

## Thumbing through the index<sup>1</sup>

I want to suggest that we are two-dimensional beings. We can turn left and right, and in fact travel freely to the 360 points of the compass, but we have little control over height and depth; our movements in this third dimension are sorely constrained. If we stray too far below, we drown; too far above, we fall and break. Gunnar of Hlíðarendi, whom many consider the greatest of the Icelandic saga heroes, could jump more than his own height in full battle-gear – but probably not very much more.<sup>2</sup> The saga does not even record that he climbed mountains. Strapped down helplessly in our seats for fear of turbulence, our bodies become confused at changes of vertical direction. In our dreams of space travel, the fantastic digital war-games of our dismal recreation, the spaceships all have a topside and an underside, and bank and dive away from each other in a giddy verticality which is unknown to the real inhabitants of interstellar space. And in the far distance we may see the tiny figure of Milton's Satan – or is it Superman? – coursing between the planets, his shapely legs trailing not only behind but always a tiny bit *below* his piercing eyes. So pickled as we are in gravity, our third dimension is forever staked to the Declination of the Pole.<sup>3</sup>

Thus when we address this third dimension we tend to do so second-hand, or at least second-eye. Just two and a half inches

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<sup>1</sup> This essay is a rewritten version of a paper given at the inaugural conference of the The Danish Book History Forum, *Ink on Paper, Light on Screen: Text Matters*, in Copenhagen 20–21 April 2006.

<sup>2</sup> Njáls saga, chapter 19.

<sup>3</sup> Charles Lock has proposed that we first became aware of gravity in the seventeenth century, when causality appeared in the world, and made of metonymy an empty prepositional phrase. – See his “Fredy Neptune: Metonymy and the Incarnate Preposition”, in *The Poetry of Les Murray. Critical Essay*, ed. Laurie Hergenhan and Bruce Clunies-Ross, University of Queensland Press, 2001, pp.121–141, here pp. 132–3.

apart from each other, our puny eyes suffice only for domestic parallax, the tools within our grasp, or possibly the choreography of the farmyard, the recalcitrant sheep and hens. Many years ago I acquired a device like a pair of spectacles on a stand, with which to look at adjacent and overlapping aerial photographs of the terrain I lived on and see it in stunning three dimension, with deep rolling valleys and high peaked mountains rising towards me. The photographs I used were taken at two-thousand metre intervals, so that the apparatus showed me Iceland with eyes which were two kilometres apart instead of three inches, and the depth of the valleys and height of the mountains became cosmic indeed. Cartographers have long since taken advantage of our visual inadequacy and invented a new perspective in their maps, an almost Goethe-esque manipulation of colour and shadow to bring out the depth of valley and height of mountain on the flat printed page. This is what we do normally when we look further afield, extrapolating from the vision and touch of our immediate workspace. For glancing up the valley to gauge the weather, or watching for Mars to go retrograde, the images on our two-dimensional retinæ are too similar in each eye to enable us to perform the fast Fourier transforms we use to chop onions or thread needles. For most of what we see, we might as well be looking at a flat surface, drawn in good perspective. One wonders whether perspective was not invented by a one-eyed artist.

Perspective requires a horizon, a bounding circle – the Greek word here is *horos*, a boundary. The circle of the horizon is also a two-dimensional figure, its immaterial perimeter parallel to the plane of our eyes, as long as we stand straight and eschew mountains, which promote vertigo. ‘Immaterial’ in that the proper epithet for *perspective* is *vanishing*; in temperate Western societies, bounded by trees and buildings, horizons are rarely visual. Instead, as we shall see shortly, they have become powerful metaphors referring to the invisible limits of our thought, the lonely islands of our modern consciousness.

Digital photography – very unfortunately named as we shall see when I start talking about fingers – poses thorny problems for horizons. My digital camera takes photographs composed of 1.2 million pixels each. Given that each pixel has a finite number of pos-

sible configurations we must conclude that the total number of possible photographs my camera can take is a very, very large, but quite coherent and solidly digital number. In other words, if we last long enough, my camera will not be able to avoid repeating itself, whatever I point it at. The digital universe is finite.

Language has been digital rather longer than photography – since in fact the invention of the alphabet, which is a short and finite list of ciphers. And so the same applies to these pages of A4 paper on which I read my print-out of this essay: only a certain number of characters can be displayed on each page, and each character can only be one of the 30-odd letters of the alphabet, together with a handful of ciphers such as spaces and punctuation marks. I could program my computer to churn out random A4 pages until it was forced to repeat itself. The number of pages is finite, and quite easily calculable. They would include, scattered ever so sparsely in vast acres of gibberish, everything that has ever been written in English, and a lot of other languages, and everything that will ever be written, and everything that it is in any way possible to write on single sheets of A4 paper, including all possible misprints; and it would also incidentally, if we see this for a moment as a Cabalistic formulation, include all the names of God, and perhaps little else. Digital language, like the universe recorded by my camera, is finite.

But by now you should be protesting that no sentence ever means the same thing twice, and that language keeps evolving. At which point the positivist will start counting the number of neurons in the human brain and calculating the number of all its possible thoughts; but I shall not venture down that Mandelbrot road.<sup>4</sup> Language is digital only in its statistics, and however ultimately limited the printing presses of this world, and however flat the A4 page, its is a surface rather like the one mankind lives on: on to it are projected great depths, and great heights, and they are all visible there on the surface. They lie there, as Charles Lock would say, in the ink, and may be read there.<sup>5</sup>

Let us examine some of the sentences that surely appear on our pieces of A4 paper, to illustrate what I mean.

<sup>4</sup> The Mandelbrot set is described lucidly in *The Emperor's New Mind*, London: Oxford University Press 1989, Vintage edition 1990, pp. 98–105.

<sup>5</sup> For an exercise on determining the gravity of this statement, see Charles Lock, *op.cit.*

She is washing her hands

Sentences like this are sometimes adduced as examples of ambiguity by linguists who see English as a rather central type of language. This sentence, they say, must have two underlying forms, in one of which the subject is washing her own hands and in the other, her daughter's; and they draw up different shapes of tree-structures to prove their point: these tree-structures are somehow lurking there behind the print. On more than one occasion I have witnessed functionally monoglot English-speaking linguists getting excited in Iceland when they discover that the Icelandic language, which we are told is an exotic language, is not ambiguous in this case at all – in their excitement they forget that the same applies to most European languages other than English:

elle se lave les mains – elle lui lave les mains  
 si sta lavando le mani – le sta lavando le mani se está lavando las manos – le está lavando las manos  
 она моет руки – она моет ей руки  
 hæn pesee kásiään – hæn pesee hænens kásiään hun væsker hænder – hun væsker hendes hænder  
 sie wäscht die Hände – sie wäscht ihr die Hände  
 – and Icelandic:  
 hún þvær sér um hendurnar – hún þvær henni um hendurnar

Our linguists assume at this point – and not in fact without reason – that something significant is afoot. They express this rather cleverly with what they call *indices* (if you look closely you'll see the word *digit* hiding there too) and assume two underlying forms:

she<sub>1</sub> is washing her<sub>1</sub> hands  
 she<sub>1</sub> is washing her<sub>2</sub> hands

These forms are called “underlying” because the indices appear not to be present in the physical language, neither the print on the page nor the spoken words. The “underlying” forms are seen as “surfacing” as one single sentence without the indices; while for instance the French and the Icelandic sentences “surface” in two

different forms (I include the “underlying” indices here to clarify my point):

elle<sub>1</sub> se<sub>1</sub> lave les mains – elle<sub>1</sub> lui<sub>2</sub> lave les mains  
 hún<sub>1</sub> þvær sér<sub>1</sub> um hendurnar – hún<sub>1</sub> þvær henni<sub>2</sub> um hendurnar

This however is where I take issue with the linguists. I do not see the indices as “underlying”, for as the observant reader will note, their existence in the ink of this page is as solid as any of the other symbols. It would in fact be a great improvement if correctly formulated indices were added to, say, legal documents, to indicate whose *his* and whose *hers* belong to whom. For the fact is that the English versions of these two sentences are not in the least identical if we include intonation and eyebrow-movements, and above all context – which is what indices in fact try to indicate – indices are of course *indicating* digits. In this respect we may think of them as a type of punctuation, since punctuation is simply a device for adding grammatical, syntactic or intonational information to a written text. To take an example, we use punctuation to disambiguate the following two sentences, whose difference lies more in context than in the sequence of sounds:

I know it's Mother  
 I know its mother (i.e. the cat's mother)

We might reflect that the history of orthography includes a steady trickle of clever scribal solutions for disambiguating written language. Classical Semitic texts, Arabic and Hebrew, do not mark the vowels in their writing: this does not mean that the vowels are underlying, it means that Arabs and Jews who have to make their own ink are not going to waste it on unnecessary vowels. Early vowel-less scripts showed word division, either with spaces or other means of punctuation, but with the invention of vowels this practice ceased.<sup>6</sup> Spaces between words reappeared in Western scribal practice in the later Middle Ages (according to Saenger,

<sup>6</sup> Paul Saenger, *Spaces Between Words: The Origins of Silent Reading*, Stanford, California: Stanford University Press, 1997, p. 9.

with the advent of silent reading<sup>7</sup>), but they have no real justification in spoken language. Our understanding of the love-affair between Alcaeus and Sappho hangs amongst other things on a text – which Alcaeus may or may not have uttered—which looks something like this in Haephastian’s metrics, some 800 years after the event:

ioplokagnamellikhomeidesapphoi<sup>8</sup>

We can translate fairly confidently up to the last word in this verse: ‘violet-haired, holy, sweetly-smiling ...’ but then we get into difficulties, for the unspoken mystique of word-division is, to borrow generative terminology, “underlying” in classical Greek. This crucial text is ambiguous, for it can have two different spoken interpretations:

mellikhomeide sapphoi ‘sweetly-smiling Sappho’  
mellikhomeides apphoi ‘sweetly-smiling darling’

Thus the question of whether Alcaeus and Sappho even so much as knew each other hangs not on an underlying linguistic structure but on an inadequate scribal convention. In the same way the introduction of indices into our text:

She<sub>1</sub> is washing her<sub>1</sub> hands

like the introduction of vowels and word-spaces and italics and question marks and the like, is simply the projection on to the flat and finite space of printed textuality of the sort of information that hangs much more eloquently on our lips. The so-called ambiguity of our sentence rests only on inadequate reportage: the lack of context and the lack of written indices. Sentences without context do not occur, unless on the pages of textbooks in syntax. In reality their contexts have always occurred earlier in the text:

<sup>7</sup> See especially Saenger pp. 273–276.

<sup>8</sup> Campbell, D.A. (ed.), *Greek Lyric I: Sappho and Alcaeus*, ed. D.A. Campbell, The Loeb Classical Library, Cambridge Massachusetts, and London, England: Harvard University Press, 1990, p. 405.

What is the Queen<sub>1</sub> doing?  
 She<sub>1</sub> is washing her<sub>1</sub> hands

No ambiguity here to mull over; these anaphors and deictics are surely there in our text, so there is no reason not to show them. And if we continue –

She<sub>1</sub>'s trying to wash the blood<sub>n</sub> off

– we suddenly find we have a much wider range of reference, a much more powerful index:

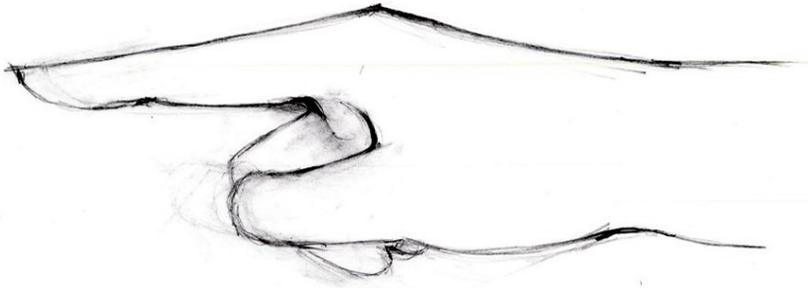
Who<sub>0</sub> would have thought the old man<sub>2</sub> to have so much blood<sub>n</sub> in him<sub>2</sub>?<sup>9</sup>

– a bunch, in fact, of indices which don't simply point to Duncan and Lady Macbeth, but much more strikingly to that vast backdrop of canonical language that suddenly springs into focus. Even more importantly, we find we are looking at the most intimate working of the text, the threads of life which distinguish real language from the other millions of pages of digital meaninglessness. We see in fact that indexicality does not reside in either of the phonological strings—*she* and *her*—which anchor it into the sentence, but in a third movement, the *event* of their interaction, the event which creates meaning. Without this movement, there is no meaning: static language does not exist. Over small stretches, within the sentence, this movement will breed small meaning, tuning and polishing the larger meanings. Between sentences, indexicality knits larger meaning together; but full encompassing meaning is a function of indexicality between texts, a global reference. And now our question must be: What is the scope of this globality? How far afield may we dare to look?

So far I've been talking for the most part in accepted metaphors, as we have to do when we talk about, for instance, texts, for we have nothing but metaphors to work with. The term *text* itself is a metaphor, for it really means a woven cloth, a textile; and every-

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<sup>9</sup> *Macbeth* V.i.44.



thing we say about texts is couched in metaphors from pre-textual, non-textual life. Lines, margins, pages, chapters, volumes, series, corpora; nouns, verbs, adjectives, sentences, clauses, letters, spaces: all these concepts are rooted in pre-literate society, and all have earlier, more concrete meanings. The index, as we have seen, is the pointing finger,<sup>10</sup> which can point to things we can see, words in the same sentence, or to the page before, or to the Shakespeare on our shelves. But what of things further afield, out of sight, beyond the horizon? In order to talk about this I shall have to bend the metaphor ever so slightly.

The Icelandic verb ‘to point’ is *benda*. The etymon seems to refer to an encompassing, bounding motion, just as the English “bend” means to tension the bow to bind the string.<sup>11</sup> When we point to things out of sight, beyond our horizon, we point with bent finger: round the corner, over the mountains. You do not point *through the mountain* to a farmstead in the next valley: you point up to the pass, even when it is shrouded in mist. Icelanders in Copenhagen, when they point home to Iceland, will point up into the north-western sky, following the jet trails. Before the age of flight, they would have pointed out to the horizon, the far point of perspective where the ships slipped out of sight. We do not point to the final destination, but to the beginning of the journey. Any attempt to point straight, to demystify our index, is obscure, without interpretation. Useless to point down at an angle into the ground, to ignore the close horizon: that will not be pointing to Reykjavík, but

<sup>10</sup> Messíana Tómasdóttir drew the hands in this essay.

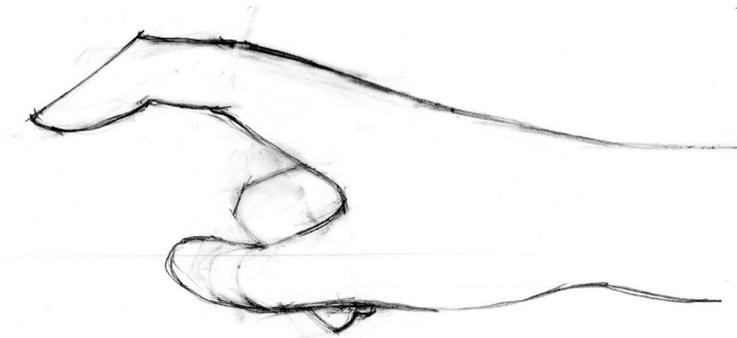
<sup>11</sup> *The Oxford English Dictionary*, 2nd Edition, Vol. I, “Bend v.”.

merely through a cusp of our planet to further stars on the edge of the universe. The warm breast of Hopkin's Holy Ghost broods over the "bent world"; Hopkins is thinking not only of the bowed, weary world of man's treading, but of the curve of light rising in the East:

Oh, morning, at the brown brink eastward, springs —<sup>12</sup>

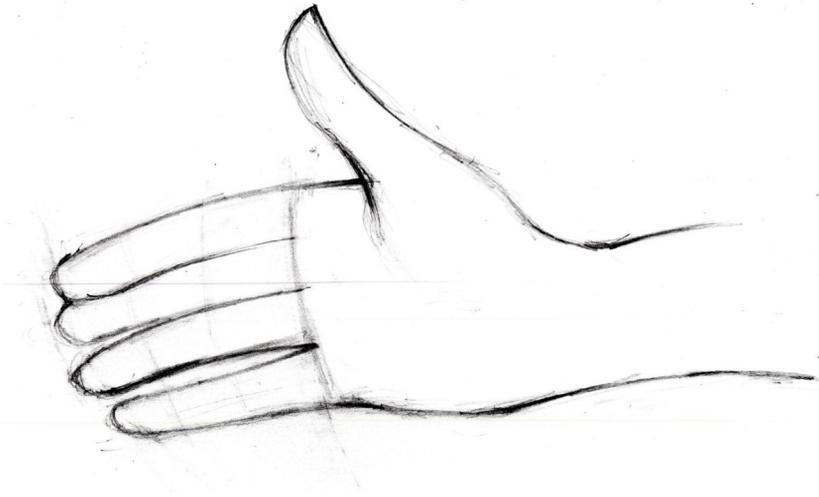
Of course pointing straight is valid when the target is in sight, the ship on the horizon, the horseman on the hillside, and it is valid perhaps in the monologic text, the chanting of the poem in the Anglo Saxon hall, where all indexicality lies in the intonation and demeanour of the performer, gestures towards people and places the audience knows and remembers. When we point straight, we do not triangulate, we cannot indicate distance.

When pointing to the unknown, the unseen, when pointing out



beyond our horizon, it is as if we point with bent finger. Our references become dialogic: we invoke the unspoken, the third term, triangulating our indexicality in order to steady our slippery language. The domain of straight pointing is delimited by the horizon of the monologic. When we bend our pointing finger, it is drawn down towards that extraordinary token of our humanity, the thumb. Just as the thumb allows us to manipulate objects within the small circle of our immediate environment, so too it partakes in our more expansive gestures. With the help of our thumb, it is always given to us to move our horizons further out.

<sup>12</sup> Gerard Manley Hopkins, "God's Grandeur", *The Works of Gerard Manley Hopkins*, Ware: Wordsworth Editions Ltd, 1994, p. 26.



Not many years ago I saw a woman in a news clip, nursing her sick child, and indicating as she spoke her village, a week's walk away, turning her head away from that terrible place even as she gestured towards it: making a slow chopping motion of the hand, the fingers held together at right angles to the direction, her thumb upwards, as if lifting up the sensible horizon and planting it further away, many times, many days' journey. Her home, her Centre, was no longer the village; she had chosen to take her Centre with her; but the important point is that she could command her own horizon, moving it out at will to encompass her distant village, her old centre, even while shielding her eyes from the horrors that were perpetrated there. This physical manipulation of her horizon was bodily, but she was speaking as she gestured, and without doubt an analysis of her spoken prosody, a trace of her intonation and accentuation such as students perform in my phonetics classes, would reveal a correlation between the movements of her hand and the indexical functions of her language. Probably, too, there would be a muted feature of her intonation which would match the way her eyes failed to follow her gesture, her refusal to raise her eyes to the painful horizon. Any adequate transcription of her language would need to use complex indexical codification indeed.

In contrast, the indices in my written text are woefully inadequate. And yet this outward-moving gesture is one of the proper movements of the text, which can always extend itself over

untexted territory, making as necessary new names for the strange creatures it encounters. By saying as much, I am admitting allegiance to thinkers such as Hans-Georg Gadamer and his unmitigated vision of the linguisticity of the human world.<sup>13</sup> Whenever we search for the nonlinguistic, outside the horizons of our text, we fall silent and our thoughts are not recorded: there is no text. And yet our texts also discuss this possibility, claiming not to tread where they are surely treading, looking back at crossed horizons, pretending to ignore their own footprints. Or can we make gestures within the text to beyond the horizon? – without shifting it in any way, gestures towards the *outside* which allow us to remain *inside*? Which allow us to remain anchored in our linguisticity?

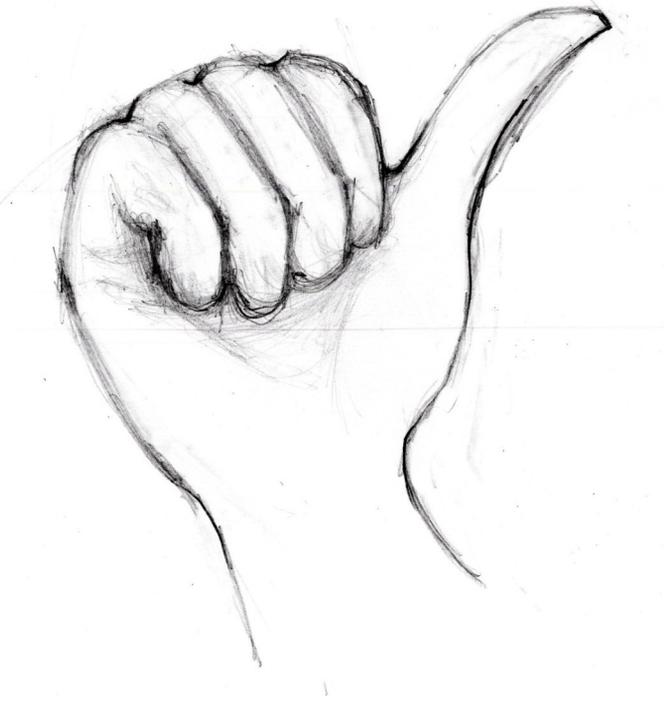
Gadamer's concept is of *fusing* horizons, the act of stepping into other centres and allowing them to resonate with our own, and rearranging – hopefully extending – our horizons accordingly.<sup>14</sup> I wish to suggest that, just as the horizons of the mind may, if we think far enough, become dimensionless and lose their gravity, so might it be that, as we name our horizons, there comes a fleeting prior movement, a timeless element of reconsideration, as if we were standing aside and watching ourselves in action. Can we then engage in crossing our horizons without actually extending them? Can we envisage the possibility of looking forward, as it were in a *reversal of retrospect*, a gesture which is not quite the same as the action itself? In an activity which is conscious of the action and watches it happen before it begins? I return to the woman with her sick child and her terrible memories:

Of course, her thumb pointed upward – quite a common gesture in speech. What was she saying with it? Look at my thumb, look at what I am saying? Could it be that the thumb was pointing in some way, an indicator of meaning? But we cannot call it an *indicator* –

<sup>13</sup> “For language is not only an object in our heads; it is the reservoir of tradition and the medium in and through which we exist and perceive our world.” Hans-Georg Gadamer, *Philosophical Hermeneutics*, trans. and edited by David E. Lyne, Berkeley, Los Angeles and London: University of California Press, 1977, p. 29. In this essay Gadamer discusses among other things Habermas's criticism of Gadamer's ‘idealism of linguisticity’ (Habermas's phrase, quoted by Gadamer, *loc.cit.*). And of course Gadamer's concept of an all-pervading, universal linguisticity is an extraordinary index – or pollex – of humanity, whatever its cogency.

<sup>14</sup> Hans-Georg Gadamer, *Truth and Method*, trans. Joel Weinsheimer and Donald G. Marshall, London and New York: Continuum, 2004, pp. 304–306.

it is not an *index*, a forefinger, but a *pollex*, a thumb. Even as the index is an efficient pointer, a little subscribed number which may refer to other little subscribed numbers in all our A4 pages – so we may find pollices which point outside the text, saying “That is not where we are looking, because if we look there we will see it and name it and admit it into our language.” They will not indicate, but rather pollicate the unnamed, the unspoken. And note the authority of the raised thumb: it invokes a Centre which is greater than the Ego, an origin, a non-dimensionality.



Physically, too, the thumb is a very different pointer from the indexical finger, for it is never straight. We use it to manipulate our horizons, and we also use it to indicate something behind us, or to our side, and as we jab our thumb in that direction we do not follow with our eyes. The thumb points awry, or inwardly; it points to different spaces. And because it does not point straight, it has more secure access to the outside than the straight-pointing index finger. Rather than simply pointing, it manipulates the text, directs and

conducts; it is the digit which enables the index to leave its work of pointing, and take to holding a pen. The thumb is the mark of the tractable, the hands working with texts or other substances – for instance those of the bread-maker, kneading the dough, the work of the lady, the *hláfdige*, the loaf-kneader, with strong thumbs.

Charles Williams favours the thumb: he uses it as a mark of humanity, and by extension of civilization. His Arthurian knight, Bors, addresses his wife Elaine, addresses her thumbs as much as herself, the marks of her humanity, her power to knead bread to feed the household:

On the forms of ancient saints, my heroes, your thumbs,  
as on a winch the power of man is wound  
to the last inch

– a power which has superseded the wild marshes and forests

where the unthumbed shapes of apes swung and hung

and built a promise of comfort and civilisation:

Oh lady, your hand held the bread  
and Christ the City spread in the extensor muscles of your  
thumbs.<sup>15</sup>

The pollex, the thumb, is the turned finger that complements and activates the index, bending the index down from its straight pointing into the working mode. The pollex grounds the index in reality, the small domain in which we can manipulate the third dimension, the kitchen, the workbench and the yard. And most certainly also the text, the pen and paper on the kitchen table beside the bread. If the bent pointing finger is the textual index, the thumb its mate is the extratextual pollex, steering the pen's movement into and out of the text.

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<sup>15</sup> Charles Williams, "Bors to Elaine: on the King's Coins", *Taliessin through Logres*, London: Oxford University Press, 1938, pp. 42–45.

## ÚTDRÁTTUR

## Bendivísun með þumli

Á Endurreisnartímabilinu fundu myndlistarmenn fyrst upp dýptarsýn með fjarviddarteikningu á myndfletinum, og á seinni tímum hafa kortagerðarmenn lært að nota liti og skugga til að birta okkur hæðir og dýptir landslagsins. Á flata stafræna tölvuskjánum getum við flogið um djúpa dali og fjallaskörð. Svo er með textann sem við lesum á flötu yfirborði blaðsíðunnar: þar eru miklar hæðir og dýptir sem við lesum úr með svipaðri vörpun. Nú þykjast málvísindamenn finna gjöful jarðlög „baklægra“ eða „undirliggjandi“ þátta í textanum, en vilja gleyma því að þróun ritunar gegnum aldirnar fólst helst í að finna æ betri leiðir til að leyfa þessum „baklægu“ þáttum að birtast í yfirborðsblekinu. Mörkun texta er á margan hátt ekkert annað en ýtarleg kommuasetning, merking með vísun sem binda saman byggingarþætti textans. En til eru vísar sem benda í ósýnilegar áttir, þumalfingur sem teikna upp útgönguleiðir úr textanum, og handahreyfingar sem bæga frá aðþrengjandi sjóndeildarhringjum.

## ABSTRACT

## Thumbing through the index

Just as perspective brought depth to the canvas, so cartography uses shadow and colour to draw for us startlingly knobbly images of Icelandic (my example) landscapes, while digital graphics can fly us on the flat screen into deep valleys and over high mountain passes. In the same way we read the geology of the text from the two-dimensional (and digital) surface of the printed page. While modern linguistics claims to find a wealth of “underlying” or hidden structure in language, I suggest that the history of scribal practice defines a gradual unearthing of this structure, an inexorable movement to the surface of the text. It uncovers indices for us to follow, bent fingers that show the way to unseen destinations, thumbs that point out the portals of the text, and broad hands that brush away our encroaching horizons.