KIDS CONSTRUCT

"KIDS & YOUTH PARTICIPATION IN CONSTRUCTION"

Report by JILLIAN HOPKINS
B ARCHITECTURE NSW #8761
Byera Hadley Travelling Scholarship 14 / 15

Thank you to the NSW Architects Registration Board for awarding me the Byera Hadley Travelling Scholarship and enabling me to explore such an inspiring array of projects throughout the USA.

My gratitude also extends to all the many founders, teachers, volunteers, staff and tireless youth workers who continue to give back to their communities and empower young people. Thanks for sharing your stories and your projects with me!

- JILLIAN HOPKINS, February 2018

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EXECUTIVE SUMMARY

This report outlines my process and findings for the Byera Hadley Travelling Scholarship undertaken from February – July 2015, where I visited and volunteered on various projects throughout the United States where children and youth were wielding power tools, building structures, tinkering and constructing. The premise of my research was that **1) kids and youth are capable and willing to engage in the projects that affect them and 2) construction is an untapped opportunity for community engagement in the public realm.** As my research developed, I found that youth engagement is a valued and emerging movement in the USA with many applications for Australia.

The research was focussed in the USA, with an aim of exploring risk and responsibility, as well as practice and entrepreneurial models that incorporate community participation. While I had anticipated key projects in the USA, I was surprised by the broad typologies and methodologies that emerged for children ranging from 5 to 25,: design build programs, maker spaces, embedded school programs, after school and summer camps and apprenticeships. Highlights included the ramshackle and joyful fort-buildings at Berkeley Summer Marina Playground, Project H's tiny house constructions and the remarkably sophisticated public buildings constructed by the Rural Studio in Alabama. I observed that the projects that had longevity of program, or engaged participants over a number of years, were generally more successful long term. It was also evident that risk, while present, is manageable through consistent training and supervision.

In addition to construction-based programs, I also visited a range of alternative schools, playgrounds, children's museums and community consultation programs, to gain a better understanding of current thinking around creative education for kids. I was privileged to speak to Harvard Project Zero about the maker movement and agency by design, while the Exploratorium and Children's Creativity Museums in San Francisco demonstrated strong philosophies about experimental, hands-on play. At the Cedarsong Nature School in Seattle, I experienced free play and nature play, while the Blue School in New York embodied the Reggio Emilia philosophies of exploration and immersion. In all cases, these children and youth programs expressed confidence in young people's ability to engage in the physical environment and to manage the risks associated with experimental learning.

My research methodology to visit, interview and even volunteer with different programs was helpful to gain insight and detail into the various programs. For example, at Berkeley Adventure Playground I was able to help local kids to build a rocket ship from salvaged material, and then add to it even more the following weekend. After three weeks at Rural Studio, I felt I had gained a genuine understanding of the project processes and had some enlightening conversations with students and staff. The women's welding course at Project H gave me a chance to chat with instructors, and also mothers of some of the girls camp participants. This longer engagement with different programs, also meant that I was entrusted to meet and chat with the youth participants – which was not often possible for shorter visits.

Since returning to Australia, I have presented my research at the Sydney Architecture Festival, at City of Sydney Council and to various community design programs in Melbourne. I am confident that the ideas developed are relevant in an Australian context, with applications in civic projects, school design and technology classes, TAFE apprenticeships. This report includes reflections on the various projects visited, a summary of key findings and recommendations for the future.

RECIPIENT BACKGROUND & MOTIVATION

This scholarship explores the premise, that children and young people have a right to engage with and shape the physical environments that affect them. In Australia, children and young people are increasingly becoming the centre of debates around creativity, education and active citizenship. In 2015 the state government established the NSW Advocate for Children and Young People, to explore issues impacting young people in this state, the first appointment of its kind in Australia. The education sector continues to explore creative thinking through 'STEAM' led curriculums, while the Stephanie Alexander's Kitchen Garden program demonstrated that physical hands-on experiences improve health, confidence and capability in primary schools. Even the Sydney Architecture Festival regularly teams up with Archi-kids and other creative groups to promote making projects with young people. At the outset, this research supposed that design build and construction is one way to empower and engage young people – both as creative individuals and as active participants in place making.

The proposal was inspired by my own experience working with children on overseas community development projects, where local kids (often neighbours to the site in question) were highly motivated to get involved in painting, mosaics, working bees and other creative activities associated with building a school. The physical engagement led to genuine personal relationships with local kids and their families, and a profound sense of community ownership of the project. While these projects were relatively ad-hoc, research for this scholarship revealed that kids constructing, building and making is a growing movement and is particularly prevalent in the United States. Kids and youth are wielding power tools through school programs, after school and summer camps, museum workshops and through university design build programs.

This research aimed to visit a range of projects across the United States to discover how they operated, managed logistics, costs, safety and risk, and the perceived impacts on the students involved. It became apparent that there is an emerging trend in education for children and youth to be engaged in physical construction as an act of empowerment, confidence building and creativity.

As I travelled throughout the United States, visiting projects, meeting professionals and exploring new places, I was regularly asked "so what are you doing here?" It's interesting to reflect on my own motivations, to unpack my background and bias to understand why this research is interesting to me. My childhood involved backyard hideouts, home-made dolls houses and house plans raked out with leaves in our family garden. At high school, I made a bird seed art installation in the school quadrangle, delighting in its public deconstruction by playground pigeons. In my first year of architecture school, I co-organised a competition for students to build fantastic chairs out of recycled materials. In our final year, I built an oversized and demountable model of a bird watching tower that almost didn't fit in the car, even in all its constituent parts. And every year, when the surveys came around, I would write 'When are we going to build something?' But this was an era of university self-insurance and risk aversion, and I had to make my own building adventures.

As a design manager at City of Sydney Council, I revelled in exploring construction sites around the city and engaging in public consultation and design advocacy. A few years later, I donned hiking boots and went walkabout through the Middle East, Europe, Mexico, and finally found myself in Livingston, Guatemala volunteering in a children's library, teaching garbage art, craft, puppet making and all manner of creativity to a rowdy and expressive collection of Carribean kids. This led me to India in 2010, building two preschools for Architects Without Frontiers in the slums of Ahmedabad, revelling in the dirt and dust and incredible salvaged stone, brick, and other materials. The local kids would clamber on our bamboo scaffolds and run curiously through our foundations, so I became a teacher again, singing, bringing drawing materials for them, making murals, a garden, and eventually painting, mosaics, stone cutting and other more difficult tasks. We found that by the project's completion, there were so many families at the opening that they couldn't fit into our tiny building - clearly our strategy had engaged the local imagination!

“That which builds is better than that which is built.” - RALPH WALDO EMERSON

I became a registered architect, I taught design and environment at university, and worked in a number of offices, but my passion is always ignited in the field, in the dust and change of construction. In 2014 I went to Malawi, to supervise the construction of a vocational training school made in hand-made mud brick. Although the project was more formal, and the site more remote, I was proud of my commitment to the 6 student beneficiaries who joined our construction team, with three young men going on to carpentry, building and electrical apprenticeships. In Malawi, a trade is a much coveted financial security for a whole family, but it was also evident that as the project unfolded, these trainees became immersed and engaged with the whole process of design and construction.

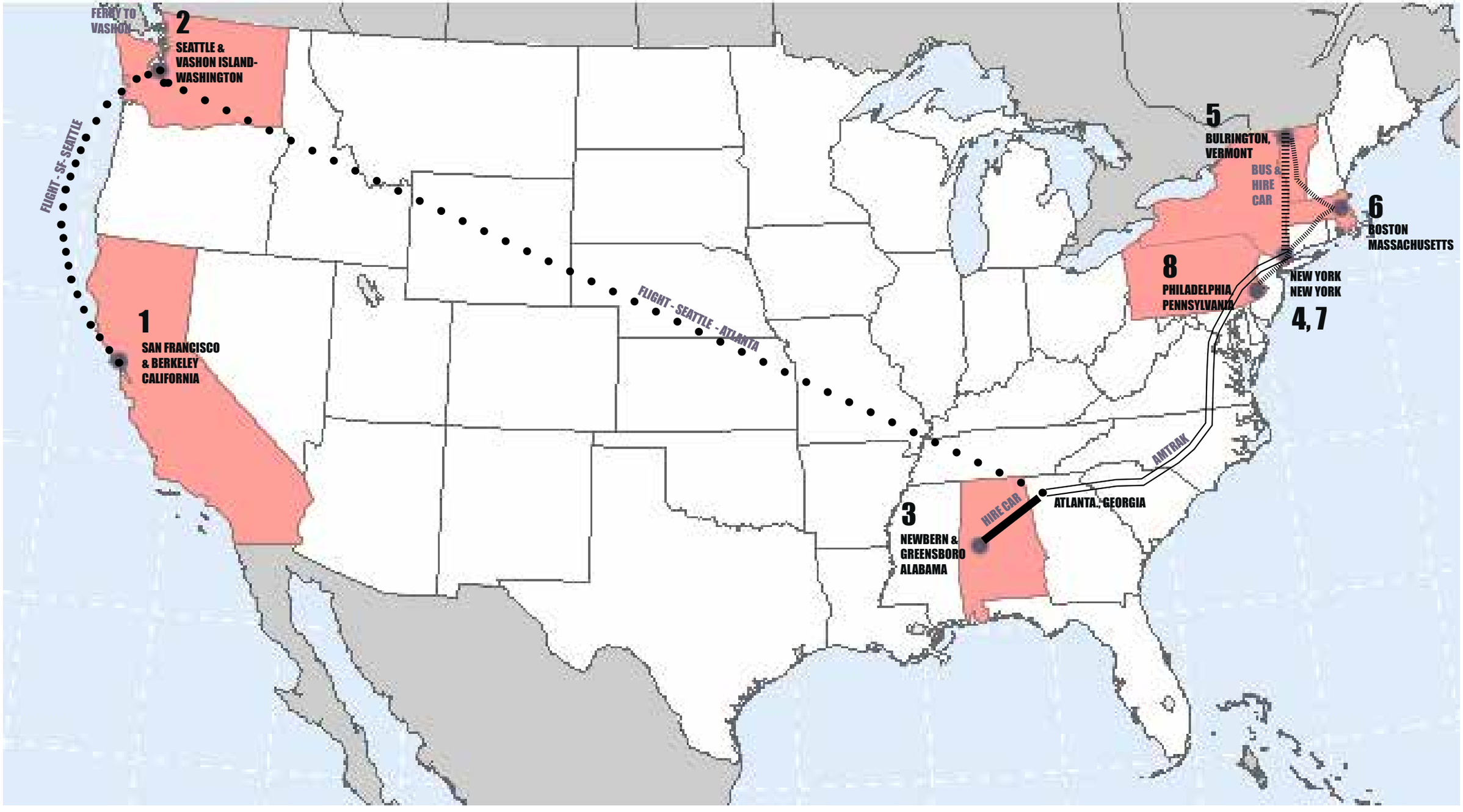
Despite being trained as an architect, I've found myself again and again engaging with children and young people in creative and hands-on activities. In Guatemala the children were 3 - 15, in India 10 and older, in Malawi high schoolers and young adults. Although age influences many things, enthusiasm, creativity and capability to undertake moderate risks were evident throughout. In the development setting, so much is informal, that I have since wondered about the ethics of these impromptu building sites, with risks and crowd control often managed by instinct. I'm left asking, what more could we have done?

The Byera Hadley Travelling Scholarship granted me an opportunity to explore these possibilities. I chose to visit projects in the USA, largely because of the evident similarities with Australia, but the much wider scope of available kids related projects. Within the first week of travel I found that youth building projects are wide-spread and that after school and summer camps are a common (and profitable) venue for these creations. The pedagogy of children's creativity comes through maker-centred learning and the teachers supervising these creative experiments and tool making were inspiring. As I travelled I found myself drawn to the projects that are more messy, hands-on, evolutionary where experimentation becomes a core skill and iamgination the limit.

TRAVEL DETAILS

TIMELINE

FEBRUARY 2015	SAN FRANCISCO	PROJECT H: REALM CHARTER SCHOOL, BERKELEY
	BERKELEY & OAKLAND	BERKELEY SUMMER MARINA PLAYGROUND
		TINKERING SCHOOL: SAN FRANCISCO
		EXPLORATORIUM MUSEUM
		INDUSTRIAL AREAS FOUNDATION: OAKLAND, CA
		MISSION DOLORES PLAYGROUND: SAN FRANCISCO
MARCH 2015	SEATTLE	NEIGHBOURHOOD DESIGN BUILD: U WASHINGTON
	VASHON ISLAND	SAWHORSE REVOLUTION: SEATTLE
		CEDARSONG NATURE SCHOOL: SEATTLE
APRIL 2015	ALABAMA	RURAL STUDIO: ALABAMA
		HERO: ALABAMA
	VERMONT	YESTERMORROW DESIGN / BUILD PROGRAM
MAY 2015	NEW YORK	BLUE SCHOOL NYC
	BOSTON	CONSTRUCTION KIDS: BROOKLYN
		ARTIST'S ASYLUM: BOSTON
		BEAM WORKSHOP: BOSTON
		BOSTON CHILDREN'S MUSEUM
		HARVARD PROJECT ZERO: AGENCY BY DESIGN
JULY 2015	PHILADELPHIA	COMMUNITY DESIGN COLLABORATIVE
		PUBLIC WORKSHOP: PHILADELPHIA
FEBRUARY 2016	MELBOURNE	CO-DESIGN: MELBOURNE, AUSTRALIA
		COLLINGWOOD COLLEGE 3-4 CLASS: MELBOURNE
NOW	SYDNEY	SYDNEY ARCHITECTURE FESTIVAL
		UTS MASTERS OF ARCHITECTURE SOCIAL STUDIO



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PROJECT H DESIGN

Youth Art Exchange

SAWHORSE REVOLUTION

exploratorium

brightworks

CEDARSONG NATURE SCHOOL

RURAL STUDIO

CENTER FOR ARCHITECTURE

blue school

BROOKLYN CHILDREN'S MUSEUM

PUBLIC WORKSHOP

8

COMMUNITY DESIGN COLLABORATIVE

CONSTRUCTION KIDS

BEAM CENTER

6

YESTERMORROW DESIGN/BUILD SCHOOL

Artisan's ASYLUM

BOSTON CHILDREN'S MUSEUM

1

COSTS

INT'L AIR FARES	Sydney - LAX - Sydney	$1800.74	**$2,772.58**
	US Visas	$18.34	
	Travel Insurance (World Nomads)	$878.50	
	Pre-departure Medical check	$75.00	
DOMESTIC TRAVEL	San Francisco - Seattle - Atlanta	$745.60	**$4,609.26**
AIR	Philadelphia - LAX	$606.45	
RAIL	Amtrak - LAX - San Francisco	$179.63	
	Amtrak - Atlanta - Richmond - Boston	$210.57	
HIRE CAR	Hire Car - Atlanta, Georgia	$2406.31	
	Hire Car - Burlington, Vermont	$260.43	
BUS	Bus - Boston to Burlington (return)	$72.26	
	Bus - Boston to New York	$48.80	
	Amtrak - New York to Philadelphia	$79.21	
COURSE FEES	Project H Women's Welding Course	$306.08	**$2,249.59**
	Cedarsong Nature School Teacher Training	$1329.77	
	Yestermorrow Women & Powertools	$613.74	
MUSEUM ENTRY	Exploratorium, Academy of Science, Brooklyn Children's Museum, MoMA Boston Children's Musuem , LACMA etc	$247.46	**$247.46**
ACCOMMODATION	Berkeley	$1840	**$7,258.58**
	Seattle & Vashon Island	$1136	
	Atlanta & Greensboro	$1108.31	
	New York & Boston	$1296	
	Burlington	$368.27	
	Philadelphia	$1359	
	LA	$151	
TOTAL	** Daily expenses & food covered by BHTS scholar*		**$17, 137.47**
	** Receipts available on request*		**AUD**

PROJECTS IN DETAIL

SAN FRANCISCO
+ BERKELEY

19.2.15

PROJECT H: BERKELEY

REALM CHARTER)(MIDDLE) SCHOOL)

Be productive. Be respectful. A sign splayed affront Project H's tiny workshop at Realm Charter School. The floors are polished concrete, the classroom is metal, light timber and lime green accents. The impression is clean, fresh, designed.

There is something enticing about the space, though small, and Hallie Chen, the middle school teacher, seems competent and even brisk but kind and helpful. Within 5 minutes she had given me an overview of Project H and emailed 5 other projects to visit in the states. In the 7th grade class I observed she shared personal anecdotes, offered assistance to struggling students and had a private chat with one boy who was failing, encouraging him but with respect and kindness.

The seventh graders were making model houses with card and 'exacto' knives. Their progress was painstaking with only a few lines cut per class. Hallie says this is the main challenge - as their program adapted from their North Carolina origins, the number of students has increased dramatically, the class time is reduced and materials are more costly - she says it is a balance between exposure and quality.

This sentiment was echoed by Founder Emily Pilloton when I met with her later. She seemed to take the project's growth in her stride but also confessed that 'I feel like I'm still figuring it out' - which is no doubt a mantra for a pioneer. She is evidently busy, juggling our chat between meeting a visiting film crew, presenting a quick promo at the parents' tour and picking up steel for our weekend welding workshop. I wondered if she ever had time to take stock or was always 'moving forward'. She described the soul of Project H to 'use design and building for young people to see their future and have a fingerprint on their community'. She said with obvious pride that 50% of her Carolina students went on to college - the first generation to do so, with many of these studying engineering. Surely their experience in 'shop' class contributed to this.

The relationship with Realm charter school is positive and symbiotic. When talking with new parents, the principal was quick to mention the school's 'project based learning' approach with Project H at the heart of their philosophy and (arguably) campaign. The students even built elegant curved library shelving for the school. For Project H, realm offers two paid teaching positions, workshops and the third floor office space, as well as a secure supportive platform in which to work. With this comes trade offs like increased student

numbers, but Emily affirmed that Project H still have autonomy of management, projects and curriculum.

Although the teachers are paid, Emily also fundraises throughout the year, with grants coming from the National Arts Endowment, Adobe Foundation (now defunct) and a matching grant by a private benefactor. Materials are often donated, and corporate sponsors like Quikcrete and Milwauki are invaluable. The girls summer camp was also conceived as a fundraiser. With annual overheads of $100,000usd and extensive insurance costs, the management of this income is an essential aspect of Emily's work, though shrouded in uncertainty. 'We could be bankrupt next year' she muses, shrugs and carries on.

Student safety is a real consideration, and Emily notes that over the years 5 or 6 kids have been kicked out of the class for bad behaviour, often when this has frightened other kids or made the workshop unsafe. The large class sizes are also a concern for supervision though the older kids are credited with focus and skill to remain safe and 'on task' without much help. Emily considered that the older students (currently building two tiny houses) need the arc of the school year to process the many trade skills and challenges, while younger students thrive in the intensive 9week sector allocated to them, suggesting that consideration of age and capacity is necessary.

Overall I was impressed with Project H - competence, drive and creativity abounds, and it is not hard to see why the school principal is so proud in his assertions to new parents. In particular, both Emily and Hallie were impressive women - teaching construction with style in a field that is traditionally a male domain. I wondered how each of them had come by this passion for the hands-on and who their own teachers had been. .

21.2.15

PROJECT H: BERKELEY

WOMEN WELDING & WINE WORKSHOP

Their reasons for coming to a welding class were varied. Some were architects, friends of the founder, curious about wielding a welding torch and making metal creations. One was a mother of former Camp H girls who was envious of all the fun activities her daughters had done, eager to learn herself. There was a language teacher whose husband worked at the school, Emily's former maths teacher (who came armed with home-baked cookies), and a pair of sisters on a birthday treat. Other par takers were a film crew of 3 moustachioed New Yorkers, the founder's friendly sister Molly and 2 eleven year old girls, expert welders and overall helpers.

Apart from the film crew, we were all women and there was a sense of determination and no nonsense (despite silly intros) amongst us. We launched straight into welding types, tools and techniques. Rebecca, the head instructor was confident and clear. Dangers were acknowledged and made light of - we had protective gear - so nothing to worry about.

Today we would focus on 'metal inert gas welding (MIG) ideal for mild steel and flat surfaces. Project H have two welding machines, and unlike the old sparky contraptions I had used in Malawi, these were new and clean and neat. The gas is embedded in a self-feeding wire coil so no cumbersome welding bars required. Unfortunately our team's unit regularly sparked out, much to the frustration of the program organiser - there was much wick trimming and resetting before the higher temperature solved it.

Triangulated book ends, pencil holder and self-engraved rulers were offered as projects. The steel had been pre-cut to save time, leaving us to clean, engrave, tack weld and weld our finds. The handheld battery powered engravers were delightfully easy to use - like a mildly electrified ballpoint. It was noticeably easier to engrave by hand rather than with a ruler guide which became engraved accidentally. A few creative souls rejected the ruler completely and went into spiral and floral patterns.

The program coordinator, Rebecca, had worked in construction and project management. She did art based welding at a local collective foundry called 'the crucible' responsible for many 'burning man' festival structures. She held up heavily band-aided fingers as a 'trade-off' in the hands-on job she had chosen, which I noticed was quite different to most female architects.

The founder's sister Molly had taught the middle school class the previous year, and she was capable and attentive. She told us that she and her sister had always made things together as kids. We talked about girls-only classes as a supportive environment devoid of flirtation or bravado. Molly studied Public Health and now works in policy direction at a nearby public school - just a sideways shift from her architect sister?

I asked Teah, our student guide, to show me her after-school camp project, which included her own designed 'pentagram' dog house which could be inverted to make a day bed. She showed me the student cardboard experiments and her own plan/section/elevation sketches, while skating around casually in her roller sneakers. There were larger scale dog houses (life size) painted in gray and fluro green, that their class had helped to frame and touch up the paint. When I asked her what the class would be like with boys in it, she said 'noisy' with a smile. She seemed ambivalent whether the class had boys or not, but given that this is her second or third camp, something is working. It was clear that both girls felt at home in the workshop and knew what to do.

Overall I was impressed with the program - in a tight schedule we all had hands on practise, we produced a product, and had creative scope in our engraving. I noticed in both our project and the dog houses that the design was pre-decided - this saves time and ensures quality outcomes, although I wondered if opportunities for student creativity were lost. Is it a class for technical skill or design? It became the former, with the latter presumably absorbed in the process. Having said that, my new bookends are elegant and functional and I made them all myself!

22.2.15

SUMMER MARINA: BERKELEY

ADVENTURE PLAYGROUND

Today I volunteered at Berkeley Summer Marina Adventure Playground - its not an adventure playground as we know it! Yes there is a flying fox (called a 'zip line') and climbing gyms and all manner of forts and towers, even a boat, but this playground is designed and built by kids! It started in the 70's on an old landfill site, and runs off donations of old wood, doors, tires, plywood, even old slippery dips from other playgrounds. At first glance it seems like a mish mash of old and weirdly painted timbers, but closer inspection reveals a whole ecosystem of beautiful evolutionary structures! The premise is that kids should be left to their own devices and they will deliver brilliance.

The rule is to get a hammer or saw, a child has to turn in 10 nails, 5 splinters of wood or 1 'Mr. Dangerous' (aka loose timber with exposed nails). Some of the structures the kids had evolved included a musical instrument tower (including an old piano interior, tin drums and other metal engine parts for playing), an amazing winding fort with high level bridges and even hammocks (made from firemen's hoses) and a series of slides running off a tower clad with a windsurfing sail fluttering in the breeze.

Some kids come just to play, ride the zip line, or roll down a slope in a barrel (!!), but there is plenty of painting, interior decorating and plain building going on. I saw 3 kids turn a surf board into a walking platform supported by tires, and boys adding nobs and buttons to an upper level of a fort. There was lots of testing, consultation and readjustments - all without the aid of a grown up. What was most interesting was one of the long term staff telling me how the kids use the spaces, for example opening walls so they can

climb through or closing them up to make a cosy nook, leaving platforms where they can leap to the ground, laying down carpet / stringing hammocks / even nailing on curtains to make a place their own. There was definitely a sense of child's scale and places where adults couldn't even fit were quite popular! Apparently one kid tried to connect 4 forts together with Jetson style walkways at one point! Everything is allowed (though not everything stays up).

With the encouragement of staff, I helped transform an unadorned metal geodesic dome into a flying spaceship (see pic attached). It was fascinating to see that once I'd started curious kids would join in - they'd make suggestions like 'let's put the stairs here' or 'can we use that steering wheel for something?' or 'we found this tire, where can we put it?'. Kids were giving me suggestions about how to nail things, or where to put supports, while others started running off to find ropes and tires and other materials. One little girl started painting the stair ladder while I was nailing it together! I had a 7 year old confidently wielding a saw, and his older brother wanted to bring his home electrical kit to make the red lights flash on the front of our vehicle. The tire turned out to be really heavy and it was interesting to see how a few kids got involved to wheel it over and eventually lift it up onto the top of the dome. Other kids just came over to play on the 'new fort'. They really weren't worried that it wasn't quite finished or was a little dangerous (I think that was part of the appeal).

There were a lot of parents around - some where relaxed, others heavily involved, some hovering - but generally it was a pretty free and fun place - and the structures were just awesome and fun! So I am considering moving to Berkeley just so I can work here.... who knew that people could play for a living?!

23.2.15

MISSION DOLORES: BERKELEY

HELEN DILLER DISTRICT PLAYGROUND

I had visited Mission Dolores playground 3 years ago with my little niece. It had seemed new vibrant and adventurous and colourful. We had both been enamoured with the climbing nets, musical instruments and long long long slippery slides. The playground seemed innovative, despite it's slightly incongruous location in the heart of Castro, the gay capital of San Francisco.

My second visit was a Monday mid afternoon. Perhaps it was the time of day, or the passage of three years or the gleeful memory of Berkeley adventure playground, but on a second visit Mission Dolores seemed quiet, vacant and even tired. Retaining walls were tagged, one garden bed denuded and uprooted, and the magical musical chimes gas been vandalised beyond recognition. This combined with nearby construction works and the local homeless residents to give this park a sense of dereliction even though much if it was in tact. Imprinted concrete walls, timber inlaid benches and terrazzo climbing sculptures were all elegant additions to the space - necessitated by longevity, immobility, permanence - quite distinctive to the flexible and sometimes even rickety creations of the much grungier adventure playground.

In chatting to a local resident, it seems this park is still popular and busy on weekends and presumably mornings. As school was let out I could also see young teens flocking towards the big central slide and walkway. What I didn't see was creative play. The swings were used for swinging and the slides for sliding. Children stayed with their parent or sibling. Where was the interaction, the imagination, the mobility that had characterised the Adventure playground?

Of course there are lessons to learn from Mission Dolores about fluidity of games, levels of difficulty, scale suitable for all age play, height (through the central tower, long slide and wind sculpture), interwoven materials like concrete, timber and steel. The location too is a curiosity - set amidst a park as diverse as the city - where homeless men, teens, young families, gay couples, kids and miniature dogs all intermingle. The playground is sunken - calling for surveillance, and yet screened with big palms and shrubs.

As the observer, it's clear that I have changed since my last visit and I was overall less impressed than before. Perhaps a playground is best viewed with a three year old niece who can show how it's really enjoyed?

25.2.15

PROJECT H: BERKELEY

MIDDLE & HIGH SCHOOL CLASSROOMS

Shop class was only one part of the teenager's complicated day. One girl was escorted to her year 8 class by an evidently older boyfriend, and she seemed somehow embarrassed or reclusive for the remainder if the class. Another kid, wearing loose patterned pants and angular glasses, arrived late and proceeded to kick another student out of her chair and call out throughout the lesson. Another boy in the back row spent the lesson bemoaning his boredom (while strangely still engaging). One class had the resident 'nerds', who carried on conversations about nuclear fusion, genetic testing and video games, and seemed reluctant to pick up the hammer. At the high school, students clearly liked their teacher, Mr Thomas, but were also slow and lethargic in completing simple tasks - for example fourth period were asked to pick up their sketch book, a pair of gloves and a piece of palette wood and move back into the classroom. The result was chatting, someone eating their lunch, repeat questions like 'what are we doing?' As an outsider, tasks seemed clear and straightforward, but attention levels of students were slow.

The girls in General were interesting to observe - they would often be the most attentive and even helpful (especially the senior class). A few complained if 'not feeling well', another shrieked about a mosquito and another was dressed in her stylish best - which meant she wouldn't participate in any dirty work. Despite this, it was three females who cut the day's wood with the so-called 'Chop saw' and who helped square up the tiny house frames.

I wondered if language was an issue at all. The classes were extremely multicultural with Hispanic predominating - every class had about two kids who seemed to be genuinely at a loss as to what was going on, sometimes talking to friends in Spanish, but sometimes just silent.

In both cases, the teachers Ms Nini (Hallie) and Mr Thomas, were calm, kind and methodical. I could see that Hallie felt frustrated by the constant interruptions from her students, but she never lost her cool and later said to me 'I'm glad the kids were excited about the content, though sometimes they couldn't contain their reactions'. In both schools, teachers used slide shows, pictures and videos to explain content. Thomas apologised for the 'straight white guys' telling students how to build - it was obviously a running joke that there were insufficient Spanish or African American reference tools.


DANGER
CONSTRUCTION AREA
KEEP OUT

3.3.15

EXPLORATORIUM: SAN FRANCISCO

CHAT WITH ARCHITECT ERIC DIMMOND

Today was full of fascinating jobs. I met with Eric Dimmond, the architect for the People and Spaces team at the Exploratorium. The $30million a year museum has moved in the last 2 years from its original site in Presidio Park to the superbly renovated piers 17 & 19, costing $150million and all raised through private donations.

The Exploratorium museum is a fine example of hands-on learning. Some of the impressive exhibits include a tornado cylinder, sound room, giant wave machines, optical illusions, competitive game theory, animation and their own 'tinkering shop' for making robots and machines. On the day of my visit, there were school excursions from a range of age groups throughout the museum – and its evidently a haven for curious young people. There is a museum workshop in the centre of the wharf, visible throughout – the drilling, making and experimenting of the workshop staff creates an engaging 'myth-busters' quality in the space.

Located in the second pier, is Eric Dimmond's team at the People and Spaces division are devoted to bringing Science outside the museum wall into the community. One of their first projects at the new pier are the various tide, salinity and water condition calibrators and art installations submerged or hanging over the bay water between the two piers. Signage is really secondary, as each installation encourages intuitive interpretation for example swatches of water colour demonstrate changing salinity levels.

The Spaces team have an incredible pier-sized workshop running the length of their studio, where they evidently make exhibit scale pieces, including the two parklet caravans parked outside. There is a second shop inside the museum, which focuses on welding, experiments and repairs of the exhibits. Outside the workshop, adjacent to the public footpath, are two portable 'parklet' projects developed in consultation with disadvantaged youth from the Mission district of San Francisco. The first project is a skateboard caravan, constructed almost entirely out of used skateboards and covered in graffiti. The trailer is designed to set up at music festivals and other public events, and includes a range of physics experiments using the principles of skating – balance, resistance, gravity etc.

The second parklet is a more elaborate design using curving pieces of laminated timber to display an exhibition of rain and climate data. The roving parklet was designed over a two-year period with youth from a Mission district high school – starting with around 12 participants, and finishing with 6 really committed individuals. The project involved design and prototyping of the project in collaboration with the exhibition team. The final product was ultimately constructed by staff in the Exploratorium workshop – as it's a public exhibit this was deemed safer than a design build project. Eric mentioned that the team had opted to work with a few nominated students rather than attempting a voluntary program to ensure high quality and also maximum impact to the individuals. This tallies with my own experience in Malawi, that focussing on training a few apprentices had a longer term benefit than less intensive forms of engagement.

I assumed that these two projects would be the first of many footpath museums – in keeping with San Francisco's parklet typology. I also left the interview envious of Eric Dimmond's role as advisory architect to this fantastic museum!

4.3.15

TINKERING SCHOOL: SAN FRANCISCO

MEET WITH SEAN @ BRIGHTWORKS ALTERNATIVE SCHOOL

The Brightworks School was a hive of activity, even after classes had finished for the day. Fitted into an old butter factory with huge glazed factory windows and exposed ceiling trusses, the classrooms were angled and climbing and painted different colours. One class had a timber stair wrapping around to a second level, another had a brown paper, lifelike tree growing up the corner wall.

Photographic protraits adorned the walls,; culptural metal art installation and snow flake shaped lights hung from the tall ceilings. I peaked at what looked like a dance studio, while two girls requested silence all round while they performed serious surgery on a teddy bear.

Sean was looking at a scan of his own brain on the laptop with an older student assistant, and it seemed to somehow fit in this miraculous space. A teacher called out 'girls, why are you walking around in the workshop with no shoes?' and there was discussion and adult conversation at this, followed by water and hamburgers and eventually leading to power tools among other programs. It is part of the principles of the school – respect, communication, freedom to think.

Every program needs the tool-person, and in this case Sean is both thinker and tinker. With an academic background in liberal arts, he shifted into carpentry and industrial arts while assisting with the filming of a documentary about bamboo bicycles. It is interesting that people can come to children's creativity through many avenues, and not always teaching. In Sean's case he says the 'tools are king', and that students and staff must observe the same stringent safety rules. He talked about stopping unsafe behaviour quickly, but using reasoned discussion to resolve it, and always getting kids back on the tools quickly to ensure 'creative confidence'.

Scale is important at the Tinkering School, so projects aim to be big and bold, impossible, so that kids feel inspired and excited when its all built. Their website describes towers for dropping water bombs, giant treadmills, and full-scale arcade games. For younger students (6,7,8) the instructor has a clear idea of how/what to build, while older kids (10,11,12) are encouraged to create their own designs. Sketching is integral to the process.

We talked about the distinction between tinkering, production and craft, what he considered the three degrees of building. Tinkering is a form of problem solving, more concerned with finding solutions and finishing an assembly than with mitred corners and neat edges. Production is about making a finished, professional product (eg. a building) while craft, is in the order of master carpentry and French polished furniture.

Sean says the Tinkering School really focus on the former as a creative and empowering process, but he acknowledges that some of the older kids are up for more permanent productions. Notably, tinkering school creations are always dismantled, often by the students themselves – perhaps another lesson in the process?

4.3.15

CHILDREN'S CREATIVITY MUSEUM: YERBA BUENA

MEET WITH CURATOR< HEATHER ROESNER

The Children's Creativity Museum in Yerba Buena gardens is subtler than the Exploratorium, and provides an inventive selection of children's programs. Housed in a custom built circular structure, the museum includes a range of different creative spaces – including a theatre, a soft fall play space, computer labs resplendent with animation and gaming software and the mystery 'maker' rooms where kids invent stories and characters from the craft packs provided.

Curator Heather Roesner provided interesting insights into the pedagogy of kids creativity, and was particularly knowledgeable about integrating technology – including sound and mechanical movement – into all activities. Unlike the Exploratorium, where kids can investigate and experiment on their own, there was a sense that the Children's Creativity Museum operated most effectively in a structured class mode. Sydney should take note that San Francisco sustained a variety of children's museums.

SEATTLE +

VASHON ISLAND

8 & 10.3.15

NEIGHBOURHOOD DESIGN BUILD: SEATTLE

TOUR WITH JAKE LA BARRE AND STEVE BADANES

Today has been kindness from strangers, with Adjunct Professor Jake LaBarre sharing with me his Sunday afternoon, to chat and tour some of the many Neighbourhood Design / Build projects around Seattle. Both Jake and his boss, Steve Badanes, have gone out of their way to meet me and show me around – in part I think as a result of their own visit to Australia for a Glen Murcutt studio. I am feeling the aftereffects!

We started at a district school, curving pavilion structure, bound by the school fence, and made with cylindrical concrete footings, embedded 4-piece steel angle posts and a folding timber and steel roof structure. The main curved beam is made from 'screw lam' as Jake calls it, a composite plywood product made by the students with moulds, clamps and drills. He tells me that this is a typical scale and typology for Neighbourhood Design/ Build – a pavilion and seating structure at a school or community venue, with evidently exposed structural detailing. Ten years later, this structure was still going strong, though I wondered how often it was used.

The range of community garden projects included the Beacon Hill P-Patch, with Gabian style gates, central oval shaped shade structure and pergolas, built over three non-consecutive years. Notably, the organisation clubhouse was built by a former student who set up his own design build firm based on similar principles. The Beacon Hill Food Forest, that I had also visited the day before, was a more recent project, built as 4 parts off-site and craned in from the back of a truck. This project had apparently had client complications, as the client originally wanted large, dramatic open-air kitchen, toilets, running water and electricity which they were not permitted for. Steve convinced them to proceed with shade and seating but it caused tension. The other playground project, in front of a former school (squatted and then claimed by a community action group), had also had some challenges with the organisation 'flouting' government regulations.

The Danny Woo Community Garden was one of the most impressive projects overall. It was a well-established community garden set up in a mixed-race area. A community group had convinced a local developer to donate the steep plot of land to the community, and they had over many years established terraces, staircases, an elegant Japanese style entry (courtesy of the studio) and even a pig-roasting pit. Gardens were well tended, even while we visited, and it was clearly an important community place, shrouded in apply trees too. The studio had done 5 or 6 projects overall in this park, contributing significantly to the public domain of the space. Jake observed that the gardeners would

often appropriate scrap and waste from their sites into garden walls – which while infuriating, also caused students to marvel at ingenious techniques of making.

Clients generally approach Steve or Jake with their idea, and are required to fund the materials component of the project. This often becomes a deciding factor when clients have insufficient funds. Clients have included schools, community garden groups and a retirement village. Some groups are repeat clients, and others one-off – which seems to depend on the overall relationships, the funding available and the management structure of the community group. Pre-preparation and coordination of the project largely falls to Jake and Steve. This includes client liaison, early preparation of a brief and siting, coordinating materials with client and later on, permitting. Jake was adamant that he did not want the students time distracted by burocracy or technicalities when so much attention is needed on the worksite.

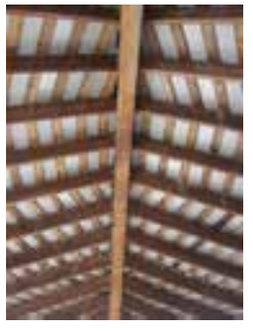
We talked about hands on / v hands off approaches to teaching this kind of project. Jake said this varied from tutor to tutor, and that he was more likely to let a student try and fail than Steve, who would step in to save the material and headaches at an earlier stage. It seems that Steve is old-hand at these jobs so has developed his own unique techniques. Rotation of students among tasks is also frequent and important to ensure morale, good team dynamics and that students get an overall experience. Students working on Saturdays are encouraged to organise an afternoon BBQ, which seems to become a weekly social event.

The studio is 'vertical' so that undergraduate and post-graduate students work together, with ages ranging from 20 – 30. Jake noted that the younger students were usually more time committed and enthusiastic as the pressures of life and other classes were less. He also acknowledged the benefit of a cross mix of students, including in some classes experienced welders, a roofer and people with carpentry skills. Jake affirmed that gender is (refreshingly) not a big issue in the class, and that often it is women who sign up to the course to gain some hands on experience. He hopes that the class will overall give students better understanding of build ability, process and material qualities. He noted that many male students have 'built a shed' with fathers or done other hands-on construction at home, while many of the girls are at first less experienced but soon gain confidence over the 12 week build.

One of the most curious aspect of the 18-student studio is the idea of 'design by consensus', so all students participate and ultimately agree on the design outcome. Jake described the studio process starting with paper models and experiments, followed by a half sheet plywood / 2x4 board piece of furniture, to gauge students skill levels and get them on the tools. Only then do students start on designing their project. Studio is Monday, Wednesday, Thursday and this subject is also run on Saturdays, so there is the (relative) leisure of time to see ideas through. Students work on design ideas individually, pool them and discuss, then separate into groups to redesign and develop new strategies. Iterations are repeated until the group is satisfied. Jake agreed that there were occasional disgruntled designers, but in general there was an overall buy-in (and in fact students were able to relax into the project without the pressure of 'their own' details).

I wondered if project scale was a limitation set by the studio leaders or by the students' capabilities, so I was surprised that, in the case of Neighbourhood Design/ Build, its related largely to planning permissions. An 8 foot high, 20 square foot roofed structure is classed as a temporary shed, so technically five joined but unroofed such structures is still outside the permitting requirements. Apparently Steve is adamant that dealing with permissions will only slow down and compromise the work, and its evident from the Danny Woo garden among others, that students were forced to build off-site while awaiting planning. Jake observed that the students can benefit from any scale of project, and he doesn't think that larger buildings are necessary to teach these skills.

Since the projects are funded by partners, the need for salvaged and creative materials was less evident than, say, Rural Studio. Timber, cedar or Douglas fir, is the common material, with steel and other metals also incorporated. Polycarbonated sheeting, alcalume roofing, ceramic tiling, concrete, even gabian walls were also incorporated to varying degrees. The students are invited to visit other projects at the start of the studio, and it is evident that many ideas are borrowed and adapted.


Jake handed me over to Neighbourhood Design Build founder Steve Badanes in the afternoon. Steve showed me some of the early projects the Washington University Campus and gave me a copy of his Jersey Devils book. The Jersey Devils were a well-known design build group in the 1970's, undertaking impressive experimental projects while studying at university. Later in the trip, I had a chance to visit some of the experimental houses around Burlington Vermont. In Seattle, Steve also took me to see the famous oversized 'Troll' under a railway bridge, as well as a repeat visit to the Danny Woo memorial gardens and public eating area to a nearby restaurant. He kindly drove me to the Vashon Island ferry on completion of the tour – and I felt I'd experienced a true local's version of the place. Steve's name came up repeatedly as I travelled. He is a regular guest at the Rural Studio and a 'godfather' of design build in the US.

16.3.15

CEDARSONG NATURE SCHOOL: VASHON ISLAND

TEACHER'S TRAINING COURSE & KIDS BUILD PROJECT

After a week of teacher training at Cedarsong Nature School, I was ready for an experiential project on the Monday. I arrived to Giles (a friendly and articulate 5-year old) asking me promptly, "I hear you are leading us in a project?", and he would have launched straight in to the activity if we hadn't decided to wait for the other children. Meanwhile he splashed through the muddy puddles made over the weekend by torrential rain and investigated a newfound mole hole near the picnic area.

My intention for today, was to construct a fort or structure in one of two locations where a range of branches and logs had already been collected together from previous projects. I was wary of over planning a project in this fluid setting, where the children learn around an 'emergent curriculum', and following their own curiosity about the natural world. I also wondered if my conceived construction project was appropriate for an all-outdoor, all-natural school setting, which seems, by its nature, to reject the idea of walls and roofs.

The other students slowly emerged down the butterfly trail and began inspecting their drenched mud pond, adding sticks to dams and bridges and conducting float tests on various objects around the site. It had not rained on Vashon for a number of weeks, so the students were understandably excited about the new place that had emerged at the centre of main camp. I suggested a few ideas for new bridges and dams, and even shifted around a few logs to spark some interest, bridges were not interesting today.

After a few false starts, I decided just to begin my conceived building project within main camp. On the upper side of the camp, two fallen trees create a boat shaped enclosure, where last week I'd sat with Finn, the gliding tiger cat as she climbed and jumped, climbed and jumped. A big bundle of thick sticks had been stacked and gathered at the wedge end of this 'boat' – not quite solid enough for a platform, and too messy for a roof below. Whatever this creation had previously been, it was long since done.

With the 'flow learning' style in mind, I scouted out the available timber, and noticed a number of solid, curved branches 2-3 metres long. With some experimenting, I found these could wedge between the two fallen trees to create natural archways. I began setting out these skeletal branches – their location largely determined by the size of the branch and spacing of the trees. The ground was still soft from weekend rain, so I could dig the branches in.

Soon Brendan had appeared, and was confidently moving rocks to the ends of each arch for extra support. I didn't ask him to do this, he had already assessed the situation and decided it was needed. He was quite committed to this task, and reinforced the foundations around 4 different arches, with over 6-7 stones at each. Giles was curious at our activity, but after a brief attempt to jump on the less than stable arched branches, he sat on the wings and requested that we 'don't change anything'. I was distracted by the effort of wedging the arches together so could not really take on his concerns.

By that time, other students had arrived, including the sweet but precocious Corralie and little Addy, who both began immediately to decorate the unfinished structure. I had had the same experience at the Summer Marina Playground with kids pulling out paint brushes while we were still nailing. At Cedarsong, Addy just wanted to paint with water and write with chalk, which Brendan and Corralie and Giles soon joined in. Corralie was also decorating with cedar branches and tinsel she had found. There was some bossing around here, a little bit of crowding, snatching, shortly followed by sulking.
I realised at that point that I couldn't manage the complex social interactions while trying to build the structure (and keep it from toppling on the kids moving around it!) Fortunately the school founder, Erin Kenny, stepped in and mopped up tears and encouraged changes in activities. Cody arrived and was immediately delighted with what he termed the 'tunnel fort', as the arched structures were ultimately quite low, really only suitable for kids height and crawling. Erin pointed out, that Corallie had called it a 'house', while Giles was seeking a 'spy spot' and to Cody it was the 'tunnel fort'. Since anything goes, all names were valid, empowering new creative explorations.

Shortly after these encounters, the kids were drawn back to the muddy puddle and the activity dissolved. We had certainly transformed the fallen tree logs into a completely different space with a new character, but I wasn't sure if our bowed branch and rock structure was really the construction project I had been dreaming of. I decided that in this case, the 2-5 year olds had fulfilled their interest and it was time to move on.

Morning snack quickly arrived and then I went with Brendan, Cody, Giles and Alex into the 'Old Madrona Camp' clearing to run off their revived energy. What was interesting and unexpected, is that the boys started showing me their own secret hideouts, and following 'tunnel' pathways through the bushes (that were sadly too small for grown ups like me!). The tunnelling and emerging occupied quite some time, and I could only assume that this had followed on from our 'tunnel' fort project. Again, I was amazed at how enclosed some forest spaces feel, like a building without walls.

There was a trip to the frog pond after this and then it was time for Addy and Alex to go home, while the other children had their lunch. At Erin's prompting, I returned to our fort while the children were eating, to carry on with the construction. I found softer, small curving fir branches with foliage still in place, and began 'thatching' the 'front entry' section of our fort. Layers and layers of these curving branches slowly made a canopy over the archways. There were not enough branches in the immediate vicinity to thatch the entire tunnel, but when the kids came back from lunch they rushed over and said 'Wow!! Did you do that all by yourself? While we were eating?' It seemed there was a kind of magic to the appearance of a roof, and this sparked new enthusiasm for crawling, climbing, and Corallie immediately began collecting cedar to carry on with thatching. Two of the boys added some long sticks to the inside of the tunnel to indicate the pathway. Cody also suggested, quite rightly, that a couple of the arches be removed as they were too low for tunnelling.

Most of the kids were occupied until their parents arrived to collect them, and I was quite surprised when Erin and the kids invited their mothers to see their creation and showed off the parts they had built themselves. We discussed afterwards, how the fort would grow and change over the coming week with new kids visiting and these kids dreaming up new additions and experiments. I suppose that even if the structure fell or was removed,those curved branches would still be there, available for another project.

At this US-based nature school, tools are restricted to shovels and rakes, although in Northern Europe, saws, hammers and knives could have been used. In this case I limited this project to materials we could find in the forest. I could have sought out twine, or used the penknife in my pocket, but I was quite curious about the possibility of using only natural materials. This limitation led to some of the decisions like wedging the archways for stability and thatching with curved sticks. Reflecting on the connection with a real-world building project, I think cutting and connecting opportunities would only complicate a class of this age. I also realised that a project that would truly engage this age group, even those as articulate and interactive as the Cedarsong kids, would need to be a prolonged series of shorter building projects, with adequate space for breaks and divergence then returning again. Erin observed that the older weekend students would be likely to engage with such a fort project for longer, sustained periods.

I could see that my leading by example was a suitable method to begin, and that the students would find their own niche in that process without me leading or determining their activities. I set up the 'skeleton' of our fort, and the children were able to carry on with the rest. However, supervision was definitely needed, and it seemed to work well to define adult roles as – building supervisor and child supervisor! Erin was also quick to point out safety and creative guidelines, such as 'ask for teamwork' and 'if you didn't build it you can't break it'. In hindsight, this rule could also apply to 'testing' parts of the structure – I noticed Giles slipped on the platform that I had put together, and I wondered if he would have 'tested' the new structure more carefully if he'd been making it (as at Summer Marina Playground).

To me, the arches reinforced the boat like feel of the place, and when we sat for our photo I could imagine us with oars out for Narnia or Greenland. My nautical visions were decidedly clear, and yet I liked that many of the kids had completely different views of this place, and would play with it accordingly. I left our project quite delighted with its possibilities, and resigned to its semi-roofed, temporary appearance. I realised that for these 2-5 year olds, the process of making, decorating, thinking was the reward itself, and that they didn't need a roof to start their play!

17.3.15

SAWHORSE REVOLUTION: SEATTLE

COFFEE WITH DIRECTOR SARAH SMITH

I could always have more time in every place, and it was only at the last minute that I coordinated a meeting with Sarah Smith, development director for Sawhorse Revolution. Their program focuses on vocational training and empowerment through timber construction and carpentry projects. It is largely run as summer and weekend camps at their rural retreat, with urban after school programs a recent development. Like the Neighbourhood Design Build team, Sawhorse Revolution work on relatively small scale design build projects in the city, such as a shed for a Community Garden, seats and shade structures for the Beacons Hill Food Farm or most recently, tiny houses for an established homeless community in Seattle. The camp projects are arguably more dramatic, with a massive tree house and a conical 'dream fort' as two more unusual projects.

In contrast to many of the architecturally focussed design build programs, Sawhorse Revolution develop the design with local builders and the client before students get involved, so that they can streamline the 40 hour after school or 1-week camp programs. There was a logistical element to this, with pre-preparation and material purchase, but also an evident intent to develop craft and building skills (rather than strictly design).

Projects are led by one of two qualified local builders, who regularly volunteer with Sawhorse Revolution. Sarah affirmed that these builders are natural educators who already run apprenticeship and training programs within their own businesses. Programs are then supplemented with staff (2 full time, 1 part time and a part-time director) and student volunteer counsellors. These volunteers are usually program graduates who want to remain involved, and are often responsible for getting snacks, chatting with students and at times, manning power tools. SR's approach to safety, is that if a student does not know how to use the tool then they should not be on it, and that protective equipment is mandatory. Otherwise 'walk away and watch' is their motto – giving students a sense of empowerment, while keeping a quiet eye on any dangerous equipment!

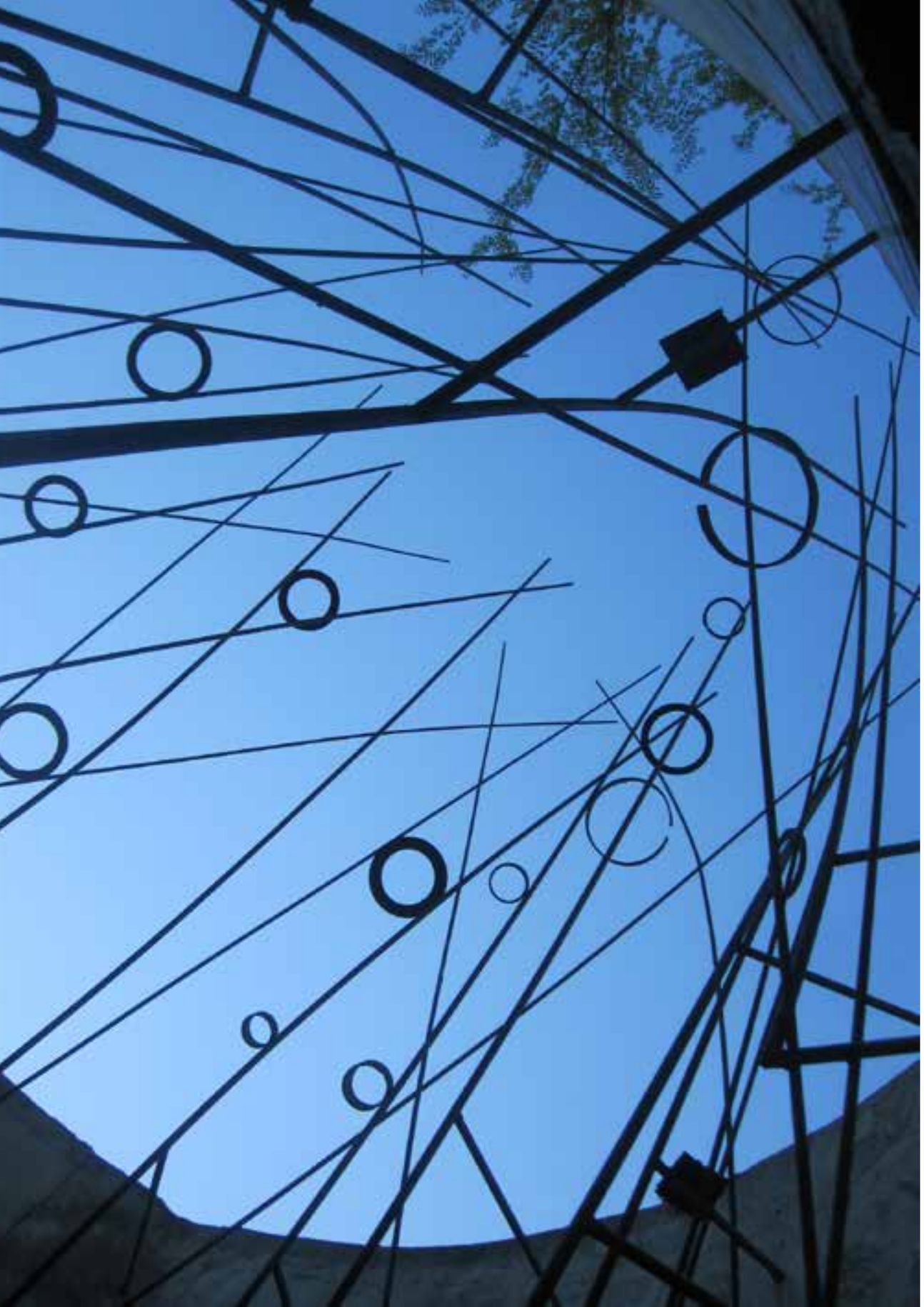
For off site projects, Sawhorse Revolution transport their own tools to a job site, and are currently in the process of kitting out a truck. Theft of equipment had been a concern for Youth Art Exchange and I was surprised that SR had not had any problems with theft. Sarah noted that Sawhorse Revolution is a slowly growing not-for-profit organisation, and that it is only in the last year or so that the organisation has sought out clearly defined mission and goals. For example, SR are firmly attached to the high school age group and to promoting interest in vocational trades as a career. She mentioned long term plans such as developing a college-style course system that could eventually lead to an apprenticeship for interested students, while allowing scope for 'drop-in' or weekend participants who may be less committed. The Board of Directors provide some guidance and discussion on direction, which also comes strongly from the program director, Adam Nishimura.

Sarah asks, 'What ever happened to shop class?' and we talk about the rapid decline in industrial arts and craft classes at Seattle (and American) high schools, in lieu of college preparedness and science / English / maths focussed education models. The education system implies a cultural attitude that craftsmanship and trade are not suitable professions for a successfully educated person, and have even been linked to racial profiling by teachers and career advisors. SR are not trying to convert all their participants into careers in trade, but do try to change the mindset (SR resources regularly refer to carpentry as a 'dignified profession') and encourage students to seek out alternative solutions to career and life problems – problem solving for the real world.

Like many not-for-profit, Sawhorse is largely funded by grants, in particular 'work readiness' grants that are connected to STEM teaching. The need to match work to grants can sometimes affect the scale and scope of possible projects. The students themselves do not pay for the after school programs, in an effort to reach a range of students, and in fact for some of the work readiness-programs students even receive a decent stipend for their work. SR also develop community partnerships, and where possible the client will pay for materials. The partnerships did not seem to extend strongly to parents – despite early efforts to engage families, SR now coordinate most communication directly through the students, although there is usually an end of project party that families do attend.

I observed that while I enjoyed chatting to Sarah, it is quite another thing to sit in on a class or visit projects. I found it hard to put faces and spaces to the activities we talked about, and there is always the wonder whether the project is as established as it seems from the website! We talked about other projects that really promote their own work, and the benefits and drawbacks of growing slowly from the ground up. SR are determined that their project should continue to have personal and lasting impact on students, and provide them with vision for a different future.

NEWBERN ALABAMA



19.3.15

RURAL STUDIO: NEWBERN, ALABAMA

TOUR WITH NATALIE BUTTS & LIBRARY TEAM VOLUNTEER

After many emails and a personal recommendation by Seattle's Jake La Barre, I was able to secure a visit to the Rural Studio in Alabama – a location I had wanted to visit since discovering their recycled building projects at university. I hired a car from Atlanta, braving the right-hand drive, to find myself in Greensboro Alabama. The southern states were a completely different tone to my other travels in the USA – from the old-fashioned hospitality of my elderly host (she made me biscuits) to collard greens on any local menu to the slightly eerie old-world charm of the now deserted main streets.

The Rural Studio is located in Newbern, a rural and largely African American settlement about 20 km out of Greensboro. I met with alumni Natalie Butts at Morrison House on my first day for a quick chat and tour. She provided me with a gorgeous hand drawn map of the region so that I could take myself on a long-awaited driving tour around the last twenty years of Rural Studio projects. Natalie took me out to a few projects personally – to Lion's Park and Perry Lakes. It was particularly fascinating to hear about her own bird watching tower project.

Despite my offers to volunteer, the admin staff seemed unsure what to do with me – and eventually attached me to the Newbern Library team – Ashley, Stephen, Will and Morgan - who were in the last months of their three-year project. With some persistence from me, sanding, painting, digging and cleaning, I became a useful worker on their site and could even offer some project management advice. I eventually spent three weeks in total at the Rural Studio, and met director Andrew Freer numerous times – after his initial gruffness, he seemed to appreciate my help and interest in the project and even offered me a reference on the last day! Although other architectural tourists visited the program while I was there, I felt that working as a volunteer gave me a brief insight into the inner workings of the project, and the complexities of that place.

RURAL STUDIO: GREENSBORO

The trees are budding for spring and the land here is lush, green, scattered with peacefully grazing black cattle and decaying barns. It's a picturesque place, and also slow. People in town wave in passing and strictly observe speed limits.

I am staying in Greensboro, a fifteen minute drive from Rural Studio's Newbern 'campus'. There is an old Main Street running through the centre of town, with the Presbyterian church at one end and the Baptists and courthouse at the other. It seems that some time ago the real heart of town shifted to the highway junction where a supermarket, chain pharmacy, fast good outlets and fuel are jumbled together without the character of the traditional main strip. In that way the town is somehow torn.

This is not a place for walking. Though the streets are wide and the crumbling buildings are picturesque in the crisp noon sun or at dusk.

It took me a few days to realise that it was not all abandoned shop fronts but also thrift and furniture shops, the ‘pie lab’ restaurant, a post office, library and the premises (and projects) of two local non-profits. Ornamental shop front lettering and an old-fashioned post box feel remnant of another age.

I am realising that appearances deceive in this peaceful town. Behind the wide main streets and grand anti-vellum and plantation style homes are a second society of trailer parks and ‘shotgun’ houses. These neighbourhoods are livelier, with residents sitting on plastic picnic chairs in the front yard or kids playing frisbee or riding bikes. The yards are often cluttered with car parts or building materials or another trailer. This poverty is more shocking next to its grand white neighbours.

And certainly there is a racial divide here. It does not seem to be outwardly expressed and people will greet black and white alike in a shop, and yet there is a difference, a separation. In the supermarket this afternoon two African American women were exchanging chat in an Alabaman slang that I could not understand. The afternoon basketball game was an all-black affair (though the baseball was noticeably unified). It’s said that Hake county Literacy rates are low, unemployment high and teen pregnancy is common. The African Americans are better dressed and driving fancier cars than the white folk, but this does not correlate with the trailer homes. Stories of government pulling funding to maintain a local road or closing the Newbern school are examples of institutional racism, if not for skin colour then for the poverty.

The town mayor and the probate judge are black, as is the police chief. I saw this respectable group walking out of the local cheap eats ‘mustang oil’ looking dapper and confident in business suits. When I visited venerable Theresa at her safe house museum she was proud to show me her wall if black politicians. She ‘d marched and been arrested for the right to vote in the 60’s, and her house hid Martin Luther King from hooded KKK just two weeks before his assassination. Her goddaughter visited while I was there and lamented that racism still existed in her everyday.

I like this town, though it is a contradiction. The people are overweight, with oversized cars and meat-heavy meals (like one lady who ordered a plate of liver without the vegetables). There’s an old fashioned politeness on the one hand and some distrust on the other. The new moves slowly, and yet Greensboro has been slowly overrun by AmeriCorps volunteers, medical interns and Rural Studio students living above the local shops.

Perhaps it is that I can’t figure this place out in one sitting that makes it intriguing? It is a town to unfold slowly and to cease being an outsider.

RURAL STUDIO: DESIGNING THE MEANINGFUL

LUNCH WITH ALUMNI, ALEX

The library students were having a lunch meeting, in preparation for Morgan's departure for her hometown of Arizona. In such a small team, the loss of one member must have been a blow with only two months until 'pig roast' - the annual festival marking the end of year and designated as the library's inauguration. I'd opted to lunch at the Newbern local 'the Mercantile', a kind if general store and petrol pump, marking one if two businesses in this sleepy town - the other being a part time post office. I'd avoided lunch at this place for a few days, partly because of the luke-warm recommendations of the student body, and partly because of the crew of local elderly men who'd stared at me when I first bought a drink there, interrupting their domino game with my foreignness.

To my surprise, the diner part if the store was clean and orderly, with a reasonable menu featuring all manner if burgers, chicken 'tenders' and 'wings' as well as grilled cheese, catfish and sides like collard greens, slaw, onion rings and potato salad. I ordered my usual vegetarian grilled (orange) cheese sandwich, with collard greens and potato salad - realising too late that the greens used bacon as seasoning. The owner and her husband came for a chat - he was morose and monosyllabic, while she was bright and chatty and curious about what brought me to this corner of Alabama. She was Newbern 'born and bred' and told me she'd grown up at a trailer park down the road. I wondered if this was a big deal for them to own this business, working long hours and trying to make a name. They wore matching red Mercantile t-shirts which were also for sale. While we were chatting, Andrew Freer came in for drinks and said to the room at large 'she 'a living the dream, that one' - I couldn't tell if he was teasing me or himself or the state if things in Newbern. though I appreciated his English wit in the heart of the Deep South.

A young man had entered quietly while we chatted, reading a novel while he thoughtfully chewed his lunch special. When curious onlookers had passed on he asked me if I was Australian and mentioned that Glen Murcutt had visited last year. We got to chatting. His name was Alex, a softly spoken and gentle former student turned third year

teacher. He told me it was common for the studio to offer jobs to select graduating students, on the understanding it was a three-year placement. Alex had been on the Lyons Park team responsible for surfaces and landscaping - a thankless project that involved clearing privet, laying asphalt and building bioswales. Natalie had told me on Friday that Andrew Freer made a regular point of praising this team, as they were one if the few groups who would leave the studio without a building to their name. Alex said it was one of the reasons he stayed on, to learn other trades that he'd missed in his thesis year.

Alex is responsible for the third year teams - fifteen students per semester who generally do work around Morisette House and Rural Studios other in-house properties. this semester's team had been busing a store house extension to the already much- extended Morisette House kitchen. They'd designed a long 'shot gun' timber structure that would be well insulated for cool storage of the farm vegetables and other food. The structure would eventually be clad in a mix of timber siding salvaged from on of the many barn stores that Rural Studio occupied along the main drag of Newbern.
Two aspects of our conversation stayed with me afterwards. the first was that Alex was not a carpenter, merely a graduate, and he did not see this as any setback. He said that his experience at a Rural Studio, and the library was a good example, is that 'anyone can learn to build'. He was open with students when he didn't know a solution to a design or construction problem, challenging them to resolve it themselves or teacher and student working it out together. He said by approaching the project in this way, students were empowered to work through the process.

We talked about involving community or apprentices in the program. although Alex thought it was 'a problem someone just needed to sit down and think through' he did say it would make teaching more difficult - especially in his case with 15 students. He noted that he needed to be more authoritarian at times to ensure sure safety, but that this would be difficult to implement to a community member where respect was paramount. We also talked about the extra challenge of the students (who are learning) teaching or supervising another party who is also learning, but perhaps less invested, and certainly with less design background. Reflecting on it later, I did wonder if Auburn University could pursue an annual scholarship for a local student to study architecture and participate in Rural Studio..

The conversation led on to reflections on life after the Rural Studio, and how to find meaning in the profession after such a profound university experience. Alex thought might be the reason that many students stayed well after their graduation (the leftovers) or took jobs with the studio, was for fear of not finding that same spirit elsewhere. I tried to explain about working in India and Malawi as a way to find meaning and social responsibility. I found myself explaining my changes in profession, and Alex commented 'you seem to have has many jobs' - I reflected that my constant movement is in itself a search for meaning, something that is not always apparent in commercial architecture.

Later, reading 'rural studio at twenty', various students had written about being a citizen architect. They observed that what made the Rural Studio fulfilling was that life and work were intertwined and 5 o'clock never came. It was a similar sentiment that I had observed overseas, and although sometimes an exhausting reality, the outsider architect is an ambassador, always observed and accountable.

I didn't see as much community interaction as I expected while at a Rural Studio, and yet the students knew locals by name, they greeted each other in the street, they stepped outside their role as architects to help the library board procure books or find a librarian. I had taken a quick drive with Andrew and Natalie to a future project in a strip of trailer houses down the road - it was the mother of the local fireman. Andrew said they had so many requests for aid that 'we try to help people who help the community', and thinking about this now, it seems a sensible way to judge character and merit. The issue of how to tell this woman and her son of the upcoming project was a sensitive one and much debated. I realised that there was much unseen community interaction and citizenship. Could I claim the same from my own university experience? Perhaps with the exception if our retirement home study, we were often on campus in virtual realities. Seeing the sheer holistic embrace if the Rural Studio I could see why Alex worried about the world outside. How can one go back to an office job after this kind if life?

HALE COUNTY: ALABAMA

TOUR WITH PAM DORR, HERO

I was surprised to find that Rural Studio was not the only aiding organisation in Hale County. Although it was no doubt the first, HERO and Horseshoe Farm are also in the mix with varying degrees of partnership. Their founders are both from outside the region, hailing from California and somehow compelled to stay on here.

I met Pam Dorr last week at the Hero office in a funky converted shop front on the Main Street of Greensboro. She is a former CEO of Victoria's Secret who went for a full life change about ten years ago. I found out later that she'd come to Hale County as a Rural Studio 'outreach' fellow working on the 20k house and had since 'appropriated' this idea in her own organisation. She was a warm, welcoming host and tour guide, but I also perceived an intensity and manic energy which made our interview fast paced and at times unsettling.

In the forty minutes that I toured the Hero projects I was struck by the sheer scope of development. In addition to the main office, there were two shop fronts for lease, a commercial development across the street and a supposed 'opera house' a block down, Hero had also set up and since sold Pie Lab and it's associated ice creamery. A bamboo Nike and skateboard Worksop was further down the road. In the street behind, Hero also occupied a Rural Studio built community centre and an old formerly. 'Coloured' schoolhouse. Construction was underway for a kitchen garden while AmeriCorps volunteers poured a new driveway to a Habitat for Humanity 20k house behind that. Pam also pointed out the volunteer house and an old country house she had recently purchased. Hero was marketed as an employment centre, though it seemed more development focused.

Pam's capacity to mobilise resources was apparent in the range if labourers buzzing around the Hero campus. this included 8 AmeriCorps interns, volunteers and high school 'building students. There about ten staff in the office, of whom 60% were local. During the spring break, Hero also hosted two college graphic design teams who worked on a self directly community project over a week. The graphics and signage for the organisation were noticeably modern and chic / a resulting this partnership. I asked if Rural Studio had partnered with her, noting the various structures with tell-tale soaring roofs and number plate facades that mark a creative studio project. She said they once had but now the relationship was 'hot and cold'. I wondered if there was misrepresentation here, especially with so many new additions to Hero bearing signature Rural Studio aesthetics without the craft. When I asked if she'd involved any designers in new projects she named herself as designer and project manager but reflected on possible intern arrangements for architects.

I was impressed by the vision of this organisation and I felt that Pam Dorr has passion and energy for the many tasks she had set herself. A couple of times I wondered if I was getting the media version of the situation and I was unconvinced by her statement that grants were not required as projects were self sustaining. While the bike shop was an interesting prototype I could see it was not particularly busy. I wondered if perhaps the finances were juggling to keep up with the projects as she described the multiple mortgages on her office. 'Leveraging' other projects. I later heard that there was private money as well as grants that assisted the organisation.

Pam also shared with me some rather disturbing stories about the personal and racial conflicts in town that made their work difficult. Clients who had received 20k homes in their apparent need for hosting, later turned out to be a grandmother who was pimping out her 5 year old granddaughter or a man who was dealing drugs from his (new) home. She also said that shops on Main Street were filled with placeholder junk by their white owners so that they could not be leased by blacks. The shops were seemingly occupied but never open, giving the Main Street an abandoned feeling that even all the HERO projects could not alleviate. It was difficult to know who to help when no one is really innocent. I was reminded if the character checks on potential students in Malawi and the strained discussions about who was in greatest need.

I left Pam with various invitations in hand to local tours and events, but I was also uneasy about those sad reflections on local character and perhaps a little floored by her high intensity character. I wondered if this was the nature required to take on a high-level management role. I though heard varying views later, that she was a difficult boss and micromanager, and that her firm views in the local situation were sometimes unpopular - perhaps that gossip is better unheard!

Horseshoe farm was a different experience and a seemingly smaller, humbler enterprise. I was greeted by director John Dorsey when I was peering in the window wondering if the Main Street centre was open. A chalk board in the front display showed morning activities for seniors and afternoon study sessions for high school students. John explained to me that the program focused on supporting elderly people with mental health issues, women in distressed circumstances and children. To my surprise the program had a medical focus, using psychiatric techniques to assess clients, provide care and resolve conflicts. When we entered the main space John was welcomed verbosely by a brightly clad women in hot pink lipstick and more timidly by her counterpart, a thin shy artist with lanky grey hair and a quiet demeanour - both staying on after the morning activity of painting Easter eggs.

The afternoon program provided kids with support and tutoring after school. John Dorsey warmly praised the Rural Studio fifth year students who tutor mathematics on Thursday afternoons. He was also developing a partnership with Alabama University to provide daily one-on-one tutoring via Skype and the donated computers in his centre.

In addition to this central community space, Horseshoe Farm also run tie other properties - the first is its namesake farm at Horseshoe Bend on the road to Newbern. This large acreage houses the interns (up to 8 pre-med students) and a separate house for women in distressed circumstances. I was unclear whether this was women with psychiatric conditions or domestic violence issues. I found out later that the interns were involved in care and administering medication for these women under John Dirsey's supervision. (He is a registered psychiatrist with a practise in Greensboro and consultancy work at

Tuscaloosa Hospital). He told me that the interns effectively run all the programs and it was clear he relied in and entrusted them with this work as well as running the community centre. I found out later that John himself also lives at the farm.

The Greensboro Hotel on Main Street is also under construction / renovation following a generous private donation by the Harper Lewis foundation. I was told that this wealthy benefactor had been impressed by John's vision for a centrally located building dedicated to housing interns, homeless and providing rooms for visiting medical practitioners. Construction is underway in the old hotel.

It's a small town, and gossip is common, so I found out later that even this hole non-profit had its issues, and had recently fired its financial director who was largely responsible for bringing in grant money and finding benefactors. Some said this was because their visions were at odds, expansion versus humility, or was it just personal differences? I was left again making comparisons with Malawi and wondering if Paul Theroux was right in Dark Star that so called 'agents if virtue' are seldom as such.

"Proceed and be bold."
-SAMUAL MOCKBEE
RURAL STUDIO FOUNDER

,

NEW YORK, BOSTON,
PHILADELPHIA,
BURLINGTON

4.15

HARVARD: PROJECT ZERO & ARTISTS ASYLUM

INTERVIEW WITH RESEARCHER EDWARD CLAPP

I am sitting outside the Artist's Asylum in Sommerville Massachusetts near Cambridge in Boston. I spent this morning at Project Zero with Edward Clapp, a research fellow there. He is part of a team called Agency by Design who explore the role of maker spaces and learning through making education – as part of school curriculum, after school at maker spaces and gallery and in summer camps.

The first thing that was interesting about the meeting was that we seemed to be on the same page. The places that they had connected with and visited were the same as places I had visited – such as Brightworks in San Francisco. The range of programs were also similar – after school, in school, community projects and public spaces like galleries and museums.

Talking about Making as Movement – Edward talked about the Maker Movement being a disruptive movement, as students are learning how to make change in their environment. Students of making learn how to assess systems – environments, objects or a piece of computer equipment or a situation. Its about looking closely, assessing this system and situation, understanding what's going on and then finding an opportunity making an intervention or change. This is really design thinking in its own right, although Project Zero had a 3-part system that they had set up to define this.

They talked about developing habits for creativity – habits of learning, routines of learning that can be adopted in the classroom. There are 3 part techniques that kids can use as a problem solving tool.

We talked about aesthetics. Edward talked about how kids develop sensitivity to design through this making process – I asked if this was akin to developing a design aesthetic, or a sense of craft / workmanship to what is created. We talked about kids having the capability to do something, the inclination to do something and the sensitivity to design. I took sensitivity to mean the artistic approach, but Edward explained that this was not how Project Zero defined the term. They described sensitivity to design as knowing when there is a possibility for design intervention, finding opportunities to make change and taking them – as well as thinking about objects and systems and all the background that goes into these.

Project Zero had set up a research project where they worked in teams. They had researchers from different educational environments and arms of the project, who would report back / collaborate via online skype sessions. They had put together a google blog as means of communicating. The researchers themselves were at times based in the classroom around the US. Clapp talked about it being 'active research' – so researchers are in the classroom, asking questions, participating in the learning. I found that to be

not dissimilar to the approach I had taken for my BHTS to volunteer and get involved. It was evident that this idea of designing through making is bigger here in the USA than in Australia, and also that its more than I was expecting in terms of the widespread nature of it. The fact that Project Zero through Harvard are writing research papers and hypothesising about it suggests that its critical to the current way of educating in the movement. Thinking about kids being in an environment where its very specific learning – for example, in maths learning algebra and in dance learning ballet with a piece of music defined – the maker movement is about opening things up.

We talked about the aesthetics of making being messy – sometimes it's a circuit board with wires hanging off and it may not be beautiful, but if the child knows how to work that system then they can easily make change to it. He showed me an example of a 'maker' robot where cables and solder points are visible and exposed – both easy to see / understand and to change.

It reminded me of the Tinkering School at Brightworks – where the actual physical space was a little bit ad hoc although creative and well crafted, the studs and fixings were often exposed, and walls seemed temporary. When I was there I sensed that the space could change at a moment's notice. We talked about how this is an aesthetic that comes out of maker based learning – by leaving the work not quite finished its evident that it can be changed.

At the Yestermorrow design build workshop the carpenter was complaining that the buildings are never finished and he couldn't pinpoint why the architects wanted to build that way. Thinking about it today – perhaps that unfinished approach is deliberate to allow an opening for future change.

Something that crossed my mind was that I'd be quite suited to their research, in terms of what I've been researching on this trip. The discussions on making and the ethics of changing environments were relevant and I felt I could actively participate in all those discussions. A lot of the thinking was more academic than I'd been doing but I felt that we were on the same wavelength. Having said that, walking through the streets of Boston I was overwhelmed by the scale of the place, and wondered if I'd be genuinely satisfied hypothesising about these ideas rather than doing them.

I was interested in how Project Zero had teased out what made Making work. Edward talked about the media coverage of the Maker Movement, saying that it leads kids into better STEM outcomes (Science Technology Engineering Maths) – with more potential for students to pursue careers in these areas. I found that the educators I had met had a completely different view on their aims and outcomes. Many talked about building confidence and getting kids to have an 'I can do it' attitude that helped them think outside the box. The design thinking sets them up for life, not necessarily a career that is architecture, construction or technology based.

4.15 SITE VISITS

BLUE SCHOOL NEW YORK

TOUR OF VERTICAL SCHOOL






REGGIO EMILIA EXHIBITION: NEW YORK

100 LANGUAGES OF CHILDREN


4.15

YESTERMORROW: BURLINGTON, VERMONT

WOMEN & POWER TOOLS CARPENTRY WORKSHOP

Today I am at Yestermorrow in Vermont. Someone asked me today – what's the outcome of my research, and in fact she asked me 'what's the answer? What's the way f designing that allows kids to participate? What's the style?' And I was stumped, partly because I don't feel strongly that there has been an outcome, and as a designer I don't feel strongly that there can be only one outcome. I think there are lots of different ways people can participate in a construction process – and in fact I value process as a way to do that. I feel strongly that its not about the design itself, but about a commitment for all parties involved to let children and young people be part of the process and a willingness to create designs that are more hands-on and less prefabricated so that young people can be involved. Its also important that the design is not so simplified that the outcome is not long lasting. For example, in public art there are 2 kinds of participation – 1) is community and kids come together on a weekend and paint a mural with hand prints etc.

The group who did the painting are usually delighted with the outcome and happy to be involved but its not always valued or beautiful for the next generation. Its more about the process only. 2) the second type of public art gets an artist to facilitate community engagement – ranging from taking comments to community making. The hand of the artist is essential to shift the project from fun and games, quick fix to an actual long-term piece of art.

Participation in construction is the same. If we get the community together to build a shed, in the end its just a shed. It might look nice but its ultimately at a micro scale, whereas if the community get together and build a library, it is something functional working in the community. Every time a child or young person uses or walks past the building they can acknowledge that they had a hand in it. I think its about allowing non-construction professionals into the building process, which is obviously a logistical issue. There would have to be inductions about safety, but I don't see why its any different to having, say, politicians come to visit in an Australian context.

Its also about making something that kids are able to do – but I think its OK if this is challenging and takes a lot of visits for it to feel like an achievement. I'm not talking about a school group visiting the site once and going home, but in fact the same group of kids or individual kids visiting multiple times in a week in a month, throughout the process. The longevity aspect is what makes this valid – both for the young people themselves and for the site where the youth are doing the work. For example, with Seattle Design Build group at the Danny Wu Chinese Market garden – the group had been there 10 times for 10 projects. It was the continuing engagement of this group over many years that ultimately led to impact. The individual shed designs were neither here nor there but when you add the shed to the staircase, to the grand pagoda entrance, to the retaining wall and handrail and winding pathway and barbecue pit, you start to get a masterplan.

Here at Yestermorrow, I feel like, the design build projects are randomly placed and not working together. The structures are not set up like a work-yard nor are they strategically placed around the campus or even interconnected. There does not seem to be any kind of clear plan – so the structures seem like mere experiments rather than a useful, developing proposal. Students have built the accommodation and each structure is unique, but the architect in me wants to see the underpinning of these kind of works.

Similarly, for Rural Studio at Lion's Park, the collection of projects is individually impressive, but I felt they could be tied together better. I suppose that is the nature of these kind of projects – they work in fits and spurts rather than with a plan at the beginning. Having said that, I think both the Danny Wu Garden and Lion's Park are great long-term partnerships. The Danny Wu garden has a fully functional market garden brief outside the design agenda, so it will run regardless of whether Neighbourhood Design Build are there or not, however the garden is more operational and beautiful if it has the buildings and structures that the Design Build team have put in – and Lions Park is the same.

* * *

Yestermorrow is near Sugarbush, a well-known ski resort in Vermont. Its mountainous country, and there are black mountains all around, with dappled snow at the peaks and creases, its grey sky overhead and its quite wintry here. There are hardly any leaves on the trees, except for the firs.

I was a little disappointed when I first arrived – the entry sign is beautiful and elegant, but when you pass through there is no front gate and the main lodge is unclear where the entry is. The lodge is a work in progress built by students over time. Inside the lodge functions quite well, with offices, classrooms and kitchen upstairs, and the wood shops

below. The corridor spaces are through the centre of rooms, workshops and classrooms, so you do constantly feel like you are passing through people's rooms – although perhaps this adds to the community aspect.

The collection of buildings scattered around the site, are all small scale and even in disrepair, with really no sense of location. I didn't feel the structures were planned or situated in a way that enhanced the place or the architecture. There is a big grassed area outside the main lodge, and storage area / carpark nearby. Its not well organised, and much like a junk yard. There are a few tiny houses there as projects, although these were aesthetically quaint. Comparing to Rural Studio, where the architecture is striking, well thought through and materially refined. At Yestermorrow there is evident 'thinking through making' approaches but by individuals with no design background and perhaps even no construction training. This does not mean the work produced is 'invalid', just that my professional eye seeks something more elegant. \

There was some odd coordination / lack of planning when I arrived – for example, the reception had closed at 5pm even though the course purported to start then. My booking to stay the night had been processed but no meal allowed. I compared it to RedR training, where there are official arrival times and people waiting to greet students. There are name badges and a package of documents and clearly defined materials / requirements / background reading. Even this carpentry course that I did was unusual. The introduction of the two female teachers was quite light, and we seemed to be dripfed what we were doing and which tools we'd use rather than it being clearly described up front.
I guess my way of thinking is to start with the big picture then go through the detail step by step, and then work out some systems so we are not all waiting around for the cutting. Today I spent a number of 15-20 minute blocks waiting for a machine to free up. A few times I observed people working and wondered if there might have been a more effective way to do it, but I suppose the other women in the course are older than me. Perhaps I am not flexible in my approach. I imagined that we could jump back and forth to give everyone a chance on the machines, whereas I can see the benefit in letting one person do all their cutting and then let the one person come in.

I think really it's the grounds that disappointed me. When I arrived at Rural Studio I just wanted to look around and see everything whereas here I felt like 'oh is that it?' I went for a bushwalk and there was no trail marking and ended up bush bashing. There is a harvesting timber course running at the moment and many of the participants, and some of the long-term guests, are focussed on sustainable living in the spirit of Thoreau by Walden Pond as in building a house from scratch, and working through piece by piece from tree to mill to frame to furniture.

Its different to my ideas of sustainability and what I want out of the course. I am here for professional information, whereas others want to build their own homes – we are coming at it from a different framework. At the RedR course I felt like so many of the participants were on the same page, while here it feels very north eastern American almost lumberjack. Last night there was an impromptu banjo jam in the kitchen... I should just embrace the holistic approach – closer to my original ideologies before I was trained as an architect – so perhaps its nice to be reminded of that.

BROOKLYN & BOSTON CHILDREN'S MUSEUMS

SELF DIRECTED TOURS

CONSTRUCTION KIDS [NEW YORK] & BEAM [BOSTON]

CONVERSATION & OBSERVATION

6.15

COMMUNITY DESIGN COLLABORATIVE: PHILADELPHIA

LUNCH WITH BETH MILLER + ONE WEEK INTERNSHIP

Today I am in Philadelphia and I spent the day with Beth Miller from Community Design Collaborative. We had a meeting in the morning and she took me on a walking tour of the city and had lunch in the Reading Terminal Market near their office in Central Philadelphia. They are associated with the Centre for Architecture which is similar to the AIA in Sydney. Community Design Collaborative have their office at the Centre and are partially funded by them. Beth told me that CDC started in the 70's, when there was a recession and a group of architects wanted to make positive change in the city, even though there was no work around so they started forming collectives. These still exist – Baltimore and Cleveland were mentioned. When the economy righted itself many of these organisations fell through, although CDC Philadelphia has been re-established 15-20 years ago.

Based on the website, I was anticipating an organisation like Project H – potentially cutting edge, design-driven and impressive. CDC has a different feel – it was much more grass roots than I had expected. What they do in the office is more administration. They manage the process of getting a community group hooked up with a group of volunteer designers, landscapers, engineers, quantity surveyors and other construction professionals. It's a professional and disciplined team. Sometimes a firm can offer a whole team or sometimes it's a collective of individual that have come together.

The initial design meeting is done by the CDC staff and is done before the volunteers get involved. CDC scope the project and make sure the client is serious. There is a fee for the clients, not to make an application, but to commence the project. It's a small fee - $1500 – because the design services that are offered for free totals $30,000 and there are a lot of professional services offered for free.

The type of organisations that come to CDC are the Housing Commission, Religious Organisations, Community Service Providers, Welfare, Aged Care Centres, Community Garden groups, public and charter schools and neighbourhood committees. Sometimes it's a group of architects that get together – for example recently a group of architects wanted to propose something for remnant rail land, like the high line in New York, and they set up a not-for-profit organisation in order to get CDC to participate. There seemed to be a range of organisations collaborating. The idea is that the first 10% of the design – the concept phase, the initial costing and the key ideas for the space with the available funding, is what CDC offers. It seemed there had been situations on the past where CDC had tried to carry on into project delivery but it didn't work out – and now they are focussed specifically and solely on the first 10%.

The argument is that non-profit organisations at the beginning of a project may not know specifically what they want or have the means or funding to make it a reality, or

professional documents to procure funding or even have adequate information to have a conversation with their board about what to do. CDC are very clear that what they design is not supposed to be built – they do not produce finished drawings but rather concept design and masterplans.

It did seem that some of the project going ahead did not have the same design calibre as the original concept – which I imagine relates to the design agenda of the organisation and its very likely that they do not go ahead with an architect due to the expense. CDC showed me a project that Habitat for Humanity had done with them - this organisation has a long tradition of 'cheap and cheerful' materials like timber framing and fibre cement sheeting. The architects had tried to propose brick – because of course this is the character of Philadelphia and fitted in with the streetscape better – but it was a compromise and Habitat went for cheap brick that didn't really fit with the neighbourhood. There seemed to be a few examples of that. In this context, perhaps this is OK? Its better to have some well thought out idea rather than a slap-dash approach, even if the physical architecture and design is not the world's most amazing.

CDC have done a lot of streetscape and landscape projects. They had done some work with a water shed or water services group – specifically looking at how public schools could become a watershed to control stormwater in Philadelphia, which led on to the discussion about schools being a primary source of green space in cities and considering how these spaces could best be utilised by the city. This could lead to partnerships about schools being used on the weekends and by the public after hours.

I got the impression that the local council are not as involved in public infrastructure and services as they are in Australia. In Sydney, many of these topics around green space and stormwater runoff, are coordinated through the Council, while in Philadelphia (and the US more generally?) these issues are privatised or not considered or done by organisations that don't have much control on implementation. While it was difficult to fully understand the situation, the impression was that it's important to have an organisation like CDC looking at these issues as its not happening at a government level.

CDC they have a strong focus on neighbourhoods, and are specifically looking at the outskirts of town and suburbs rather than the City Centre. This preference is evidently in response to need, as the argument follows that there is tax payer money in the City Centre, with the Mayor presumably having a specific vision, while the suburbs are often neglected.

CDC seemed to have 6 or 7 staff members, some part time, so there is evidently enough funding to sustain this aspect of the organisation. Beth Miller implied that they received a lot of grants and some funding from the Centre for Architecture – and their office is also provided by this organisation and shared with institute staff, so the overheads are largely only staff. In addition they charge a volunteer application fee as they were finding that people were volunteering without following through – so the fee encourages a more active / serious commitment. There is also the small fee paid by organisations for the work, which while not enough to fund the organisation, no doubt contributes to some of the incidental project costs. She said they also do talks and fundraisers as well.

CDC have evidently sustained themselves, and we discussed how many of the volunteer architectural organisations in Sydney have had short life spans. Beth mentioned Architecture for Humanity (now bankrupt), and considered that they had over stretched their budget and were not clear on their vision. CDC's approach to do the first 10% of a project, packaged and handed over, while it may take 6 months to complete, has a clear outcome. There is no overrun into later stages, and CDC is very strictly based in Philadelphia – with no plans to expand into other parts of Pennsylvania let alone the USA.

Beth mentioned Public Architecture who have been lobbying for larger American architecture firms to donate 10% of their working week to pro-bono work, arguing that it is the ethical responsibility of the profession to do that. Beth felt that this was effective to get people thinking, but became more or less an internet platform for large firms, rather than resulting in genuine projects. CDC, by contrast, have a project manager for each project in their office who compiles all the final information, writes the executive summary, makes sure all the statistics and strategies and budgets are clearly defined, and that all background info and drawings. This compilation is a standard format for their office. Again, the report outcomes were not 'glamourous' but were relevant and appropriate and clear for the not-for-profit groups that they worked for – keeping in mind these groups are often run by committees and under-resourced, it's an essential outcome to have clearly documented process and proposals.

The CDC process of putting together a collaborative brief with genuine community consultation was notable, and reminded me of my time working at Constructive Dialogue Architects. Beth talked about how the design teams run community meetings where they get the community involved and on board – I was interested that this was run by the design team. There was no specific training for this, rather it was assumed that architects can run a meeting – I wondered if there was scope for a wider response there. We also talked about how at Constructive Dialogue – this group accepted any project from their target organisations (from a disabled access ramp to a toilet refit to a paint scheme) which eventually led to more hefty community projects (eg. Mary Mackillop disability centre). Beth said that CDC started small with a committed group of people, but that they design obsolescence into it. She said that some CDC board members have had to give up involvement due to time commitments so that flexibility and openness to change is necessary.

PlaySpace is a CDC initiative funded by William Penn (University). The project is culminating in a design build program to build 4 different play exhibits around Philadelphia. The projects will be run by kids through Public Workshop (Alex Gillam) – who is experienced in working with kids in this way. I left the CDC interview feeling that there were not many physical project outcomes that I could visit, although I did agree to assist with the Play Space proposal in the coming week. They were obviously glad that I could collaborate with them. Sam Crawford had commented to me post-conference last year that I should consider setting up a CDC in Sydney. When I mentioned it to Beth she said, 'that would be amazing!!' – but big! Personally, my quest for flexibility and opportunity makes me reluctant to set up a long-term organisation in Sydney. Beth suggested that I could 'design myself out of it' and just be the spark or catalyst to get started.

I went to the free public library in the afternoon and noticed it was a haven for the homeless, and in fact that seemed to be one of its functions. In the States where Social Services are problematic, a library is not just a book distribution point but is also a place for someone to sit, use the toilets, not be molested, or have access to internet. It made me think further about the library project for UTS – and the idea of indoor public space.
.....I'll be attending the CDC design services meeting on Friday – followed by a brief talk / 20-minute chat about the playgrounds I've visited including Nature School and the Summer Marina Playground. I'll also give a brief summary about the construction camp projects like Project H and Youth Art Exchange.

I am beginning to see how some of my research is tying together into a relevant field of expertise. CDC, for example, are doing work in play spaces but they don't have wide experience in it – whereas my experience visiting Berkeley Adventure Playground, Mission Dolores, and others has become a wealth of experience and knowledge that I can offer as a consultancy or even free service. Design aside, its more about ideas and discussion. Thinking about my wide range of expertise and trying to explain where I am coming from can be challenging – how to explain or market how all these experiences lead to the sum of who I am. I can see for example, that I can write reports, talk about play space, engage in discussion about urban issues – and that I have a wide knowledge from various different jobs. The question remains – where to from here?

6.15

PUBLIC WORKSHOP: PHILADELPHIA

VOLUNTEER WITH ALEX GILLAM

MELBOURNE

COLLINGWOOD COLLEGE: MELBOURNE

VOLUNTEER WITH COMPOSITE 3/4 CLASS

On the recommendation of my BHTS mentor, Clare Britt, I arranged to spend three days with the composite year 3 and 4 class at Collingwood College. Th school had participated in the Stephanie Alexander Kitchen garden program in its infancy, and Clare had told me stories of her PhD studies of how children at the school claimed safe spaces within the school - for example, the wall that wraps around the playground has always been a 'kids only' space - where with a little risky climbing, a child could seek shelter from the bustle in the school yard. I was intrigues to see that since Clare's research (and subsequent exhibition of the kids drawings and photos) - the school had formalised the edge with platforms, ladders and slides in their new playground.

Located adjacent to a series of housing commission flats but also close to trendy Fitzroy, Collingwood College has an unusual range of students - from Sudanese refugees, English as Second Language students, children with autism, to kids with left wing and hipster parents. Collingwood have managed these mixed experiences and learning levels by developing a Reggio-inspired approach to learning, most effectively played out in the composite class.

I was teamed up with the 3/4 teachers, Joanne and Paula for my three days. Their class was literally two classrooms that had had the dividing wall removed. The space displayed a large paper mache tree at the centre (a very Reggio- idea), had a mini tiered auditorium at one end (called the circle), a cluster of couches, series of shared tables, and a glass 'quiet room'. Each session started and ended with the circle, and everyone was invited to share their questions and experiences. Joanne and Paula expertly directly the proceedings so that everyone had their say, correcting behaviour when needed, but generally supporting an environment of respect and communication.

The students had been learning about programming Lego Robots (dogs) and Joanne had asked whether I would consider helping the class with an obstacle course where the robot could test its many skills of colour and sound recongition. We spent most of the first day in discussion and group brainstorming sessions - where the kids were encouraged to draw a hosue for their robots. Creative ideas included a battery garden, a floating space ship for robots, as well as space for the robot to meet with friends. Kids worked in small groups on themes like 'friendship', 'exercise', 'play' to tease out what a robot needs. All ideas were valid, and later discussed in the circle.

Joanne had been showing the kids 'OK-GO' music videos - including the mesmerising Rubes Goldberg Machine marble run. In discussion, we agreed that I woudl help the kids to start building a robotic obstacle course - and it would be a project that could carry throughout the semester. Mindful of my time with Cedarsong, I worked with smaller groups of kids (5 at a time) to make parts of the course. Attention spans and skills levels varied, but with patience and few rests, we managed to make a decent start.

We raided the craft cupboard for carboard, foam, string - and I had come equipped with copious roles of masking tape. With these supplies we constructed a hanging chute, with

trap doors and turns, followed by a domino trail, a doorway into the next room and a series of stopping / turning points along the way. By the end of my third day, all the key moments were decided - there was even a 'home point' where the wheeled robot could meet the dog robot and a series of level changes.

As always, its difficult when building with kids to strike the balance between freedom of expression and practicality. I was mindful that the robot itself cost around $700, so that any hanging structure would need to be secure enough to protect the school's asset. One of the students had a very active imagination and wanted the robot to fly into the air among other things - impossible at the best of times, least of all in my quick three days stint. One of the female students was particularly adept at programming the robot, but was not as interested in making the course. Meanwhile, ukelele lessons, recess, and gym interrupted our efforts - a usual school day!

In the afternoon of my third day, we had put together enough of the course to test it - which we did gleefully with one of the student's apples. The whole class crowded in for the demo, and the year 5 class across the hall also poked their heads in. Needless to say there were cheers and encores when the apple plummeted down the chute, crossed the brdige we'd made, successfully turned a corner and knocked over a double stream of dominos. Students were keen to try the robot as well - but there were a few kinks to iron out before the $700 robot was ready for its maiden voyage.

I would have liked to stay for the rest of term - and indeed Joanne suggested I make another visit. it was the second satisfying request for my services that I had in Melbourne - where community participation and kids engagement are clearly valued. I was reminded of how much I love creative making - and that a primary school classroom sis a good place to do this. Like Sean from the Tinkering School had said, a project that is bigger than one person (and in this case, one robot) is inspiring for all involved.

I could imagine how this creation would evolve as the term progressed - would it lead to structural testing and conversations about physics? Stopwatches and maths calculations? Colour combinations and robot programming? Both making and testing woudl be learning experiences.

I did follow up with Joanne - an email wondering how the structure had faired - but the life of a teacher is busy and I didn't hear back. Perhaps that's enough - to start the spark!

HERE STUDIO: MELBOURNE & BALLARAT

INTERVIEW & SITE VISIT - AMMON BEYERLE

An architect colleague from Melbourne connected me with Here Studio, an aerchitctural practice focussing on community engsagement. I met twice with co-founder Ammon Beyerle - the first for a meet and greet with staff in their inner-city office and a slide presentation of my BHTS research, and the second involving a train trip to Ballarat to check out their Civic Hall project there.

Here Studio are a practice of around 6 people, based in the impressive art and design collective 'Nicholas Building' on Swanston Street. The office overlooks Federation Square and Flinders Street Station, and was designed and built as a participatory project with the various firms that co-work there. Ammon shared with me his intriguing schedule of works for the office fitout, where material purchases and trade contracts are interspersed with staff working bees and maker sessions. Here had completed a number of pop-ups including the Smith Street Dreaming festival in Collingwood and an 'Emotional Shelter' installation as a response to an Emergency Housing design competition, featuring a children's playground and community meeting place - the only project to do so amidst largely housing propositions. All their projects are participatory and made by friends and community members.

The most significant project in Here's portfolio, was the Ballarat Civic Hall, located in Ammon's home town. The Civic Hall is a historic dance hall situated in a block with Ballarat Public Library but long closed and overtaken by pigeons in the main hall. The Council had proposed redevlopment of the site, activated community resistance. Here Studio were employed by the Council to manage community engagement of the project.

In a unique move, Here relocated their Melbourne office to the Hall foyer two days a week, to ensure that staff are on site for drop-in feedback, fostering local trust. The site office was eclectic: decked out with salvaged furniture like persian rugs and mismatched lounge chairs adorned with crocheted blankets. More impressive, was the methodical processes for community engagement on display - a series of posters showing design options for the hall (up to iterations J, K, L, M, N at the time of my visit) - accompanied by colour coded feedback forms. Current feedback was displayed on a peg board, while feedback from former sessions was in an open file for anyone to peruse. Transparency and process were evident - and visitors always welcome.

Ammon mentioned that the consultation was impassioned and that some locals had even attempted to sway the popular voting by sending in friends, family, kids to the feedback sessions. Here seemed to be patiently reworking options to split the hall into a lower level and mezzanine or develop as a public library - and were evidently juggling competing interests by Councillors and locals. Ammon and I discussed a youth build for the plaza fronting the main street - with gardens, skate park and kids programs.

Here aimed to lead by example, to 'occupy' and activate, then build. It was a long game. I met Ammon again last year and was sad to hear that Council had eventually awarded the Ballarat Hall project to a commercial firm - a disappointing end for their patience.

CO-DESIGN: MELBOURNE

INDUSTRY LUNCH + CHAT WITH JESSICA CHRISTIANSEN-FRANKS

I had heard of Co-Design many times in Sydney: their pop-up community projects and events had become legendary, sparking a movement of tactical urbanism and grass roots development in Melbourne and further afield. Co-founder Lucinda Hartely had worked at Architects Without Frontiers while I was in India, and we had mutual friends. She was on leave when I visited, so I was introduced instead to Jessica Christiansen Franks, a landscape architect and urban designer. She invited me to an industry lunch with other 'placemakers' and I had a chance to share some of jmy US experiences.

Many Co-Design projects are temporary , and I was directed to check out a few local road closures with garden pop-ups while I was in town, even though other projects had long been dismantled or turned into permanent fixtures. Followign the tactical urbanism model, Co-Design work with community to install quick, cheap, provocative public installations - which in turn lead them to become a permanent fixture with Melbourne City Council.

Co-Design had managed this growth by engaging with its network of volunteers and interns from universities and practice. Jessica mentioned that Co-Design had originally accepted volunteers whenever offered, but had recently developed summer internship project. She said that volunteers working in a concentrated and collective way were more effective and produced higher quality work than ad-hoc arrangements. I was reminded of the Community Design Collaborative's request for 20 hour minimum volinteer time.

There were noticable differences between Co-Design and Here Studio, despite their similar mandates. I was impressed that Co-Design had managed to 'infiltrate' the City Council as a steady, consistent client - arguably increasing the impact of their projects and ensuring their company can sustain itself. Co-Design also run invaluable traning courses for Council designers and staff to devleop tactics for place making.

Having said that, there is something about temporary projects in Melbourne that feel like an end in themselves - as though packing crates and plywood garden beds are preferrable more permanent civic gestures. Maintenance, safety, beauty are arguably forestalled. The idea that pop-ups are a one-size-fits-all solution have been taken up in Sydney by developers as a way of increasing spending ealry in a project. There is something messier, longer, and more difficult about Here's Ballarat Civic Project that feels closer to architecture.

Since 2016, I have begun teaching a subject on Social Agency and Participation in Architecture at UTS. My students and I regularly discuss the role of pop-ups in 'social projects' - great for events and urban activation, and some firms, like Assemble in the UK, have started to develop a 'pop-up' architecture of theatres for summer festivals. Like the Harvard Agency by Design Project - the unfinished, boltsand-all aesthetic is celebrated. Although fleeting, each project becomes part of a collective effort to reclaim the city.

5 EMERGING THEMES

EMERGING THEMES

As I travelled, I found myself reflecting on the collection of making and building projects that I had visited. The texts below are reflections from my diary, as I attempt to unpack possible applications for Australia and to consider links and differences between projects.

RISK & RESPONSIBILITY

In Australia, the construction industry is regulated by serious Occupational Health and Safety codes of practice, and while amateur building projects are no less risky, the safety procedures are inevitably more ambiguous. In my observation of US-based projects, the onus seemed to be generally on the organisation to 1) indemnify themselves through extensive waivers 2) adequately train participants 3) incorporate expert help for difficult and dangerous tasks and 4) provide extensive supervision – particularly when power tools were in use. For project involving younger children, high teacher / student ratios were required to maintain adequate supervision. Safety seemed to be a high priority for all projects, but fieldwork is inherently risky and the accidents that unfortunately occurred in some projects can be lessons for others.

ACCIDENTS

One program that had a strong safety ethos was the Tinkering School in San Francisco. It was an afterschool program based out of the Brightworks (alternative) school, with participants ranging from 5 and a half to 12. This lower age limit was based on developmental research regarding awareness of actions and consequences in young children.

In discussion with instructor Sean, he stressed that safety procedures are clearly and repeatedly explained and enforced. For example, protective equipment (goggles, gloves, ear protection) must be worn at all times in the workshop – and instructors are particularly committed to leading by example here. When students are preparing to use power tools, they are instructed to call out a pre-agreed code and get a response from other participants before proceeding. The instructor I spoke to did recall one serious accident where a student had caught her hand in a bandsaw – this happened after class when the student was demonstrating her newfound abilities to her mother, and in her excitement had failed to follow any of the safety procedures that she had so stringently adhered to during class time. In hindsight, access to the workshop and/or power to equipment could be restricted as soon as the class had finished.

The Rural Studio, being the most ambitious and long-term project, had also had its share of accidents. One female student had tragically died in a car accident on her way to Lyons Park, when another car ran a stop sign, and while not construction related, it is a sad reminder of the wide range of risks inherent in fieldwork. The Perry Lakes bird watching tower, was an adaptation of a former fire tower, that had to be dismantled and relocated by the students, who were trained in rigging in preparation for the project. Early stages of dismantling the old tower released decades of tensile pressure, and in one instance caused a cross bar to fly out unexpectedly, winding (and almost toppling) one of the harnessed students – who was balanced precariously on the frame, reportedly grasping at air for

support. The crew were so shaken by the accident that they retired for a few days before resuming work. The Newbern Library team reported that during demolition of the interior of the old bank building, a brick wall had fallen on one of the team member, and while he was unhurt, all team members were shocked and shaken by the incident. In both cases, the students were unsure whether they would be blamed or reprimanded if they reported the issue, which suggest that safety procedures at Rural Studio were not always clear..

Rural Studio is unique and inspiring because of its ambitious project scales and the committed engagement of its student teams. The studio works because students do not limit themselves to what they can already do, but are encouraged to test new building methods and 'be bold'. One observation, is that students very much learn through trial and error – which while educational, is both slower and potentially dangerous. It was my view, that the project would have benefited from some additional construction experts or builders on their staff team. I observed a strong and competent architectural, engineering and environmental presence, with many students and returning graduates having good workshop skills. I felt that project management and building training / aid / supervision were less formalised, and perhaps needed.

One other reported accident was at the Hero bike workshop in Greensboro Alabama, in the same region as the Rural Studio. It is my understanding that a relatively new Peace Corps volunteer was trained and inducted into the workshop to make bamboo bicycle parts. He was severely injured by a chop-saw when misusing the machine and not following safety procedures. This volunteer was an adult (presumably in his early 20's) and its unclear on how the workshop could have prevented the accident.

EDUCATIONAL BENEFITS

It surprised me the aim of most projects was not to create young architects, but to teach design thinking as a methodology for dealing with the world. A number of projects, particularly those focussed on teenagers and young adults, talked about design and construction expanding consciousness, increasing empathy and developing autonomy. For example, Craig Hollows from Youth Art Exchange described his delight in seeing students transform through their community work, which is a result akin to the Rural Studio's 'Citizen Architect' model. Hailie Chen from Studio H talked about the 'outward looking' nature of their community projects as a necessary stage in student development.

Upon returning to Sydney, I spent three full days at Collingwood College in Melbourne, developing a robot obstacle course project with the composite year 3 and 4 class. Teacher, Katherine Watson, is a strong advocate for project-based learning, and the classroom is partly modelled on Reggio Emilia philosophies. At Collingwood, the student catchment is largely from the local housing commission, so many kids come from new migrant families, and/or underprivileged backgrounds. The project-based learning model is more effective than conventional teaching models, in this diverse and complex student group; it enables kids to work on ideas that interest them, at their own capability level. Its my understanding, that the project-based learning model is an emerging educational trend, intended to foster creativity, problem solving skills and the so called 'STEM' approach to learning.
For the proje

cts involving younger children, the focus is often on supporting creativity, with an underlying assumption that creativity, imagination and making are fundamental and essential life skills. Play Leader Shaun Toohig, at Berkeley Adventure Playground, described how the organic forms and kid-created forms of the playground 'mess with kids brains' outside the conventional adult-centric world's they usually occupy.

DESIGN BUILD: IMPACT & OPPORTUNITY

There is a disconnect between afterschool programs and kids camps with the Design Build Projects. (Although perhaps I need to give more credit to the longer camps where more time is spent and the structures built seem to be more meaningful). There is something about the camp context which is unreal – taking kids outside the 'real' urban environment and fabricating projects in an isolated rural environment that is only ever self-referential (eg. for camps within that environment). I'd like to see how this kind of project could be more applicable – to see a piece of architecture that is not a shed or hut, but a genuine civic contribution.

I wonder if I could think about that idea in a real context – for example Surry Hills library by FJMT in Sydney is a multi million-dollar project with prefabricated imported timber panels, hanging glass façade, geothermal tubes and other complexities. I wonder if that building would look different if the agenda from the outset had been that members of the community had to be part of the project?

What if we speculate that it wouldn't look different, that it was the same building, but the community had had a hand in it? That would mean the community themselves would have to buy into the design, and perhaps that specific community members would be selected to help out or collaborate. They would have to be paid – as this would be like an apprenticeship. On any site there are always 'boring' manual tasks.

When I visited Brooklyn Children's Museum, there were workers laying out blue foam insulation, sorting pieces of foam into a grid. Of course its their job, but anyone could really do that task. Would it be possible to set up hold points in the work, where its decided that at this point the community would come in for a workshop – in this case, for example, with the sorting of foam! This could mean not necessarily relying on community to complete key tasks but allowing them to be there. The agenda should not be here about free labour but rather to make space for community to get their hands dirty and feel ownership of the project. I think this is more important than the labour outcome.

PAID & UNPAID LABOUR

In Malawi, I had thought that we would be making bricks with volunteer labourers, and in the end no one was willing to do it. On reflection, why should they? People were struggling for their daily bread – why should they work for free? Especially for an organisation that has money and can afford to pay. That raises the question – when do you pay? Is it Ok to reimburse someone for community labour? Unfortunately, when paid labour is started, its difficult not to pay others for similar tasks. In Malawi, the apprentices were paid, but then on community days there was a sense that the community wanted something out of it. Of course, community days were only for 2 hours, for an allotted

task, and it was challenging to get anything more out of the group. I would have liked those community days to be more frequent. For example, if these were once a month, for a project over 2 years, this is 24 sessions, where community members have gone from digging, to carting bricks, to helping with a concrete pour, to doing some timber framing, to carrying water, to clean the site, or garden or landscaping – is a very condensed version of what might happen. Imagine this engagement over 2 years, a person would feel that they had seen many stages of the project over that time.

One question is, is this some kind of architects' fantasy that everybody wants to participate in construction? Maybe people of the general public wouldn't want to spend their weekend participating in a concrete pour, but maybe they would spend a weekend to paint a mural. So is there a value of art versus practical input? How do you cater for both? How do you make outcomes that are valuable? How to get the people who would benefit involved? Perhaps it's a combination of structured vocational trade programs and participatory programs, then community workshops and possibly a design feature or parts of the design that can specifically be made by the community (in entirety or designed with heavy involvement by community).
I think these objectives are achievable – small inputs into the overall project. I don't think it would compromise a high level of design quality.

As to the question of 'what's the answer' – it's a process! And to the following question – what do you want to do with this research – its about validating the systems I've already set up in my community development work and continuing to do that, or formalise it. There is certainly scope for getting kids to learn about construction and architecture as a means of creative thinking and learning. Perhaps those things are compatible? Perhaps it's the sum of those components that make a good community project – the 3 overlays running simultaneously reiterate that this is an essential and important part of the project, and that it can only work because all parties buy in to that possibility.

COMMUNITY PARTICIPATION IN PUBLIC PROJECTS

Reflecting on the above, I was reminded of a conversation at lunch today about a community library that was built in regional Vermont, explained to me by one of the course participants from that area. She talked about how the community had conceived of the library and held a range of community meetings. We were talking about how in New England community meetings are taken quite seriously, and there is a lot of debate, and people get quite involved in the process. Together, this group had raised the money somehow and gone ahead and built the library. It had been an old barn and there was much debate about converting the old barn compared to a new building – some people wanted a fresh new library and others wanted to convert the old place. Presumably there was a process involved in which the community made these decisions and made the library happen.

I wondered in the conversation why this situation seemed so odd to me. I think its because in Australia it's the Council that builds the library – it seems to me, unimaginable, that the community would need to come together and make a library project happen. There have been examples in Sydney of communities getting together to stop development or preserve historic buildings, for example the Green Bans, but for the Community to then go and make this into a building themselves is unheard of. I think its related to our system of government and also cultural systems.

In the States the idea of philanthropy is culturally present – from the tradition of the Carnegie Library, this is how libraries in the States are funded. Perhaps the library is run by a local council but usually set up by a wealthy benefactor or in this case the local community group. In Australia, or Sydney specifically, the government takes over that civic role to administer projects on behalf of the people, but then I have to wonder 'where are the people'? in this process. The people vote for the government to do that work and might even lobby the government, but in the USA, it is the civic community that makes change and exercises democratic rights.

It's the same with schools in the states – individuals set up schools. I suppose it's the same as private school in Sydney – which are usually set up under the auspices of religious education. Whereas in the States, it seems that any one with an educational philosophy can and do set up schools, and since the population is so much bigger there are many examples of this.

I was speaking to someone at Yestermorrow this evening who said that he was going to set up a school, and I was reminded of working in India where every second person wanted to set up their own NGO. Everyone seemed to want to set up their own organisation rather than pooling resources or partnering with existing organisations to, for example clean up the Sabarmati River. It was all individuals trying to do their own piece to save India from perceived issues, rather than a collective approach.

Is this a hindering factor to community engagement in Australia or a good aspect of our culture? Perhaps its an indication that there does have to be corporate buy in for these projects to happen as well as pushing from the grass roots?

I'm reminded of speaking to Judy Donovan and Joaqim Sanchez from Industrial Areas Foundation in Oakland about that same issue about mobilising communities – and facilitating the genuine voice rather than a perceived box ticking.

SPECIFCITY

Listening to my previous reflections, thinking about the impossibility of civic-led community buildings in Australia, and my second point relating to the genuineness of engagement. I was thinking about apprenticeships and getting underprivileged kids involved in a program that uses construction to increase their confidence and employability. I thought about giving a talk to Clover Moore's office and City Projects about how apprenticeships could become an essential aspect of the design brief.

I've come to realise that an important aspect of community engagement is 'specificity'. In the context of Africa and aid work, we often refer to the community in general. It's a very vague term that could apply to anyone, and in fact the suggestion is that more is merrier. But is this effective? The Exploratorium Public Spaces project for science-led parklets involved only 6 kids, but those 6 kids had a genuine engagement. They came out of a two year invested experience of designing the parklet, figuring out the brief, building prototypes, having relationships with the Exploratorium mentors and leading to a genuine, finished product.

FOR THE FEW OR THE MANY?

Perhaps that's an aspiration for future urban projects – its not about getting 5 school groups a week to pass through the project, and not even about the 2 week summer camp (in and out), but rather its about six, four, even 1 kid having a long term involvement and getting the benefit of mentorship, vocational skills, and seeing an idea turn into reality. I guess that's particularly for youth (14+) but also for younger kids, the ongoing aspect is important – its what Rural Studio describe as the citizen architect – someone who is really there, not passing through or detached but genuinely invested.

The idea that any kid can / should be involved is perhaps misleading and ineffective, indeed there should be a selection process. In India, for example, there was self selection by the young people that hung around our construction site – Sunil and Rahul were with us almost every day in their school holidays, while Lucky, was interested but was only there every other day, and Puja, our immediate neighbour only dropped in and out. Perhaps we could have increased the engagement of some of those kids – for example Puja, if we had engaged more directly with her we might have sparked a dormant interest into further involvement – but I don't think we could have got Sunil's brother to be involved, as in contrast to Puja, he lived across the street and never once stepped onto site or showed an interest.

Its difficult to generalise across all age groups as I am trying to do, as the situation for young kids is quite distinctive. Thinking about the Adventure Playground in Berkeley and the model of adventure playground coming out of Germany and Scandinavia, is that the playground exists in their specific community and is available all the time. It's a weekend getaway, their afterschool hang out space, and backyard in one. They can start a project one day and keep going with it another day and even more long term – for example hard wiring electricals in their cubby house or digging a massive hole to see if its possible as one group did – and in fact they can even knock down their cubby house and build something else.

At the neighbourhood play space, kids are regular participants in that space. At Berkeley, it's a slightly different model as kids are not there every day / week. I did see it at a different scale though with Luca, who had a really great time building the geodesic dome one week and was back the next weekend ready to keep building. If his parents are able to facilitate that, you could imagine that over 3-4 years he goes there regularly and sees the fruit of the collective labour.

Is it one project over a long time? Or a series of small projects in the one place? In both proposals it's the one place – the construction site – or could it be a park or playground like Lions Park or Danny Wu Garden. The repetitive reoccurrence in that place is important for the participants doing the work and also for the community itself, who remain and retain the collective memory. For the group to go back, even with different individuals on the team, is a type of continuity – and Rural Studio is an example of this. Rather than an individual, it's the collection of students, repeatedly in that place in Newbern that make it a special project.

KEY FINDINGS + REFLECTIONS

FINDINGS

1) Young people are capable and willing to be involved in projects that affect them. Ages range from 5-25 years, with the best impacts when projects and participants engage over a longer time frame (2 years +)

2) Construction is an untapped opportunity for community involvement in the public realm. Various project typologies, scales and design / build methods are achievable. Projects should be large enough to inspire and small enough to manage in the time and budget available.

3) Risk taking and responsibility are important life skills for young people. Construction projects teach applicable design thinking skills to help youth respond effectively to risk and life challenges. With training and consistent supervision, risk is manageable.

4) Youth engagement adds creative and community value to design projects. Funding models for community engagement projects include crowd sourcing, institute sponsorship, client contributions, working with donations and school partnerships. Often the youth engagement is an incentive for procuring donations and discounts.

AGE

Children and youth of all ages can benefit and enjoy engaging with construction projects, with a starting age of 5 and a half (minimum). It can be beneficial to group children within their respective age groups to ensure the tasks and levels of supervision are suitable to the age

PROJECT TYPE & SCALE

Project typologies included: parklets, tiny houses, sheds and pergolas for parks and community gardens, greenhouse, bus shelters, games (basketball hoops, pinball, etc), mobile education units (eg. skatebus), signage, occasional larger scale public projects. Scale of the project affects time, cost, feasibility and overall impact on the students – most organisations supported the idea that a project should be a big enough that a student could not do it alone – participation in a team

METHODOLOGY

1) Youth design / youth build 2) Youth design & build with professional assistance 3) Architect designed / youth build 4) Youth design & prototype / professional build

RISK MANAGEMENT

Strategies to manage risk include 1) legal waivers 2) adequate training and workshop orientation 3) consistently implemented safety procedures 4) agreed signals to warn onlookers of unsafe activity or noise 5) high student / teacher ratios – especially for supervising cutting tools 6) supportive and respectful adult supervisors (usually not parents) 7) professional assistance for difficult and dangerous work 8) adequate time to complete set tasks.

LONGEVITY

Usually affected by scale of projects & materials used – which is also a result of the community partnership, time available and age of participants. Longevity is achieved by Rural Studio because the projects are more in-depth, also some design build programs have regular repeat involvement with the same organisation which gives longevity to the process and allows for maintenance and changes over time.

COST / FUNDING

Funding models vary across projects – these can include partnership with local schools, universities and institutions, client contributions, donations (of materials and funds), crowd-sourcing, low-cost projects, after school program fees,

RECOMMENDATIONS FOR SYDNEY

The following ideas were present3d to City Projects, City of Sydney Council in 2016:

1. Formalise apprenticeship and youth engagement programs as part of public works contracts – including long term engagement for individual teens throughout projects
2. Schedule (regular) Community Working Days on public projects to develop community engagement and ownership, consider volunteer programs
3. Establish an Adventure Playground in Sydney
4. Advocate for public discussion around risk taking in play, through climbing equipment, nature play, water play, adventure play etc
5. Develop “Nature Play” partnerships with local childcares to use public parks for outdoor engagement
6. Use tactical design/build projects (through universities, TAFE and schools) as test cases for changes to the public realm – eg. George Street
7. Develop feasibility study for a Children’s Museum in Sydney
8. Establish a Youth Advisory Committee to support Council engagement with young people
9. Establish a Sydney Community Design Collaborative to support non-profit and charitable organisations with pro-bono concept design services
10. Institute of Architects to develop educational programs for local school children to learn about architecture, design and building

TRANSCRIPTS

EXTRACT: EMILY PILLOTON

FOUNDER, PROJECT H DESIGN, BERKELEY

My name is Emily Pilloton. I'm the founder of Project H Design. I feel very lucky to do the work that I do. Every day I get to work with young people ages 9 to 17. We teach them all kinds of creative skills, how to build things, how to imagine things and build the things that they imagine, and also how to use hands-on skills for things outside themselves – so looking outward into the community. I feel like it's a really important thing to learn as a young person, the concept of empathy, and also the confidence that you can learn new skills and apply them out in the world. I'm an architect by training and I love architecture. Its really wonderful to see people use architecture as a vehicle to express the big ideas that they have.

EXTRACT: HAILLIE [MIMI] CHEN

STUDIO H INSTRUCTOR, MIDDLE SCHOOL

Hello, my name is Haillie Chen and I'm also known as Miss Mimi. I'm the Studio H instructor for sixth, seventh, eighth grade at Realm Charter Middle School. I teach students how to think like designers – basic drawing skills, basic measuring skills and model making, as well as how to use hand tools and power tools.

My hope is that students leave my class feeling like they are able to learn and figure out how to make things on their own. Whether that be something small and toy like or whether that's the scale of architecture, but that they have the abilities to make what's in their head come to fruition in real life, and also that they have agency in shaping their environment and understanding what they're community needs.

I got into this work, because I was doing a lot of social practice style architecture, community based architecture, where I worked with people in a given area to think about what they needed as a community and what they could do together as an intervention to try and improve their lives and the lives of people around them. And that's what I hope students get when they take my class.

"My hope is that my students... have agency in shaping their environment."
- HAILLIE CHEN, PROJECT H

INTERVIEW: AUGUSTINA MCKEON

PROJECT H GRADUATE & PEER MENTOR

My Name is Augustina McKeon. I am in the ninth grade and I am a student in Realm Charter School. I'm a part of Project H, which has a Studio H and a Camp H – so I'm part of both things.

For Studio H, it's a class during the day, its one of my classes in high school. We are currently building two tiny homes. It is now the end of the year so it's the end product. Throughout the year we basically designed the whole house (towards the first half of the year) and now, in the second half of the year, we are currently building it, with everyone else who was part of Studio H. I'd say its 60 kids, maybe 70, and we're all high schoolers building this, which is great. I never thought I would build a house in my high school years.

JH: Can you tell me what's going to happen to the houses once their finished?
One house is going to be donated to an organisation in Oregon, and that organisation helps homeless people transition into a more stable lifestyle. And the other one is going to be auctioned off and the school will keep the money.

AM: Today I'm at Camp H. This is what the girls have been building – it's a doghouse. Camp H is an after school camp and is also a summer camp for girls aged between 9-12. There's different camps, but this particular camp we teach them about design and architecture. So they have learned how to use tools and work with wood, we welded before too. So this is their end product in architecture.

What I find amazing about it is that its an all girl camp, and most building and construction camps are meant for boys, I would say, so right here girls can just kind of forget about social expectations and just have fun, build and learn new things because they want to.

EXTRACT: CRAIG HOLLOWS

DIRECTOR [ARCH], YOUTH ART EXCHANGE, SF

My name is Craig Hollow. I am the director of the architecture and public art program at Youth Art Exchange in San Francisco, California. I facilitate public high school students in the design and construction of small community projects.

What motivates me to do this work is seeing the transformation that takes place in my students, from being passive participants in their community to being active transformers of the world that they live in.

TRANSCRIPT: CRAIG HOLLOWS

DIRECTOR [ARCH], YOUTH ART EXCHANGE, SF

JH: I am here today with Craig Hollows from Youth Art Exchange in San Francisco. Can you tell me about the set up of your organisation? How are you associated with the school that we are currently in.

CH: Its an Arts High School - while we use their space we're not associated with them.

JH: What kind of kids do you get at the school and what do you do?

CH: Youth Art Exchange in broad strokes, its overall mission is to provide arts programming for public high school youth. So our students come from primarily public high schools. Occasionally there are youth who are interested who come from private schools and they are welcome to participate in our programming. All of our programs are free and we recruit by sending one of our office associates out – she does youth outreach at all of the local high schools, and develops relationships with teachers and administrators. She gives presentations in class to students about the opportunities here.

JH: Do you ever do classes in the schools or is it always outside?

CH: Generally, its outside the school, sometimes we make use of the school facilities although that hasn't happened very recently. One of the challenges with my design build program is finding space to do it.

JH: Do you mean finding a site?

CH: No, not for a project, but building space like a workshop. We have an amazing facility here and we can use the classroom but we sort of have to disappear afterwards, so we are very itinerant in that way, my program, the other programs change from time to time depending on who the teaching artists are.

"What motivates me is the transformation that takes place in my students from being passive participants in their community to being active transformers of the world they live in. ." - CRAIG H, YOUTH ART EXCHANGE

The structure here is that Youth Art Exchange gets professional, working artists, and they often try to find and support emerging, younger artists who are earlier in their career as professional artists. They try to hire them as teachers and everyone teaches two days a week – 2 hours for each class day. In my case, its Tuesdays and Thursdays, two hours after school. Its always 4-6pm. Some people are Mondays and Wednesdays and others are Tuesdays and Thursdays.

Right now we have Architecture and Public Art, which is what I teach, Printmaking, Photography, Fashion, Dance and I think that's it. There is Painting and Drawing occurs in the other classes, or not so much painting but a lot of drawing and printmaking. There is a lot of drawing in my class. We don't have a specific drawing class.

JH: Are kids more likely to get that at school? Do the schools have art programs?

CH: The schools don't have a lot of art at this point. A lot of that programming has been taken out of schools. It has started to be put back in as educators are recognising the pedagogical value and the value of the cognitive development that comes from arts related education.

JH: It seems obvious!

CH: It seems very obvious, but these things don't always happen. Understandably there is a tremendous focus on getting students into College, because if you make it to college, in this country in particular, then you can access higher paying jobs and yeah, you've made it. That seems the goal, and the business of getting into college is 'can you write' and 'can you do math'? The science background, and all the emphasis on what we call STEM (Science, Technology, Engineering, Math). For the past 15 or 20 years there has been a lot of educational emphasis on STEM, which now is turning in STEAM as they add the Arts back in.

People love their acronyms! I mean architects love acronyms too, there are acronyms all over our drawings. But I mean, man, educators really go for acronyms. So in the schools now, in San Francisco, there is one school that actually is an arts oriented school. Quite a lot of our students come from that school. All of their programming is around arts-based education. A couple of other schools, like Leadership Academy which is very close by, they have art classes available. My understanding and I'm not in any way associated or an expert my any stretch – I should know more about the public school system here but there is only so much a man can do in a day! My understanding is that they don't have much in the way of arts education in the school or in their budget.

JH: So do you get kids that will come and do the architecture program, and then come and do dance and then do printmaking? Do they try and do the whole range of classes?

CH: Yeah, there are definitely kids... I mean its high school ... everyone is figuring out identities and starting finding friends. There are a lot of people who come and they're with their buddy, and they stick together. There are no allegiances that are very long or very strong at that age, which is as it should be – its all about exploration so we

encourage that. If students seem not deeply interested or thrilled with what we are doing in the class then we encourage them to try out a different class rather than just not coming.

JH: Can I ask, the reason I am a little late is that I was coming from your parklet outside Mama's café. I got distracted talking to these 3 old guys sitting outside the café who were saying 'oh, we come every day' and 'mama is our old friend!', it was really quite funny. One of the guys said he does the gardening! I'm really curious to know how did you get them up and running? How much of it is kids and how much is others?

CH: I'm happy to show you process photos and whatnot as well about those projects. The Mama Arts Café Project is how I got involved in this program. So I moved to San Francisco three and half years ago. I was invited to stand in for a friend of mine who works for the planning department for a review of the design of the parklet. One of my colleagues, Rafaela, who is now the project director here, at that time was teaching the architecture class.

She had taken the students through a design process which had lasted almost a year to design the parklet, and I can show you some of the models that they had. They had come up with a design that was very curvilinear and complex – aspirational but they had reached a point like 'how are we going to build this'? So I went to that meeting and I was like, hey, I've done a lot of design build and if you ever need help, I've just moved here, and I'd be very happy to volunteer and help you get this project done.

I think it was the next day that I got an email which was like 'Yes! Are you free on spring break? We really need help!" So they brought me in to do the build portion of the project. The students that had been in the class applied for a spring break internship where they get paid a stipend and then they basically work their entire spring break Monday – Friday.

JH: Was it high school students?

CH: Yes, high school students. We got funding to pay their stipends through the Mayor's Office of Economic development. It's a San Francisco body. That program is all about funding workforce training, getting people into jobs, and funding that transition between unemployment to full employment. They love projects that are about giving youth skills.

We have an application process. Students apply for that, and then the 12 students that were selected, I worked with them to first change the design and I had a few design meetings and charrettes with the students, to essentially transform their project into something I felt would be more constructible in the short window that we had.

JH: How long is spring break?

CH: It's a week – 5 working days, and the Saturday before and the Saturday of that week as well. So, for that project, I really took their concept design, had them build some models, turning curves into angles and changing things into what.

EXTRACT: ASHLEY ADAMS

PLAY LEADER, BERKELEY ADVENTURE PLAYGROUND

AA: My name is Ashley Adams, and I work here at Adventure Playground as a Play Leader. So that means we facilitate play here in the playground – we make sure everything is safe, we make sure kids are having fun and being creative. I think the best thing about this job is watching creativity happen in the moment.

This place is so cool because children get to manipulate their play environment which is rare. Typically today at a typical play structure there's a slide, there's a swing – you can go up the slide you could go down the slide, you could swing but that's about it.

You can't change your environment or manipulate it in any way. This place is amazing because a kid can take a slide and move it to their own fort that they built. They can take a slide and make it into something completely different like a space ship or fire engine or something cool like that. I think seeing creativity in the moment with these children is something that motivates me to work here at Adventure Playground.

'This place is cool because children get to manipulate their play environment which is rare'. - ASHLEY ADAMS

EXTRACT: CLEM DI GIOVANNI

STUDENT INTERN, BERKELEY ADVENTURE PLAYGROUND

CG: My Clem di Giovanni. I've been working here since September. I was working at Berkeley Day Camp and we come a lot here in the summer and that's how I heard of this place. I talked to Patty who runs this place and I got a job here during the school year. I love it here. Its super special. There's a lot of positivity here. People who come here know what they're coming into and they know what they're making, and they kind of get to explore. I like it because kids don't really get a chance to be creative. Here they can make whatever they want to. They get to take home what they made and think about how can they accomplish what they're trying to make. They get to use their minds differently than at school.

JH: What motivates you to do this job?

CG: I just like helping out kids. I think I can somehow make their lives better, or funner, or just their days funner. I like to make kids happy.

INTERVIEW: SHAUN TOOHIG

SENIOR PLAY LEADER, BERKELEY ADVENTURE PLAYGROUND

ST: My name is Shaun Toohig and I work here at the Adventure Playground. This is a space where children can be really really free to just build and experiment and do different things and engage in riskier behaviours than they can in a lot of other parks. It's not a standardised park because its been built by children so all the angles are skewed and off and it does really good things for their brains when they're trying to navigate these really bizarre structures that have been organically constructed in a non-regular way.

They get to build their muscle using heavy objects like hammers and climb unique obstacles that you just would not find in any other park that was designed by an adult with a reasonable adult mind. They can negotiate working together on different projects and interacting with different people who are all working together in the same space to build different things, and figure out how to make their ideas work with other people's ideas and how to collaborate and make new friends who were strangers two minutes before and suddenly you're building this incredible object together.

It's a place where the imagination is just sparked... because there is so much colour, and energy and light and different things everywhere that can inspire you to make all kinds of different things and in your imagination, make something out of something else, that it wasn't a minute before. It's a space where kids can take ownership over it, because it is theirs and they've built the entire place. That just makes it a totally different thing than when they're living in the adult world and they have to abide by all the adult rules. They get a real sense of freedom and exploration that is just unique here. I love being here and being a part of that and finding a way to interact with the kids in a way that does not crush their own intrinsic motivations because I try not to get in the way and direct them too much or tell them what to do. I just kind of very gently support them in what their own interests are to do.

This is one of the best places that I've found to work. I feel really really happy and thrilled to be working here. It's a great group of employees and co-workers to work with too because we all have kind of the same ideas about letting people be who they are and all being productive and contributing at the same time as having a really good time and having fun while we do it. It's a very special place. I think there should be one of these on every single block everywhere because we need more and more of these. Its an experience that's essential to childhood and is just almost lost in this culture, and we're just hanging onto it by a thread, and I think that thread is about to catch on fire and spread out and grow again, because we really need this everywhere.

JH: Can you tell me what this is that you are standing in front of? What's this structure?

ST: This is a play hive – this was an idea I got from the Roseville Community School. Its just a whole bunch of two by fours that are kind of organically put in this (hive) arrangement, so there's all these open spaces between them. It's cool because from the

outside it looks like a structure but when you get in its filled with holes and you can see out everywhere. You can also take two by fours and put them in between so then you can build steps and stuff and climb all the way around the outside. I got it started about this high and then other kids and other people came and built the whole rest of the thing because it was kind of implied where it was going. Its built up and built down in different iterations. Its continuing to grow and thrive.

This was all kid-created. There have been different things, people put platforms here and there was a counter here so they could serve up whatever their imaginations came up with. Its pretty cool and incredibly strong... [climbing to top] Someone put this [flagpole] up here too which is cool!

INTERVIEW: WILL GREGORY

NEWBERN LIBRARY TEAM, RURAL STUDIO ALABAMA

WG: My name is Will Gregory. I am working on a Community Library project with Auburn University Rural Studio. I've been working on this project for three years now. We're having the opening this May so we're nearing the finish line so its really exciting. I think what I've gotten out of this experience, I think as a designer, learning how to anticipate what can go wrong in the construction process and learning how to anticipate those problems, but also learning how to see anticipate them or see them as opportunities to do things in a different way, or do things thinking about how people will build them so that hopefully the end result is more of a collaboration or conversation between the fields of architecture and building industries so it's not just something that you draw two lines that mean a wall on a plan and then expect someone to go out and build them, but that you understand how things go together.

Hopefully you reach a better result that's not just someone telling someone what to do and then doing it in a way they typically do, but you get a conclusion that's greater than the sum of its parts. I love that idea that you put things together that makes them more valuable than they are separately.

JH: And how do you think it will influence the type of architect that you become?

WG: I'm not sure yet, exactly, and people always say when you are here you don't understand how valuable it is until a few years down the road or many years down the road. I'm hoping that it will make me more conscious of the decisions I make as a designer. I'm also very interested in vernacular architecture and architecture that is appropriate to its place, whether that's contemporary or traditional or sustainable or green or more well-crafted or more affordable... I'm interested in how all those ideas come together to make something that's really meaningful within its context and valuable to its community.

JH: Is there something on this job that at the outset you thought would be really difficult, and you couldn't imagine being able to achieve it, and then you worked your way through it?

'Its so daunting at first, and now looking back its like 'wow' I can't believe we did all this'. - WILL GREGORY, RURAL STUDIO

WG: I would say this whole project... I mean its hard to pick out one thing. And since we were working with an existing building there were so many things that we encountered that were overwhelming to me. There were times when I thought 'I can not see us finishing this" but when you have three other people that you can work on this together with, we faced all those challenges head on and together and that makes it do-able. On this type of project and this situation when you are figuring out how to support old walls and shim between all these different things that have been there for so long ....I can't pick out one thing... It was so daunting at first, and now looking back its kind of like 'wow' I can't believe we did all this and now we are so close to finishing.

JH: And how do you feel about it now?

WG: I feel really good about it. Its funny, because its not like something that I would... thinking about the types of projects I did at school on paper by myself, this isn't something I ever could have designed by myself. For me, this is stepping outside of my comfort zone in so many different ways. I think its all of our different ideas combined together in a really successful and straight forward way that I think is hard to do in collaborative work. Lots of time you end up compromising so much that you lose something. That's one of the things that can happen with design by committee, that you lose the strength of the idea and compromise, in good ways, but that can result in the design or an end result that is not as strong as it could be. I think we've done a decent job in compromising in a way that's led by a single concept and overarching idea, that you can find in all of the details, and the materials and the way we've used the old building that this library is in.

JH: Do you think there is anything that the Rural Studio can do to make the process easier or do you think it has to be the way that it is?

WG: That's a very good question and a very hard question. To my knowledge Rural Studio is one of the only places that do projects like this on this scale, with this few students, where they can see the project from start to finish. I think that's such, to me its been a really valuable experience to feel that sense of ownership, and having gone through the process from design to putting the finished floor on the building, that's been really rewarding, If there is any way to speed up the time frame on this project. Its taken us a while, and its not that I regret spending that time here, its so valuable but I also think that either the scope of the project should be smaller, so that they are able to be done on a short time frame, or there should be more of an emphasis on scheduling and estimating and all those things that go into a really efficient project.

INTERVIEW: ASHLEY CLARK

NEWBERN LIBRARY TEAM, RURAL STUDIO ALABAMA

AC: Hi I'm Ashley Clarke. I'm from Birmingham Alabama and I'm here in Newbern with the Rural Studio working on the library for Newbern. It will be the first library this town has ever had. One of the biggest challenges of the project has been adapting a century old bank building from 1906 into the library, so it was a small brick building and we've just about doubled the size of it... and tried to save a lot of elements from the interior like the old wall, the old ceiling, this beautiful vault and old teller wall. We've put that back in within the new library so it's not just a new building but appreciating its history as well.

JH: What did you find personally challenging on this project?

AC: I think one of the best things and one of the most challenging things is working with the same team throughout three years of a project. We learn how to work with each other and how to play off each other's strengths and weaknesses. I think that's been a challenge but its also been the most rewarding part as well.

Another big challenge is figuring out how to work with the old building - realising that everything's not square, and trying to figure out how to learn as you go and improve what was given to you and make it a better habitable space for the future patrons of the library.

JH: I've noticed that you seem to know how to use a lot of power tools and you've got a lot of experience on hand tools and using the bob cat – had you ever done that before?

AC: I hadn't. Its one of the neat thing about coming here, that you learn really quickly and you learn how to teach yourselves and teach your friends. You learn how to use certain tools and you get comfortable with them really quickly. We're four students but we are responsible for every part of this project, so someone's gotta take control and lead on different parts of the project. Its nice to see different people stepping up for different aspects of the project....and knowing you can count on your teammates if its something you're not comfortable with and they can count on you doing something that maybe they are not comfortable with.

JH: What aspects do you feel that you've stepped up with and contributed?

AC: I feel like I've had more involvement with the inside of the building...really trying to finesse the bookshelves and assembling them, and trying to come up with a quick and simple way of assembling them and making them as clean and well detailed as possible, so a lot on the Inside using the plywood for all the bookshelves and reusing the old materials... working with old things in new ways.....and give them a new meaning.

JH: How do you think this project is going to Impact you in your next career choice and the way you are an architect?

AC: I think its both doing a building from conception through every stage of construction ... working with the client and really helping the client with the process... its something that's rare at my age, I'm only 25, seeing a project all the way through...not only the design, but learning how tradesmen might do different aspects... like concrete and roofing... we've had to subcontracting and you get to see more efficient ways of doing things and learn from them as well.

Its not just a building, but its been a landscape as well. We've really had to jump in and just the experience of doing it all and knowing that just your team is responsible for it all gives you a lot of courage and momentum to be more confident in the future. I hope that going into an architecture firm that I'm looking and drawings and I can understand how it goes together.

In school... if you are ever drawing a detail, you're drawing things but you don't necessarily realise the thickness and thinness of materials and where you put the nails or where you out the screws, do you weld it and what goes first in the process - you just kind of see it as a completed detail. Really trying to think through the process of how would you build that not just how does it look?

JH: What advice would you give the next round of people doing the Rural Studio?

AC: That's a tough one. I'd just say be brave. Don't shy away from anything just because you think you can't do it. There are so many things that I've learned that I never thought starting out that I'd be doing that. You step back and kind of work through the process. You see the finished product and that's just incredible that I could be a part of that.

JH: Is there anything else you'd like to add?

AC: We've really enjoyed having you here Jillian. It's been really great to have help and to have someone willing to just jump in get their hands dirty, from digging to dusting shelves to painting to anything in between... so thank you for your help!

INTERVIEW: STEPHEN DURHAM

NEWBERN LIBRARY TEAM, RURAL STUDIO ALABAMA

SD: My name is Stephen Durham. I'm here working on the Newbern Library project. I've been here for nearly 3 years at least. The thing that influenced me to come out in the first place was the opportunity to build, I think, there are so many things that come along with the building process that are unexpected, and you never really know there is a problem until you get into it, until you start looking deeper and deeper.

At school we begin to design projects kind of holistically and we get into details, and I really like that idea of really getting into the details and figuring out how everything begins to affect each other. I think that's been one of the best learning experiences - learning how making a building could and should inform the way its designed

'The experience ... has given me a chance to meet people that are totally different from me and ... to see things the way they see it.'- STEPHEN DURHAM

and taking into account that some things are going to take longer or cost more or the labour will be more but thinking that if you are going to do it one way that will inform the gap or a detail that's going to happen. I think a lot of those things you don't realise until you build or start to oversee the construction a lot more. That's been really valuable.

I think being here, learning how to building in this setting has been unique especially on this project. There are two things I really take away from this project. One is dealing with a client that has a very small budget for maintaining and upkeeping the building.

We really need to think about longevity of the projects, and thinking about the project in terms of 5 years down the road when something breaks.... How are these people going to be able to fix it? Can they go to the store to fix it or do they have to take apart half the building to get the thing they need to work? Its important thinking about how it is the simplest thing to maintain over time.

I think the other really important thing, in this project in particular, has been this context of older buildings and in a culture that really values these old buildings. I think, that so often, we as designers have this conceit where we know what is going to beautiful and we ride off some things that are not beautiful to us, but it means that in this culture and these people find it beautiful, and we really need to respect that and honour that, and really put ourselves in their position.

Working with an old building, you have to realise that what we do with the addition, really has to take into account how to relate to the old buildings. I think learning just how to work with old buildings has been a learning experience on its own... just understanding that going into this old building, nothing is straight, nothing is going to be where you want it to be ... and that as you go you learn more. That's been one really good experience that I'll take away, and something that I didn't expect, I guess.

JH: How do you think being in the Rural Studio will influence the kind of architect you will be in the future?

SD: Well, I think it will influence me by the way I design. I think I'll be thinking about the way things are put together more after doing this. I've had a lot of interest in continuing to build on this type of knowledge and stay on the construction side for a while, and then go back after gaining all that knowledge, into more of the design. I think its also made me realise not only the way buildings are put together but the way buildings need to last over time.

I think, in a way, the experience of being here and being on this busy street corner, and being nearby the Mercantile Store, has just given me a chance to meet people that are from a totally different walk of life from me and help me see things the way they see it. I grew up in a big city in a big suburbia with people that were all kind of making the same amount of money, and all living the same life! I think coming here, and becoming friends with people who grew up in the middle of nowhere in these tiny little shacks that appreciate different things, and being around people that have a different set of values to me and learning why they value certain things has been extremely influential.

I think as an architect it makes me appreciate the subtle and the everyday, and those people and their reasonings for things are, to me, are extremely valuable and often times over looked.

JH: Reflecting on it now, do you think there are things that could be improved or done differently in the way the projects run?

SD: Yes, I think we've talked about this before. I think overall the project management, particularly once we'd gotten into the construction phase. It would be great to have someone that knew a lot more about construction and could help us guide. I think overall the scheduling of things and the way we mark out our months and our weeks. Its hard to anticipate looking back now. We think that certain things will take a week and they end up taking two weeks so its hard to schedule around that but having a better idea of how long things will take and getting things ready for the next task, I think that's one thing, if I could do it again, I'd put more thought into that.

JH: What would be your advice for someone getting started into the Rural Studio?

SD: My advice would be, getting started at Rural Studio, don't be too anxious to build right away. There's a lot of things, that when we come out here, we're anxious just to see things happening. Don't be too anxious to build, and I think, start to think about your schedule early. Start to think about the planning of the project long term. How long do you want to spend on design and how much do you want to spend on construction? Because those things will inform each other.

'I think as an architect it has made me appreciate the subtle and the everyday.'
- STEPHEN DURHAM RURAL STUDIO

For our project we kind of designed what we wanted the building to be and we didn't take into account how long it would take. I'm glad it is the way it is. I'm glad we're still he is working on this thing. If we were gone and the building wasn't half as good I wouldn't be as glad. But I think it would be good to think about these things.

I'd give them advice to explore as much as they can...to get out and drive on roads they've never seen, and try to talk to people they've never talked to. I think it's a shame when I see kids here that just come and go and they don't know any locals when they leave and they don't know but the three roads they take everyday, and they don't know but the one Mexican restaurant. There are so many other things out here, and that's part of the experience, just exploring.

JH: What aspect of the building, or your involvement in the process are you proud of?

SD: That's a really tough one. I guess, we were all involved in the design of it and I think that's what I'm most of proud of is the way that its turned out, the design. I guess that would be the thing I would be the most proud of, I guess working with three other people and being able to put our heads together and overcome arguments and things. I'm proud of that that we've worked together and we designed a really good building.

The construction... I'm proud that I learned how to weld while I've been out here and that I was able to put all the edging together but I'm more proud that we've created an awesome building and that we worked together to do that.

JH: Is there anything else you'd like to add that, that you think is an important aspect of being here at the Rural Studio, in Newbern?

SD: The thing that I take away is learning how to design robust buildings, and the maintenance of the project. And putting yourself in situation a culture that's different to your own and how rich an experience that is to be immersed in a different culture.

So I think I've learned a little bit about building and a little bit about people... those would be the two things.