Back to the future…

Four decades of change. Industrial Designer **Adrian Stokes** reflects on his story so far…

I'm writing this two days after seeing First Man, a movie about the 1969 Apollo mission that put Neil Armstrong on the moon. I remember in the late 80s being told that the beautiful Michele De Lucchi designed Olivetti 286 computer we had in our office, was more powerful than the one they used on that trip. Apollo had just 64 Kilobytes of memory operating at 0.043MHz. The film convincingly conveyed the qualities of the super humans that volunteered to risk all for the opportunity to be first, but even more striking was the breakneck speed at which NASA responded to John Kennedy's challenge to "go to the moon" and provide the means to get there and back. To complete the task *everything* had to change, demanding ingenuity, an approach and a work rate, that today would make Elon Musk turn green.

A while ago I gave a talk to a group of final year students at Northumbria University. It was initially intended to offer some insights into the way we work, set very much in the present day. When I planned the presentation, it became obvious that to prepare them for the working world *they'd* inhabit 40 years on, it might help if they understood that in the intervening period they will be hit by change from all sides, most of which they won't expect and will be as unpredictable as a good idea. In effect a history lesson rather than a job description, giving context to my current place of work and the white knuckle ride it took to get there. Each of the five decades since I started work and the four since I started my studio in 1985, has been as different to the previous one as Space X.BFR is to Apollo 11.

Change today is relentless, intrusive and inescapable. This piece is a personal story on the theme and its fall out, which at times settles like dust and at others drops like a stone. The obvious changes have been technological, but just as dramatic has been my own shifting attitude to how, where and with whom, I work. The conflict between staying relevant and managing transition (in fact many transitions) in a creative business often brings unintended consequences and so before starting my trip it's worth recalling what the world felt like in 1977.

Anyone watching the Sex Pistols perform God Save the Queen for the first time in 2018, will be as spell bound as we were then. The same could be said if they read Philip K Dicks, A Scanner Darkly, or saw Dieter Rams ET33 calculator and David Hockneys, My Parents. Great work travels well. The backdrop to this creativity in the arts, was a country that had a huge but failing manufacturing base. Look at a list of the UKs top advertisers in 1977. Its range and depth was staggering with hundreds of thousands employed. Driving down the M1 from my family home in Yorkshire, to my adopted one in London, I would pass woollen mills, vast steel works, scores of mines; further down, furniture factories, cooker and consumer electronics manufacturers; in fact, any route south would have produced an entirely different list of industries, employing individuals educated and trained at great technical institutions, required to keep the wheels turning.

In 1946, an exhibition "Britain Can Make It", was held at the V&A, a time when the country was desperately trying to realign itself from wartime to peacetime production. Forty years later in 1986 the Design Council produced a book entitled "Did Britain Make It?". The irony was not lost on those of us who witnessed the cycle of UK manufacture between the two dates. The abandonment of manufacturing from the late 70's meant that by the mid 80's unemployment had soared from 4.5% to 12.5% bringing with it industrial strife and pain to the hundreds of communities directly affected. In 2018, the figure is roughly the same as it was in 1977, the difference being the nature of work, the nature of the businesses that provide it and the impact of global trade and technology.

In 1977, I worked at a drawing board. The first studio I worked at was a team of 33, with designers, engineers, model-makers and a large workshop in Warwick. The second was a partnership of three in London, working on projects that were the same in scale but greater in range. Whilst the tools were broadly the same, the approach wasn't; this only became apparent after I'd made the move to Sampson-Fether in 1978. The large practice necessitated compromise, the partners managing projects rather than doing them; the small one was collegiate, with discussion, consensus and care, leading to consistent, innovative pieces of work, efficiently produced. I was learning a new, diverse language rooted in a greater knowledge and understanding of the cultural, design and commercial context of our work. In effect, industrial design was not a specialism but a constantly developing vocabulary from which stories emerged and solutions came into being. Not a methodology but rather a pot of possibilities.

I loved that environment, which was founded on the quiet intelligence and charisma of Ben Fether. What I took from those years was that sharing, personal encouragement and nurturing of talent, was a fast-track to productivity and progression. Curiosity and humility were the characteristics that increased in response to the growing self-confidence the system brought in its wake. On the ground the trust and responsibility invested in me, bred loyalty, respect and a love for Industrial Design. In Gary Hustwits new "Ram's" documentary, Dieter Rams states "you cannot understand good design if you do not understand people" Those first 6 years at Sampson-Fether taught me that much and furthermore in Ben's own words, "good design depends on the quality of thinking that precedes it", a tenet that applies to any design problem in any design discipline. Do your research!

By my 6th year at Sampson-Fether, three had become thirty and I missed the old days despite the offer of a partnership. In practical terms, I'd learnt something about good design and a similar amount about people, but knew less than I thought (and still do). Office Kit, an office system, was my proudest achievement; I say mine, but successful design is seldom an individual effort and going it alone I was about to have this confirmed. Sampson-Fether, despite the uniqueness of its approach, used the same practical tools in 1984 as it had in 1977. However, desk top computers were around the corner.

Opposite | 1980's: task chair for Giroflex launched 1987. From concept to production pre CAD

Below | 1980's: domestic alarm system for Loctite launched 1988. ID from concept to production aided by 2D CAD

Apple and IBM produced products that were to have an explosive effect on every aspect of daily life and our interactions with it. In design studio's an upheaval was coming which was to divide the industrial design profession and we would all be faced with a simple opt-in, opt-out choice. In manufacturing, investment into automation was necessary for any business that wanted to compete with the labour rates in developing countries. Corporations were no longer constrained by national boundaries or allegiances and the idea of globalization took hold.

For three years ASA was still a place of drawing boards, markers and making and in my own studio I was trying to adhere to the principles of the one I'd left. The first casualty was the intention to stay small. I considered six people to be an ideal number beyond which cooperation became competition and work suffered. I found wisdom isn't acquired over night, but over time and on the job. By 1987 we had become twelve people and the pressure was on. There was a rudimentary internet, Computer Aided Design was coming out of car companies into the mainstream and our industry was put on the spot. Having developed an office chair in its entirety using one tool kit, the new kit on the block seemed as different as a phone and a carrier pigeon. It was clear there was going to be a division between haves and have nots.

Our view was that it was an opportunity and would take the drudge out of the design process allowing greater exploration of the possibilities. As I sit here now and consider the debates I had with friends who held back and what it did to them, it really was the start of an extinction event played out over the next 8 years. AutoCad led to 3D CAD and 3D rendering, each being ominously expensive. We were in danger of becoming victims of our need to keep up. Our increasing numbers and investment in new techniques in the late 80s was a catch 22. We had to recruit to cope with our workload, but this was at odds with my wish for a small, smart, collaborative team and whilst I had no doubts about the benefits the new tech offered, the investment costs were to rise exponentially. On both counts it felt less like liberation and more like entrapment.

However, from 1984 to 1990, ego and excitement trumped the tension and whilst there had been some early casualties in our business, it did feel like we were part of tomorrows world. The work we produced was challenging, successful and gained plaudits. We were retained by our largest client and our role was now strategic, looking how design could be employed throughout the business to change perceptions of what became known as its brand. It was a phenomenal opportunity, that said our success masked a personal paradox. Despite all the opportunities and challenges and success we had, I was unhappy without fully understanding why.

Looking back, I set up ASA because I hated compromise and loved independence. I'd never been clubby, nonetheless ASA *was* my club and all my actions were on behalf of my wonderfully talented team and our clients. The effects of technology and success, only served to highlight this; I can't over emphasize the scale of the change which finally saw off the last of the ditherers. Those who'd hung in had to commit and whilst we undertook the biggest development in our history before we finally said yes, during the process we realized that there was no other way.

Opposite | 1990's: moulded luggage range for Carlton launched 1995. From concept to production aided by 2D CAD/ 3D digitizing.

Below | 1990's: table system for Office Corp launched 1998. From concept to production aided by 2D CAD/ 3D CAD/ rapid prototyping.

Carlton International were a UK luggage brand and in 1992 we were retained to oversee their transition from importers to manufacturers of products designed, tooled and "Made in England". The Option range in 1995 had a tooling budget then of £3.5million. We undertook this development, in its entirety, using a mix of 2D CAD and models made using sections generated from those files. The models, in turn, were digitized and machined in chemi-wood, which were hand sanded in our workshop, to refine the forms, then digtised again and so on. We thought we were at the cutting edge. Little did we know.

There have been books, written about the digital design age (3D CAD, rapid prototyping, photo rendering..) and its effects on the design process; (lead times, accuracy and communication..) but there's more to it. The mid 90's was a tipping point in our business and there would be no going back. In my studio Unigraphics, Alias and Silicon-Graphics hardware, meant a staggering financial commitment with training, maintenance and consequent disruption to boot and we were left both anxious and exhilarated. One unintended consequence was the division of my staff into users and non-users, changing the dynamics of the office and creating some friction. From my seat the '89 to '93 recession had addressed one concern and we were the small, smart, team I set out to be, but post 1995 the paradox of progress meant that despite my commitment to change, I couldn't even type let alone use the growing range of

Below | 2000's: office furniture system for J F Nott launched 2001. From concept to production aided by 2D CAD/ 3D CAD/ photo-rendering/ rapid prototyping

Bottom | 2000's: audiophile music system for Arcam launched 2004. ID from concept to production aided by 2D CAD/ 3D CAD/ photo-rendering/ rapid prototyping

programmes I'd invested in and my team were trained to use. In so many areas of life, experience is just old news if it can't be framed in a modern context and that's where I found myself as we moved into the noughties. If I was to reconnect with the designer I'd set up to become, then I had to find a way back for my own future. Many of my peers accepted the division of labour, but I couldn't and needed to act, which I did.

I wished this piece to be a reflection, not a technology timeline. From the start my objective was consistency and independence; it still is. The story of my studio since 1984 demonstrates that the journey to 2018 has been less of a plan and more a rolling reaction to "events". Technology and innovation have created tools and methods which, from the early 2000's have slowly levelled the field of play and allowed me to find my own perfect pitch. Huge improvements to the functionality and accessibility of software have run hand in glove with a drop in the price of the hardware required to run it. Ironically change which had seemed likely to make me a perpetual passenger, eventually put me back behind the wheel. Sadly, others were forced off the road altogether.

Today many studios conform to a highly prescriptive approach, which is fine and probably a requirement given the deconstructed nature of the design process and the education most receive. Could the 1977 me, starting out today, become the designer I am now? Who knows. Change from here on will continue to be as disruptive as anything I've experienced so far and we've no idea how the issues, of population growth, waste, resource depletion, climate change and migration are going to play out, let alone the unconstrained march of technology, which, despite it's wonderful benefits, has created its own set of issues.

Reflecting on my own story I'm no less committed to my work. Industrial designers exist to make the lives of people better and we've never been more relevant than we are now. Technology allows us to communicate ideas in ways that were unimaginable in 1977 and all my experience indicates that this profession has come of age and should be campaigning for a seat at the top table when the big issues are being debated. If the lives of people are to be made better, they should understand the problems and be party to the solutions. In a world of pointless, mind numbing, shelf filling, research, we need to facilitate the dreamers and the doers and trust innate human characteristics, intuition, common sense and empathy, to drive "responsible innovation" and wholesale change. Where's the next John Kennedy when you need him?

Back home, recently I redesigned my studio's website. I wasn't sure, when I started, if it was a swansong or a debut. Funnily enough, all the change I've been through has bought me back to the designer I always wanted to be, independent and consistent. I won't be stopping anytime soon.

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Below | 2010's: heater range for ESSE launched 2018. From concept to production incorporating elements of UCD 2D CAD & visualization/ 3D CAD modelling/ 3D visualization and animation to show insitu scenarios/ rapid prototyping & tooling

Bottom | 2010's: task chair development with Boss design 2017. User centred design research/ 2D CAD/ 3D CAD/ 3D visualization & animation