**Slack Space: Braiding Disciplines**

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**Abstract**

The nature of interdisciplinary interior and spatial practice is explored through a series of public projects associated with rope by Low-Tech/High-Tech Community of Practice from the University of the Arts London. Referencing Jean Lave and Etienne Wenger’s theories around situated learning, and Barthes definition of interdisciplinary working, early ice-breaker activities and public actions of making *Rope Songs* were central to the culmination of a public event titled *Ropery Songs*. These wereinspired by the Bow Gamelan Ensemble and Paul Burwell Archive performed at the Historic Dockyard Chatham, Kent with students collaborating from many Art and Design disciplines including sound arts, fine art, textile design, interaction design, interior and spatial design. Through experimental forms of performance and social engagement, students and tutors introduced a range of spatial settings and practices to underscore the value and appreciation of time and sensory considerations in the design of a public experience. This paper identifies various opportunities within the conception and realization of these project narratives to frame an innovative pedagogic ‘slack’ space.   
  
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“Interdisciplinary work, so much discussed these days, is not about confronting already constituted disciplines (none of which, in fact, is willing to let itself go). To do something interdisciplinary it’s not enough to choose a “subject” (a theme) and gather around it two or three sciences. Interdisciplinarity consists in creating a new object that belongs to no one.” (Barthes 1972).

The spatial potential of rope is familiar, from the simple exhibition of strength in a tug-of-war match to bungee jumping off bridges or the innovative rope balustrade found at Ernő Goldfinger’s 2 Willow Road, London. Rope, a length of strong cord made by twisting together strands of material, deftly transforms into a means to measure and metaphorically appreciate new horizons fortified by cooperative behavior. As a founding-member of Low-Tech/High-Tech (LTHT) Community of Practice at the University of the Arts London (UAL) the group have been exploring the interdisciplinary potential of rope, through extra-curricular performance and workshops to culminate in a public event titled *Ropery Songs* held at Historic Dockyard Chatham in May 2017. Through performance and material-based-learning, the project has brought together a range of educational modes that embody Lave and Wenger’s theory of situated learning through a process of legitimate peripheral participation (Lave & Wenger 2009: 121) and to simultaneously splice disciplinary and socio-spatial boundaries in a live project context (Anderson, J. & Priest, C. 2012) (NOTE 1). Establishing parameters of collaborative work to physical and metaphorical braiding, people, activities, spaces and disciplinary identities loosely interweave and sustain legible independence via the pursuit of creating a ‘new object’.

Spurred by a University funding initiative, LTHT was established in 2012 following a series of chance encounters at a variety of UAL events. The community comprises of academics from across the UAL colleges, both undergraduate and post-graduate levels including Textile Design (Central St Martins), Interior and Spatial Design (Chelsea College of Arts), Sound Arts (London College of Communication) (LCC) and Interaction Design Communication (LCC) (NOTE 2). Since its formation, the group has also welcomed various guests including Information Environment Design (Royal College of Arts) and knitting guru Rachael Matthews, that underscore a porous approach to collaborative dialogue, the testing of material ideas and the educational value of risk-taking in public. In this way, the group actively seeks with generosity Barthes’s provocation of what constitutes a ‘discipline’, in an educational setting beside a common interest in the idea of finding the non-hierarchal ‘slack’ of creative interdisciplinary work. For this context a ‘slack’ space presented itself through both passing and continued membership alongside an intellectual reciprocity, where mutual parameters are intentionally open, equally co-dependent and ultimately shared.

Positive collaboration generally comes through understanding the group’s individual and collective interests and motivations. As an icebreaker, LTHT embarked upon a ‘Hamster’ project, rotating personal objects for transformation by other group members via their constituted disciplines, creating a network of responses and perspectives to objects and materials that were collated into a small publication designed in collaboration with a graphic design student based at LCC. From here, the group continued to explore and exchange knowledge, introducing students to different disciplinary techniques and skills (3d projection mapping, interaction software etc.). The community came together in 2014 to attempt an interdisciplinary experiment with Rachael Matthews who had recently purchased a rope-making machine that she had adapted for participatory workshops and was keen to push to its limits (figure 1). From here, the group brought in various leftover materials, pom-pom yarn, copper wire, thermal thread, and interaction equipment to intuitively combine and construct a new rope. Connecting movement sensors and contact microphones to the turning wheels, the overall architecture of the mechanism was wonky and apposite (NOTE 3). A combination of paced walking, coordinated pulling and turning, manual cutting and splicing, the work area expanded and contracted akin to the rope performances of Trisha Brown or Techching Hsieh, as the group grappled with the integration of analogue and digital action, sensory excitement and student filming. Extrapolating the loose ‘slack’ periods of the workshop afterwards through discussion and disciplinary generosity, the group unanimously decided to sign up *Rope Songs* for a Points of Listening event at LCC, hosted by Creative Research into Sound Arts Practice (CRiSAP). On this occasion, in verbal silence, a written programme and conductor instructed the audience from across UAL LTHT disciplines and outside the university context to watch, mimic and interact with the rope in its various states (figure 2) (NOTE 4). The darkened intimacy of the room, the structured seriousness of the multi-sensory performance encouraged and challenged the audience to question the nature of the base materials and the spatial properties of the event. The audience were first shown how the rope was made, and invited to mimic and then beat and listen to the rope with dowels to feel the material tension and hear the creak of the twisting rope, similar to a cassette tape pressure pad, to the unfurling thud finale as the rope was cut, spliced and turned into souvenirs. Encouragingly, student feedback revealed how much they enjoyed the event and seeing tutors outside their usual disciplinary comfort zones, evidencing both situated learning and interdisciplinarity by all. This was noted by a student;

“Participating in Rope Songs was unlike anything I have taken part in before […]. Seeing the work that Colin is involved in alongside what he teaches […] opened up an entirely new conversation of spatial practice amongst me, my peers and those participating in the act of measuring sound.” Shell, Interior and Spatial Design student.

Spurred by the enthusiasm and response of the event, the community of practice decided to transfer this small event to a larger context. Following the discovery of the radical Bow Gamelan Ensemble and Paul Burwell Archive held at Chelsea College of Arts, the group successfully applied for UAL Archives and Special Collections: Collaborative Project Proposals Funding with *Ropery Songs*. Here LTHT defined themes for tacit enquiry from the archive (figure 3), which comprised of three full boxes containing various records, propositional sketches and ephemera performed with Burwell, including David Toop, Stephen Cripps, Christopher Small, Richard Deacon and Bob Cobbing. LTHT also participated and recorded (by BA Interior and Spatial Design student, Kay Chan (NOTE 5)) in a Gamelan Workshop at the Royal Festival Hall, London with 16 students from across the colleges who signed up to be involved to understand the principles of playing in an ensemble. Here, students who had participated across previous occasions explicitly demonstrated Lave and Wenger’s theory that “learners inevitably participate in communities of practitioners and that mastery of knowledge and skill requires newcomers to move toward full participation in the sociocultural practices of a community” (Lave & Wenger 2009: 29) with a participating student remarking;

“I look forward to tutors showing their work and allowing their students to see what their interests are. Seeing my tutor taking experimental ideas and displaying them was definitely inspiring.” Alice, Interior and Spatial Design student.

In parallel the LTHT group met Tim Meacham, a Senior Lecturer in Fine Art at the University of Kent who had mentioned their institution had access to the ropery at Historic Dockyard Chatham. Upon visiting, the group discovered the late 18th century ropery was a building of exceptional interest with a Grade I listed status requiring any intervention be self-contained and non-invasive to the interior. Once inside the ropery was an extraordinary, atmospheric working interior with reels of rope, communication bells, bicycles and an aromatic dust of jute. At the first visit a plan was penciled to interpret and publicly perform various Bow Gamelan Ensemble records to awaken the archive and actively involve Art and Design students from UAL and University of Kent in various forms of voluntary, innovative, collaborative 'improvised' sound making including gamelan, actively interweaving disciplines, understanding and experiencing to establish a “rhythm and relationship to the floor” (NOTE 6) and found artifacts (bells, bicycles, internal structures) to manifest an extraordinary and memorable interior experience, without damaging the building.

*Ropery Songs*, the public dissemination event, took place on Monday 29th May 2017, from 3-4.30pm and introduced visitors to a range of sound making interventions and actions designed by LTHT associated disciplines and fine art students (figure 4 and 5). Along the dramatic length of the 346m building interior, the space was loosely arranged using the notational sketch diagram with the beating of rope on the floor (figure 6) to public readings of a selection of 12 reproduced archival sheets (following approval from Anne Bean) from the Bow Gamelan & Paul Burwell Archive (NOTE 7). These were juxtaposed with corresponding projections from past LTHT events that included improvised sound interventions such as bicycle bells ringing (figure 7), improvised gamelan alongside archival music from a record player (figure 8), digital interactions that projected performance motion, and a student-designed performance by Chase Coley (MA Sound Arts LCC) all combined in the ambition to find a ‘slack’ disciplinary space within the rich visual and sound interrelations. The outcome sought to frame a contemporary experience narrative in a dynamic, working historic interior setting. The event itself proved popular as audiences included local Dockyard tour groups, around 20 per group every 30 minutes and full performance guests, around 25 who had travelled from across the region and London, including members of the Chelsea College of Arts Library team for the event.   
  
The choreography of the different activities evidenced a variety of collaborative and interdisciplinary experiences to affirm a sense of how a ‘slack’ space might convene via an event-based live project setting. The activities were designed to build specific socio-spatial relationships, united through material-based-learning, whereby individuals, pairs and groups engaged in collective public activity inside and outside a disciplinary focus. From an audience perspective this experience could have been construed as impromptu, however, the spatial arrangement and experiences were carefully curated and programmed to encourage audience movement and contextual engagement with the interior (figure 9). For example, the beating of rope on the floor, a paired activity, students would rotate through the performance to welcome new floor beats and visual perspectives as their heights differed. Meanwhile, taking turns on the individual activities such as reading the archive aloud and riding the bicycle up and down the space bell ringing, offered passing connectivity and perpetual revelation as each of the acts along the ropery transformed during the performance. Group action, including the film of the Gamelan Workshop at the Royal Festival Hall, punctuated the spectacle with coordination briefings and finale applause. The synergic group playing upon found artifacts created arresting points for the audience and for students from different disciplines as they collaborated through rhythm. This attracted audience photography, prolonged engagement and the distinctive dampening of the aural experience in the single circulation space. Through rotating individual, paired and group activities, with and for the audience, student and tutor, the site-specific performance provoked a ‘slack’ pedagogic space akin to touring British theatre productions like IOU Theatre or “Engineers of the Imagination” (Coult & Kershaw 1983) The Welfare State International to empower uncertainty. Similar to the ‘hamster’ icebreaker project, *Ropery Songs* implicitly wove and twisted the disciplinary and loosely knotted interdisciplinary boundaries to create an ephemeral collaborative energy and permanent transfer of knowledge that belonged to no one and everyone.

As the larger LTHT Community of Practice evolves, post-*Ropery Songs* and the development of a felt-like interdisciplinarity, the work *A Confiscation of String* (2009) by Richard Wentworth exhibited at The Whitechapel Gallery comes to mind. On the associated event, *Knot Night* (2009), he invited a number of speakers to share their perspective. Ranging from string theory to rope makers and chandlers the evening framed a space of slack connections and cosmic revelations. Through unraveling the object and subject of rope, ideas and relationships were spliced in unexpected ways in a similar manner to *Ropery Songs* reflected by a student who participated in all three events:

“We grapple with an abundance of technological advances enabling us to work, visualise and test purely in the digital, non-tactile dimensions […] the conversation between low and high technology succeeded in putting human intervention (and craft) on a pedestal, to reach better outcomes, for a tactile learner like myself.” Paige, Interior and Spatial Design student

This emphasis harnesses Barthes view of “creating a new object” and equally evolves the interdisciplinary scope of ownership and sensitivity in how event-based activities with students, tutor and audience can meaningfully cooperate. Lave & Wenger describe that the “ambiguous potentialities of legitimate peripherality reflect the concept’s pivotal role in providing access to a nexus of relations otherwise not perceived as connected” (Lave & Wenger 2009: 36) to make explicit the value of this collaborative learning space, neither centric nor linear, in an educational context. Furthermore, the duration and metonymic, braided nature of the ‘slack’ space heightened disciplinary and interdisciplinary reflection via an array of individual and collective discoveries and behaviours that a knotty situation might offer to anyone who engages, no matter how short-lived.

Notes:   
  
1. “A live project comprises the negotiation of a brief, timescale, budget and product between an educational organization and an external collaborator for their mutual benefit. The project must be structured to ensure that students gain learning that is relevant to their educational development” Anderson, Jane and Priest, Colin*.* 2012. *Working a definition of a Live Project*, Live Projects Network. 13th May 2018. <https://liveprojectsnetwork.org/methodology/>   
  
2. LTHT Members: Thomas Gardner, MA Sound Arts; Nicholas Marechal, MA Interaction Design Communication; Anne Marr, BA(Hons) Textile Design; Colin Priest, BA(Hons) Interior and Spatial Design,   
  
3. LTHT Community of Practice. “Rope Making Workshop” Youtube video, 1:30. 13th May 2018. <https://www.youtube.com/watch?v=gFh1b3jTrs8>

4. LTHT Community of Practice. “Rope Songs at the Point of Listening (25) on the 11th of May 2016” Youtube video, 8:26. 13th May 2018. <https://www.youtube.com/watch?v=En3h8pVENb0>

5. LTHT Community of Practice. “Gamelan Workshop February 2017” Youtube video, 4.14. 13th May 2018. <https://www.youtube.com/watch?v=TqnezI50CxA>

6. LTHT Community of Practice. “Ropery Songs” Youtube video, 4:22. 13th May 2018. <https://www.youtube.com/watch?v=A0MWP1yIlus>   
  
7. Twenty students and five staff members, from UAL MA Sound Arts (LCC), BA Interior and Spatial Design (Chelsea), MA Interaction Design Communication (LCC) and BA Fine Art (UoK) volunteered as performers.

References  
  
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Biography   
  
Colin Priest is an architect, artist and academic and is currently Course Leader for BA(Hons) Interior and Spatial Design at University of Arts London and member of LTHT Community of Practice. Graduating from the Architectural Association, his practice is at the intersection of art and architecture that seeks to underscore a sense of place through enlivening heritage. He is a Fellow of the Higher Education Academy and Royal Society of Artists, co-founder of the Live Projects Network ([www.liveprojectsnetwork.org](http://www.liveprojectsnetwork.org)) and member of Design for the Common Good ([www.designforcommongood.net](http://www.designforcommongood.net)).