

Symbiotic Synergies

Organisation and Mutual Exploitation
in Interdisciplinary Collaboration

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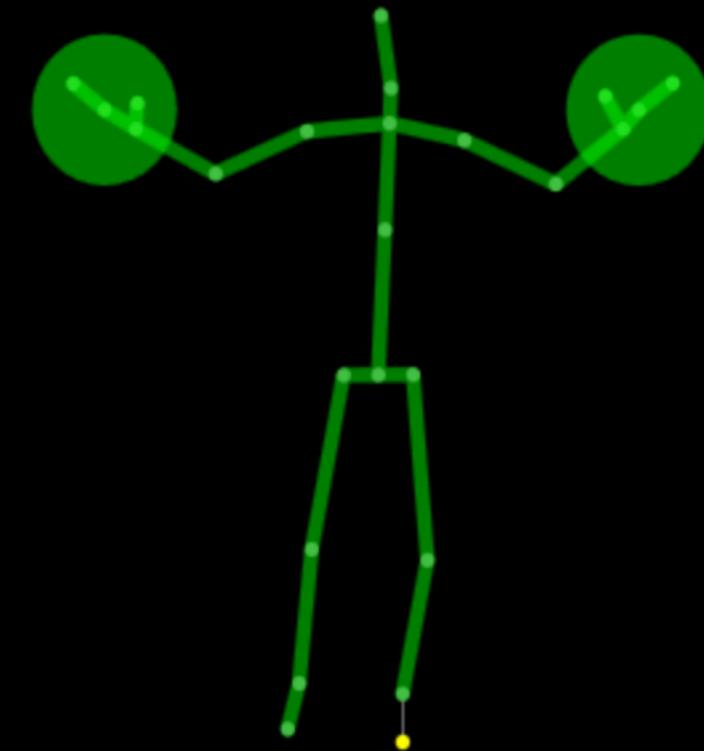
University of Salford

the practice of disciplinarity is
bound up in self-affirming
incestuous cycles

(Experience Bryon)



MotionNode (inertia measurement unit)



Kinnect (depth perception camera)

Stratofyzika



THÆTA, 2012

Heather Nicole with IMU on right arm



Danceroom Spectroscopy



Audience interacting with sound & visuals
through depth perception cameras

Hidden Fields, 2013

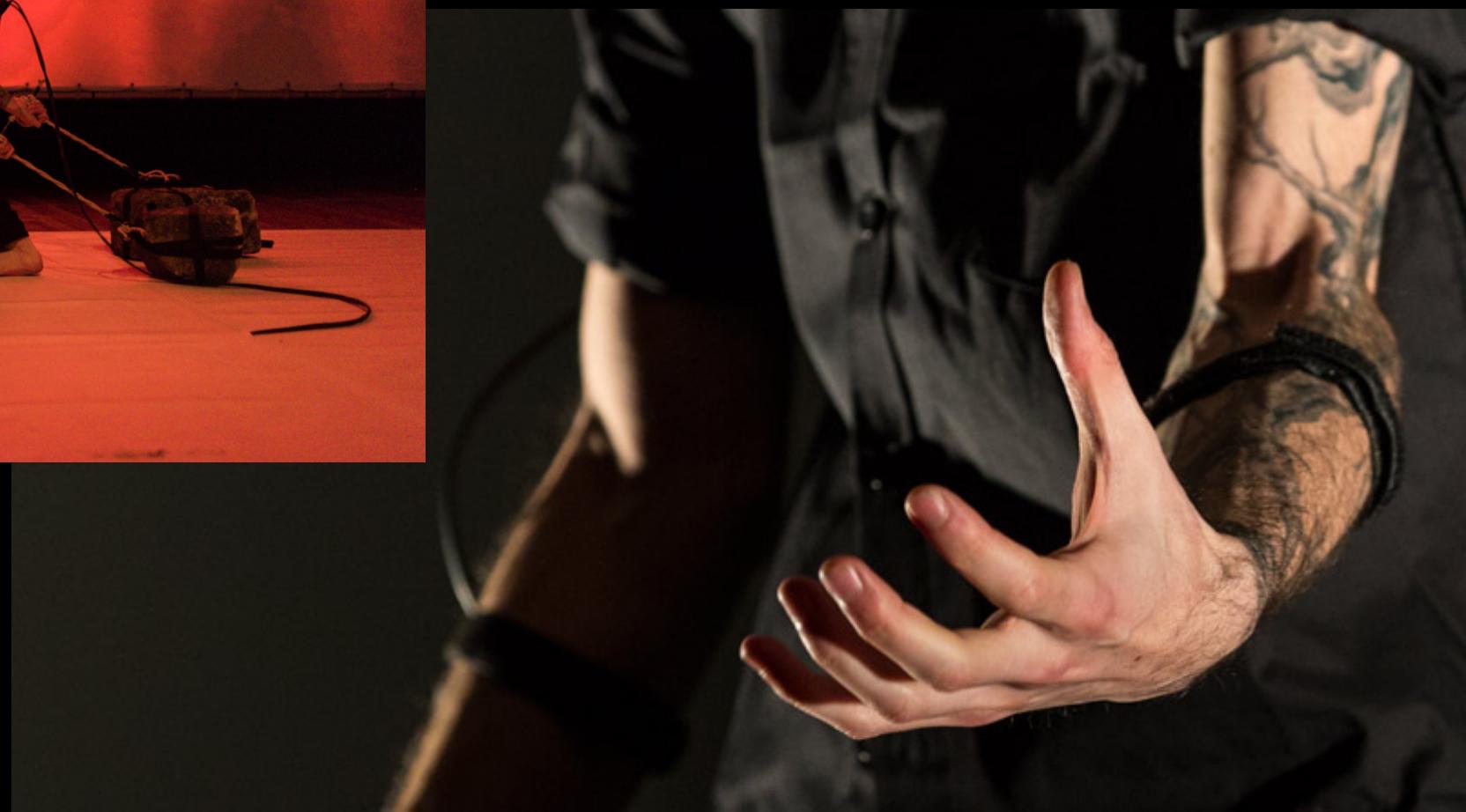


Marco Donnarumma



Hypo Chrysos, 2013

Xth Sense, biophysical sensors gather data from pulse, blood flow, and muscle activity





Analogue turntables/mixer



Digital controllers

- 1: What similarities can be observed between the interactions of organisms engaged in symbiotic relationships and those between practitioners engaged in interdisciplinary collaboration?
- 2: How can the core traits of symbiosis be interpreted into a framework for interdisciplinary collaboration in performance practice?
- 3: How can the interpreted symbiotic traits inform a model of interaction between sound and movement through gesture recognition technologies (GRT)?

art as “the imitation of Nature
in her manner of operation”

(John Cage, in Sabine M. Feisst)

all living things are mutually
interdependent

(Rene Dubos)

Symbiosis

Etymology

σύν (together) & βίωσις (living)

Definition

close & persistent relationships between organisms of different species

Traits

interspecificity, persistence, closeness, host & symbiont roles

Types of symbioses

Typology	Fitness outcome	
	Symbiont	Host
Mutualism	Positive	Positive
Commensalism	Positive	Neutral
Parasitism	Positive	Negative

labels like mutualist, commensal, or parasite
don't quite work as badges of fixed
identity... they describe how two partners
relate to one another at a given **time** and
place

(Ed Yong)

Why prolong harmful relationships? If a parasite is too good at causing harm to its host, then the host will die, along with the parasite. There is more benefit in a prolonged **peaceful exploitation**.

(Ian Goodhead)

A well-functioning partnership could easily be seen as a case of **reciprocal exploitation**. ‘Both partners may benefit but there’s this inherent tension. Symbiosis is conflict – conflict that can never be totally resolved’

(Ed Yong/Toby Krieger)

Symbiotic interactions are those relationships between organisms that permit some species to **overcome** their physiological **limitations** by exploiting the capacities of others

(Angela Douglas)

Collaboration offers partners an opportunity to transcend their individuality and to **overcome** the **limitations** of habit, and of biological and temporal constraints

(Vera John-Steiner)

Interpretation

Symbiotic relationships

organisms

symbiont

host

interspecificity

biological traits

closeness

persistence

fitness outcome

typology

Interdisciplinary collaborations

instigator

practitioners

directee

expressive
mediums

interdisciplinarity

direct engagement

complete involvement

influence

expressive range

Symbiotic relationship

host  symbiont **mutualism**

host  symbiont **commensalism**

host  symbiont **parasitism**

collaborative

instigator  directee

interactive

instigator  directee

directive

instigator  directee

Interdisciplinary collaboration

		Collaboration mode		
Stage		<i>Mutualism</i>	<i>Commensalism</i>	<i>Parasitism</i>
Genotype	Conception	equal contribution towards brief development	one discipline /practitioner acts as initial stimulus	Instigator practitioner/ discipline defines brief
	Development	mutual influence between disciplines & practitioners	practitioners utilise own resources independently	instigator practitioner/ discipline guides directee
	Manifestation	bi-directional influence	greater influence on one discipline/of one practitioner	directee restricted in supporting instigator



Shona Roberts, Summer Hall, 2014



Frances Kay, Islington Mill, Jul 2015



Teresia Björk, Fylkingen, June 2016



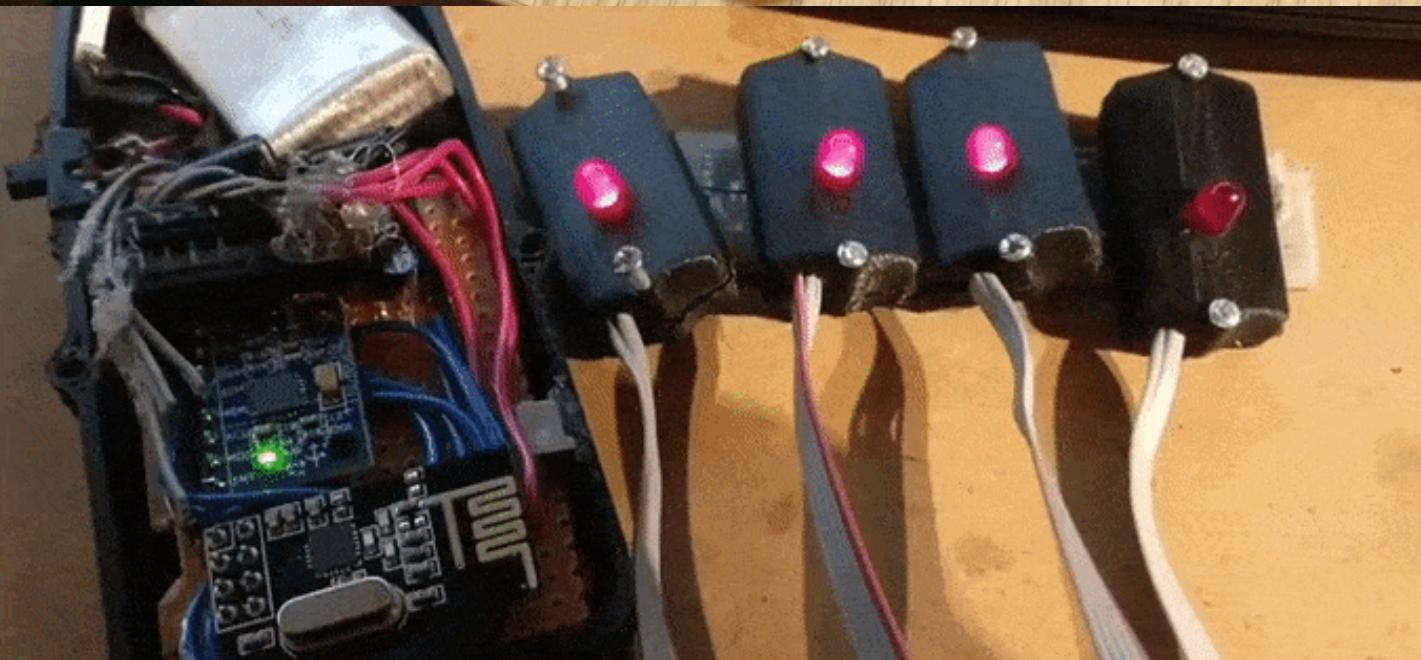
Ali Matthews, MediaCityUK, Apr 2016



Lucie Lee, Talbot Mill, Oct 2017



Ana Berkenhoff, MediaCityUK, Dec 2015



Lucie Lee with *DeviceD* tactile feedback wearable system (developed by Barry Carter)

processes of making work in the performing arts are, and arguably always has been, collaborative

digitally influenced interactions did not allow the ideology of the single author to be maintained and challenged the doctrine by putting forward notions of collaborative endeavour and shared ownership.

(Ghislaine Boddington & Christopher Bannerman)



John Cage & Merce Cunningham, *Variations V*

The very term symbiosis has been twisted so that its original neutral meaning – ‘living together’ – has been infused with... flaky connotations of cooperation and harmony. But evolution doesn’t work that way. It doesn’t necessarily favour cooperation, even if that’s in everyone’s interests.

(Ed Yong)

organisms don't care. It's not a nice relationship. It's just biology

(Forest Rohwer)

Collaborator

- 1 - a work partner, peer, colleague
 - 2 - to cooperate with an enemy, a traitor
-

Discipline

- 1 - a delimited field of study, a subject
- 2 - correction by way of punishment

Parasite

- 1 - someone who takes advantage of others without reciprocating, a sycophant, a leech
- 2 - one who eats at another's table

Exploitation

- 1 - the action or fact of deriving benefit from something by making full or good use of it
- 2 - the action or fact of taking advantage of something or someone in an unfair or unethical manner



Corpus Nil, Marco Donnarumma & Baptiste Caramiaux

Collaboration is not absence of tension, but fruitful cultivation of tension

(Moran & John-Steiner)

Politeness...is the poison of all good collaboration

(Francis Crick)

the posthuman is not a singular, defined individual, but rather one able to see the world through ‘heterogenous perspectives’, ‘embody different identities’, and employ the ‘loving care people might take to learn how to see faithfully from another’s point of view’

(Danna Haraway)

Collaborators are not homogenous people, but rather individuals with different perspectives, expertise, conceptualisations, working methods, temperaments, resources, needs, and talents

(Vera John-Steiner)

if we aren't different, then we don't need to collaborate

(Yancey & Spooner)

Symbioses are the ultimate examples
of success through collaboration

(David Relman)

Symbiont

symbiotic modes of interaction

Manoli Moriarty

Shona Roberts

Lucie Sykes

Symbiosis

Definition

two **different** species living together
within a dynamic partnership

Mutualism

one moment **both** partners benefit

Commensalism

sometimes
one benefits **without affecting** its partner

Parasitism

other times
one benefits while **harming** its partner

Interpretation

biological traits

organisms
interspecificity

creative practice

practitioners
interdisciplinarity

harm/benefit

restriction/liberty

Symbiosis

Definition

two artists of **different** disciplines interact through a system of dynamic sonic modulations

Structured
improvisation

Dancer structures movement towards sound design
Musician adds layers of modulation

Free
improvisation

Dancer performs independently of sound design
Musician distributes modulations to sounds

Choreography

Dancer repeats choreographed routine
Musician adjust level of modulation

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