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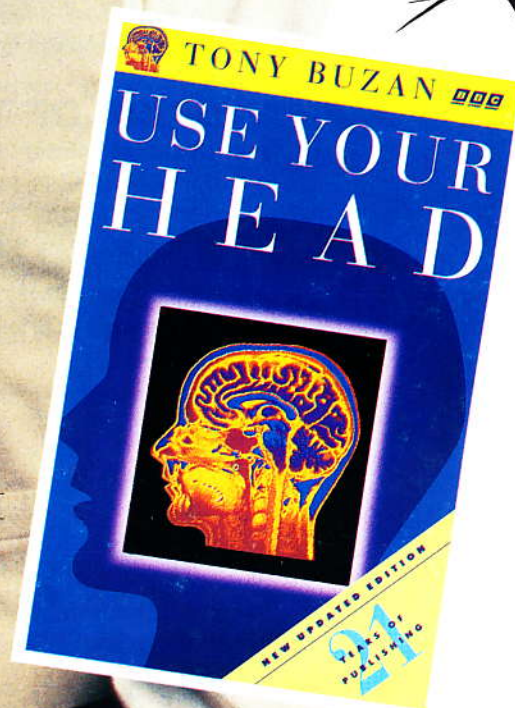
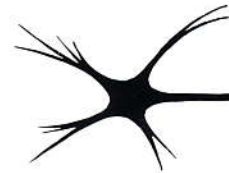
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USE YOUR HEAD

SYNAPSIA

THE INTERNATIONAL

BRAIN CLUB JOURNAL



ROYAL ALBERT HALL

FESTIVAL OF THE MIND

INTERVIEW WITH TONY BUZAN

BURMAH ON THE ROAD

1995 BRAIN OF THE YEAR

RADIANT THINKING: THE MIND MAP MODE

COMPUTER CHESS: IS THE GAME UP FOR MAN?

MIND SPORTS: PSYCHOLOGY OF THE CHAMPIONS

USE YOUR HEAD Vol 6
No 1 Spring 1995

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Pécub, the world's fastest brain cartoonist, is happy to provide cartoons based on your ideas and requests. All cartoons are by Pécub, except for page 52, which is by Jeremy Siepmann.

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FESTIVAL

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OF THE MIND

The organisers would like to thank the following, all of whom have contributed to the success of the event:

Alphalearning Institute;
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The Brain Trust;
Vantage Productions & Events Ltd;
Vienna University

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For many people Tony Buzan's technique of Mind Mapping has revolutionised the way that information can be visualised. Now, with the development of the KUBUS® System, even more is promised.

COMPUTER CHESS: IS THE GAME UP FOR MAN? 32

Chess-playing programs are getting faster and stronger. Will the advance of the machines prove relentless? Grandmaster Raymond Keene thinks not.

MIND SPORTS: PSYCHOLOGY OF THE CHAMPIONS 38

We have recently witnessed an explosion of interest in mental combat. Tony Buzan examines what makes the best competitors tick.

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THE BRAIN CLUB CHARTER

The Brain Club was incorporated on 15 May 1989, and became a registered charity on 23 November 1990. Its official charter states the Club's formal purposes:

- A. To promote research into the study of thought processes, and into the investigation of the mechanics of thinking as manifested in learning, understanding, communication, problem-solving, creativity and decision-making.
- B. To disseminate the results of such research and study.
- C. To promote generally education and training in cognitive processes and techniques.
- D. To develop and exploit new techniques in cognitive processes.

USE YOUR HEAD EDITORIAL

The Festival Arrives!

The editor welcomes contributions to *Use Your Head*. Please contact him at 23 Ditchling Rise, Brighton, Sussex BN1 4QL (or fax on 01273 675486).

Boxed in by Life's Compromises?

Step into a new framework that provides an instant solution to your most enduring dilemmas. Rosamund Zander, Transformational Therapist to individuals, families and organisations demonstrates the mind's capacity to create new realities by altering the contexts through which we experience life.

Bring questions, problems and dreams to this workshop which will be held at the 'Festival of the Mind'. Embark on a voyage to fulfilment.

Dr Marion Tinsley
03/02/27 - 03/04/95
RIP

A few years ago, the BBC realised that there was an extraordinary phenomenon in their worldwide publishing statistics - a book that was breaking all the rules of standard educational book publishing. The usual characteristic of sales in this market is for there to be an immediate and rapid peak, followed by a decline to almost nothing. However, one particular book was bucking the trend and selling more and more copies as the years progressed. This book was, of course, *Use Your Head*. As a result of this extraordinary phenomena the BBC and others decided to have a special 21st birthday party to celebrate the

'coming out' of the book and also the birth of the concept of Mind Mapping. This event has expanded to become the 'Festival of the Mind'

A number of people have worked very hard to make this happen. Particular thanks are due to the following:

The Organising Committee consisting of Tony Buzan, Raymond Keene, Vanda North, Sir Brian Tovey, Lady Mary Tovey, Samantha Smith, James Lee, Bridget Phillips, Lynn Collins and Naomi Moscovic; Kirsty Wright, Eileen Woods and Michael Woods of Vantage; Nick Gingell of the Albert Hall.

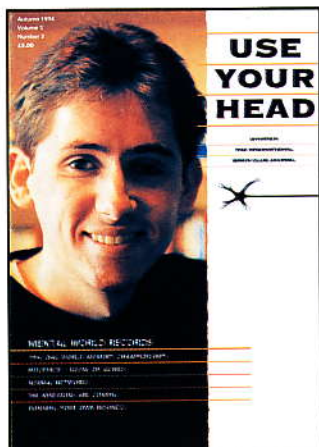
Mission Statement from the Organising Committee

This day at the Albert Hall has been in the planning for many years. Ever since Tony Buzan first published his epoch-making book *Use Your Head* there has been an imperative to celebrate it and its global effect on mental literacy in truly appropriate fashion. Eight years ago this imperative crystallised into a firm decision to hire London's premier concert and exhibition centre the Royal Albert Hall for this manifestation of the powers of the human mind. The day has finally come! Enjoy it!!

Raymond Keene, Committee Coordinator

Raymond Keene OBE.

Use Your Head is published quarterly. Please contact the Brain Foundation (address on the contents page) to subscribe.



SYNAPTIC FLASHES

Latest Brain News

Trekkie Award

After a delay of four years, the Brain Trust was finally able to present its posthumous Brain of the Year award for 1991 to Gene Roddenberry, the originator of *Star Trek*. Before an audience of 5,000 trekkies, Tony Buzan was invited by the organisers to present the Leonardo Trophy to Rick Berman, the producer of *Star Trek*. The award ceremony was greeted with rapturous applause by the multitude and Tony seized this timely opportunity to announce the Brain Trust's event on 21 April at the same venue.

Kitten Brains

Scientists in Japan are developing a brain that can match the thinking ability of a kitten, it was announced recently. Using a super-computer developed at the Massachusetts Institute of Technology, which can update 200 million cells per second, researchers at Kansai Science City, Kyoto, hope to create an artificial nervous system consisting of 1,000 neurons. They plan to evolve networks that can control a robot with behaviour similar to that of a kitten.

Leonardo Revisited

Regular readers will recall that in the last issue of *Use Your Head* magazine we carried a piece on Leonardo da Vinci's *Codex*, the manuscript that predicted the invention of the submarine and the steam engine. The *Codex* was purchased for \$30 million at an auction in New York by Microsoft's founder and Chairman Bill Gates. Recently Mr Gates explained his purchase in the *Guardian*, revealing that he has had a keen interest in Leonardo since the age of 10 and that he believes that Leonardo was one of the most amazing people who ever lived, a true polymath who excelled in science, painting and sculpture.

The *Codex* notebook particularly fascinates Gates because it contains da Vinci's speculations on hydraulics, cosmology, astronomy, geology, palaeontology and other topics and includes more than 300 of his illustrations made between 1506 and 1508. Gates says he

bought the manuscript for personal pleasure but will loan it to museums around the world, beginning with an Italian museum which will have it for the first year, thereby returning it to its place of origin, if only for a time.

Loose Bonding

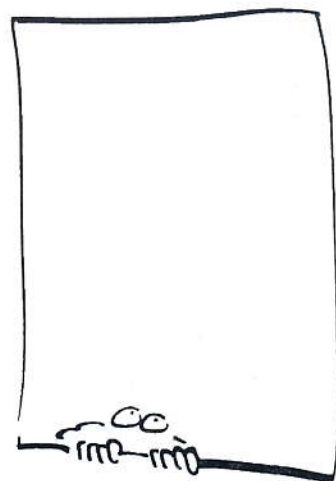
At a recent meeting of the American Physical Society in San Jose, California, it was revealed that scientists in the US have discovered a molecule composed of just two helium atoms that is both the longest and the weakest chemical bond ever found. Classical physics would suggest that two bound atoms should sit no more than 14 angstroms apart, but the helium atoms are separated by an apparently enormous average 62 angstroms, Roland Gentry and his team at the University of Minnesota have discovered. Atoms of most elements, such as hydrogen, oxygen and carbon, form tight chemical bonds by sharing electrons with their neighbours, but helium atoms are unable to do this because its electrons already have a stable configuration.

Netting Galaxies

A computer program that can classify galaxies according to their shape just as well as a human expert is now available. Galaxies come in a variety of shapes and sizes, having been formed under different conditions and behave in slightly different ways. While some are easy to classify, others are more difficult.

Ofer Lahav of Cambridge's Institute of Astronomy and international collaborators, have developed a program that behaves like a network of living cells. This artificial neural network can learn from human experts and then come up with galaxy classifications of its own. In a test involving six human experts and 831 galaxies, the humans were unable to perform any more successfully than the program.

Over the next few years, it is expected that more than a million new galaxies will be charted. Now, much of the drudgery of classifying them can be left to a machine.



INTERVIEW WITH TONY BUZAN

Tony Buzan recounts the genesis of the Mind Mapping concept, while Vanda North explains the mechanics of Mind Mapping.

What led to the 21st birthday being held at the Royal Albert Hall?

It is a fascinating story. In the chapter concerning memory in *Use Your Head*, it is pointed out that for anything to be made memorable it must, in some way, be outstanding. We wanted to make the event both memorable and outstanding and so the search was now on for a location that would fit the bill. The Albert Hall emerged as the absolutely ideal candidate for this party of the century. Apart from everything else, it actually looks like a head - the giant brain in the centre of London - the perfect location for a global event on the brain, memory and learning.

As soon as the decision was made six years ago, the date was immediately re-

served. Since that time the original concept of the event has exploded into a giant 'Festival of the Mind' - a festival for launching the global initiative on Mental Literacy and the extraordinary discoveries that are being made about intelligence and the human mind as we hurtle towards the 21st century.

As the date approached additional events and themes have emerged and coincidences have sprung up. For example, it was realised that the 21st April is actually the queen's 'real' birthday. Furthermore, researchers at the Albert Hall discovered that Prince Albert had actually designed the Hall to celebrate the mind and to promote, as Leonardo da Vinci would say, 'the science of art and art of science'. The event has truly become a multi-levelled celebration.

It seems as if Mind Mapping has been around for ever. What is the actual history of its genesis?

It all started when I was a boy of seven in Kent. I came top of the class in an exam about nature, while my friend finished bottom. I couldn't understand this, as I knew for a fact that my friend was much more knowledgeable about nature than I was. He could, for example, identify any living creature by its flight pattern. This paradox puzzled me (at the time I didn't have the knowledge to realise that he was illiterate) and I immediately began to question the concept of intelligence. Who was or was not to say who was or was not intelligent? And who indeed was to define what intelligence was?

The next major step occurred when I was 14. I was given numerous tests on intelligence, reading speed and memory and was told that I would never be able to change the results. As well as infuriating me, I found this difficult to understand. After all, physical exercise makes you stronger so why

Tony Buzan



shouldn't the right kind of mental exercise improve your mental performance? I immediately began to work on this problem and quickly realised that if I had the right technique then my results would surely improve. It was at this stage that I also realised that the least productive method of trying to understand a subject was to take notes. I found them boring and worthless and the more I took, the less I seemed to understand the material.

The story continues when, at the age of 20, while I was studying at the University of British Columbia, I began to work seriously on improving my memory and note-taking and this work developed into two branches.

i) I studied the nature of memory and especially that which is recalled. This inevitably must include imagery and association.

ii) I similarly studied the note-taking methods of the great brains and observed that, without exception, they all used images, pictures, arrows and other connective devices, while those who did worse in academic studies made only linear notes.

The result of this combined study was the evolution of the concept of Mind Mapping.

The more I discovered, the more excited I got. I felt like the discoverers of Tutankhamun's tomb. First of all I had peered through a keyhole and seen the vague shapes of what could possibly be fantastic artefacts. Then I had entered the barely-lit room and witnessed the incredible potential of its contents. Finally, I had managed to cast light on the wealth of treasure that I had discovered.

First of all they had peered into the darkness and found a few pots. Then they looked around corners and saw statues, caskets and many more fantastic artefacts than they could possibly have imagined. These included a giant gold box the size of a room. When they opened this they found another gold box inside and then another. Inside this was a coffin and inside this coffin was another.

I imagine that you must have immediately had the urge to communicate this discovery?

Yes I did. I wanted to very much and still do. The first communication of the discovery was the *Use Your Head* book and the BBC TV series of the same name, which was repeated every year for ten years. The next

big telling was 15 years of worldwide travelling on lecture tours to academic, business and government institutions. The next event occurred at the beginning of the 1990s with the establishment by Vanda North of the Buzan Centres where Radiant Thinking Instructors are trained in these educational methods. Next came the publication in 1993 by the BBC of the 'son of Use Your Head' - *The Mind Map Book*. This was the summary of 40 incredibly exciting years of research. The next big piece in the jigsaw will, of course, be the 'Festival of the Mind' at the Albert Hall and we wait with great expectation to see what extraordinary events and happenings can occur between us going to press now and the event itself.

Do you know how many people have heard of Mind Mapping?

I have a good idea! Surveys have been taken to estimate how many people have heard of the idea of Mind Mapping and, although these are not yet concluded, we already know that it is in excess of 200 million. My goal is to have 10% of planet mentally literate by the beginning of 1999 and I am therefore always interested in ideas for helping more people to become aware of the concept. If anybody has any, I would be delighted to hear from them.

Vanda North



What is a Mind Map?

A Mind Map is a powerful graphic technique which provides a universal key to unlocking the potential of the brain. It harnesses the full range of cortical skills - word, image, number, logic, rhythm, colour and spatial awareness - in a single, uniquely powerful manner. In so doing, it gives you the freedom to roam the infinite expanses of your brain. The Mind Map can be applied to every aspect of life where improved learning and clearer thinking will enhance human performance.

Originated in 1970 by Tony Buzan, Mind Maps are now used by millions of people around the world - from the ages of 5 to 105 - whenever they wish to use their brains more efficiently.

Similar to a road map, a Mind Map will:
Give you an overview of a large subject/

area.

Enable you to plan routes/make choices.

Let you know where you are going, and where you have been.

Gather and hold large amounts of data.

Encourage daydreaming and problem-solving by looking for creative pathways.

Be extremely efficient.

Be enjoyable to look at, read, muse over and remember.

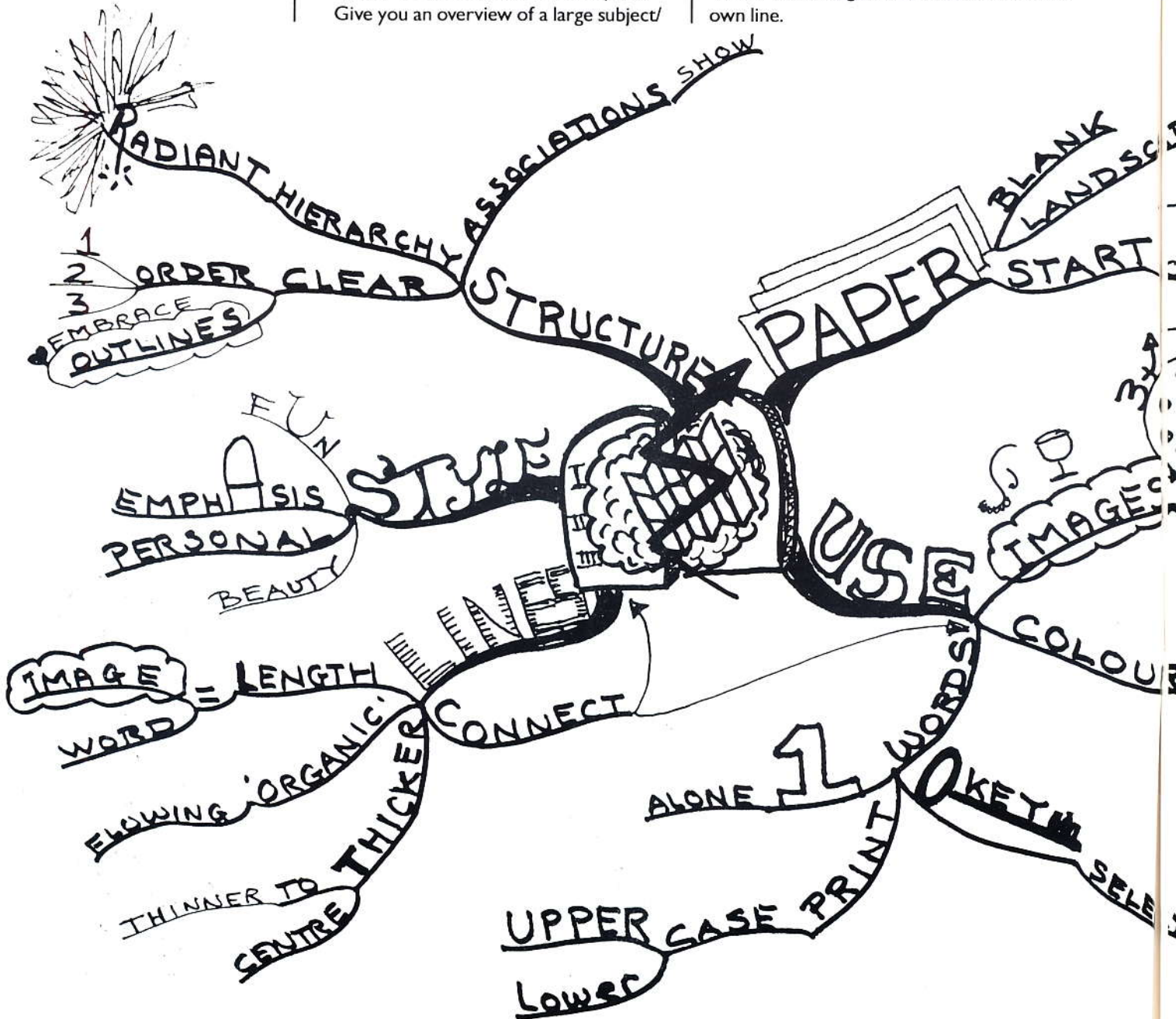
Mind Map Laws

1 Start in the centre with an image of the topic, using at least three colours.

2 Use images, symbols, codes and dimension throughout your Mind Map.

3 Select key words and print - using upper or lower case letters.

4 Each word/image must be alone and on its own line.

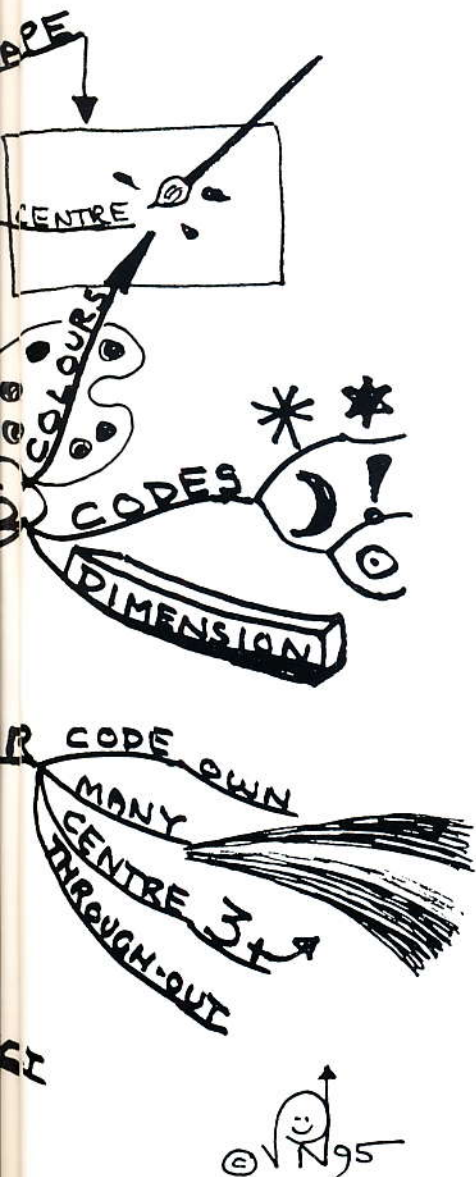


- 5 The lines must be connected, starting from the central image. In the centre lines are thicker, organic and flowing, going to thinner as they radiate from the centre.
- 6 Make the lines the same length as the word/image.
- 7 Use colours - your own code - throughout the Mind Map.
- 8 Develop your own personal style of Mind Mapping.
- 9 Use emphasis and show associations in your Mind Map.
- 10 Keep the Mind Map clear by using Radiant hierarchy, numerical order or outlines to embrace your branches.

How to Mind Map

- 1 Turn a large, white sheet of paper landscape, or use a Mind Map pad.
- 2 Gather a selection of coloured pens, rang-

- ing from thin nib to highlighter.
- 3 Select the topic, problem or subject to be Mind Mapped.
- 4 Gather any materials, research or additional information.
- 5 Start in the centre with an image - approx 6cm high and wide for A4 and 10cm for A3.
- 6 Use dimension, expression and at least three colours in the central image in order to attract attention and aid memory.
- 7 Make the branches closest to the centre thicker, attached to the image, and 'wavy' (organic). Place the Basic Ordering ideas (BOIs) or chapter heading equivalents on the branches.
- 8 Branch thinner lines off the end of the appropriate BOI to hold supporting data (most important closest).
- 9 Use images wherever possible.
- 10 The image or word should always sit on a line of the same length.
- 11 Use colours as your own special code to show people, topics, themes, dates and to make the Mind Map more beautiful.
- 12 Capture all your or other's ideas, then edit, re-organise, make more beautiful, elaborate or clarify as a second stage of thinking.



Mind Maps

USES	BENEFITS
Learning	Reduce those 'tons of work', feel good about study, review and exams. Have confidence in your learning abilities.
Overviewing	See the whole picture, the global view, at once. Understand the links and connections.
Concentrating	Focus on the task for better results.
Memorising	Easy recall. 'See' the information in your mind's eye.
Organising	Parties, holidays, projects, any group of facts. Make it make sense to you.
Presenting	Speeches are clear, relaxed and alive. You can be at your best.
Communicating	In all forms with clarity and conciseness.
Planning	Orchestrate all aspects, from beginning to end, on one piece of paper.
Meetings	From planning, to agenda, to chairing, to taking the minutes ... The jobs are completed with speed and efficiency.
Training	From preparation to presentation they make the job easier.
Thinking	Known as the 'way-station' for your thoughts.
Negotiating	All the issues, your position and manoeuvrability on one sheet.
Brain Blooming	The new brain-storming in which more thoughts are generated and appropriately assessed.

BURMAH: THE DEALER'S DEALER

Burmah Petroleum are the main sponsor for the 'Festival of the Mind'. We spoke to managing director Rikki Hunt about his management philosophy.

Could you give us a brief sketch of your career to date?

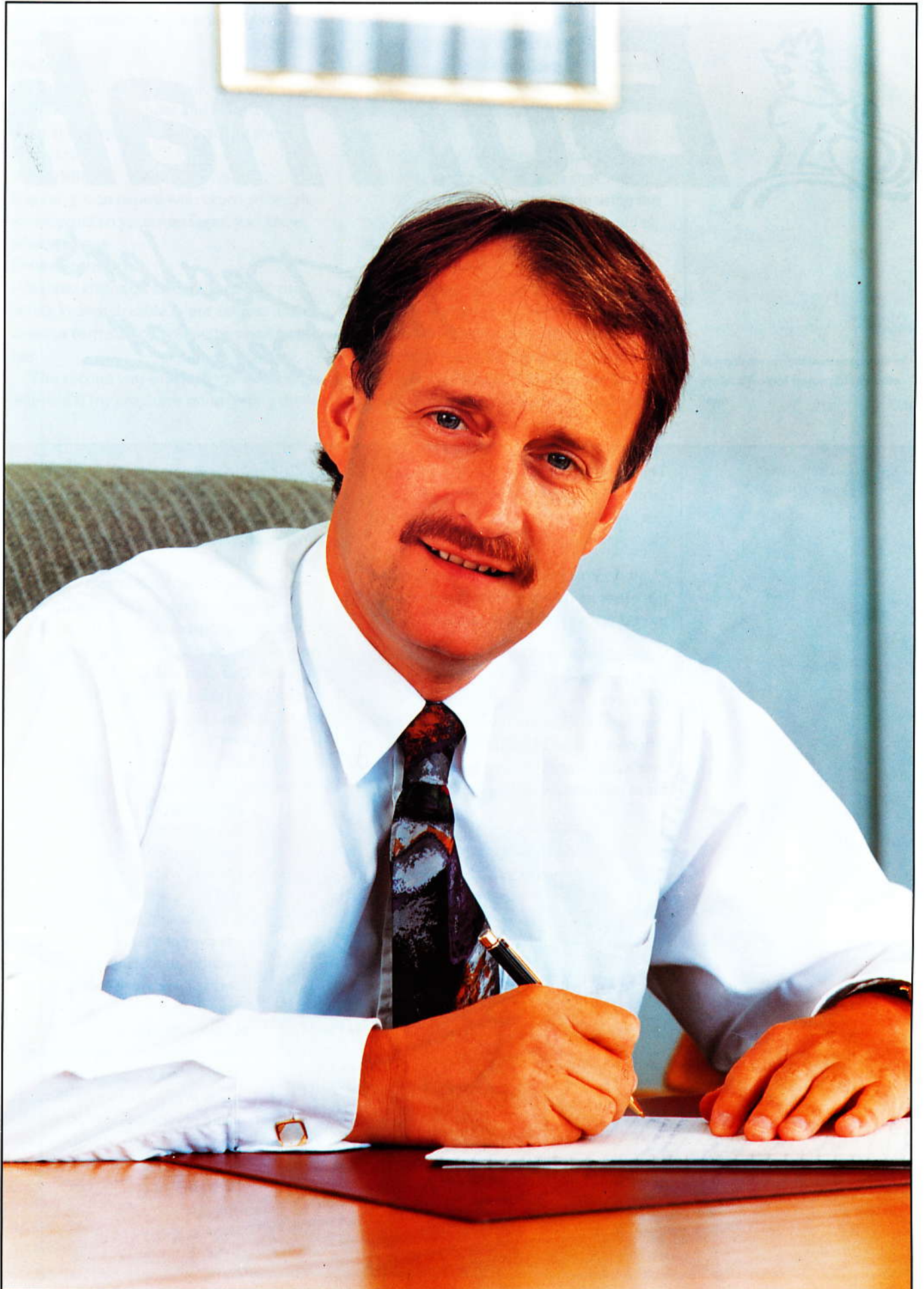
I started work as a retailer and marketer, mainly with supermarkets, where I was a manager for Fine Fare and Safeway before becoming a franchise director for Circle K convenience stores (formerly Sperrings). I switched from food into oil in 1988, when I joined Elf as Marketing Manager and joined my present company, Burmah, in June 1991 as Managing Director.

How did you become aware of Tony Buzan and techniques such as Mind Mapping?

I first read *Use Your Head* a long time back - I think it must have been about 15 years ago - and had to read it three times before I really got to grips with it. I personally started to use Mind Mapping in about 1983 or 1984 but hadn't thought about teaching it to others until I started to think about the way I wanted to develop people in my company.

Burmah on the road - implementing the 'Dealer's Dealer' strategy.







Burmah

The Dealer's Dealer

The Burmah mission

Then, by chance, at Heathrow Airport I came across a copy of *Radiant Thinking* and this acted as a prompt for me to look at Mind Mapping again.

How do you regard your ideas about business as being distinctive compared with standard practice?

Where I believe my views are totally different from the mainstream falls into two main areas. Firstly my approach to the communication of vision, mission and values is different. I believe that most companies over-complicate and over-intellectualise these - which is why they don't work.

Our vision is simple - to be the number one supplier to the independent market. Our mission is simple - to achieve the vision through implementing our 'Dealer's Dealer' strategy. Our values are clear. We have even consciously not called them values but Groundrules because this is a much clearer way of saying to people - here is the way we want you to act - it sets the background for them. Our Groundrules are also easily remembered using the mnemonic IOUCHAP and are:

Improvement

As individuals and groups of individuals we are seen to be continuously seeking to improve relationships, processes, ourselves and the Company's performance.

Ownership

We approach the way in which we make and take decisions as if we owned the Company, its direction, successes and problems and as if we were spending our own money.

Understanding

We work hard to understand by listening to the position of each party in any of our relationships, value differences and accept that they, like us, will have objectives and motivations.

'Can do' approach

We are positive in looking for ways in which we can help each other do what we believe is right for the Company, rather than



The Burmah shield

just listing reasons why something won't work.

Honesty

We do what we say we will, with defined but not hidden agendas and regard being open and honest about ourselves and others as crucial.

Availability

You can get to us, we will return your call, we respond to your messages, you know where we are.

Professionalism

We show attention to detail are well-prepared, knowledgeable in our subject and focused in terms of our objectives and priorities.

The second way in which my views are different is my emphasis on targeting think-

ing processes as the key to development of people. Again, I think that a great deal of the literature about thinking is written in an overly intellectual fashion. This is unnecessary and creates difficulties for comprehension.

I argue that if we communicated with each other using the language that we use on a day-to-day basis rather than using the 'language of the intelligentsia' we would all develop more quickly. For one thing we would recognise that the 'intelligentsia' do not have a monopoly on thinking or development - we can all do this. Linked to this is my belief that people mix training and development. I see training as improving skills and so as job related. True development or growth is more cerebral and to do this peo-

Burmah are an enthusiastic sponsor of the local football league club, Swindon Town



I believe that if a company has a 'bad' culture it is the fault of the directors and managers - they set the culture.

ple have to actively work at their thinking processes. I really do believe that if I change the way you think your actions will be affected.

Do you believe in a company culture?

I believe creating a culture is as simple as saying 'Here's how we want you to act' and our Groundrules are the foundation of the culture we want to prevail.

Where I differ from most people in this area is that I believe that if a company has a 'bad' culture it is the fault of the directors and managers - they set the culture. Taking an example, if I am a distant type of character then it is fair to say that communication in my company would be weak, simply because I set the trend. If I do not communicate with staff, they are more likely to be poor communicators with my customers. I set the 'accepted practices'.

A logical extension of this is to say 'if I want to change the culture of my company, I must start with my directors and managers'. (If I do not convince them, the rest will not follow).

Given that scenario, it is often less disruptive to remove 'blockages' (managers or directors who you feel will not/cannot live your new culture) than it is to try and put it right. Having said that, I also believe it is easier to teach an old dog new tricks than it is to teach a new dog not to chew the cur-

tains (this is of course assuming the old dog wants to learn!)

How do you integrate techniques such as Mind Mapping into your development processes?

As one of a series of techniques that are offered to people - a kind of 'menu' of techniques. When we have a development session I emphasise that we must focus on the thinking that has taken place rather than the outcomes of that thinking. Some of the other techniques on offer are six hat thinking, force field analysis, etc. The idea is that everyone is able to use the techniques that work best for them.

What would you say Burmah offers its employees that other companies don't?

I would identify three main areas:

i) A belief in the importance of cerebral development as the key to real development of the individual. We don't pay lip service - as well as a budget for this we spend many hours working on it.

ii) The opportunity for everyone to expand their potential.

iii) A clear frame of reference, in our Groundrules, that everyone can understand and a clear sense of direction, again that everyone can understand.



Burmah

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Graphic and Media Studies; Theatre Workshops and GCSE Revision, Resits

BRAIN OF THE YEAR 1995

The winner of the 1995 Brain of the Year will be announced at the 'Festival of the Mind' on April 21. Here we preview the leading contenders.

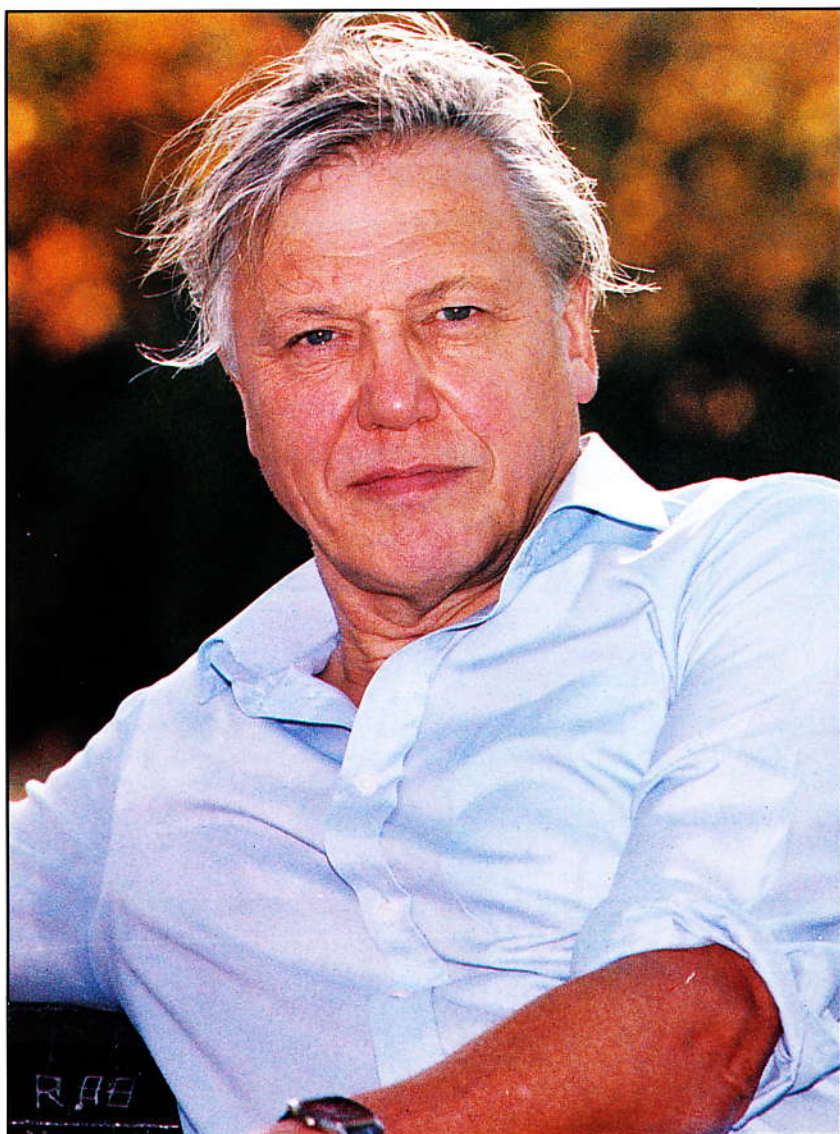
David Attenborough

David Attenborough is noted for his outstanding services to animal and planetary intelligence. His wildlife series for the BBC have become some of the most fascinating and popular programmes ever made.

His various roles throughout his career have included Controller of BBC2, BBC Director of Programmes and documentary

maker for the BBC. He has been responsible for the series: *Life on Earth* (1979), *The Living Planet* (1984), *The Trials of Life* (1990) and *The Secret Life of Plants* (1994) which have won a clutch of awards from bodies such as the Royal Television Society, the Academy of Natural Sciences and British Association of Film and Television.

David Attenborough



Francis Crick

Having originally been responsible for the cracking of the DNA code, Crick has now moved on to become one of the leading lights of general brain research. This polymathic approach is typical of the great thinkers.

Dr Marion Tinsley

Dr Tinsley has been draughts World Champion for 45 years and is arguably the most dominant World Champion in any activity. During his reign he has suffered the unbelievably small total of only seven defeats. In recent years he has both beaten and held to a draw the computer program Chinook - a program capable of calculating 12 million moves per second and having a database of over 100 billion positions.

Anatoly Karpov

Karpov was World Chess Champion between 1975 and 1985. Although he has had to be content with the status of world number two since being defeated by Garry Kasparov in 1985, he has consistently performed brilliantly in tournament play and has managed to sustain the number two position in the face of great strides by the younger generation. Furthermore, following the split in the chess world, he regained the FIDE World Championship title, by defeating Jan Timman of the Netherlands. In 1994 Karpov crowned a su-

perb tournament record by scoring 11/13 in the extraordinarily strong Linares super-tournament. This gave him a tournament performance rating of 2945 - the highest rating ever recorded in an individual event. In comparison, the highest individual rating (calculated over a series of tournaments) is 2815. This result resulted in Karpov winning the Chess oscar for 1994.

Anatoly Karpov will be at the 'Festival of the Mind' giving a chess simultaneous display against more than 30 opponents.

Bill Gates

Bill Gates is the founder and chairman of the Microsoft company which designs the software that runs on the great majority of the world's personal computers. At the age of 36 his business success has made him America's youngest billionaire. Gates' motto is 'I can do anything I put my mind to' and he is well known for encouraging greater intellectual achievement and cultural awareness within his company. He is also noted for a prodigious memory, astounding energy and stamina.

In January 1975, Gates took just five days to develop and write out an entirely new version of the computer language BASIC. A conservative estimate for a standard expert team, working conventionally on such a task, would be six months. Recently he purchased the famous Leonardo Codex for \$30 million (see Synaptic Flashes).

Michael Gelb

Michael Gelb is a black belt and teacher at Aikido as well as being the author of four best-sellers on the body, the brain and thinking. Gelb is a master juggler as well as being a TV brain star and top mental coach to Chief Executive Officers in the USA.

Steven Spielberg

Spielberg is the most successful film producer of the last ten years and is noted for his creativity and originality. He is also renowned for his intellectual ability and indefatigability. His *Jurassic Park* made brilliant use of new

special effects technology and was one of the biggest-grossing films of all time. Meanwhile, his *Schindler's List* swept the board at the 1994 Oscars.

Judith Polgar

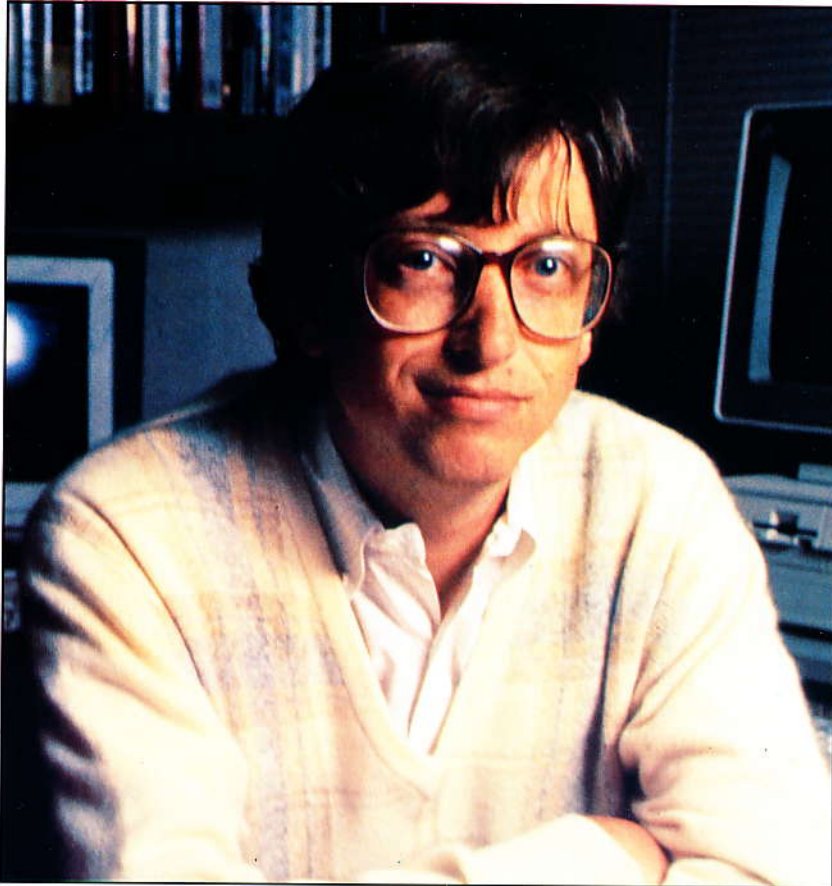
This Hungarian teenage chess prodigy has become the first woman to enter the world's top twenty chess players. In 1994 she scored a notable success in Buenos Aires, finishing with a 50% score in a world-class field that only lacked the world champion Kasparov from amongst the top players. She was then selected to play on top board for the strong Hungarian team competing in the 1994 Moscow Chess Olympiad.

John Major

Despite daily predictions of his imminent demise, Britain's Prime Minister has become one of the longest serving in British history. On a global scale, he has outlasted

Judith Polgar





Bill Gates

approximately 80 Presidents, Prime Ministers and official Heads of State.

David Hindley

David Hindley is noted for his groundbreaking research into animal and bird intelligence. He is the first investigator to discover that the skylark sings the equivalent of 28 symphonies a day. He is also known for his brilliant and original teaching of music as well as his charity work.

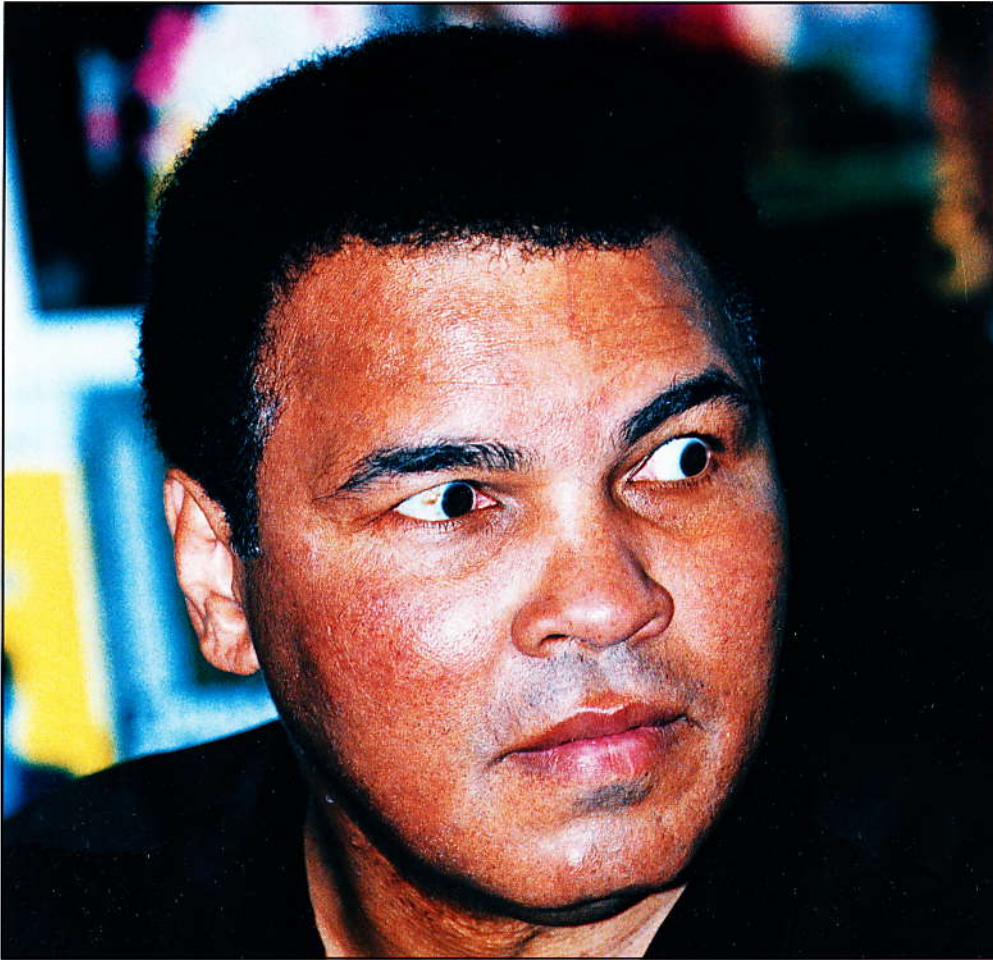
Jonathan Hancock

The new World Memory Champion produced an astonishing performance in the final event of the 1994 Memoriad. At the start of the event he was marginally ahead of the reigning champion, Dominic O'Brien, but card memorisation (the final event) is Dominic's forte. If Hancock was beaten here, he would have been overtaken in the overall standings. His response to the pressure was fantastic - he beat Dominic, the card memorisation king, by 27 seconds.

Watch out for the head-to-head rematch between Jonathan and Dominic at the 'Festival of the Mind'.



John Major



Muhammed Ali

Philip Bond

Philip Bond, a top arbitrage expert and trader established a new world record for the matrix memorisation of *Pi* (10,000 places). Bond has three degrees, in business, economics and mathematics and is also a multi-linguist. Being an adherent of healthy body, healthy mind, Bond is a keen sportsman and has been inter-university power-lifting champion.

Muhammad Ali

Muhammad Ali, the former heavyweight boxing World Champion, has the most recognised face in the history of the world. Despite suffering from progressive Parkinson's Disease, he has maintained an exceptionally active schedule for promoting reading schemes and literary projects while seeking to emphasise the intelligence of the athlete. He is still considered by many other champions, to be the greatest athlete of the twentieth century.

Nelson Mandela

Nelson Mandela has masterfully handled the transition of power in South Africa. In

Nelson Mandela



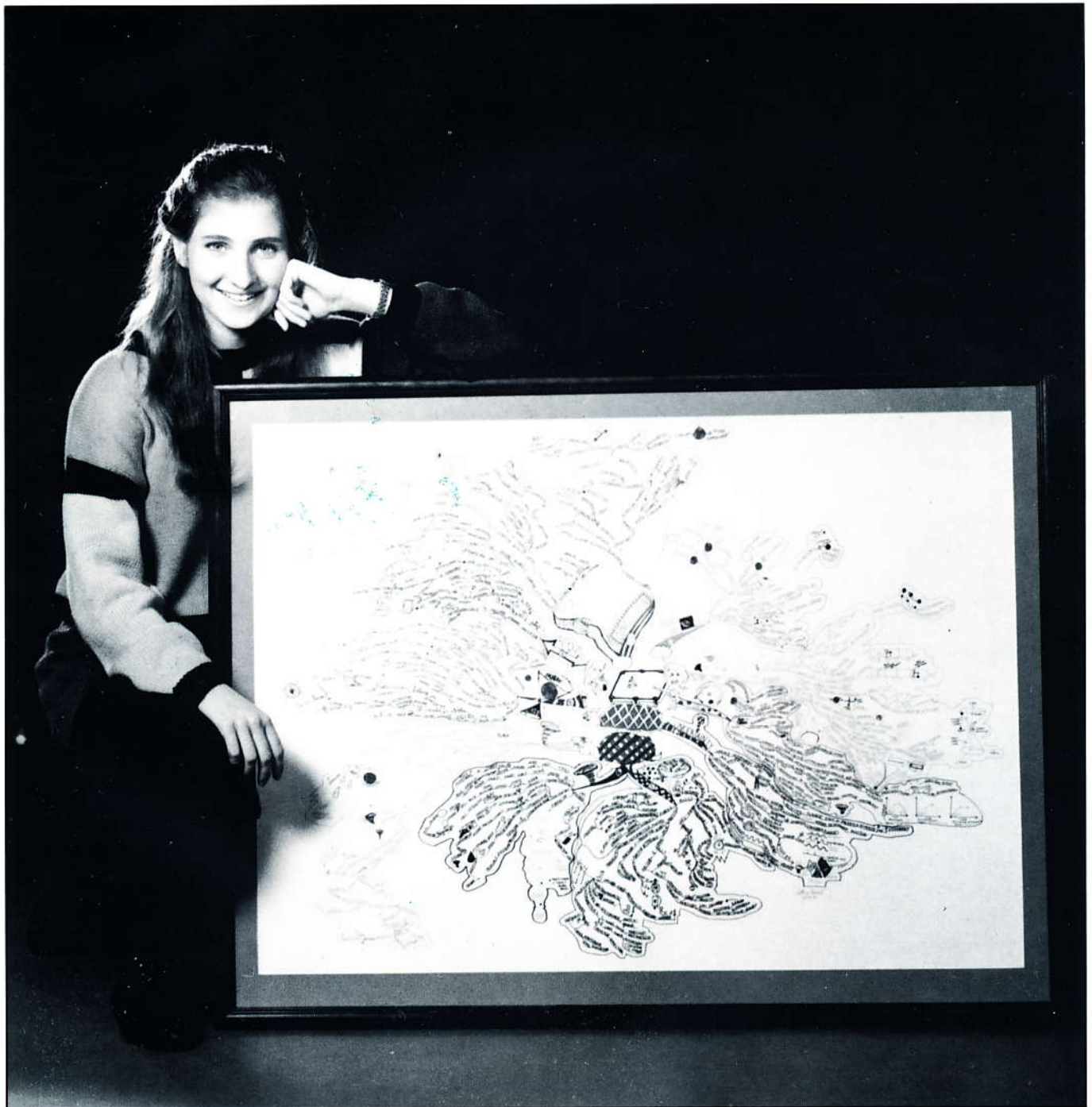
this, he has demonstrated exceptional stamina and determination. In May 1994 he was inaugurated as President of South Africa. He is dedicated to education and learning as a means of bringing about change.

Sarah Chang

Thirteen-year-old Sarah Chang is taking the classical music world by storm. She has already received the awards of Gramophone Young Artist of the Year 1993 and Classical

Music Awards Newcomer of the Year 1994. This gifted Korean-American violinist has been described by Yehudi Menuhin as 'the most wonderful, perfect, ideal violinist I have ever heard.' The normally taciturn *Gramophone* journal described her performance on her debut CD as follows: 'Her tone is pliant and imaginatively modulated, whilst every purely technical aspect of her technique seems to be already fully formed ... Sarah Chang will enthral and captivate you in equal measure.'

Lana Israel, joint winner last year with
Dominic O'Brien





Anatoly Karpov



Sarah Chang



Jonathan Hancock

JONATHAN AND DOMINIC GO HEAD TO HEAD

The 'Festival of the Mind' will feature a head-to-head memory challenge between the two current leading memory men, Jonathan Hancock (current champion) and Dominic O'Brien (champion in 1991 and 1993). We profile the two contestants, including a report by Jonathan Hancock on the trip to Bahrain that was his prize for becoming World Memory Champion.

Dominic O'Brien

Dominic O'Brien is the former World Memory Champion whose feats in this field will already be familiar to readers of *Use Your Head*. In the 2nd World Memory Championships, held at Simpson's-in-the-Strand last year, Dominic finished well ahead of the other competitors and established a number of new mental world records. His most impressive feat was perfect recall of one hundred digits spoken at the rate of one every two seconds. Dominic achieved this, under competitive pressure, not once, but twice.

Dominic became interested in memory only seven years ago, in early 1988, when he watched Creighton Carvello memorise a pack of cards on the TV programme *Record Breakers*. Intrigued, he sat down with a pack of cards and set about devising his own memory system. His first attempt was far from auspicious - he took 26 minutes and made eleven errors. However, Dominic persisted and it was not long before he could memorise not just one pack of cards, but several. He achieved his first record of six packs at County Sound Radio, Guildford, in June 1988.

Having first been inspired by Creighton Carvello, Dominic then obtained further motivation from the film *Rain Man*, in which Dustin Hoffman plays an autistic savant with a phenomenal memory. In one scene in the film, Hoffman uses his talent to help his brother, played by Tom Cruise, clean up at the blackjack tables in Las Vegas. This struck Dominic as a potentially lucrative outlet for

his talent and he spent the next six months analysing the game and developing his own strategy for success. Unfortunately, Dominic's meal ticket proved to be a temporary one. Casinos are wise to the techniques of card counters and Dominic is now banned from most of them.

In 1991 Dominic participated in the first ever World Memory Championships, held at the Athenaeum Club in London. In the final, the competitors were lined up head-to-head, and each given a pack of cards. On Dominic's left was the man who had inspired his own career, Creighton Carvello. Dominic started to deal, turning the cards over faster and faster, until Creighton lost his concentration. Dominic won the event and assumed the title of World Memory Champion.

Dominic does not recognise any limits to the potential of human memory and has continued to improve on his records and set ever more impressive ones. His achievements include: memorisation of a pack of cards in 55 seconds; 35 packs of cards (this particular task took 13 hours) and the entire set of Trivial Pursuit questions.

The number *Pi* (the ratio of the circumference of a circle to its diameter) has exerted a fascination over mathematicians for millenia. *Pi*, which starts 3.14159265..., is a transcendental number. This means it continues indefinitely, without ever dissolving into a repetitive sequence of digits. As such it is an excellent tool for memory tests. Dominic is currently planning an assault on the first 50,000 digits of *Pi*. This is a phe-

nomenal amount of information to store in memory: to read out 50,000 digits at the rate of one per second would take over 14 hours. Nevertheless, Dominic is confident that he can commit the number to memory over a period of just two weeks.

Dominic's feats should serve as an inspiration for anyone who wants to use his or her brain in a more efficient manner. After all, in an age of motorised transport, being able to run short distances very quickly is not a socially useful skill, but that does not prevent us from wanting to keep fit or from marvelling at the achievements of athletes such as Linford Christie and Sally Gunnell. Everyone who feels their brain may have become slightly flabby and is daunted at the prospect of, for example, learning a new language, should take inspiration from Dominic's achievements. Training your memory is a form of aerobics for the mind.

Jonathan Hancock

When Jonathan Hancock was 16, he developed the ambition to carve his own niche in the *Guinness Book of Records* and perused it at some length before lining up his target activity. Having considered the various options available, Jonathan chose to concentrate on the field of memory. Having always been interested in mental sports and card tricks, a world memory record seemed a natural objective.

The pursuit of this goal led him to compete in the World Memory Championships and in the previous two events, held in 1991 and 1993, Jonathan captured the silver medal. Last year he went one better and clinched the ultimate prize, becoming the 1994 OAG World Memory Champion and defeating Mr Memory himself, Dominic O'Brien, in the process. Most observers, having seen Dominic in action in previous events, would have offered short odds on him retaining the title. Jonathan, however, upset the form book to register a brilliant victory.

Jonathan is 22 years old and comes originally from Middlesborough. He is currently living in Oxford, having just completed his English studies for which he received a first-class honours degree. He did not expect to win the memory championship in 1994, as his academic studies had left little time for training. He was hoping instead to gain second place and to use this as a springboard for a concerted effort at winning the event

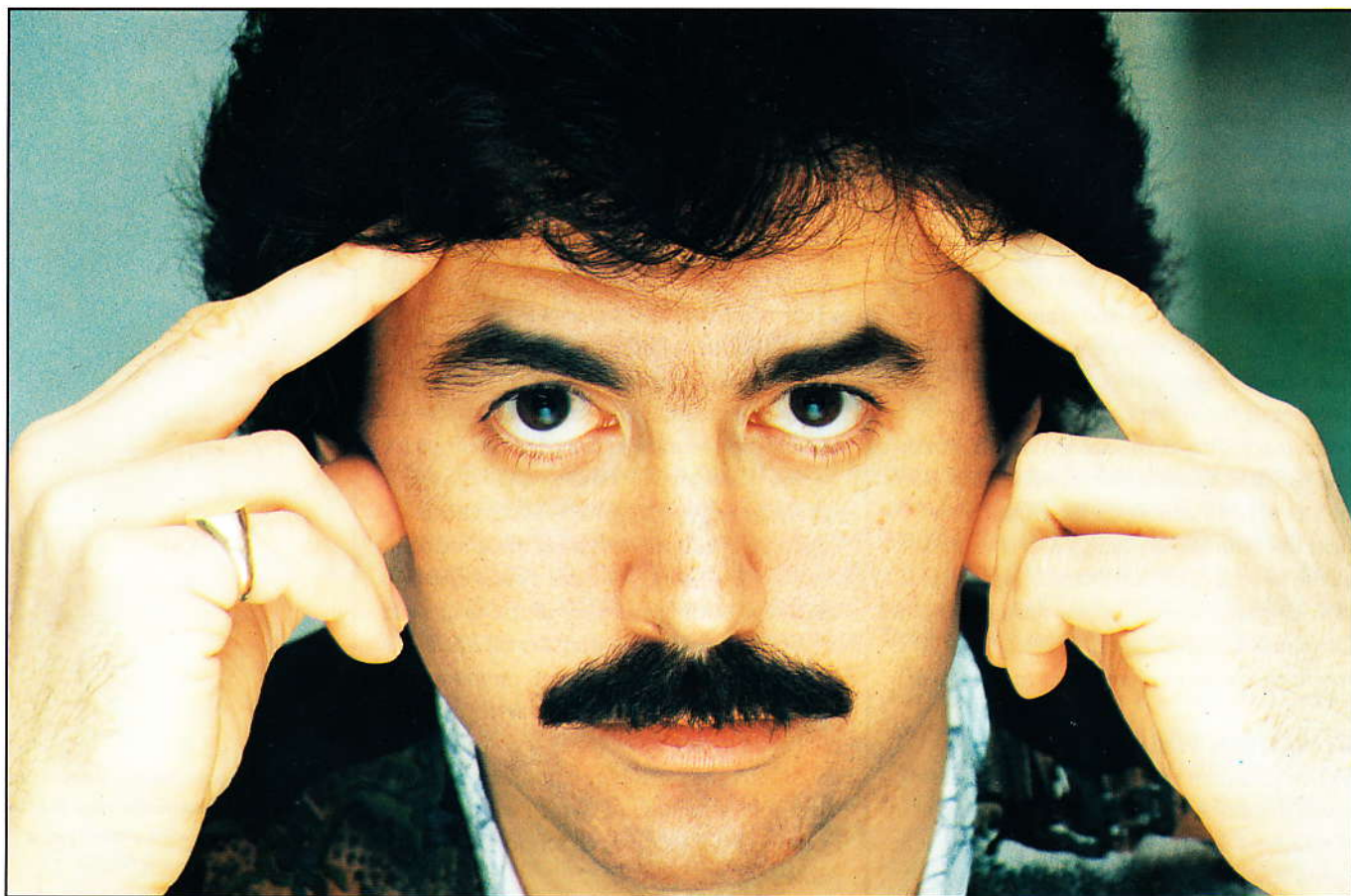
in 1995. However, a slip up in the penultimate round by Dominic O'Brien, winner of the previous two events, gave Jonathan the opportunity to forward his plans by a year, and he did not need a second invitation.

Jonathan trains his memory regularly, and is always on the lookout for new ideas for mnemonics and memory codes. In common with most other mental athletes, he is a firm adherent of *mens sana in corpore sano* (healthy body, healthy mind) being a keen swimmer and tennis player. He claims that his mental faculties are considerably sharpened after a session in the pool or on court.

The new World Memory Champion is currently juggling a number of activities including working at weekends for Oxford Radio. Radio work provides a good opportunity for putting memory to the test, since it involves a great deal thinking on one's feet. He is also writing a book on memory, *Jonathan Hancock's Mindpower System* (to be published in July by Hodder and Stoughton) and is currently planning a number of talks on memory techniques which will be used as the basis of lectures to schools and companies.

Jonathan Hancock, winning the final, and crucial, card memorisation event from the 1994 Memorial which enabled him to finish ahead of Dominic O'Brien.





Dominic O'Brien

Those Magnificent Men; Jonathan Hancock reports on his recent trip to Bahrain

A white, dotted line, stretching across the desert. Cleaned, rolled sand as far as the eye could see; a landing strip created from nowhere; a victory for dreams over practicalities.

Sir Winston Churchill said 'true genius resides in the capacity for evaluation of uncertain, hazardous and conflicting information'. If that's true, then Peter McMillan and Lang Kidby are geniuses of the highest order. The landing strip was for them, and in the baking heat of a Bahrain morning they started their evaluation.

That afternoon they would fly their replica Vickers Vimy bomber from Bahrain Airport, and land on the sand in front of thousands of spectators. It was to be the main event of their stop-over in Bahrain, the state that had provided much of the money for their historic journey. In the largest ever replica plane, they were flying from England to Australia to recreate the first time that journey had been made, in 1919.

My prize for winning the World Memory

Championship was to join them during their stay in Bahrain, and as I stood with them in the middle of that amazing landing-strip, I began to realise how appropriate that prize had been. The information they were being presented with was 'uncertain' - how would they *find* this landing site, and how would the Vimy's landing-gear cope with the sand? It was 'hazardous' - what if the wheels skidded, or failed to grip when it was time to take off again? Horses would be parading either side of them, but how would the animals react to a noisy aircraft? And the information seemed more and more 'conflicting'. The wind direction appeared to be changing all the time, and every member of the organising committee had a different view of how the fly-past and landing should take place.

The two pilots relied on their experience, and on the techniques and systems they had developed and practised. In Bahrain, just as in every place they landed, they wouldn't know the exact conditions until the very last moment, but their knowledge and skill gave them the confidence they needed to be able to cope.

A powerful memory gives you similar



confidence. You develop systems and techniques, practise your skills and hone your ability, then test them in 'uncertain' circumstances. In daily life this means evaluating and remembering many different sorts of information; names, faces, numbers, words... In memory competitions, it means doing the same thing under pressure, in a situation where a single slip could be fatal. Preparation is vital, but, until the very last minute, you don't know the exact details of the challenge. Confidence is the key.

This confidence spills over to other areas. Kidby and McMillan grew as men as the length of their journey grew across the globe. Peter McMillan, his friends told me, was becoming a skilled public speaker through having to address welcoming committees in each new country. As they applied their known skills to more and more unknown situations, and evaluated more and more challenging information, they grew in confidence to be able to handle *anything* - bureaucratic tangles, as well as sandy

Jonathan Hancock

My training program involves swimming, weight-training and long walks, and I'm inspired by the example of World Chess Champion Garry Kasparov, whose physical training is as complete as his study of the chess-board.

runways.

I've grown to appreciate the confidence that a good memory gives. When I talk on radio or television, or speak to interested groups and conferences, I try to make the talk itself a demonstration of the benefits of memory. Speaking without notes allows you to keep in contact with your audience, to make them feel that you are talking to them and not at them. Memory techniques help you to order all your information in the first place, and to present it in a logical, ordered way. Most of all, an insight into memory allows you to make your speech memorable - to keep the audience engaged, and to give them information and ideas that they remember.

I also feel confident enough to handle any sort of information. In memory championships, the categories change and combine, but the same basic memory principles can be applied to them all. For me, the 'unknown' factor is what makes it so exciting.

Lang Kidby and Peter McMillan both underwent physical training before they embarked on their journey. They found that it paid off, but not just in terms of physical results. As they flew for hours on end, facing possible dangers at every moment, they used their physical strength as the foundation for their *mental* well-being. 'A healthy mind in a healthy body'; their concentration had to be unwavering, and they climbed out of the cockpit each day feeling shattered mentally as well as physically.

For me, mental and physical training have always gone hand in hand - but now more so than ever. As I set myself greater and greater goals, I realise the need for bodily health as the springboard for mental achievement. My training program involves swimming, weight-training and long walks, and I'm inspired by the example of World Chess Champion Garry Kasparov, whose physical training is as complete as his study of the chess-board.

Health, both mental and physical, allows you to pursue your goals and succeed on your own challenging journey. Kidby and McMillan started from England and set their eyes to the distance, adding mile upon mile

to their progress and meeting more and more people, seeing new and amazing countries. They inspired me to expand my own experiences and increase my achievements, and to develop a similarly wide range of skills.

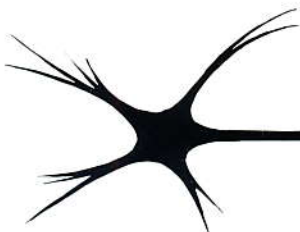
At present, as well as presenting programmes and giving talks, I'm writing my second book on memory. The first, *Jonathan Hancock's Mindpower System*, will be published by Hodder and Stoughton in July, and is already giving me the opportunity to explain to more and more people the benefits of memory training, as well as the excitement and satisfaction it brings. The memory championships themselves are growing and developing, as interest in mind sports expands worldwide, and the future possibilities are endless.

The 'Mortal Memory Combat' at the Festival of the Mind adds a new element to the competition, as computers are brought in to challenge the brain even further. The whole event will throw the spotlight onto the greatest computer of all, the human brain, and highlights so many different spheres of activity. Behind success in them all lies dedication, mental and physical training, and the confidence to journey towards any goal - no matter how distant it appears.

In 1994, if you were sitting in the cockpit of a Vimy bomber at an airfield in England, Australia would have seemed as distant as it did in 1919. But Peter McMillan and Lang Kidby succeeded in their task, beating challenges and dangers every day.

On that afternoon in the Bahrain desert, they faced shifting sands and poor light, but thrilled the crowds with a perfect landing. When they took off again, they were within a few feet of crashing off the end of the runway when, to gasps from those watching, their plane left the ground and rose into the sky. They had judged it perfectly, but were using their skills to push themselves to the limit.

Later in the trip they would crash land on an Indonesian beach, but employ all their ingenuity to organise the re-building of the plane and make it to glory in Australia. True geniuses indeed.



AMAZING MEMORY STORIES

The Discovery of the Rules of Memory

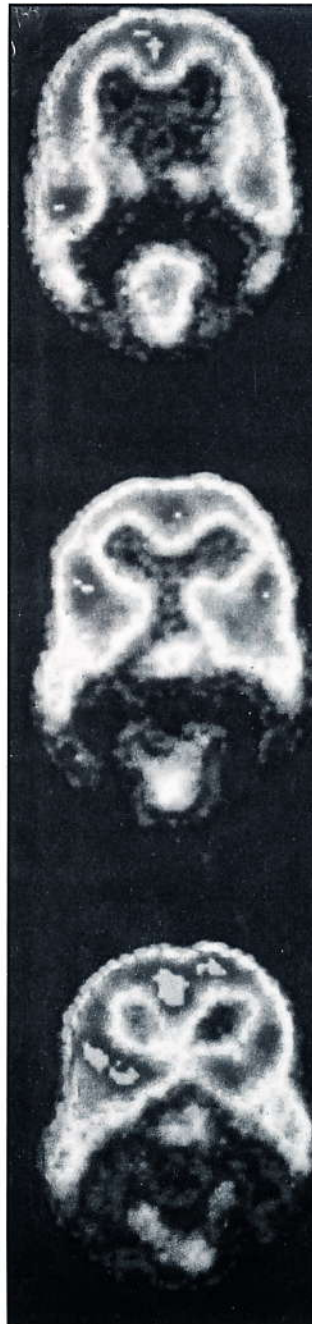
In his Rhone-Poulenc Science Book of the Year award-winning treatise *The Making of Memory: from molecules to mind* (published by Bantam Press and reviewed in *Use Your Head* magazine, Vol 4 No 1) Professor Steven Rose narrates the story of the discovery of the rules of memory by a poet called Simonides, who lived around 477BC.

Simonides' story first appears in *De Oratore* by the Roman politician and writer Cicero. Cicero relates how Simonides was commissioned to recite a lyric poem in honour of the host of a banquet, the Thessalonian nobleman Scopas. However, the poem also contained praise for the twin gods Castor and Pollux which displeased Scopas that he would only pay Simonides half his fee, suggesting that the other half be collected from the gods. Later in the banquet Simonides received a message that there were two people waiting to see him and just after he left the hall the roof collapsed, killing everyone there and mangling the corpses into an unidentifiable state. The two young men who had summoned Simonides were of course Castor and Pollux, taking revenge on Scopas and rewarding Simonides.

The most remarkable piece of the story was that Simonides was able to identify the bodies for relatives by remembering the sequence in which they were sitting at the banquet table. This experience led to Simonides realising the principles of memory of which he is supposedly the inventor. He had discovered that the fundamental key to a good memory is the ordered arrangement of the objects to be remembered.

According to Cicero: 'He inferred that persons desiring to

train this faculty must select places and form mental images of the things they wish to remember and store those images in the places, so that the order of the places will preserve the order of the things, and the images of the things will denote the things themselves, and we shall employ the places and images respectively as a wax writing-tablet and the letters written on it.'



THE MAKING OF MEMORY

From molecules
to mind

STEVEN
ROSE

THE MIND MAP MODE

RADIANT THINKING

For many people Tony Buzan's technique of Mind Mapping has revolutionised the way that information can be visualised. Now, with the development of the Kubus® System by a team from Copenhagen, even more is promised.

Mind Mapping is the cornerstone of Tony Buzan's technique for using the brain to its full potential. Having struck upon the concept in the early 1970s, he has continually refined and developed it and recently wrote a book about it with his brother, Barry Buzan. In *The Mind Map Book* (BBC Books) Tony and Barry Buzan define Mind Mapping as follows:

'The Mind Map is an expression of Radiant Thinking and is therefore a natural function of the human mind. It is a powerful graphic technique which provides a universal key to unlocking the potential of the brain. The Mind Map can be applied to every aspect of life where improved learning and clear thinking will enhance human performance. The Mind Map has four characteristics:

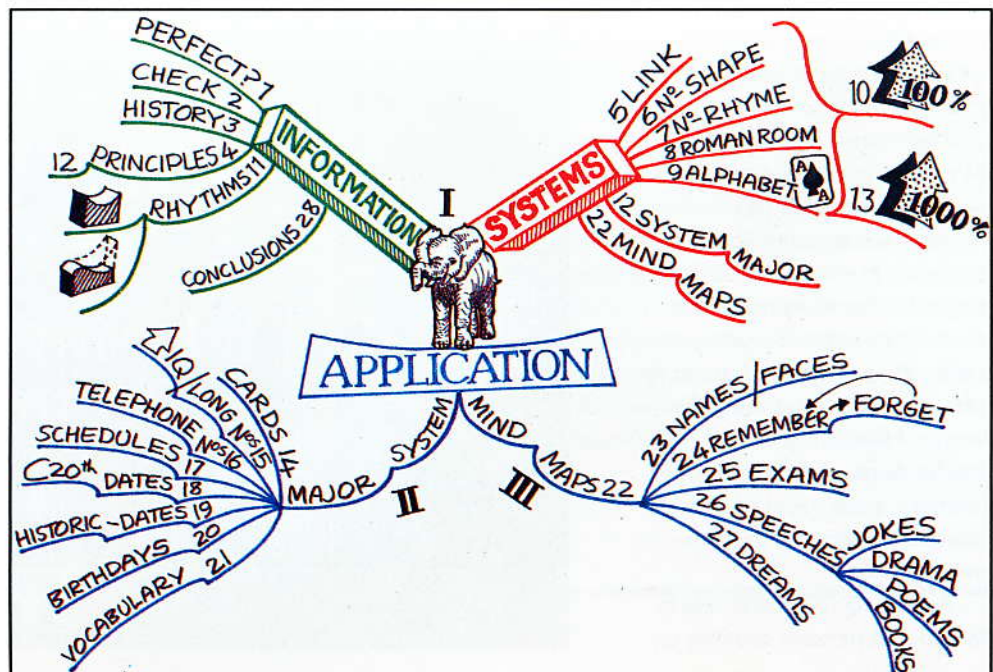
- a) The subject of attention is crystallised in a central image.
- b) The main themes of the subject radiate from the central image as branches.

c) Branches comprise a key image or key word printed on an associated line. Topics of lesser importance are also represented as branches attached to higher level branches.

d) The branches form a connected nodal structure.

'Mind Maps may be enhanced and enriched with colour, pictures, codes and dimension to add interest, beauty and individuality. These in turn aid creativity, memory and specifically the recall of information.

'Mind Maps help you to make a distinction between your mental storage capacity, which your Mind Map will help you demonstrate, and your mental storage efficiency, which your Mind Map will help you achieve. Storing data efficiently multiplies your capacity. It is like the difference between a well-packed or badly packed warehouse, or a library with or without an ordering system.'



A Mind Map about Mind Mapping

Innovative Brainpower and the Kubus® System

When studying contemporary literature on innovation, case stories are always reconstructed from retrospective bits and pieces. The persons involved will try to rationalise what factors determined their success - this is where reconstructions are most valid. In most cases a journalist or a researcher interviews the company manager and others to establish their story. Nothing wrong with that. But knowing human's selective perception and the urge to rationalise retrospectively in order to understand important events in their lives, and the reporters' even greater urge to rationalise, we know that is not what 'really' happened.

In our research on innovation and innovative processes we have found that some very interesting stochastic elements influence the innovative processes *while they are occurring* - not after they have taken place. We are interested in discovering the mystery of creativity and innovation and the KUBUS® System is just one way of doing it. This article will explain how. We would be delighted to hear about other systems if they exist.

Let's go back to 1989 at the Center for Innovation and Entrepreneurship at the Copenhagen Business school. A group of graduate students representing a wide variety of faculties and different universities undertook a pilot course in 'Innovation and Entrepreneurship'. The question was: How could they form teams and do innovative projects? To which the answer was: They couldn't. They had different backgrounds,

methodology, conceptual framework and competencies. They couldn't communicate. Nothing happened. Henrik Herlau from CIE was challenged to find out why the 'cream of youth', supposedly the best brains in the country, were unable to come up with anything but endless discussions, coffee and the lowest common denominator.

This was the start of the development of the KUBUS® System. During the next four years this KUBUS® model was developed, tested and improved. In essence the model is very simple, but its great strength is that it provides structure to the unstructured - to create order in the chaos of creativity. The KUBUS® System is applied during the chaotic phase of a project, i.e. before thoughts and knowledge are merged into ideas and projects. The logic of KUBUS® is as follows:

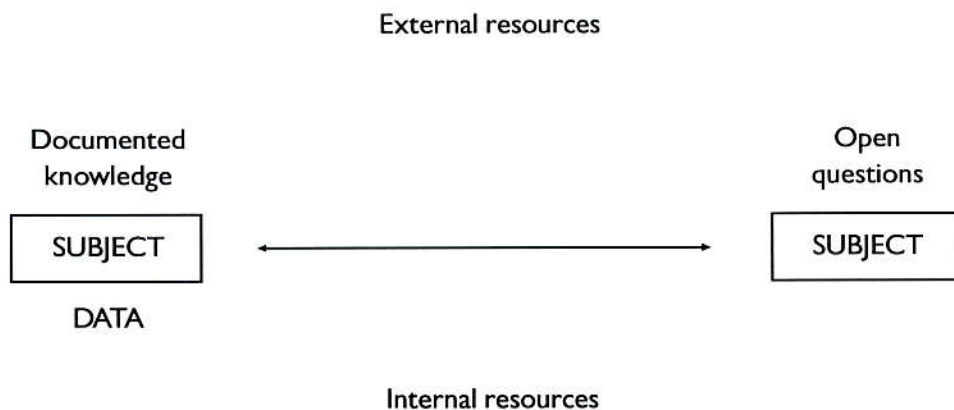
Whatever subject we want to cover must exist on a continuum between what we know (documented knowledge) and what we do not know (open questions). Furthermore this subject can be dealt with from the area of the group's internal resources as well as from the external environment (See figure 1.). External resources cover everything outside the project team. Internal resources are at the team's disposal.

If we now combine these four dimensions we get four 'arenas' where the team can 'play'. These arenas constitute the frame of reference (see figure 2.).

Arena 2 combines external resources with open questions. This arena offers indefinite opportunities. Open questions may

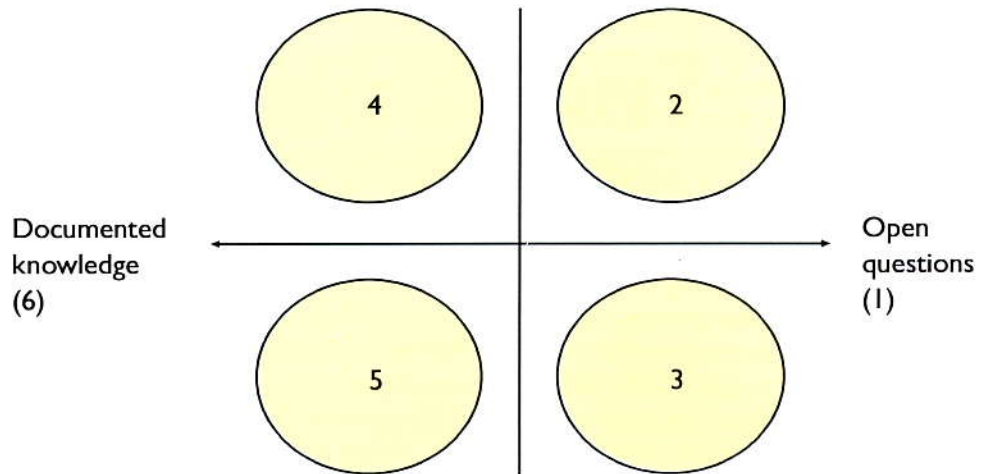
This article is about a vision. A vision of visual teams using the potential of information society for innovation using Tony Buzan's Mind Maps, his new Mind Map Plus for Windows and the KUBUS® System. We are at the beginning of this vision: teams of some of the best students from different universities across Europe already work with this programme.

Fig 1: Documentation versus open questions



Lotte Darsø holds an M.A. in Psychology and is a researcher at the Center for Innovation and Entrepreneurship at the Copenhagen Business School.

Fig 2: KUBUS® arenas



be answered by investigating the immense amount of data available in the surrounding world. This arena is called **External data**.

Arena 3 combines internal resources and open questions. Here the human resources of the team are organised. The organisation is dynamic and open. Each person adds value to the team wherever possible - with expertise, skills, competencies and experiences. This arena is called **The team**.

Arena 4 covers external resources on more solid grounds. It deals with established contacts to companies, experts and key persons. This arena is called **Networks**.

Arena 5 is a combination of internal resources with documentation. This arena is often called project management, but is merely about planning of time and resources (e.g. man-hours and budgets). This arena is called **Time/resource management**.

The KUBUS® Model in fig. 3 consists of three diagonals linking complementary areas. 1 is complementary of 6, 2 of 5 and 3 of 4 - like sides of a dice. Following this complementarity, *switching arenas takes place across the diagonals*.

The logic is as follows: When discussing arena 2, external data, e.g. about doing some market research, it is natural to pull over to KUBUS®-5 and find out about time and resources available for that task. Arena 2 will often reflect the professional methods of the team members opposed to time/resource management.

When discussing internally (KUBUS®-3) who possesses expertise in a certain area, e.g. market research, it is relevant to pull

over KUBUS®-4, networks, and find out if a team member knows a key person who can help. The knowledge of the team must be complemented and given feedback from 'outsiders'. Finally, as the documented knowledge is continuously added and integrated, it is natural to pull over and ask new open questions based on the new insights (see figure 3.).

At the same time the model is dualistic - like the brain. The right side of the model (KUBUS® 1, 2 and 3) covers the open creative processes whereas the left side of the model (KUBUS® 4, 5 and 6) aims at more solid knowledge. This duality is furthermore exploited in the leadership functions, which are roles played by team members taking turns. The 'green' leader covers the creative processes related to KUBUS® 1, 2 and 3. The 'red leader' is responsible for documentation, networks, and time/resource management. The duality reflected in the model links very well with the rationale of Mind Mapping.

A very important tool for the green leader is Tony Buzan's Mind Maps. This method is used both for recording the innovative process as well as for chairing the 'green' part of the meeting. The Mind Map helps the reader find the difficult balance between creativity and overflow.

The red leader records decisions, tasks, dates and names. It is this person's responsibility to make the 'best' decisions and to keep up a high discipline regarding documentation. Everything is recorded in the KUBUS® Template which has been set up in the form of a Mind Map in order to give the best overview of the project.

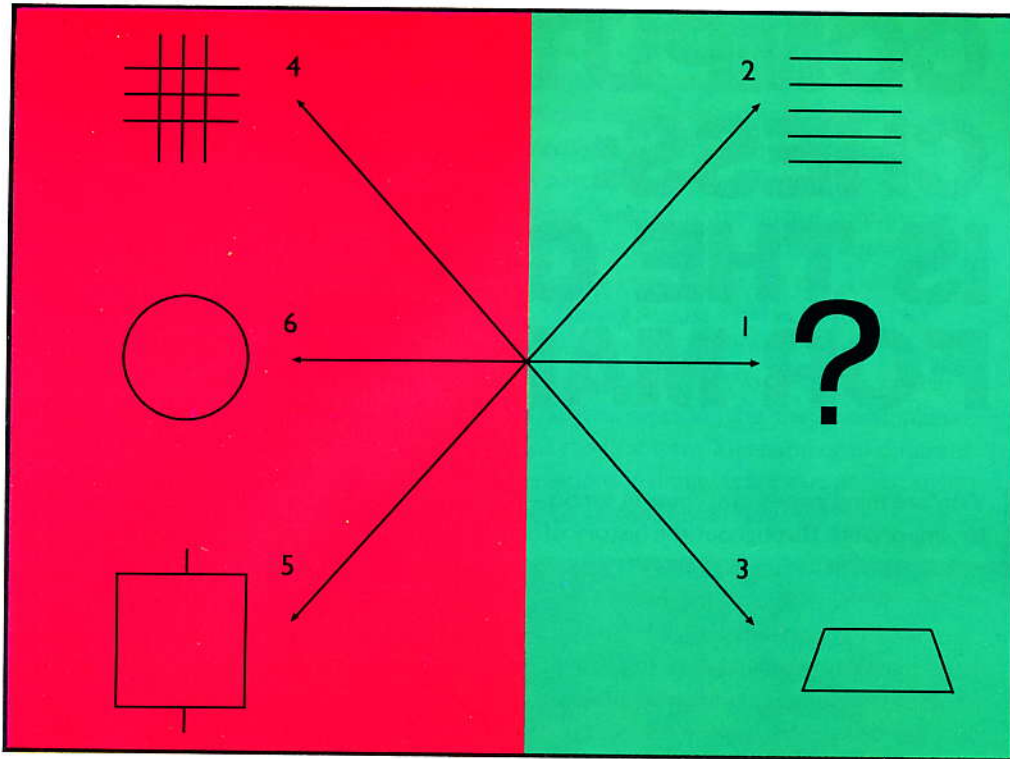


Fig 3: The KUBUS® model

The KUBUS® Template has one major function: **Communication**. The Template contains a record of every major move the team makes. Meetings are recorded, both process and ideas (green Mind Map) as well as decisions and tasks (red log). Network contacts are listed. Week plans are recorded. This demands a high level of team discipline. The benefit for the team is that the Template helps the team become a 'learning organisation', able to review their successes as well as their failures in order to learn from them and to learn about innovation. KUBUS® teams learn about innovative processes as they are happening. But this is only possible because everything is recorded: written material on the Template and KUBUS® meetings on video.

When studying innovative processes and creativity, Mind Mapping has turned out to be an important recording tool. Furthermore it is used as a desktop for the KUBUS® Template. However, just recording the information of a project is not our goal. What we are looking for is the **exformation** of an innovative project - the depth of information. The concept of exformation comes from a Danish scientist Tor Nørretranders (*Mærk Verden. En beretning om bevidsthed*, Gyldendal 1991). He states (my translation): 'Exformation is

the history of a statement, information without exformation is empty talk; exformation without information is not exformation, but just discarded information.'

By communicating on the basis of exformation we believe a genuine collaboration can take place between KUBUS® teams in the creation of innovative projects.

This vision is already being formed. The University of London has started a pilot KUBUS® course for undergraduates and a Cube Centre has been set up at Brookfield Business School, Belfast. A KUBUS® team has been formed in Belfast dealing with the recycling of building waste and this team collaborates with another in Hillerød, Denmark. The Belfast team works in the context of a city that needs a lot of rebuilding, and this is an area in which the Danish team already have a lot of know-how. Communication occurs via the KUBUS® Template, so the exformation of the project can be shared. This will help both teams become 'learning organisations'. The vision is job creation, both in Ardoyne, Belfast and eventually also in Denmark.

We look forward to applying Tony Buzan's new Mind Map application for Windows, which will be presented at the 'Festival of the Mind' and which we hope will make the exformation even more explicit.

When studying innovative processes and creativity, Mind Mapping has turned out to be an important recording tool.

a PC, defeated the World Chess Champion, Garry Kasparov, in a tournament game in London.

The Case for the Computer

Richard Lang is an unrecognised British genius, 38 years old, married with two girls and one boy and now living in Poole, Dorset. Lang's modest, unassuming and even retiring manner belies the fact that he is one of the sharpest brains working at the forefront of artificial intelligence. It was his computer program, Chess Genius, with its ability to calculate 3.6 million different chess positions every minute that, on Wednesday August 31st 1994, rocked the chess world by eliminating the world chess champion, Garry Kasparov, from the \$160,000 Intel Grand Prix, in London.

'Before we beat Kasparov I thought it would be ten to twelve years before computers could compete on level terms with the human champions,' said Lang. 'However, after beating Kasparov I would now say that this time will reduce dramatically. One day machines will win all the time and take the world title. It's inevitable.'

Lang's program, Chess Genius, retails in disk form for less than £100 and runs on any IBM-compatible machine and is especially formidable on the Pentium processor. It was this combination that Kasparov faced in this fateful game. Chess Genius has won the World Championship for microcomputers on nine occasions, the last of these being at Munich in 1993. This makes Chess Genius the reigning computer champion, just as Kasparov is the reigning human champion.

Lang's profession is computer programming for commercial chess products, but as a student his subject was physics at London's Imperial College. He regards himself as near the lower echelons of international recognition in terms of his own chessplaying strength. 'My British Chess Federation rating would be about 180 which translates to approximately 2070 on the international scale,' said Lang. 'Nevertheless, although I do not play in tournaments, my actual understanding of chess is much greater, in terms of strategy and general rules.'

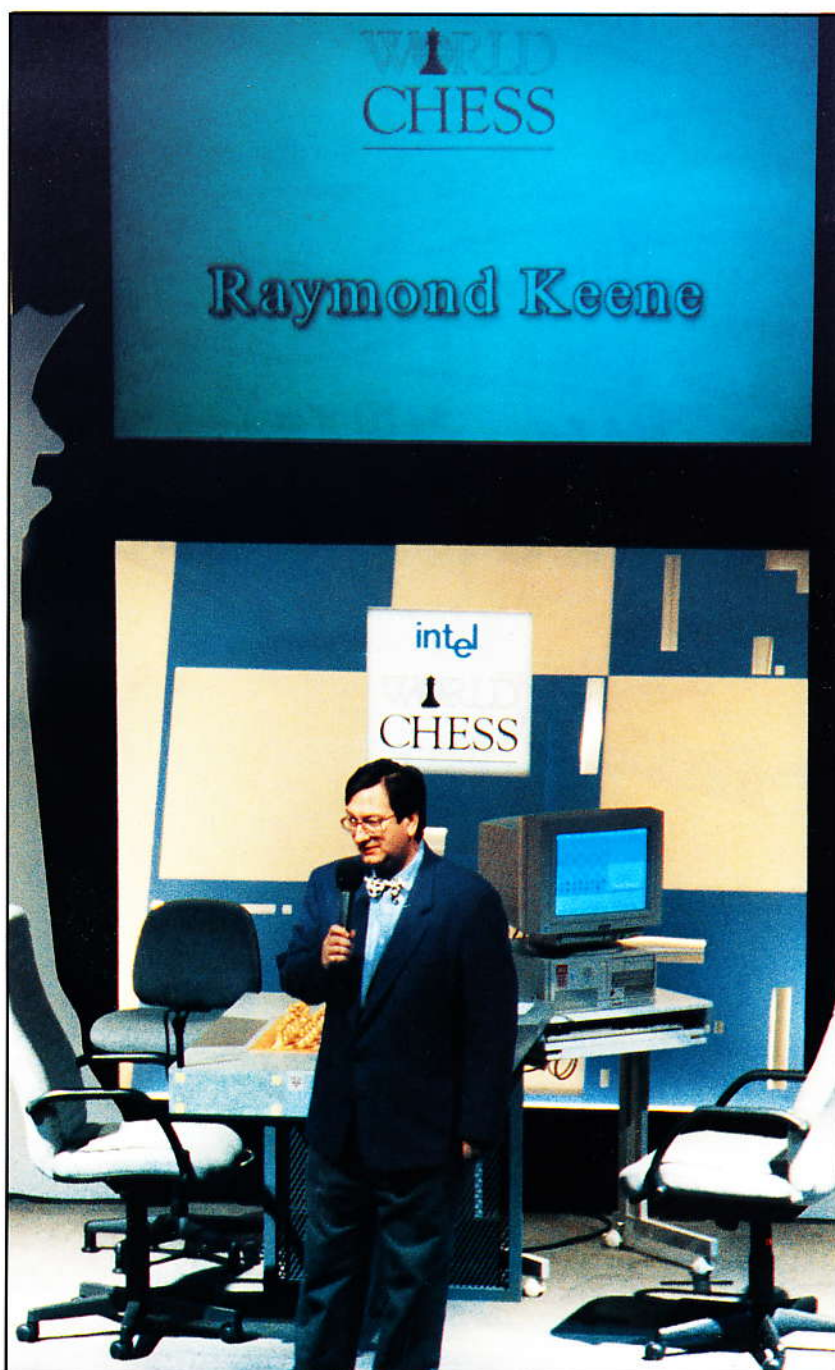
Herein, perhaps, lies the secret of Lang's spectacular and historic triumph against Kasparov. He actually tried to transfer his own intelligence into his machine, and when discussing his invention he embraces re-

markably anthropomorphic terminology.

'Chess Genius does not adopt a brute force method, analysing all moves possible to immense depth. Instead my program uses its intelligence to throw out those lines which it perceives as not promising and searches more deeply into the lines it considers interesting. It has a lot of chess knowledge. It knows a great deal about the game.'

During August 1994 in Boston, Massachusetts, a Canadian computer program, Chinook, won the World Championship in draughts, replacing the human champions for the first time. The number of different positions in draughts appears at first sight to be astronomical, namely

Raymond Keene acting as MC at the Intel Grand Prix where the Pentium Genius defeated World Chess Champion Garry Kasparov





Garry Kasparov in play against the Pentium Genius

500,995,484,682,338,671,693. Chinook, however, was able to excel in draughts precisely because of its brute force approach. That number, colossal though it might appear, is infinitesimally small compared to the possible number of chess positions, which is approximately that number against but, staggeringly, multiplied by itself. In other words 10^{70} for draughts as opposed to 10^{40} for chess. Sheer brute force stands no chance in such a forest of numbers and this is where Lang's approach, using what he calls the machine's 'intelligence' to thread its way selectively through the tangle of variations, has evidently paid off.

Lang's partner is the 40-year-old Munich architect Ossie Weiner. Having designed a Munich school he lost interest in his initial profession and switched to the testing and selling of chess computers. 'I provide the openings variations for Chess Genius and I also test it continually against all of the best of our rival programs,' Weiner said. 'Chess Genius is playing other programs all the time, day and night. They are all connected by cables. I look for mistakes, analyse the games carefully and constantly feed through my conclusions to Richard in England.'

Herr Weiner operates the machine in play, since he is an experienced tournament player himself and can make the moves more quickly, while entering them into the program's memory. His reaction to his team's victory against the World Champion was, though, mixed. 'I have been having a repeated dream for years that I would sit across the board from the World Champion with our machine and beat him face to face. When it actually happened, though, I felt so pitiful for Kasparov. It was a terrible moment. He was so shocked. I almost felt our victory had been hollow.'

Kasparov, who regards himself as being in the forefront of human resistance against the relentless advances of the machines, was clearly devastated by this defeat. During the two-game match it was not even necessary to follow events on the board to discern what was happening - Kasparov's body language said it all. He spent long periods of time fidgeting uncomfortably, mumbling to himself and shaking his head in disbelief. Following his sensational elimination by the computer, he left the tournament hall immediately, without saying a word to the press.

Chess programs have caused upsets before, but these have invariably been in chess games played at very fast time limits - typically five minutes per game. At this sort of speed, even world-class grandmasters can make serious errors and upsets are common. However, the Intel Grand Prix tournaments are held at the speed limit of 25 minutes per player, which is sufficient to avoid outright blunders and usually allows the better player to win.

The Case for the Humans

So, does this result herald the beginning of the end for human superiority in the field of chess? Many commentators think so. Frederic Friedal, a German computer chess expert, predicts that a computer will be World Champion by the year 2000. Lang himself is a little more circumspect: he previously thought it would be ten to twelve years before computers could compete on level terms with the human champions but, following this recent success, he now thinks that this time frame will reduce dramatically. Even many chessplayers think the game is up, complaining that as computer processors become yet faster the chess programs will soon become invincible.

But I don't believe it! At the moment, there exists a kind of collective fear amongst the top grandmasters when they face computer opposition. Knowing that small tactical inaccuracies will be ruthlessly exploited and that their opponent will never get nervous or tired, they approach such encounters like rabbits transfixed in the headlights of an oncoming car. I think that this is the main cause of Chess Genius's recent success. Competing against a computer is a completely different proposition from facing a human opponent but, at the moment, I have not seen much evidence of players adjusting their strategy to cope with the differing circumstances. Once the top grandmasters make a concerted effort to study computer chess programs, in the same way that they normally prepare for any serious opponent, then I think the results will be very different. Kasparov is a very proud man and I suspect he simply did not believe that he could be beaten by a mere machine. Next time he will have more respect and be better prepared.

The Pentium Genius did, in fact, register a further upset in the Intel event when it defeated Grandmaster Predrag Nikolic in the quarter-final stage. However, in the

next round it came up against the Indian Grandmaster Viswanathan Anand and the two games played in this match showed why computer programs still have a very long way to go before they will be able to score consistently against the top players.

Computer First

For the first time in history a machine nearly achieved an International Master norm in a regular grandmaster tournament, held in Bad Godesberg at the end of last year. The program, Fritz3 running on an Olivetti 90mhz Pentium PC, scored 50% to achieve a performance rating of ELO 2452. This puts it in the bracket of the top 50 players in Germany. The performance was more than 100 points better than that achieved by the IBM research computer Deep Thought in Hannover 1991, where it played in a GM tournament and was rated 2326. Deep Thought costs millions of dollars, whereas Fritz3 is available in high street stores for less than 200DM.

The most remarkable aspect of the Fritz/Pentium performance is that it was not achieved in blitz or rapid chess but at regular tournament speed (two hours for forty moves). These time controls are supposed to favour humans, so grandmasters were confident of beating computers when they had so much time to ponder their moves. In Bad Godesberg Fritz, in fact, scored a plus against the four GM opponents with an incredible performance of 2652 against them. The overall result was not so good because, ironically, the weaker International Masters had prepared for the computer, using identical copies of the program, which can be bought in any chess store! In other words, persistence, training, determination and sheer study, will pay off against both human and silicon opponents!

As an amusing conclusion to this argument let me quote an extraordinary case reported in *New in Chess* magazine issue 8, from 1994. '12-year-old Tommy Friedel (German computer expert Frederic Friedel's son) played two games against an Olivetti M6 Suprema computer with a 90 Mhz Pentium processor running the Chess Genius program, essentially the same opponent that defeated Garry Kasparov. Tommy decided to copy Grandmaster Anand's moves in his two wins against the Pentium Genius. Amazingly, the computer obligingly complied and lost two identical games. A triumph of preparation!'

Kasparov is a very proud man and I suspect he simply did not believe that he could be beaten by a mere machine. Next time he will have more respect and be better prepared.

MIND SPORTS: PSYCHOLOGY OF THE CHAMPIONS

The last few years have seen an explosion of interest in mind sports as reflected by the Kasparov v Short World Chess Championship in 1993 which had a prize fund of £1,700,000. Tony Buzan charts this amazing phenomenon.

The Growth of Mind Sports

Since the dawn of civilization some ten thousand years ago, history has recorded that man has been a games player. The earliest writings of ancient civilizations regularly make reference to games similar in concept to tic-tac-toe (noughts and crosses). As a civilization progressed, so did the complexity of its games.

The trend of the growth of games over the centuries has been a fascinating one, and has now reached a point of critical mass that not only gives rise, but inevitably leads, to an evolutionary change in the way in

which we engage in combat, entertain ourselves, and think about our intelligence. Fascinatingly, all major mind games have followed an identical growth pattern:

Stage 1

A single originator or small group of originators come up with a new creative idea for a game testing mental skills.

Stage 2

The new game is introduced to a wider range of players, and a small band of cognoscenti forms a loosely knit group of players.

Stage 3

The loosely knit group of mental athletes becomes an informal 'club'.

Stage 4

The club generates a club 'champion'.

Stage 5

The club becomes more formalised, and multiplies, giving birth to other clubs similar in form to the original, each with its own champion.

Stage 6

Players emerge who become the recognized leaders, experts, theorists and champions of the game.

Stage 7

Formal competitions are organised, and local official champions appear.

Stage 8

Literature is produced on the background and theory of the game, and formalised rules become established game-law.

Stage 9

National and international competitions arise, and national champions and a world champion are crowned. Concurrent with this stage is the proliferation of articles, magazines and books on the subject, and the evolution of different 'schools' of thought on the game.

A natural limitation to the growth of Mind Sports has been the fact that in most



Muhammad Ali ... His visions of victory were so complete that he would describe in detail, the round by round progress of many of his fights, culminating in the round and type of victory, four months before the fight.

the 'Tournament of the Mind' in *The Times* and the 'Mastermind' programme on BBC TV have attracted big followings. Hundreds, and in some cases a thousand or more, competitors descend on towns and cities for Chess, Bridge, Go, Scrabble, Monopoly and other championships, and the demand for literature, clubs, playing venues and competitions increases steadily.

Evidence is growing that the dominance of physical sports as the more popular medium of human expression over Mental Sports was not the reflection of an innate preference, but the reflection of the lack of opportunity to express what is an equal if not greater interest in the mental arena. For with the growth of information technology and electronic data systems, we reach a point in history where, for the first time, competition on the mental battlefield can be seen, instantaneously, by as many spectators as watch competitions on the physical battlefield. World Chess Championship matches are being transmitted to billions of people worldwide, through television, faxes, teletext and the internet.

The global interest in World Championship contests can be thus seen as the result of a natural interest by the human mind in its own function, and in the way in which it can develop games to test its limits. The phenomenon is common to all games, as the statistics on those interested in the different mental arenas more than adequately show (See figure 1.).

These statistics are exceptionally impressive in themselves, and become even more so when looked at in the context of the United Kingdom, and the comparison of the interest in Mind Sports in relation to the other top personal activities. In 1988 the British Market Research Bureau took a national representative sample of 1,407 adults who were asked to state in which of the listed activities they had participated for at least one hour during the week preced-

ing the survey. The results are shown in figure 2.

With this giant Tsunami of global interest in a new form of gladiatorial combat - the Mental Coliseum, what are the psychological traits and mental strengths that top players need to display at this extraordinary championship level? How do they compare with the psychological profiles of champions in all arenas? How do they compare with the championship profiles of the great chess players of history? And how, most importantly, do they compare with each other?

The Qualities of a Champion

The qualities that make a chess champion are virtually identical to those that make a champion in any field. Ten main qualities stand out from a number of others, and it is these upon which this article will concentrate. The reader is then encouraged to compare these qualities with those of the great champions in chess, the great champions in other fields, and perhaps even the readers' own 'Olympian' qualities!

The major traits that identify the personality of a champion are:

I Vision

The degree to which the goal of becoming champion is absolute, imaginatively seen, precisely formulated, clearly stated, and comprehensively understood. It is the 'guiding light' of the individual (or team). One of the 'greatest of all time' in this department was he who is famous for that very quote - Muhammad Ali. His visions of victory were so complete that he would describe in detail, the round by round progress of many of his fights, culminating in the round and type of victory, *four months before the fight*. Not only were his predictions eerily accurate, they were so strong and so perfectly described that his opponents shared his vision for the fight! World Chess Champion Garry Kasparov is

Chess, board and card games in the UK - a comparison with other favourite activities. They are:

14%	more popular than swimming
14%	more popular than playing snooker, billiards or pool
60%	more popular than playing musical instruments or singing
100%	more popular than attending evening classes
300%	more popular than hobbies involving collecting
700%	more popular than fishing

Fig. 2



a great admirer of Ali's psychology.

2 Commitment

This combines the desire to win, and the faith in the self that the goal of becoming champion can be attained. Interestingly, most world champions usually stated their commitment publicly, wrote it down as a personal incentive, or did both. Bobby Fischer is often cited as the most committed to becoming World Champion the world has ever known. From a country with only a very few top-rated players at the time, Bobby single-handedly took on the combined might of the Soviet chess machine, having to play against not only the nine other strongest players in the world, but also their combined team tactics against him in tournaments.

One of the most insightful quotes on commitment comes from the world record holder in Used Human Vocabulary, Goethe (50,000 words; 210 IQ), who said:

'Until one is committed, there is hesitancy, the chance to draw back, always ineffectiveness. Concerning all acts of initiative (and creation), there is one elementary truth the ignorance of which kills countless ideas and splendid plans:

that the moment one definitely commits oneself, then Providence moves too.

'Whatever you can do or dream you can, begin it. Boldness has genius, power and magic in it. Begin it now.'

3 Persistence

Most of the all-time great champions were capable of continuing the pursuit of their goals both in the face of adversity and when others had given up. Tremendous persistence was also demonstrated by the great American Draughts/Checkers World Champion (a fifty-year reign), Dr Marion Tinsley. He played for eight hours a day, five days a week, for two weeks, against the implacable Chinook computer (the world's official number two player, capable of calculating three million moves a second, and with a database of 27 billion positions) and crushed it in the final game, leaping from his chair and proclaiming 'A victory for human beings!' And Peter Vidmar, the Olympic Gold Medallist and Olympic Gold Medal team captain, ascribed his Gold Medals to the ability to, 'practice that one minute more, try just that little bit harder, continue just that little bit longer than anyone else'.

FIDE World Chess Champion Anatoly Karpov, noted for his strengths of creativity, intuition and persistence, is seen here giving a display at EuroDisney

Norman, however, turned every negative into a positive, as though crushing defeats were essential pieces in the jigsaw of great golf.

4 Learning from Mistakes and Overcoming Fear

The lesser competitor will become dispirited by mistakes, losses and failure. The great champions study the reasons *why* and come back improved. Witness for example Greg Norman's performance in the final round of the 1993 British Open, described as one of the greatest final rounds in history. *The Sunday Times* reported: 'Norman, however, turned every negative into a positive, as though crushing defeats were essential pieces in the jigsaw of great golf. "The whole crux is that you believe in yourself. I can bounce back from whatever they throw at me," said Norman. 'The appropriate attitude to the enormous danger of fear, and the overcoming of it, was succinctly expressed and summarised in the 'obliteration of obliteration' mantra by the psychologist and author Frank Herbert in his famous novel *Dune*:

'Fear is the little-death that brings total obliteration. I will face my fear. I will permit it to pass over me and through me. And when it has gone past I will turn the inner eye to see its path. Where the fear has gone there will be nothing. Only I will remain.'

5 Knowledge

An intimate, detailed and comprehensive subject knowledge is a pre-requisite for a World Champion. Ayrton Senna was renowned for knowing more about Formula One cars than most team engineers; and Mike Tyson has an encyclopaedic knowledge of boxing history.

6 Mental Literacy

This refers to general and particular knowledge and application of information about the brain's skills and how to use and get the most from them. These include imagination, logic, rhythm, analysis, spatial awareness, number, associative power, memory, intuition and creativity. Contrary to popular beliefs, chess champions (as will be shown) and physical champions share these same attributes. Dominic O'Brien, the former World Memory Champion, practices mental and physical skills for a minimum of four hours per day, taking himself for walks and runs in the morning on which he applies every facet of his mind to the perception imaging and remembering of multiple *loci*, pathways and maps in his mind. The reader is invited to search for a physical sport in which the application of a majority of these Mental Literacy attributes would not be advantageous.

7 Positive Attitude

The mental attitude of the champion tends to be realistically positive, enthusiastic, optimistic, up-beat and open to every opportunity for getting the best out of any situation. Examples abound, including Muhammad Ali (Boxing), Chionofuji (Sumo Wrestling), Daley Thompson (Decathlon), Steven Hendry (Snooker), Steve Overt and Sally Gunnell (Athletics), Mark Spitz (Swimming) and Joe Montana (American Football).

It is interesting to note here that Nigel Short, not often thought of as either athletic or interested in sport, has as one of his major role-models the greatest Sumo wrestler of all time, Chionofuji who himself broke all the traditions of the sport by becoming the smallest Grand Champion and by transforming Sumo from a sport dominated by weight and strength to one dominated by an insatiable desire to win, a new and creative approach, and speed of both body and mind.

8 The Master Mind Group

The psychology of the champion is reflected in the degree of excellence in the quality of the individuals who make up the immediate personal and professional 'circle of advisors' - those individuals who actively assist in achieving the champion's visions and goals. This is one area where even great champions can reveal their Achilles Heel - witness again Mike Tyson.

9 Love of the Game

In the champions this is expressed as an all-consuming passion and enthusiasm for not only the particular task/game/competition at hand, but also the wider implications and applications of the field. Great champions and leaders often go on to become great teachers and promoters of their sport. Both Billie-Jean King and Martina Navratilova, the longest reigning and most titled players in women's tennis history, when asked how they were able to maintain their standards for so long, both answered with the question 'why should it be so difficult to continue playing for so long, when we love the game so much?'

10 Energy

Without exception, 'The Greats' were and are known to exude energy; physical, sensual and sexual (the recently 'exposed' peccadilloes of Einstein may perhaps be seen in a different light!). The current champion Kasparov's energy and persistence are extraordinary.

Bearing these psychological qualities of

the champion in mind, how do the greatest chess champions compare? And how do the top players shape up?

Psychological Strengths and Weaknesses of the Chess Greats

For this exercise, I have chosen the six players who are most widely known, and who rank in the 'top ten of all time' in most chess players' all-star rankings. Completing the list is Nigel Short, the most recent challenger for the PCA World Championship.

As may be expected, the strengths of the great chess players far out-number the weaknesses (See figure 3.).

The roll-call of the great champions shows them to be the opposite of the popular psychological and physical characterisation: super-nerds, pale, bent, weak, neurotic, introverted, anti-social and mono-maniacal. In truth they were and are energetic, dynamic, physically strong, passionate,

creative and polymathic individuals who translated their general love of life and this range of psychological attributes into their mastery over the chessboard.

Indeed, many of the champions of chess describe the game not as primarily logic and mathematics. Grandmaster Raymond Keene, OBE, the first English player ever to gain the Grandmaster norm, ex-British Champion, and Mental World Record holder in the writing of books on chess and thinking (more than 80!), described his own playing style as 'physical combat played out in the form of a musical symphony'.

Indeed the study of these and other great players shows that they utilised the full range of their Mental Literacy skills, as well as developing their aerobic capacity, muscular strength and physical flexibility - the modern emergence of the ancient ideal of *mens sana in corpore sano*, or as the Greeks originally put it: *nous iyis in somatis iyis*.

Name	<i>Alexander Alekhine</i>
Strengths	Energy; persistence; experimentation and creativity; rigorous positional logic; stamina.
Weaknesses	Over-confidence; error-prone.
Name	<i>Jose Capablanca</i>
Strengths	Intensity; precision of play and analysis; aura of invincibility; the 'Mozart of Chess'.
Weaknesses	Neglected study and practice; unwillingness to stay in 'top gear'.
Name	<i>Bobby Fischer</i>
Strengths	Total commitment to winning; creativity and originality; physical and mental intensity.
Weaknesses	Distractible; questionable mental stamina.
Name	<i>Anatoly Karpov</i>
Strengths	Creativity; intuition; persistence; master mind group (historical).
Weaknesses	Disregards theoretical research; disregards physical health.
Name	<i>Garry Kasparov</i>
Strengths	Dynamism; nerve; opening middle- and endgame knowledge; physical strength and stamina; mental strength and stamina; devastating tactical weaponry; sense for combinations.
Weaknesses	None discovered so far!
Name	<i>Emanuel Lasker</i>
Strengths	Knowledge of all aspects of the game; efficiency; stamina; vast general knowledge - a polymath.
Weaknesses	Used few openings; poor quality opponents?!
Name	<i>Nigel Short</i>
Strengths	Superb at one-on-one combat; loves the game; relishes the battle; lusts after the win; exceptionally resilient; exudes musical and sensual energy; exceptionally diligent student of the game.
Weaknesses	Opening theory; physical strength.

BEN ZANDER MUSIC FOR THE MIND

Andrew Kinsman Profiles Ben Zander

Are you disillusioned with classical music's 'superstars'? Tired of record company hype? Bored with run-of-the-mill performances of great works? If so, Ben Zander offers a fresh approach.

Over the past five years classical music has undergone a remarkable change of identity. Largely on the back on 'Nessun Dorma' and a certain spiky-haired violinist, millions of new listeners have been introduced to a whole new world of music - there is even a very successful 'pop' classical music radio station. While these developments have been a bonanza for record companies, who have made fortunes by devising more and more sophisticated means of marketing classical 'lollipops', all

is not rosy in the garden of classical music.

Every month there are new press reports of squabbles over the funding of the major orchestras, child prodigies appear with a blaze of hype and then often disappear when their record companies find someone new on whom to lavish their fleeting attentions, and a set of high-profile guest conductors travel the world on whistle-stop tours giving uninspired performances for exorbitant fees.

It is therefore something of a breath of fresh air to come across a conductor who puts artistic, rather than commercial, considerations first, second and third. Such a man is Ben Zander, who was recently described by Gail Sheehy, the acclaimed au-



thor of *Passages*, as 'that rare musician who can paint with words what he plays with music. For those of us who are not musicians he can conjure up the spirits and pulses of life and put us under music's spell.'

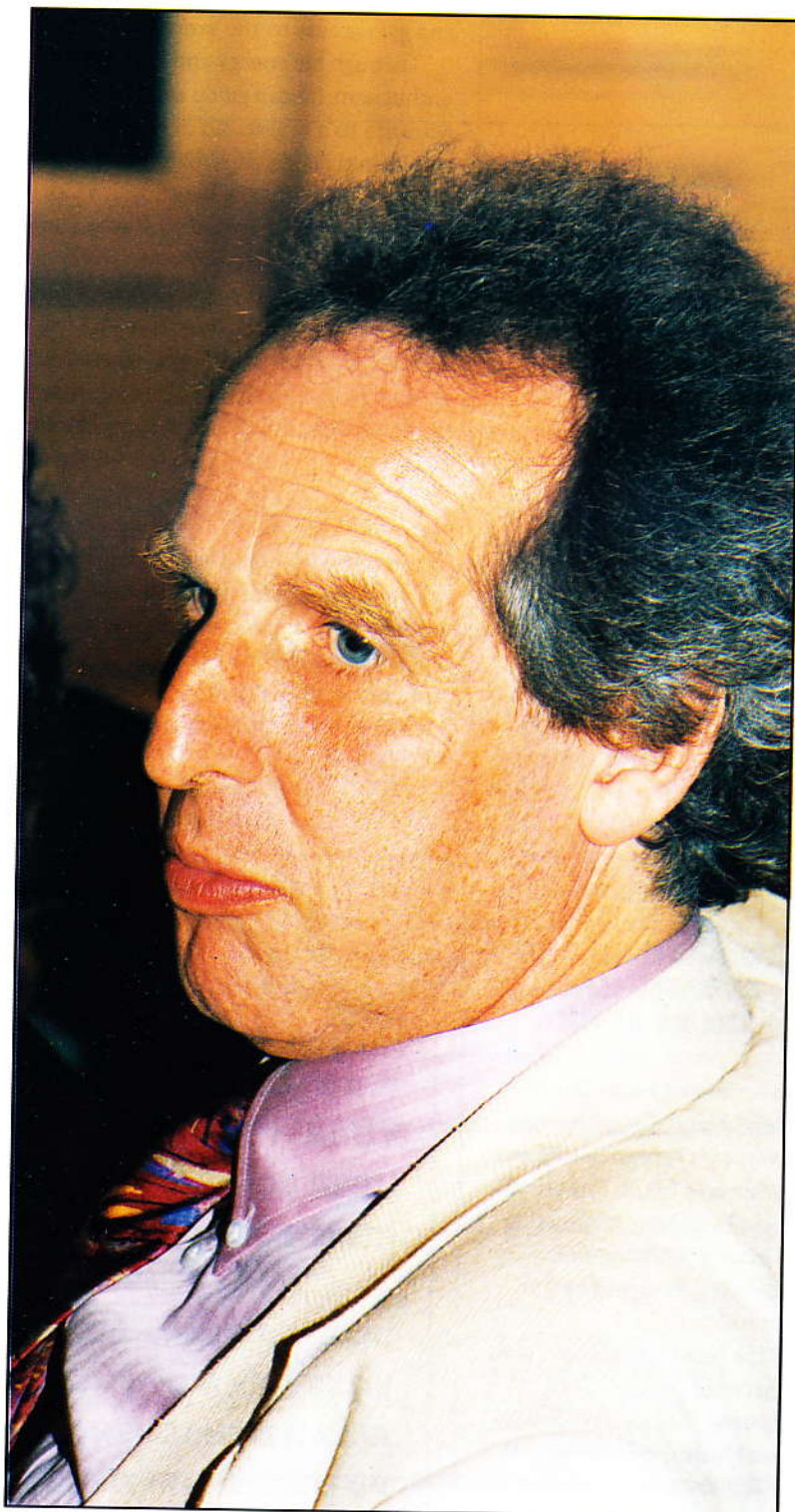
Not for Zander the barely rehearsed, perfunctory performance, then straight off to another city for more of the same. He insists on prefacing his performances with a lecture and discussion of the piece, and of music in general. I was fortunate enough to be present (with Byron Jacobs, the *Use Your Head* editor) at Ben Zander's London debut (with the Philharmonia Orchestra) in January. Several hundred members of the audience made the effort to come to the pre-performance lecture, for which they were handsomely rewarded.

The evening's concert was Mahler's hideously complex Sixth Symphony, which Zander described as 'a sponsor's nightmare of 114 players ... creating a magical combination of sounds, with no two bars that are the same.' For the classical music illiterate (such as myself) he explained clearly and simply what to look (and listen) out for, describing Mahler's different motifs and explaining the tormented emotions that Mahler exhibits through his music. (However, I am sure that even experienced music students would have benefited enormously from his intuitive analysis.) Having had one's 'card marked' in this fashion there is no doubt one is better equipped to appreciate the music. (Indeed, one is left feeling that if the London orchestras really wish to counter dwindling audiences they would be well advised to further explore the possibility of regular pre-performance lectures, for well-known as well as more modern works.) The performance itself was rapturously received by audience and critics alike. The *Financial Times* wrote: 'In a rare (and extraordinary) performance like this one, the Mahler Sixth can be riveting, exhilarating and draining all at once. It was.'

There is an interesting symmetry to Ben Zander's career: born and bred in London, it is remarkable that he has only now made his London debut. After taking an English degree at London University and studying conducting at the Guildhall under Norman Del Mar he left for the States in the 1960s, settling on the East Coast and founding the Boston Philharmonic Orchestra. He has also led the Boston Philharmonic Youth Orchestra for 22 years and teaches at the

New England Conservatory, and has taken both orchestras on numerous international tours. But it is only now that London's concert-goers have had the chance to experience first-hand Zander's user-friendly approach to music-making. His concert with the Royal College of Music Orchestra at the Royal Albert Hall is a fitting conclusion to the Festival of the Mind. It will reach the parts of Beethoven, Tchaikovsky and Bach that other conductors can't reach!

Ben Zander wants to 'musicate the world'



INSIDE MUSIC

Benjamin Zander Demonstrates Music's Magical Powers: A full-length program of performances and lively, informative talk with music by Tchaikovsky, Beethoven, Bach and Elgar played by the Orchestra of the Royal College of Music.

Benjamin Zander maintains that classical music is a language everyone can understand; that through it we can be transported to a new realm of experience and gain access to the eternal.

Through his energy and irresistible enthusiasm, he can guide even the musically illiterate to a realisation of the power of music. In this unique, evening-long concert he will take us 'inside' Beethoven's Coriolan Overture and Tchaikovsky's Romeo and Juliet and teach us to listen with new ears - to live the struggles and conflicts of the characters and track their love and tragedy through an understanding of the musical discourse and, thus, enable us to unlock some hidden part of our own emotional lives.

In this event Mr. Zander will take us behind the scenes of a symphony orchestra: Does the orchestra need a conductor? What is the mysterious relationship between the conductor and the orchestra?

Benjamin Zander is the founder and conductor of the Boston Philharmonic Orchestra. He has led Boston's Youth

Philharmonic Orchestra for the past 22 years and taken them on 10 international concert tours. He teaches at the New England Conservatory and is Artistic Director of the Music Program at Walnut Hill School for gifted children. His CD recordings of Beethoven's Ninth, Stravinsky's Rite of Spring and Mahler's Sixth Symphony with the Boston Philharmonic have gained international acclaim.

The Sunday Times called his recent London debut concert, performing Mahler's 6th Symphony with the Philharmonic Orchestra, 'spectacular' and 'memorable'. *The Financial Times* said: 'In a rare (and extraordinarily faithful) performance like this one, the Mahler 6th can be riveting, exhilarating and draining all at once. It was.'

Famed author Gail Sheehy ('Passages') wrote: *Ben Zander is that rare musician who can paint with words what he plays with music. For those of us who are not musicians he can conjure up the spirits and pulses of life and put us under music's spell.'*

**ON SALE AT THE
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The acclaimed recording of Mahler's Sixth Symphony, Stravinsky's Rite of Spring and Beethoven's Ninth Symphony, Benjamin Zander conducting the Boston Philharmonic Orchestra. Released by IMP Masters.

The best performance I have yet heard of Mahler's Sixth Symphony' Paul Driver, *Sunday Times* Music Critic writing in the *Boston Globe*.

BEETHOVEN'S NINTH SYMPHONY ODE TO JOY

**FROY-DER, SHER-NER GETTER-FOON-KEN,
TOCH-TER 'OUSE E-LYS-IUM,
VEER BE-TRAY-TEN FOY-ER TROON-KEN,
HIMM-LEE-SHE, DINE HIGH-LISH-TOMB!**

**DINE-ER TSOW-BER BINN-DEN VEE-DER,
VOSS DEE MO-DER SHTRENG GE-TILE'T;
ALLAH MENSCHEN VEAR-DEN BROOD-AIRE,
VO DINE ZANF-TAIRE FLOO-GEL VILE'T.**

ENTREPRENEURS UNLIMITED

Established in 1993, Entrepreneurs Unlimited (EU) has become the largest personal development club in the country with a membership nearing four thousand. EU caters for all requirements of personal development - from the retail of books, video and audio cassettes to individually tailored training and development programmes which address issues such as: Leadership Training, Lingual Education, Financial Planning, Speed Reading, Assertiveness Training, Health and Nutrition, Mind Mapping, NLP, Positive Thinking, Weight Loss, Hypnosis and Relationships/ Communication. Additionally, the club regularly holds a number of breakthrough events such as: Firewalks, Board Breaking and Bar Bending.

NIGHTINGALE CONANT

For over 35 years Nightingale Conant have provided audio learning programmes to companies and individuals around the world. Working hand in hand with the best authors available, Nightingale Conant produce millions of audio cassettes on wide ranging subjects every year and are considered to be the world's leading personal development organisation.

Nightingale Conant have recently published *The Genius Formula* by Tony Buzan and Raymond Keene, a 6-cassette recording which reveals the formula linking the genius minds of history.

Also published by Nightingale Conant in *Mind Mapping* by Michael Gelb - a 4-cassette programme which teaches this revolutionary method of problem solving and creative thinking.

ACCELERATED LEARNING SYSTEMS

An international author, publisher and broadcaster is linking up with the Buzan team for the Albert Hall celebrations in April. New Zealand-based Gordon Dryden is one of the South Pacific's most prominent radio and television presenters. With American doctor of education Jeannette Vos, he is author of *The Learning Revolution*, a 512-page book that has already become a best-seller in such diverse countries as Sweden and New Zealand.

Dryden has been working in England for almost a year on a new child development programme for the parents of young children. That programme, called *Flying Start*, will be released in England in May. Dryden believes that the first nation to adopt all the new learning techniques that are available will lead the world in education. Currently he thinks that Singapore, New Zealand and a few Pacific rim countries will take over that role. Singapore, in particular, has set itself a goal to become an 'intelligent island'. Dryden thinks it is significant that one school in Singapore airfreighted 500 copies of *The Learning Revolution* as soon as it was published.

The Learning Revolution is published in Britain by Accelerated Learning Systems, 50 Aylesbury Road, Aston Clinton, Aylesbury, Bucks HP22 5AH (tel: 0296 631177)

CRESSWELL ASSOCIATES

Cresswell Associates, expert advisers on Companies' relations with Whitehall and Brussels, are proud to be associated with the 'Festival of the Mind': Cresswell's managing director, Lady Mary Tovey - under her other hat as Brain Trust Chief Administrator - has carried the burden of overall administration and, in particular, for detailed oversight of Festival finances.

THE THREE ARTISTS

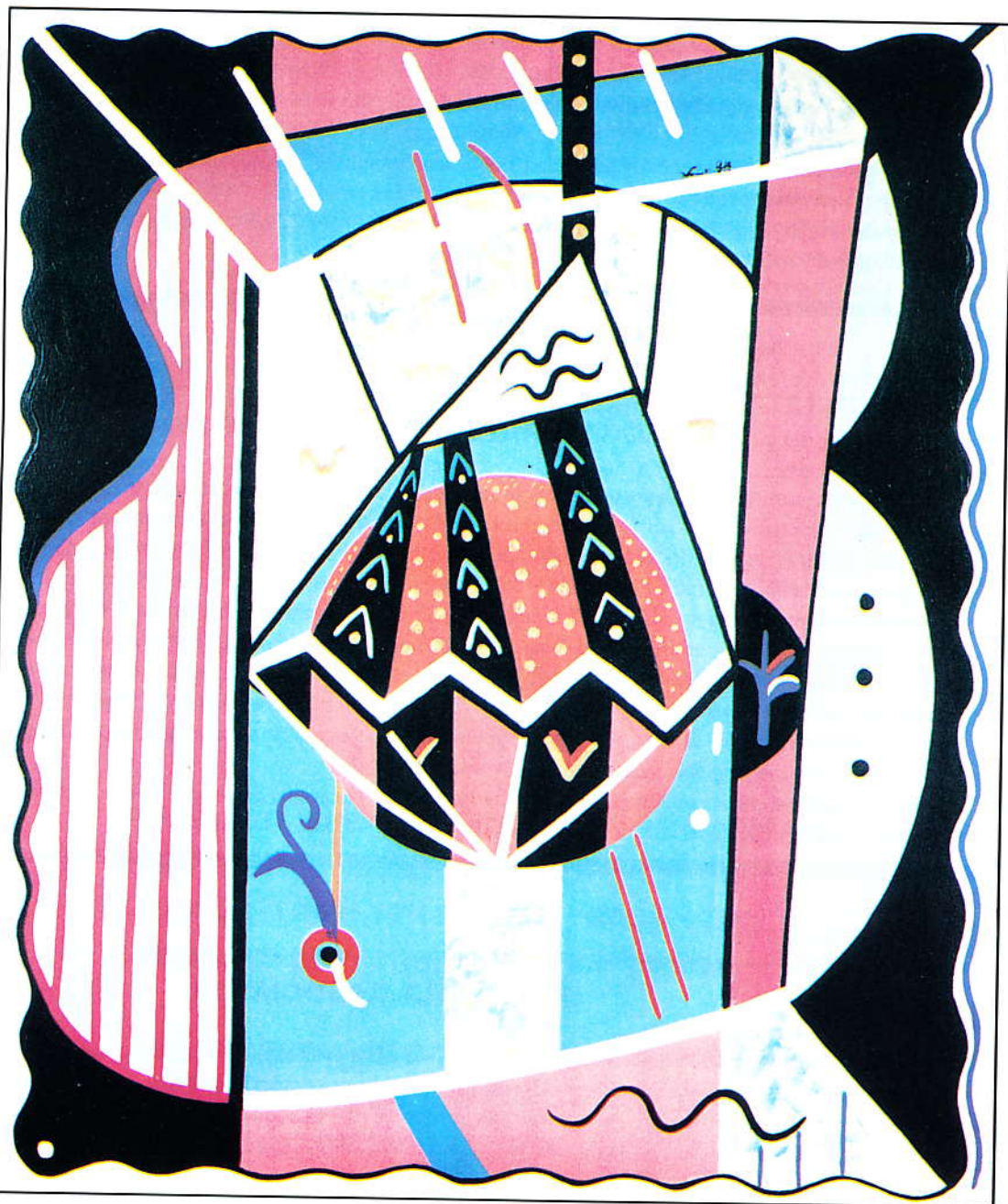
The three official artists for the Festival

Lorraine Gill

Lorraine Gill was born in Sydney, Australia and now lives in a village in Berkshire. While in Australia she received a scholarship, at the age of 15, from the east Sydney Art School for perspective, anatomy, life-drawing, lettering, etching and water-colour techniques.

Lorraine has exhibited her work in a

number of one person shows held at such venues as the Slade Collegiate Gallery, the Graffiti Gallery, the Mall Gallery and the Qantus Gallery. She has lectured extensively on perception and drawing techniques, been featured on International Video about creative processes and appeared with Henry Moore and Sir William Coldstream in a BBC programme about



Musical Warp by Lorraine Gill

Cezanne.

Lorraine is a frequent contributor to *Use Your Head* with a regular series, *Drawing is Natural*.

Barry Martin

Barry Martin was the official artist for the 1993 World Chess Championship between Kasparov and Short. He was interviewed on Channel Four about this work and *Simpson's-in-the-Strand* still have an exhibition of some of his work from the match. He was commissioned by *The Times* to produce limited edition prints of Nigel Short and Garry Kasparov and the Nigel Short image was taken into the National Portrait Gallery collection - the first time this has happened to a living chessplayer.

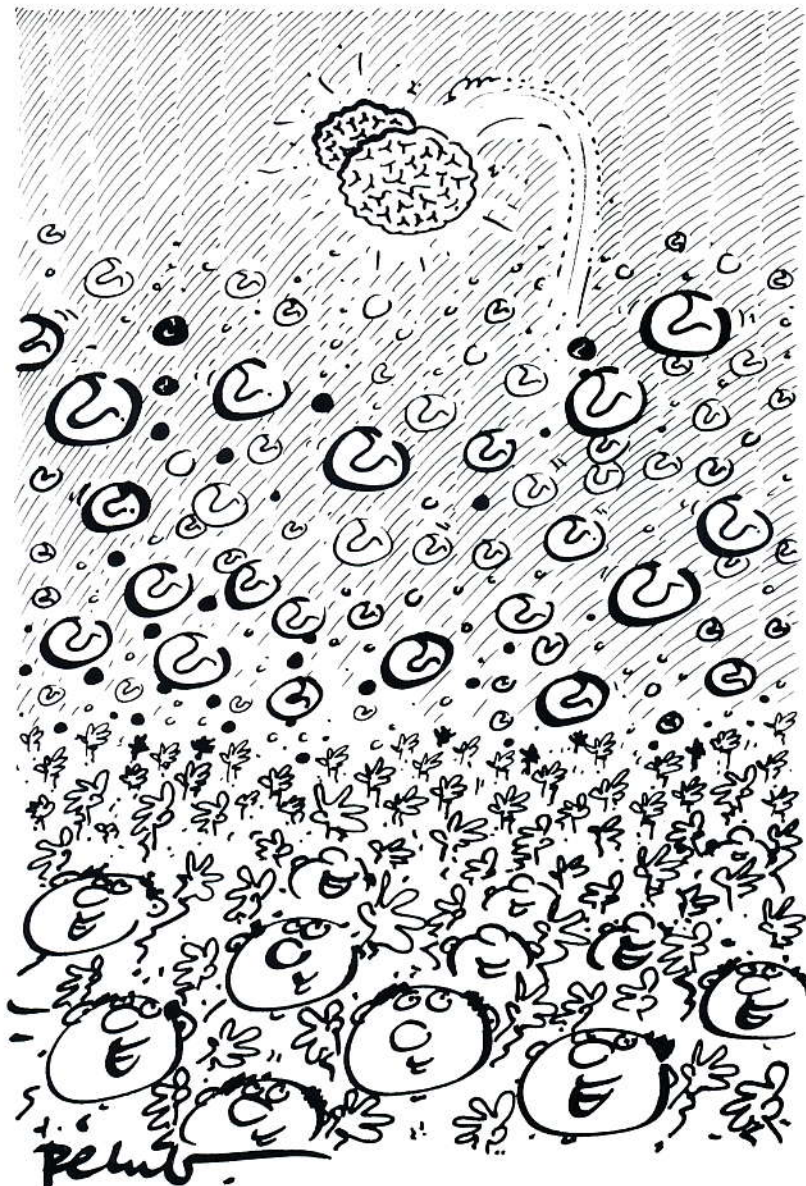
Barry studied at Goldsmiths College, the University of London and St. Martins

School of Art and currently teaches drawing at the Royal College of Art. He has exhibited in many places both here and abroad and has work in many national international and private collections.

Barry is a keen chess player and has a FIDE international rating. He is also Secretary of the Staunton Society, the aim of which is to raise funds to maintain the grave of Howard Staunton, England's strongest player of the 19th century. In October of last year, Barry was on the front cover of *Chess Monthly* magazine (along with Raymond Keene and Brian Clivaz) and wrote a major article for the magazine entitled 'Men of Staunton'.

Pécub

Pécub is a cartoonist from France whose work is regularly featured in *Use Your Head*.



GETTING AHEAD

Lana Israel



Lana Israel, joint winner of Brain of the Year 1994, will be giving a presentation at the 'Festival of the Mind'.

Lana Israel

At thirteen years of age, Lana Israel had quite an ambitious goal - revolutionising education. Five years later, she has two books and a video on study methods behind her, has lectured to students and teachers on five continents, and received the Grand Award at the 1993 International Science and Engineering Fair for her research on learning methodologies.

Lana's interest in learning techniques, specifically Mind Mapping, was piqued after reading *Use Your Head*. Curious to see if Mind Mapping could be integrated into the school system and applied towards education, Lana conducted her eighth grade science project on Mind Mapping, probing the effects of the technique on recall and creativity. The project took Lana to the Florida State Science & Engineering Fair, where she

was placed second, and four months later, to Sydney, where she was the first child presenter at the Eighth World Conference on Gifted and Talented Children. In preparation for the conference, Lana wrote her first book, *Brain Power for Kids: How to Become an Instant Genius* (co-authored by Buzan), which was published in Australia as well as the States. The cumulative effect of these events was Lana's resolve to continue and expand upon the research which had produced such interest.

For the next four years, Lana devoted subsequent science projects to researching Mind Mapping and memory techniques. Her research spanned a wide spectrum of students: from seven-year-olds to seventeen-year-olds, mentally handicapped students to gifted students. By her senior year, Lana had conducted research on 500 students, focusing on the effects of holistic learning techniques on recall, creativity and specific subject areas, as well as analysing the components of effective learning methods.

In February 1993, Lana was placed first in her division (Behavioural and Social Sciences) at the annual Florida State Science & Engineering Fair, topped off by winning, out of 500 participants throughout the state, the Best in Fair Award. As a result, Lana went on to represent the State of Florida at the 44th International Science and Engineering Fair (ISEF) in Gulfport, Mississippi.

Out of the 826 students who qualified to compete at the ISEF final, highest honours go to four top winners, two of whom receive the Glenn T. Seaborg Nobel Prize Trip Award. In contention for the top awards are the first place winners in each of 13 disciplines, covering a whole range of sciences. Lana, a first place winner in Behavioural and Social Sciences, was the recipient of the top award at the fair and subsequently attended the 1993 Nobel Prize ceremonies in Stockholm.

Lana is also talented in other directions: she is the top scorer in the Florida Women's Soccer League, is an accomplished cross-country runner and writes, plays and sings her own music. She has also obtained a special scholarship to Harvard.

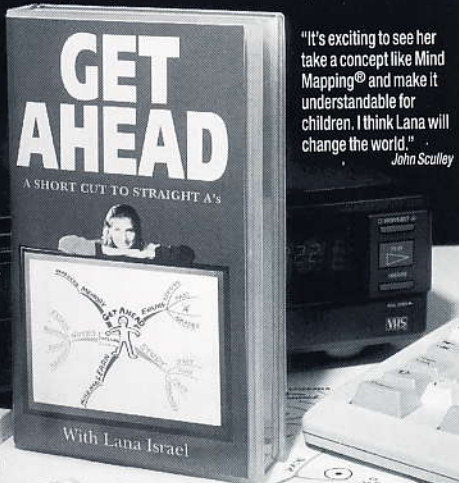
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THE FINE ART OF JUGGLING

Michael Gelb

One of the many highlights of the 'Festival of the Mind' promises to be Michael Gelb's demonstration of the art of juggling. Last year Michael was co-author (with Tony Buzan) of the book *Lessons from the Art of Juggling: How to Achieve Your Full Potential in Business, Learning and Life*, and his juggling demonstration is sure to contain some pearls of wisdom that stretch beyond juggling into other important areas.

Michael was educated at Clark University (where he achieved a BA Cum Laude in

Psychology and Philosophy) and Goddard College (MA in Psycho-Physical Re-education). Since 1978 he has been a Certified teacher of the Alexander Technique, and is also a black-belt in Aikido. He is the author of several other books on mind and body including *Body Learning: An Introduction to the Alexander Technique* (1981), *Present Yourself! Captivate Your Audiences with Great Presentation Skills* (Jalmar Press, 1988) and the forthcoming *Thinking for a Change*, to be published in January 1996 by Harmony Books.

One of Michael Gelb's more promising pupils.



LOOKING BACKWARD, LOOKING FORWARD

Barry Buzan



Since the fall of the Berlin Wall it has often been said that we are at the end of an era. To think that our immediate experience is located at some key historical juncture is especially tempting as we approach the end of the twentieth century, and the beginning of the third millennium. But what is the historical period we are at the end of: the Cold War? the twentieth century? something bigger? How significant is the transformation point we are currently passing through? Which ideas go forward from the past, and which die?

I argue that we really are at an historic turning point, and not just one defined by the end of the Cold War. The Cold War was merely the last round of a much larger struggle - the twentieth century - that is now drawing to a close. The twentieth century was shaped by nearly continuous wars about how industrial society, and therefore the world, was to be organised and governed. Before the last struggle between capitalism and communism came a three-cornered fight that eliminated fascism as a contender (the Second World War), and before that came the First World War, which eliminated monarchy, and gave birth to the totalitarian twins, communism and fascism. This world-shaping set of conflicts is itself merely the last act in an even larger play - the rise and decline of the West. Over the last five hundred years one civilisation, Europe, embarked on an extraordinary epic of expansion that reshaped the political economy of humankind. It obliterated, occupied or dominated all other civilisations and spread its own peoples, political order and economic system to all corners of the planet. In so doing it unbalanced a multicultural order that stretched back thousands of years. The twentieth century marks the end of this era. Each successive backward view thus incorporates the one before it, showing how it fits into a bigger story. The argument is that these three eras all come to an end in our present time, and that taken together they form a single historic turning point.

One way to read the significance of this turning point is to look at the ideas it sends

forward. There have been many losers in the war of ideas over the last five centuries, but there are five clear winners: the modern sovereign state as the central political form; nationalism as the basis of political le-



Barry Buzan introduces his talk for the 'Festival of the Mind': A provocative survey of the last 500 years, and of the five winning ideas that have come out of world history and go forward to shape our future.

HOW I DISCOVERED MIND MAPPING

George Hughes

The story of Edward Hughes is well known to all those familiar with *Use Your Head*. Here, his father George describes how he first encountered Mind Mapping and the amazing results.

I first met Tony Buzan by chance. One day, in the mid-seventies, I was idly switching TV channels, when my attention was caught by this young man structuring thought on a flipchart. Such techniques were familiar to me: at IBM we had used flipcharts everywhere, at Cambridge we'd done some thinking and at home we had tried Edward de Bono's 'Lateral Thinking.' However, this was something different, something new. While watching, I wondered why I had not come across this before and at the end of the programme, ever the pragmatist, I thought I'd give it a try.

A rather complex problem had been lurking at the back of my mind for several weeks without any solution emerging from my subconscious. So, taking a large sheet of paper I started to Mind Map. Almost immediately, my pencil seemed to take on a life of its own - it flew across the paper, yet still scarcely able to capture the flow of thought and in ten minutes the sheet was full. It was an untidy mess - almost illegible - but to me it had an almost pristine clarity. It had structured an ill-defined problem - growing but not yet urgent - into a 'total solution', clear and now obvious. The method worked! Why hadn't I come across it before?

Next morning my secretary called the BBC to locate Tony Buzan. The next weekend Tony came to my place in the country and my wife and boys took to him instantly. We've been friends ever since. I then formed the idea that my boys should attend Tony's next course, even though it happened to be for adults. They both loved it and it changed their approach to schooling. David went on to world-class sporting success and is now a qualified instructor of Olympic standard in various sports. Edward went on to academic and social success at Cambridge and all readers of *Use Your Head* will be familiar with the full story.

I myself took to Mind Mapping my plan for the day and for dealing with the occasional problem. However, a few years later, Tony's method came into its own. I was working as a salesman at IBM when a future president of a developing country wanted lunch with a few establishment men to

gather ideas and priorities for his coming administration. I offered my thoughts, but the lunch conversation was unstructured and inconclusive.

It was Friday afternoon and on the drive home I took out of the seat pocket a large brown envelope, tore it open and started to 'scatter' ideas which should have come up at lunch. My pen again took on a life of its own and the result was an untidy mess. However, Mind Mapping makes it so easy to structure and fit in new ideas as they occur, freeing the mind from the tyranny of sequence of the school years.

On Monday morning I showed the 'president' the back of the envelope and quickly talked through what amounted to a full programme for a new government. Fulsome in his gratitude, he not surprisingly wondered if I could please make some notes for him of our discussion. On Tuesday morning, pacing up and down like Napoleon, I dictated at speed, deciphering the thrusts from the envelope. By 11am Wednesday my secretary had produced a 150 page manuscript of - to my astonishment - a book! By 12.30am I had proof-read it, added a few changes, and it was off to the printers for quick copying and binding. Next day, before flying home, the 'president' was delighted to receive his book. For my part, I was astonished to have 'fathered' it so quickly.

Since then I have written many other books and papers - always by similar methods:

- i) A rapid Mind Map on inductive thinking, rough and untidy.
- ii) Quick dictation.
- iii) Proof-read and print.

Most of these have been written for heads of state or governments and thus remain confidential. Many heads of state who have never met Tony should be grateful to him. As for me - if I had never seen Tony on television, I would never have written anything beyond short business letters.

Over the years I have invited Tony to hold seminars at my companies to help spread the word. He has always been inspiring and has always received an enthusiastic reception.

DAVID BERGLAS

PRESIDENT OF THE MAGIC CIRCLE

Television's International Man of Mystery

We are pleased, once again, to welcome Mr. David Berglas, who will be officiating at the World Memory Championships, as he has done since its inception.

He has become a recognised authority in the expanding field of Mind and Memory Training, helping businessmen and women to develop the untapped potential of their minds.

As Television's International Man of Mystery, he has established himself as one of the world's leading magical entertainers of our time. He has been featured on numerous television series, in this country, Europe and the United States.

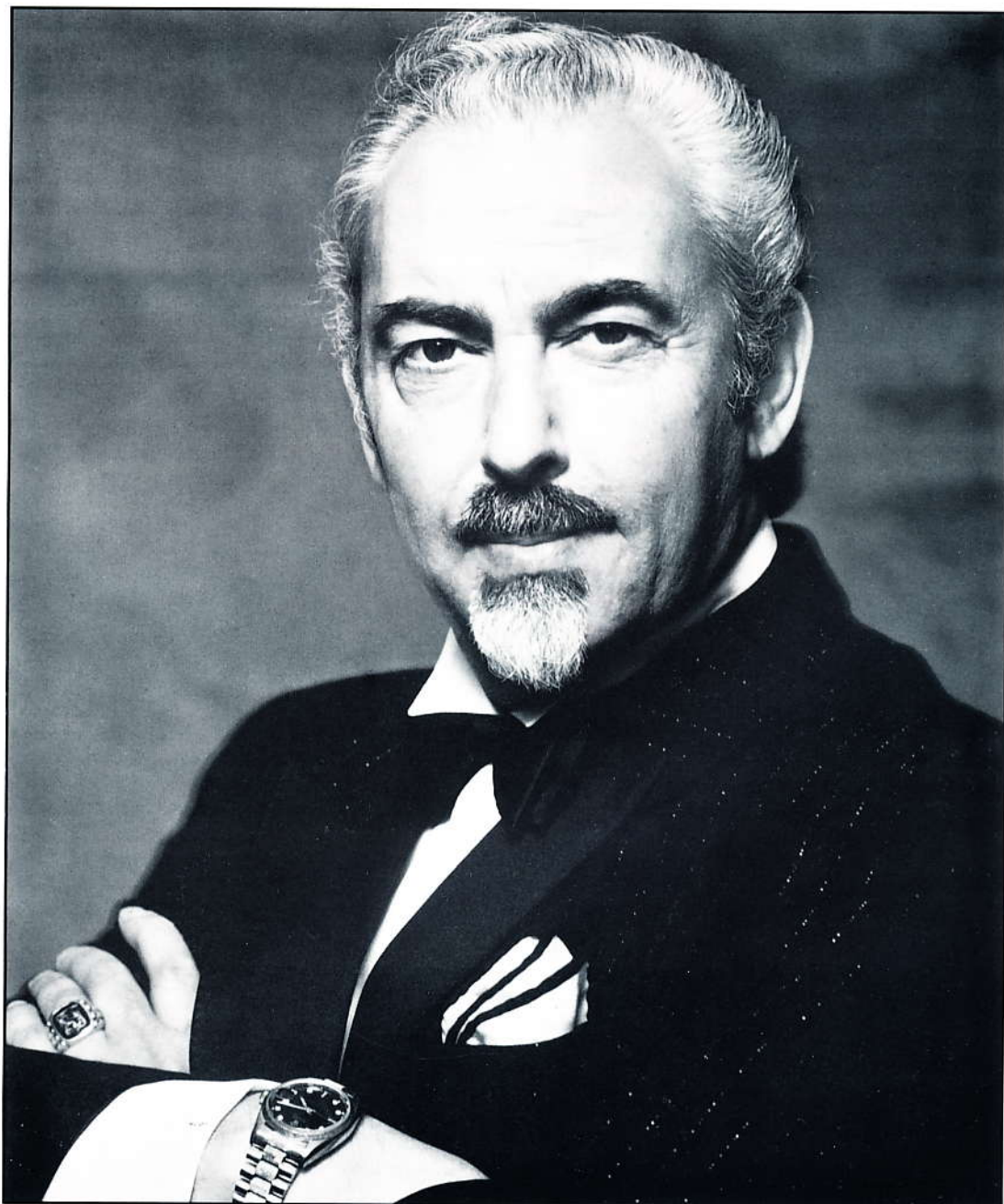
He continues to intrigue and baffle audiences worldwide with his exciting and unique presentations, during a long career that has included several Royal Command Performances.

His inventive mind and magical know-how has enabled him to become a highly successful technical adviser for the film and theatre industry. Highlights have included five *James Bond* films and, more recently, *Batman* in which he coached Jack Nicholson to manipulate cards.

Now in his sixth year as President of the world famous Magic Circle, he uses a combination of skills, including sleight-of-hand, deep psycholog-

ical insight, acute observation and a highly trained memory. Yet all of these still do not fully explain the uncanny predictions and mind bending feats which are featured in his performances.

Top international casinos have sought his advice and his various expertise make him ideally suitable to supervise these championships, in particular the expert shuffling of numerous packs of cards!





PAUL COLLINS THE RUNNING MAN

A Tribute

Though born in London, Paul Collins was raised in Canada. He was a violin prodigy from an early age, studying at the Juillard and Yale music schools before returning to England to study with Professor Max Rostal. Later he was to play for the Philharmonia Orchestra under Otto Klemperer and was for a time leader of the Royal Liverpool Philharmonic.

From the age of 14 he also pursued a parallel career as a runner. He was Canadian marathon champion from 1949 to 1952 and represented his adopted country in the Commonwealth Games and the Olympics. There followed a 29-year hiatus during which he could not run competitively due to knee and ankle injuries.

In the meantime he had turned to the Alexander Technique for help with technical problems with the violin, training under Walter Carrington. So highly did he value these years at Lansdowne Road that he always referred back to Walter's wisdom in the course of his own teachings. During this time he began to consider how he might rehabilitate his running via the Technique, and against the advice of his teachers, worked on it and finally was able to achieve his ambition of returning to competition, this time in ultra-distance running. He went on to set ten world records at the age of 57, running 405 miles in six days.

Running was something he did completely on his own, without outside help or encouragement. Thus his running achievements were the most important to him, though he rose to the top in two other professions.

In the last eight years of his life, Paul embarked on yet another career, reading extensively in an attempt to develop 'Collins' Grand Unified Theory of Human Consciousness'. He wanted to discover the precise point at which thought becomes action. To this end Paul became associated with the Brain Trust, founded by his friend Tony Buzan. This was to be his final project, and is another reason why his death at the age of 68 is tragic.

John Woodward, Paul Collins' course assistant writes:

So powerful and original a presence as F.M. Alexander inevitably left many imitators seeking the comfortable path trailed in his wake. Very few have had the courage to take the one inevitably more difficult path, the one trodden by Alexander himself: the way of the explorer. Such individuals are rare and Paul Collins was one of those few.

At its best Paul's teaching of the Technique had the honesty and directness to claim some of the same complete freedom to explore as Alexander himself. Each individual teacher makes their own particular integration of the work in different areas of life. For Paul this was running. Here the principles of the Technique were rigorously checked, applied and extended. In sorting out the problems that blocked the free movements of natural running Paul would do and say things that Alexander himself never did or said. But it was in those moments, superficially far removed from conventional practice of the Alexander Technique, that Paul's teaching stood on a similar plane to Alexander himself. The parting words of advice to the first Alexander teacher, 'Whatever you do, don't do anything you've seen me do,' leave no doubt as to the path toward which Alexander directed those following in his name.

We will all miss Paul's inspiration and intellectual insight. But most of all we will miss his delicious and wicked sense of humour. This humour once had a group of serious and committed runners flapping like turkeys as instructed until Paul asked, 'Why are you all doing this?' Though such occasions were furnished with laughter, there was always that eloquent lift of the eyebrows that seemed to say, 'C'mon you turkeys, don't imitate, learn some discrimination - think.'

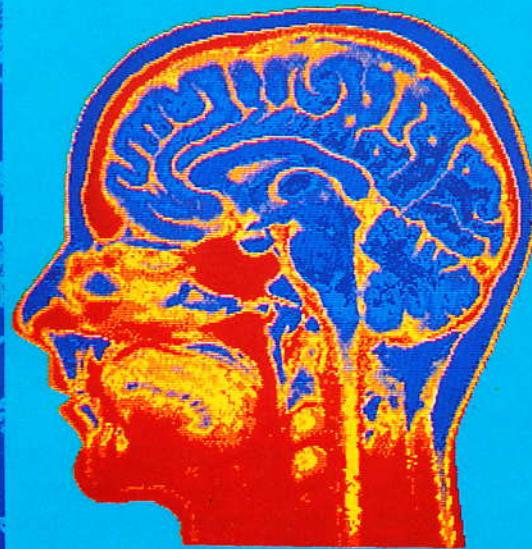
The Editor would like to thank Paul's widow, Lynn Collins, for supplying the material from which this article has been extracted.



TONY BUZAN
WITH BARRY BUZAN

BBC

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INTELLIGENCE ABOUT INTELLIGENCE

Pumping up Your Brain Power

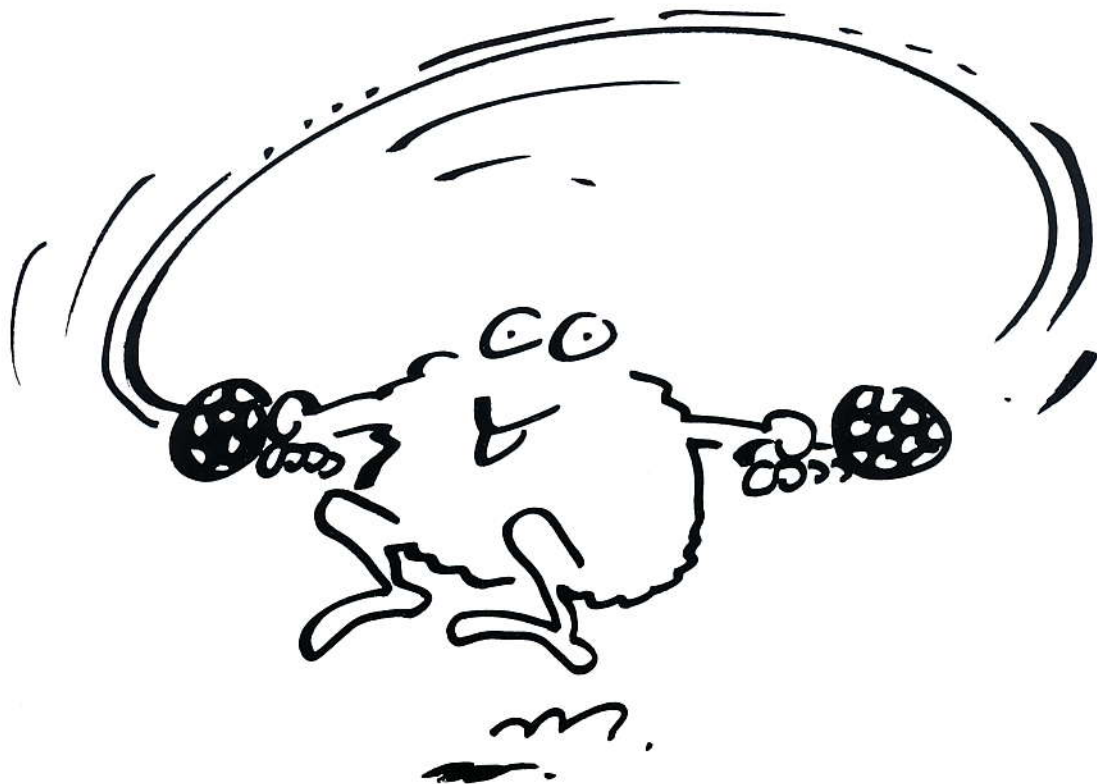
A new study, reported in the journal *Nature*, shows that exercise can keep the brain sharp into old age and might help prevent Alzheimer's disease and other mental disorders that accompany ageing. The study, by Dr Carl Cotman of the University of California at Irvine, is the first to show a direct link between physical and mental activity, and demonstrates that growth factors in the brain can be controlled by exercise. There is already a great deal of evidence that those who exercise regularly live longer and score higher marks in mental tests, and Cotman's findings add important evidence of the importance of physical activity in the ageing process. According to Cotman: 'The brain really is a muscle. When you exercise it the mind grows and is capable of handling more projects and complex problems.'

Cotman used rodents in his research, as rats have similar exercise habits to humans, with similar effects. The rats were allowed to choose how much exercise they wanted to do, and each demonstrated individual characteristics. Some were lazy 'couch' rats, rarely getting on the treadmill, while other

were 'runaholics', obsessively running for hours every night. However, those that exercised had much higher levels of BDNF (brain-derived neurotrophic factor), an important growth factor in the brain. It appears that there is an ideal threshold of exercise that provides the maximum possible benefit. The results demonstrated that those rats that exercised excessively showed no better growth than those that exercised around the ideal level.

Slimming to Success

Meanwhile, a new Canadian study, focusing on severely obese adolescents, has found that obesity can cause sleep disturbances that may lead to learning disorders and a significant drop in IQ. Dr Susan Rhodes, a psychologist at the Medical University of South Carolina in Charleston, claims that obesity causes a decrease of oxygen in the brain during sleep due to fat in the throat or a more indirect means involving the central nervous system, leading to a type of brain damage. She also suggests that putting obese adolescents on diets may reverse the damage and 'make them smarter'.



ANIMAL INTELLIGENCE

Culture Vultures

Sanjida O'Connell of the Department of Anthropology at University College London, raises an interesting question in her *New Scientist* review of W. C. McGrew's new book *Chimpanzee Material Culture and Implications for Human Evolution*.

Sanjida asks: 'If we, in our travels in space, came across a creature that shared 99% of our genes, used tools to gather food, hunted for meat and showed a wide variation of behaviour between several populations, would we hesitate to describe its behaviour as cultural?'

In his book, McGrew argues that chimpanzees do have culture, and gives us evidence a stunning diversity of 'cultural traits'. The chimpanzees found in Gombi, Tanzania, use tools in eleven different ways, ranging from fishing for termites with thin, spindly twigs shaped for the purpose, to making sponges out of leaves to soak up water.

Even within one type of tool 'use', such as nut-cracking, chimpanzees separated geographically vary enormously - depending on the materials they use for hammer and anvil, they can be divided into communities of the 'stick industry' or the 'stone industry'.

Does this count as culture? One argument suggests that since chimpanzees do not imitate one another, their behaviour is not cultural. Arguments against this point of view are increasingly supported by evidence showing that chimpanzees *do* imitate. But even if they did not imitate, this does not mean that chimpanzees are not cultural. There are many human cultural practices that require only observation for the dissemination. And, as McGrew states, if a particular behaviour is witnessed in the human population, we assume that it is cultural whereas we ascribe the same form of behaviour seen in apes to genetics.

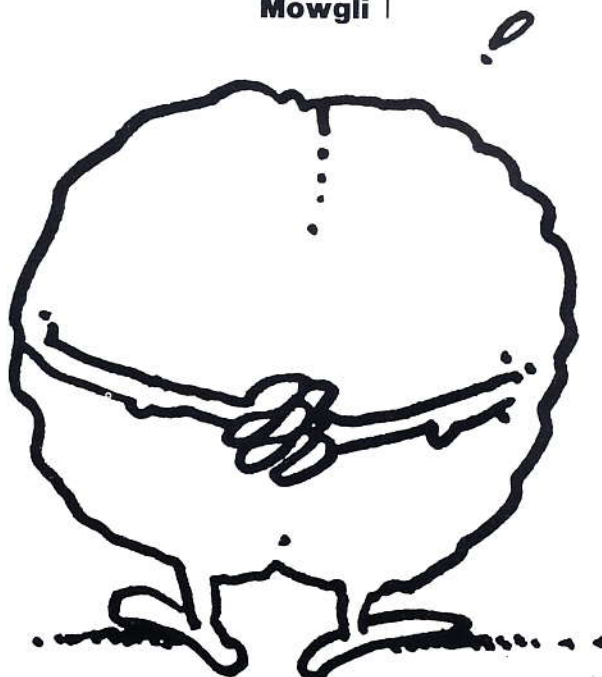
In his book McGrew further asserts that all known behaviour exhibited by human beings is within the cognate of capacity of chimpanzees. We both eat meat and butcher our prey in a similar fashion, dividing and sharing it with one another accord-

ing to social status, age and sex, etc.

Pressing his case McGrew points out that even our most complex tools are produced by experimentation. Chimpanzees similarly will alter their tools to fit the task by the same kind of scientific method. They do, for example, sculpt termite probes to different lengths with their teeth.

Apparently the only thing that chimps cannot do that we do is to use tools to create tools, for example making a stone hammer with another stone. This remains the only stumbling block in equating chimp and human cognition and intelligence, because the use of tools by apes has been taken seriously by prehistorians only when it involved stone. McGrew argues that this is not a fair comparison. In defence of the chimpanzees he says that they have no need to produce cutting tools, as they already have them in their mouths! He says: 'Only when we are clear about the similarities between chimpanzee and human, will we be able to recognise the *real* differences. If we wish to reconstruct the prehistoric origins of human technology, then we need to use the available axe of the creatures with whom we last shared a common ancestor.'

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Twenty-one years ago the first edition of *Use Your Head* was published by BBC Publications, accompanied by a television series of the same name. The author and presenter was Tony Buzan, creator of the concept of mental literacy and Mind Mapping. *Use Your Head* became an international best-seller and was translated into 20 languages.

A companion volume, *Use Your Memory*, followed in 1986, repeating the success of the original, and *The Mind Map Book*, written with Barry Buzan, appeared in 1993, since when it has been translated into seven languages.

To celebrate the 21 years of *Use Your Head* the BBC has proudly announced the publication of updated editions of *Use Your Head* and *Use Your Memory*, together with the first paperback edition of *The Mind Map Book* on 6 April 1995.

Use Your Head (paperback)
Price: £7.99
ISBN:0563 37103 X

Use Your Memory (paperback)
Price: £7.99
ISBN:0563 37102 1

The Mind Map Book (paperback)
Price: £12.99
ISBN: 0563 37101 3

A CHALLENGE FOR YOUTH

Brian Lee

Brian Lee, father of James Lee, throws down the gauntlet.

During the past sixty years or so mankind has experienced an ever increasing rate of scientific development and discovery. However, this development has not been without its downside: one incongruous result is that we now see widespread and genuine resentment, concern and even fear for and of the future.

One manifestation of that fear concerns the belief, especially among large numbers of the young, that there will be no jobs, no security, no areas of the earth left without pollution, no unused natural resources and perhaps worst of all, no real hope of a reasonable life for them. Another has been the severe drop in standards of care, behaviour and discipline. It is now clear that there is a very strong sub-culture that collectively has no regard for nor belief in rights to property, freedom of movement and basic human security.

It is now dangerous to walk alone from one part of even a busy city to another. The chances of an ordinary person being attacked and robbed are increasing by the day. Burglary and theft are now commonplace, crime detection is going down and the police have made it clear that their resources are already at full stretch.

Moral standards have decreased to the extent that even the old and infirm are liable to treatment unheard of in generations past.

What is progress?

It is nevertheless true that we have seen incredible discoveries and developments in those years. Atomic energy is being harnessed, men have landed on the moon, pocket calculators are available to all, computers have taken over more and more repetitive tasks and ever larger numbers of people have their own personal transport. All these things would have been unthinkable only a few years ago.

It is already possible for millions of people to take journeys covering thousands of miles in only a few hours in metal containers weighing hundreds of tons that fly!

Events across the world can be watched live from the comfort of your sitting-room.

It is already predicted that within the next few years a computer the size of a present personal computer will be built that contains the equivalent of the whole world's computing power as it is today.

'Virtual reality', which was perhaps first anticipated and illustrated in the 1930s by the 'feelies' in Aldous Huxley's *Brave New World* is now upon us and is potentially one of the most powerful teaching aids.

Unmanned detailed space explorations are taking place in parts of the universe which can only just about be seen with a powerful telescope.

The list of man's achievements is endless. But for human beings there is one more element that requires consideration: spiritual integrity. Providing we do not ignore that fundamental basic need then why even for a moment believe that such progress and opportunity will end now?

That is the challenge for us all.

Learn from past failures and experience.

Take the necessary initiatives.

Experiment with trial and error.

Continue and further increase the rate of discovery and development.

As a result create millions of new 'jobs'.

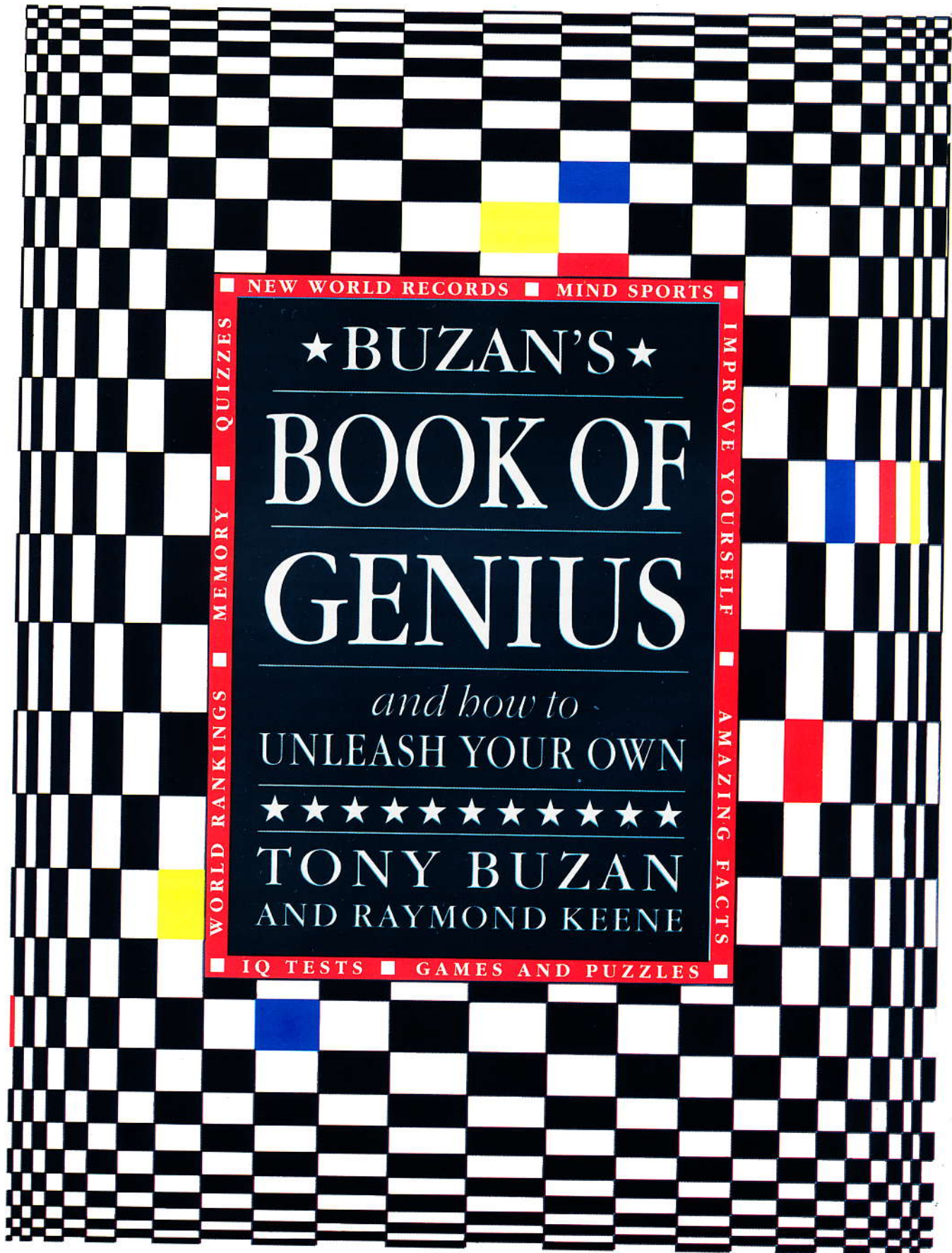
Restore to the world the 'security' and 'spiritual integrity' it so clearly now seeks but at the same time be prepared to pay the price that will surely result.

Research and implement the alternative materials and methods that will avoid pollution.

Find new resources to replace those being used (even if they do have to be found on the Moon or Mars!).

As for 'hope', that will remain as long as the human race itself.





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and how to

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TONY BUZAN
AND RAYMOND KEENE

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Buzan's Book of Genius, price £14.95, is available in all good bookshops.
Alternatively, you can order direct from the publishers Stanley Paul (tel: 0171 973 9000).

THE USE YOUR HEAD CLUB A BRIEF HISTORY

Phyllida Wilson

**Phyllida Wilson,
Chief Administrator,
reports on the rise
and rise of the Use
Your Head Club.**

The Use Your Head Club, originally known as the Brain Club, was initially conceived by Tony Buzan in 1973 when he was international editor of *Mensa* (the high IQ society) magazine. He had come to realise that 'rather than forming organisations which assume that some people are more "interesting" and "able" than others, surely it is time that we evolved. It is now time to see Man and the Universes as they are: infinitely involved, infinitely fascinating and worthy not of categorisation and division, but of understanding.'

Thirteen years later, Tony addressed a meeting of a group of young Swedish minds who called themselves Turning Point. These youngsters wanted to acquire as much information as possible to help them make a positive contribution to the future of the race. Tony flashed back to his thoughts of 1973 and realised that he could help such groups, and indeed all individuals, to develop their phenomenal natural capacities in a way that was continually self-regenerating and expansive - the Brain Club - a club where everyone is welcome, regardless of age or ability.

The idea took off, and the Brain Club was born. An office was set up in Bournemouth and, in the winter of 1989/90, the first edition of *Synapsia*, the international Brain Club journal (now known as *Use Your Head* magazine), was published. I was delighted to be asked to become involved with the Club when the office moved to Marlow in 1993. The Club changed its name to the Use Your Head Club on 1 January 1994.

The goals of the Use Your Head Club remain the same as originally outlined in the Club Manifesto. These are:

- A The development of members.
- B The development of a culture of Mental Literacy and excellence.
- C The generation of wealth and fundraising for the purposes of research and development, supporting the work of the Brain Trust.
- D The dissemination of information and teaching of brain-efficient techniques.

The Use Your Head Club is designed to

nurture YOU, and to assist in the next leap in evolution: the awareness of intelligence by itself and the knowledge that this intelligence can be nurtured to astounding advantage. The major areas we focus on are memory, speed- or range-reading, Mind Mapping, creative thinking, and learning and study skills. One of the main goals of each member should be to attain the various graded levels of certification in the areas of mental skill. Further information on this can be obtained from the Club Manifesto.

The purpose of *Use Your Head* magazine is to form a synapse between all members of the Club, thus creating the first neural network of a global brain.

Use Your Head Club members can remain as 'individual' members, working on their own personalised programme, or they can meet together at local 'cells' or clubs. Many such clubs have been established, usually meeting on a fortnightly or monthly basis.

Meetings are held in the homes of members, at community centres, schools, colleges or universities, or in any appropriate environment; places where you can improve, explore and discuss any area of mental literacy development, where you can meet people with the same goals and interests as yourself, make new friends, and have lots of fun!

Sometimes experts and lecturers are brought in to talk to the cell, or practical work is undertaken, as in the Central London Cell, where Mind Mapping and memory practice sessions take place every month.

The Use your Head Network, led by James Lee, has seen the formation of clubs in schools and universities in England and overseas. James has produced a 'starter pack' on how to set up a Use Your Head Club, and these are available from the Use Your Head office on request.

This year's annual Use Your Head Club Conference will be held in London at Simpson's-in-the-Strand on 24 June 1995. Do try to come along.

If you would like further information on any of the above, please write to us at the address given on the Contents page.

USE YOUR HEAD CLUB NEWS

Headboard

SOUTHWEST CELL

The Southwest branch of the Use Your Head Club got the New Year off to a great start by offering its members the chance to work on their presentation skills while studying *Buzan's Book of Genius*. Caro Ayre, Julian Wilford, Veronica Newton and Robert Dupontet have all given talks and lived to tell about it. Philip Garson presents an evening on Michelangelo and the Renaissance at the meeting on 11 April and in May Lynn Collins will be back. The UYHCSW meets on the second Tuesday of each month at 7:30 pm at Grantham Hall, Grantham, near Wellington, Somerset. For further information, please contact Lynn Collins on 01823 667685 or Caro Ayre on 01823 672603.

THAMES VALLEY CELL

The Thames Valley branch of the Use Your Head Club is one of the most active, meeting once a month at a prestigious location in Marlow, Buckinghamshire. The age range of its members is from a young as five right up to seventy years old. On an average night 25 to 30 people attend each meeting, exploring subjects as diverse as Mind Mapping, dance, memory techniques and Chinese physical relaxation!

The committee consists of two experienced and well respected Buzan trainers, Neil McKee, Club President and Bridget Phillips, Secretary, along with two brilliant novices, Yvonne Bray, Social Secretary, and Keith Bray, Speaker Secretary. The committee regularly seeks advice and guidance from club members on which subjects they would like to explore and ways of experiencing even more learning fun! In response to this much appreciated feedback, the Club is introducing workshop sessions on Club nights, including memory games and group Mind Mapping.

A programme of events for the year has been devised and a monthly newsletter is produced informing members of events for the coming month. We also organise social events at local restaurants and are already planning our summer barbeque and Christmas extravaganza! If you would like to find out more about the Thames Valley Cell, or would like to attend one of our meetings, please contact Keith Bray on 01628 474743.

LONDON CELL

The London cell continues to thrive and recently added second monthly 'practical evenings' to its regular monthly 'meetings/lectures' on a wide range of subjects.

The following dates for 1995 are already decided:

Lecture meetings: 19 May, 16 June, 21 July

Practice meetings: 5 May, 2 June, 7 July

For further information, please contact Michael V. Roman-Pintilie on 0181 372 1422 or Lady Mary Tovey on 0171 373 4457.

USE YOUR HEAD CLUB CONFERENCE 1995

This will be held at Simpson's-in-the-Strand on 24 June 1995. Please contact the Marlow address (see contents page) for further details.

CURRENT BRAIN CELL CONTACTS IN SE ENGLAND

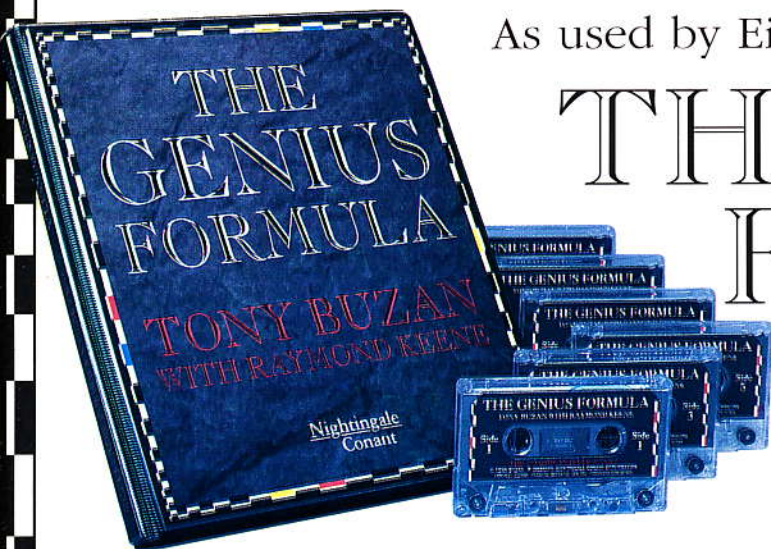
Bracknell	Ian Docherty	01344 862075
Canterbury	Warren Day	01227 760000 x 3824
Central London	Michael Roman-Pintilie	0181 372 1422
Hemel Hempstead	Penelope Dablin	01442 67637
Marlow	Phyllida Wilson	01628 477004
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Mastermind Groups ~ develop your own groups of colleagues and mentors to whom you can look for inspiration and guidance.

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Creativity ~ how to break the mould of existing experiences to explore new boundaries.

Mental Literacy ~ develop your knowledge and understanding of the way the brain functions and its behaviour patterns.

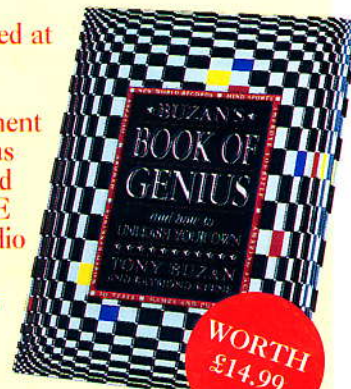
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