Crisis, care and the fab lab as mycelium

Visiting October MAKE in Rennes last week expecting to talk about crises. I came home thinking about relationships. About the power we hold in small acts of kindness and curiosity, and how, when connected, these acts can become a response that reaches far beyond any one of us.



I was reassured of the potential of our incredible fab labs around the world to become the **mycelium of their cities**: connecting people, skills, resources and local knowledge into something stronger than the sum of its parts. Labs that know their territory scale: factories, waste streams, material libraries, who is on the ground.

I joined Fadia Elgharib (Global Innovation Gathering) and Iván Sánchez Milara (Fab Lab Oulu) for a panel hosted by Jérémie David and organised by RFFLabs on how fab labs in Europe face health, civil and geopolitical crises.

What I found in Rennes

My reflections came not only from the panel but from the people and places I met during my stay. First, Comme Un Établi, a 600 m² former Peugeot garage transformed into a shared workshop and local manufacturing space, which I shared in my previous post. Then, with Jennifer Leis from Fab City Augsburg, I visited the Humanlab at My Human Kit. For years, this space has been showing what happens when people with disabilities design and make their own tools, rather than waiting for someone else to design them.

Yohann Véron shared a story from the COVID lockdown. A local user called because his wheelchair controls had failed, leaving him stuck at home. Yohann packed his tools into a box, went to the user's house and improvised a repair so he could at least get to bed. What stayed with me was not just the ingenuity. It was the relationship behind it. Someone knew who to call. Someone understood the situation. Someone cared enough to show up. That kind of response doesn't begin when a crisis hits. It is built through relationships, familiarity and trust long before anything goes wrong.



Workshops visited in Rennes.

> **We often talk about what makerspaces can produce. But what if one of their greatest strengths is what they know about the place they are in, and the people who live there?**

Stories from the panel





The panel at October MAKE, Rennes, and Kamakura and Hamburg presented in Rennes.

At Makers Asylum in Goa, India, makers teamed up with the M19 collective that produced a million face shields in 49 days, then taught itself to repair oxygen machines.

At Fab Lab Oulu in Finland, Iván shared how the team kept teaching through lockdown, with students operating machines remotely through cameras. That experience helped lead to a CNC machine that any fab lab can now build. He was also honest that Finnish labs made masks that hospitals turned out not to need. A lab doesn't have to have every answer. It can bring together the people who can find one.

Fadia Elgharib (Global Innovation Gathering) began with Gaza. Living in Cairo and feeling helpless, she sent one Instagram message to Nour Nassar, who was running Schools Without Borders in the displacement camps. Soon a WhatsApp group of strangers was training pharmacists and students to become teachers. She also shared how Tolocar took mobile fab labs around Ukraine, bringing workshops to people rather than waiting for them to come. Her

point was clear: makerspaces don't need to replace hospitals or firefighters. They need to be known before a crisis and trusted during one. As a fab lab in Cairo that survived on its volunteers showed, the greatest asset was never the machines. It was the community.

After the earthquakes in Venezuela this June, 97 workshops in 11 countries were printing splints within six days, from files a small company released for free. So many were made that coordinators had to ask the world to stop. A hundred days on, as Tomas Diez, Elaine Regina and Tafia Sabila show in their forthcoming paper *Making That Stays*, no local workshop, guild or school can be named as its legacy, and they are clear this is not a failure of the volunteers.

Building something that stays

These stories left me with a difficult question. We have become remarkably good at mobilising quickly. But how do we build something that stays?

After the Barcelona blackout, I promised myself I would prepare an emergency kit. I still haven't made it. If even those of us who work on local resilience struggle to prepare, how do we make preparedness part of everyday life rather than something we think about only after a crisis? The answer may lie in what happens between crises.



Kamakura, Japan.

In Kamakura, Japan, households build their own food-waste processors. Rico Kanthatham is developing the idea of FAB AID, with solutions organised around local disasters. In Hamburg, doctors can search a repository of designs that makerspaces can produce.

As Vicy from Fab City Hamburg put it: “If you as a fab lab want to respond better to emergencies, get in touch with emergency response organisations.” And that means getting out of our own workshops.

My advice to fab labs wanting to work more deeply with their territories, inspired by a conversation with Kathrin Obernhumer in Linz, was simple: don’t approach your city with your hands out. Start with what you can offer. Actively listening to those around you is the key to access, to exchange and to thinking ahead. Research the people and organisations around you. Understand their challenges, their capabilities and the gaps you might help fill. **Build relationships before you need them.**

We also discussed the potential for start-ups and makers to work more closely together. Innovation can come from many different places, but the connections between them are not always there. How do we close that gap?

For me, this is where the Fab City approach becomes particularly interesting. A fab lab can become more than a place with machines. It can help a territory understand what it has, what it needs, who can contribute and where new connections might lead. An instrument for reading and remaking the place it sits in.

A few tools to help make those connections:

Hylo | Fab City Network	A shared space to connect across cities working on local production, maker culture, sustainability, innovation and community. Share resources, offers, needs and ecosystem maps, and, importantly, message people directly rather than sending another email to info@. Join us: hylo.com/groups/fab-city-network/all
PLANETAI	An open tool designed to help cities move from identifying a problem to acting on it in weeks or months rather than years: planetai.fab.city
Fab City Index	A way to explore what your territory produces and what it needs: index.fab.city/matrix

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The machines are the means. The relationships are the infrastructure. The territory is the work.

(*Making That Stays*)