



Experimental Typography

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PLANCK LENGTH 1.0

Innovative applications of Experimental Typography

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Abstract:

This paper discusses how a single conversation can form the basis for typographical development. It lays out two aspects of an experimental working methodology that engages light, materiality and tactility to establish new working practices within the field of typography. The authors lay the foundations for a new, mutable and tangible relationship between legibility and narrative and discuss how this might have an influence on the burgeoning field of virtual reality.

Key words: *narratives, extreme typography, scale, experiment, art*

1. Introduction

“One of the things that’s important about family is the narrative history they create for themselves” (Gabe Newell)

The typographical project PLANCK LENGTH takes its’ name from the smallest measurable unit beyond which all classical physics breaks down and the world of quantum uncertainty unfolds. It marks the portal between our own utilitarian understanding of the world and all of that which lies beyond. In all

its simplicity it is a way of describing how we are trying to bring typography to the limits of its form and to the edge of narratives.

PLANCK LENGTH takes a fleeting conversation with someone who of necessity shall remain nameless but who works at the top level of cyber security. We shall call him JOHN UNDERWOOD though that is not his name.

JOHN UNDERWOOD spoke of an ongoing cyber war between Russia, China and the West and where he encountered enough code in a single pixel "to take down an nuclear power station. We are at war in cyberspace." Although brief, the conversation led us to ask how typography might be challenged by such an insight. This specific narrative and its potential is the driving force of what we are trying to examine.

And so we ask ourselves – how can we experiment with making typographies that take us to the edges of the defining characteristics of our age.

It is certainly a way to ask ourselves about how to carry and create meaning. It is less about legibility and more about deciphering undercurrents we can find in the simple act of forming letters.

It points towards the hidden and the transcendent.

2. Context

"Every successful individual knows that his or her achievement depends on a community of persons working together." Paul Ryan

We are both driven by a powerful interest in the relationship between words, letters and form.

We are asking ourselves how to create a set of methods to muse poetically upon the conditions we find in our current times – the transcendent and the secret. We contend that poetry (interestingly a word that derives from the Greek and means "I create") – like politics and war – is one of the defining elements of what it means to be human. It stretches beyond literal meaning to let the light shine in.

For us in this project the forming and creating of letters might be seen in the same way. As previous mentioned we are curious about the following question – how can we experiment with making typographies that transport us to the edge of form. We are less concerned about legibility and more about creating a journey into technologies and narratives.

The two were always entwined.

2.2 An Open-ended methodology

“By three methods we may learn wisdom. First, by reflection, which is the noblest; second, by imitation, which is the easiest; and third, by experience, which is the bitterest.” (Confucius)

Learning wisdom by experience. Each one of us goes through different transformations with mixed variables which remain unique and challenging and every one of us is a product of these learning experiences. We know from previous practice that not all experiences serve as new insights and learning – some might remain bitter and undigested – but in order to glean real knowledge from this one must attempt to examine and decipher the variable factors and how they influence the end result, regardless of what it is.

We use this reality as an endeavour to push forward our curiosity towards experimentation in order to base understanding to new opportunities having full knowledge that experiments can and should go wrong.

Our starting point for experimenting depends on play, defined by John Cleese “modes of creativity”. According to Cleese there is two modes of working – Closed and Open Mode – and, in order to fulfil our overall goal of going beyond literal meaning we need to meet that approach in ourselves and with each other.

Closed mode. By the “closed mode” he means the mode that we are in most of the time when we are at work. We have inside us a feeling that there’s lots to be done and we have to get on with it if we’re going to get through it all. It’s an active—probably slightly anxious—mode, although the anxiety can be exciting and pleasurable. It’s a mode which we’re probably a little impatient, if only with ourselves. It has a little tension in it, not much humour. In the closed mode, it is impossible to be creative. Unfortunately, that’s the mode according to Cleese we’ve spent most of our lives in.

Open mode: The open mode, is a relaxed, expansive, and less purposeful mode in which we’re probably more contemplative, more inclined to humour (which always accompanies a wider perspective), and, consequently, more playful. It’s a mood in which curiosity for its own sake can operate because we’re not under pressure to get a specific thing done quickly. We can play, and that is what allows our natural creativity to surface.

It's a mood in which curiosity for its own sake can operate because we're not under pressure to get a specific thing done quickly. We can play, and that is what allows our natural creativity to surface (Cleese, 1991, 6:28).

Play is distinct from ordinary life, both as to locality and duration. This is its main characteristic: its secludedness, its limitedness. Play begins and then (at a certain moment) it is over. Otherwise, it's not play."

Johan Huizinga summed up his elaborate definition of play as follows: "Play is a free activity standing quite consciously outside 'ordinary' life as being 'not serious', but at the same time absorbing the player intensely and utterly. It is an activity connected with no material interest, and no profit can be gained by it. It proceeds within its own proper boundaries of time and space according to fixed rules and in an orderly manner" (Huizinga, 1949, 13).

So in this project we are allowing ourselves an open-ended approach allowing ourselves to play, without any specific purpose, by allowing experimental curiosity where ever it takes us.

2.3 An intuitive approach

"The first rule is to keep an untroubled spirit. The second is to look things in the face and know them for what they are" (Marcus Aurelius)

Though we have both previously worked together in projects and with individual career in this case we have experimented with letting our individual working approaches in each of our own "open mode" floating like a hippo down a river. In this way we allowed our intuitive process of play to guide our working processes coincidentally without apparent causal connection.

Nonetheless we felt it was necessary to employ a series of practices that could both wed our own various and individual efforts that sprang out of our understanding of the conversations.

2.4 A direction

"Efficiency is doing things right; effectiveness is doing the right things."

Peter Drucker

We employed a model as the arbitrator of how the work was to proceed so that we could build our thoughts into a cohesive whole and, most importantly, a cohesive project whilst at the same time remaining in "open" mode.

In order to follow the notion of "untroubled spirit" we determined that a good deal of freeway for any decisions – understood that they follow in the general structure (see fig.1). These decisions could then be further transformed by formulating a general direction for any aesthetic or communicative choice made individually or collectively.

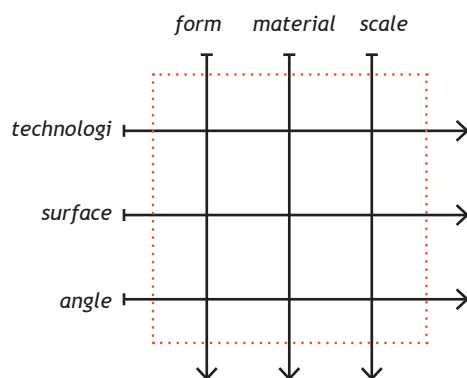


fig 1 - different defined approaches to meet for pushing process of experimentation forward

3.0 Landscapes of exploring

I am a storyteller. That is what exploration really is all about. Going to places where others haven't been and returning to tell a story they haven't heard before (*James Cameron*)

In this way the "open mode" process became defined into a methodology that made it possible to materially discuss trajectories and directions for different parameters of exploration. Further to this they were used as individual "drivers" when working alone in order to ensure a channelled approach to form production.

These material embodied explorations became experiments in terms of; SHAPE – 2D to 3D fig. 2 (u), in terms of; SCALE – going from Nano to Giant fig. 2 (v), looking into the landscape of TECHNIQUES fig. 2 (x) from craft to digital, by this we mean from hand drawn, printing techniques – letterpress to digital print, digitally design on screen 2D to 3D shape.

Looking into TANGIBILITY by this we mean would we be able to touch and explore the surfaces of the letters, by this we mean screen and print are defined as intangible, unless we are talking about techniques like embossing etc. fig. 2 (y).

One of the last parameters was used to engage with how comprehensible, how legible the characters/typfaces became both as separate elements and in conjunction with other type forms fig. 2 (z).

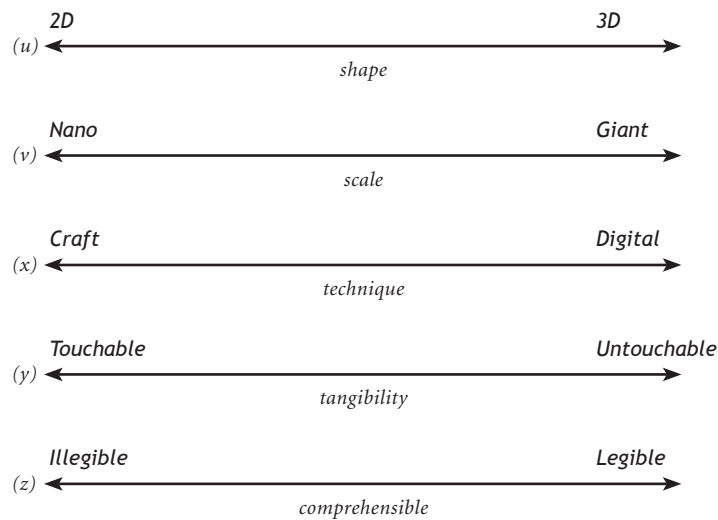


Fig. 2 - different working parameters for embodied explorations

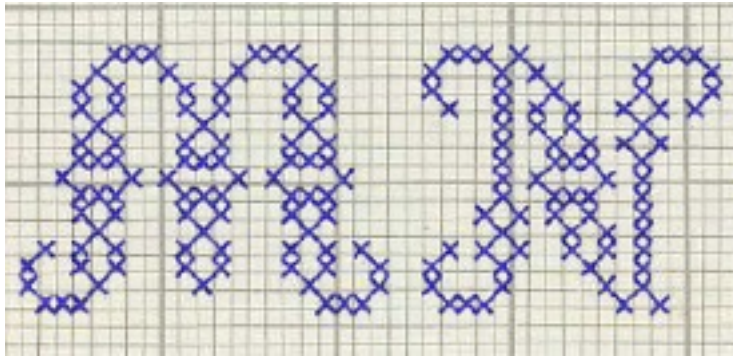
4.0 Experiments

For brevity this paper only runs through a limited range of experiments and showing the journey of two people experimenting and playing on top of each other's work.

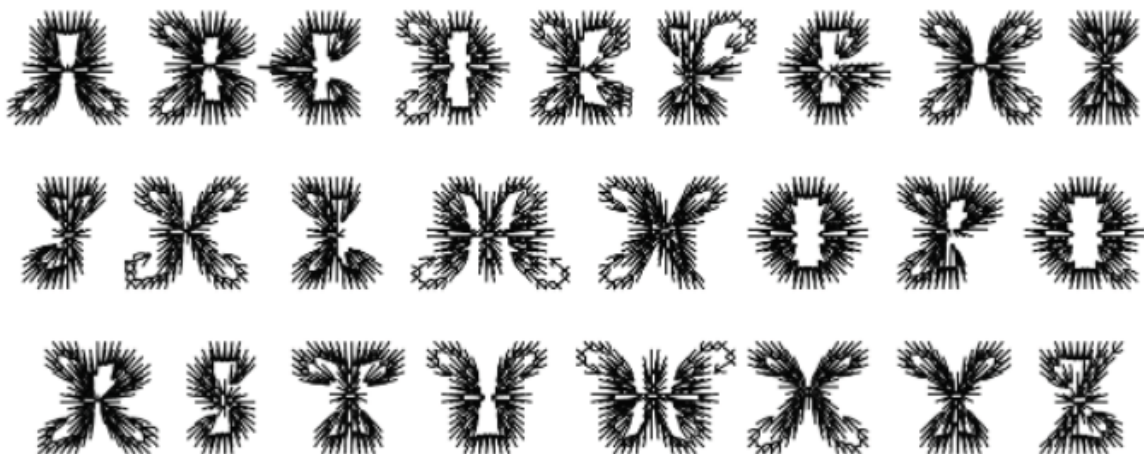
One of the selected experiments took its' starting point partly from the idea JOHN UNDERWOOD pixels. The pixel (a word invented from "picture element") is the basic unit of programmable colour on a computer display or in a computer image. It is best thought of as a logical – rather than a physical – unit with the physical size of a pixel being dependent on the display screen's resolution.

A pixel is represented by a dot or square on a computer monitor display screen. Pixels are the basic building blocks of a digital image or display and are created using geometric coordinates. Depending on the graphics card and display monitor, the quantity, size and colour combination of pixels varies and is measured in terms of the display resolution. So when we are looking at pixels as basic building blocks we are actually looking at grid systems in a wide variety of mental and physical contexts. This included digitalising old

embroidery manuals, laser-cutting the results and working with the results in letterpress printing. One of the most central experiments took its starting point in the digitalisation of an alphabet from Elsie Svanna's "A handbook of lettering for stitchers" embroidery manual from 1966 (img 1). From the digitalised alphabet, we made an experimental digitalised version of it (img 2).



Img 1 - Original drawing of letter 'M' and 'N' of Elsie Svanna's embroidery alphabet



Img 2 - An experimental digitalised version of Elsie Svanna's embroidery alphabet

The digitalized alphabet (img 2) was then run through a series of experiments - such as laser cutting in various materials and sizes (img 3-7) and tested in letterpress printing (img. 8) amongst other things.

The laser cut letters were again digitalised by putting them through a scanner as a way of re-examining their physicality through a digital lens and deliberately pixelised both through the scanner's implicit structuring of images and by working with distance from the scanner surface (img. 8). The resulting images were then able to form the basis for further experimentation by taking them from 2D to 3D in Rhino (img 10 and 11).

We made a range of 3D printing experiments for example PLA and PETG printing, resin-printing which is printing by a laser. This printing is in a different material and in a higher resolution of 0,05 mm (img 12 and 13), compared to PLA and PETG printing which has a lower printing resolution and tends to produce a rougher surface (img 14). The 3D printed letters were once again scanned. One of these scanned results is seen in img. 13 and the result is as seen in the digitalised version in img. 15.



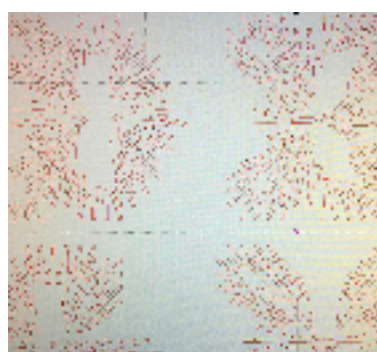
img. 3



img. 4



img. 5



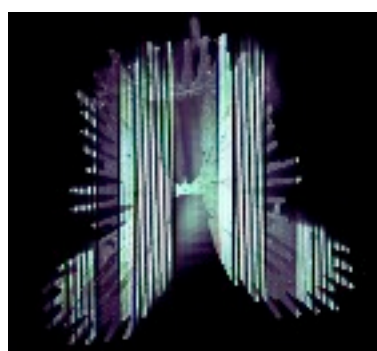
img. 6



img. 7



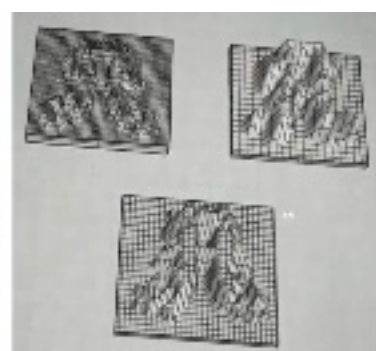
img. 8



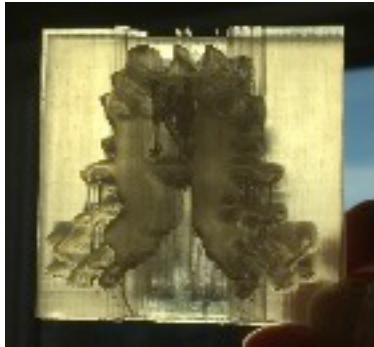
img. 9



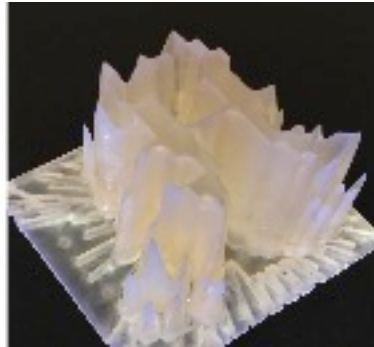
img. 10



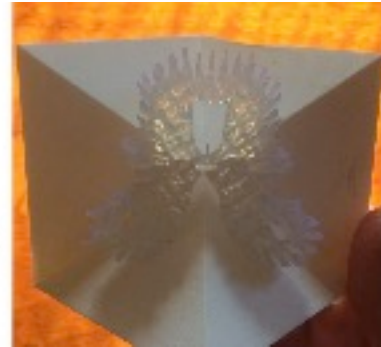
img. 11



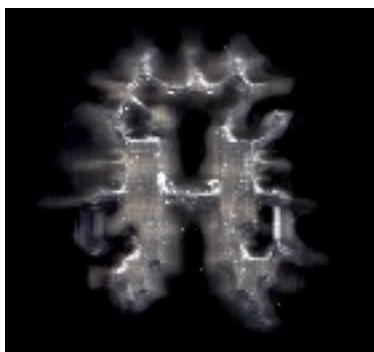
img. 12



img. 13



img. 14



img. 15

5.0 Conclusion

With type development moving into new spheres of influence (gaming, 3D, virtual reality) we have tried to combine the classic approach to type development with its emphasis on legibility and communicative precision and the incorporation of narrative within a specific framework in order to start a place of imagining where both principles can lay themselves out.

The arrival of mechanical type transformed society. Access to the relatively unrestricted information it was able to convey – including revolutionary ideas – transcended borders and class. Growing literacy led to growing self-awareness, nonetheless the power of publishing was labourious and in the hands of the few.

The advent of the inter-connected internet age has changed the balance of communication in terms of ease and ubiquity. The burgeoning growth of immersive virtual reality is a fundamental game changer in terms of who and what we meet.

Our efforts with PLANCK 1.0 is to establish new working practices within the field of typography that can lay the foundations for a new, mutable and tangible relationship

between legibility and narrative. Between artistry and design. By demonstrating how to make a landscape of ideas it shows how we can build a foundation for a working practice across skill sets that can meet the realities of this new communicative age head on.

If Confucius is right in saying that imitation is the easiest of the paths to wisdom – we contend that experimentation and its' inherent risks are the its polar opposite. And in order for that approach to work best it demands as broad a set sensorial inputs as possible.

“We touch things to assure ourselves of reality. We touch the objects of our love. We touch the things we form. Our tactile experiences are elemental. If we reduce their range ... we grow lopsided” (Albers, 1965, 69). It was implicit in our working methodology that we wanted to weave in between the perceived gap between the notion of the pixel – immaterial and disembodied – with the our own embodied and robustly present selves.

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