

The limit of zero

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Sometime around the year 600, an Indian mathematician and astronomer named Brahmagupta wrote (in Sanskrit) a theoretical treatise in which he first explained the importance of zero and the rules for computing with it. He has a lot to answer for. With £1 in the bank, a few strategically placed Brahmagupta zeros can transform it into a hundred, or a thousand, or a million, or a billion. What a boon it has been for hedge-funders, who just have to add all those zeroes to their bonuses ... but more of that later.

There is no real limit to the wealth one can accumulate. But (unless you are very peculiar person) there is limited delight to be found in staring at a balance sheet, however many zeros it contains. So we are driven to find other ways of expressing our wealth and it seems that throughout history the last resort of wealth is artistry, design and craftsmanship. The Tzars of old Russia were good at it, as epitomised by the fabulous Faberge eggs of the late 19th C or Peter the Great's 18th century 'Amber Room' in St Petersburg with 55sq metres of exquisitely carved panels amounting to 6 tons of amber. Incidentally, the book 'The Amber Room' by Steve Berry is a fascinating account of its creation and its loss when it was all moved by the Russians to avoid capture by the advancing German army in the 2nd world war. Tantalisingly, it remains hidden/lost.

It seems that everyone with loads of zeros in the bank seeks the talents of artists / designers / craftsmen – and it has been the same throughout time. The Anglo Saxon nobles who had magnificent golden torcs made for them; the pharaohs who commissioned the pyramids; France's Sun King Louis XIV and the Versailles palace; the Catholic church with Michelangelo's Sistine chapel in Rome; the bishops of England with a whole string of fabulous cathedrals. The trend does not look like changing, Lloyds of London – the shipping insurance giant – commissioned Richard Rogers to create the Lloyds building at the heart of the city of London and of course the Trump pad in Manhattan, that (I am led to believe) used up the entire stock of gold leaf available in the USA.

I imagine that there are many motivations underlying this trend. The church hierarchy no doubt claimed to glorify God (whilst glorifying themselves in the process); for some I'm sure its seen as a better investment for their money than zeros in the bank; and for yet others it will be the need to make a big public 'statement'. But in any event, the translation of bank-balance zeros into objects in the material world, is an act of creating *enduring* value. A balance sheet may have some transient financial attraction, but a 1962 Ferrari 250 GTO is not just an object of rare beauty and awesome power – it is also the world's most expensive

car (\$35 million). It would certainly be a good investment, and it certainly makes a statement.

I am reliably informed that the latest breed of big-money earners – the hedge fund managers – are hard at it.

The world's leading art collector is Steven Cohen, the head of SAC Capital After Cohen, many of the other major art buyers are other hedge funders, Russian gangsters, and Chinese billionaires. (Michael Wolff. *Why really rich men try to take over the art world*, Guardian on-line. 7th Oct 2013)

Interestingly this trend of converting money into beautifully crafted objects has wider application and occurs also in the intellectual world of ideas. It is evident in writing and manuscripts. The monks of Lindisfarne (who were not personally wealthy – but whose church definitely was) were not content merely to write their account of the Gospel, they celebrated it with the most richly ornamented ('illuminated') artwork. They devoted years of their lives to creating magnificent texts, and then bound them in fine leather encrusted with jewels and precious metals. Whilst the cover of the Lindisfarne Gospel did not escape the Vikings' plundering, the astonishing illuminated text did and can still be seen in the British Library. The Book of Kells provides another beautiful example. It is a masterpiece of calligraphy and illumination and is widely regarded as Ireland's finest national treasure. It too can still be seen, in this case in Trinity College Library in Dublin. To say that such pieces are priceless, is to say they are beyond the limits of zero.

In a very small way I have experienced the richness of such books myself. We have a set of books at home (inherited years ago from someone in the family) that includes a limited 1st edition of the Hans Anderson fairy tales. Beautifully bound in soft leather and with dozens of exquisite illustrations, when you flick through it, it makes you realise that there is more to reading a book than just the attraction of a good story. It is an aesthetic experience of visual delight, touch, smell and history. I get a different but similar jolt from reading back through some of my old text-books from school and university, though there the attraction is less about visual delight and more about repositioning myself through my frequent jottings-in-the-margin that say so much about my own personal history. And when I was using 2nd or 3rd hand text-books, the jottings are occasionally from previous owners, which adds more complexity and interest to my reading.

A bit belatedly perhaps, I promise I am coming to the point of this disjointed rambling. For it is with some sadness that I have noted the passing of the journal. Not of course the digital version that resides in cyber-space and that you are presumably reading at this moment, but the real physical one. The one to flick through, to make jottings in, to keep on the shelf, to feel and to smell. I completely understand the logic of the e-journal. It is obviously cheaper to produce, but moreover it is far easier to distribute to a wider audience, and –

once received by the reader – it is simpler to store and (importantly) easier to search and retrieve what you want. And D&TA did not print many as hard copy anyway. But all that logic does not stop me from regretting the loss of the hard-copy version. Whilst reason points to the functional efficiency of the e-form, the emotional / aesthetic power of the ‘real’ thing – as the monks of Lindisfarne knew - has a pull that goes well beyond such logic.

I was tempted to get carried away writing of the destruction of the ‘real’ journal as a parallel to the Viking destruction of the Lindisfarne library, but then I remembered that I too have been accused of a similar form of vandalism – by promoting (within project e-scape) the idea of web-portfolios rather than real paper ones. We spent years trying to find software drawing/modelling tools that learners could use with the same ease and simplicity as they might use a pencil. We know that with early design ideas, ease of expression (in whatever medium) is absolutely critical to learners being able to get their ideas out of their heads and into reality. We created a powerful digital toolbox for learners to create their web-portfolios and much of it worked brilliantly, but I was never really convinced that the software did justice to those critical first marks. When a half formed idea is struggling into reality, we never found a better medium than a pencil. As with the journal however it was the ease and efficiency with which we could enable learners to do other things that drove our decision-making.

Returning to my theme of the limit of zero, it is interesting to see that it is not just fabulous works of art, design and manufacture that now attract the hedge-funders, but also the designers’ jottings and sketches. Leonardo’s sketch-books, and all his preliminary works are avidly snapped up for huge sums. A preparatory drawing for his Adoration of the Magi - never finished - recently sold in New York for \$8m. And a few years ago, the V&A mounted an exhibition - ‘Savage Beauty’ - of Alexander McQueen’s drawings from his Central Saint Martins MA graduation portfolio. The brochure described how the drawings ‘provide an important opportunity to understand how ideas were expressed at a stage prior to any cutting or tailoring using fabric on a mannequin’.

The creative world has a rhythm that has stayed pretty much the same over centuries and even millennia. Artists and designers turn ideas into fabulous objects, and – in turn – wealthy patrons (hedge-funders) turn their zero’s into enduring value. Throughout this complex exchange, the concrete world of materials and tools intervenes, first to facilitate the design & development process and then to leave behind a permanent record of it. When archaeologists dig through the remnants of the city of London a thousand years from now, it will be this material world that they gradually uncover and seek to interpret. However hard they look, they will not find a hedge-fund, but they will find buildings and tools and clothes and (maybe) a 1962 Ferrari. Our culture is defined by what we create. This is enduring value.