Electronic arts: The traditional landscape picture is being given a run for its money as the worlds of art and technology merge.



British artists are now swapping paintbrushes for computer pens

A new wave of British artists is swapping paints and brushes for computer mice and light pens to use digital technology as a creative medium.

Emerging talents such as UnitedVisualArtists, Troika and Random International are among the driving forces behind creations including kinetic sculptures, interactive lighting installations and data visuals.

New technology becoming more readily available, cheaper hardware and easy-to-use software are boosting the movement that has already been used by big-name music acts for stunning stage visuals and iconic art installations at new buildings such as Heathrow's Terminal 5.

Hannes Koch, director at design collective Random International, says: 'We can increasingly design the physical matter that surrounds us to show more personalised behaviour and display a less mechanised appearance. So, in turn, we see a more personal and emotional response from the people.'

London's Victoria & Albert Museum is one of the main champions of the field, having been collecting digital art and design since the 1960s.

Last year, it launched Decode, its first exhibition dedicated solely to digital and interactive arts. Around 40,000 people were expected to view the display, however, some 100,000 people saw it in just four months.

A key challenge has been the lack of acceptance in the more established art community.

Louise Shannon, the V&A's deputy head of contemporary programmes, says: 'As with all emerging practices, it takes a while for infrastructure to develop for works that naturally need maintenance and support.

'It's now very rare people do not accept photography within the context of art – this may be true of digital works of art and design in the future.'

The key players

UnitedVisualArtists (UVA)

UVA has created mesmerising stage visuals for artists including Massive Attack and Chemical Brothers. More recently it created Assembly, a piece which projects the viewer's face onto a wall and then mixes their features with other people's faces to create unsettling photofits. Other projects include an Arctic-themed exhibition at the National Maritime Museum, launching next month. Visitors can explore the exhibition with a UV torch that triggers animated projections on the floor.

Troika

Troika creates playful, experiential artworks merging architecture and new technology. In Heathrow's Terminal 5 it created Cloud (pictured right), a 5metre kinetic sculpture covered with 4,638 flip dots, traditionally used for train station arrival boards, which can be computer-controlled to animate the skin of the sculpture. It recently worked with Swarovski to create Falling Light, an installation of 50 ceiling-suspended devices made with Swarovski crystal optical lenses to give the illusion of falling droplets.

Random International

Random International has been responsible for a range of large-scale interactive pieces for the V&A and Carpenters Workshop Gallery. It also created Reflex, a 20metre long installation using interactive lights to mirror the movements of passers-by at the London office of biomedical research charity Wellcome Trust. Earlier work includes Light Roller, a performance piece painting large-scale pictures of audience members using light on a phosphorescent surface (pictured above).

Jason Bruges Studio

The studio recently created the responsive and illuminated façade artwork for London's new W Hotel in Leicester Square. The piece captures images of the skyline via eight cameras mounted on the roof. The panoramic view is then recreated on the surface of the building in short performances. Other works include Mimosa, an interactive piece of stylised flowers, where each petal is made from individual OLEDs (a slim, low-energy light form that can be designed to cover any surface). The flowers open and close in response to visitors.