THREE FUTURE FRAMES (3FF):

AN ABDUCTIVE FRAMEWORK FOR FUTURES THROUGH DESIGN

**By John V. Willshire
and Dr. Robert Phillips**

Three Future Frames (3FF) is a framework borne of collisions and creativity, an intentional maelstrom of methods mixing at the meeting point between foresight and design. It seeks to combine the rigour and breadth that typifies a thorough foresight practice with the iterative, exploratory nature of design sensibilities.

This short introduction to 3FF highlights some example inputs, uses and outcomes that the framework can support and connect. Our intention is that this is a template upon which more methods, experiments and iterations can be supported, as foresight and design communities increasingly overlap.

Foresight's influence in decision-making processes has evolved through the various later waves of futures (Schultz, 2015[1]). In an ever-more complex world, when asked to frame possible and preferable futures for governments, organisations, citizens, customers, communities and the environment, foresight has developed increasingly sophisticated and compelling approaches to stretch collective imaginations.

Yet as sharp, focussed and achievable as the recommendations in a foresight report may be, practitioners are often left asking "Well, what has *actually changed?*" (Kleske, 2024[2]). To "design" is to change. Herbert Simon's 1969 claim – "*Everyone designs who devises courses of action aimed at changing existing situations into preferred ones.*" – neatly ushers in a half century of research into design (Valtonen, 2020[3]).

Perhaps this is what lies behind the increasing dance between fields of foresight and design since the late 1990s, reflecting their shared concern with bringing different futures into being. Foresight needed design's ability to specify and affect change, whilst design needed foresight's rigorous approach to stimulating collective imaginations.

Too often, we believe this approach becomes "futures, *then* design." Based on the need we have seen through years of client projects as well as teaching, we have been increasingly combining foresight and design methods for "futures *through* design."

Rooted partly in Frayling's seminal work at the Royal College of Art (RCA), which helped define the structure of research through design as one of the core activities of the college (Frayling, 1993[4]), we believe it is a potent way to get the most from both fields in combination.

At the heart of our approach is a new framework called Three Future Frames (3FF – fig.1). 3FF is a framework that draws the disciplines of foresight and design together, specifically designed to spur more creativity and critical reflection in a project. It is an abductive reasoning engine – *"A tool for economising enquiry"* (Folger & Stein, 2016[5]) – which places the designer's capacity to zoom in and out at the heart of the process.
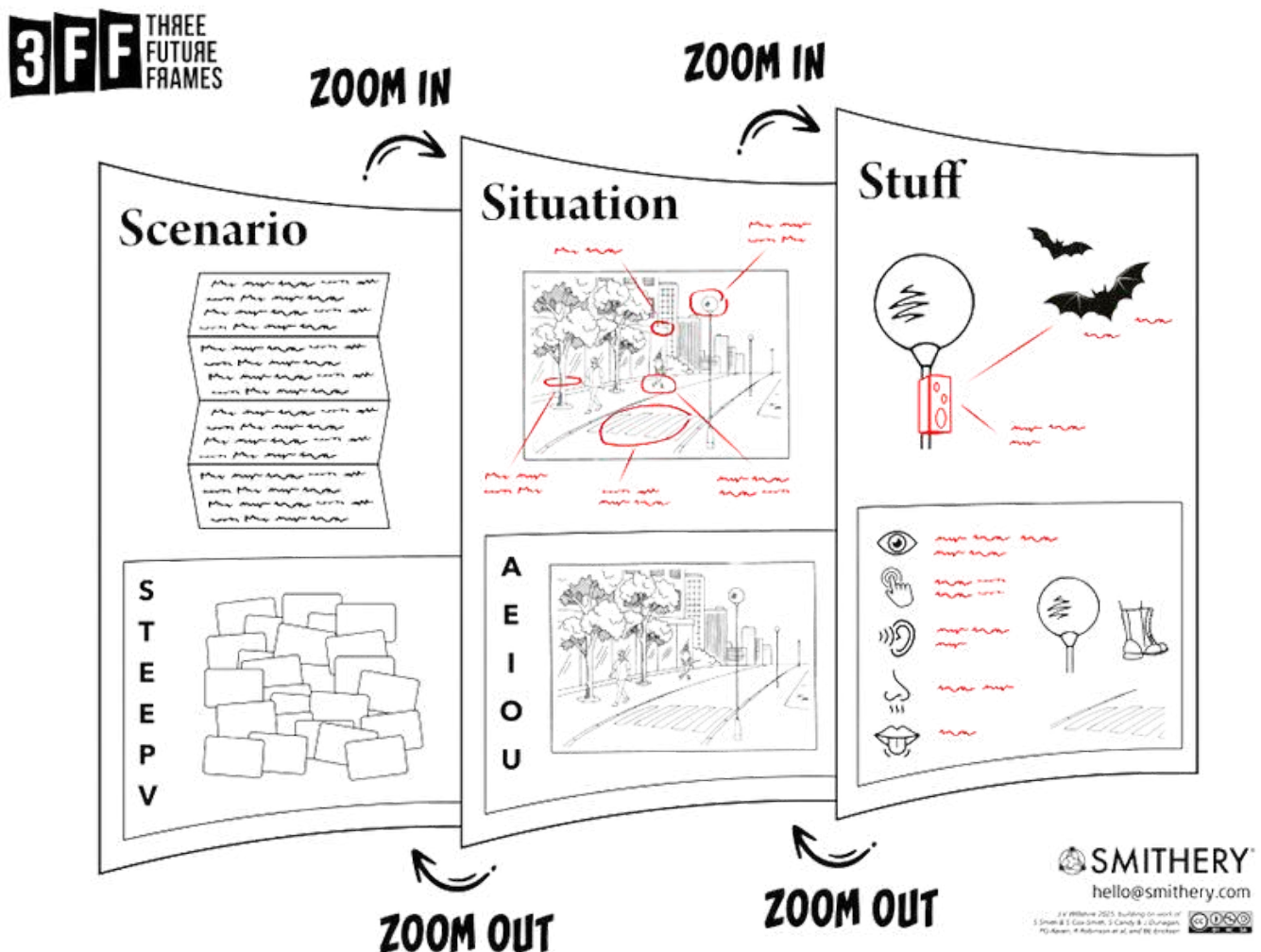

Fig 1. Three Future Frames, John Willshire / Smithery, 2025

Photo credit: James McCauley

It has evolved from ten years of the *Innovation and Future Thinking* summer course at IED Barcelona[6], where an integral explanatory model has been the *Experiential Futures Ladder* by Stuart Candy (Candy & Dunagan, 2017[7] - fig. 2)
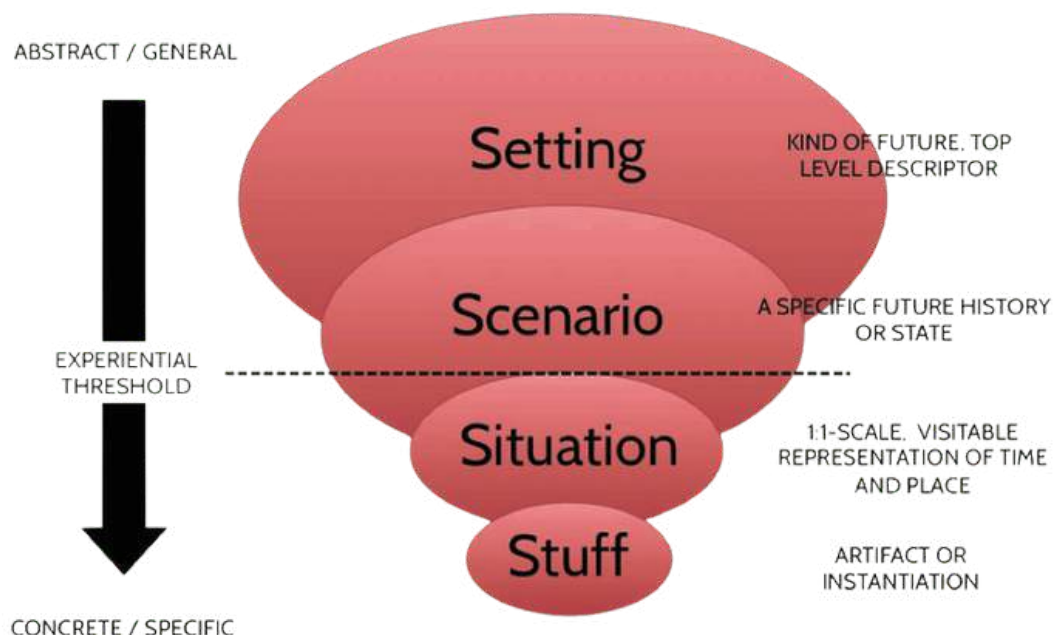

Fig 2. Experiential Futures Ladder, Stuart Candy 2016

There are lots of linear representations within the design-process field; ladders, funnels diamonds and more. One weakness they have is that they invite the user of the process to imagine and work towards the perfect completed artefact.

In teaching the *Experiential Futures Ladder*, we've noticed that people tend to stop at the bottom. We want to push beyond the notion of "*research where the end product is an artefact*" (Frayling, 1993[8]). We need them to move both up and down. What might this new artefact say in different situations? What does it tell us we don't know about the scenario?

To support these next steps, it is helpful to switch to a more useful metaphor. Look at the camera app on your smartphone. On the side of the screen, you may well see magnification options; 0.5x, 1x, 2x and so on. Point your camera at something nearby. What do you see? Now change the magnification. Zoom out to 0.5x, and the whole space comes into view. Zoom in to 2x or higher, and you may find yourself interrogating a particular object.

The construction of 3FF presents three levels of zoom on an equal footing, with the instruction to zoom in and then zoom out as an integral ongoing part of the process. These frames are taken from the *Experiential Futures Ladder*; Scenarios, Situation, and Stuff.

Within each of the three frames, there are two parts. The lower half is the represent source material. For example, it could be the signals gathered and clustered for a scenario, the pictures that depict current situations, or the existing packaging on a supermarket shelf.
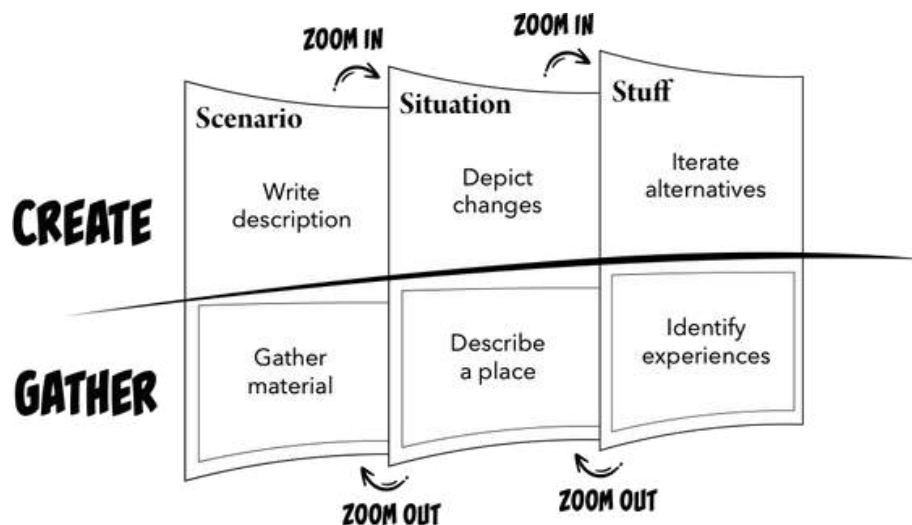
The upper half or each frame is for creative expression; given what we see below, what might change in this future? You can start in any frame you like, but for the purposes of this, let's start with Scenario.

The source material for a scenario can vary by practitioner, context and more. As an example, imagine starting with a horizon scan using signals covering Social, Technological, Environmental, Economic, Political & Values (STEEPV) factors.

These signals, single pieces of information you have gathered, could of course be the result of weeks or months of preparatory research. In shorter workshop formats, we have tended to create a set of "bootstrap" signals – a sheet for each of the STEEPV categories with six sourced signals on each – which participants then take and add more research. We have also used quotes from qualitative research, tagged by STEEPV categories, to great effect.

These signals are discussed, connected, moved, rearticulated and so on, until the group is beginning to see a scenario unfold in front of them.

One way to consolidate enough of the scenario at this point is to borrow and build upon the "exquisite corpse" inspired method, as created by the surrealist movement[9]. Fold an A4 sheet in half, and then in half again, until there are four sections. Now ask teams to use the scenario they have built so far to write four separate paragraphs, one in each section, about the world as they see it so *far*.

Using "bootstrap" signals to start shaping scenarios - *Helen Hamlyn Centre for Design, RCA, February 2025*

Synthesising scenarios using "exquisite corpse" method - *Helen Hamlyn Centre for Design, RCA, February 2025*

The task is not to complete an exhaustive scenario at this point. Instead, now it is time to zoom in. Given their scenario, where can the team imagine it playing out – in an office, a supermarket, a school, or by the side of the road?

We then pull it apart using design methods that traditionally help those research complex environments establish what is going on. For instance, the AEIOU method (Robinson et al., 1991[10]) asks researchers to evaluate Actions, Environments, Interactions, Objects, Users to describe in detail a complex situation.

What does that place look like *today*? Whilst we have memories and knowledge of all these places, finding / taking pictures of real examples is incredibly valuable here for source material. Then, move to the top half; how does this situation change under the conditions of the emerging scenario?

One way to visualise this work is to mimic a "spot the difference" puzzle – take an image (or sketch) of a place today, duplicate it, then draw on top of it the five main changes in this future scenario.
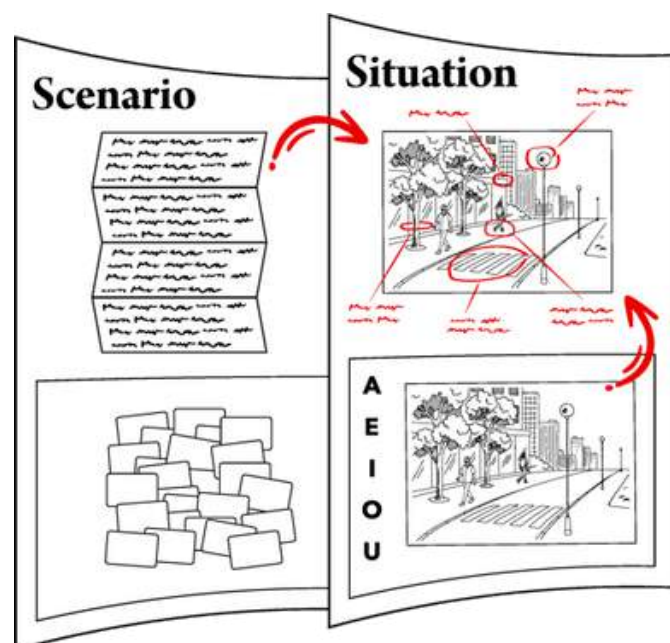
Now we have a specific situation that we can use to zoom down again. This might be some form of "Mental Time Travel" exercise (Lustig, 2015; Markley 2007[11]). Ask people to close their eyes and imagine themselves stepping forward in time to the situation they have described.

Ask them to look around, turning this way and that. Perhaps walk through a door if they see one, or open, a nearby cupboard. An additional useful prompt here is the 5-4-3-2-1 exercise, developed by psychotherapist Betty Alice Erickson to ground patients suffering from anxiety in the present moment. Ask participants to note five things they can see, four things they can touch, three things they can hear, two things they can smell, and one thing they can taste. These spatial and sensory prompts help participants to more fully explore the future they are imagining.

After three minutes, announce that the time vortex is unexpectedly closing, and they have thirty seconds left to 'grab one thing' they can bring back with them. Then they open their eyes. After giving participants a minimal amount of time to sketch or make the object they brought back, ask the group to present them back. A small group can have a collection of imagined prototype items from that particular future situation fairly quickly.

Here we will specifically zoom back out, rather than improving and refining any one of these objects. Ask the group to select an interesting prototype from their collection. They should ask themselves in what other situations would this be found? How much do you know about them? We have used an iteration of the *Verge* (Lum & Bowman, 2004[12]) domains here – Define, Relate, Connect, Create, Consume and Destroy – to generate a set of questions that helps shift an imaginary object into new situations.

Where was it made, and by whom? What happens when someone throws it away? How much do we know about *these* situations in this given future?

It may start another round of the research process here in the situations frame, but equally this triggers more research at the scenario frame.

Have we gathered any signals on the future of the creation and consumption of these kinds of materials? What kinds of signals do you now feel you are missing? Where might we look to expand our understanding a little more?

Participants have zoomed back out to the frame they started with. They have more research to do, and probably far more than a single scenario can hold. This is where 3FF divides into two (or more). By pulling signals apart into different clusters, this generates an inductive process to generate multiple scenarios, which can be repeated as often as required.

3FF is not a linear process where a scenario simply converges down into a designed artefact, losing the research context in which it was created. The continual process of zooming in and zooming out supports better underpinning of projects that stretch across the foresight and design divide.

Instead, 3FF is an outcome-focussed method that seeks to end not when a report is published, nor an object crafted, but when a desired change is effected. Given that "*design practice is intrinsically about change and changing the world*" (Valtonen, 2020[13]), then it is through design that futures work can help steer us to the worlds we wish to inhabit.

Note from the authors: We recently ran the first Futures Through Design programme at the Royal College of Art in London, a three-day open course designed as an exploration through the Three Future Frames, with John and Rob joined by colleague Gem Barton. As the world's leading Art & Design institution for the last eleven years (QS World University Rankings), the Royal College of Art has been leading the exploration of various futures methods. We will be repeating the open course in future, and can also offer custom versions for organisations. John also continues to use the framework in annual two-week Innovation and Future Thinking summer school at IED Barcelona.

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ABOUT THE AUTHOR

Dr. Rob Phillips *is a senior tutor at the Royal College of Art, Design Futures Programme. A Product Designer with 20 years' experience, including: 5 patents, manufacture with 3⁺ million products in retail, leading research papers, live saving ballistics and material developments and user orientated proposals. A collaborative vision of Ecological Citizenship was recently awarded £3.4m by the EPSRC, working with SEI (York) and Wrexham University. A previous collaboration was (www.mynaturewatch.net) project with Northumbria, Interaction Design Research Studio. It used distributed design fostering people's engagement in the natural world and was broadcast on BBC SpringWatch. His research (to date) collaboratively raised over £7 million. He has run over 50 design workshops with interdisciplinary teams, cultures and international participants. Their user orientated proposals and involvement in design for team GB, using revolutionary developments including lifesaving fire/ballistics and leading research publications. His research seeks to 'Engage Design', decreasing our impact, gaining insights into sustainable transitions. His latest book 'FutureKind, design for and by the people', culminates research to be 'holistically sustainable' being FutureKind to PlanetKind.*

John V Willshire *is the founder of Smithery, a UK based strategic design practice, which he started in 2011 to help clients* **make things people want, rather than make people want things.** *Smithery helps organisations take an active role in shaping their futures as they look out over an uncertain landscape, learning to perceive and understand new realities, sparking appropriate internal innovation, and acting on these instincts to make real change. This takes the form of everything from longer project-based work to short sharp consultative engagements. Recent projects include developing a Future Trends and Signals System for the United Nations Development Program (UNDP) in partnership with Changeist, scouting the emerging Climate and Health intersection for Wellcome Trust to develop a participative strategic framework. John also makes tools for thinking with (available at artefactshop.com), is a founder and steward of a community of regenerative practice called The STEPS Collective. Finally, John teaches on the Design Futures programme at the RCA, and with Toban Shadlyn co-coordinates the long-running 'Innovation and Future Thinking' summer course at IED Barcelona.*

john@smithery.com / smithery.com / artefactshop.com