KETTLE'S YARD

Tim Head: Raw Material
20 March - 9 May 2010

Laughing Cavalier 2002 (detail) real time computer programme on LCD screen

Teachers' Pack

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If you would like to plan a visit please contact Sarah Campbell (Education Officer), 01223 748100, sarah@kettlesyard.cam.ac.uk

Screen works:

Laughing Cavalier 2002 (detail) real time computer programme on LCD screen

The works on screen are created by real-time computer programmes. These programmes treat the screen as a whole, meaning their instruction is always to change the colour of all the pixels at once in a particular way.

In *Laughing Cavalier* the programme instructs the computer to select random colours in quick succession and to change the colour of the whole screen. However, the screen refreshes (updates with what the computer is trying to display) more slowly than the computer changes the colour so it displays the colour changes part way through as bands. The screen cannot keep up with the computer just as our eyes struggle to keep up with what is displayed on the screen.

Questions:
Are you comfortable watching the works on the screens?
Do you keep looking in one place or move them around the screen?
How would you describe what you were looking at?

Art critic Ian Hunt describes Tim Head's work as creating 'visual exhaustion'. *Laughing Cavalier* is a fascinating, yet tiring viewing experience. The rich colours might be pleasurable to view but the flashing bands confuse our eyes. In this way the works can be compared with Op Art of the 1960s by artists such as Bridget Riley, whose work creates optical effects.

Bridget Riley, *Blaze* 1964 print on paper

'His artistic enterprise encourages any viewer simply to re-comprehend what technology is, and what it can do' - Ian Hunt.

Questions:
What else are screens like these used for?
How do you encounter them in your daily life e.g. TVs or computers?
How do the screens in the gallery seem similar or different from how you normally use them?

Tim Head says: 'the unusual 5:4 ratio of the screen was chosen to remove them from the domestic widescreen TV reference'
Why do you think he wanted to make works different from TV?

Many of Tim Head's works have interesting titles taken from other artworks or film, such as *Laughing Cavalier* from the Frans Hals painting in the Wallace Collection, London. Head talks about the titles being 'off the shelf', readymade, things that people have already heard of and connect to particular things.
Have a look at the titles of other works in the exhibition – why do you think they were chosen?
What would you call the works – what titles of books, films, songs or other artworks could you apply and why would you make those connections?

Tim Head also often applies song titles to his works, for example 'Hard Day's Night', and critics relate his work to musical equivalents, who also aim to expose the materials from which their music is produced. One example is the group Kraftwerk, who created the track Numbers 'both about and created from the actual stuff of computer language and machine technology' - Michael Bracewell.

To listen to Numbers visit: http://www.last.fm/music/Kraftwerk/_/Numbers

Projections:

Scent (detail), 2009 digital projection

The projections are created by a real-time computer programme, which changes the colour of individual pixels. Each pixel is able to display different amounts of red, green and blue that mix together to create over 16.5 million colours.

In *Sweet Bird* (2004), for example, the computer programme creates lines of randomly selected colours that fill every pixel on the screen and move across the screen in four different directions.

Usually we use projectors to display enlarged representations, for example films at the cinema, or to convey information, such as slides in a presentation. Tim Head's work aims to remove this representative function of technology, leaving only the 'raw material' of the machinery itself.

> 'By operating at the primary scale of the medium – the pixel – and by treating each element as a separate distinct entity, these programmes bypass the image-forming process and instead work with the medium itself'
> - Tim Head

The work is 'anti-illusionistic, anti-associational… but inevitably with work that is vehemently imageless we can't stop ourselves looking for comparisons, interpreting what we see – which I would rather leave open for each viewer'
– Tim Head

Questions:
What do these projections make you think of?
Do they look like or remind you of anything?
How do you move about rooms where the projections are?
Other than the visual information of the projection what else do you notice:
Sounds? Movements of people around you? Etc.

How would looking at these works be different if they were on a computer screen? Or in a cinema?

Comparisons can be made between Tim Head's projections and modernist painting: in its formal properties, for example colour and geometric shapes; and in its ideas:

> 'Its emptying out of narrative content and prioritising of the physical properties of the medium, culminating in the terminal literalism of Rodchenko's red, yellow and blue canvases' – Tim Head
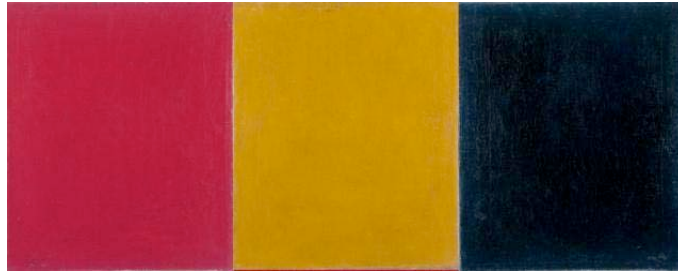
Alexander Rodchenko *Pure Red Colour, Pure Yellow Colour, Pure Blue Colour* 1917

Rodchenko's painting was created in response to political events, to end painting for arts sake and to embark on creating art that had a practical use, for example advertising:

> "I reduced painting to its logical conclusion and exhibited three canvases: red, blue and yellow. I affirmed: it's all over" – Alexander Rodchenko.

In contrast Tim Head has removed the 'use' value of the computer/projector:

> 'Head has removed the task from the computer's function, thus causing – one might almost write "liberating" – the technological process itself to be revealed in its "natural" and un-transposed state' – Michael Bracewell.

And has replaced the modernists carefully chosen colour combinations with those randomly generated by the computer:

> 'You can probably name painters who it relates to, but it's also doing the opposite of what Modernist painters did – which was to say "this combination is the right one" – because it's never static' - Tim Head.

Paul Klee *Fire in the Evening* 1929 Oil on board

Randomness:

'Despite the overwhelming number of options that digital programmes continuously present to us, ultimately they operate within their finite limits. I am very conscious that these continuous streams of randomised events are a form of simulation – an impoverished version of the complexity we experience in the world' - Tim Head

We use the term random to describe how the computer programmes pick individual colours and pixels, however most 'random' choices generated by computers are in fact pseudo-random, which means they are a generated in a predictable fashion using a mathematical formula: 'it is difficult to get a computer to do something by chance. A computer follows its instructions blindly and is therefore completely predictable' www.random.org

Activity:

Make a drawing according to the results of flipping coins. If the coin lands on heads make a horizontal line on your paper, if the coin lands on tails make a vertical line. Do this for 3 minutes – does the drawing appear to have more horizontal or vertical lines? Why might that be?
(coin might be weighted, might be how it is thrown, you may have made the horizontal pencil lines thicker than those going vertically etc.)

How much of your drawing was made by the chance of the coin flip and how much was decided by you?

Drawings:
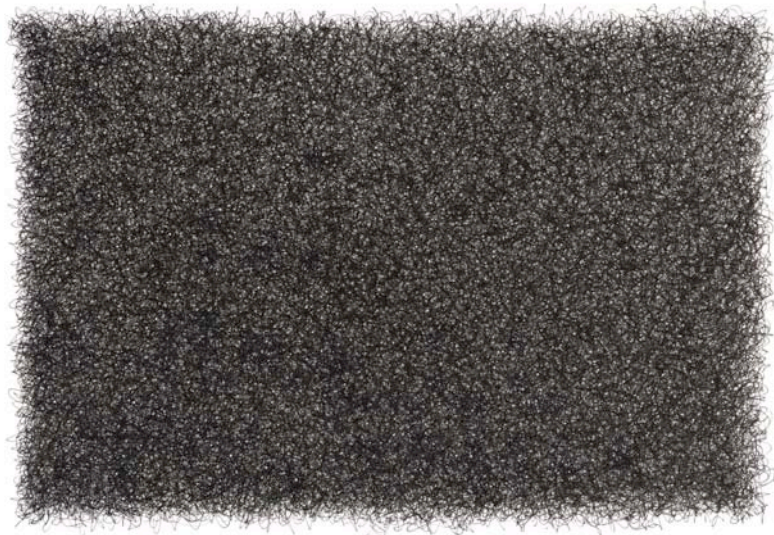
Slow Life, (web A2 No.5) 2002 ink on Bristol Board

'Unlike the remote precision of digital programmes the drawings carry the nervous rhythms and seismic waverings of the hand made' - Tim Head

The drawings focus on the physical characteristics of the drawing medium. Each drawing is made according to a single procedure in a single medium, according to instructions similar to the digital works.

Questions:
How are the drawings similar and different from the prints nearby?
How long do you think the drawings would have taken to make?
Would they all have taken the same length of time or do you think some would have been quicker than others?
How can you tell that these works have been made by the artist's hand rather than digitally?
Can you see what kind of movements have made the marks?

'Make a drawing. Not a drawing of something but a drawing that is somehow just a drawing. It is possible? What would that be?' – Tim Head

Activity:
Explore drawing in a range of materials (wet and dry, soft and hard etc.) and using a variety of rules and procedures e.g. only straight lines, only loops. How does the material affect the drawing?

Tim Head's drawings fit into a history of artists making works by instruction, for example Sol LeWitt who created artworks consisting of instructions from which anyone could create the artwork.

Sol LeWitt, detail: *Wall Drawing No. 681 C / A wall divided vertically into four equal squares separated and bordered by black bands. Within each square, bands in one of four directions, each with color ink washes superimposed*

> "In conceptual art, the idea or concept is the most important aspect of the work. When an artist uses a conceptual form of art, it means that all planning and decisions are made beforehand. The execution is a perfunctory affair. The idea becomes the machine that makes the art."
> – Sol Le Witt

Activity:
Create directions for a drawing. You can decide the media, size, tool, colours, shapes, lines etc. Then exchange your instructions with a partner and create a drawing based on their directions. Show your partner the drawing. How is it drawing different or similar to what the writer of the instructions thought? What was it like to draw from instructions?

Digital prints:

Dust Flowers, 1st series No. 5 (detail), 2006 digital inkjet print on Photo Rag paper

Tim Head's prints are created by a computer programme written to control the printers operations, so instead of printing a reproduction of an existing image the printer prints unique combinations of dots decided by the computer.

The prints are composed of a series of dots, the size, colour and location of which are defined by the computer at the time of printing.

The scale of these prints has also been carefully considered:
> 'In virtual space the scale of what is represented is either an enlargement or a reduction in size or else has a floated unanchored scalelessness. Instead these inkjet prints are set at the physical one to one scale of the inkjet dot. They sit in the same physical space we occupy. One metre of inkjet print is one metre, not a representation of a hundred metres'
> - Tim Head

Questions:
Where do you naturally want to stand in order to view the prints?
Do you look at the details, look at the effect of the whole print, or move from one to the other?
Does it appear that some of the dots are in front of the others or that they are all on the same plane (lying flat on the same surface)?

Comparisons can be mad,e for example, with the paintings of Mark Rothko in how these works fills our whole field of vision and different shapes and layers of colour appear to float over one another. Writer Michael Bracewell describes Head's work as a kind of 'Modern Gothic', expressing the sublime:
> 'The image which faces the viewer appears to be that of a dense yet permeable mass of flickering matter. Silvery grey, this amorphous substance – as one might imagine an eerie electrostatic fog – looks as though it processes its own fathomless depths'.

'One might think of freezing fog in a snowy forest – the crack of a twig in the stillness, and the sense that one is in utter solitude'
-    Michael Bracewell

However, Rothko's paintings were carefully constructed in order to communicate powerful ideas to the viewer:
'The fact that people break down and cry when confronted with my pictures shows that I can communicate those basic human emotions… the people who weep before my pictures are having the same religious experience I had when painting them' – Mark Rothko.

Tim Head's inkjet prints are created entirely by simple instructions given to a computer, such as: print lines of dots in 6 colours changing colour and allocating number of dots per line at random (*Dustflowers – 1st Series*).

Mark Rothko *Red on Maroon* 1959

'It is as though the artist is experimenting with his own disappearance: the human presence subsumed within a mass age world of technology and systems. Andy Warhol's often repeated comment that he "would like to be a machine" is thus taken by Head's art at face value' - Michael Bracewell

Questions:
Do you agree with Michael Bracewell that the works in the exhibition express being alone, or the disappearance of the human?
Do you think the exhibition as a whole is positive or negative about technology?
Do you think it would be possible to see a computer as an artist?

Artist's Quotes:

'The medium is no longer transparent (looking through it at a virtual representation) but opaque (looking at the substance of the medium itself)'.

'Despite the overwhelming number of options that digital programmes continuously present to us, ultimately they operate within their finite limits. I am very conscious that these continuous streams of randomised events are a form of simulation – an impoverished version of the complexity we experience in the world'.

'Over the years I've used different media and tried to work with their own individual qualities that make them unique and distinct from each other in order to understand how they interpret what they are representing – what particular view of the world they promote'.

'I decided to work directly with the computer and explore what the elusive substance of this digital material might consist of… By treating each pixel as a separate unit, I could bypass the usual image-making role of the medium and instead directly reveal the physical material of the medium itself'.

'The recent work with the digital medium attempts to offer a counterweight to the increasing dominance of the virtual over direct physical experience… over the years I've tried to make art that opens up a space for speculation rather than distraction or indoctrination – art that is not at the service of something else'.

'Thin walls of metal and plastic seal off the digital dimension from the sticky tangle of our contaminated world… Yet behind the feverish surface of the computer's chilled delivery is an underlying emptiness, a sense of something not wholly satisfied. The pulse of our heartbeat and the digital pulse tick inextricably out of sync with each other'.

Press Release:
Tim Head: Raw Material
20 March - 9 May 2010

This exhibition of recent work by Tim Head includes drawings, prints, digital screen works and large-scale projections. It draws together a body of work, produced over the last eight years, that exploits both the current resources of digital technology and the traditional tools of drawing.

A longstanding interest in perception motivates Head's latest explorations into the various mechanics of production, from physical pen and paper to ethereal digital projections. Focusing on process at both extremes, Head's work is about visual experience in its 'raw' state, detached from the predetermined world of images.

Tim Head has consistently used different media with a view to understanding their effect on what they represent. Having made work using a number of different image technologies, including photography, Xerox machines and inkjet printers, he has spent the last ten years working directly with computers – while at the same time going back to the basics of drawing.

Describing his approach to drawing, Head has said: "Make a drawing. Not a drawing of something but a drawing that is somehow just a drawing. Is it possible? What would that be?" The same could be said of his approach to digital media. Working with programming specialists, Head has developed computer programmes that generate, in real time, simple visual events in unrepeatable combinations that appear as dazzling, pulsating grids or bands of coloured light on screen and as projections.

In 1977, Tim Head was appointed the first artist fellow at Kettle's Yard and Clare Hall. More than thirty years later, this exhibition provides a welcome chance to catch up with his latest work, and also revisit some of the work he made during his fellowship here in 1977-78.

Tim Head: Raw Material has been curated by Sotiris Kyriacou and organised by Huddersfield Art Gallery and Kettle's Yard. The exhibition at Kettle's Yard includes additional recent and early works.

Definitions:

Real-time computer programmes:
'It's happening at the time that you're looking at it, and it will never do it the same way twice'; the computer generates what you are seeing on screen as you are seeing it. 'The work is "live" – not pre-recorded or looped – and takes place in real time in front of us, never repeating itself.
Ben Tufnell 'Days like These: Tate Triennial of Contemporary British Art 2003' Tate 2003.

Pixel:
The term "pixel" is short for "Picture Element." These small little dots are what make up the images on computer displays, whether they are flat-screen (LCD) or tube (CRT) monitors. The screen is divided up into a matrix of thousands or even millions of pixels. Typically, you cannot see the individual pixels, because they are so small. However, if you set your monitor to a low resolution, such as 640x480 and look closely at your screen, you will be able to see the individual pixels. As you may have guessed, a resolution of 640x480 is comprised of a matrix of 640 by 480 pixels, or 307,200 in all. Each pixel can only be one colour at a time. However, since they are so small, pixels often blend together to form various shades and blends of colours. The number of colours each pixel can be is determined by the number of bits used to represent it. For example, 8-bit colour allows for 2 to the 8th, or 256 colours to be displayed.
http://www.techterms.com/definition/pixel

Ink-jet printer:
Inkjet printers are the most common type of consumer printers. The inkjet technology works by spraying very fine drops of ink on a sheet of paper. These droplets are "ionized" which allows them to be directed by magnetic plates in the ink's path. As the paper is fed through the printer, the print head moves back and forth, spraying thousands of these small droplets on the page.
http://www.techterms.com/definition/inkjet

LCD Screen:
Stands for "Liquid Crystal Display." LCDs are super-thin displays that are used in laptop computer screens and flat panel monitors. The image on an LCD screen is created by sandwiching an electrically reactive substance between two electrodes. This colour of this substance can be changed by increasing or reducing the electrical current.
http://www.techterms.com/definition/lcd

Conceptual art
This term came into use in the late 1960s to describe a wide range of types of art that no longer took the form of a conventional art object. In 1973 a pioneering record of the early years of the movement appeared in the form of a book, Six Years, by the American critic Lucy Lippard. The 'six years' were 1966–72. The long subtitle of the book referred to 'so-called conceptual or information or idea

art'. Conceptual artists do not set out to make a painting or a sculpture and then fit their ideas to that existing form. Instead they think beyond the limits of those traditional media, and then work out their concept or idea in whatever materials and whatever form is appropriate. They were thus giving the concept priority over the traditional media. Hence Conceptual art. From this it follows that conceptual art can be almost anything, but from the late 1960s certain prominent trends appeared such as Performance (or Action) art, Land art, and the Italian movement Arte Povera (poor art). Poor here meant using low-value materials such as twigs, cloth, fat, and all kinds of found objects and scrap. Some Conceptual art consisted simply of written statements or instructions. Many artists began to use photography, film and video. Conceptual art was initially a movement of the 1960s and 1970s but has been hugely influential since.
www.tate.org.uk

Digital Art
The first use of the term Digital art was in the early 1980s when computer engineers devised a paint programme which was used by the pioneering digital artist Harold Cohen. This became known as AARON, a robotic machine designed to make large drawings on sheets of paper placed on the floor. Since this early foray into artificial intelligence, Cohen has continued to fine-tune the AARON programme as technology becomes more sophisticated. Digital art can be computer generated, scanned or drawn using a tablet and a mouse. In the 1990s, thanks to improvements in digital technology, it was possible to download video onto computers, allowing artists to manipulate the images they had filmed with a video camera. This gave artists a creative freedom never experienced before with film, allowing them to cut and paste within moving images to create visual collages. In recent times some Digital art has become interactive, allowing the audience a certain amount of control over the final image.
www.tate.org.uk

Process art
Term applied to art in which the process of its making is not hidden but remains a prominent aspect of the completed work so that a part or even the whole of its subject is the making of the work. Process became a widespread preoccupation of artists in the late 1960s and the 1970s, but like so much else can be tracked back to the Abstract Expressionist paintings of Jackson Pollock. In these the successive layers of dripped and poured paint can be identified and the actions of the artist in making the work can be to some extent reconstructed. The later Colour Field paintings of Morris Louis clearly reveal his process of pouring the paint onto the canvas. In Process art too there is an emphasis on the results on particular materials of carrying out the process determined by the artist. In Louis again, the forms are the result of the interaction of artist's action, the type and viscosity of the paint, and the type and absorbency of the canvas. Richard Serra made work by throwing molten lead into the corners of a room, and Robert Morris by making long cuts into lengths of felt and then hanging them on a nail or placing them on the floor and allowing them to take on whatever configurations were dictated by the interaction of the innate properties of the felt, the artist's action and gravity. The British painter Bernard Cohen made paintings by

establishing a set process for the work and then carrying it through until the canvas was full. John Hilliard's photographic work Camera Recording its Own Condition of 1971 is a particularly pure example of process art, as is Michael Craig-Martin's 4 Complete Clipboard Sets.
www.tate.org.uk

Links and further information:

Tim Head: http://www.ucl.ac.uk/slade/timhead/home.htm

Randomness and computers: http://www.random.org/randomness/

Sol LeWitt and artworks made from instructions:
http://artscurriculum.guggenheim.org/lessons/sf_lewitt.php

Op Art: http://www.tate.org.uk/collections/glossary/definition.jsp?entryId=206

Mark Rothko: http://www.tate.org.uk/modern/exhibitions/markrothko/default.shtm

Paul, C. (2003). Digital Art (World of Art). London: Thames and Hudson

Tufnell, B. (2003). Days like These: Tate Triennial of Contemporary British Art 2003. London: Tate.

Wands, B. (2007). Art of the Digital Age. London: Thames and Hudson