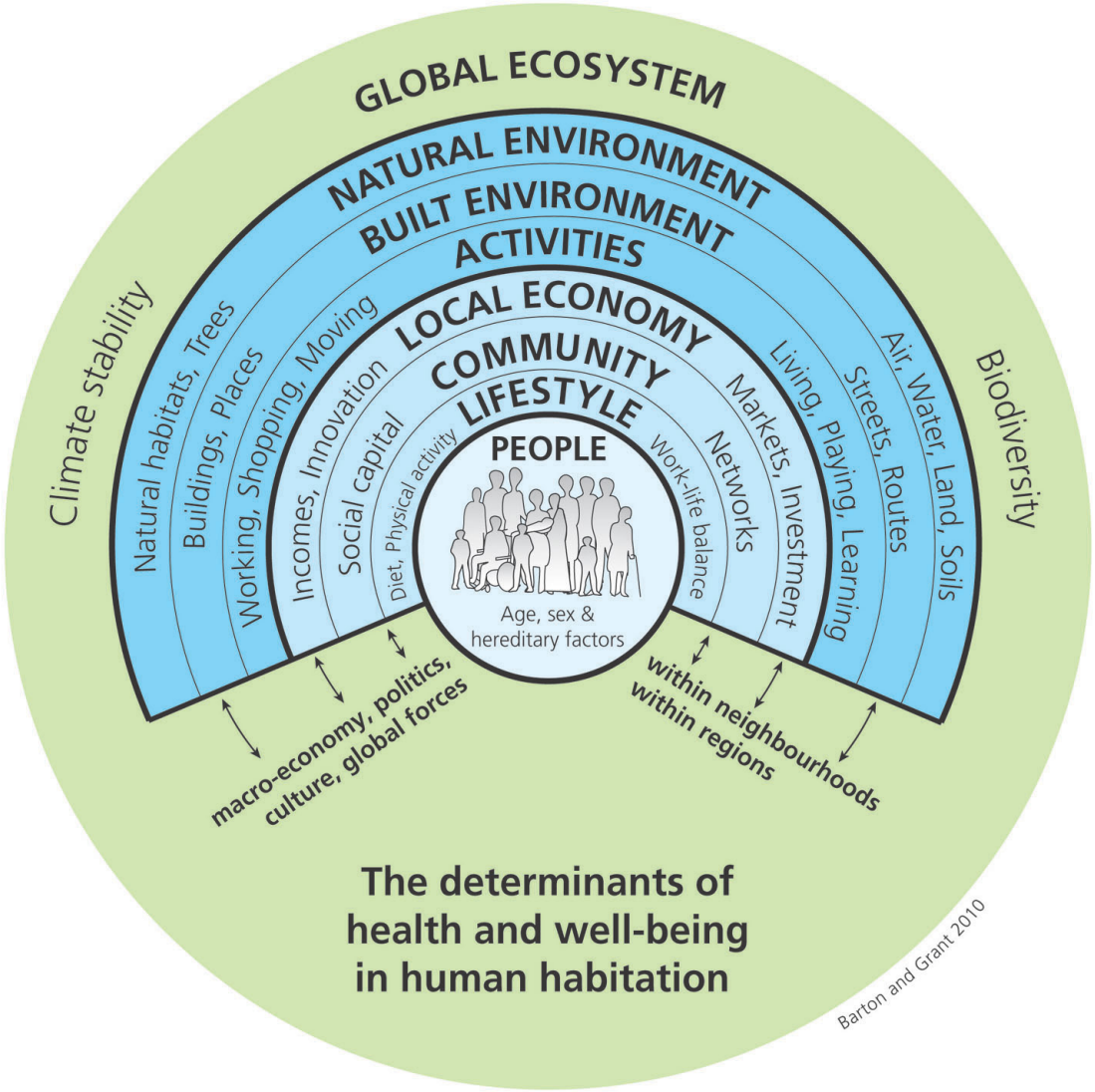


Figure 1: **The Health Map**

This conceptual map not only clarifies the role of the built environment in the wider determinants of health, but also brings the relationship between the health and sustainability agendas into focus. The diagram is designed to be used as a dynamic model. Through looking at impacts on 'people' at the centre, health is made the focus; and in parallel, through looking at impacts on the 'global environment' at the periphery, the environmental aspects of sustainable development are brought into relief.

Health and the built environment

In poorly planned settlements diseases of infection can be rife. Good city planning, well designed housing and urban civil engineering have seen an end to cholera, dysentery and tuberculosis as a constant background to urban life, at least in the developed world. It is without question that many important advances in public health have come through improvement of the built environment (Ashton and Seymour, 1988). However, in virtually all cities in the developed world there is now an increasing focus on the financial and human cost of the so called non-communicable diseases such as asthma, type 2 diabetes, obesity, cardio-vascular disease, stokes, mental health issues and even some cancers. These are on the increase and their rise has been associated with urban environments (Braubach and Grant, 2010; Butland et al, 2007; Marmot, 2010;). These unhealthy environments haven't just happened by themselves, but are often the result of many incremental decisions by a plethora of built environment professionals including architects, urban designers, transport professionals, landscape architects, town planners and civil engineers. Each decision could probably be justified on its own parameters, however we can assume that population health was rarely a concern since we have been left with a legacy of unhealthy urban environments.

The recent attention on public health issues such as obesity, highlighting the concept of the "obesogenic environment" (Butland et al, 2007; Larkin, 2003), has strengthened the need for those who design the places and spaces where we live, work and play to engage with public health. More recently, the influential Marmot Review recognised of the key role that the built environment has to play in exacerbating health inequalities (Marmot, 2010).

In recent years, public health in the UK has sought to reconnect its professions to the built environment agenda (Barton, 2005). Much work to date has concentrated on the planning profession. For example, in the UK, the World Health Organization (WHO) Collaborating Centre for Healthy Urban Environments initiated and co-ordinated a programme of public health action learning with a focus on planners. One example is a series of workforce development initiatives that brought together senior public health and planning professionals to share learning, develop relationships, and study at close hand sites of good practice (Grant 2008; 2009; Pilkington et al. 2008). The Department of Health even funded the establishment of a network of built environment educators who have interests in public health; the Education Network for Healthier Settlements (EN4HS, 2011). This network seeks to provide support and wider dissemination for leading practitioners in this field. A good example of this kind of working has been published by Ellis, where an inter-professional methodology was successfully employed to introduce health into the curriculum for urban planning (Ellis et al., 2008).
The important role that the built environment and its professionals have to play in public health is recognized institutionally by the built environment profession with policy documents by some of the major players such as CABE (2009) and the RTPI (2009). The Centre for Education on the Built Environment has published a briefing guide, entitled 'Bringing Public Health into Built

Environment Education', arising from the Education Network for Healthier Settlements project (Bird and Grant, 2011). To date less attention has been played to the role of the architect and debate often seems limited to discussing the design of healthcare settings themselves.

Although most attention has been on planners, we feel that architects, in particular, can play a vital role in ensuring that the design of buildings is health promoting – not only for healthcare settings, and not only in physical environmental terms such as lighting, ventilation and heating. A concern for the wider determinants of health includes how a building influences social mixing, equity of access, and addresses (or not) the health and well-being needs of a variety of groups across the human lifecourse. As such, it is important for architects in practice, and architecture students in training, to understand more about health and well-being, and how their profession can contribute positively to the public health agenda.

Supra-client values and the professions: Architecture and Public Health

All professions develop a professional ethos within their own distinct culture. A unique element of this project was a bringing together of two professional disciplines that rarely interact. However, it is not just the fact of the interaction that is important, but its intention. Both 'health' and 'sustainability' as issues have the potential to enliven debates about supra-client values. The prefix 'supra-' has the following entry in OED online:

> repr. Latin suprā- = supra adv., adj., and prep. (related to super and ultimately to sub) adv. and prep., above, beyond, in addition (to), before in time, . . .
>
> OED, 2011

A supra-client value for a built environment profession means having a commitment to a principle concern that goes above and beyond a concern of the immediate client. An example of this would be one principle in the code of ethics which existed in the Landscape Institute until the mid-1980s. This stated that the 'environment' was first client of a landscape architect. Members of the profession were obliged by the institute to sign up to a duty of care which went beyond their paymasters, this is what is meant by a supra-client value. Scott (2004, p439) laments a "conspiracy of silence and/or culture of disinterest with regard to ethical issues in higher education" and Peel (2009, p1) brings this discourse to the built environment by making the case for a better articulation of ethics as 'a foundation for research integrity in built environment education'. The 'apparent void' in built environment education of a disciplinary ethical stance (outside the more legally based business and professional ethics) is not at all evident in the public health sphere.

Whereas for a built environment professional a duty towards the public or the environment in general would normally be classed as a supra-client value, for the public health professional both the public and the environment in general is the client. The definition of health in the constitution of the World Health Organization, cited above, is both aspirational and carries a

strong normative stance. A 'state of health' is defined, not only in relation to the absence of disease, but as a state in which we are less likely to succumb to illness, whether through stress, pathogens or accident. This 'state of health' is also sometimes referred to as salutatory health, and through this definition the profession engages with issues beyond the individual, out into society, the local environment and the global environment.

Public health and health promotion professionals seek to improve individual and population health. The key objectives of the public health profession are to:

- improve health and well-being in the population
- prevent disease and minimise its consequences
- prolong value of life
- reduce inequalities in health (Orme at al., 2007)

This, of course contrasts with, and should not be confused with, primary and secondary medical services where the key purpose is to cure illness. Of course both hospitals and GP practices can also serve a public health purpose, in addition to their medical health role, such as giving out information on healthy diets or exercise regimes. Explicit recognition of values is evident within the public health profession both in its practise and in its education. Moreover advocacy, both for, and of those values is also deeply embedded as a professional competency within the Faculty of Public Health and through the skills and career framework (PHRU, 2008).

In architecture three bodies shape the nature of the professional education in the UK; the Quality Assurance Agency for Higher Education, the Architects Registration Board and the Royal Institute of British Architects. In practice currently three separate but closely related documents constitute the guidance to HEIs offering professionally recognised courses in architecture-- the QAA Benchmark (which is relevant to courses in the field which do not lead to professional qualification), the Criteria for Prescription/Validation that are jointly held by the ARB and the RIBA; and the EU Qualifications Directive. The result is guidance on course content with the aim of achieving professional education that meets an overarching EU Qualifications Directive (Council Directive 2005/36/EC). Article 46 of the Directive contains a statement of the skills and knowledge that all professional qualifications in architecture in the EU must deliver. It is concise: 11 points in 291 words. There is little specific guidance on how public health and sustainable development should be covered in the education of architects. However the broad definition of the nature of architecture contained in the 11 points of the directive offers huge opportunity for the evolution of education to take into account emerging knowledge and new priorities. Sustainability is a strong theme running through the profession, though with a main emphasis on environmental aspects and less on the core social principles. This framework directing the architectural profession has allowed educational practices to develop that have wide, divergent, and even conflicting, approaches to values. There is no explicit support for supra-client values but also no barriers to individuals, practices, and HEIs developing their own ethical stance within the profession.

The pilot residency

Approach

The method chosen to bring public health into architectural education was to introduce a public health practitioner to an architecture studio as a residency. This was supported by a Centre for Education in the Built Environment (CEBE) Innovative Projects in Learning and Teaching grant. The approach can be seen as following on from Ellis et al. (2008) who reflected on the experience of bringing together undergraduate students from medicine and planning to explore the concept of Healthy Urban Planning in a real life context of an urban motorway extension. Their study reported a number of unexpected positive outcomes of such collaboration. The conclusion endorsed the value of promoting interprofessional education, both as a way of increasing interest in key challenges now facing society and in order to induce greater academic professional reflection.

As a pilot, the project team were very interested in evaluating the residency to inform future development of public health teaching in the design studios of the department. The team met to reflect on outcomes and steer the direction of the research at critical points in the process.

The project had three distinct phases of activity:

1. Preparation – whereby the students and the public health practitioner started to engage with the subject area, and a baseline survey of students was undertaken to assess their attitudes and knowledge regarding architecture and its relationship to health.
2. Immersion – during which the public health practitioner actively engaged with students, both individually and as a group, through delivering short lectures, group tutorials, and one-to-one support for students.
3. Reflection – characterised by the involvement of a wider team during a one day evaluation workshop, it includes also a post-project student survey, and a number of community engagement activities.

Description of the case study

Preparatory Phase

Before developing their proposals, the students analysed the Stroud site in depth, including undertaking field visits. Using a structured approach, drawn from the book 'Shaping Neighbourhoods' which brings together public health, sustainability and urban design (Barton et al. 2010), students assessed the strengths and weaknesses of the town through its physical form and function, considering issues such as health and well-being, social inclusion and community, movement, economic vitality and environment. They also learnt about health systems through a process of creative systemic enquiry. Coming from architectural mindsets, this process provided some striking and new images that conceptualised heath systems and concepts in ways that were insightful but unfamiliar to the public health practitioner (Figures 2

and 3). Students then developed a master plan for Stroud, and began to plan their individual designs.

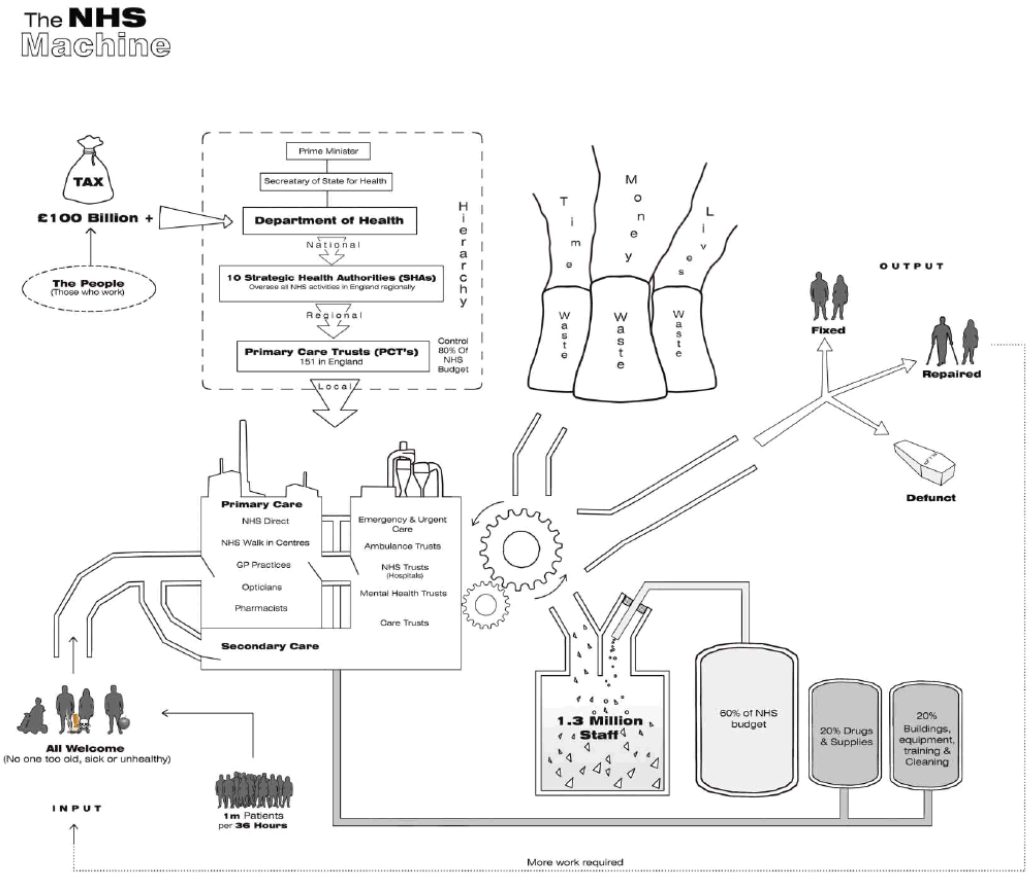


Figure 2: The NHS as machine for curing illness, Luke Young

The students were also asked to read the site in a qualitative manner, as an initial encounter, and to record their first impressions, where often, otherwise unseen elements of truth are embedded. From this analysis emerged a number of strong themes of particular relevance to the chosen site. These were then turned into a set of proposed strategies that the regeneration of the town should follow in order to provide a healthy and sustainable environment for its inhabitants. This strategy was also incorporated into an overall masterplan for regeneration of the area.

A final part of the preparatory phase was the use of the SPECTRUM appraisal tool (Barton and Grant, 2008), which sought to assess the baseline situation, and the possible negative and positive health impacts of the proposed master plan. Detailed criteria were analysed under five broad headings:

• Health and well-being

• Social inclusion and community

• Movement

• Economic vitality
• Environment

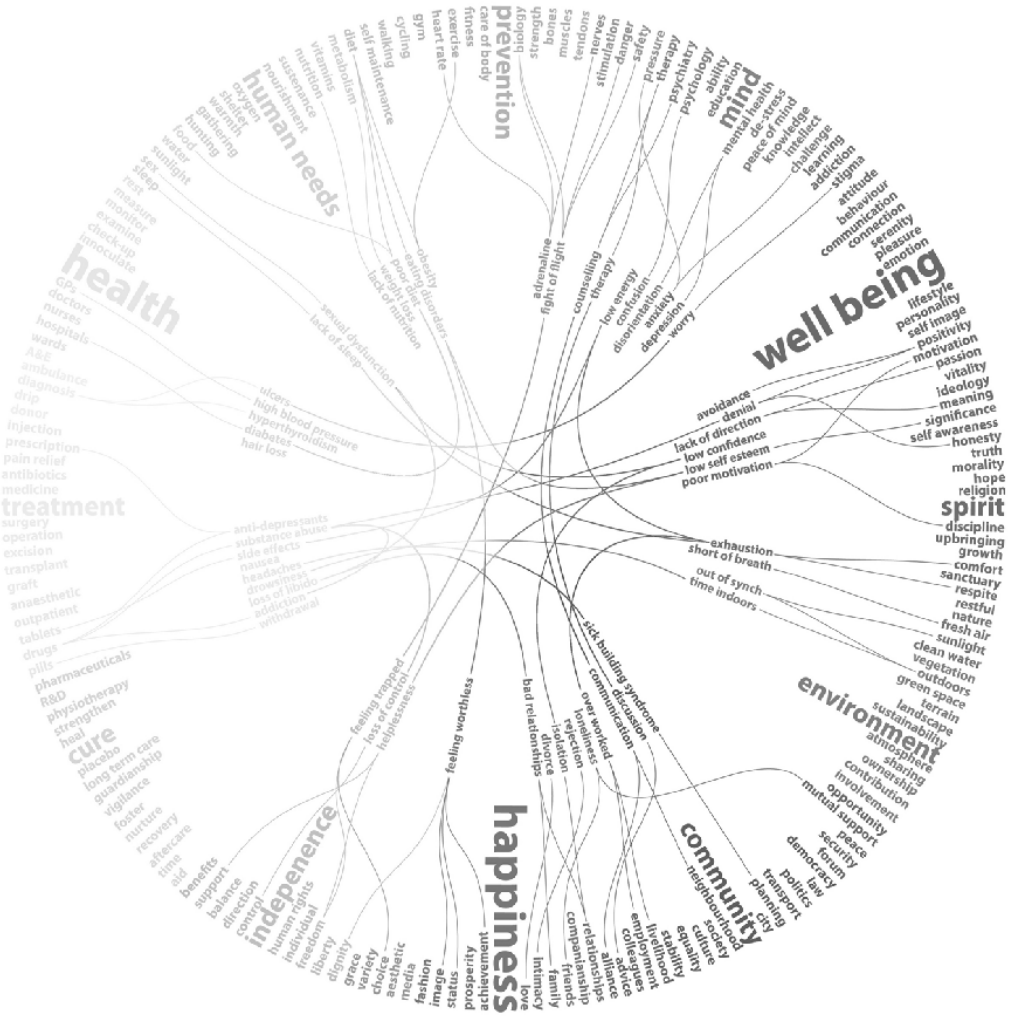


Figure 3: Concepts of Public Health, Charles Wellingham

This allowed the students to appraise the site as it is at this moment in time, and also gave them the opportunity to consider in what way their projects would help the town to become a 'Model of Health'. Such an ambitious aspiration sets up an important dynamic, helping to take the students beyond 'business as usual' (Senge, 1990).

Immersion Phase

This phase signalled the introduction of the public health practitioner in residence into the design studio, to assist students as they began to develop their proposals. The public health practitioner delivered seminars on three selected health topics: the lifecourse approach to health; equity of access to and utilisation of services; and social capital. These topics were

chosen as they are key aspects of current community health and well-being that the project team felt could be influenced by the architectural profession. They are also strong themes in the influential Marmot Review (Marmot, 2010), which acted as a policy focus for this project, due to its call to transform the built environment for public health gain.

The Marmot Review recognises and highlights the importance of addressing health through prevention efforts across the lifecourse. Particular attention is focused on critical life points, such as the early years, parenthood and transition through the education system. Taking a lifecourse approach in architecture includes considering how the form and function of buildings influence particular life points, to identify how positive impact across the lifecourse can be maximised. Students analysed the health baseline of Stroud from a number of viewpoints.

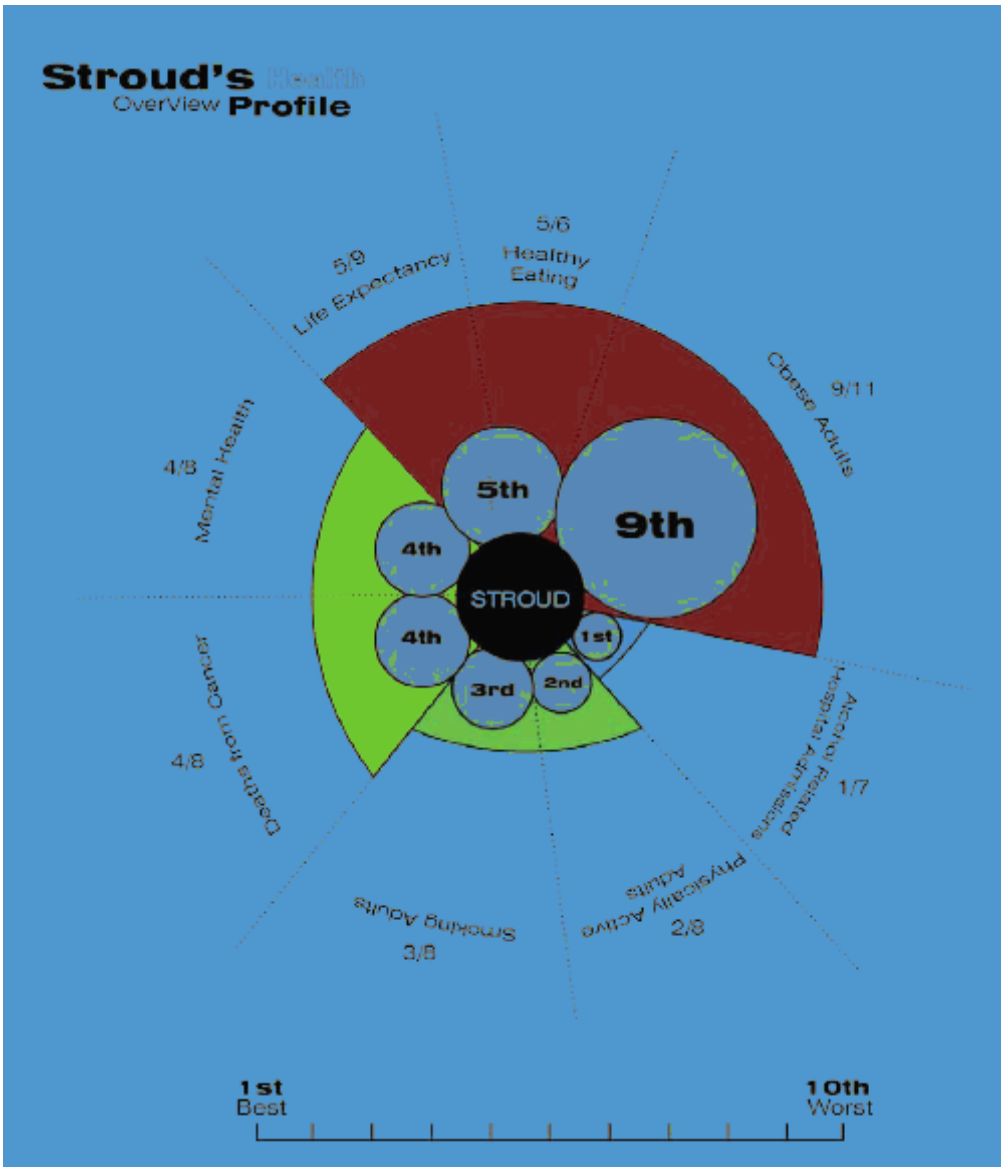


Figure 4: Stroud health profile, Luke Young

The conceptual framework of the Marmot Review seeks to promote equality and health equity in all public policies, of which equity of access to and utilisation of services and amenities is a key aspect. The architects can contribute to this by considering carefully how developments might target hard-to-reach groups, including the design of buildings and the activities taking place within them. The aim is to maximise the health benefits of any proposed development to the advantage of the community, by ensuring that physical, social and cultural accessibility issues are considered. This included issues such as developing social capital, whereby strong community ties and relationships can help to mitigate the impact of other negative health determinants. The architectural students sought to build social capital within and across communities through careful design of buildings to encourage social mixing, and to house activities that sought to bring the community together for shared benefit.



Figure 5: Lifecourse Circus, Rachel MacFadden

As part of this phase of the project, the practitioner prepared a series of reflective questions for the students, setting them challenges to incorporate the three aspects of health into their designs. This aimed to open up students' minds, and empower them to make choices and take decisions based on a holistic view of the complexity of the systems and processes that impact on people's health. This fostered a rarely-shared understanding of common purpose within the two professions of public health and architecture.

Reflection Phase

The public health practitioner concluded their input with a "reflection-on-action" workshop, where the students joined a focus group including members of the project team, and spent a day exploring why the students responded to the project as they did. In doing so, a set of questions and ideas about the projects and themes were explored.

A post-project survey also gathered student views, and assessed any changes in their knowledge and attitudes towards integrating health considerations into their design studio work. Finally, an event in Stroud offered the opportunity for staff and students to report on their work to representatives of the Stroud community.

Findings

The impact of the project has not just been limited to the students, but it has also affected the public health practitioner, research team, the planning and architecture department and stakeholders outside the education system in Stroud. However, formal evaluation data was only collected from the student body and this section focuses on those findings. The impact of the project was measured through pre-input and post-input questionnaires, and the focus group. Twenty-six students out of thirty-four completed the pre-input questionnaire, and twenty-eight students completed the post-input questionnaire. Qualitative comments were subjected to thematic analysis.

Student evaluation

The student participants were asked to rate their agreement to three statements relating to the issue of architecture and wider determinants of health, before and after the input of the Public Health Practitioner in Residence (Table 1).

Table 1: Agreement with statements, pre and post PHP in Residence Input

Statement		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Total
For good architecture, it is important for the architect to have a good grasp of the wider determinants of health	Pre	-	-	1 (4%)	15 (58%)	10 (38%)	26 (100%)
	Post	-	-	-	16 (57%)	12 (43%)	28 (100%)
For my own professional development, it is important for me to have a good grasp of the wider determinants of health	Pre	-	1 (4%)	1 (4%)	15 (58%)	9 (34%)	26 (100%)
	Post	-	-	1 (4%)	17 (60%)	10 (36%)	28 (100%)
I feel able to successfully integrate considerations of the wider determinants of health into my work in the design studio	Pre	-	1 (4%)	8 (31%)	12 (46%)	5 (19%)	26 (100%)
	Post	-	-	-	24 (86%)	4 (14%)	28 (100%)

In both the pre- and post-input surveys, students were most likely to agree with each of the three statements. The high level of agreement in the pre intervention survey may be explained by the fact that students had already chosen to be part of the project, and had worked for one semester on health-related themes before the Health Practitioner in Residence intervention. There was however a noticeable increase in the number of students who *agreed* or *agreed strongly* that they were, *"able to successfully integrate considerations of the wider determinants*

of health into my work in the design studio", rising from 17 (65%) to 28 (100%). This suggests that the intervention achieved its aims. The vast majority of respondents agreed (61%) or strongly agreed (36%) that they were more likely to consider aspects of health when designing developments in their future career as an architect as a result of undertaking this project (Table 2).

Table 2: Agreement with statements, post PHP in Residence Input

Statement	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Total
Through undertaking the Health Unit, I am now more likely to consider aspects of health when designing developments in my future career as an architect.	-	1 (3.6)	-	17 (60.7)	10 (35.7)	28 (100)
In the current economic and political climate, I feel that health is going to become more of a driver for sustainability.	-	-	7 (25.9)	13 (48.1)	7 (25.9)	27 (100)

Students were asked in the pre-input and post-input questionnaires to give their opinion of the three most important health issues for an architect to consider when designing a healthy and sustainable building. In both questionnaires there was a focus on the traditional concerns of architects, namely issues relating to aesthetics, physical indoor environment and materials. However, after the project there was a noticeable increase in students recognising the need for architects to consider the social nature of their development, and its impact on social capital. There was also an increased reference to wider health promoting issues such as encouraging physical activity. This was picked-up in a range of comments about better visibility of staircases in buildings and making use of routes on site, also contextual issues such as links to active travel in the surrounding environment. Such comments were conspicuously absent from the first survey. It was clear that students were now thinking more about the community who would use the building, rather than just the building itself.

The final survey also included a class of comments in relation to the wider determinants of health completely missing from the initial survey, some examples can be found in box1.

Box 1: Examples of students' comments referring to the wider determinants of health after the project.

Question 1: **In your opinion, what are the three most important health issues for an architect to consider when designing a healthy and sustainable building?**

Students were asked this question twice, once before and again after the project (some three months later). Below is a selection of student responses to the after the project when there was a demonstrable acknowledgement of the wider determinants of health, a concern completely missing from the first survey.

'An appreciation of the complexity and far reaching consequences of health'

'An appreciation of how health can be influenced by so many variables and the mechanisms by which it can occur'

'How the building will perform for its inhabitants' lifecourse'

'Create and define strong and definite links to the natural world'

At the end of the project the students were asked if the current economic and political climate would make health more of a driver for sustainability. There were a variety of opinions, but in general there was a feeling that there could be a shifting of values to reflect health as important concept in design. However a number of respondents felt that there was a risk that in harsher economic times, health may be side-lined.

Students reflected in the post project questionnaire about the public health practitioner' input that they found most useful, some specific comments are quoted in box 2.

Box 2: Examples of students' comments referring to specific aspects of the public health practitioner's input.

Question 7: **What input from the Public Health Practitioner in Residence did you find most helpful for supporting your work in the design studio?**

Following the project, students were asked about the value of the public health practitioner's input. Responses ranged across themes dealing with social capital, wider determinants of health, underpinning good design decisions and helping to understand issues of inequalities and exclusion. This selection of responses gives a flavour of a few of those answers.

'*Finding out about the ways inequalities are reinforced throughout a person's lifetime.'*

'The isolated groups that we did not think of before.'

'The idea that health and well-being relates to everything around us. '

'Thinking about how you can influence people's health at different life stages.'

'An advanced understanding of health considerations outside of typical construction and building design'

'Understanding and becoming aware of wider health implications I was unaware of''

In general, students were extremely positive about the experience and had enjoyed being exposed to the ideas and concepts from another discipline. They felt that the input had added to their design project, and they now understood more about the wider determinants of health and the role that they, as architects, could play in promoting health and well-being. Students thought that it would be better if input from the public health practitioner started earlier in the design process.

In the final reflective focus group, it was clear from the students' responses that having a public health practitioner in residence had been invaluable in helping them to focus on the theme at hand. When examining overall experience of the project, they saw public health as a way of unlocking the environmental thinking behind the architectural education they have received. As one student commented, "*Health unlocks how to apply sustainability as architects".*

Discussion

Creating interprofessional learning situations for health can be complex and fraught with difficulties (Lewy, 2010). This innovative project has already been referred to in the joint research councils' publication of innovative research 'Big ideas for the future' (UKRC and UUK 2011 p39). The project sought to create such learning through the context of architectural studio teaching. As a pedagogy, this provided a ready-made creative and reflective context. Reflection-in-action is perceived as a key skill by Schön and defined as the ability of professionals to 'think what they are doing while they are doing it' (Schon 1987).By taking the architects into a completely new professional paradigm, it allowed them a freedom to role play and experiment in new ways – maybe the architect as community level healer or physician.

The main aim of this project has been to help the students to understand better how as architects they can affect the health of individuals, communities and populations, both through the form and function of their designs. Considering health in the design stages of a development can also achieve sustainability outcomes, as well as benefit ting the health of the community. By using a "public health practitioner in residence", the project has:

- Impressed upon architecture students the important role that architects can play in affecting the health of individuals, communities and populations.
- Introduced key public health concepts that should be considered when designing an architectural project.
- Encouraged students to consider how their proposals can be modified so as to maximise the potential benefits for the health of the population.

The students have had their learning experience enhanced through this inter-professional type of learning, as can clearly be seen from their project work. The project teaching staff have also benefited by understanding more about another profession and how to foster effective multi-professional working practices in their teaching. The Department of Planning and Architecture has also strengthened the link between the World Health Organisation Collaborating Centre and its wider teaching staff

The staff and students involved in the project presented the results of this project at a symposium in Stroud. on May 13th 2011 which focussed on strategies for regeneration and renewal. The symposium provided an opportunity to liaise with local organisations. Those at the

symposium saw the student work as a resource for helping influence the kind of future that regeneration projects could help deliver for Stroud and its rural hinterland.

The project has now been exhibited in both Stroud and Bristol as part of a structured programme of dissemination of the findings to the general public and practising architectural professionals, who were as a group targeted, to learn from this approach. By sharing best practice in this way the vision is to facilitate similar approaches in other institutions and at UWE to extend it to other design studios in the department.

Further reflection and next stages

For future work we would consider introducing the public health practitioner in residence at an earlier stage in the teaching unit. As reported, a number of students thought that this would have been helpful. In the example, the introduction of the practitioner (in the middle of the unit) was due to limitations on the amount and timing of the funding. In the future, arrangements could be made to ensure that the practitioner would be present at regular intervals throughout the teaching period.

As noted in the introduction, current public health challenges necessitate the closer working of public health professionals with the wider public health workforce. Training efforts directed at practicing professionals can be effective at bringing together such groups. However, targeting those in still in primary training offers a more fundamental, embedded and wider reaching model for spreading public health skills, knowledge and understanding amongst built environment professions. Although we feel that this project offers a valuable model for such efforts, the work described here represents only a first step in engaging architecture students in public health issues and concepts, and was only made possible through external funding to cover the costs of the public health practitioner.

New ways need to be found in order to ensure the future viability of the public health practitioner in residence approach. An option, which the WHO Collaborating Centre is developing, is to offer the public health practitioner in residence position as a placement for Public Health Specialty Registrars on the Specialist Public Health Training Programme. Such a placement, designed also with a wider package of training about determinants of health in the built environment by the host institution could offer an ideal training opportunity. This could see the public health practitioner in residence model applied to a wider range of students across other disciplines in the department's built environment teaching portfolio such as urban design, transport and planning. The goal would be to cultivate a portfolio of built environment disciplines whose graduates impact on public health throughout their professional lives, for good, and not for ill.

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Tables and figures

Review versions not final production versions

Table 1: Agreement with statements, pre and post PHP in Residence Input
Table 2: Agreement with statements, post PHP in Residence Input

Figure 1: The health map
Figure 2: The NHS as machine for curing illness, Luke Young
Figure 3: Concepts of Public Health, Charles Wellingham
Figure 4: Stroud health profile, Luke Young
Figure 5: Lifecourse Circus, Rachel MacFadden