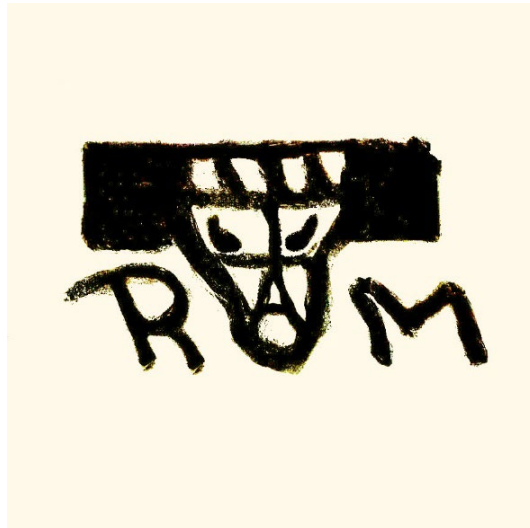
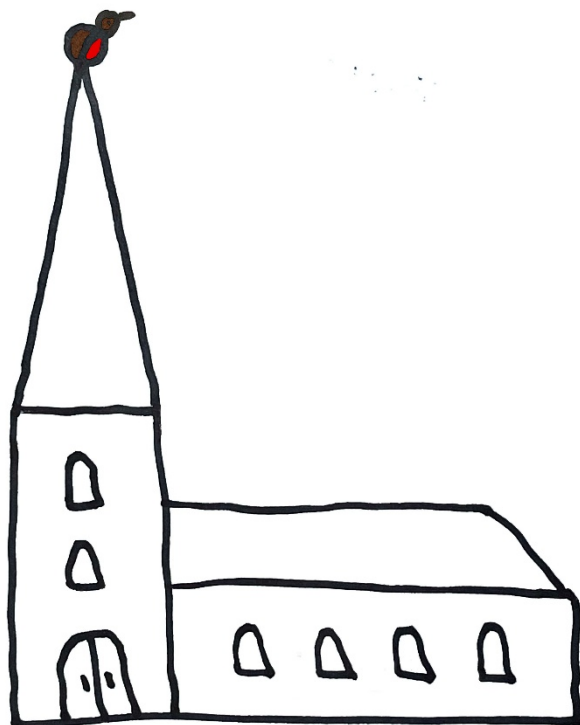


Creative Inspiration, Endeavour, and Education
1968 - 1983

Rob Munday





Please note that the sculptural depth and luminosity of holographic and lenticular works cannot be conveyed in two-dimensional reproduction. They are best experienced through direct viewing

Cover: One of the earliest incarnations of my personal mark, 1973

Inside front cover: See last page and inside back cover, 1979

Creative Inspiration, Endeavour, and Education, 1968 - 1983

Rob Munday

Childhood inspiration

I was born in Great Yarmouth, Norfolk, but grew up in the small coastal village of Caister-on-Sea on the East Norfolk coast, cradled between the restless slate-grey North Sea on one side, and the hushed green Norfolk Broads on the other - a maze of rivers, lakes, reed beds and windmills, famously name-checked by David Bowie's 1971 song '*Life on Mars*'.

As a child, only a row sand dunes, spiked by marram grass, separated my mother's modest three-bedroom bungalow, 8 Marram Drive, from a magnificent beach that stretched for miles in both directions. On storm-torn winter nights, I would lie awake listening to the waves crashing on the shore. It was a magical place of perpetual flux, of light and energy, from sunsets that painted the sky in molten colour to lightning storms that danced across the sea.



Left: the beach near my home at Caister-on-Sea; middle: Luckee; right: fishing on the Norfolk Broads

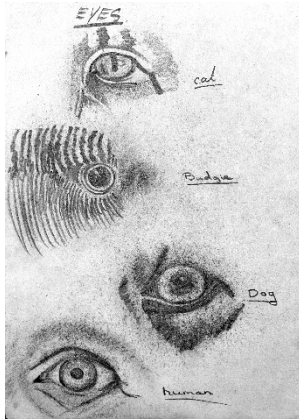
I wandered for hours with my dog Luckee along wind-swept cliffs in winter, watching gulls surf the turbulent air, and through fields of bracken and gorse in summer, where skylarks held their lofty vigil in song. I would regularly sail and fish on Ormesby Broad, catching perch and pike, and spend languid summer holidays in Cambridgeshire's Wicken, my mother's ancestral home, exploring its ancient fenland in search of swallowtail butterflies. I was fascinated by Wicken Fen's Fenman's Cottage - a dim, time-stilled museum, its shelves crowded with collections of pinned butterflies and taxidermy, for which I was entrusted the key, free to explore it alone. What's more, Anthony Day, a distant relative and an artist of some repute, lived at Mangle Cottage overlooking the village pond. He exhibited at the Royal Academy of Art in London and painted the Fens almost exclusively *en plein air*. My mother and I would call on him, and I would marvel at his paintings - including one of the very footbridge from which I fished as a child.



Left: Footbridge - Sunset, 1991, by Anthony Day, middle: Wicken Fen's windpump, right: the Fenman's Cottage

My childhood became a natural-history museum in motion. I collected butterflies, shells, animal skeletons, plants, fossils, and rocks with an obsessive enthusiasm, and kept as many living creatures in our garden and conservatory as my mother would allow. I built two bird aviaries and a pond, rescued oil-soaked guillemots from the beach, caught sand lizards and slow-worms, bred exotic silk moths, and grew plants of every kind. One such plant, a bird of paradise (*Strelitzia reginae*) that I raised from seed when I was only ten, still graces my conservatory in southwest France today, fifty-eight years on.

But merely collecting and keeping these natural wonders was not enough. I needed to write about them, draw them, paint them, and later photograph them, as though to capture the essence of each entity before it slipped away. The drawings below are shown not because they are particularly accomplished, but because, at the age of only eleven, I clearly had the desire to make them.



Left: A Study of Eyes, middle: Ship in the Mist, right: Sleeping Cat, pencil drawings, 1969 - aged 11

Other than the innate childhood urge to draw and paint, two companies indirectly influenced my early skills and appreciation of art. The first was Jarrold & Sons in Great Yarmouth, the iconic Norfolk publisher and bookseller, from which my mother regularly bought me books on art and animals in equal measure. The other was Hartmann Fibre, a moulded-fibre packaging company that specialised in turning waste paper into egg cartons, and where my father, Reginald Robert Munday, 'Reggie' to his friends, worked as a print foreman. Mountains of discarded books, magazines and newspapers passed along Hartmann's conveyor belts each day, destined to be pulped into a wet fibre slurry. Every so often he would rescue a book before it disappeared into the shredder and bring it home for me.

One evening, when I was eight or nine years old, he arrived home with an entire set of books on famous artists. I remember especially the volumes on Titian, Gainsborough and J. M. W. Turner, and how I marvelled at the power and fidelity of their paintings. Turner captivated me at once. His canvases seemed to mirror my own experience growing up, and I would later discover that he had painted Great Yarmouth itself, its turbulent sea, its glorious sunsets; the very elements that had shaped my childhood. Those rescued books were my first true introduction to fine art, and, unsurprisingly, Turner became my favourite artist.



Great Yarmouth Harbour by J. M. W. Turner



Yarmouth Sands by J. M. W. Turner

My fascination with the natural world, and later with science and technology, was matched only by my love of art, colour and light. Over time, the urge to represent nature, and the very perception of reality itself, through visual means became my overriding ambition.

Oil painting classes from age ten

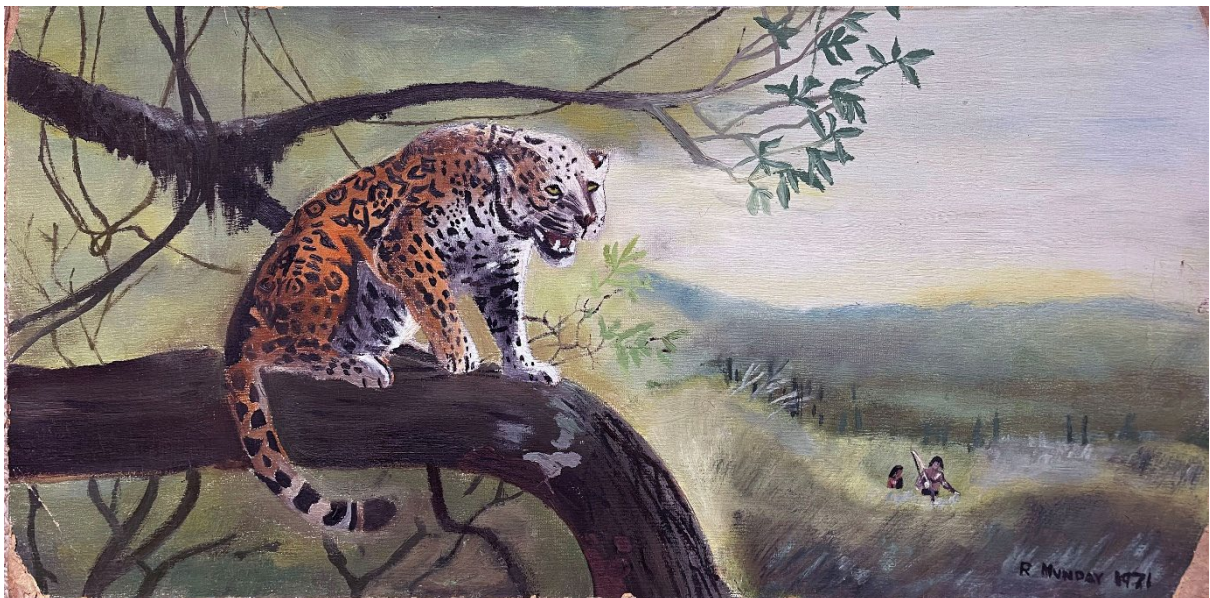
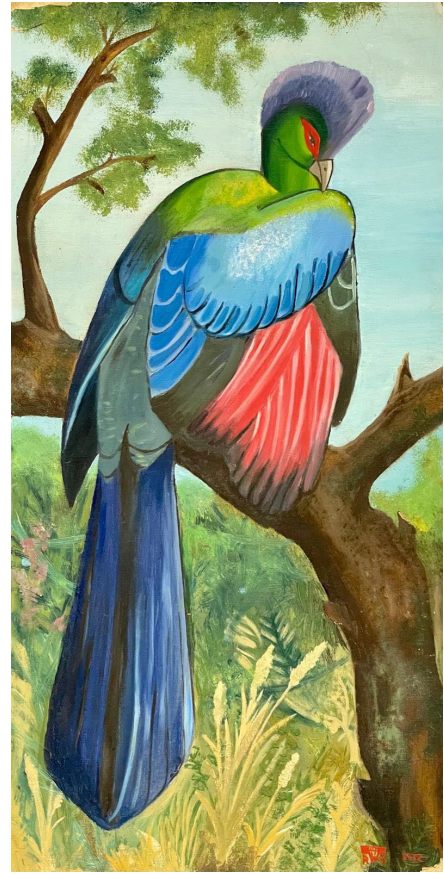
At the age of ten, my mother enrolled me in a private oil-painting class in Great Yarmouth. The class was taught by Mrs Butler, a widow who lived just around the corner from the house where I was born in Salisbury Road. Every Saturday afternoon I travelled alone on the turquoise-coloured number 16 bus from my home in Caister to Great Yarmouth, a five-mile journey I made in all weathers, summer and winter alike. I attended the class with Paul, another student my age. Mrs Butler taught from her dining room in a house full of cats that regularly urinated and defecated on the floor. Paul and I would sit on either side of her dining table for several hours each week, enveloped in equal measure by the smell of oil paint and cat urine, painting still lifes and copying postcards and pictures from books. Mrs Butler also taught at Blundeston Prison in Suffolk and later at Caister-on-Sea Secondary Modern School.

My very first oil painting, dated 1968, was a still life that Mrs Butler had arranged on an adjoining table at our first class. I'm especially fond of the way the red light refracts through the wine bottle onto the background. After that introduction, my interests quickly declared themselves: almost everything I painted from then on was either an animal or a landscape, or both.



Still Life, 1968, aged 10

Scores of other paintings followed, mostly copied from birthday cards, Brooke Bond tea cards, and the many animal books that my mother had bought for me.



Top left: Shell Ducks over a Caister Beach, 1968, aged 10
Top Right: Purple Crested Turaco, 1972, aged 14 (from a Brooke Bond Tea Card set - Tropical Birds)
Bottom: Jaguar: 1971, aged 13

Oil painting was soon followed by pencil, charcoal, pastel and scratch drawings, and by watercolour and gouache paintings. It was also around this time that a small but telling detail began to appear at the bottom of my drawings and paintings: an insignia. One Saturday afternoon, Mrs Butler suggested that Paul and I design our own personal marks. As my initials spell the word *RAM*, the idea came easily, and my ram's-head logo, which I still use today, was born. Additionally, I had always thought it a delightful coincidence that the road I grew up in, Marram Drive, named after the marram grass found growing on the dunes, spelled my initials both forwards and backwards. See an early incarnation on the front page.



Otter, Cat, and Lion – pencil, pastel, and scratch drawing, 1973 - aged 15



Red Ukari, gouache painting, circa 1973

During my teens, I was fortunate to see an exhibition in Great Yarmouth of the work of David Shepherd CBE, the British artist and one of the world's most outspoken conservationists. His now-famous wildlife paintings mesmerised me, and I visited the exhibition several times. Determined to emulate his work, I went home, took out my gouache paints, and began painting a red uakari monkey that very same day. I believe it was my first serious attempt at a gouache painting.

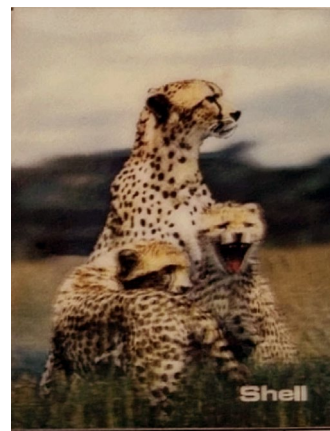
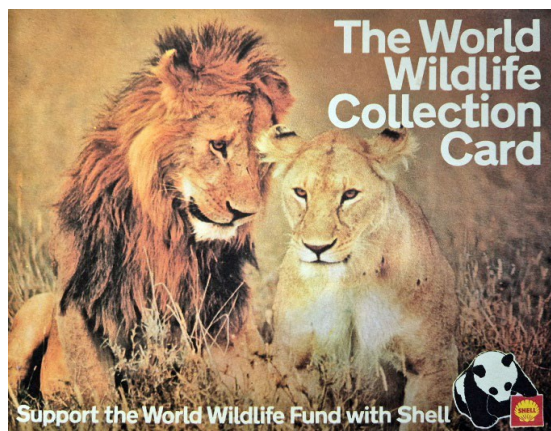
Many years later, I was honoured with the opportunity to create a holographic portrait of David Shepherd, but he sadly passed away before the work could begin.

My love of 3D pictures

From an early age, I was fascinated by 3D photography and stereoscopic imaging, and in the late 1970s shot many stereoscopic photographs, in the form of 3D slides, using my first 35mm SLR camera, a Praktica L. I would then view them using a small hand-held stereoscope.

My inspiration to do so almost certainly came from a collection of 3D lenticular cards given away as a promotion with purchases of petrol from Shell garages in 1975. The promotion supported the World Wildlife Fund, and the cards depicted endangered species of animals. At that time, my father drove a taxi and acquired many of them, which he would give me for my collection.

It was a revelation: an optical process capable of conjuring images of animals with a fidelity I had never imagined. 3D imaging appealed profoundly to my love of both art and science, and to my enduring desire to unite the two.



My WWF/Shell collection of 3D lenticular animal cards

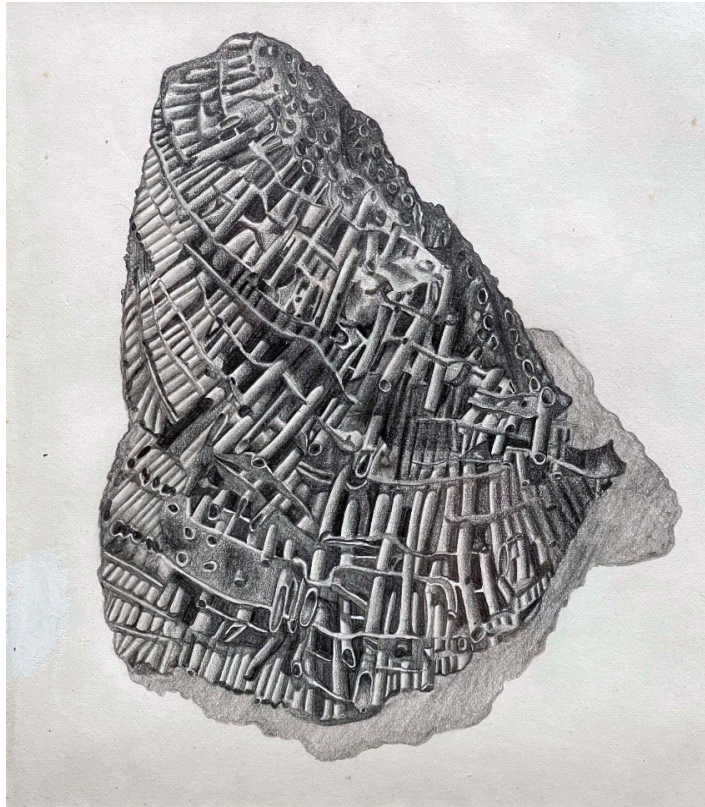
Caister-on-Sea Secondary Modern School, 1969 - 1975

Having been sent to oil-painting classes from the age of ten, and drawing and painting in my own time, I was bound to shine in the art class at school. This, however, occasionally landed me in trouble with my art teacher, David Cooper. On one occasion, I rather arrogantly told him that the task he had set, to paint a simple colour wheel, was far too easy for me. He promptly ordered me out of the classroom and sent me to spend the afternoon picking up litter in the playground. It taught me a lesson in humility.

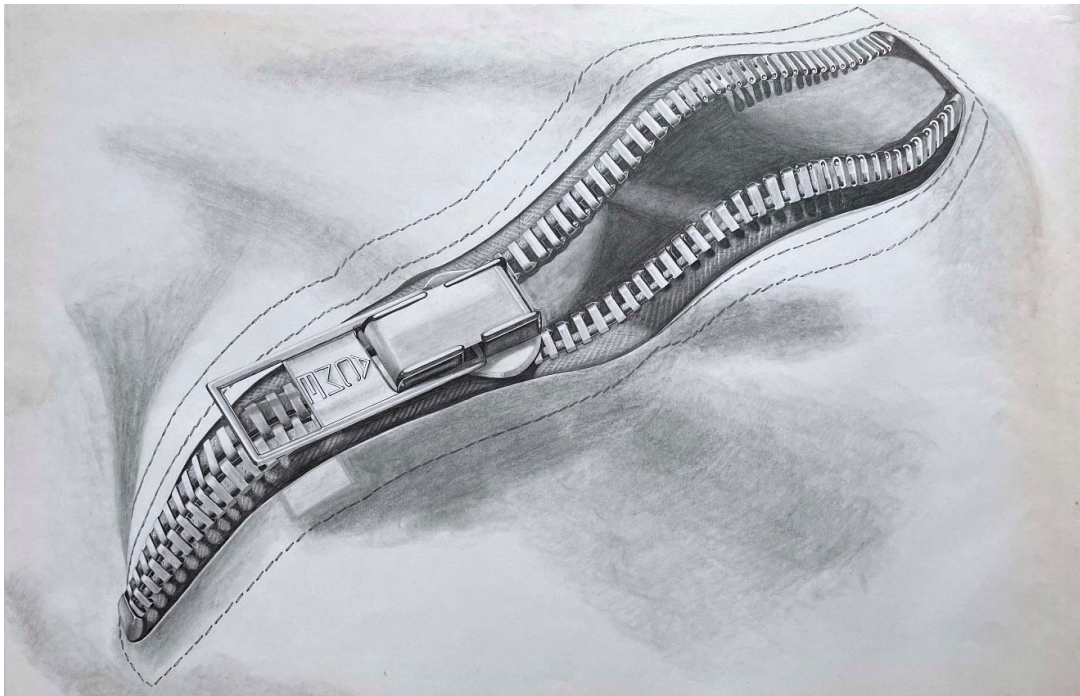
Despite this, David Cooper remained one of the most inspirational figures in my artistic career. Without his excellent tutelage and his philosophical outlook on life - he once insisted that the whole class buy and read *Zen and the Art of Motorcycle Maintenance* by Robert M. Pirsig - I might never have gone on to record the first ever holographic/stereographic portrait of Queen Elizabeth II some thirty years later.



Boxing Glove, soft material, pencil drawing, 1975, aged 17



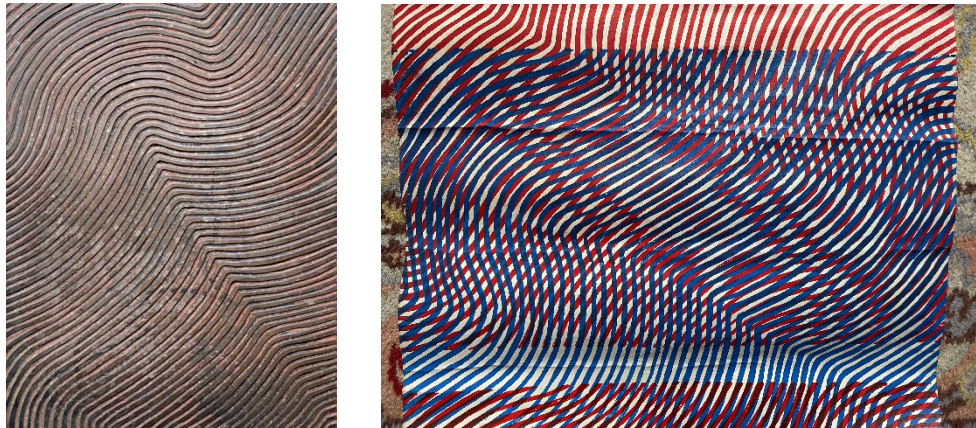
Red Coral – A Souvenir from Skegness, pencil drawing, 1975, aged 17



The Zip on my Brown Suede Jacket, hard and soft materials, pencil drawing, 1975, aged 17

Scores of creative projects were undertaken in the school art class, but two stand out to me as foreshadowing what was to follow.

The first was a lino-cut print. I remember being fascinated by optical effects and decided to create a moiré pattern by carving a wavy line-based design into the block and then overprinting it at various angles in two different colours. Moiré patterns are, of course, interference patterns - directly related to holograms and diffractive imaging. Little did I know then that I would spend my life making 'moiré' interference patterns through holography.



Left: the original lino-cut, right: a lino-cut printed moiré pattern

The second was a sculpture, for which the brief was entirely open. I naturally chose an animal subject: two tropical fish. I constructed them using an unusual technique, meticulously forming their three-dimensional outlines and features from short lengths of steel wire glued together. The result was a three-dimensional wire-frame model, uncannily akin to the wire-frame computer models I would later create in the early days of computer imaging - and indeed use as the subject of the world's first home microcomputer-generated hologram in 1987. Sadly, the delicate sculpture fell apart many years ago, but a preparatory drawing for the sculpture remains.



A preparatory visual for the wire-frame sculpture Fish, 1975 - aged 15

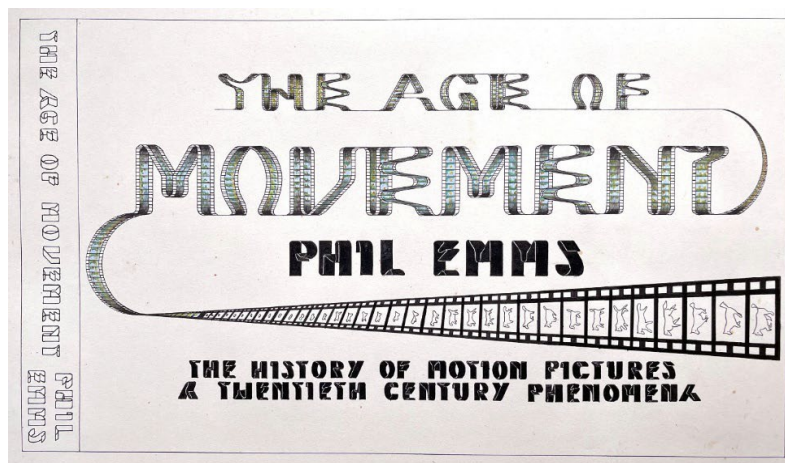
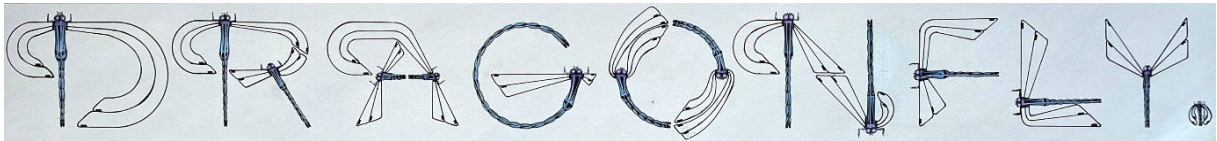
Before leaving Caister Secondary Modern School, aged 17, and with the help and encouragement of my art teacher, David Cooper, I gained an A-Level in Art, Grade A, two years earlier than would usually be the case, along with eleven O-Levels. Then came the biggest dilemma. Should I choose a career in art or science.

After years of searching for a discipline that combined both, I had yet to find one, and it was simply not possible to study for art and science A-Level's in parallel. My choice was stark: enrol on the one-year art foundation course at the Great Yarmouth College of Art and Design or take science and mathematics A-Levels at the Great Yarmouth College of Further Education. As will become clear later, I eventually managed to pursue both paths. But as my first love was art, I initially chose the former.

Great Yarmouth College of Art and Design, 1975 - 1976



From 1975 to 1976, I spent a happy year at the Great Yarmouth College of Art and Design on a foundation course that broadened my skills in every direction. During that time, I gained a further art A-level, achieving Grade A in Lettering and Calligraphy, and chose to explore sculpture in clay, metal, and wood, along with photography, print-making, and more advanced drawing, including perspective and life drawing. As the work below demonstrates, the subjects that most fully engaged my attention, those I was compelled to draw, paint, sculpt, and photograph, were invariably scientific in nature, and most commonly drawn from the animal world.



Two A-Level Lettering and Calligraphy projects, 1975, aged 17

Photo required

Rhombicosidodecahedron, acrylic and wood, 1975 (aged 17). A cantellated hybrid of the icosahedron and the dodecahedron, the rhombicosidodecahedron is often interpreted as a symbolic bridge between the icosahedron's association with water and life and the dodecahedron's alignment with the cosmos and consciousness. Between two pentagonal apertures, I introduced a five-sided wooden column whose subtle twist mirrors the rotation of the opposing pentangles. This turning axis becomes the work's living bridge, an organic, transformational conduit that aligns the geometric realms.



A Naturalist's Desk, ceramic glazed sculpture, 1976, aged 18

Dyfed College of Art

After graduating from Great Yarmouth College of Art's Foundation course, I was not overly enamoured by the idea of signing up for a Fine Art, Graphic Design, or Advertising degree, the paths most of my art-school contemporaries were gravitating towards. Still searching for a career that might unite my twin passions for art and science, I came across, and eagerly applied for, a little-known diploma in Wildlife Illustration and Photography based at Dyfed College of Art in Carmarthenshire, South Wales. It seemed, at last, as though this might be the career I had been searching for since childhood.

The interview required an eight-hour drive from Norfolk to the tip of South Wales, undertaken with my mother in my white Mini Clubman. But when we finally arrived, I discovered that the illustration department was situated in a semi-detached house on a housing estate, its various rooms repurposed as teaching spaces for different courses. What's more, the prospect of standing alone for hours on end waist deep in the Severn Estuary, sketching water birds in all weathers, a ritual that seemed all too common among the students already there, struck me as a decidedly lonely pursuit, especially at a time when my teenage hormones were screaming 'give me a social life'. I decided it wasn't for me.

Great Yarmouth College of Further Education, 1976 - 1979

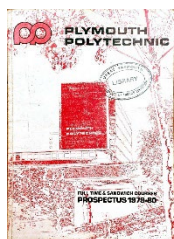
Upon returning home, and after yet more soul-searching, I resolved to give the second love of my life a chance. I moved across town to the Great Yarmouth College of Further Education to study for additional A-Levels, this time in mathematics and the sciences. My reasoning was simple: if I could gain qualifications in both the arts and the sciences, I might eventually find, or even invent, a career that combined the two. Three years later, in 1979, I graduated with four more A-Levels, in Biology, Chemistry, Pure Mathematics, and Statistics. I had also studied Physics for a year, but attempting five A-levels simultaneously - together with running for Norfolk, playing basketball and badminton for Great Yarmouth, practicing Wing Chun Kung Fu every weekend, and pursuing the 'teenage' social life I had so keenly sought - proved a step too far.

These three years, however, were not completely devoid of artistic endeavour. I recall returning home from college one evening, just as the sun was setting, gathering my watercolour paints, a sketch pad, and my dog Luckee, and walking briskly to a nearby copse that stood beside an open field. Both Luckee and I climbed a tree and settled on a sturdy branch as the light faded. It was my happy place, next to the 'bracken' where I played every day as a child. There, as the sun went down, I painted this small watercolour. It may have been a rather naïve attempt to emulate Turner, or the Impressionists, or even my relative Anthony Day, but it has always stood out to me, for I feel it encapsulated much of my life up to that point.



Field - Sunset, watercolour painting, 1977 - aged 17

After four years in further education, and still without any real sense of how I might unite my interests in art and science, and having already explored the art route, I decided to follow the scientific path, reassuring myself that I could always draw and paint in my spare time. I applied to study for a Bachelor of Science degree in Zoology at Bath University. At the interview, I proposed researching a method for artificially inseminating rare and endangered species of butterflies - particularly Queen Victoria's birdwing from Papua New Guinea, the rarest and largest butterfly in the world - as a means of ensuring their survival. As previously mentioned, I had been a keen entomologist from a young age and was a member of the UK's Amateur Entomologists' Society. Whatever the merit of my proposal, it earned me a place on the course.



I returned to the College of Further Education in Great Yarmouth to attend various events before leaving for Bath and found myself waiting in the college library for my best friend, Steve Ward. Steve was late, and so I began idly thumbing through the *Plymouth Polytechnic Prospectus 1979-1980*, a publication I hadn't previously thought to look at. The book happened to fall open at a page describing a brand-new four-year Bachelor of Arts degree with Honours, commencing that autumn, entitled *Scientific and Technical Graphics*. The degree was based across Cornwall Technical College in Cornwall, and Plymouth Polytechnic (now Plymouth University), and Plymouth College of Art in Devon, and was the first course outside of the USA to teach the fledgling fields of computer graphics, television, and video, alongside the more traditional disciplines of photography, graphic design, and illustration. In writing this document I found the prospectus, which I must have 'borrowed' from the collage.

It was a revelation and seemed the perfect course for me - a genuine fusion of art, science, and technology. I applied just a few weeks before it was due to begin, worried that it would already be full. Indeed, a letter soon arrived confirming exactly that but adding that my CV had been so impressive that it warranted a last-minute interview. I excitedly set off, once again in my white Mini Clubman, now with my friend Steve, on another ten-hour, non-stop journey, this time to the far end of Cornwall.

I shall admit that, with a burgeoning portfolio, a foundation course in art, and six A-Levels behind me, I felt confident, though not without a measure of anticipation. To my great relief and good fortune, an extra place was swiftly added, bringing the total number of students on this inaugural and pioneering course to just fourteen. A couple of weeks later, after two more ten-hour drives in my Mini, I moved into a student house in Redruth and embarked on the most exciting and rewarding four years of my life.

Cornwall Technical College, Plymouth Polytechnic, and Plymouth College of Art, 1979 - 1983

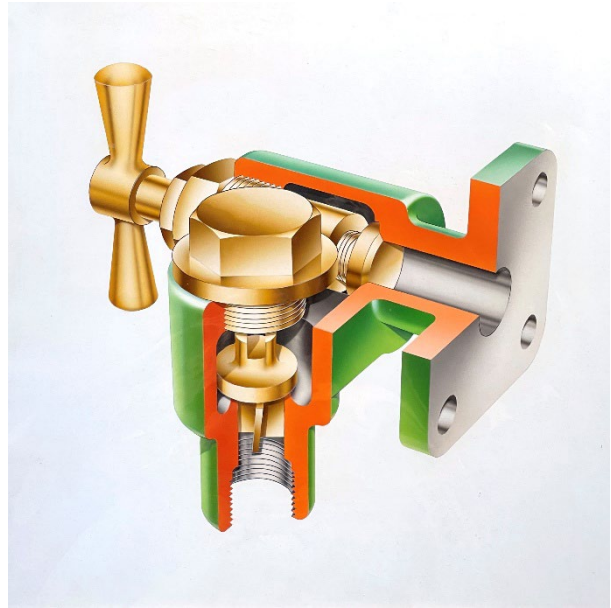
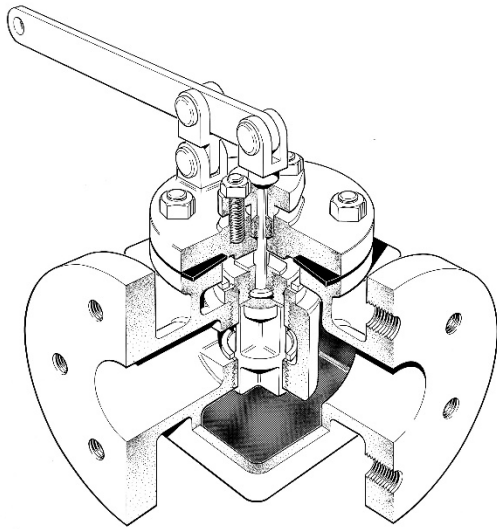
The very first project we were set, on the very first day of the course, was to walk over to the college greenhouse and draw a plant. I was quietly anxious, having done little, if any, drawing during the previous three years while immersed in my science and mathematics A-levels. I chose a tomato plant and settled down with some trepidation. Yet, to my surprise and with great relief, the drawing that emerged is one that I now regard as one of my best.



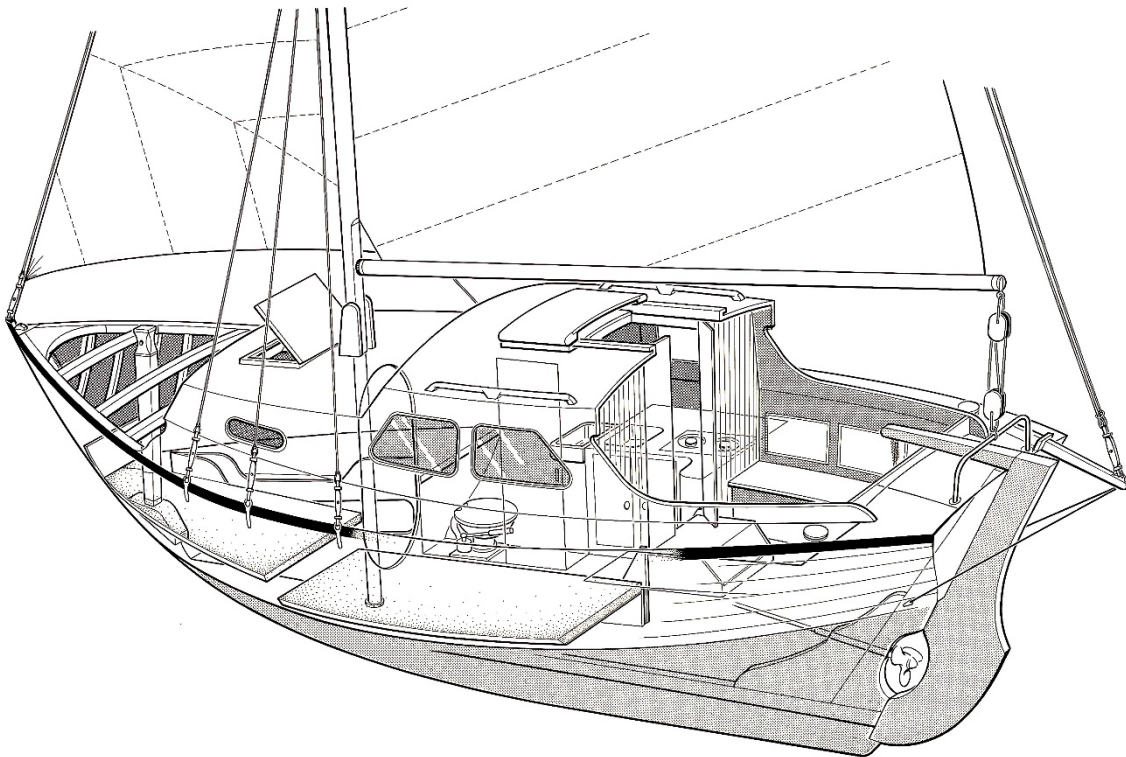
Tomatoes, pencil drawing, 1979

This inaugural course was demanding in the extreme - ten-hour days as a matter of routine, working late into the evenings and through most weekends to complete assignments. For four years we shuttled between Cornwall and Devon, attending modules at Cornwall Technical College, Plymouth Polytechnic, and Plymouth College of Art. Across that time we undertook literally hundreds of creative projects: wildlife and technical illustration, graphic design, photography, animation, computer graphics, television and video documentary production, and even a solitary lecture on holography in the final year.

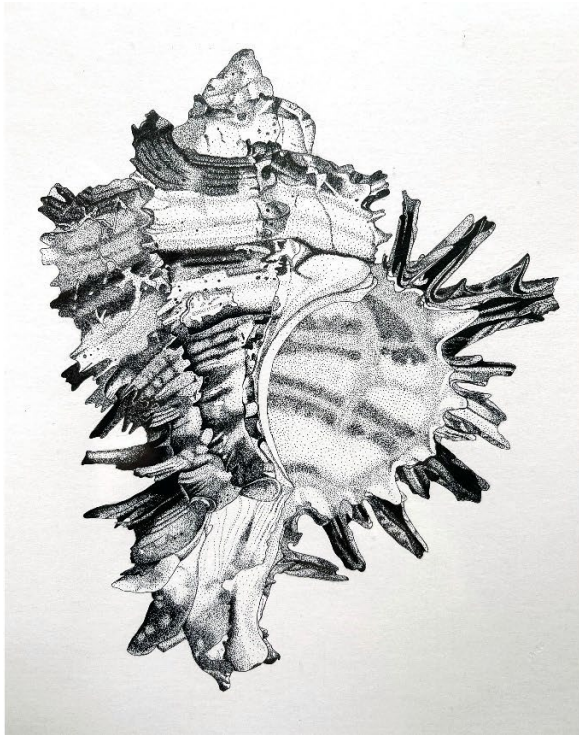
We were taught by some of the finest tutors in the UK in their respective disciplines. Of them, two were especially inspirational to me: Ed Skyner, our graphic design tutor, whose claim to fame was designing the celebrated Pirelli calendar and who later served as Creative Director for Time & Life in Bond Street; and Alan Male, a world-leading wildlife illustrator whose work graced major encyclopaedias and authoritative publications. We were even granted time with professionals at the Westwood Ho television studios - the Plymouth base of Westward Television, the first ITV franchise holder for the Southwest of England. The following examples represent just a few of the projects we undertook during the degree.



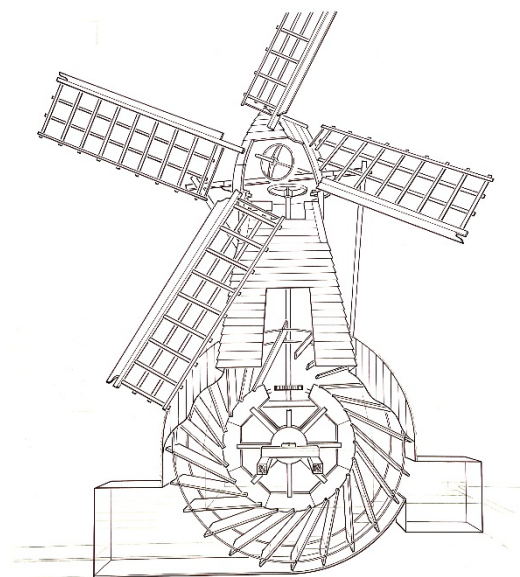
Left: Valve 1, pen technical illustration, 1980, and right: Valve 2, air-brush technical illustration, 1980



Yacht, pen technical illustration, 1980

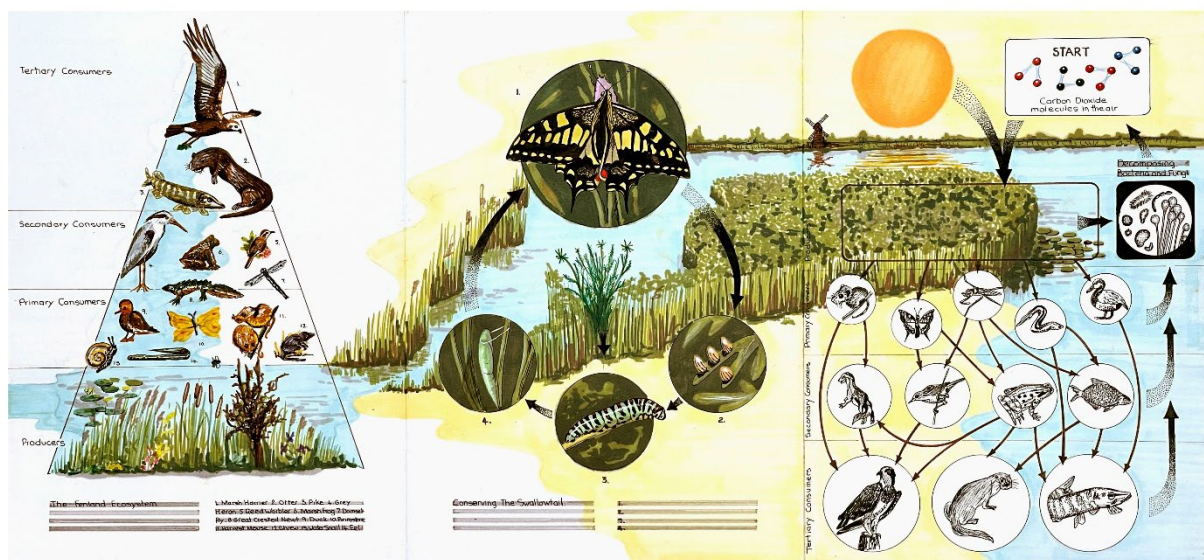
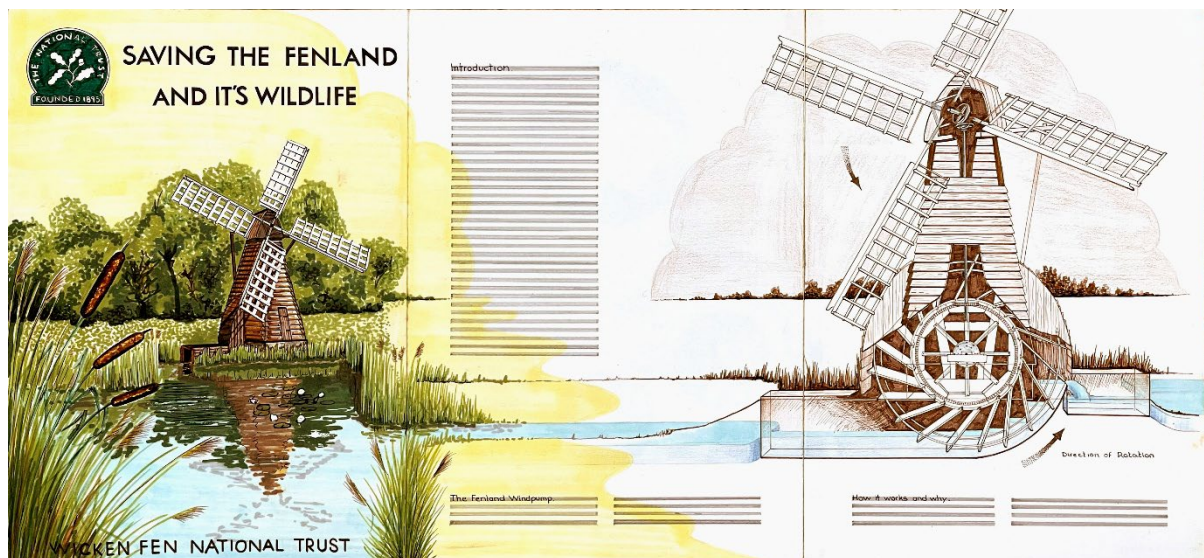


Left: Shell, pen and ink stippling scientific illustration, 1980, right: Shell, gouache scientific illustration, 1980



Left: Caracara, gouache illustration, 1981 (1:1 scale) and right: Wicken Fen Windpump, technical illustration, 1982

Never ready to forsake the subject of my childhood havens and affections, I chose, in my third year, to design and illustrate a fold-out educational booklet / poster and game for Wicken Fen. Stopping at the fen on my way home to Caister one holiday, I asked my first cousin once removed, Joy, and her husband, Wilfred Barnes, then the wardens of Wicken Fen, for permission to access its famous windpump so that I might record its internal workings. They duly entrusted me with the key, and I spent a few pleasant hours sketching and photographing its machinery in quiet solitude.



Mock-up and design for a Wicken Fen educational fold-out booklet / poster and game, 1982



Left: Game spinner and pieces, middle: Swallowtail Butterfly (*Papilio machaon*), gauche illustration, right: Common Frog (*Rana temporaria*), pen and ink illustration - example illustrations, 1982

My first hologram; in 1981, while studying for my degree, I travelled to London on a college trip and saw my first hologram. It proved to be another unexpected but extraordinarily fortunate moment in my life. Walking down Great Newport Street, unaware that The Photographers Gallery stood there, I caught a glint of rainbow-coloured light in a window. I turned to find Steve Benton's *Rind II*, 1977, the first hologram I ever saw, displayed as part of *Light Years Ahead*, the first international exhibition of creative holography to be held in the UK.

It was, of course, another revelation. I was mesmerized, almost frozen to the spot, and I cannot easily describe the feelings I had at that moment. There was an immediate realisation - an epiphany, even - before I had even stepped inside the gallery, that I had found my destiny in holography: a new and fundamental imaging medium, and the perfect fusion of art, science, and technology. It felt preordained.

I returned to Plymouth resolved to teach myself holography and to become part of the UK's first generation of holographers.

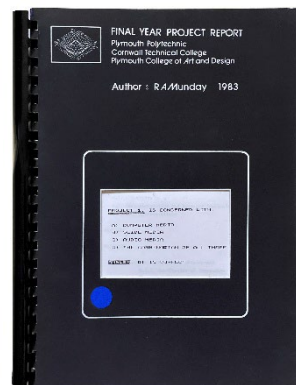
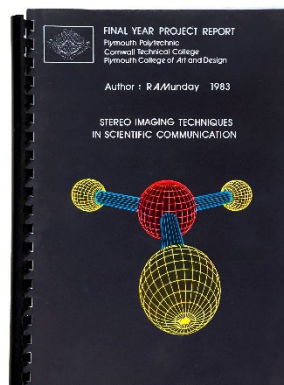
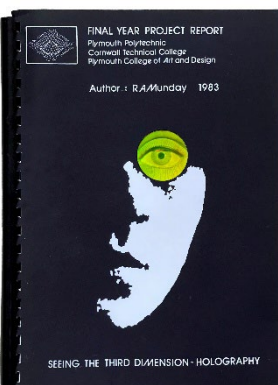
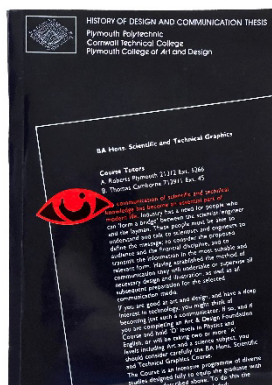
After borrowing a helium-neon laser from the optical-fibre communications department at Plymouth Polytechnic, securing access to Plymouth College of Art's photographic darkroom facilities, obtaining a box of 4 × 5-inch silver-halide glass holography plates from Agfa-Gevaert, and studying the late, great Fred Unterseher's book, *The Holography Handbook: Making Holograms the Easy Way*, I finally created my first hologram in the spring of 1982.

It was a simple single-beam Denisyuk hologram of a ram's-head belt buckle, the kind so many teenagers, me included, wore in the 1970s. The buckle itself, of course, was a representation of the insignia my oil-painting teacher, Mrs Butler, had asked me to design a decade earlier, and a photograph of the hologram later became the basis of my current personal mark.



My first hologram - left, the original belt buckle; right, a 4 × 5-inch glass Denisyuk reflection hologram, 1982.

The course culminated in four major fourth-year projects and their associated theses. I brought together everything I had absorbed over the preceding three years in the following treatises:



1. Visual Communication of Scientific and Technical Knowledge

A thesis examining whether the proliferation of twentieth-century modern visual-media technologies improves the communication and teaching of scientific and technical knowledge, with reference to new exhibits at Natural History Museum in London.

2. Seeing the Third Dimension – Holography

Part 1 of an examination of three-dimensional imaging, specifically holography, and its relevance to the communication of scientific and technical information, together with an appraisal of its suitability for inclusion within the BASTG degree curriculum. By way of illustration, a hologram was made.

3. Stereo Imaging Techniques in Scientific Communication

Part 2 of an examination of three-dimensional imaging, specifically anaglyphic stereo-videography. By way of illustration, a computer-generated anaglyphic stereoscopic video was designed and created to teach molecular structure and the principles of valence-shell electron-pair repulsion theory.

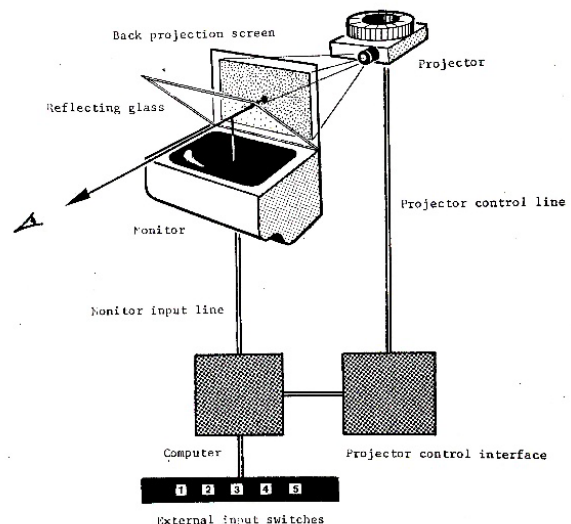
4. A Computer-automated Multimedia Interactive Teaching System - Genetics and Heredity

The design and implementation of a ground-breaking computer-automated, interactive, multimedia teaching system. To demonstrate the system, an educational programme on inheritance was created.

During my third year, I bought a bag of electrical components which, once painstakingly assembled, became a Sinclair ZX81 home microcomputer. Night after night I sat soldering the tiniest resistors, capacitors, and IC chips onto a green circuit board, determined to build my first computer from scratch. My intention was to explore whether this inexpensive machine, famously designed by the British inventor and entrepreneur Clive Sinclair, later the subject of one of my pulsed-laser hologram portraits (see *Digital Hologram Ambitions – AMIGA BIRD, 1981–1989* and *Early Holographic Portraits, 1984–1997*), might be capable of generating graphics. Several weeks later, after finally coaxing my new computer into life, it became clear that it was simply not powerful enough to achieve anything approaching complex graphical output. Instead, I conceived an entirely new use for it. I would employ the computer to create, control, and operate what was almost certainly one of the first interactive mixed-media educational systems: a hybrid of computer-generated content and slide-projection imagery, all driven by the ZX81 itself.

My ground-breaking concept was rooted in the Victorian *Pepper's Ghost* technique, and I envisaged that such a system might one day find its place in museums. The apparatus comprised a back-projection screen onto which a series of slides were projected, with a sheet of glass set at forty-five degrees in front of it. Beneath the glass, facing upwards, lay the computer's monitor, creating a mixed-media display in which computer-generated graphics appeared to overlay the the projected imagery.

I storyboarded an educational programme to teach Mendelism, the laws of inheritance formulated by Gregor Mendel through his pea-plant experiments in the 1860s, and produced a series of slides to illustrate each stage. The computer was connected to the slide projector so that pressing the space bar automatically advanced the mechanism. To achieve this, I taught myself the Visual Basic programming language and wrote a program that both interacted with the user, through simple graphics and text, and controlled the succession of slides. Each press of the space bar advanced the story one step further, triggering not only the next slide but also an animated sequence of computer graphics - white line-drawn images and text on a black background - precisely aligned with, and designed to interact with, the projected material. The tutorial unfolded in a new, hybrid, interactive manner that held the attention of its viewers.



I graduated from the inaugural BA (Hons) degree in Scientific and Technical Graphics with a 2:1, sharing the top position with my good friend, Mark Dale. Shortly after the results were pinned to the notice board, however, I was taken aside by Barrie Thomas, head of the department, who told me that I had deserved a First, but that the college had been advised against awarding any First-class degrees on an inaugural course, in case future students were judged to have done better. It was disappointing, of course, yet those profoundly life-affirming four years had been an inexhaustible cornucopia of creative possibility and a voyage of continual revelation. The guiding philosophy was to re-imagine the future of creative imaging - to meld old with new, and to carry this emerging paradigm into territory no one had yet explored. That ethos, that quiet *modus operandi*, stayed with me long after I graduated, shaping the rest of my career in creative holography. In those years I finally achieved my goal of uniting my love of art with my passion for science, technology, and the natural world, and they were, without any doubt, amongst the best years of my life.

Top row:	Jerome Abayasinghe Ian Pearson Niel Barnett Stephen Moloney
Middle row:	Lynne Ebner Mark Dale Russell Lapidge Peter Sheriff
Bottom row:	Richard Bostock Steve Walker Rob Munday Lance Fleming Tim Parry Peter Mann



A cell of a stop-frame animation made during the first year, showing the class of 1979-1980

Footnote: This inaugural course produced other notable practitioners in the emerging high-tech visual-media fields.

During his second-year industrial placement, **Ian Pearson** worked at CAL Videos in Soho, London, one of the UK's earliest CGI and visual-effects companies. When he returned to college at the start of the autumn term in 1981, he told me that the company had offered him a permanent position to establish a 3D computer-graphics department. Accepting the offer would require him to leave college and forfeit his degree. He asked for my advice; I suggested he complete the degree, as CAL Videos would surely employ him afterwards. Fortunately for him, he chose otherwise and left the following week.

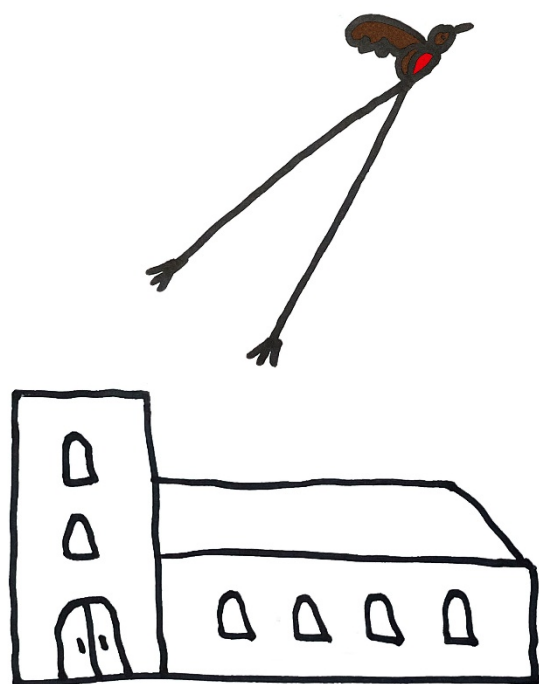
A few years later, Ian joined Rushes Post-Production, also in Soho, where he famously created the world's first computer-generated music video for the 1985 release of Dire Straits – *Money for Nothing*. It won the MTV Video Music Award for Video of the Year in 1986 and was the very first music video ever shown on MTV Europe when the channel launched in 1987. The video is widely regarded as the earliest use of 3D computer animation in popular culture. In the late 1980s he left Rushes to help found The Mill, the world's first fully digital post-production facility, where he directed the CGI animation for Def Leppard – *Let's Get Rocked* (1992).

In 1993, Ian left The Mill to co-found Mainframe Entertainment (later Mainframe Studios), based in Vancouver, Canada, where he produced the world's first fully computer-animated television series, *ReBoot*, followed by *Beast Wars*.

By coincidence, and unbeknownst to Ian, I was commissioned in the mid-1990s to create some of the first-ever full-colour animated holograms for *ReBoot* merchandise, see - *DI-HO*, the world's first digital holographic stereogram printer (1989–2012).

Also of note is **Mark Dale**, who, after graduation, moved to Derby and spent his career working for, and eventually managing, the Media and Publications Services Department within Rolls-Royce. His complimentary technical knowledge enabled a natural progression into Information Technology and Business Improvement roles. He later took early retirement and is now an extremely accomplished watercolour artist whose work focuses on the landscapes, harbours, villages, and people of Cornwall, the region where he grew up. Mark exhibits his work regularly.

Inside front and back covers: At the end of the first term of the BA (Hons) Scientific and Technical Graphics course, just before Christmas 1979, Ed Skyner, our graphic design tutor, set the class a brisk challenge: to design a Christmas card in fifteen minutes. I immediately sketched a robin perched atop a church steeple, for the front of the card, and on the inside, I drew the same robin in flight. When Ed opened it, he burst out laughing and looked genuinely impressed. From that moment our very good relationship was sealed for years to come. I suppose it was quite natural for me to draw a robin on a Christmas card, as robins have always been my favourite bird, and it was long my tradition to give my mother a Christmas card depicting a robin.



MERRY CHRISTMAS

