

Yesterday's futures

Dan Dare & the birth of hi-tech Britain

Sandy Morrison

I feel that this review of an exhibition from 2009 still gives some interesting insights - into our past, as well as our future!

The references to science fiction are made because this was originally published in an SF magazine devoted to Dan's fictional contemporary Jeff Hawke.



London's Science Museum regularly hosts temporary exhibitions, and the title of one, "Dan Dare & the birth of hi-tech Britain" intrigued me enough to make me pay a visit when I was near it on other business. Despite the lack of a clear SF theme to the exhibition, it may still be of some interest to readers. The exhibition occupied one section of the second floor. The route to it takes you past an assortment of Victorian steam engines, impressively massive – and massively inefficient.

Dan Dare is (with apologies to our mutual pal Jeff Hawke) the most widely known SF cartoon hero in the world, but what exactly was he doing in this exhibition? Its purpose is not to explore the world of Dan Dare, but rather to show how many innovations which shape

our current lifestyle were first developed in the immediate post-war period. I think DD has to be seen as one manifestation of the optimistic belief in the power of technology to change our lives which emerged after the horrors and scarcities of WWII.

Britain's wartime advances included radar, penicillin and Whittle's jet engine. In the immediate post-war period, much of the design and production of advanced technology was local; British design and invention in many respects led the way. Thus, the exhibition makes it clear that the first decade after WWII was a time of change and innovation, with Britain leading the way in many developments, but all too often failing to invest adequately and plan far enough ahead to maintain its lead – a picture which remains all too familiar.

The arrival of the bold space hero Dan Dare in 1950 was a part of that pattern. It may be worth noting that the first drafts for *Eagle* cast the hero as a chaplain with the space forces, whereas there was never a chaplain nor a church service in sight in the final strip. The lead artist, Frank Hampson, said of the strip: "I wanted to give hope for the future, to show that rockets, and science in general, could reveal new worlds, new opportunities. I was sure that space travel would be a reality."

Dare's first mission was to Venus, where the helpful Therons agreed to supply Earth with vast quantities of food, to deal with humanity's inability to control its population and produce adequate food for them. Um. That sounds all too familiar today, too.

A case of Dan Dare merchandise reminded us that this was the first time a fictional story had been so heavily merchandised. Items on display (of varying quality and accuracy) include a pack of playing cards,



Dan Dare merchandise, with rear views of the hero himself in his trademark red spacesuit and his personal spacecraft, the indestructible Anastasia



Model of the Fairey Rotodyne, a 1950s VTOL aircraft which took off as a helicopter, but functioned as an autogyro during flight. Performance was satisfactory but the project failed commercially in 1962. Its technological successor, the Bell-Boeing Osprey, did not enter service until 2005.

interplanetary postage stamps, a cosmic ray gun, a space control radio station (a rather elaborate form of the old tin-can-and-string telephone) and a spaceship construction game, featuring two skeletal models of the *Valiant* spacecraft with hull pieces to complete them. The rest of the exhibition area showed only occasional graphics from the DD strip.

Economic reconstruction

The main part of the exhibition was divided into two distinct sections, described as *Building a New Britain* and *Reinventing the Home, 1945-1976*. The roots of many features – good and bad – of our society today can perhaps be traced back to the economic and technical situation at the end of WWII and the measures taken to deal with it.

Idealistic planning for a better world began even while the war was still in progress, with the publication of the 'Beveridge plan' for social security and health care scheduled for 1 July 1944. The basic concept was introduced of a contributory scheme to which all people of working age should pay a contribution that would pay benefits to the sick, unemployed, retired or widowed.

The Labour Government elected in 1945 did not have enough money to implement Beveridge's proposals in full, leading to compromises and complexities in social policy which remain with us today.

The economic situation at the end of WWII was in fact dire. British industry survived the war in much better *physical* shape than in most mainland European countries, but massive debts had been incurred, leaving its *economy* in poor shape. A rapid growth in exports was desperately needed to pay the bills, and this had several unfortunate consequences.

Rationing of food and many other essential commodities continued until 1954, and in some respects was actually stricter in this period than during the war itself. Design of furniture was controlled by the

'Utility' scheme to ensure effective use of raw materials until 1952.

Contemporary news clippings which came into my hands independently of the exhibition highlight just how severe the problems were. Even in our current economic crisis, can we imagine the Prime Minister saying that we need to increase our overall output by 10% - and that this was "a rough measure of the extra personal effort required from everyone, not only factory and farm workers, but allotment holders and all those who can save money, fuel and paper". This quote comes from a Government bulletin issued early in January 1948. That August, the Government was still saying that everyone must work harder and/or more efficiently to maintain progress.

The mood of mixed optimism and pessimism was highlighted by an exhibition in 1946 called 'Britain can make it', which was cynically dubbed 'Britain can't have it'.

Governmental determination to 'solve' economic problems led not only to questionable rhetoric, but to questionable investment decisions such as the later creation of the Lynwood vehicle assembly plant in Scotland – which had to be fed with major components from existing plants in the English Midlands.

Sub-optimal solutions

In response to the demand for productivity gains, on the one hand, old equipment was frequently modernised in that quick improvisational manner we Brits are so good at. Other countries had no old equipment to modernise, short of doing a jigsaw puzzle with bombed remnants, and immediately invested in more advanced and efficient technologies.

On the other hand, some fascinating examples of 1950s technology serve to remind us that, then as now, Britain excelled at innovation but was not very efficient at maintaining its inspirational lead.

In the early days of computing, general-purpose digital machines were large and expensive, and dedicated

Reflections on style: the first automatic electric kettle, that you could safely leave to switch itself off, beside an electric coffee percolator, whose design gives a foretaste of today's jug kettles.





Reinventing the home: left, the first fully automatic domestic dishwasher; centre, a Hotpoint top-loading washing machine with wringer in lieu of spin drying and right a Frigidaire refrigerator – rather unusually, not in white – all from 1950-1952. Below, a coffee table built by Barry Bucknell for his TV DIY show.

Reinventing the home

Central to the idea of reinventing the home was the ‘Prefab’, the ancestor of today’s just-about-mobile park homes. These were designed with a central services unit that included hot water and warm air circulation provided by a coal fire with back boiler; advanced ideas for the time. More than 150 000 were built, many surviving far beyond their design lifetime of 15 years.

At the same period, household automation moved into new dimensions. Also on show were the first fully automatic dishwasher, the Kenwood Dishmaster from 1952 (top loading, like the washing machines of the time), a Hotpoint electric washing machine – with a wringer to remove excess water from the clothes – and a Frigidaire electric refrigerator from 1952. The first truly portable TV in the world was the Ekcovision, introduced in 1956.

As the photographs show, some devices introduced in this period retain a remarkably modern feel, while others have a thoroughly antique appearance.

Dome from home

In 1951, the Festival of Britain on the banks of the Thames echoed the Great Exhibition of 1851, and achieved some success in encouraging a positive view of the nation’s past and future. Thirteen pavilions of widely differing size and design were dominated by the Dome of Discovery, at the time the largest dome in the world, with exhibits ranging from the discoveries of Captain Cook to those of nuclear physicists.

And on this theme of discovery, we may as well close with a quotation from an exhibition leaflet:

“Though British companies had fuelled the consumer boom, many did not survive in the face of increasing foreign competition.

“However, Britain’s creative design industries have continued to prosper. Today, much actual production may have gone offshore but conceptualisation, design and branding are still strong. Just as in the pages of Dan Dare, Britain remains the place where the future is imagined into being.”

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‘analogue’ computers such as the Elliott G-PAC of 1957 were often used – in the case on show, for design of aircraft and guided weapons.

Business computing on digital systems became a reality with the introduction of LEO – Lyons’ Electronic Office – in the 1950s. The equipment had to be designed and built from scratch and was used for stock control and payroll calculations. Weekly pay was then the norm; a clerk could calculate one employee’s pay in about eight minutes, but LEO required 1.5 seconds.

This pioneering machine was so successful that other companies hired LEO to carry out calculations, and Lyons set up a subsidiary to manufacture and sell similar machines. But this success was short-lived. LEO had become fully operational at the end of 1953; ten years later, cheaper and more reliable American machines had taken over the UK computer market.

Later, the Molins System 24 became part of the first workable system to introduce computer-controlled manufacturing, but the devices were too expensive and advanced to achieve widespread use.

Other imaginative British concepts from the period which failed to make a lasting impression included the Fairey Rotodyne vertical takeoff and landing aircraft.

On a brighter note, the turboprop engine was first developed by the British Napier company in 1948, with its first commercially successful incarnation being the Rolls-Royce Dart engine which powered the Viscount airliner in 1953. That became Britain’s most successful post-war commercial aircraft.

