

RE-THINKING HEALTHCARE IN CITIES

NEIGHBOURHOODS, PUBLIC SPACE, COMMUNITIES AND PRIMARY CARE SERVICE

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DELFT SYMPHONYWAY COMMUNITY DAY CENTRE DU NOON TEMPORARY COMMUNITY HEALTH CENTRE

INTRODUCTION TO PHILLIP ASTLEY

RIBA, Honorary Research Fellow, The Bartlett, University College London, School of Construction and Project Management, Member, Royal Institute of British Architects (RIBA), European Health Property Network, CIB Open, Building Group, Union of International Architects Public Health Group.

Phil is a Chartered Architect (Birmingham) since 1995 and Research Fellow at University College London. In practice he designed and implemented a significant number of projects ranging from mixed-use public and private partnership health, education and housing schemes. He continues to teach post-graduate studies at MARU (Medical Architecture Research Unit) where he was previously MSc Course Director for strategic (Master) planning of large health and residential sites. Within the last 6 years he has been Principal Investigator on 3 major UK Research Council studies: *'Controlling Healthcare Acquired Infection: Design and Management Guidelines'*, *'Technological and Social Models for Later Life'*, *'Planning for Operationally Ready Infrastructure, Emergency and Urgent Care case studies'*. He is joint author for Royal College of Emergency Medicine for the *Health Building Note for new Type 1 Emergency and Urgent Care* design guidance for the UK Department of Health. In 2013 he also delivered a report for the Mayor of London on behalf of London Pathway to propose a new *TB Medical Respite Care* that will provide a range of supporting medical and therapy services for the single homeless and informally housed.

In 2014, with MARU, Phil completed a 6 month Post-Project Evaluation, governance and design report for Great Ormond Street Children's Hospital, a seven-storey surgical and inpatient centre including intensive cardiac, renal and neurological care, theatres and day services. Findings will be published in a paper for the *'Future of Open Building'* conference, ETH Zurich, September 2015

Phil's doctoral studies focus on adaptable design of space and systems in healthcare infrastructure through the application of scenario planning techniques. Phil is also recently a resident of South Africa. He is a supporter of the *African Prisons Project* transforming custodial care environments for prisoners with TB and HIV. In 2014 he presented two papers at the Union of International Architects conference in Durban August 2014 on *Open Emergency and Urgent Care systems* and *Rhizomatic Healthscapes* in collaboration with colleagues at University College Dublin and with Eric Wright, University of Johannesburg Aformal Terrain Studio and BOOM Architects.

LINKS WITH EXISTING FADA INITIATIVES

This project aims to link the UJ_UNIT2 design studio to health issues in Johannesburg neighbourhoods and is linked to two existing FADA initiatives:

The FADA joint community project 'DESIGNING FOR AND WITH LOCAL COMMUNITIES' led by Brenden Gray, Department of Multimedia, FADA

“By working with communities on the doorstep of the University, Fietas and Westbury, we are attempting to demonstrate the important public role of higher education, and specifically the creative disciplines, in taking community engagement and human development seriously within the context of the curriculum. Both areas have significant histories in terms of the effects of Apartheid and the struggle against Apartheid. They reveal the complexities of communities existing in post-Apartheid and post-colonial contexts. The project intends to use culture (arts/design/architecture) to engage with community concerns and in addressing curricula development and integration so community engagement becomes an integral part of the curricula and not an ‘add on’.”

HEAIDS FADA HIV/AIDS project: Curriculum integration led by Vedant Nanackchand, Department of Visual Art, FADA

“...teaching and learning as well as research innovation should contribute to the body of knowledge in relation to the country's HIV and AIDS response... contribute to the personal and professional competencies of graduates to manage HIV and AIDS as it directly and indirectly impacts on their lives, homes, communities and developments... The pedagogies of art and design are intrinsically linked to culture, politics and society in general, to the human condition in particular, as well as the context in which meaning-making in art and design occurs. Art making is informed by the history of art and design practice and the theory of visual culture, with a particular emphasis on explorations of visual identities and role of agency and civic engagement in art.”

The concept of the planned research project:

COMMUNITY-BASED HEALTHCARE: CREATING SHARED LEARNING PLATFORMS BETWEEN UJ AND PROXIMATE COMMUNITIES

This UJ_UNIT2 collaboration with Phil Astley aims to initiate the development of a 5-year healthcare-focused research project – culminating in the implementation of a community/university initiative on healthcare. It will investigate issues of disability, disease and access at neighbourhood and project scale, create joint learning platforms of healthcare, explore the potential for healthcare to be implemented within neighbourhoods and to consider decentralized healthcare facilities as an integral component of mixed use developments and the use of Open Building principles in their design.

AN INTRODUCTION

The 4-day intensive studio will lead the students from strategic level thinking towards their specific sites/context and the possible applications. Phil Astley will present 3 lectures that will support thinking on mixed-use programmes, relational thinking regarding local systems of food production and the links to healthcare, distributed networks of care and respite for TB/HIV etc.

At the end of the week, the students will have deepened their understanding of healthcare infrastructure at an urban, strategic level; the distributed health system, and then at the level of the 'nested' space that allows the widest scope of voices, activity, care, respite as this becomes determined (over time, and allows changes over time). Phil Astley will introduce a number of scenario techniques to be used prior to design in support of different value systems that begin to shape projects. How traditional health systems interface with formal healthcare systems will be discussed and how this understanding relates to neighbourhood development and urban revitalization – especially in contexts of poverty and disadvantage and contexts with complex political histories.

THE BRIEF

Architects consider how patterns and activities shift as urban areas undergo change, at scale, whilst seeking a close relationship between a project programme and spaces through design. Increasingly urban designers are looking at how the micro-level informs the macro system (Mee et al., 2014)(<http://www.massivesmall.com/>," n.d.)(Pieterse, 2013)

In healthcare, technology and clinical interventions through the use of mobile diagnostics, equipment and communications are moving at a faster pace than published building codes and functional concepts (*PHI: Planning Healthcare and Infrastructure: a framework to help Commissioners with resource efficient and sustainable solutions*, n.d.) These can promote standardised responses for health activities, without recourse to limited medical and nursing resource, and constraining value judgments on the capacity of a facility to evolve continuing use of that space in urban "aformal" settlements. Others are taking the post industrial unit and rethinking conventional interventions (*DeNoon, Temporary Community Health Centre, Western cape Department of Health*, n.d.)

In your previous term, you have learnt how System Separation (from Open Building) is presented as a key organising principle to understand a distribution of responsibility (to make complexity in the built environment manageable) and to challenge the obduracy of conventional systems for the adaptive re-use of new spaces for housing and other (mixed) uses for living.

In this project, our purpose is to address healthcare in many ideas of form, detail, legibility, iconography, networks and way finding.

On the sites you have identified for your projects, we ask you to:

- reappraise the vision and use of health services across the neighbourhood and within the space of your chosen site at levels: the distributed network of services, the scope of service, use of remote and mobile diagnostic and communication technologies, working lives, pharmacy supply, social welfare, child support, chronic disease and communicable disease care, communal social support, security (access), security (food), ecological performance, infrastructural resilience, cultural resonance, adaptability to change of use etc.
- present the neighbourhood 'tissue' i.e. the distributed service network, infrastructure grading, etc.
- at the block and base level towards the fit-out of your building, redefine space, understanding how social and clinical networks and activities will make use of that space, and identify that which can also be planned without adapted occupancy and use in mind.

Your studies will propose designs at levels that bring forward a discussion on the re-design of conventional (healthcare) systems by reinterpreting architectural form, space and codes (and the consequential physicality of these) for new, more appropriate adaptive uses for people's health in the 21st century within the context of "aformal" settlement planning.

THE INTENTIONS AND PROCEDURE

Through this 4-day intensive studio, you are required to address the following:

- a) Would primary healthcare services be relevant in this context, or as an integral part of your project brief?
- b) Could healthcare services and healthcare education be delivered in "alternative" ways through integration between existing traditional healthcare, through the design of space and through the use of design tools and technologies?
- c) How may healthcare delivery be considered as an integral component of other community initiatives and how may other programmes (such as local systems of food production or the development of existing traditional healthcare services) be harnessed to enable the sustainable process of healthcare as both prevention and treatment?

This will be done through the following procedure:

Drivers of change: technology healthcare

Task i

You are asked to do some reading on the following topics:

KEY DOCUMENTS:

- Consider diagnostic and point of care laboratory facilities in a primary care clinic in (UN Refugee Agency, 2011). Rapid advances in technology move at a faster pace than architectural design guidance standards. But what if there is no primary care clinic? How might diagnostic facilities be established in a community with little or no established services? What is mobile form of diagnostics and communications, but then what is fixed in the design of future health space?
- Consider '*PHI*' as a tool for planning community level health infrastructure with an emphasis on sustainable design for carbon management planning, published by the UKs *Prince's Foundation for the Built Environment* in London. What does it tell you about the potential future organisation of care at a neighbourhood level? What are the transferrable ideas to a Johannesburg context?
- Aformal concepts and Rhizomatic spaces will be explained in (Mee et al., 2014)

SECONDARY DOCUMENTS:

- You are also asked to consider various themes relevant to South Africa and the South African policy context. Check key documents such as the Bill of Rights, the Constitution, the Employment Equity Act, Promotion of Equality and Prevention of Discrimination Act, The White Paper on an Integrated National Disability Strategy all legislation pertaining specifically to establishing an inclusive environment + Statistics concerning the disabled, the elderly, children and HIV+ people.
- HIV/AIDS in South Africa needs to be seriously considered in healthcare as well as it's impact on other government programmes such as housing and education: "HIV/Aids accentuates the impact of increasing unemployment and declining household incomes. Together with declining household incomes, HIV/Aids means that a large number of households will be unable to invest in housing or, indeed, even view housing expenditure as a priority... Due to the instability of households and individuals affected by HIV/Aids, and their inability to afford adequate shelter of some sort and to pay for municipal services, water and sanitation and waste removal in particular, governments will have to ensure some form of shelter service, as part of a social safety net." (Thomlinson et al., 2003)
- Other interesting documents to consider such as Chapter 6 Healthy places – healthy people (World Health Organisation, n.d.), Chapter 8 Transforming Human Settlements and Chapter 10 Healthcare for all (National Planning Commission, n.d.)

Task ii

Prepare **no more than 2 slides** to summarise your examination of the above material with ideas that might influence the design of your Unit project.

Future technologies: drivers of change

What drives change in a health care system? During the week we will examine the forces that will shape future health services, systems and space.

Prepare a mind map (https://en.wikipedia.org/wiki/Mind_map), **for your own use**, of what you consider to be the current drivers of change for clinical and diagnostic information and communications technologies (ICT) in delivering primary health care services

In planning and design terms, the impact of ICT systems is driving change in two main directions. The first is where future different elements of service might be delivered over the spectrum of care from the patient at large in the community, home to hospital and vice-versa. The second impact is on the organisation, planning and design of the health *space* in the urban social and physical metasystem. What will be new technologies and equipment in the design of clinical connectivity, systems and space influencing new patient processes, communications, information and engagement?

Task iii

The following topics have been selected for you to find out what ICT are and will impact future health service delivery and space:

Choose 1 from below, initial your selection and circulate to the group 9so there are no more than 2 duplicate sheets) and divide the choices between you

1. Managing Electronic patient records across the health community
2. Managing electronic patient information, diagnostics and results in mobile systems
3. Filmless (digital) imaging diagnostic systems in primary care
4. Point of Care Diagnostic, lab developments in primary care
5. Assistive technology....
6. 'Expert' systems, data management
7. Automated communication and transportation, pneumatic tubes, robots
8. Video conferencing / telemedicine/VOT (video organised therapy) , 'store and forward' data systems

1.		
2.		
3.		
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7.		
8.		

Then prepare **one A4 sheet** defining:

- your choice: the technology
- find an image of the technology in use
- summarise a case study of the technology in use, any benefits?
- Constraints? e.g. cultural, technical, economic
- where the future might lead in its use in primary care, communications with the hospital
- a personal appraisal on the potential for impact on the design of health space in the *neighbourhood (at large?)*, *block* (where?), and if relevant, fit-out space use levels

Tuesday 15th September – Introductory lectures and workshop

- 11.35-12.30 **Planning healthcare service and space in a fast developing world:** rhizomatic healthscapes
- 12.30-13.30 Lunch
- 13.30-14.30 **Strategic Spatial Development Plan** - an 'open building' approach to health in the city– Inselspital ('Island Hospital) Bern, Compact City Netherlands, Health Kiosk, Finland, Cambridge Biotechnology
- 14.30-14.45 Break
- 14.45-16.00 **Workshop 1: Scenario Building for Health and Wellbeing Space**, forces of change at a strategic level, planning for health and wellbeing in a formal environments
- 16.00-17.00 individual meetings

Wednesday 16th September

- 09.00-10.00 **Project case studies: Mix-used housing health and skills** – strategic preparation, scenarios, interim transactions, complexity theory, change strategies, resident engagement, spatial relations, technical programme
- 10.00-11.00 User's Pathway on project sites: an exercise
- 11.30-12.15 **Project Transactions - Community Housing and Health Respite Care, Distributed networks, video orientated therapies, respite care:** 'Find and Treat' TB and HIV smart diagnostics with respite housing and care
- 12.15-13.15 Lunch

13.15-14.15 **Responding to climate and culture** – ‘continuous productive urban landscapes’ (CPULS), Cuban Urban Agriculture and community health, South African health facility programme, Western Cape and Limpopo, carbon management

15.00-17.30 individual meetings

Thursday 17th September

09.00-12.30 **Student pre-course work:** discussion and student presentations: future primary health and wellbeing, technology use in health space, future directions, and meaning for health space in urban informal environment (Simon Ngubeni Zurich feedback)

12.30-13.30 Lunch

13.30-15.30 **Workshop 2:** Relational planning for the student site, development from Workshop 1 in groups students begin to tackle the implications for health space at neighbourhood/site context and implications for the processes, organization and structure for their projects

15.30-17.30 prepare Pecha Kucha and individual meetings

Friday 18th September

09.00-11.00 **MTECH2 meetings**

12.00-15.00 **Student Pecha Kucha session:** each student prepare slides for their sites, responses to the week, strategic forces for change and site context, future directions. Each student check: future direction and programme for the term

OUTCOMES – APPLICATIONS OF CONCEPTS WITHIN YOUR SELECTED CONTEXT/SITE

- a) Pre-course reading/tasks
- b) A mindmap
- c) Technology sheets
- d) An analysis of project site with a “healthcare” focus (reappraise the vision and use of health services across the neighbourhood and within the space of your chosen site at levels + the neighbourhood tissue models + presenting social and clinical networks)
- e) A Pecha Kucha presentation outlining the themes emerging
- f) A blog entry on your analysis of what has been delivered over the 4 days, your interpretation, possible project applications and a way forward to incorporate healthcare as a component of your final thesis project

ASSESSMENT

Your submissions will be assessed based on the following criteria:

To what extent have you understood the intentions of the 4-day intensive on healthcare and cities and how have you been able to demonstrate this understanding through articulating this understanding through:

- d) The presentation of your site analysis with a view towards identifying healthcare issues that emerge at neighbourhood, block/site level and (if relevant) at the infill level.
- e) What kind of healthcare services would be relevant in this context and how are you able to explain the relationship of healthcare and “healthy” city places

References

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