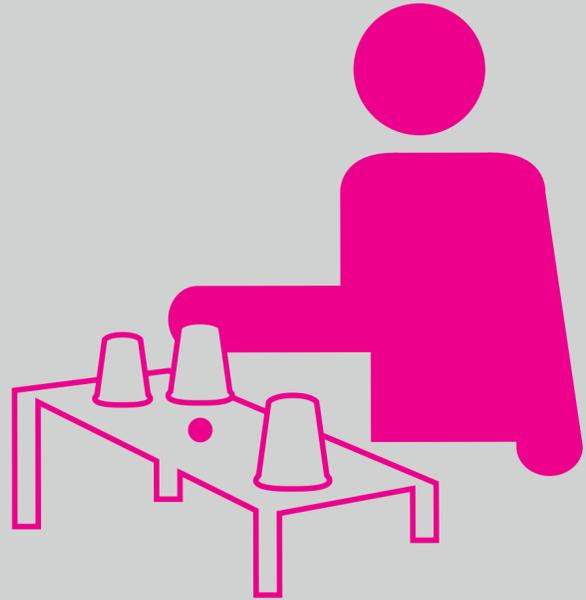
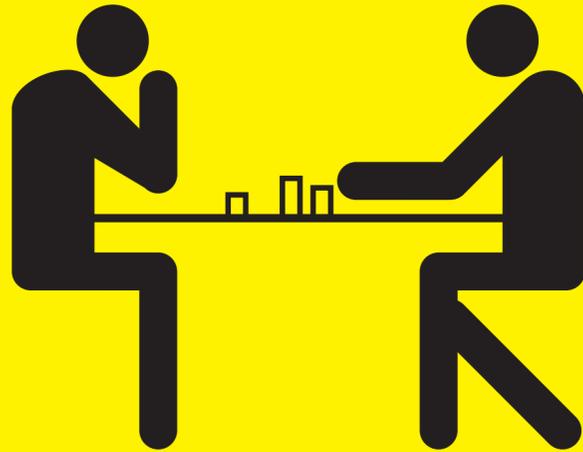


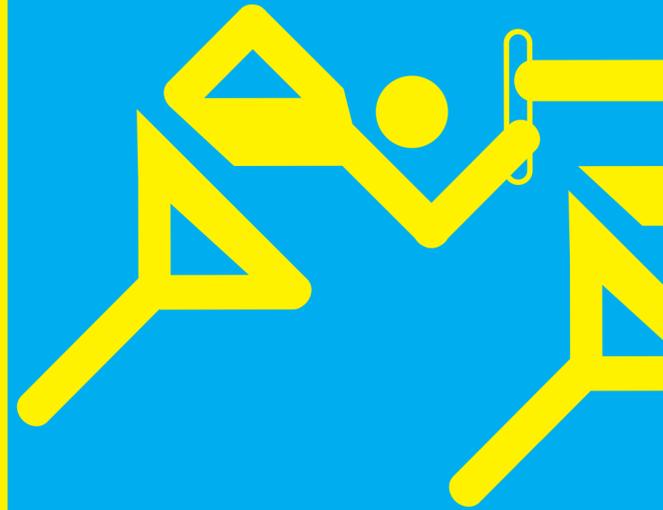
**Practicing  
Ambiguity**  
Embrace the  
Unknown



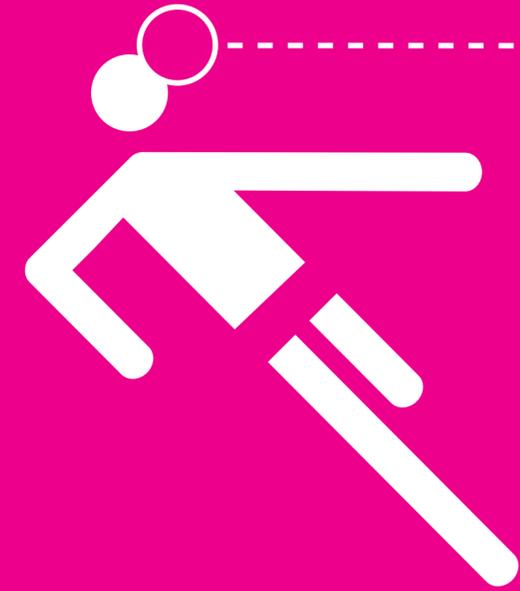
**Practicing  
Noticing**  
Hidden in  
Plain Sight



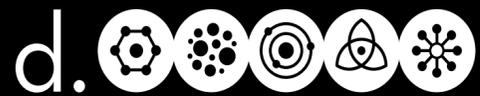
**Practicing  
Negotiation**  
Bargain for  
What You Value  
the Most



**Practicing  
Metaphors**  
Make Big Leaps  
in Your Creativity



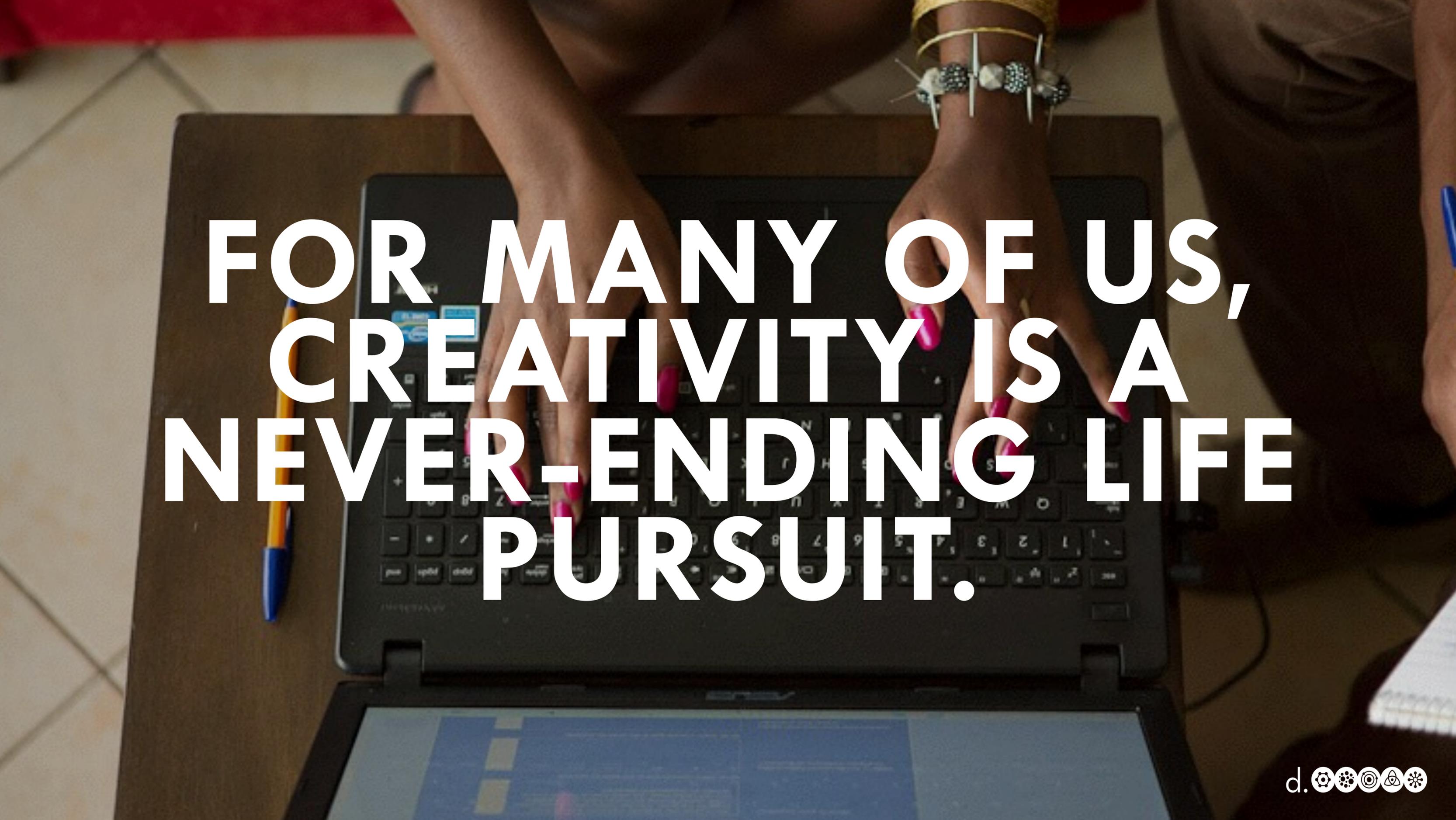
**Practicing  
Critique**  
Master Feedback  
for Yourself  
and Others



# BUILDING YOUR DESIGN MUSCLES

2015 CORE77 DESIGN AWARDS: DESIGN EDUCATION INITIATIVES

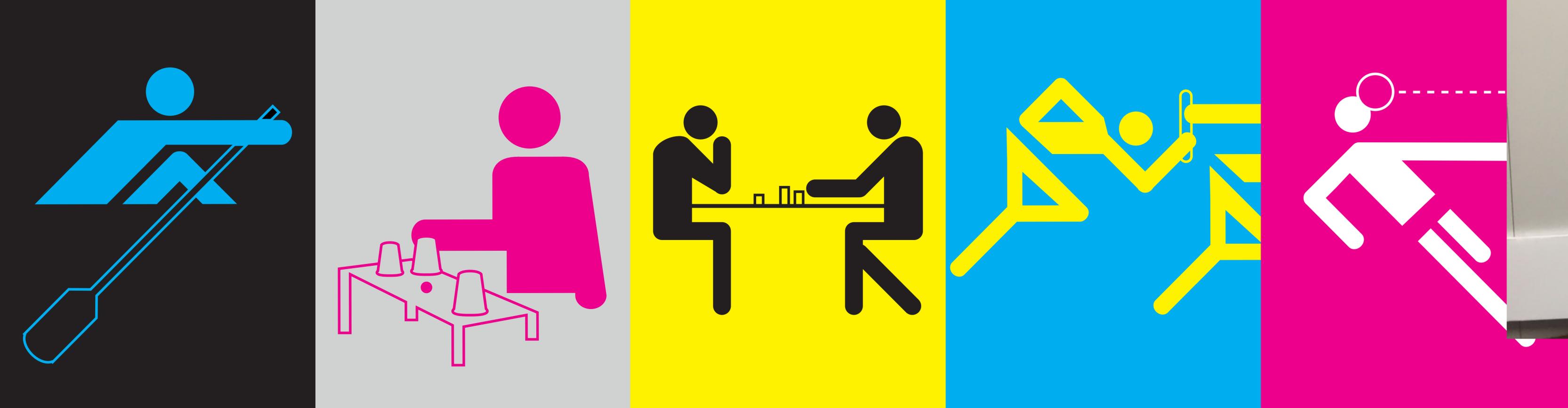
# 1 WORKSHOP OVERVIEW



**FOR MANY OF US,  
CREATIVITY IS A  
NEVER-ENDING LIFE  
PURSUIT.**



Design doesn't just happen when we're getting messy in the studio, or presenting new ideas at a whiteboard.



In **Building Your Design Muscles**, we looked at the things designers do **everyday** to shape up their practice... the 'white space' skills of design.

# OBJECTIVE

These workshops were created to inspire and support a practice of design thinking outside of projects and process.

They included experimental workshop exercises, presentations, group discussions and feedback sessions. For new designers and non-designers, muscles were awoken for the first time. For more seasoned designers, we introduced tips and techniques for strengthening their muscles.

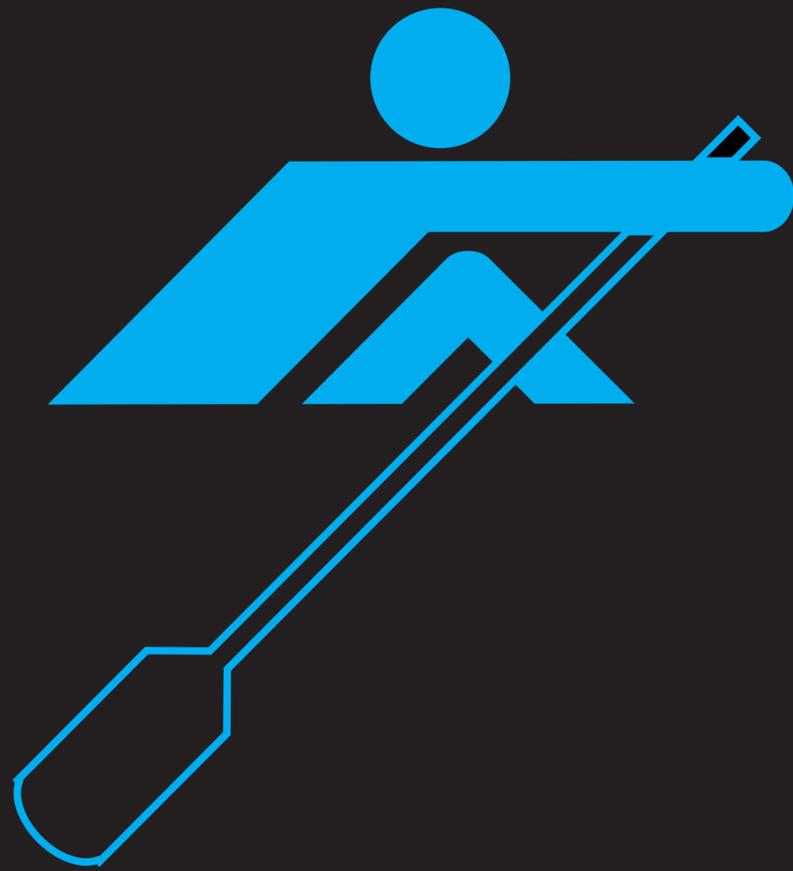


# WHERE DID THE IDEA COME FROM?

We began prototyping "Noticing" as a workshop called "Arrows in the Real World", where students use arrows to draw attention to design issues in the real world. This got us thinking about the practice of noticing, and how this might be taught.

We asked ourselves: in addition to "noticing," what other skills or traits do designers have a natural inclination for, and how might we support these skills in others?

# 2 WORKSHOP SUMMARIES



## Practicing Ambiguity Embrace the Unknown

# AMBIGUITY | SUMMARY

Ambiguity is an inherent part of everyday life. One of the biggest stressors in our lives is fear of the unknown. Coincidentally, creativity and innovation come from a place of not knowing—not knowing where to begin, not knowing if you're heading in the right direction, not knowing the answers.

We may use words like 'lost, messy, unclear', and a design team can feel 'unproductive' or 'stuck'. We respond by wanting to end ambiguity as quickly as possible. It's in these moments that embracing ambiguity ensures that we do not shortcut creativity, instead allowing for opportunities and insights to emerge.

In this workshop, students practiced becoming mindful of and responding to ambiguity, so that they can release anxiety and be more creative. Cultivating ambiguity endurance helps us hold steady within uncertainty, to stay in a place of questioning and exploration, and to make way for new thinking and connections.

The **PRACTICING AMBIGUITY** workshop included an “ambiguous object” intro activity, an ambiguous challenge, a mindfulness meditation, and creating ambiguity reset cards to help students when they’re stuck.



ambiguity ≠ a gap between states

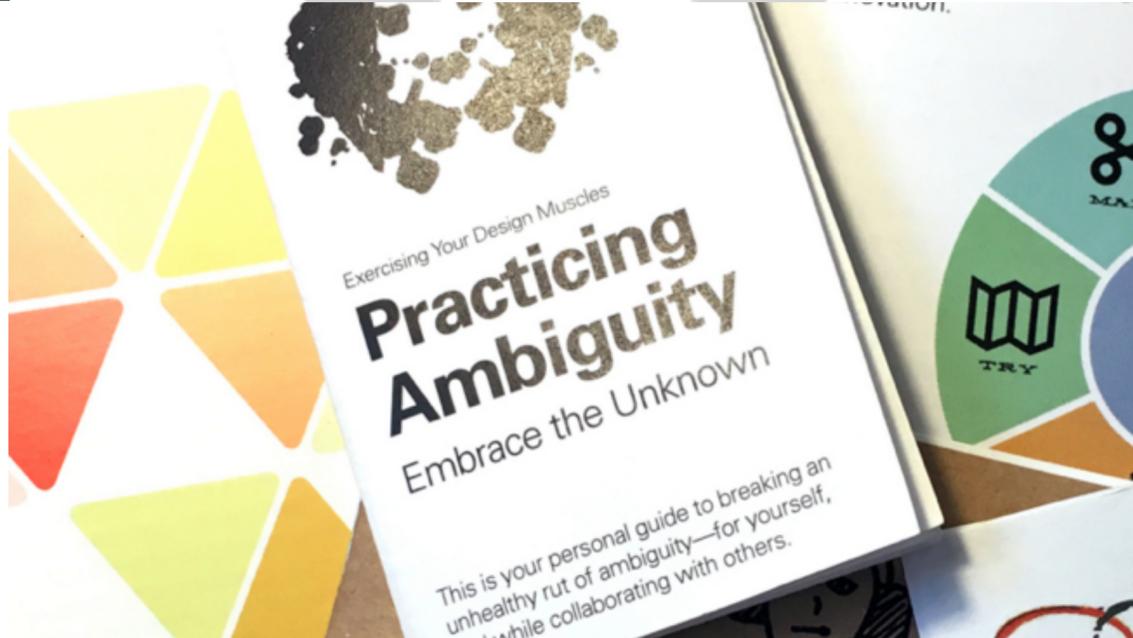


An intolerance of ambiguity is characterized by:

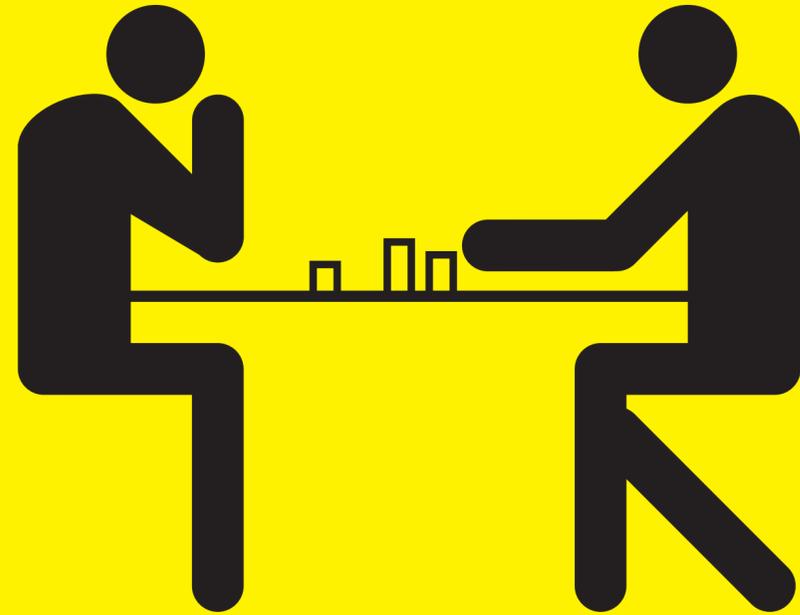
- Need for **categorization**
- Need for **certainty**
- Inability** to allow **good and bad traits** to exist simultaneously
- Acceptance of attitude statements representing a **white-black** view of life
- A preference for **familiar** over unfamiliar
- Rejection** of the **unusual** or different
- Early selection** and maintenance of **one solution** in an ambiguous situation
- Premature closure**



ambiguity is a good thing



# NEGOTIATION | SUMMARY



**Practicing  
Negotiation**  
Bargain for  
What You Value  
the Most

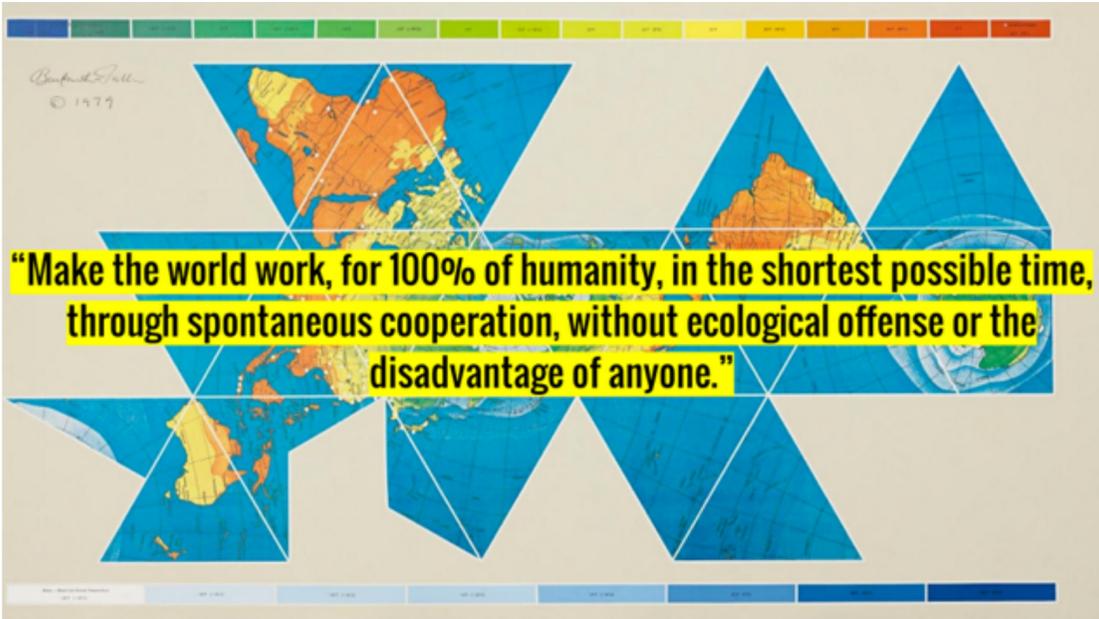
Design occupies a space of increasing complexity, from producing services for government organizations, to tackling climate issues through future action planning. This requires that designers develop their skills in handling dynamic and shape-shifting wicked problems.

Designers are always involved in negotiation. Whether it's through reconciling the requirements of a design solution (lightweight but powerful, luxurious but ethical), managing good communications across project teams and stakeholders, or bargaining with a client or employer.

In this workshop, students explored and practiced their personal and collaborative negotiation styles through a playful, high-stakes scenario exercise inspired by Buckminster Fuller's 'World Peace Game'.

# The **PRACTICING NEGOTIATION** workshop included identifying team values, creating a team flag, going through rounds of a Buckminster Fuller-inspired World Game scenario, and a personal negotiation style quiz.

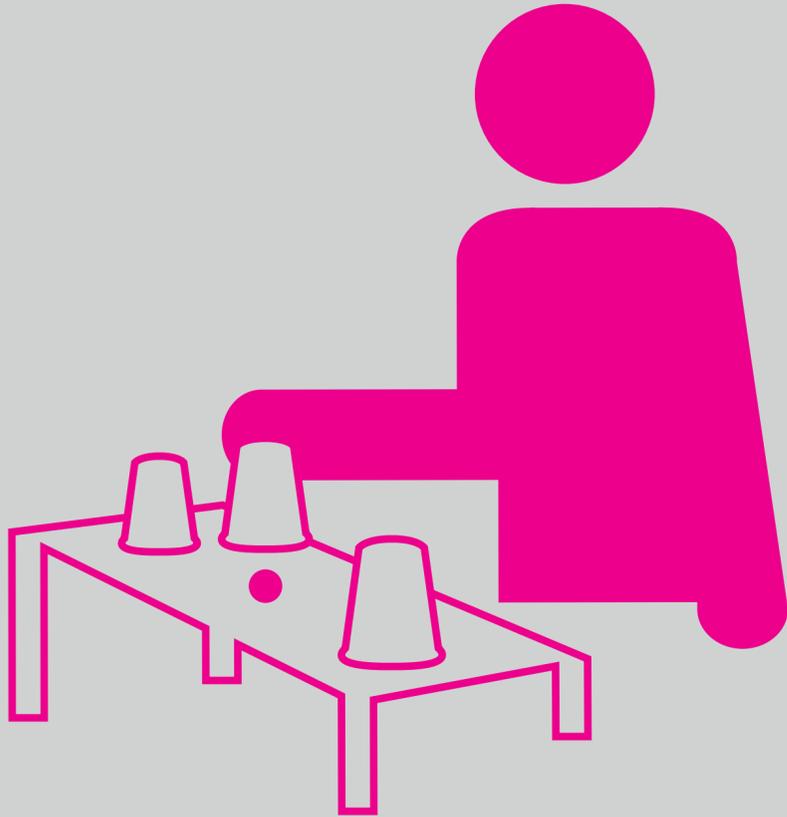
## Steps of Negotiation



## Negotiating different qualities



# NOTICING | SUMMARY

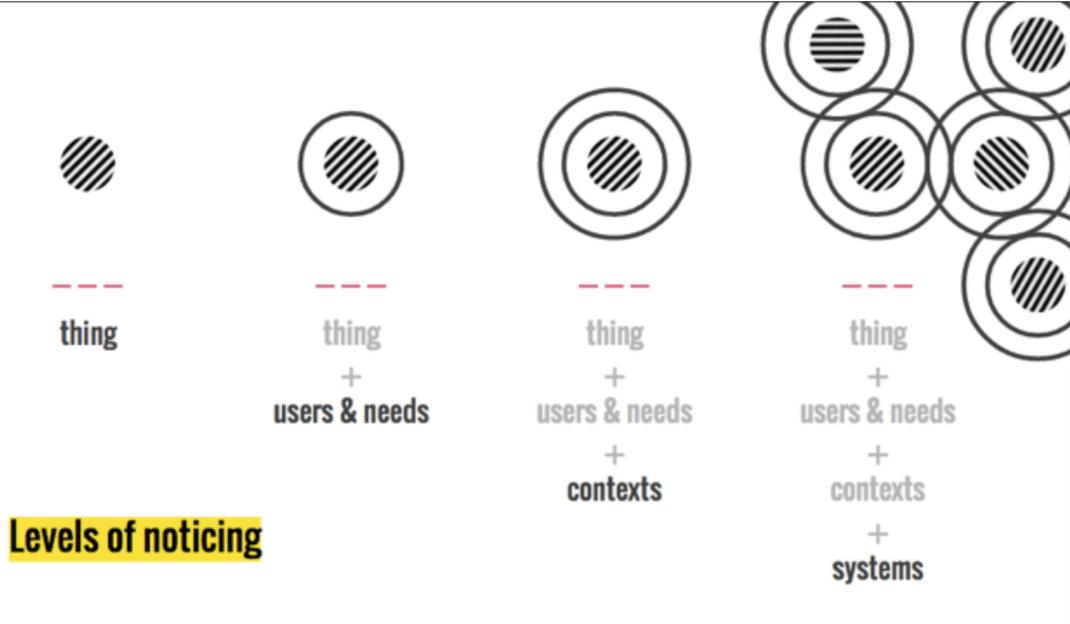


**Practicing  
Noticing**  
Hidden in  
Plain Sight

Noticing describes the moment when we become aware of something previously hidden within the everyday. In design, noticing sparks our imagination or leads us to discover broken down things that cry out for attention. Practicing noticing helps you to become more attuned to discover the opportunities and needs that exist all around us.

This workshop sharpened students' awareness and skills in noticing. We used 'bad design' as a critical lens, inviting students to work collaboratively to identify, reflect upon, and design responses to design failures as a way of exploring and engaging with different levels of noticing.

The **PRACTICING NOTICING** workshop included going out in the world with arrows to find “bad design”, a improv activity where students play photographer and camera, and prototyping interventions.



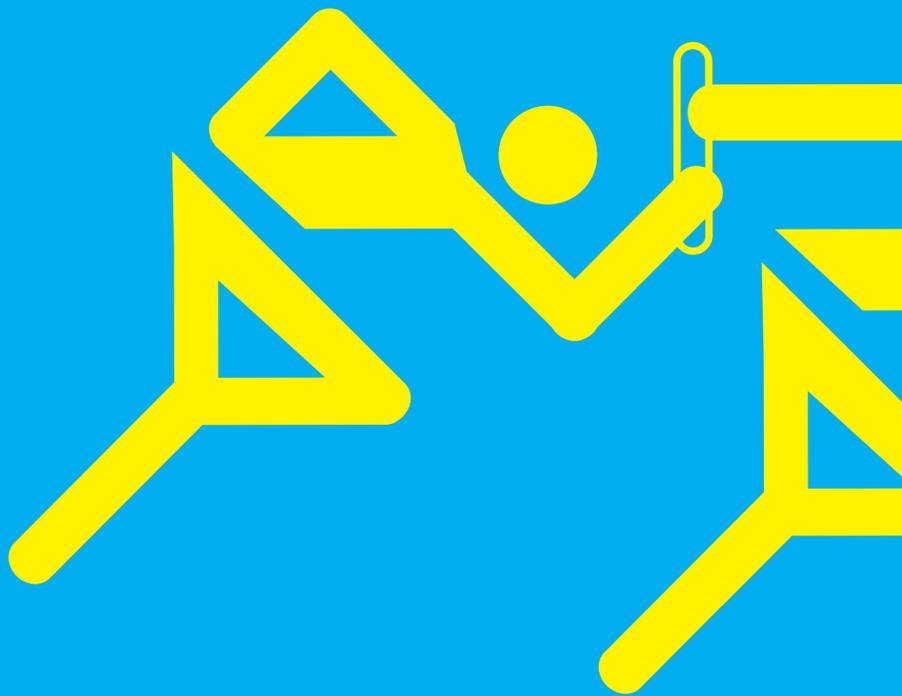
MUSHROOM FORAGING REQUIRES YOU TO "GET YOUR EYES ON"



# METAPHORS | SUMMARY

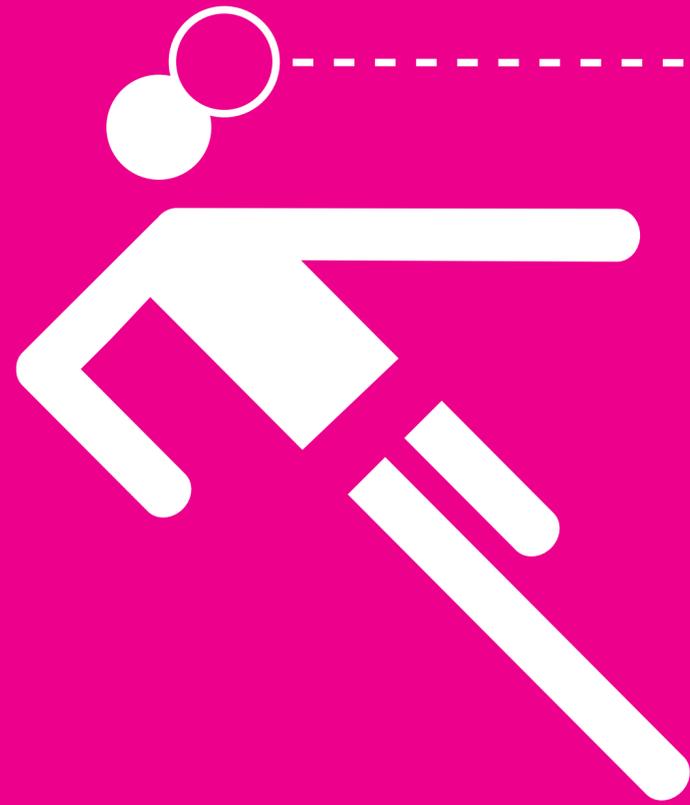
Do your ideas hold water? In creative and innovative work, we routinely venture into the unknown. In these moments, designers intuitively reach for metaphors to articulate something new in terms of something known and universal. Metaphors cut to the chase for audiences speaking different professional languages and help us to wrap our heads around complex or emerging ideas. They also evoke and entice, resonating with our audiences on a deeply familiar level.

Skilled use of metaphors is tricky, but designers and non-designers alike can practice using these powerful communication tools. In this workshop, students practiced using metaphors to frame a design challenge, they generated ideas for solving that challenge, and created an evocative story for their solution.



**Practicing  
Metaphors**  
Make Big Leaps  
in Your Creativity





# Practicing Critique

## Master Feedback for Yourself and Others

# CRITIQUE | SUMMARY

The critique. Just hearing the word 'critique' strikes fear in the heart of designers. In the middle of our creative flow, we (reluctantly) open ourselves up to feedback that could be positive or negative. We've had so many bad experiences with receiving feedback, especially on creative work, that we tend to avoid it entirely.

Critique is a life skill, not just a design skill, and we wanted to change the way designers feel about them. Critiques create opportunities for collaboration, mitigate risk, and achieve greater results faster.

In this workshop, students learned techniques for receiving and sharing constructive criticism. Together, through a series of role playing and active listening exercises, we explored the culture of critique. Students practiced taking control of the critique process and learned how to provide great feedback on others' work.

# The **PRACTICING CRITIQUE** workshop included fast rounds of critique where students practice different roles (presenter, critic, and observer), plus tips and tricks for giving and receiving in teams.

## Three types of feedback:

### 1. reaction

responding to what's in front of them

Example:  
"I don't like..."  
"The first thing I see is..."

### 2. direction

trying to communicate their own vision

Example:  
"I would have..."  
"I wish..."

### 3. critique

forms an analysis that uses critical thinking

Example:  
"Who is affected..."  
"What is the context..."

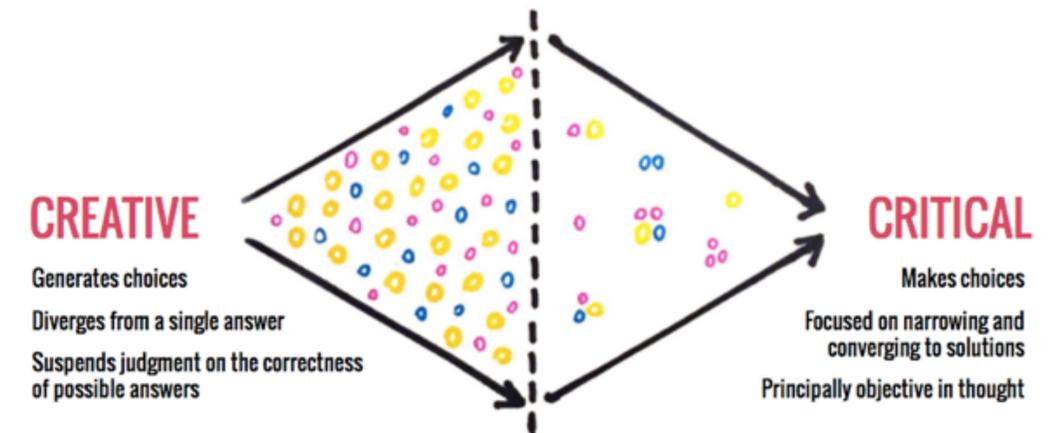
## common myths about critique:

Critique is a meaningless word made to make feedback sound more important.

Critical is formal and at the end of a project.

Critique is only for art and design.

creative thinking and critical thinking are not at odds with each other



"I almost never do a critique professionally. Instead, it's feedback, review, advice, collaboration. When viewed that way, it happens all the time that I get meaningful feedback from colleagues."

Maura Collins, Senior Industrial Designer at New Deal Design

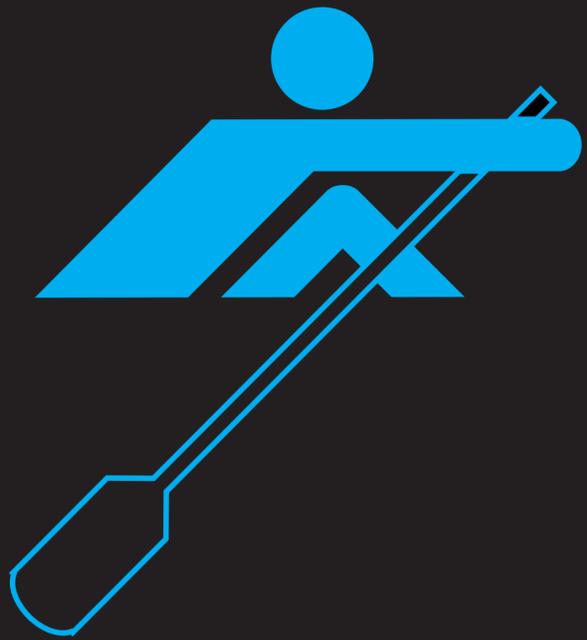
recognize the **critique style** > recognize your **reaction** > respond **accordingly**

Critique is about the thing, not the person.

Separate yourself from your work.  
Separate the person from the critique.

# 3 THE RESULT

In addition to their stand-alone workshop format, the *Muscles* were introduced as abbreviated **plugins for d.school teaching teams to complement their design thinking curriculum** and strengthen students' abilities to navigate the design thinking process.



### PRACTICING AMBIGUITY

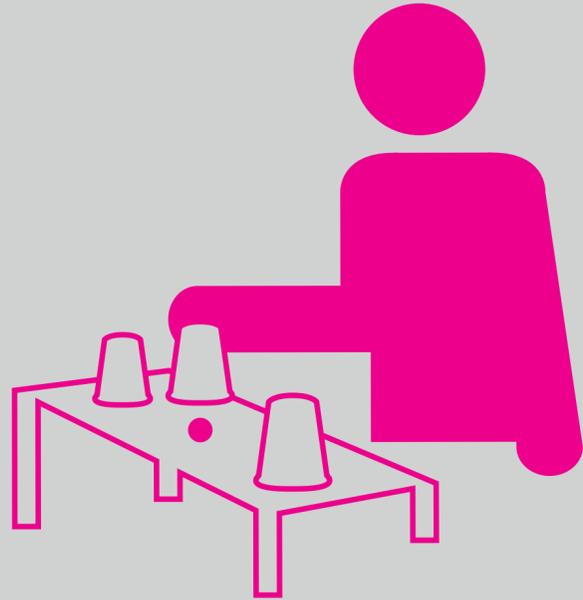
USE THIS MODULE TO HELP YOUR STUDENTS GET COMFORTABLE WITH NOT KNOWING ANSWERS FOR HARD PROBLEMS.

#### WHEN SHOULD YOU USE IT?

Toward the beginning of your course or at the start of a design project to help set the foundation for wayfaring design thinking throughout the quarter.

#### HOW LONG DOES IT TAKE?

90 minutes



### PRACTICING NOTICING

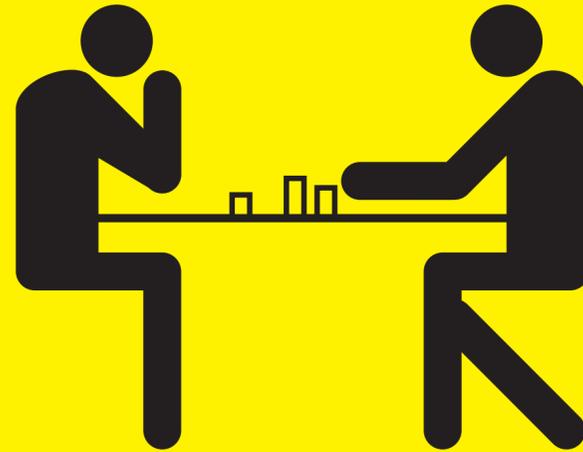
THIS OUT-OF-CLASSROOM ACTIVITY OFFERS AN IMMERSIVE LEAD-IN TO EMPATHY AND OBSERVATION.

#### WHEN SHOULD YOU USE IT?

As an introduction to empathy, specifically ethnographies and observation.

#### HOW LONG DOES IT TAKE?

90 minutes



### PRACTICING NEGOTIATION

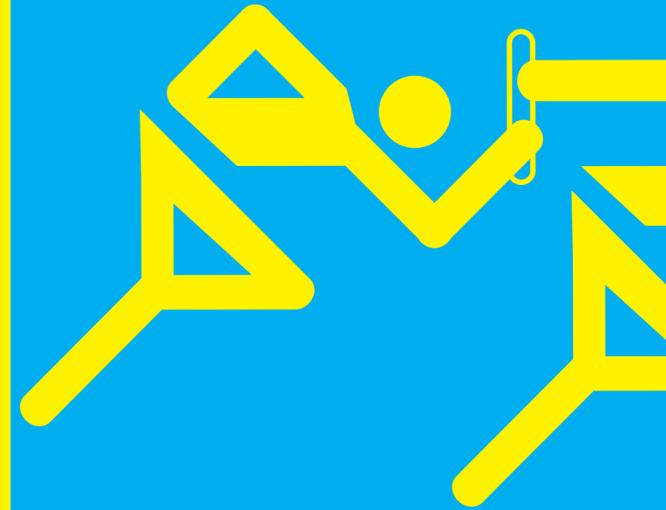
USE THIS TEAM BUILDING MODULE TO ENCOURAGE TEAMS TO DEVELOP THEIR VALUES AND CULTIVATE A MINDSET FOR COLLABORATION.

#### WHEN SHOULD YOU USE IT?

In the early stages of team work, as part of forming a team's identity and focus.

#### HOW LONG DOES IT TAKE?

45 minutes



### PRACTICING METAPHORS

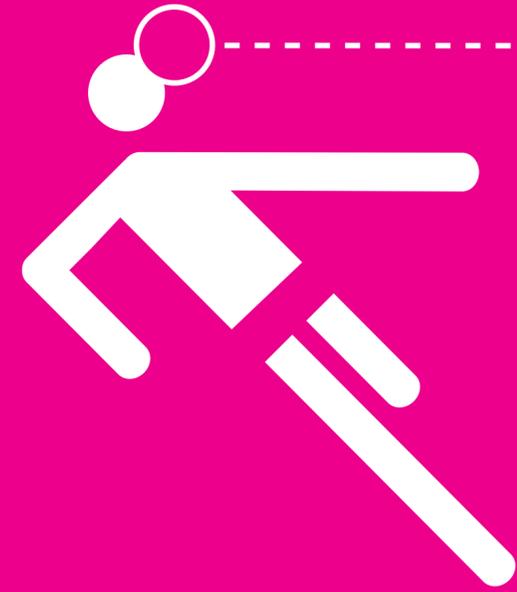
THIS HIGHLY VISUAL UNIT PRIMES STUDENTS FOR BRAINSTORMING OR TO GET THEM TO THINK OF IDEAS THEY ALREADY HAVE IN NEW WAYS.

#### WHEN SHOULD YOU USE IT?

Use this workshop in the define and ideation stages of a project. A 10 minute stoke and 15 minute ideation activity can easily be added to this module.

#### HOW LONG DOES IT TAKE?

30 minutes



### PRACTICING CRITIQUE

USE THIS MODULE TO STRUCTURE IN-CLASS CRITIQUES, SET THE RIGHT TONE, AND MAKE FEEDBACK MORE PRODUCTIVE.

#### WHEN SHOULD YOU USE IT?

Early and often! Don't save critique for a final presentation. This works well when there's in-progress work to critique as a class.

#### HOW LONG DOES IT TAKE?

30 minutes

Thank you!

# 3 THE TEAM



**THE DESIGN MUSCLES  
WERE CREATED BY THE  
2015/2016 D.SCHOOL  
TEACHING FELLOWS:**

**HANNAH JONES** is a design educator and researcher who enjoys developing collaborative and emergent methods for sustainable futures in design, education and community contexts.

Over the course of 12 years at Goldsmiths, University of London, UK, Hannah co-developed cutting-edge pedagogic practices around the design and facilitation of metadesign tools and processes, design ethics and sustainability, action-orientated design writing and co-authorship. As program leader of MA Design Futures and Metadesign, she has been invited to teach across Europe.

Hannah's PhD design project, 'Practicing Awkward Space in the City' (2014), explored physical and social aspects of awkward space and how the concept can be used to seed collaborative design processes that spur localized change. You can follow Hannah on Twitter at [@hannahutopia](#).



Fresh from the Stanford Design Master's Program, **NIHIR SHAH** is excited to be a part of people's lives on multiple levels as a designer. Interactions, relationships, behaviors, the built environment and cities are jumping off points for his work. He's currently exploring systems thinking, simple design that wears well and the challenges of urbanism. Nihir's favorite side project at the moment is with Project Citizen, where he's helping update civic engagement for the 21st century citizen.

Prior to graduate school, Nihir designed furniture and architectural metalwork in Austin, TX. He has lived and adventured around the world, fulfilling dreams such as hiking across Spain on the Camino de Santiago, studying Kung Fu in China, and playing cajón flamenco in Madrid.



**ANDREA SMALL** is a designer and strategist focused on design thinking and vision. Her passion is to answer the "why" and "how" behind design, creating brands, products and experiences that help people and companies take huge leaps forward. Andrea joins the d.school from fuseproject, an award-winning industrial design and branding firm founded in 1999 by Yves Béhar.

As Strategy Lead at fuseproject, Andrea led strategic efforts for non-profits, start-ups and Fortune 500 companies, including Nivea, Starbucks, British Gas, GE, Herman Miller and Samsung. She recently led fuseproject's work with Nike Foundation, developing and prototyping physical assets with girls in Rwanda, and creating Spring.org, a start-up accelerator in East Africa that supports the lives of adolescent girls. You can find Andrea on Twitter on [@dresmall](#).