# impermanent scaffolds

Building scaffolds are probably the most well-known type of scaffolding. These temporary structures enable building crews to construct new buildings or maintain existing ones. Once the work is complete, the scaffold is removed. It does not become part of the structure, but enables its construction. This type of scaffolding is erected with knowledge of the final shape of the building and the work to be done.

How do we design organizations where roles and job descriptions are impermanent scaffolds for emergent and adaptive hierarchies?
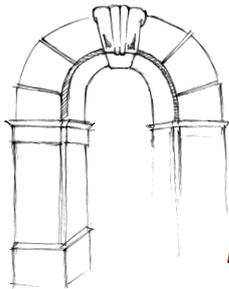
neural scaffolds
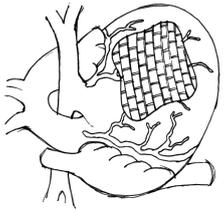
Neural lattices or scaffolds are not removed and do not dissolve away. They persist as part of the new structure, but are transformed in the process. One example, the Bionic Cardiac Patch, is formed by seeding nanoscale electronic scaffolds or mesh-like structures with cardiac cells. Once the cells have regenerated cardiac tissue and a patch has formed, the electronic components from the original scaffold are integrated throughout the tissue, creating an 'internal pacemaker' able to detect arrhythmia and deliver correcting electrical shocks far sooner and operating at far lower voltages than traditional pacemakers.

What if frameworks and tools were used as scaffolds, like the nano-patch?

nutrient scaffolds

Skin grafts or nutrient lattices are examples of another type of scaffold that is made of shark cartilage and cow-derived collagen, the protein found in all connective tissue, applied to burn wounds. The texture and nutrients within the lattice activates skin cells in the body called fibroblasts to start generating human collagen. As the body produces more and more collagen, the connective tissue begins to work its way up the artificial scaffolding, slowly building a new dermis. Over time the artificial scaffolding dissolves away, leaving no trace of the lattice. This type of scaffold is designed to activate or catalyze an internal capability and then disappear.

How would consultants take up their role in organisations differently if they saw themselves as nutrient scaffolds that exist to catalyze and enable internal capability?

shadow scaffolds

Shadow scaffolding is an emergent property of multiple interactions over long periods of time. The infrastructure that supports extreme sports involves training, peer group interaction, technology developments and apprentice type practices. It evolves over a long period of time, and is not necessarily explicitly stated or known. Shadow scaffolding cannot be designed, and is often tacit, i.e. it can only be understood with the benefit of hindsight.

scaffolding

When designing organizations or interventions, we focus too often on designing permanent structures that end up being inflexible. Thinking about designing impermanent scaffolds to enable emergence might be more useful in today's white-water world.
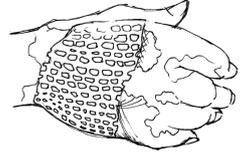
Ann Pendleton-Jullian with Dave Snowden and others on Cynefin retreats have identified a typology of **five kinds of scaffolds.** Here we present physical examples of these scaffolds as analogies to help reframe our thinking about the design of organizations and how we engage with them.

Keystone scaffolds are integral to supporting other structures, but become invisible or forgotten over time. Arcs are supported by scaffolding until the keystone is in place. The structure then has structural stability and more can be built on it. Keystones enable foundations for other structures to be built upon. The high structural ability enables the construction of many other structures on top of the original arch, so much that we may forget where that arch is. Accidentally removing a keystone could cause a collapse of the structure.

keystone scaffolds

How do we nurture networks, interactions and tacit knowledge that preserve shadow and keystone scaffolds?

"When working with scaffolds, we need to remember scaffolds are a type of constraints we recognise and acknowledge, or introduce, or adjust. How do we create enough constraint that a pattern can emerge which is contextually appropriate, contextually sustainable and contextually resilient. Rather than designing organization, we should design scaffolding and do interventions around the scaffolding. We should allow the form and the structure of the organization to emerge. "

Dave Snowden

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