



Room used during the machines exploration

WORKING OTHERWISE	
THE PROCESS: MATERIAL EXPLORATION & MANIFESTO	
CHAPTER NO.	004



Machines used in the process

Ever since I was working on my proposals, I intended to produce a printed object using analog machines as the main tools of production. In this chapter, I discuss the hands-on part of the project, focusing on material exploration and on writing and designing the manifesto.

CHOOSING THE TOOLS

In this project, I ended up using an analog typewriter (Olympia SM9, 1964), an electric typewriter (Triumph-Adler Twen T 300, c.1985), a fax machine that uses thermal paper (Philips HFC 141), and another fax machine (Philips Magic 5 eco voice dict) that uses plain paper and a thermal transfer ribbon. Additionally, I used an old rotary number stamp.

I have been intrigued by the use of analog machines and the material aspect of tools in my design practice for the past years. Besides my personal curiosity, I experience a different form of making design (not necessarily better or worse) when I step away from contemporary standard processes, such as digital workflows. I believe that these alternative ways of approaching the process are somehow opposed to the way we usually have to do it: quick and efficient. As I got in touch with the ideas of Rosa, Han, Brown, and Giggs, I began to see more clearly how these reflections on labour, efficiency, and autonomy were connected to my choice. I believe that deliberately exploring the typewriter and the fax machine became a way of claiming my own agency in a system shaped by acceleration. I found myself dialoguing with the tools instead of only operating them.

It is about autonomy. The autonomy to step outside of conventional and standardized tools and decide for myself which instruments I would use, opening myself to contemplation, and not only going with the “best” industry solution. In that sense, this exploration became a conscious attempt to expand my own material literacy —

to extend my knowledge, to practice new skills, and to let unfamiliar tools actively contribute to how I think and make. These are skills that I know will stay with me, that I can most certainly use in the future.

Choosing machines that belong to another technological era also carries symbolism. The “obsolete” machine from the past relates to the present, and it is possible to have a critical perspective on our relationship with technology, work, and time. The idea of progress and constant innovation becomes an object of reflection. By using an obsolete tool, the designer connects past and present, questioning the narrative of a future that is always better and faster. For me, using them was not about the slowness as such, but about re-thinking the terms of engagement. And, importantly, using them today reinforces something central to material literacy: analog and digital are not opposites. They can coexist and be used together. Tools don't have to be constantly replaced.

They can be repurposed. The typewriter and the fax were created for very specific purposes: writing documents and transmitting them, respectively. But by engaging with them, there are possibilities that arise that go beyond what they were initially built for. Because the very fact that the fax and the typewriter were not made for visual creation makes room for an even greater engagement, a deeper resonance. Therefore, repurposing is not only a method of invention but also a way of building a deeper connection with the tool. It challenges you, stimulates you, and demands presence. It is not something quick, but an ongoing (and, honestly, joyful) process.

When it comes to materiality – the type of machine, the paper, the pressure, the ink, the movement – it guides decisions as much as I do. Working physically also means working with my hands, with trial-and-error, with gestures that leave marks. Because they are not the most efficient machines, they are older and less determined, they open

more space for the accidental occurrences, and they invite more chances into the process. I discovered new ways of using them simply by using them. A mechanical typewriter responds differently from an electric one; a heat-sensitive paper fax behaves differently from one that uses a ribbon. These nuances become part of the design process.

I also chose not to print or buy any printed material for the project, only to use what I already had, and if I wanted something else, I could just produce it with the selected tools. Since the fax only does copies, what was not coming from the typewriters was coming from papers, packagings, flyers, postcards, tickets, and booklets that I have been collecting in the past year. This decision was made so I could challenge myself to think outside the box and invent graphic outcomes with what I had. At the same time I was limiting myself to what was there, I was giving the materials the space to participate in how the outcome was going to look, since different materials would produce different results. Furthermore, it was also about repurposing: letting ephemeral papers that were made to last a month, a week, or even a second, such as a metro ticket, be used again, last longer.

Working with paper also became a conscious choice. Paper is cheap, immediate, and incredibly versatile. With these machines, the moment you do something, you see it. No exporting, no printing, no waiting. It is actually efficient! Not in the logic of production, of course, but the logic of exploration. It is accessible and affordable. And incredibly easy to go back and forth with the different machines. As Ludovico mentioned in “Post-Digital Print – The Mutation of Publishing since 1894” (2018), despite all technological advances, the digital never replaced the specific materiality of paper.

“There is still no electronic device which reproduces all the characteristics of paper: being

lightweight, foldable, manipulable according to various reading activities, easily shareable with a small group of people interacting with each other simultaneously using a single medium, and being able to easily contain very different types of content, all instantly generated by hand, or juxtaposed with prepared (reproduced) content. In fact, it seems much easier to digitally simulate the limitations of paper than its strengths – and this is unlikely to change any time soon.” (Ludovico, 2018, p. 26-27)

Finally, paper is also connected with permanence. It is a stable medium. It is not something that will change with a mouse click, or it will be lost in a hundred gigabytes in the cloud. We remember the printed page; we return to it, we pause and reflect on it. No need for storage space or electricity. It is just there.

In a world where everything is accelerated and ephemeral, the physical acts as a counterweight. Choosing to work on paper and choosing to print this thesis is also part of this gesture. I do not want this work to be something that passes instantly to the next thing. I want it to stay, to be held, to be revisited, to resist the ephemerality that characterises so much of our contemporary experience.

MATERIAL EXPLORATION

During my research for Proposal I, I identified many techniques that could be used in the typewriter. As already mentioned in Chapter 1, during the break between the development of the proposals and the thesis, I

realised that just because I could identify all these methods, it did not mean that I wanted to use all of them. I also had some experience with using the thermal paper fax machine, so I believed, at this point in my project, that I would just be replicating the techniques that I enjoyed and that inspired me.

What was interesting was that the more I used the machines, the more I learned new things about them. So I kept being surprised by the possibilities. For example, I discovered that if I kept rotating the carriage up and down while typing, I could create a wave effect on the typed line. At some point, I realised that I could not lock the paper at all in the carriage, moving it with my hand while typing. And because the carriages in an analogue and an electric machine work differently, the technique was also done differently.

When using the fax, I gathered some postcards and images that I wanted to try in the machine, and I realized some images worked better or worse because of the copy contrast, which is not very sensitive to different colors. With time, I noticed that in both machines I could select different copy modes – normal, fine, or photo –, changing the sensitivity of the machine and the way the print was made. Another discovery made almost at the end of the process was that the Philips Magic 5 fax had the option to make a copy with the content resized to 200%, 150%, 75% or 50% automatically.

I played around typing in the typewriter and then copying it using the fax; then explored the other way around, combining the different types of machines. I also experimented using colored paper, carbon paper, and transparent paper. I simplified techniques that were not so appealing to me by combining both machines. For example, creating the moiré effect is quite exhausting only with the typewriter, since you need to type the same character over and over again, then twist the page and

repeat the process. With the help of the fax, I could do it only once and then overlap the pattern by copying it over and over.

I also explored the possibility of creating very long pages with the thermal paper fax, since it is a gigantic paper roll, and you cut the paper manually whenever you want. Particularly with this machine, I put so many papers at the same time that I ended up damaging it slightly, and it started to print vertical black lines in the copy, which reminded me of Lancashire constantly breaking the photocopier.

To conclude, the idea here is not to punctuate all the possibilities of these machines, but to underline that I have discovered so much potential and inventiveness, just by allowing myself to dedicate months to exploring them. I fed my material literacy and allowed my design process to be thinking and making together. And I am certain I have not exhausted everything they can do.

WRITING THE MANIFESTO

Defining the content of the print media was what took me the most time. I needed to have the content, the information, that would conduct my visual exploration with the machines. Initially, I thought about three possibilities: 1) to be about time and society, the sociology discussion presented in Proposal I, which I revisited in Chapters 1 and 2 of this thesis; 2) to be about the female clerical workforce and the typewriter, a topic discussed in Proposal II; 3) to combine both topics, relating society, capitalism and feminism.

As already mentioned, I decided not to continue with the gender issue, because the topics were getting too broad and I would not be able to go deep enough in all of them, so, following the initial logic, the only option left was

the number one. The issue was that it was supposed to be a graphic exploration and not an extensive theoretical text.

After some reflection, I realised my whole thesis was about an alternative to the efficiency-driven design process, and I was actively executing this process. So nothing fairer than the content being about the process itself. But I still did not want it to be a long essay about it. Finally, the idea of making a manifesto came to mind.

A manifesto is defined as "a written statement declaring publicly the intentions, motives, or views of its issuer" (Merriam-Webster). Examples of art manifestos include the Futurist Manifesto, the Dada Manifesto, and the Manifesto for Concrete Poetry. Many were intended to shock and achieve a revolutionary effect. I also got inspired by the "A Manifesto By" series on the WePresent website³, which reunites manifestos written by designers, photographers, directors, activists, and other creators, all with 10 rules to live by.

Therefore, I decided to write a manifesto based on the design process I was doing, influenced by material literacy and the contemporary context we live in of acceleration, efficiency, and productivity. In that way, I could condense my reflections into a clearer position. I follow the structure of having 10 rules, or as I prefer to say, 10 points – more like guiding principles for an alternative way of working. I wrote each point containing a title and a short description. In that way, I could explore each point visually, combining theory and practice, thinking and making, word and image.

³ WeTransfer. (n.d.). A Manifesto By [Series]. WePresent. <https://wepresent.wetransfer.com/series/a-manifesto-by>

I wrote the manifesto, as presented below, after the machine explorations but before actually making the final brochure, so I could create each page inspired by the ideas of each point, mind and material together. It is important to emphasize that the ideas were written according to the process, but not the tools. It was not about the typewriter or the fax machine; they were just the tools I personally opted for, because I was interested in them. The manifesto can be applied to whatever tools or materials one is interested in.

The title Working Otherwise reflects the core intention of the manifesto: to propose an alternative way of engaging with design practice. It suggests a refusal of purely efficiency-oriented logics and an openness to experimentation, material engagement, and deliberate decision-making. It emphasizes choice, agency, and openness over standardized or automatic ways of working.

Experimentations with the thermal paper used in the fax machine



A MANIFESTO ON WORKING OTHERWISE		PAGE: 1/4
Working Otherwise is a manifesto that proposes an alternative way for design processes. It comes from a practice that questions how work is done, how tools are chosen, and how decisions are made. In a world where productivity and efficiency dictate how design is done, it suggests that we do design paying attention to process, materiality, constraints, and the relationship between a designer and the tool they use. Working otherwise means allowing space (and time!) for experimentation, reflection, and invention, regaining autonomy of your own agency.		
	1. <u>Pick a tool that sparks your curiosity</u> Without curiosity, there is no exploration. You need to feel interested in the tool – whatever it is – in a way that makes you want to touch it, test it, push it. That pull is what opens space for invention and is what keeps you going, even when the process gets frustrating or nothing seems to work.	
	2. <u>See beyond the purpose</u> Every tool or material was made to do something. But nothing obliges you to use it ONLY for that. Know what it does, then see what else it might do. Explore, bend, and misuse its functions. Repurposing is a form of invention, and nothing is off-limits.	

A MANIFESTO ON WORKING OTHERWISE		PAGE: 2/4
	<u>3. No mistake is a bad mistake</u> You might not necessarily like it, but it will teach you something. These happy accidents support experimentation and improvisation in design. They can spark imagination and creativity, shift your direction, and open paths you wouldn't have planned intentionally.	
	<u>4. Think while you make, make while you think</u> Ideas don't fully exist before you start – they appear through the process. Every material pushes the work in a certain direction. Let thinking and making happen together, and let the material act as part of the process, not as something passively waiting to be filled.	
	<u>5. Work inside constraints</u> Too much freedom freezes you. Creativity needs boundaries that push you to find inventive solutions. When everything is possible, nothing actually starts. So choose a tool, a format, a colour – anything that points you somewhere.	

A MANIFESTO ON WORKING OTHERWISE		PAGE: 3/4
	<u>6. But don't limit too much</u> It's a nuance. Too many constraints can get you stuck. You have to learn when a limit is helping you move and when it's suffocating the process. It's an ongoing adjustment – expand, narrow down, shift – and you only learn it by doing.	
	<u>7. Ignore efficiency when it gets in the way</u> Don't let the logic of efficiency dictate the process. Doing something fast isn't the same as doing it well. If "being productive" becomes the metric, you lose the chance to explore paths that need time, repetition, detours, and even boredom. Let the pace follow the work, not the other way around.	
	<u>8. You can always push more</u> You never fully exhaust a tool. There is always another possibility, another combination you haven't tried yet. You may think the process is done, then you try again, and something new appears. It's not about obsession; it's about knowing exploration isn't linear.	

A MANIFESTO ON WORKING OTHERWISE	PAGE: 4/4
	9. <u>Make things to last</u> I know, not everything will last. But design doesn't have to be ephemeral, and we shouldn't design following the rhythms of updates and obsolescence. Create with the intention of making something that holds, something that aims to resist the cycle of constant replacement. 10. <u>Reclaim your autonomy</u> Choose how you want to work. Refuse to be only a software operator. Decides why a process matters, which tools make sense, and how the work should unfold. Make deliberate choices instead of just following the fast, easy or automatic path. Be an agent of your process.

DESIGNING THE MANIFESTO

With the text ready, it was time to materialize it, visualize it. My method of creating the pages was very free. I had the 10 points typed out on paper, and I decided to display all the machines and materials I had available in the room. By reflecting on the points and observing my surroundings, I started using the tools and experimenting with printing with the machines. I did not follow a specific order: if I had an idea or was inspired by something regarding a point of the manifesto, I would work on it. If some of the printed papers provided a spark of inspiration, I would use them.

I was also very open to the decision of when a page was ready or not. I displayed some of the papers on the big tables I had available, and others I taped on the walls so I could see them together. What was interesting was that I was constantly working with the printed materials; there was nothing digital, no screens, in the middle of the process. If I wasn't satisfied with the result, I would do it again. If I wanted to "erase" a part of the print, I would copy it again, covering the part I didn't want with a piece of paper.

I decided not to impose so many rules while working. Some elements became different at every point, as for example the style of the characters and paragraphs – some were written with the analog typewriter, others with the electric one; some with upper-case, others with lower-case; right-aligned, centralized, justified. Other things I decided to eventually restrict when combining the pages, for example, the use of black, white, and red only.

While designing the pages of the manifesto, I noticed that my process followed two main approaches. In some cases, the relationship between text and image was symbolic: the visual composition related to the statement of the

manifesto by translating its meaning into the image. This is the case, for example, in the inverted map produced with the typewriter for see beyond the purpose, or in the page where regain your autonomy is accompanied by the drawing of sheep, deliberately evoking the idea of not blindly following a given path. Similarly, the statement make things to last is paired with a page designed to disappear, contrasting permanence and ephemerality.

In other moments, however, the pages came directly from the process itself. Here, the material behaviour of the tools guided the outcome, and the content became inseparable from the way it was produced. When a sheet of carbon paper was placed the wrong way around, the text was unexpectedly transferred onto the back of the page, inverted. Instead of correcting it, I incorporated it into the point no mistake is a bad mistake. Likewise, while working on you can always push more, I discovered that the fax machine allowed me to copy with increasing zoom, which led to a sequence of pages where the content grows progressively larger. In these cases, the design decisions were not planned but emerged from attentive engagement with the tools, allowing the process itself to inform the result.

Once I had all the pages designed, I copied all of them in order using the plain-paper fax, so I could have a prototype of the manifesto. I considered using the fax as the final printer of the brochure, but after making the prototype I decided against it because: 1) the quality of the printing was not great, since it was a copy of a copy; 2) I would be limited by the A4 size of paper accepted by the fax; 3) I would prevent any chance of the manifesto being replicated on a larger scale; 4) and finally, I would not have a proper inner margin for binding loose pages (something, I will discuss more in chapter 5). For these reasons, I decided to scan all pages and reserve the production and manufacturing stages for digital processes.

WORKING OTHERWISE	
THE MANIFESTO: RESULT	
CHAPTER NO.	005

FORMAT

The graphic format of the manifesto came directly from the material conditions of the project. Although initially I had considered working with different paper sizes for the outcome, the exploration and the materials I had available ended up leading me elsewhere. During the process, the paper size I had mostly available was A4 paper – white and colored sheets, transparent paper, and carbon paper –, which turned out to be the base of my experimentations. The exception was the thermal paper rolls from the fax machine that allowed the page to be very long in height, but kept the same width as an A4.

I decided not to impose a format in advance, when creating the pages, following what the process was producing. However, at some point, I realised that most of the pages produced were indeed an A4 or a very similar size, except for a few smaller pages. In this sense, the format was not a default choice, but a consequence of working with what was at hand and allowing material availability to shape the outcome.

Regarding how I would put the sheets together, I realized very quickly that, by the way the content was being produced, the best choice would be to work with loose sheets. Since the pages of the manifesto were created non-linearly, without following orders and in different moments, and because I often revisited or replaced them as the process evolved, binding the project to a fixed imposition system, like a four-page folio, would limit my freedom to create based on each point. For example, just because I decided to use a transparent page at some point, I did not want to impose that I would have to use it again in a specific position of the manifesto. By choosing double-sided loose pages, I could prioritize the autonomy of each page and remain responsive to the process rather than adapting it to a predefined structure.

However, an issue came with this choice. Binding loose pages requires a larger inner margin, since the book does not open completely with this method. If I just kept the A4 size, the inner parts of the designed pages, including some text, would be hidden.

Therefore, when transitioning to the final production stage, after scanning all pages and bringing them to the digital, I decided to add a 20mm inner margin. At this point, the pages needed to be printed on A3 to accommodate the increased margin. After some testing, I ended up deciding to expand the scale of the publication as a whole. Making the format bigger allowed the manifesto to gain more presence and space, and the text to become more prominent. Important to mention that I opted not to redesign or edit any of the pages (except for post-scan color adjustments); they were enlarged proportionally, preserving the gestures, compositions, and traces produced with the machines. In this way, the digital stage functions not as a corrective or aesthetic refinement, but as a means of reproduction that respects the material and procedural decisions made throughout the project.

COLOR

During my exploration with the machines, I worked with papers of different colors, as the machines print only in black – and, in the case of the analogue typewriter, also red. When designing the manifesto itself, however, most pages retained a predominantly black-and-white aesthetic. In a few specific cases where I wanted to introduce contrast, I experimented with red, green, blue, and yellow tones.

Eventually, I decided to limit the use of color to a small number of pages, keeping red as the accent color. This choice dialogued directly with the only additional color the machines could produce and helped build a clearer

visual identity for the manifesto, keeping the pages cohesive.

The color red also carries strong symbolic associations with action, revolution, and transgression. In this sense, it becomes an almost obvious choice for a manifesto, especially considering, as I already mentioned, many were intended to shock and achieve a revolutionary effect.

TYPOGRAPHY

Regarding typography, except for text already present in papers, tickets, flyers, and other printed materials that I used in the fax machines, the only typography used came with the typewriter machines:

Olympia Pica typeface (10 pitch).
Olympia Pica typeface (10 pitch).

123456789+&'
qwertzuiopü
asdfghjklöä
yxcvbnm,.-

123456789+&'
qwertzuiopü
asdfghjklöä
yxcvbnm,.-

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QWERTZUIOPÜ
ASDFGHJKLÖÄ
YXCVBNM?!"

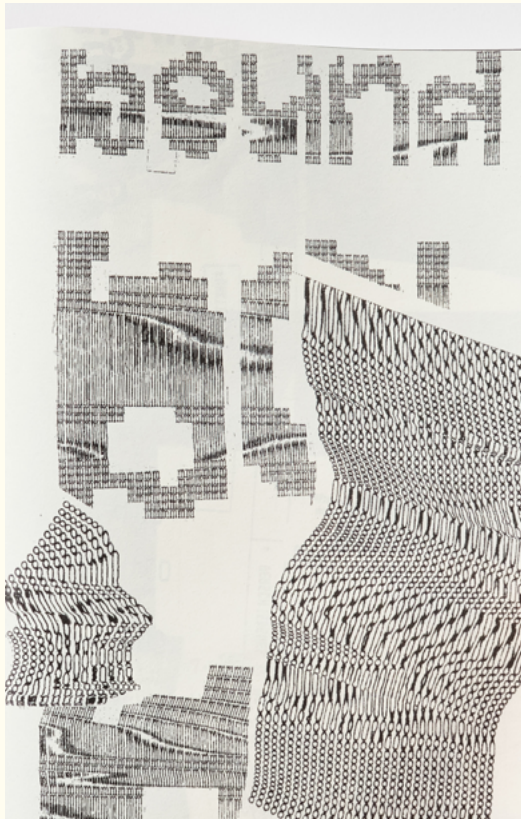
;"=%&()_\$/:~
QWERTZUIOPÜ
ASDFGHJKLÖÄ
YXCVBNM?!"

Courier 10 typeface (10 pitch).

1234567890B'
qwertzuiopü+
asdfghjklöä
yxcvbnm,.-

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QWERTZUIOPÜ*
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As researched as a technique in Proposal I, I also used the letters to make different lettering, like in the examples below.



Different letterings made
with the typewriter

BINDING

By deciding to use loose pages, I had some binding options available, such as screw post, perfect binding, comb, or spiral. I also wanted to keep the hands-on approach in this step of the project; therefore, I decided to use Japanese stab binding. I enjoyed the simplicity of not needing to use glue, while at the same time, it is aesthetically pleasing. I also decided to use a red thread, connecting to the color accent of the manifesto.

After some trials with tiny prototypes, I opted for creating an "X" pattern with the string. Among many meanings, the letter relates to words like "against" or "versus", resonating with the idea of a manifesto. Personally, it was also a letter that I chose to do some of my experimentations with the typewriter, since its shape mirrors itself perfectly, filling the square frame of a monospace character.

Binding prototypes



PAPER

The paper choice was based on two criteria: it should not be too thick, to make it easier to turn the pages of the manifesto, and it should be uncoated and textured. After some testing, standard white offset paper felt too much like a mass-produced item, and I wanted the paper to also give an idea of craftsmanship, manual production. In the same way that I proposed that we should touch and feel the material in a design process, I wanted to evoke a tactile experience while reading the manifesto.

Considering the limitations of single-copy printing, I chose a 90g/m² cream-colored sketch paper with a fine grain. For the transparent pages, I used a smooth, highly transparent 80/85 g/m² paper. It is important to notice that the sketch paper was not well accepted by the laser printer; therefore, in case of a larger production of the manifesto, this choice would need to be reconsidered. In the future, it might be interesting to explore a stock similar to newsprint (that would be even thinner and lighter), which was not possible for this prototype due to time constraints and availability.

PACKAGING

The manifesto does not have a traditional cover. This was not a decision made beforehand, but a consequence of the process itself. As the work developed through experimentation, the first pages already carried important traces of the making process, presenting different formats and forming a composition. Adding a conventional cover would hide this, which reveals the manifesto as something built gradually rather than presented as a closed object. Instead, I chose to wrap the manifesto in a thin, semi-transparent paper that I already had available, offering protection and also relating to the material logic of the project. The transparency keeps the first pages visible, still requiring and inviting the reader to touch, open,

and handle the object to fully access it. I used the same red thread that I used to bind the manifesto to sew the paper, creating some kind of packaging that can be opened by untieing the string. In this sense, the manifesto does not announce itself immediately, but invites exploration and sparks curiosity, reinforcing the idea of a practice that unfolds through interaction.



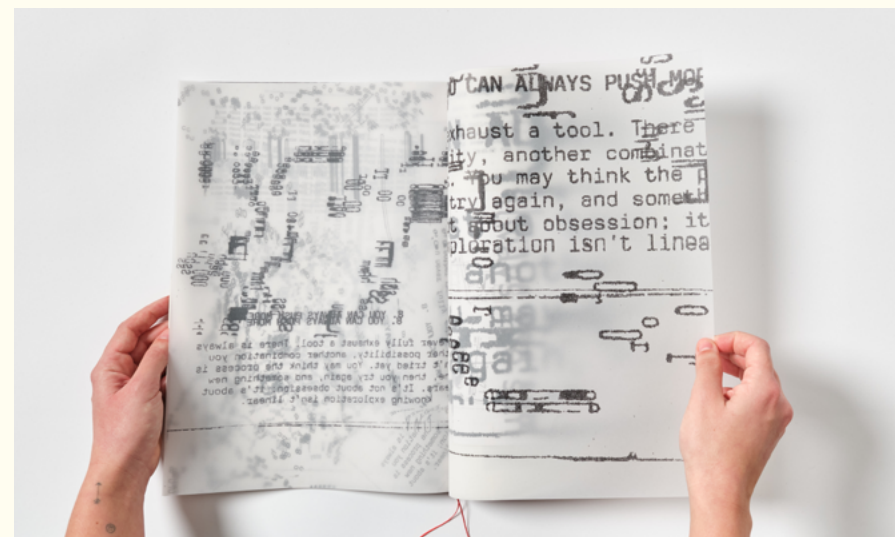
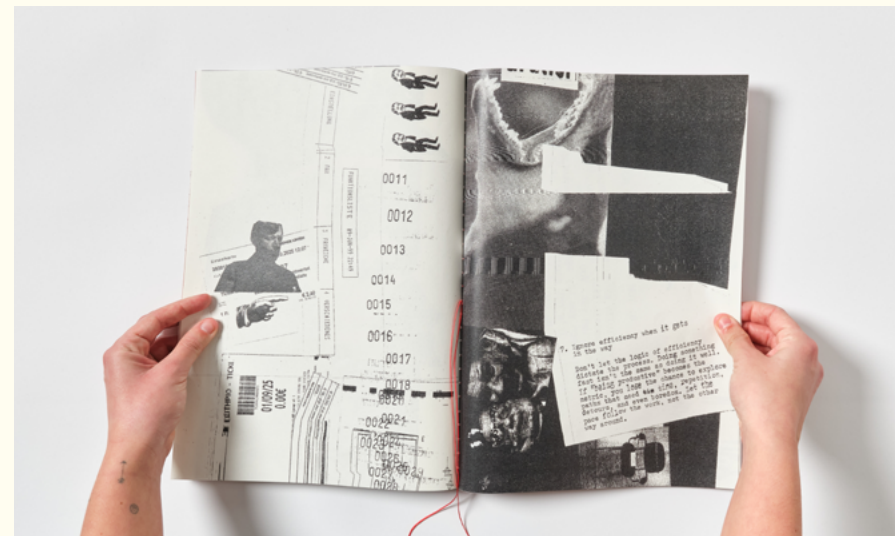
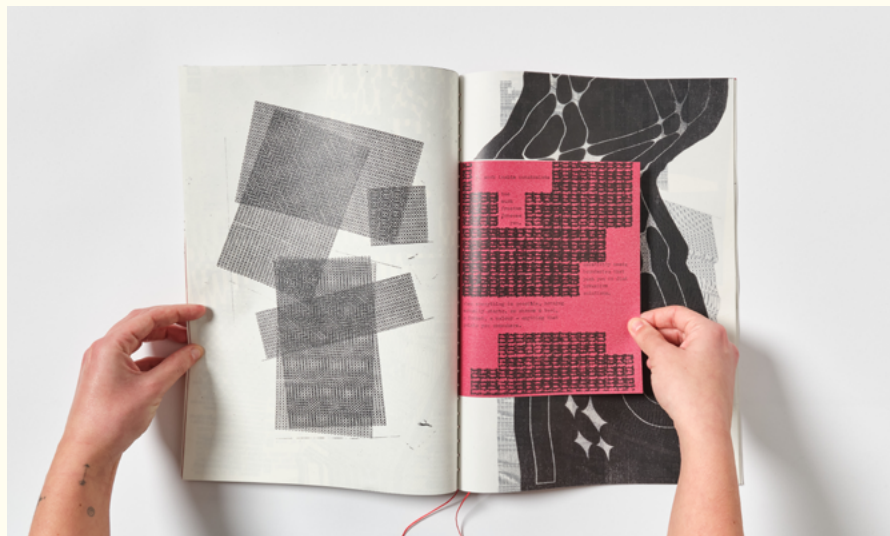
Manifesto packaging



Manifesto on Working Otherwise: spreads and details



Manifesto on Working Otherwise: spreads and details



Spreads from the manifesto



Spread from the manifesto made with thermal paper



Details from the manifesto

