

SYNAPPSIA

£2.50

THE INTERNATIONAL BRAIN CLUB JOURNAL

Volume 3

Summer 1992

Number 2



Lorraine Gill

Night Owl

In this issue

- New Approaches to Education
- Brain Club Brain 1991
- Floating University 1992
- Exclusive Interview with school whizz Lana Israel
- Nigel Short for World Chess Champion!
- World Draughts Title: will Program prevail over Man?
- Mind Maps Galore!



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21st February 1995

Think on!

**SYNAPSIA Vol 3
No 2 Summer 1992**

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Design & Artwork by
Artwork Overload, Brighton

Printed by Newman Thomson Ltd
13 Albion Street
Brighton
East Sussex BN2 2NE

Typeset in Gill Sans & Times by
Brighton Typesetting
68A St. Aubyns
Hove
East Sussex BN2 3TE

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Everyone can join the Brain Club! See page 12 for details



The answer to our cryptic photographs from the Spring issue. New member Jez Moore (above) was on the left of the contents page photo, and on the extreme right of the four-man team photo on page 11.

EDITORIAL

Education for the future is the general theme of this issue. The subject is topical, and poses many questions.

For example, how does one develop human potential without harming the human? What is it that we should develop? Is it possible to reach down through culturally-ordained imperatives and find bedrock certainties (few of us would make good Spartans!)? Should teachers be trying to create a mental elite – even geniuses – by cramming their charges, or should a more carefree regime prevail?

These matters would give **Question Time** months of mileage, yet Ken Blanchard and Michael Gelb tell us confidently how people can be taught more effectively. (My **Quote of the Quarter**, conceived nearly ten years ago, is a Zen encapsulation of their articles!)

In the Spring **Synapsia**, Sue Whiting's heartwarming feature* informed us of Glenn Doman's mission to create 'better babies', but it did not itemise the methods used. This cannot be said of Blanchard or Gelb, or indeed of Jim Webster, each of whom offer explicit instructions on 'how to do it'.

Contingent upon this are the concerns raised in my review of **The Polgar Sisters** by Cathy Forbes. The book contains details of the methods used by Laszlo Polgar in his bid to create genius in his three daughters, and the girls have subsequently stormed the male-dominated chess world.

Moving on to the **Brain of 1991** award, it is gratifying to see Sumo star Chiyonofuji and **Star Trek** creator Gene Roddenberry sharing the honour. Nominations for the 1992 award are requested.

Please note the details of this year's Brain Club Conference at Durham University – there are still places to fill – and flock to join the Floating University in Jamaica this September. Bodrum was evidently wonderful, so roll up and enrol!

Jim Webster's Mind Mapping has helped him, and should assist anybody seeking to cope more successfully with the hectic pace of modern urban life.

My interview with Lana Israel conforms nicely to our pedagogic theme.

Lana's ambition to change global education is both exciting and refreshing. Imagine a group comprising Ken Blanchard, Michael Gelb, Lana Israel and Glenn Doman, and chaired by Tony Buzan! Perhaps this can be arranged at a future Floating University?

The poetry section is graced by Judy Caldwell's thought-stirring evocation of Australian aboriginal life. Readers with some Latin will appreciate that my contents page tag *Am-abo* has more than the suggested meaning, being the future indicative *I shall love* in that noble language.

In our chess column, Grandmaster Ray Keene pays homage to Spain's current sporting and cultural initiative. His fascinating contribution ends with a review of Nigel Short's great match victory over Karpov in Linares. **Synapsia** hopes that the young English hero can progress to the point where he challenges World Champion Kasparov for the ultimate title.

Watson, Farley & Williams are given their 'due meed of praise' by your Editor, and we hope for a continuation of their excellent sponsorship.

In **Animal Intelligence**, we learn of wonderdog Harley, who can somehow anticipate his owner's epileptic seizures. Thus prepared, Victoria can avoid the injuries that used to occur when the attacks caught her unaware.

The Brain Club Doctor follows up his introduction in the previous **Synapsia** by discussing the efficacy of some 'brain foods'. The subject of diet will, I suggest, become increasingly a matter of concern, so it will be as well to prime oneself with Dr Strigner's wisdom.

Tony Buzan writes about HAL, the logical-lethal shipboard computer in the film **2001**. Tony wonders if artificial intelligence (AI to the *cognoscenti*) can ever seriously compete with the human brain. When we know the result of the World Draughts battle between man and mechanoid, flagged so temptingly by Ray Keene in these pages, the issue should become more clear.

The solution to our **Check Mate** position is particularly attractive, and Ray Keene has added a draughts problem of his own in honour of the World Championship due to take place at the



Park Lane Hotel in August. Happy solving!

Both **Mental World Records** and **Amazing Memory Stories** deal with exceptional individuals – the newflash at the end of the former article shows that Brain Club member Dominic O'Brien is 'at it again!' Incredible though their achievements are, we should not be overawed. Rather, everyone should be working to release his/her own latent capabilities.

We hope readers enjoy the cover painting by Brain Club member Lorraine Gill. The autumn **Synapsia** will include her exposition on this subtle work.

Finally, we offer birthday Mind Map greetings to Tony Buzan, who was 50 in June. All Brain Clubbers send congratulations in the firm belief that many more years of sterling work will be accomplished by the Club's founder.

I need your contributions! MSS should be typed and sent to me at 32 Hollingbury Road, Brighton, East Sussex BN1 7JA.

Memoriad II

This event is to be held at Brocket hall, Hertfordshire, on January 16-17th, 1993. The venue is 20 minutes by train from King's Cross station.

Gold, silver and bronze medals will be awarded in **ALL** sections plus prizes! The entry fee is £100. Please send entries as soon as possible to Tony Buzan, The Harleyford Manor Estate, Marlow, Bucks SL7 2DX. (0628) 482765.

FIRST THINK POSITIVE!

Change the Style, Empower the Class

Dr. Kenneth Blanchard



Q If you had to ramble for a moment on the brain, with no specific direction, where would your brain take you?

KB I became more and more fascinated by the brain when I started a Golf University in California. I got into golf because when **The One Minute Manager** came out I had written something Spencer Johnson might have put in there: "If you don't give people feedback on results, it's like asking them to play golf at night!"

The Editor of **Golf Digest**, Jerry Tardy, read this and called to ask me if I played golf. I said that I was a real nut. He asked me to write an article with one of our top teaching pros, and I said I would love to if I could collaborate with Bob Tosky, as I had heard that Tosky was a real character and a great teacher. He said fine, and I flew to Florida and spent some time with Tosky. We ended up writing an article called **The One Minute Golfer** that became the cover story of the June 1985 **Golf Digest**.

Our lead feature advocates a shift away from traditional teaching styles to a more liberal regime, that of student DIY learning. Thinking positively is just one aspect of the contention. As in the subsequent article by Michael Gelb, emphasis is laid on creating the best environment for reception of knowledge, and readers might wish to propose their own ideal pedagogic ethos with a view to letting us know.

This is the first part of a *Synapsia* interview held last year with Ken Blanchard. He is famous for many things, especially his books, the main one being *The One Minute Manager*; for his presentations on Self-Management; and for his contribution to thinking. We are going to be discussing the brain.

It was on using goal-setting, self-praisings and self-reprimands, which are the three secrets. I felt that most people play against the golf course par rather than their own goal, and therefore they're always unhappy. If they could realise what their capabilities are and play against their *own* par, they would manage the game a lot better. People don't praise themselves enough; they are always calling themselves stupid and idiot, and so get angry. It is okay to do that, but with the one minute reprimand they end up reaffirming themselves.

We had a lot of fun with the article, and it had a really good response. **Golf Digest** invited me to their golf school, which they regard as the best in the United States. I had fun there with fabulous teachers, but never wrote an article about it because I didn't believe in what they were doing. I didn't think they really understood how people learned. I found that all the people in my group got *worse* rather than

better, because of information overload.

A Hole too Far

They rotated you around a bunch of stations, and told you everything you ever wanted to know about the game of golf. At the end of school they said: "Great to have had you. Have fun!"

I came back and couldn't hit the ball at all because I was completely immobilised by having so many swing thoughts. So I became fascinated by what would happen if I took the technology of golf, together with what I know about learning, and combined it into a school. And so, I started a Golf University.

I am particularly interested in the brain in relation to this, because when you talk to anybody in golf and ask them what percentage of golf is physical versus mental, they'll all say that it is 90% mental and 10% physical. When you inquire how they practise, they reply 90% physical and hardly any mental. I thought that was a little crazy, even in terms of my own game.

A friend of mine said that, if I was ever up at Pebble Beach golf course, I should go out and hit a second shot any time to see how well I could play. So, after giving a speech in Monterey, I went over to Pebble Beach at 4.00 o'clock. There was nobody playing there. The friend drove the golf cart



and, when I wanted to hit a second shot, I did. I shot 73, and being at that time about 13 handicap, which meant that I was normally playing in the mid to high 80's, it was an incredible thing.

73



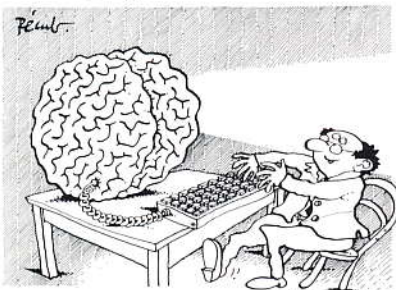
What this friend was trying to share with me (he is Chuck Hogan, considered one of the leaders of teaching 'mental' golf) was that I could hit all the shots, and that my technique training was probably *not* the key to success. What I needed to do was find out how I could access my brain so that I could replicate what I already knew!

That became really fascinating, particularly when in talking to people I started to realise that the brain is basically a computer. You can have the most sophisticated computer in the world, but if you have lousy software, the output is poor.

I think that human beings are really in charge of their software, but a lot of people let others program their brains negatively. They listen to parents, friends and the rest who tell them things that are somehow put in as if they were true.

Body and Soul

How can you get people to understand the mechanics of a game like golf and then take them beyond that, so they can use their brains to summon what they already know? The body knows how to do it, once you learn. In fact, Hogan has often said that we don't permit anybody to graduate from learning a skill. You have to relearn it repeatedly until it is internalised. What you have to do then is get access to it, and so I have become fascinated by how we program our own minds.



I remember talking with Norman Vincent Peel on the power of ethical management (he wrote **The Power**

of Positive Thinking). He said that one of the misconceptions people have is that thinking positively is all they need to do, when they should also be picking up some skills. It is not just about *managing* your brain, it is also about acquiring skills so that your brain can *manage*.

There is a story we tell at the golf school about a guy who comes to a waterhole. He goes to his bag and takes out an old ball. There is a flash of lightning, and a booming voice says: "Use a new ball! Be a positive thinker!" So the guy gets out a brand new ball, puts it down, and takes a practice swing. There's another flash of lightning and the voice says: "Use an old ball!"

There is a difference between *learning* your skill and being able to *apply* that skill.

When I teach golf I say that teachers tend to dominate the teaching-learning process. The professor's notes become the student's notes, and don't enter the mind of either. But learning entails a change in behaviour. You really have not learned anything unless you can do something differently. Also, how do you get people to *own* the learning, so that they can really use it?

Situation Leadership

We had developed a management model called Situation Leadership, which can be used for teaching people. If you want to teach a skill, there are two kinds of instructional behaviour you can try.

A Directive behaviour, where you tell students what to do and how to do it and where to do it, and supervise them closely.

B Supportive behaviour, where you listen to the students, involve them in decision-making, and facilitate their interaction.

The first I call the *empty barrel philosophy of teaching*. The kids come to class with their barrels empty of knowledge and experience, and the job of the teacher is to fill them. Directive behaviour is about barrel-filling.

The second I call the *full barrel philosophy of teaching*. The kids bring into class their knowledge and experience, but it's not organised for any particular subject. The teacher's job is to draw out of them that knowledge and experience and help organise it. Supportive behaviour is about barrel-drawing-out.

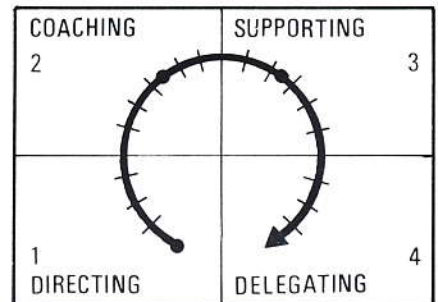
What we argue in Situation Leadership is that there are *four* different ways you can go about teaching people.

★ There is the directive, barrel-filling style. If there was noise in the hall that was bothering us, I might say: "Could you go outside and tell those people to move their conversation down the hall? When you've finished that, back to me." I'm filling your barrel.

★ Whereas if I wanted to go to the supportive, barrel-drawing-out style, with the same problem of the noise, I could say: "There is a lot of noise in the hall that is bothering us. What do you think we should do?"

★ But there is a barrel-coaching style that lies between directive and supportive. It is both barrel-filling and barrel-drawing-out. I would say: "There's a lot of noise in the hall that is bothering us. What I think you ought to do is go out and tell those people to move their conversation down the hall. What do you think? Do you have any suggestions?"

★ The last style is delegating, where you turn the problem over to the students.



If you look at this four quadrant diagram with directing in the lower left-hand corner, moving up to coaching, then over to supporting and down to delegating, we have kind of put a curved line in there. I see that line as a railroad track. It has first to do with teaching students who don't know by giving them knowledge. But if you want them to own the learning, you have to get to a delegating/leadership style, where they don't need you any more to apply and use the knowledge.

Still imagining the curved line as a railroad track, at what two stations do you stop if you want to go from teacher-dominated to student-dominated learning?

You have to stop at both coaching and supporting. So you go from directing, which is teacher-dominated learning, to coaching, which has some student-involvement learning, to supporting, which has some teacher-involvement learning, to delegating, which is student-dominated learning. There seems to be a sequence and a process.

Q How would you instruct readers concerning “the noise outside”, using the delegation model?

KB I would say: “There is a lot of noise in the hall that is bothering us. Please take care of it.” You will notice that in the examples of the four different approaches, I always keep the goal the same. I think that human beings are classically different from most animals in that we have goal focus beyond just survival. I went on safari, and the animals spent about 16 or 17 hours a day on their own subsistence. We can have goals beyond that.



Leadership or teaching cannot occur unless you have a vision of where you are going. I don't care what your leadership or teaching style is, if you're not going anywhere then you can't take me. Many people lack a vision of what they hope to achieve with the knowledge they're trying to give.

Night School Experiment

The changing of teaching styles, which I think is really important for people to understand, happened when we experimented with a night masters in business administration. There were four sections in the same course. We asked two of the instructors how they taught, and they said they basically lectured or led a discussion on a case or a concept.

Lecturing is a directing/leadership style, where you are filling the barrel, and leading a discussion is a coaching style, because you are both barrel-filling and barrel-drawing-out. We said to them: “Why don't you keep up that teaching style and teach that way?”

We taught the other two instructors Situation Leadership, and showed them how, every two weeks (the classes met twice a week for eight weeks), they could not only change their teaching style but reorganise the room.

1 Directing, barrel-filling style. For the first two weeks the chairs were all in rows, and there was a podium up

front. We told the professor that he had four three-hour classes to teach his students everything he knew. (I don't know anybody in the world who knows more than 12 hours on any one subject. That's a lot to know!)

2 Coaching, barrel-filling/drawing-out style. For the second two weeks the rows were gone, and the chairs were set in a half-moon as in a typical business school case classroom, with the professor in the middle. The students could now see each other, and we told the professor that he could no longer lecture to the students. Instead, he had to lead a discussion on either a case or a concept. We had forced him into a coaching style, both barrel-filling and barrel-drawing-out.

3 Supporting, drawing-out style. During the third two weeks the half-moon had gone to be replaced by a circle. The professor was in a circle of chairs with the students, and we told him: “No longer can you lecture. No longer can you lead a discussion. Now all you can do is make two kinds of comment. One kind is supportive, like this is a really interesting discussion, the other kind is a process comment, so that everybody has a chance to contribute.” We had forced him to a supporting style, which is about drawing-out.

4 Delegating, student-independent style. In the last two weeks the professor said: “Look, I'm writing an article for the **Harvard Business Review**. They've put pressure on me and I must write the article, so I've set up a desk in the next room. For the next four classes I'm going to be next door writing my paper. If you need me for any reason, you know where I am, but I don't think you'll need me.” So we moved him out of the classroom and forced him into a delegating style, where the students had to run the class themselves.



The interesting thing is that, on the last day of class in all four classes, we had a secretary come in and write on

the blackboard: ‘The professor is sick tonight – carry on as usual.’ Now, what do you think happened where the professor had lectured or led a discussion? Within five minutes the place was cleared. Nobody stayed because what would anyone know what to do, the professor having been in charge all the time?

In the classes with the changing style, nobody left. The students put a microphone on the table and said: “He hasn't been here for weeks anyway. Where were you?” One of the classes even stayed a half hour longer than required.

We gave the same content exam to all four classes as an attitudinal instrument on how they liked the course, and we kept records of absenteeism and tardiness.

The classes with the changing style not only knew more and liked the course better, they came in when the professor was absent. How is that possible when he was not even there for the last four sessions? *Where we have moved from teacher-dominated learning to some student-involvement learning to student-dominated learning*, so that they can really own the concept.

A graduate student of mine, Mary Dodge, used the same concept with head-start kids in Vermont. Over the year she changed her teaching style within this format. At the beginning she ran a classroom a lot like Madame Montessori. It was very structured; the kids would come in saying “Good morning, Miss Dodge.” Gradually she changed her style, with observers coming in, and it just blew their minds.

In the spring the kids would run off the bus and say “Hi Mary!” and boom into the classroom. They knew exactly what to do and what their responsibility was. We tested these kids in reading and maths, and all their scores were above normal.

*The coaching style at least has already crossed the Big Pond. On the first Sunday in May this year BBC 1's **How Do You Manage?** showed coaching and self-analysis being used with apparent benefit by the staff and pupils of a large state school. Any advance on coaching? – Ed.*

To be concluded in the next issue. His observations on Skinner's Walden 2 are fascinating!

HIGH PERFORMANCE LEARNING

Creating a Brain Nourishing Environment



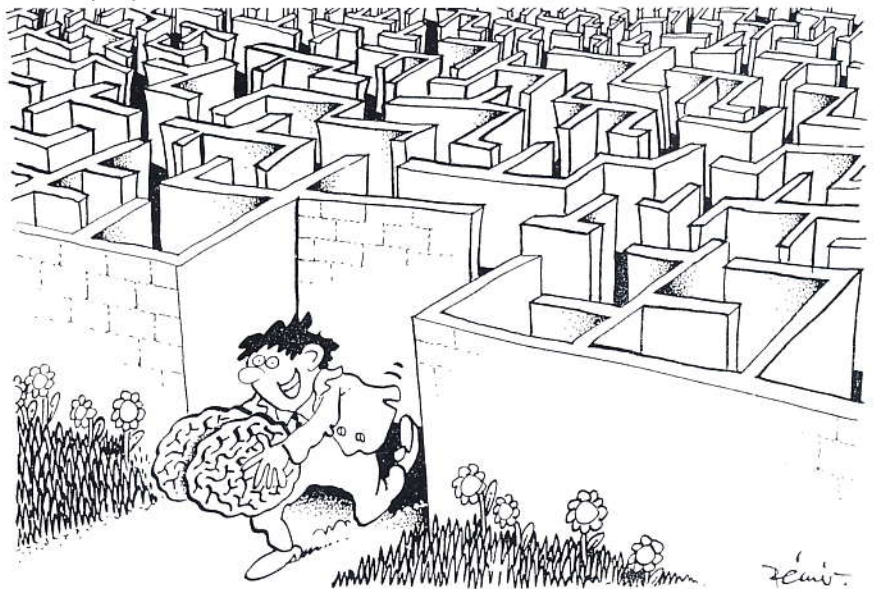
BUSINESS BRAIN

Michael Gelb BCM 158

The importance of relaxation as an aid to learning is usually overlooked. This is strange when one considers that people who are at ease can often 'move mountains'! Michael Gelb explains how he forms environments designed to produce creative quantum leaps in us all.

These institutions usually feature cubicle structure, generic wall colour and fluorescent lights. I call this phenomenon "cubicle consciousness" – it is the idea that people will work best in drab,

meetings are held, and nothing seems to change. Whatever efforts are made, creativity and innovation will not become part of a corporation's culture until they are consistently nourished.



Where are you when you get your best ideas? Where are you actually physically located?

Over the past twelve years, I have asked tens of thousands of people this question. Most people answer that they get their best ideas while resting in bed, driving or relaxing in the shower or bath.

Virtually no one said that they got their best ideas at work!

What is going on in bed, in the car, or in the shower that is not happening in the workplace? Most people answer: "Relaxation" and "Freedom from the threat of criticism."

How can we create an atmosphere in the workplace that encourages the generation and application of our best ideas?

To provide an answer to this question, let us begin by considering the current state of most corporate environments.

Have you noticed the similarities among the designs of most corporate and government offices, hospitals, schools, prisons and insane asylums?

uniform, linear environments, and that stark surroundings will help us concentrate.

The sensory impressions from our daily environment act as a kind of food for our brain. Most people in corporate America are suffering from mental malnutrition, the result of a regular junk food diet.

The irony is that most organisations are issuing urgent calls for greater creativity, innovation and empowerment from all levels of management. Memos are sent, speeches are given,

This nourishment requires appropriate training in creative thinking, policy and structure changes that reinforce desired behaviours, and the development of environments that support creativity.

As organisations demand greater creativity and innovation from their members, they must provide spaces which encourage the behaviours they require.

What are the keys to establishing an environment conducive to creativity?

Before I describe them let me tell you a few stories from my experience with clients.

In 1982, I was invited by the DuPont Learning Resources organisation in Wilmington, Delaware, to help them solve a training problem. This group was responsible for training people in the use and maintenance of a machine designed to conduct a number of complex tests for healthcare institutions.

To remain cost-effective, training for this machine needed to be completed within a week. The problem was that the training often took two or even three weeks.

On my first visit to the learning resources site, I was impressed with the state-of-the-art interactive training technology. Students had sophisticated computerised classes and actual machines with which to practise. However, the learning environment was standard cubicle consciousness: generic colour walls, fluorescent lights... with the only attempts at aesthetics being large pictures of the machine hung just behind each machine! Students were given one coffee break in the morning and one in the afternoon.

The learning resources team (39 people) attended my three-day **High Performance Learning** training programme, focusing on the application of creative thinking skills to real-life problems. On the first day back in the workplace, the training facilitators experimented by playing classical music throughout the workday. From that first day onward, the facilitators reported that their students were asking at least 50% fewer "unnecessary questions." They speculated that the music helped their students relax and focus, at the same time, freeing them from the need to 'get confused' in order to get a break from the monotony.

We made a number of other changes in the learning laboratory. We:-

- ★ took down the machine pictures, replacing them with Impressionist prints;
- ★ replaced the fluorescent lights with full-spectrum bulbs;
- ★ encouraged the students to bring in fresh flowers to make the environment more aesthetically pleasant and 'alive';
- ★ transformed the coffee lounge into a 'creative break room', filling it with coloured pens and flipcharts for doodling, toys, games and juggling balls (I had trained the training supervisors to juggle);

- ★ encouraged the learners to take up to ten minutes of break-time out of every 60 minutes.

DuPont Learning Resources did their own study on the effects of these changes over the course of a year. The results? A 90% improvement in productivity.

In another instance, I had conducted a **Creativity Training Programme** for a group of engineers. Although their response to the programme was positive, they were not optimistic about their chances of being able to apply what they had learned to their workplace.

As they described it, the building they worked in was a giant cube. They felt afraid of appearing relaxed. They worried about being ridiculed for using colour and imagery in the brainstorming techniques I had taught them.

Brain Room

After visiting their worksite, I could empathise with their problem. Their environment was oppressive. Our solution was to take over a conference room and transform it into a 'team brain room'. We had a stencilled nameplate on the wall outside the door of the room which read *Brain Room*.

Thus, we legitimised a more relaxed and flexible mode of functioning in the workplace, thereby supporting individual and team creativity.



Building a culture that supports creativity in the workplace is a highly complex task. *Creating your own Brain Room, however, is a simple, concrete step in the right direction.* If you wish to create your own brain room you may wish to consider the following elements and resources:-

Room Take a conference room, utility room, basement or empty office and remove all standard furnishings and telephones. Put a sign on the door that says, *Creativity Room, Brain Room, Think Tank*, etc.

Lighting Natural lighting is best, so

try to find a room with windows – remove fluorescent lights and replace with full-spectrum, halogen or incandescent bulbs.

Sound Install a good quality stereo system and play non-choral classical, jazz or new-age music during brainstorming and breaks. You may also wish to experiment with environmental sounds, wave machines and white noise.

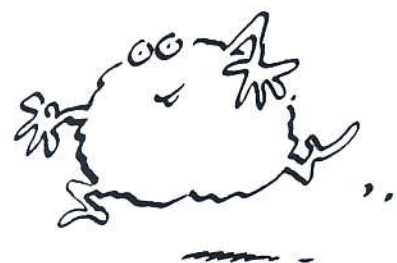
Aesthetics Find a soft colour that everyone in your group likes and paint the room accordingly. Hang inspiring art work on the walls – perhaps a mobile on the ceiling. Bring in living green plants and fresh flowers.

Furniture / Equipment My favourite chairs for Creativity Rooms are balans chairs and physioballs. You may also wish to bring in a comfortable couch or even a hammock! Have an ample supply of flipcharts (get the extra-large size if possible) and an abundance of coloured pens and highlighters. For group Mind Mapping, I recommend an overhead projector (a good quality, low-noise model) or a wall-size dry erase board.

Air Most indoor environments are stuffy and either too hot or too cold. Have a heater/fan available – you may also need a humidifier and/or dehumidifier and an air purifier (green plants are helpful here). Experiment with aromas – potpourri, incense or essential oils, i.e. peppermint for alertness, lavender for relaxation.

Breaks You may wish to have toys and games available for breaks, i.e. modelling clay, erector sets, juggling balls. You can also experiment with meditation/relaxation tapes.

Your Brain The most important ingredient in creating your *Brain Room*. Keep your mind open and committed to continuous improvement. Nurture an 'I can/We can – win/win' attitude. Apply the four phases of the brainstorming process (Preparation, Generation, Implementation, Integration) while following the guidelines for Mind Mapping. Have fun working smarter! ■



BRAIN CLUB

BRAIN 1991

Two Global Brains!

The Brain Club announces Brain of the Year 1991

The Brain Club, a charitable organisation dedicated to research and the dissemination of knowledge about the brain, learning and cognition, is pleased to announce the Brain of the Year 1991.

The competition this year was particularly close, the finalists including the previous year's winner, Gary Kasparov; Ted Turner, **Time** magazine Man of the Year; Chiyonofuji, the great body and mind exponent of Sumo; the Prince of Wales; Dominic O'Brien, the first World Memory Champion; Madonna, who has a genius IQ; Gene Roddenberry, the originator of **Star Trek**; Carl Sagan, the 'astronomer royal' of the United States; Liz McColgan; General Schwarzkopf and Mikhail Gorbachev.

After intense deliberation, the Executive Council of The Brain Trust (the ruling body of The Brain Club), whose members include Sir Brian and Lady Mary Tovey, Chess Grandmaster Raymond Keene OBE, Vanda North, author of **Get Ahead**, and Tony

Buzan, author of **Use Your Head**, could not separate two of the final contenders.

These two outstanding nominees were awarded joint first place and the prize of Encyclopaedia Britannica's **Great Books of the Western World**.

The recipients of The Brain Club Brain of the Year 1991 are Chiyonofuji and Gene Roddenberry.

Chiyonofuji

Chiyonofuji (Akimoto) Mitsugu was arguably the greatest Grand Champion (Yokozuna) in the history of Sumo wrestling. Extremely light for a Sumo wrestler, he pitted his 127kg against opponents weighing up to 250kg. He used a combination of astonishing guile, consummately sculptured physique, and extraordinary mental strength to win more bouts (1045) than any of the other 62 Yokozunas in the centuries-old history of the sport.

During his 21 year career, the 'Wolf

won an astonishing 31 Grand Sumo tournaments, despite constant 'advice' from others that he was too small, too weak, and had the 'wrong build'.

In response he revolutionised the sport, developed new training and fighting techniques, and became renowned for an extraordinary dedication and originality that often made spectators gasp.

Throughout his career, Chiyonofuji made a habit of educating and nurturing the young, not only in Sumo but in their general approach to life. He constantly reiterated his own personal theme: "There is something to learn all the time."

He retired in May of 1991 to continue his teaching career after having launched Sumo around the world and having become both a national and international hero.

Sculptures of him and his superbly honed body are beginning to rival the sales of Michelangelo's **David**, and he has become the only Japanese figure, other than a prime minister, installed at Madame Tussaud's.

The Brain Club Council emphasizes the principle of *mens sana in corpore sano* (a healthy mind in a healthy body) in their deliberations. Chiyonofuji was a supreme example of both. In a world of ultimate *physical* giants, he was renowned as an even greater mental giant.

Gene Roddenberry

The originator and mastermind behind **Star Trek**, Roddenberry was an engineer, decorated war hero, pilot, social mover and shaker, and visionary.

In his early writing career, he was the prime creative and driving force behind the cult Western **Have Gun Will Travel**, the first Western to feature an intellectual hero **Paladin** (the name for the knight chess piece).

Roddenberry, a leading member of the American Humanist Association,



Tall order! Chiyonofuji relaxing at Simpson's-in-the-Strand, London.

moved on from there to the creation of **Star Trek**, where he met apparently insuperable barriers to putting on a television series that was initially almost universally ridiculed. The themes that inspired **Star Trek** included racial and sexual equality, the training of the intellect and the body, and the importance of compassion and love.

In his own words: "To be different is not necessarily to be ugly; to have a different idea is not necessarily to be wrong. The worst possible thing that can happen to humanity is for all of them to begin to look and talk and act and think alike. The best measure of maturity and wisdom in a human is the recognition of value received in hearing another say, 'I disagree with you for the following reasons' . . ."



TOPHAM

Eugene Wesley Roddenberry, the creator of **Star Trek**.

Roddenberry had an unusually optimistic view of the future of the human race and made large contributions to the development of social awareness. The first prominent black character on US television was Lieutenant Uhura, the communications officer on the original **Enterprise**.

This idea was so radical that Martin Luther King Jnr was moved to urge Uhura (Nichele Nichols) to stay with the show when she was thinking of quitting.

At the height of the Cold War, Roddenberry brought in Walter Koenig, who played the Russian officer Chekov, honouring the country that had put the first person in space and making the point that enemies need not be permanent.

Spock was not only an alien, but a half-cast – the first of many in the **Star Trek** series. In **The Next Generation** there are increasingly such similar characters in which different colours,

racings and cultures are not simply tolerated, but are encouraged and allowed to thrive. The traditions of each culture are not only respected but celebrated.

One of the outstanding features of the series and films was, and is, the constant use of cultural and literary references, the programmes being laced with quotes from and references to such great writers as Shakespeare, Goethe and the Japanese Buddhists.

Martin Hewitt, Director of the National Air and Space Museum, opening a permanent **Star Trek** exhibit, said: "When you look at the biographies of the great pioneers in the field of air and space, you find that time and time again they were inspired by the stories of H G Wells and others who specifically wrote about the future and the role that we as inheritors of this earth would play in that future. **Star Trek** did the same thing for the youngsters of the 1960's."

This is confirmed in a recent feature article in **New Scientist** magazine, which concludes: "It is no surprise, then, that students (and professors) of the Massachusetts Institute of Technology, NASA engineers and other technical people find the programme compelling. **Star Trek** is confirmation that what they are doing is worthwhile, that science is not an unnatural, sinister art that will lead to our destruction, but something that will allow us to become richer, fuller human beings. Given the stick that scientists usually get on television and in films – mad scientist or laboratory rat – this is no small step."

Indeed, there are now over 500 organisations promoting the principles that underlie the series. **Star Trek** has given rise to a following of tens of millions of *Trekkies* worldwide and the number is ever growing. It has spawned industries that generate billions of dollars.

In an appreciation, Arthur C. Clarke said: "At a dark time in human history, **Star Trek** promoted the then-unpopular ideals of tolerance for differing cultures and respect for life in all forms – without preaching and always with a sense of humour. Few men have left a finer legacy than Roddenberry. **Enterprise** will be cruising the galaxy for centuries to come."

QUOTE OF THE QUARTER

Let go in order to grasp.

Julian Simpole

Criteria for the Brain of the Year Award

The award is given annually to the global individual who best meets the following criteria:-

- 1 The candidates must be pre-eminent in their chosen field of endeavour.
- 2 The candidates must have contributed major new creative developments to their field of endeavour.
- 3 The candidates must have made a notable effort to educate others in their chosen discipline.
- 4 The candidates must have incorporated the principle *mens sana in corpore sano* (a healthy mind in a healthy body) in their lives.
- 5 The candidates must have exhibited persistence and stamina over time.
- 6 The candidates must have been alive in (at least part of) the year of nomination.
- 7 The candidates must have demonstrated a general cultural awareness.
- 8 The candidates must have demonstrably contributed to their society.
- 9 The candidates must have demonstrated a concern for humanity.
- 10 The candidates must be active and known on a global level.
- 11 The candidates must be a good role model for those in their field and for youth in general.

Additional Information and Brain of the Year 1992

The Brain Club will be delighted to receive nominations for Brain of the Year 1992.

Leading nominations received so far are:- Mohammed Ali, Stephen Hawking, Madonna, Gary Kasparov, Marion Tinsley, Judit Polgar, Bill Gates, Oliver Messiaen, Satyajit Ray and Alex Hailey.

The Charity will also help with the preparation of programmes, articles and competitions surrounding this annual event.

The finalists for 1992 will be announced in January 1993.

For further information please contact:-

The Brain Club

The Harleyford Manor Estate

Marlow Buckinghamshire

SL7 2DX

Tel: 0628-482765 or

0202-535071 0628-475980

Fax: 0628-486545 or 0202-536442



BRAIN CLUB NEWS

Sally Shelford

Greetings to everyone and a special welcome to new members.

The London Brain Cell

London Cell organisers Jane Mitchell and John Needham have passed on the baton to another energetic couple. We owe Jane and John a huge debt of thanks for their tireless enthusiasm, for their belief in the Brain Club, especially in the early days, and for setting up such an active Cell. On behalf of The Brain Club, I do thank them.

Looking to the future, the London Cell will now be run by Sue Whiting and Mihail Roman-Pintilie to whom also thanks and best wishes – I look forward to paying a visit in the future. Meetings will generally be held at 7.30pm on the third Friday of each month at the Price Waterhouse Training Centre, Union Street, London SE1 – as before. Dates for the next six months are given below. For further information contact Sue Whiting (0923) 853765 or Mihail Roman-Pintilie 081 886 7106. Meanwhile, Jane and John will be continuing to attend, so their advice is still at hand!

MAIN SESSIONS of the LONDON BRAIN CELL

1992

21st August	Memory and Mnemonics
18th September	Personal Power
16th October	Range and Speed Reading
13th November	Study Aids and Techniques
11th December	Teaching Children and Adults

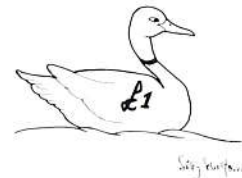
1993

15th January	Concentration and Meditation
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In addition to the main session, each evening will commence with a 'warm-up' exercise, a short memory-mnemonics exercise, and a simple mental arithmetic exercise as well as anything else that members might wish to share with other members.

The purpose of the meetings is for members to improve their general brain power and thinking techniques in an enjoyable way.

The Brain Club Charity Duck Race



Sponsor a duck for a £1!

There will be a noon launch at Harleyford, Marlow, on Sunday 9th August. All monies raised will go to The Brain Trust, a charity that assists a variety of worthy causes. The Trust also runs the Brain Club.

The first 50 ducks over the line (at Harleyford slipway) will win!

Top prize is a set of Childrens' Britannica. Other prizes include three autographed books by Tony Buzan, three autographed books by Raymond Keene, afternoon tea for two at the Compleat Angler, and bottles of whisky and wine!

There will be more prizes on the day, and there is still time to donate a prize to this deserving event.

For more details, or to pledge your £1 donation, call (0628) 482765.

Floating University

This year, as you know, it's actually anchored on an island in the Caribbean. Sun, sea, good food and wine, relaxation – what an idyll in which to learn. Please send applications to the Buzan Centres, Cardigan House, 37 Waterloo Road, Bournemouth BH9 1BD. Phone (0202) 533593.

Conference

Again, you will have seen the flier in the last edition of **Synapsia**. The response has been fantastic and I look forward greatly to meeting those of you who've already booked. Speakers include Paul Collins, BCM 373, who will talk about the Alexander Technique; Ray Keene, who has undertaken to play the entire Conference at chess!; and, *most* important, Tony Buzan and Vanda North will be there with their matchless knowledge and teaching skills. We hope they'll be bringing even greater surprises than last year – it promises to be quite a weekend. Anyone who's interested and who hasn't yet applied – **ring us today** on (0202) 535071.

Editorial addition

The 1992 Brain Club Conference, scheduled for 31st July to 2nd August at Durham's historic university, promises to be memorable for all the right reasons. (Will Grandmaster Keene win every game....?) Sally welcomes further bookings. It is only £140 all in!

The following Brain Club aims will certainly be at the heart of all that takes place during the Conference:-

- 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.

The Brain Club is actively seeking new members. The individual fee is £30 a year, for which members receive **Synapsia** four times a year plus other benefits. Contact Sally Shelford at 778 Wimborne Road, Moordown, Bournemouth BH9 2DX, Dorset, UK for membership details.

BODRUM REVISITED

Just Another Day on a Luxury Brain Club University Yacht

Vanda North BCM 2

Relaxation as an aid to study – was your Alma Mater like this?

At one second past midnight, the old day rolled into the new and the conversation didn't even begin to slow down for an additional hour and a half.

"Challenge you to a lightning game!" Caused flashes of knights and bishops to charge across the chequered boards glowing in the moon/candlelight.

"Do you know why the elephant was wearing BLUE plimssoles?" demands Charlie, as he rolls with pride through his 127 elephant jokes (phone Charlie for the answer to this and the other 126; he made a Mind Map of them!) The future of mankind and personal episodes in life were topics exchanged, explained and entertained.

Just as we had begun to turn in, a yell is heard from the bow (pointed end).

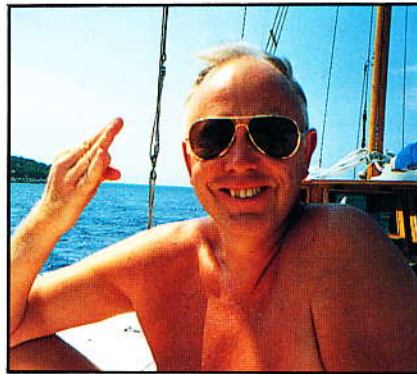
"LOOK AT THIS!" Not knowing WHAT to expect we rushed in various states of night preparation to LOOK. Our gazes were directed towards the sea.

Spellbound, we watched the most incredible moon/laser water show. Searing white shapes interwove, splashed, languished and quivered on the silky black undulating canvas. God's Doodles they were named. Charlie felt this magic moment called for something even more special than an elephant joke, and removed his clothing (except, of course, his pink TAGA-MET cap – so we would recognise him) and dived with razor-like sharpness and extremely pointed toes right into the middle of 'God's Doodle'. We contemplated the cosmic meaning of all this.

I slept outside – it was cool. The Milky Way kept my eyelids wide open, waiting for just one more falling star.

All too soon the rallying cry of the Graceful and Dignified Swimmers Club was warbled (you recall I wrote of Klaus's great improvement last year . . . well, he was still very good.) Today Tony Taskmaster was extolling the virtues of the breast stroke frog kick (the mind boggles).

"Open legs, then SQUEEZE and push, squeeze and push" (I thought of Lamaze classes). When everyone had performed sufficiently well he gave us the A OK and free swimming was allowed.



Taskmaster Tony says "A OK"

After the breakfast feast we hoisted anchor, Captain Tony pointing the way on the map – Yedi Ada it was to be (yedi -7, Ada-Islands).

Lorraine Gill, our aquatic resident art teacher, had previously allowed us to 'Make our mark' – an amazingly

revealing experience. Then she had taught us to begin to see rather than judge, and gave us some of the alphabet of vision – light and shade and perspective. Now we were allowed just to sketch, as we went along, something from our imaginations. As we journeyed, little groups formed to play chess, or discuss the chess problems posed in *Synapsia*, or just relax and read or draw. I had been attracted to the bow by the mirrored image of our sister ship and the misty hills backdrop, and was sketching when I saw hoards of flying fish skimming above the water. My squeak of excitement brought several members forward to enjoy this amazing show.

Yedi Ada was even more beautiful than the previous bay. We weaved our way round islands.

"There, look look – perfect."

"Oh no, look over there!" But Captain Tony and Captain Jumur had the logistics under control, and the perfect spot was located. Soon the wonderful smell of cooking spaghetti



Captain Tony plotting our course



Our sistership with misty hills backdrop

sauce and the crunch of mounds of fresh salad and the pop of wine corks synaesthetically satisfied us, and dedicated to Leonardo we tried multi-handed synchronistic, ambidextrous wine pouring – nary a drop was spilled.

After lunch, in the middle of a scintillating intellectual discussion, Klaus was to be seen slowly dropping back to the supine position, signifying the other great championship competition (chess being the first), that of SIESTA-ing. Soon Javier and Klaus were in fierce competition. The rest did their best.

Mehmet, our resident champion diver, offered to teach us to dive for clams, and after our rest Tony, Charlie (in the pink hat, so we'd recognise him), Mehmet and I went out to hunt.

"Uuutt ouuff" said Mehmet – conversation is difficult through a snorkel. The downward point helped to translate. I looked down. Almost as far as I

could see was a bed of grasses, waving gently at me. In the middle of the grasses was what looked like the sole of an old shoe sticking up. As I watched, Mehmet catapulted down, grabbed the sole, and returned triumphantly grinning (also difficult with a snorkel).



"Clams Up" Charlie w/o his hat (it came off)

"Uuuu" he grunted, pointing at me. ME!!? Go, before I think about it. A big gulp of air and I'm peddling down towards the bottom. A thought strikes.

"Who else is living in those grasses? Will the clam bite back? Does it have a stinging tongue? Why am I doing this? I reach the clam, I pull, I wrestle, I strain, but it does NOT want to come with me. I float up, disappointed.

"Grab it by the root!" I was instructed.

"It's the clam or me," I decided. Two more gulps of air – down again, grabbed it by the root, wriggled and twisted and pulled with all my strength, and as a tooth slowly lets go of the gum

the clam gave itself to me. One by one we claimed our clams, feeling very proud of our physical and mental achievement. Meanwhile our captains had caught several octopuses, one of whom was not happy to be a dinner guest, and was seen to be making as hasty a retreat as his eight legs would allow.



Supper guest beating a hasty eight legged retreat

After an outdoor shower and dry warm clothes, a lively discussion began around *the change process*. Several of us worked on how to overcome the impediments to change, and what would enable it to be actually supported and implemented (probably a **Synapsia** article to follow). Tilvin, our spokesman, made a brilliant presentation to the group in his second language. We were most impressed, and Tilvin looked extremely pleased.

Supper arrived. Mehmet scolded us for leaving the BEST PART of the fish – its HEAD! He proceeded to show us how to eat the cheeks, and to "SUCK out the BRAINS!" For the Brain Club University this seemed both appalling and appropriate.

Conversations were multilingual, all mixing, learning, trying; German, French, Spanish, American, English, Turkish, Australian, and finally Animal.

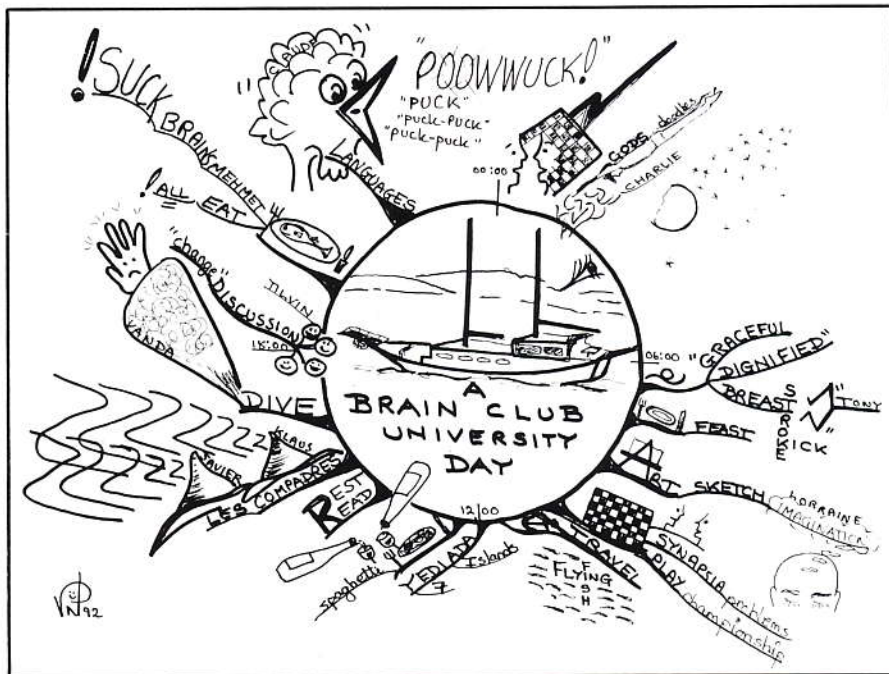
The last came about as a culmination of a deeply historical and philosophical discussion about who could make which animal sounds. The crown prince of this activity was the rooster. He crowed with such feeling, such intensity, such clarity, such power, such build up, that it was amazing that a herd of hens did not paddle at once to our boat! So good was it, that encore after encore was requested. We were not always sure he could rise to the occasion, but beginning with a gentle



Ambidextrous synchronistic wine pouring

gathering of clucks, building then subsiding, building again... we wait... subsiding, building and with a mighty climax: "Poowwwwuck!"

Eyes bulging, forehead furrowed, neck muscles gorged, underchin wildly flapping, he would rise several feet in the air. Applause boomed out. What a day! Jaws aching from laughter, fingers all cut up (the clam *had* bitten back) head filled with new ideas, exultations, learnings, body gently exhausted and glowingly used, and heart filled with friends' love and happiness, we slept like babes.



BRAIN CLUB UNIVERSITY 92 GATHERING OF THE CLAMS!

Pat Barnes BCM 554

Make sure you are one of the lucky 10...
paradise awaits in Jamaica

Visualise yourself reclining in a lawn chair on the beach, listening to the lapping of the waves, smelling the wonderful saltiness of the ocean, feeling the warm tingle of the sun and the breeze on your relaxed body. Suddenly the ocean scent is overpowered by the aroma of curried goat and meat pies being readied for lunch. Time to jump up and have one more refreshing swim, and maybe a Red Stripe beer to quench your thirst!

Sound inviting? It definitely does to me, and there's enough room for 10 more of you to join me in this paradise.

Let me take a few sentences to introduce myself. I'm Pat Barnes, the Administrative Director of the Buzan Centre of Palm Beach. Many of you in the US have spoken to me, or possibly heard my voice on our answering machine! Once upon a time I was Vanda North's travel agent, and now here I am working with the Buzan Centres and helping to plan this year's 'Floating' University.

This year the university will actually be 'anchored' at the Navy Island Resort

and Marina, a five minute launch ride from Port Antonio, Jamaica. Situated on Jamaica's beautiful northeast coast, this tropical hideaway was once Erroll Flynn's private retreat, and it's a strange coincidence that our own swashbuckling Tony Buzan should lead us here!

This 64 acre island features a variety of accommodation, from studios for two people, up to two bedroom houses for four, some with open showers filled with plants and vines. There's a beautiful second floor veranda restaurant, two bars, three beaches, and a marina. A living coral reef off the beach makes for excellent snorkelling!

Port Antonio itself is a very picturesque town, Jamaica's first banana port, with Victorian-style gingerbread houses and neatly laid out streets and prim churches. There are lots of excursions that can be made from here. How about rafting down the Rio Grande from the mountains above Port Antonio? Or maybe a trip to the Bat Romance Room at the Nonsuch Cave? Not that Brain Club activities and


competitions won't keep us busy enough!

There will be chess and discussions and swimming lessons, and if we're lucky we'll hear rooster imitations and elephant jokes. We can start now working on our own specialities. I've been taking magic lessons, so for a slight fee I might be persuaded to saw Vanda in half. Or if the rooster gets out of hand I could work on him!

Since time seems to be flying by, we need to have your deposit of £225 immediately, and final payment of £300 by 31st July. US members can contact me at 1-800-Y-MINDMAP. Fax (407) 845-3210. Members from Europe and England can contact Jeremy Robinson by leaving a message at the Buzan Centre UK (0202) 533593 or fax (0202) 534572. Don't hesitate - we want you to be with us!! Next year it could be you writing an article on what a great time you had in Jamaica!! ■

See page 2 for the
booking form

THE IONIAN REVIEW COLUMN



Our reviewer Paul Wilcox has obviously become deeply involved with **Brain Sex** by Anne Moir, and we await his contribution eagerly. In the meantime, your Editor has taken over the helm for this issue.

BRAIN AND PERCEPTION Holonomy and Structure in Figural Processing

Karl Pribram
Hardback 388pp
LEA
365 Broadway
Hillsdale
New Jersey 07642
USA

Not an easy browse! This complex work is, in effect, a series of lectures on the transformational and constructional realism embraced by the holonomic brain theory. Here is a tome that deals with matters such as quantum physics principles and the relationship between vision and optics, constituting overall a *tour de force* by a neuroscientist of world renown.

Katherine Neville, who included a covering letter with the review copy, is "... currently working on **Brain and Perception** with several of Karl's colleagues." The aim is to make the concepts within more accessible to the lay reader. She wonders if Brain Club members "... might wish to discuss with us a set of brain-related topics they feel might be of most value to the general public."

What a splendid idea! I hope **Synapsia** readers will hasten to contact her on this subject at PO Box 338, Radford, Virginia 24141, USA. Go on, help write the sequel!

PHANTOM EYE THEORY Solution to the Mind- Body Problem

Steve Nichols
Paperback 56pp £5.99
Post-Human Publications
172 Normanston Drive
Lowestoft
Suffolk NR32 2PP

This work is the result of the author's academic studies. It is divided into 12 sections set out in easy-to-read numbered paragraphs, and includes a bibliography. The book ends with three illustrated appendices.

The author discusses briefly the major schools of philosophy from the viewpoint of his own basic contention, finding all of them wanting in some degree.

His argument is that human beings have retained a trace consciousness of the

atrophied pineal sight-organ, and that recognition of this 'phantom eye' would resolve many present-day philosophical paradoxes. Descartes comes out of this examination quite well, though Skinner and Ryle take a bashing. Even Karl Pribram is criticised!

A parallel to this hypothetical pineal trace is the medically accepted phenomenon of the phantom limb. Many amputees report that they feel the presence of the removed limb, and the author points out that "... if a motor-organ can be felt to be present although 'not there', then similarly an organ of perception can still be 'felt to be present'."

In the letters portion of **Synapsia** Vol 3 No 1, Jean Buzan mentioned the 104-year-old man who wondered if he thought with his brain or his mind "... or are they both the same?"

He would definitely find **Phantom Eye Theory** to be a fascinating read.

THE POLGAR SISTERS Training or Genius?

Cathy Forbes
Paperback 178pp £10.99
B T Batsford Ltd
4 Fitzhardinge Street
London W1H 0AH

Can genius be acquired? Laszlo, father of the phenomenal Polgar sisters, believes children can be trained to genius level, and he set out to prove the contention by using his daughters as experimental subjects.

Chess was chosen as the vehicle because the game is amenable to strict, recognised modes of assessment based on results; it would have been far harder to achieve his aim by training the girls in a skill open to subjective criteria. (There is no arguing with the stopwatch, but did ice dancer X *really* deserve straight sixes . . . ?)

The method employed by Laszlo Polgar was to teach his children at home, starting them young (Zsuzsa was introduced to chess at four, and studied eight to ten hours a day). Private tutors were hired for some subjects, and chess luminaries visited the household regularly to play the girls at 'blitz' speed.*

The core plan was to cram a single study discipline – chess – in the hope that, as specialisation in one field engenders excellence, a general capability would be boosted. Notably, the sisters are charming, multi-lingual, and are table tennis aces! *Healthy minds in healthy bodies . . .*

* Refer to the 'collective teaching' of Madame Curie's children, who benefited from the tuition given by their mother's Sorbonne colleagues. The elder girl went on to become a Nobel Laureate.

But is this QED? Another case-history might help us to decide.

Before Laszlo Polgar there was Aaron Stern. When his daughter Edith was born, he held a press conference to declare that he would induce genius in her by total educational immersion. (Readers should note that Aaron did not subject his son to this regimen.)

The baby girl was fed a constant supply of classical music (refer to Michael Gelb's article), and she was always addressed in unconfessional, slow adult speech. There were counting games relating to the most trivial everyday happening – whenever the ball bounced, the number of times was counted – and in this environment she was able to read at an early age.

When still very young she read somewhere that a newly-constructed building was so-many storeys high, and toddled out to check. On finding the stated number to be incorrect, she wrote in to complain! She eventually graduated at 15 (Ruth Lawrence achieved this feat at 14), and taught maths a year later.

As with the Polgars, Edith is socially adept, and displayed only slight naivety when, during an interview, she expressed surprise on being told that not everyone reads books in their spare time. She went on to become secretly involved in cybernetics. Whether or not this is genius depends on how you define the word.

Both fathers, in fact, brought on their offsprings' innate potential to a level so above the norm that strict definitions hardly apply. What they have actually proved is that *the possible attainment thresholds of 'ordinary people' are startlingly higher than is usually assumed*, which is the main contention of the Brain Club as a whole.

Interested? Then buy **The Polgar Sisters!** But non-chess players should realise that this is essentially a chess book, with many game scores. The careers of the three prodigies are discussed mainly in these terms around chapters devoted to specific tournaments. Even so, **The Polgar Sisters** is worth acquiring. Sue Whiting's article in **Synapsia** Vol 3 No 1 should be read in conjunction with this work.

BOOKS

Your Top Ten

I hope that readers are preparing to send me their top ten book lists, as requested in the last issue of **Synapsia**.

We would like you to send us a list of the ten books that you recommend to Brain Club members (including yourself) as a means of enhancing *mens sana in corpore sano* – the development of healthy mind, healthy body. In other words, ten books that have influenced you, the books that excite you, books you might even 'rave' about, and that you

would personally buy for your family and friends in order to help them develop a well-founded personality.

Your lists of favourite music and poems are also requested.

People will find that there is a certain agony in picking only ten. For instance, I would have chosen for my list a beloved, borrowed and returned collection of Chekhov short stories had I the book's exact details – but then, what to leave out? And what about **Great Expectations**, **The Odyssey**, **Beowulf**, **Dracula** . . . ?

Following the example of the RSMs who never ask a soldier to do what they themselves dare not attempt, here is my final choice given in order of merit.

1 CRIME AND PUNISHMENT

Fyodor Dostoyevsky

A mighty insight into human motivation on a level with Shakespeare's greatest plays.

2 THUS SPOKE ZARATHUSTRA

F W Nietzsche

Totally original in concept, and a rich source of creative inspiration.

3 NINETY EIGHTY FOUR

George Orwell

A singular warning. The book's effect on the reader is devastating, but salutary.

4 HISTORY OF THE GREEK AND PERSIAN WAR

Herodotus

A splendidly readable account by the first historian.

5 THE CONQUEST OF GAUL

Julius Caesar

A cool, concise recital of momentous events by the leader of one of the world's great past civilisations. Foreign correspondents of today could learn from this!

6 CHINESE POEMS

Arthur Waley

A wonderful anthology of the poetry of China from 900 BC to the 17th century. It provides an incredible overview of the world's oldest living culture.

7 THE DECAMERON

Giovanni Boccaccio

'Naughty but nice'. Sexy stories lightyears ahead of most modern erotic literature in terms of pace and quality.

8 EGYPT

Architecture Sculpture Painting

Lange and Hirmer

Magnificent images and related details of Ancient Egyptian achievement through the centuries.

9 THE WIND IN THE WILLOWS

Kenneth Grahame

Truly magical, inspiring veneration for animals and nature generally.

10 THE ART OF CHECKMATE

Renaud and Kahn

A classification of every known mate in chess, with examples from actual play. The book inspires love for its subject and a desire to know more. ■



TAKING HOLD OF THE REINS

Map the Life you Have in Mind

Jim Webster BCM 126



The following account reveals how greater control over one's life can be achieved by Mind Mapping its vicissitudes. Try the Webster way!

could be 'decorate living room', 'keep tidy', 'garden'.

Within each of the fundamental issues lie several projects that either you are working on, or can begin to work on. Map these out as well. You will then have a Mind Map something like this:-

would not be serving who you happen to be as a factor of your environment.

Next Steps

So what? Since life is not perfect, what is to be done?

Taking the Mind Map a stage further, use it in place of a 'to do' list at the

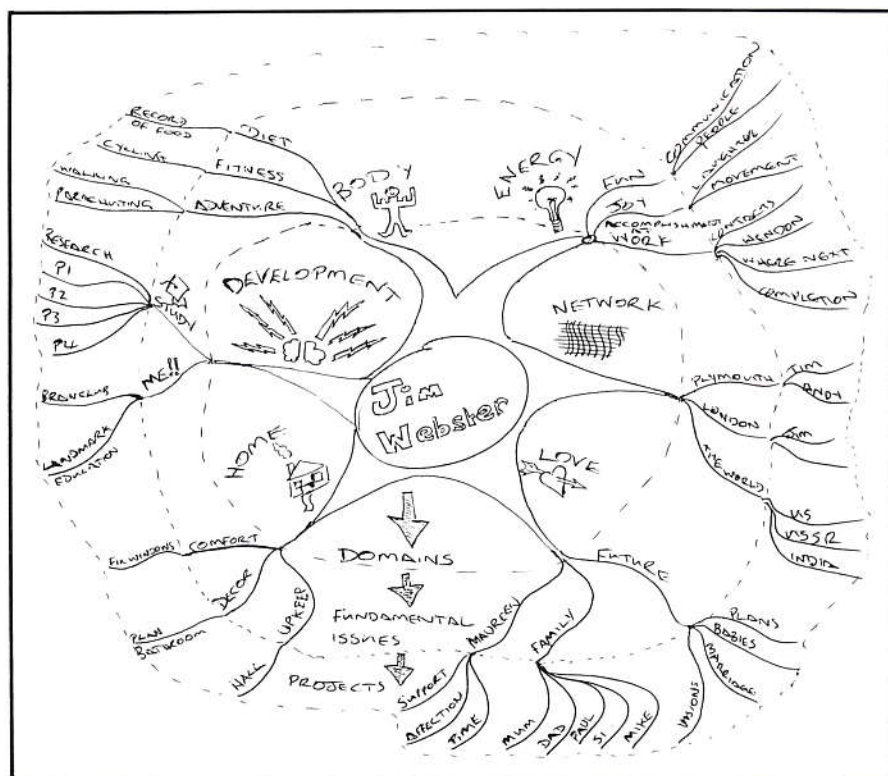
Onward, ever onward, faster, ever faster. The pace of modern life leaves us spinning like mice in a treadmill, except that our treadmill is spun by forces outside the mill, and these forces do not ask us how fast we would like to go!

This article is an examination of how Mind Maps can help individuals work out where they are in life, not in terms of the demands placed upon those individuals, but in terms of their declarations about what is important to them and where they choose to devote their energy. Once that has been done, Mind Maps can be used to form a basis for planning a project, a day, a week, a life!

The Method

Take a pad of paper and a couple of pens, and having drawn or named yourself in the middle of the page, extend out some limbs on the Map. On each write a word that describes a key area of your life. The secret of this stage is to consider these domains in terms of what inspires and excites you, not as 'tasks that must be done'. So a domain might be 'creating a beautiful home' rather than 'decorating', or 'achieving great things at work' rather than 'work'. In this way you are beginning to think about your life, not as it appears to you, but as you *declare* it to be. The domain will be written in terms of a key word, as usual.

Having drafted the key areas, go out to the next set of limbs. On each note down the areas that you want to address. So, for example, under 'creating a beautiful home', the next limbs (which I call the fundamental issues)



This displays you in terms of who you declare yourself to be. It does not show everything you have to do in life, because some of the things that need to be done are not those that you would choose to do.

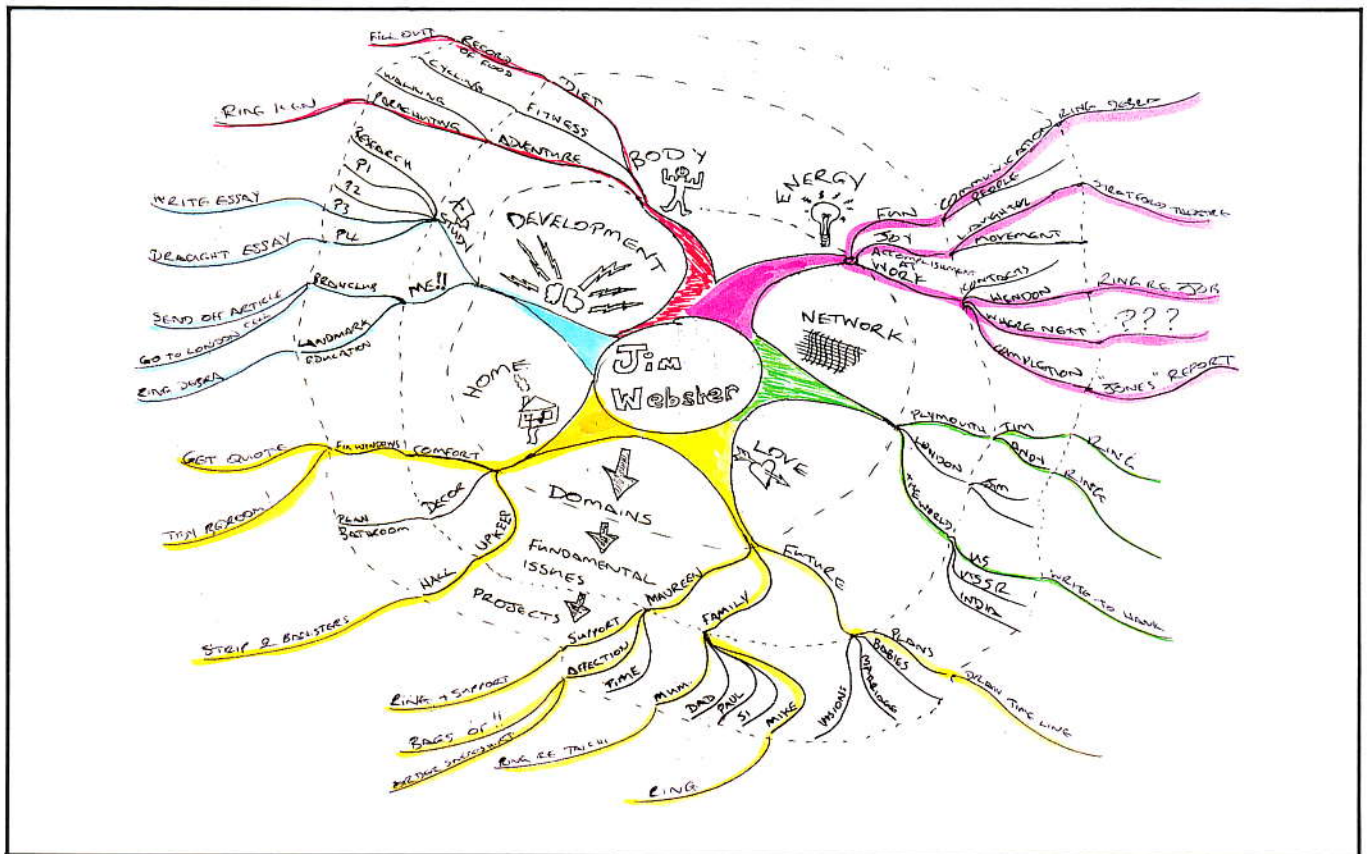
Having completed such a Map on yourself, you would start to see that if you put your energies into the projects that come out of your fundamental issues, key areas and domains, you are supporting who you say you are. You

start of the day. When you plan your day's activities, look at the Map. Mark on it, extending from the projects, what you will do that day. Colour the lines back through each of the levels to your initial declaration about what inspires you in life. If you operate in a busy, highly-stressed environment where you are going to be called to take action outside your declarations, this is the time to bring them under control.

If, for example, you have to write out a report for work, then mark this in at the end of one of the project lines (it could fall under several headings), like so:-

larly what has happened outside of your initial plan for the day, mark in these events as functions of your projects, issues and areas of interest, thus bringing your life under control.

collection of coloured Maps can also be reviewed. Areas with no colour may indicate areas of your life that you state are important to you, but which you are neglecting.



In this example, the report becomes an expression of the key area of 'accomplishment at work', and is *working for you* rather than *happening to you*.

Having planned the day and worked through it, pause for a few minutes and acknowledge to yourself what you have achieved. The Mind Map can now be pulled out. As you consider what you have done that day, and particu-

I have found it useful to photocopy about a week's supply of the 'life' Mind Map, putting the copies in a binder and using one each day. After a week or so some projects may have been completed or changed, and some key areas may have grown, shrunk or changed. At this point it is useful to amend the original and even draw a new Map. The outstanding details can, of course, be carried over to the next day. The

I hope you will find this approach interesting. The display of a life in this way is more than just a picture of what is there, for it helps you carve out of the future a life that comes from *who you declare yourself to be*, beyond that which you find yourself being by force of circumstances.

Good fortune!!

Your Letters

contd. from page 32

Westminster calling!

Dear Editor,

Please accept my thanks both for the excellent edition of *Synapsia* Vol 3 No 1, and for the very generous acknowledgement of the Athenaeum Simul with Ray Keene. I am sure Leo and Clare Lange and Jonathan Goodman (the last two, I believe, to be married shortly!) will have appreciated these equally.

I should be grateful if you could send me any further details about the Brain Club, which I should very much like to help make more

widely known – both within the Department here and to readers of the Athenaeum Newsletter which I write.

Incidentally, intrigued and puzzled linguistically by the headline **La Dolce Vitae**: is any elucidation possible? It looks like a suspect hybrid of Italian and Latin to me – but if so, I cannot infer whether (and, if so, why) *vitae* is nominative plural or genitive/dative singular. Ah well . . . the Brain Club will sort me out.

David Taylor
Department for Education
(Formerly The Department of Education & Science)
Sanctuary Buildings
Great Smith Street
London SW1P 3BT

*I was aware of going somewhat beyond the pale when grafting **La Dolce Vita** (cult Italian film) onto curriculum vitae, but felt that Sally's CV proved her so right for the job of Chief Administrator that it could be called sweet. Hence the departure from classical rectitude. For more linguistic licence (this time without grammatical distortions) see the Editorial gloss on Judy Caldwell's beautiful poem. – Ed.*

SCOOP!

An Interview with Lana Israel BCM 222

Lana was happy to give *Synapsia* an exclusive interview on the occasion of her visit to London in March this year. She was promoting her video on Mind Mapping for students, entitled *Get Ahead*, and generally carrying all before her! As mentioned in the previous *Synapsia*, Lana has agreed to contribute a regular feature, which I propose to call *Young Business Brain*. We are happy to welcome the enterprising 16-year-old aboard our star ship!

Q Mind Mapping has obviously made a big impact on your life by enabling you to cut through the featureless jungle of linear thinking. However, do you feel that you would have been a high achiever anyway, without the benefit of Mind Mapping techniques?

LI Mind Mapping means different things to different people – I was bright anyway. The main advantage is that study time is cut, so you can take part in sports, music and clubs. Mind Mapping helps you tap into and foster your creativity, which already exists, and helps you see things more clearly.

Q Ulric Neisser thinks perception is to do with systems of representation that become internalised, and suggests that it should be seen as a cognitive map rather than as a linear model. For instance, when you travel from A to B in your home town, you remember the route as a series of distinctive features, or landmarks, rather than as a continuous line. In your experience of Mind Mapping, is it the whole point for you that unnecessary detail is thus reduced?

LI At school and in education generally, 90% of the words used are non-key words, with no bearing on recall and comprehension. They serve as interrupters, preventing you from making strong connections between key words.

The Mind Map does the opposite. It is based solely on strong links, connections, and associations with key concepts. Also, one Master Mind Map equals about 300 pages of notes. That's a big advantage!

Q You have co-written a book on Mind Mapping for young

students. If you decided to write a book on this subject for older people, would it differ in any significant respect?

LI No. The only different aspect to a book for older readers would be changing the direct applications to the school system. Adults still need to learn about note-taking, speech writing and reading. I would change the tags: History class becomes business meeting, and so on.

Q The Bush Administration sent you and others to Russia with the aim of teaching children about the principles of capitalism. Did you find your pupils eager to learn?

LI They were extremely interested. Russian kids are absolutely intrigued by Americans! After classes they would ask to meet us for discussions, and we had evenings of singing and guitar music. It was an unqualified success.

Q Considering that only a short

time ago you could have been arrested for trying to teach Russian children a socio-economic system so at odds with hardline communism, did you at any time feel that you were being rather brave?

LI No, but you didn't forget where you were. The kids were eager when you talked to them about setting up businesses, they were very interested, then they would come down to earth. They are very idealistic, yet also very realistic. Sad. Right now they can't do what they would like in business terms, but the optimism is there.

Q Was there any suggestion that the Russian people you met hankered after the old ways, or was your message embraced with enthusiasm?

LI When I spoke to one of the translators, he was all for *glasnost*. His father was not against the changes as such, but after working so diligently for



communism, he felt that his efforts had been negated despite a lifetime of commitment.

Q Do you play games of the mind such as chess, Go and checkers? If so, which?

LI Yes. Chess, checkers, every card game other than bridge, and Othello, which is a bit like checkers. And the idea of computers challenging people is a lot of fun!

Q Young women are beginning to make their mark in activities currently dominated by men. The spring 92 issue of Synapsia features the success of 15-year-old chess prodigy Judit Polgar, who became the world's youngest-ever Grandmaster by winning the 1991 Hungarian Championship. Have you any wish to study a cerebral game with the specific purpose of excelling beyond the norm, and so forging another weapon against prejudice?

LI This is basically a worthy aim, but Mind Mapping and working with what I do is enough. You should govern your actions by what you enjoy, rather than by the motive to make a statement or prove a point.

Q Have you any particular talent for sport, or a favourite sport?

LI English football-soccer. I've played just about every sport, including cross-country, track events, soccer, volleyball, softball, windsurfing (not so good at this) and water-skiing (I like this).

Q Unfortunately, tragic cases like that of Van Gogh do much to foster the notion that genius entails risk to mental health. As an early high achiever, what are your views on this?

LI Historical examples of geniuses who were odd do not warrant the general view that all geniuses are off the wall. It is important to maintain a balance. Aristotle said we are social animals, and interaction as well as individual development is very important.

Q Do you think that, with the media attention you now command, you can make a positive contribution to the changing of attitudes that must take place if the human race is to continue living safely on this planet?

LI Definitely! When I first started working with Mind Mapping, I had a

vision. My vision was that one day I would revolutionise global education! The way I would do this was to spread my information to as many people as possible by any available means. The media is just a very effective means of doing this.

Already I've featured in magazines, books and videos, and had TV appearances on **Good Morning Australia** and **Good Morning America**. I was on **Radio 5** yesterday and **Radio 1** today. They said Ruby Wax followed me!

This would seem to be an achievement in itself. – Ed.

Q Do you want to marry and have children of your own?

LI Yeah! One of each is an ideal. I think I might have twins, in which case I'll settle for three. It is difficult to predict what my future husband will be like. I have no preconceived notions about the man.

Q If you do have children, will you try to develop great talent in them, as did Laszlo Polgar with his three daughters?

Lana's answer followed a brief account of the method used by Laszlo. – Ed.

LI I don't think so, though there was nothing wrong with his intentions. I would certainly help my children develop intellectually, but allow free will in the areas they'd like to study. Be your own person!

Q Within reason, would you attempt to Mind Map the future course of your life? Would you do such a Map for Synapsia?

LI To give myself direction, yes. I'll try my best to do one for **Synapsia**.

Q Have you any overriding ambition, or dream, that you would be willing to share with us?

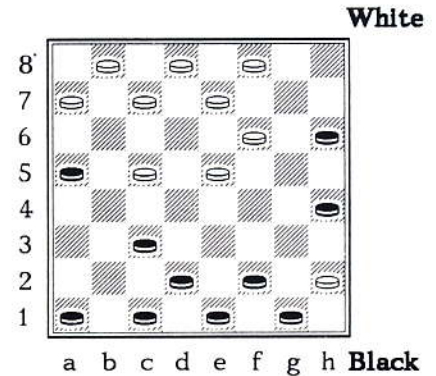
LI To change education, revolutionise it! I'm a very strong believer in following your dreams, and believing in yourself and daring to dream.

I am sure we all await Lana's first Young Business Brain article with keen anticipation. – Ed. ■



Draughts Sweep

Draughts problem for Synapsia by Raymond Keene



Black to play and gain a decisive material advantage.

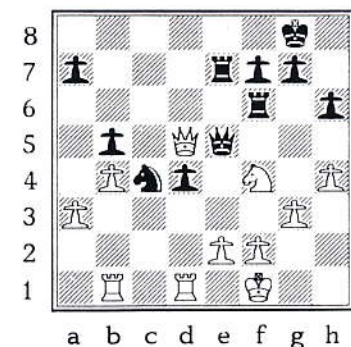
solution

Either
 2 ... c5-e3 3 d2-f4-d6-f8=K
 or
 2 ... e5-c3 3 d2-b4-d6-f8=K
 in both cases with a decisive advantage for Black

Check Mate

Chess problem for Synapsia by Raymond Keene

This position is from the game Guimaraes - Frois, Lisbon 1991. Here, Black spotted a cunning tactic that immediately terminated proceedings. Can you see it?



solution

1 ... Ne3+ 2 fxe3 Qxd5.

POETRY CORNER

Judy Caldwell
BCM 161

Regeneration

Nudged
by a dusty foot
calloused
from a lifetime
of running free,
the embers
of a fire
awaken
and struggle to survive
in the desert night.

A hunter
wrinkled from great age
leans
against his spear,
sniffing
the wind.
His eyes see
through the fading dusk
with the ways
of his ancestors.
Sensing
only benign patterns
in the dark,
tense muscles relax
and he turns to his youngest son,
squatting
at the fire's edge.
His face and body
painted
like his father,
in magic swirls
of chalk and ochre.
His spear, identical
but smaller.

With wisdom
collected
from the beginning of time,
father teaches
as he was taught,
singing
of the dreamtime
and dancing his world
into recreation.
A circle
of forty thousand years
of kin
sway and hum
with him
in the smoke,
celebrating each rock, stone, and lizard.
Sharing
Earth.
The child listens intently
to the hymns,
gathering for his own
the rituals of becoming
a man.

The boy owns the past.
It rests
on his shoulders,
a blanket
against the desert cold.

In a dream
he lifts his face,
alert eyes
piercing
the blue,
and watches
without fully comprehending,
a shining armada
floating,
in the new trade routes
of the skies.

He hears
chattering satellites
delivering
tomorrow,
building
with chips
of unformed memories
stored in banks of sand,
not in the flesh of man.

Universal
electronic footprints
track insistently
toward another age,
another reality.

Around the fire
the old man still dances and chants
ancestral rituals.
The past surges passionately
from his lungs
and beats into the dirt.
His future
remains unsung.

Yet, the insistence
of youth and growing
swells,
and with every drumming, stamping beat
the boy girds himself
with chants
and knowledge,
mutating
by the second.

In his dream,
he sings and paints
in the invisible light
flowing and pulsing
along the highways of the skies,
tracking the secret paths
of the other world,
and mapping the outback
for his tomorrows.



The first law.
to survive.

D.A. COUNIHAN '92

LIBRO DA IM

PARARE GIOCAKE A SCA

chit Et de l'elutissimi Partiti: Reuisti, & Re
corretti. Con femma diligetia emédati,
da molti famosissimi Giocatori. In
lingua Spagnola, & Taliana.
Nouamente Stampato.



PAST MASTER: SHORT STORY

Olympic Issues

Raymond Keene OBE BCM 275

Our chess feature is a homage to Spain, and to one of her early chess pioneers. Combined with this is a celebration of Nigel Short's magnificent defeat of ex-World Champion Karpov in the current cycle of matches devised to produce a challenger for Kasparov's crown. This semi-final contest took place in the Spanish city of Linares, as did the other semi-final between Timman and Yusupov. Earlier this year Kasparov won Linares 92, probably the strongest tournament ever held.

Bearing in mind the Olympic Games in Barcelona. EXPO 92 in Seville and mighty chess events in Linares, we congratulate Spain on this superb initiative.

The role of Spain has been decisive in the development of the modern game of chess. During the late 15th century the surprisingly swift process had begun, through which chess emerged from the chrysalis of its slow Islamic form. It was during the 15th century that castling was introduced, pawns gained the privilege of advancing two squares on the first move, and the queen was transformed from a waddling cripple of a piece (the Arabic vizier) to one of devastating mobility.

It is doubtless the almost overnight increase in the strength and manoeuvrability of the queen which explains the joyous adventures and excursions with it, the giving of check being particularly popular whether it advanced a player's cause or not. This can be observed in the recorded games of the new chess up to the early 17th century.

Chess is a game that symbolises warfare, so the increased fire power of the queen surely reflects the introduction of artillery in the mid-15th century sphere of battlefield technology. The sudden advances in chess must, overall, be explicable in terms of the Renaissance dynamic, the increasingly urgent perception of distance, space and perspective which distinguishes that phase of human intellectual development. The telescope, the microscope, the use of siege artillery to batter down the walls of Constantinople in 1453, and perspective in art, were all parallel developments.

Columbus discovered the New World for Spain in 1492, and it was fitting that the fresh impetus for chess, as it arose from the tortuous Arabic and medieval form, should also have come from Spain. Why was the spread of the new chess after 1475 so rapid? The answer, often overlooked, is that

Spain at that time was the dominant centre for world communication, and thus spread the new chess globally through its explorations and conquests.

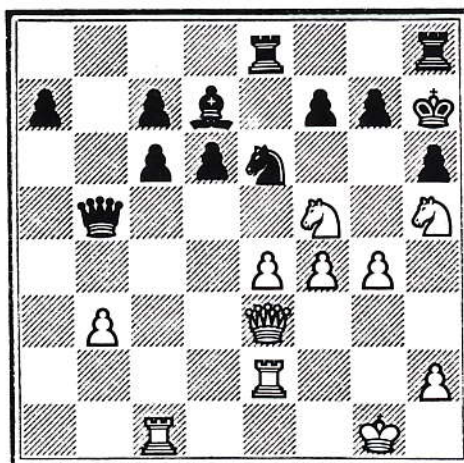
Columbus presented his discovery of the New World to the Catholic rulers, Ferdinand and Isabella, in the *Salon Noble Tinell*, the very building where Kasparov won the Barcelona leg of the World Chess Cup in 1989. In 1519, Magellan set off down the Guadalquivir river in Seville on the first circumnavigation of the planet. In 1987, Kasparov and Karpov contested, in Seville's Lope de Vega Theatre, the first all-Soviet World Chess Championship to be held in its entirety outside the confines of the USSR.

The Great Ruy

Spain even has its own chess opening, the Ruy Lopez or Spanish as it is known on the Continent. The inventor was a 16th century Spanish priest, a native of Estramadura and the leading Spanish player of his age. Lopez's chess skill made him a favourite at the court of King Philip II, and also something of an international celebrity. In 1560, Lopez visited Rome on ecclesiastical business and defeated the best Italian players. On his return to Spain in 1561, Lopez published his own chess book, **Libro de la Invencion Liberal y Arte del Juego de Axedrez**.

The position which follows comes from a famous Ruy Lopez game won by the greatest-ever Hispanic champion, Capablanca, during the San Sebastian tournament of 1991.

Black: Dr Ossip Bernstein



White: J R Capablanca

1) Nfxg7

The brilliant point of Capablanca's play. If Black accepts the sacrifice with 1) ... Nxg7: then 2) Nf6+, Kg6: 3) Nxd7, f6: 4) e5, Kf7: 5) Nxf6, Re7: 6) Ne4 gives White an overwhelming attack.

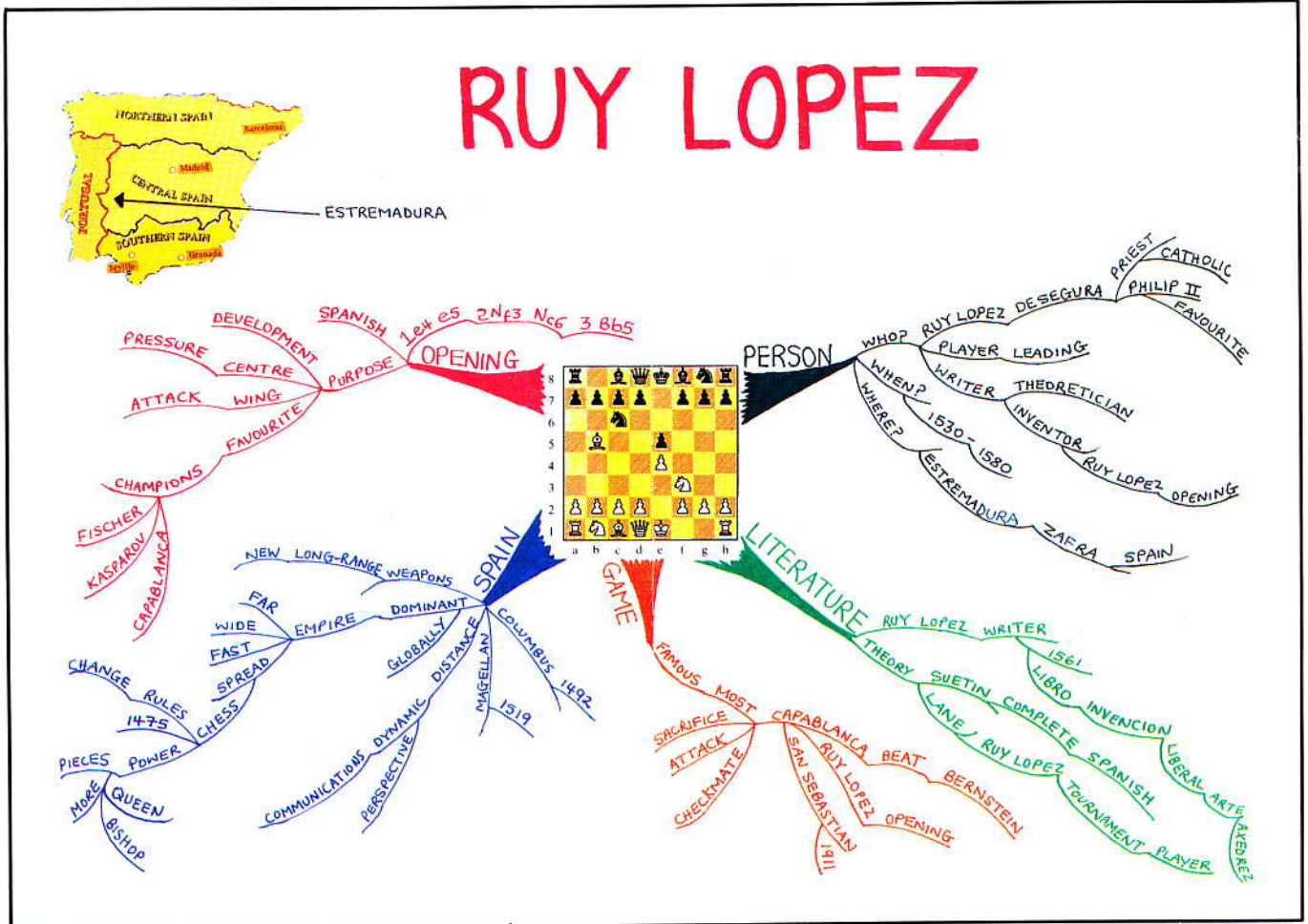
- 1) ... Nc5: 2) Nxe8, Bxe8: 3) Qc3, f6: 4) Nxf6+, Kg6:
- 5) Nh5, Rg8: 6) f5+, Kg5: 7) Qe3+, Kh4:
- 8) Qg3+, Kg5: 9) h4++ 1-0

Raymond now provides a Mind Map of the preceding essay, with an explanation that itemises the value of Mind Mapping for those seeking to present facts clearly.

ing trees of ideas to new and more daring thoughts, while the key words ensure that in the verbiage, no major point is overlooked. As far as public speaking is concerned, the two great dangers for anyone giving a lecture or making a verbal presentation are:-

A The failure by the lecturer to orientate his audience, in advance, as to the structure and key points of the presentation/lecture.

B The temptation, if everything is written out word for word, to read out verbatim from the notes and thus lose the spark of personal contact and conviction that should radiate between speaker and listeners.



A The centre point is the great Spanish chess writer and player from the 16th century, Ruy Lopez. He was the inventor of the Ruy Lopez or Spanish Opening, which is one of the favourites of most of the great champions. Ruy Lopez, a Spanish priest and favourite of Philip II, is the nodal point from which radiates information about the Opening, the literature, important game with the Opening and the Spanish context.

B In 1475, at a time when distance, perspective and artillery were becoming increasingly and urgently important, the rules of chess (a war game) were changed. The queen and bishop in particular gained immense new powers. The new theory described here is that the amazingly rapid spread of the new rules can be ascribed to the globally dominant position of the Spanish Empire *vis a vis*, exploration and power to communicate new ideas across the known planet.

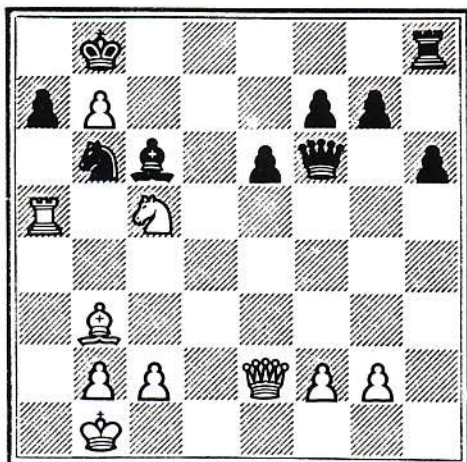
The virtue of a Mind Map when writing an article is twofold. The writer is constantly stimulated by the branch-

The Mind Map is particularly useful in this context. Without turning or shuffling any pages, it is possible to inform the audience in advance about the structure and key points. Because you are always operating from one sheet, you can tell your audience what you plan to say, you can say it with confidence and then you can recap to demonstrate that you have proved your point. With linear notes, the danger lies in ending simply where the notes stop, in essence a random moment, often determined by chronology rather than meaning.

Assuming that the lecturer has complete command of his or her subject, the key words act as a catalyst for enthusiasm and *ex tempore* ideas instead of a dry recitation of facts often determined by dates (i.e. lecture starts at beginning of subject's life and finishes at the end) rather than significant content. If the lecturer does not have perfect grasp of the subject, linear notes simply make it worse. Whether writing an article or giving a verbal lecture, the Mind Map acts like a steering wheel to navigate through the main oceans of the presentation.

We are now treated to a sample of Gary Kasparov's tactical flair from Linares 92, which he won two points ahead of a veritable sharkpool of talent. The win against Karpov must have been particularly sweet for Kasparov in that it was achieved against his arch-rival.

Black: Anatoly Karpov



White: Gary Kasparov

There is a terrible threat of Qa6, so Black must permit the exchange of one of the pieces still defending his king.

1) ... Bxb7: 2) Nxb7, Kxb7: 3) Qa6+, Kc6:
4) Ba4+, Kd6: 5) Qd3+, Nd5: 6) Qg3+

Kasparov does not even bother to win a piece with 6) c4, and instead plays directly for mate.

6) ... Qe5: 7) Qa3+, Kc7: 8) Qc5+, Kd8: 9) Rxa7 1-0

Black resigns, his king hopelessly exposed.

Our chess correspondent ends with an appraisal of Nigel Short's match victory over Karpov.



NIGEL SHORT

Going up!

Nigel Short has established himself as the greatest British chess player by beating Anatoly Karpov in the tenth and final game in their World Championship semi-final in Linares, Spain. No British player has ever performed so well at this level of the World Championship. One has to cast back to the days of Staunton, in the mid-1840's, to find a parallel British success. But then, of course, no official championship was recognised.

Nigel's tenth game win in 41 moves gave him victory over Karpov by six points to four. He will next play the Dutchman, Jan Timman, to decide who challenges World Champion Gary Kasparov in Los Angeles next year. Timman defeated Artur Yusupov, the Russian who now plays for Germany, in the parallel semi-final in Linares, also by six points to four. However, Timman is not in Karpov's league, so Short has excellent chances of defeating the Dutchman in the first all-Western final and going on to the four million US dollar challenge against Kasparov.

Short, 26, needed a draw in the last round to clinch his qualification to play Timman. Karpov had postponed the game in a ploy to halt his young opponent's momentum, but to no avail. On the 41st move, faced with the inevitable advance of Short's strongest pawn, Karpov resigned the game and the match.

Fallen Idol

The loss throws into doubt the future of Karpov, who has been ranked world No 2 since losing the World Title to Kasparov in 1985. Short declined to say that Karpov's career was over, but he hinted that history had been made. "It was the end of something", he said. "I outplayed him." He credited his victory to remaining calm early in the series when Karpov held the upper hand and not being cowed by the Russian's reputation.

Karpov, ranked all-time second by statistician Prof Nathan Divinsky, was World Champion for a decade from 1975. He holds the world record, a probably unassailable one, for the greatest number of first prizes won in international tournaments.

Short rated his win in the eighth game as his best performance of a sequence in which, he confessed, the standard of play had not been very high. "But that is understandable. In a series like this one, ten games with so much at stake, players are very tense and nervous and there are bound to be a lot of mistakes. The last game was very sharp, very competitive. Karpov had to play a Sicilian Defence because he had to try to win. This was a game somebody had to lose."

Kasparov said, on hearing of Short's victory: "I am absolutely delighted. I am sure Nigel Short will be my challenger next year. Short playing me will mean a revolution in the worldwide interest for chess. The defeat of Karpov is symbolic of the collapse of the communist state which supported him for so long."

Colossus

For a decade, Kasparov has been regarded as invincible, but recent results have demonstrated that he has no new worlds left to conquer. Short could become the first British World Chess Champion if he catches Kasparov even slightly off-form. Having scaled the international chess heights, Short could become one of the few millionaires in Britain to have earned their fortune solely from sporting prowess. There is no doubt that he will be the first one to have ascended to the financial heights exclusively through victories in a sport where the main battlefield is the brain.

Short had been assessed as the underdog by most world critics before the semi-final. Adam Black, of the British Chess Academy, said other British players were overjoyed at Short's victory. "Short conducted himself wonderfully throughout the match. Everyone is sure Nigel will get past Jan Timman to reach the final. In modern times this has been an unprecedented victory. Euphoria is humming around everyone at the news." David Anderton OBE, former captain of the English Olympiad chess team, which has won the silver medal three times, was hopeful that Short's win would bring an injection of sponsorship into the British game.

The Brain Club is active in the nationwide effort to have the Timman v Short qualification final played in the UK. Here is Nigel's win in game eight, which he considered the jewel of the match.

White: Nigel Short

Black: Anatoly Karpov

**World Championship Semi-Final
(Game 8), Linares 1992**

Ruy Lopez

1) e4, e5: 2) Nf3, Nc6: 3) Bb5, a6: 4) Ba4, Nf6:
5) O O, Be7: 6) Qe2

The so-called Worrall Attack, and a refreshing change from the standard 6) Re1. The queen move was a favourite of the great World Champion Alekhine.

6) ... b5: 7) Bb3, O O: 8) c3, d6

If 8) ... d5: 9) d3 as in Short-Hubner, Manilla 1990.

9) d4, Bg4: 10) Rd1, exd4

This central exchange increases White's control of terrain, but on the other hand Black hopes thereby to activate his minor pieces.

11) cxd4, d5: 12) e5, Ne4: 13) a4, bxa4

A further exchange in the same vein as his tenth move, but it seems to me that Black's queenside now becomes too exposed. Superior would have been 13) ... b4.

14) Bxa4, Nb4: 15) h3, Bh5: 16) Nc3, Bg6:
17) Be3, Rb8: 18) Na2

A star move challenging one of Black's most active pieces.

18) ... c5

This thrust leaves Black with weak pawns on the a and d-files. However, Black's hand is more or less forced, since White was threatening the simple Rdc1. Black would then have had a permanent backward pawn on the open c-file.

19) dxc5, Nxc5: 20) Nxb4, Rxb4: 21) Bc6, Qb6:
22) Bxd5, Rxb2: 23) Qc4, Rc2

After this White exploits the exposed situation of the rook on c2 to gain time for a fresh attack.

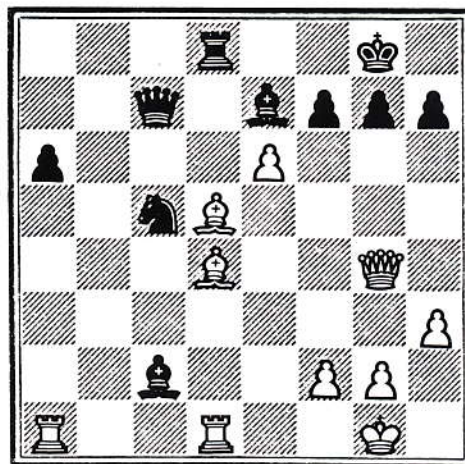
24) Qg4, Qc7: 25) Nd4, Rc3: 26) Nc6, Re8:
27) Bd4, Rc2: 28) Nb4

Black's wandering rook is now trapped.

28) ... Rd8: 29) Nxc2, Bxc2: 30) e6

(diagram)

At last White's true intentions are revealed. Black's king has been his target all along. White threatens Qxg7 mate, and if 30) ... f6 then 31) Bxf6, Bxf6: 32) e7+, Kh8:



33) exd8Q+, Qxd8: 34) Racl, Bxd1: 35) Qxd1 with a decisive material advantage.

30) ... Bf8: 31) exf7+, Kh8: 32) Re1, Bg6

Perhaps Black had been relying on 32) ... Rxd5 in this position, but in that case Short would have available the brilliant denouement 33) Qxg7+, Bxg7: 34) Re8 mate.

33) Re8, Rxe8: 34) fxg8Q, Bxe8: 35) Bxc5, Bxc5:
36) Qe6 1-0

Black has no defence.

**Details of the World Championship semi-finals
played in Linares, 1992**

Short	ENG	0	½	½	1	½	1	0	1	½	1	6
Karpov	RUS	1	½	½	0	½	0	1	0	½	0	4
Timman	HOL	0	½	½	1	0	1	½	1	½	1	6
Yusupov	RUS	1	½	½	0	1	0	½	0	½	0	4

Readers should note the similarity of the game results in each semi-final, all but five and seven being identical. Was there something in the air? - Ed.

We thank Pergamon CHESS for the reproduction of a woodcut from the title page of an early 16th century chess book written by Damiano.

Brain Foods

contd. from page 29

Conclusion

The fat of farm animal meat is saturated. It is really a source of energy and not something that enters body structures. If one is hacking coal out of the ground all day and so using up a lot of energy, then that sort of fuel is needed. Those who lead a relatively sedentary life do not require that energy source at all. Yet we *do* need the sources of the essential fatty acids outlined above.

Such a short article cannot cover the whole aspect of brain foods, but I have deliberately left a number of matters untouched. If you are curious as to why I have not spoken about grains, or told you where to get your calcium if you are not drinking milk, rest assured that I shall deal with these and other points at a later time. ■

TOP SPONSOR

With Thanks



The photo shows your Editor (the bearded one) handing the Hardinge Simpole Publishing prize to Geoffrey Williams of Watson, Farley & Williams earlier this year. The prize is awarded annually for outstanding services to chess, and this time WFW was the obvious choice. The partners are considering the possibility of an EC connection in the funding of their next international tournament.

The support given by WFW to the annual Oxbridge match was acknowledged in the last issue of *Synapsia*.* Details of the 1992 fixture are as follows:-

OXFORD		CAMBRIDGE
Stuart Rachels	1 - 0	Jonathon Wilson
Matthew Piper	1 - 0	Andrew Hon
Darren Wheeler	1 - 0	Nicholas Jakubovics
Martin Hazelton	0 - 1	Edward Holland
Tom Brown	1 - 0	Steven Foister
Greg D'Elia	1 - 0	Joseph Monk
John Redmond	Draw	Natasha Regan
Arne Hessenbruch	Draw	Heidi Heron
	6 2	

Captains:-

Mark Nightall

James Totty

Prizes:-

Best Game Oxford

Stuart Rachels

Best Game Cambridge

Edward Holland

* The university matches began in 1873, not in 1863 as stated previously.

The Brain Trust Schools Chess League developments feature in our next issue.

AMAZING MEMORY/STORIES

Speak Easy!



In the past, scholars have aspired to know everything, because the body of knowledge was small enough to lie within the grasp of one clever mind. For example, it has been said that any able sixth former of today could make a realistic bid for such 'know-it-all' status if transported back in time to compete with Charlemagne's savants. Much later, an Italian churchman decided to limit himself to languages.

Ripley, in his famous book *Believe It or Not!*, records the achievement of Joseph Caspar, Cardinal Mezzofanti, who mastered 114 languages and 72 dialects. Caspar has claim to being the greatest linguist of all time, although he never left his country of origin to hear people speak their native tongues *in situ*. Even so, a contemporary expert attested that, in

at least 54 languages, the cardinal "... was as proficient as an educated native."

One recalls that the great Swedish playwright August Strindberg set about learning Chinese in order to get work in the Royal Library listing Chinese manuscripts. After a year he was accepted as an authority on the language.

In contrast, Cardinal Mezzofanti needed only a third of that time, four months of intensive study, to "... master Chinese to perfection." However, this was his sternest task, no other language having taken him so long to conquer!

He even preached in the dialects of the Californian Indians to the ecclesiastical students of Rome's Propaganda School.

Caspar was born in Bologna, yet knew enough Cockney slang to instruct Lord Byron in its mysteries!

For details of another exceptional priest, turn to Ray Keene's chess column. ■

ANIMAL INTELLIGENCE

by Mowgli

An extraordinary case of empathy between species,
and what does your tortoise dream about?



Parabrain Pooch

An amazing dog has come to the aid of a human being by making use of the parabrain (the 99% of the brain that humans are not consciously aware of during its use).

In 1984, Victoria Doroshenko sustained a severe head injury in a car crash. After the accident Victoria suffered from daily severe epileptic seizures. During these seizures she often broke bones or injured her head when she fell, being frequently confined to a wheel-chair.

To help her in this difficult situation she began searching for a dog that could carry her belongings, pick up her crutches, fetch other things for her, and even pull her wheelchair.

She found a golden retriever named Harley, who turned out to be of much greater help than she could ever have imagined. For Harley, it seems, can not only sense when she is about to have an epileptic seizure – he actually warns her, sometimes as much as 45 minutes before a seizure begins!

Victoria's first experience of Harley's parabrain abilities happened soon after she had acquired him. The lady was startled when Harley suddenly and 'inexplicably' refused to obey any commands, and began running around her. Shortly after "I sat down and went into a grand mal," said Victoria. "Ever since,

Harley has been forewarning me of seizures. He breaks my falls. If I'm alone, he'll go for help."

There are at least three possible explanations for how a dog could predict epileptic seizures. Reina Berner, Executive Director of the New York-based Epilepsy Institute, suggests:-

- 1 Harley may be able to detect exceptionally subtle changes in behaviour.
- 2 Harley may similarly be able to detect extremely small and subtle physiological changes – imperceptible to humans – that a person may exhibit before the onset of a seizure.
- 3 Berners says "It could be that the animal somehow picks up changes in the electro-magnetic fields in the person's brain".

Berner intends to initiate studies to help isolate the cues that Harley senses, in order that he may help other dogs train as safety companions for people with epilepsy or with other diseases characterised by onsets of physical or behavioural change. "Before I got my dog", says Victoria, "I was afraid and house-bound. Harley gave me back my life".

Tortoise Dreaming

Do tortoises (and other reptiles) dream?

For some time it has been known that mammals and birds have two phases of sleep – 'quiet' sleep, and the more active 'Rapid Eye Movement' sleep that we associate with dreams.

The main reason for our lack of knowledge about reptilian dreams may lie in the differences between the brains of reptiles and those of other groups. In mammals and birds, the phases of sleep are distinguished by the kind of electrical activity seen in the animal's brain: 'quiet' sleep involves slow waves of electrical activity, while

high frequency waves accompany active sleep. The neocortex is the part of the brain that generates these different waves during sleep, and it is more highly developed in mammals and birds than in reptiles. Without the developed neocortex, distinct phases of sleep are thus more difficult to identify.

Recently the gap was bridged. F. Ayal-Guerrero and his colleagues at the Institute of Bio-Medical Research at the National University of Mexico in Alvaro Obregon, have discovered different phases of sleep in the desert tortoise, *Gopherus flavomarginatus* (**Physiology and Behaviour**, Volume 44, page 333). Using electrodes implanted into the animals' brains, the researchers were able to record both the activity of the brain and the animals' behaviour during a 24-hour waking and sleep cycle.

The researchers found four distinct stages of vigilance:-

- 1 Animals that were actively awake, either standing or walking, had fast, high-voltage activity in the brain.
- 2 Animals that were in a state of 'quiet wakefulness', such as resting, had brain activity that was slightly slower than in the 'active wakeful' state.
- 3 Animals that were asleep were, for the majority of time, in 'quiet sleep', with eyes closed and head resting on the floor or on the lower shell. During 'quiet' sleep, there was very little high-voltage electrical activity in their brains.
- 4 Tortoises in 'active' sleep, in which their brains resume their fast activity, move just as do humans, dogs and cats when they dream. Ayal-Guerrero and his colleagues observed the tortoises moving their heads and legs in a kind of swimming motion, for example.

The fourth state of vigilance, the 'dreaming' phase of sleep, was very short. Less than 2% of the tortoise's

contd. page 35



BRAIN CLUB DOCTOR

BRAIN FOODS

Drawing Inspiration from the Breast

Dr Andrew Strigner

The Brain Club Doctor starts his series of dissertations at the very beginning of life for us all. Professor Crawford's lead article on evolution in the spring *Synapsia* should be at hand while you read this.

To put it briefly, human milk makes big brains, and cows' milk makes big bodies!

A Structural Lipid by Any Other Name?

After weaning, what should we feed the infant? First of all, there is no need for cows' milk. A child can be weaned gradually on to solid food while still at the breast. Remember that to a baby, every food is a new experience, so one should not give it large amounts. Mere tastes are advisable at first, but tastes of what?

Lean meat is fine, but not just muscle meat. The offal (liver, kidney, brains) are right for the baby because they contain the long-chain, essential fatty acids that the body cannot make by itself.

Any kind of fish is acceptable, including the oily fish that are rich in these substances. One must take care feeding fish to infants because of the bones.

Any kind of vegetable (leaf, stalk and root, usually sieved) can be served to the baby in tiny amounts as initial 'tasters'. Incidentally, infants do not usually tolerate fungi – that is a tolerance we develop later on. Also, infants do not usually tolerate the white of an egg, but can take small amounts of the yolk as an introduction.



To reiterate, avoid large amounts of food. I remember seeing a baby of six months or so suffering from intense colic. The mother had fed him a whole banana, not seeming to realise that the fruit was probably larger than the poor little fellow's stomach! Talking of bananas, avoid giving sugar-containing foods in any but very small quantities, because a sweet tooth is acquired and can be subsequently damaging.

As the child takes more and more solid food while becoming independent of the breast, the pattern of ingestion should be thus:-

- 1 Any kind of lean meat, including offal.
- 2 Any kind of fish, including oily fish.
- 3 Any kind of vegetable (the more variety the better): leaf/stalk/root.
- 4 A very low intake of sugar and sweet foods.
- 5 An occasional egg (only the yolk at first).

This pattern can be maintained as the child grows, and is equally suitable for adults.

One must first consider the health of parents-to-be, remembering that each partner contributes genetic material to the embryo. The healthier the cell given by each parent, the healthier will be the resulting embryo. For instance, Downs Syndrome was long considered to be the result of a mother being too old to produce a healthy child. It is now known that many Downs Syndrome babies are caused by a fault in the father.

Some years ago an organisation called Foresight was formed to educate and help prospective parents. It also sought to advise parents who already had children with congenital defects, and who wished to avoid a repetition of the problem. Foresight has accumulated a great deal of knowledge on this issue.

Pre-Natal Provision

The health of a pregnant woman must be maintained at the proper levels of nutrition, because it is now known that neural tube defects, that is, lack of development of the brain and spinal cord, can be caused by deficiencies in the diet. In this country, notably, lack of one of the B vitamins, folic acid, appears often to be the cause. A recent study has shown that in some far eastern countries, serious zinc deficiencies can give rise to the same defect.

For a newborn baby, milk is the important brain food. And by milk I mean human milk. There is actually no such thing as milk singular; there are milks plural. Each one is unique, designed for the infant of that species: cows' milk is meant for baby cows, human milk is for human babies.

Weights and Measures

To stay with the example given above, the calf weighs something between 80 to 100 lbs at birth. At six months of age, it weighs nearer to 600 lbs. In contrast, the human baby, born weighing seven or eight lbs, will be about 14 lbs after six months. The difference results from the fact that cows' milk contains large amounts of protein and saturated fat. The protein is for body building while saturated fat provides energy for growth. Cows' milk contains very little unsaturated fat, which is designed for the construction of nervous tissue.

Human milk contains much less protein, but it has a great deal of unsaturated fat, or long-chain fatty acids. These fatty acids, and other substances called *cerebrosides*, are constituted specifically for the construction of the nervous tissue of the brain and spinal cord. After all, the human brain continues growing for approximately three years from birth, whereas the cows' brain hardly alters at all.

INTELLIGENCE ABOUT INTELLIGENCE

Some Way to Go
Tony Buzan BCM I

Superbrain HAL – over 100 years behind.

“I became operational at the HAL labs, Urbana, Illinois, on 12th January 1992. My instructor was Mr Langley and he taught me to sing a song – it’s called ‘Daisy’.”

These are the words spoken by HAL, the central character in Stanley Kubrick’s film of Arthur C. Clarke’s 2001.

HAL’s recent birthday provoked animated discussion about just how close Clarke was when in 1968 he invented the character of the brilliant and petulant supercomputer who calmly boasted of his error-free record, and who eventually took over the spaceship *Discovery* from its human commanders. In a ‘battle of the brains’ he killed all the crew except for the single astronaut who eventually managed to switch him, agonisingly, off.

In the 1960’s, when the computer revolution was in its infancy, it seemed plausible that such a sentient and urbane machine, with the ability to speak, listen, reason and even read lips, would be possible in the very near future.

However, equipping a computer with a true human intelligence has proven much tougher than Clarke and his contemporaries imagined.

Clarke said that although computing power has increased astronomically since the film came out, the ability to write software complex and subtle enough to mimic human intelligence “... remains at a fairly primitive stage.”

Clarke concluded by saying he still believed in the possibility of a HAL, and that his only major mistake had been in the timing: “The things we showed in 2001 won’t happen then; 2101 would have been better!”

Synapsia wonders whether even this is an optimistic estimate. So far, whenever the computer has been about to ‘catch up’, our knowledge of the brain has expanded even more rapidly, leaving the poor computer and ‘artificial intelligence’ in the unenviable position of falling further behind the closer they get.

Trying to Became HAL

One of the leading contenders for ‘becoming HAL’ is The Connection Machine, made by the US company Thinking Machines.

The computer, the most powerful in Britain, began operating at the end of 1991 at the University of Edinburgh’s Parallel Computing Centre. The computer has 16,384 processors which can calculate on as many pairs of numbers at the same time. The Connection Machine can make up to eight billion calculations per second.

The Future: Brain is ‘Top of the Pops’!

The cover of the January 1992 edition of **Omni** features, in blazing red and white, **51 THINGS YOU MUST KNOW ABOUT YOUR FUTURE.**

Of the 51, *thirteen* directly concerned the brain, its biology, and its function. An additional item concerned artificial intelligence.

For the interest of **Synapsia** readers, the fourteen items which **Omni** suggests you *must* know are as follows:-

- 1 AT THE TOP** The brain is the enlarged end of the spine.
- 2 CONNECTED** There are 200 billion neurons in the brain; ten to 50 times that many glial, nutritional, and ‘support’ cells; millions of trillions of connections between these cells.
- 3 ON THE SURFACE** The surface area of the human cerebral cortex is ten times as great as a monkey’s; 1000 times as great as a rat’s.
- 4 ACME CELLS** One typical neuron, a pyramidal cell, has up to 100,000 specific connections to other cells. “The pyramidal cell is the acme of biochemical evolution.” – Dominick Purpura, Dean, Albert Einstein College of Medicine, New York.
- 5 MORE THAN SEE** There are 125 million rods and cones in the retina, whose impulses follow the pathway to the primary visual cortex, the size of a postage stamp. In monkeys, the primary visual cortex is 15 percent of the whole surface of the cortex; in humans, three percent, meaning that humans have five times as much higher processing of initial visual images.
- 6 BRAIN GENES** Only one million genes are necessary to encode for the growth, development, and function of the brain throughout life.
- 7 HEAVY WEIGHT** The average brain weighs about three pounds. Lord Byron had one of the heaviest – 5lb 2¼oz.
- 8 DISPROPORTION** The brain makes up two to three percent of body weight but uses 20 percent of all oxygen.
- 9 PARTS** The limbic system, evolutionarily older than the cerebral cortex, is essential for behavioural and emotional expression. The hippocampus, an area of the limbic system, is essential for learning and memory processing.

- 10 HEARTS AND BRAINS**
The brain uses 15 percent of all cardiac output, three-quarters of a quart to one quart of blood a minute.
- 11 DEPRESSING FIGURES**
At any time in the US 12.6 percent of the population suffer from a mental disorder. Over 25 percent of the population suffer a mental disorder in their lifetime.
- 12 TWO DEFINITIONS AND A REVISION** *Brain*

death: when no part of the brain functions.
Persistent vegetative state: part of the brain is destroyed. The brain stem, the most *primitive* region, usually remains mostly intact.

A person in a persistent vegetative state has reflex functions but is incapable of any thought, intellect, memory, speech, or awareness of self or environment. *Cognitive*

death: some bioethicists, philosophers, and physicians think the definition of death should be expanded to include persistent vegetative state.

- 13 END** Disruption of blood flow to the brain for eight to ten seconds leads to dysfunction; three to five minutes leads to permanent brain damage; after five minutes, death.
- 14 HOW SUPER?** Even

computer experts have a tough time defining a supercomputer. The general consensus is that it is the fastest computer in the world. The fastest computer 20 years ago was much, much slower than the fastest computer today, but both were supercomputers. Today, a supercomputer performs around 100 million floating-point operations per second.



MENTAL WORLD RECORDS

The Numbers
World Champions
Tony Buzan BCM I

Improve your IQ by improving your memory!

In Pittsburgh, North America, an American student by the name of Dario Donatelli graduated from Carnegie-Mellon University, where he had spent his final years of study specialising in the development and practice of memory techniques.

Describing himself as a normal student, Donatelli suggests that the only difference between him and others is that he has practised appropriate techniques. In his own words: "My memory is like anyone else's. There are probably *hundreds of thousands* of other people who, if they had the same interest in numbers and saw a reason to practise calculating and memory for a few years, would be faster than I am."

Before he began his studies at university, he had shown no particular aptitude for memory of any sort, but since his study and practice of specially developed memory techniques, he has become one of the top memorisers of all time, having broken the World Record for digital memory.

That record had stood for nearly 70 years, and was set in 1911 by a German mathematics professor who memorised 18 digits, presented at just under one second per digit, without error.

Donatelli smashed this world record

by remembering accurately a number of over 70 digits!

The number was 15185937655021578416658506112094885686772731418186105462974801294974965928.

Donatelli performed this prodigious memory feat by pausing for 40 seconds after the numbers had been read to him, reviewing and checking his memory technique, and then responding in the following manner: "The first set is 1518. Then 5937..." He repeated *all* of the digits in order, consistently grouping them in groups of three or four, as he gave the answer.

The audience observing him was obviously fascinated, and asked him to explain in more detail how he had actually done it.

He replied, "The first set was a three-mile time, the second set was a ten-mile time, then a mile, then a half-mile, then a two-mile time, then an age, then a two-mile, then a mile, then a two-mile, then two ages, then an age, then the 3,000-metre time, then a mile, then a date, then a mile, then a 10,000-metre time, then a two-mile time, then an age, then an age, then an age, and finally a two-mile time."

In his mind's eye, Donatelli had created a fairy tale of a series of runners and people of different ages,

allowing him a much easier reaccessing of what was seen by others as a totally unmemorable number.

By improving his memory of numbers, Donatelli similarly increased his IQ score. Short-term memorisation of numbers is one of the major factors in determining your IQ. The average person can remember between six and seven digits presented at the standard rate of just under a second. This would give an IQ of 100 in this sub-area of overall IQ.

A score of eight correct would leap you to between 120 and 130 IQ.

And a score of nine to ten would rank you in the genius 140+ IQ range.

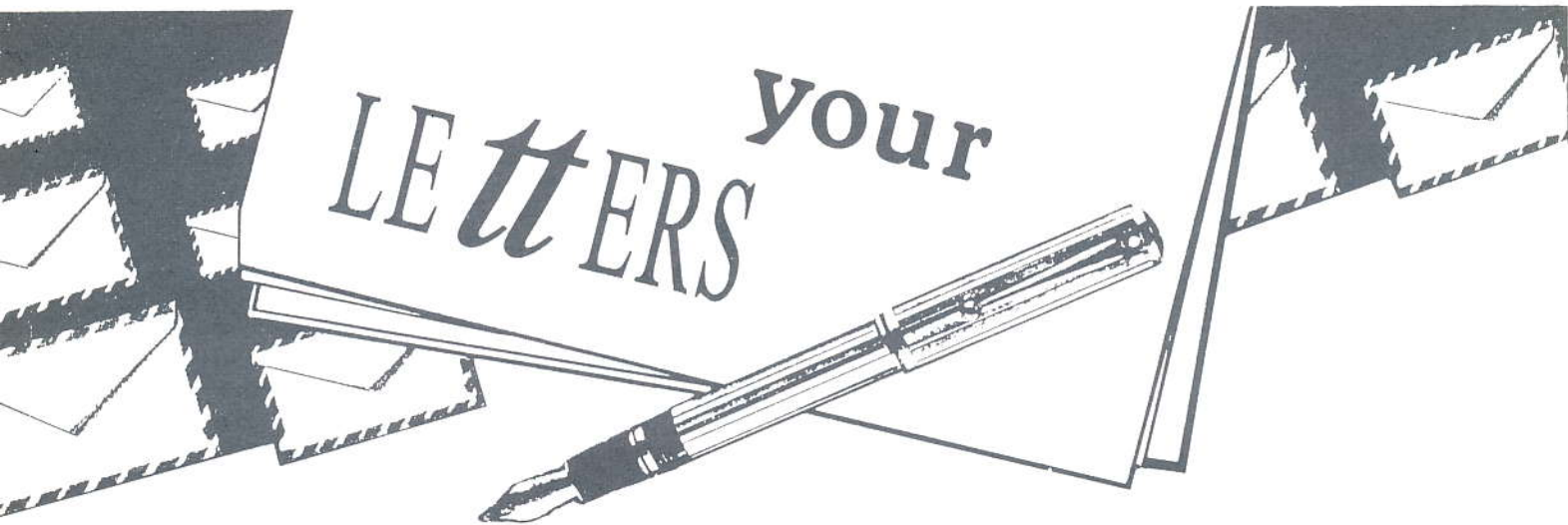
Thus, Donatelli has developed this particular aspect of his own intelligence to an IQ level so high that it is immeasurable.

You can do the same!

Submit your record to the Brain Club Book of Records and go for that World Championship! ■

Newsflash!

Brain Club Member Dominic O'Brien, the World Memory Champion, has memorised **266** digits without error!!



Boeing going places

Dear Editor,

I have just finished reading the Spring 1992 edition of *Synapsia* and enjoyed every article. I especially enjoy the diversity of topics that are included. I have been a Brain Club member (BCM 360) for the past year. I have known Tony Buzan since 1985 and have enjoyed meeting with Tony when he visits Seattle.

Over the past seven years I have used Mind Mapping to help myself and other engineers and managers here at The Boeing Company more creatively address some of our more complex technical problems. In 1985 I developed a Mind Map of the process that we use to develop Technical Publications for the US Government which measured 40 feet long by four feet high. This Mind Map was used in our quest to reduce costs and improve the efficiency by which we develop Technical Publications.

I continue to develop new ways to use Mind Mapping in the technical (engineering) disciplines, and I have received over 50 inquiries for more information on Mind Mapping. I have also had requests to set up some kind of newsletter or communication (support group) for people interested in Mind Mapping use in the technical fields. I intend to do this.

One of my current projects involves using Mind Mapping to develop an approach to improving the way that we document and improve our development processes here at Boeing. It seems that every major company in the world has discovered the need to define the processes that they use to develop their products. Once defined, they then set about finding ways to improve the efficiency of those processes.

To give you some perspective as to the magnitude of this task, I estimate that there are over 1000 discrete actions that are taken to develop the Technical Publications for a system. There are over one million actions taken in just the design portion of developing a new system (an airplane, space vehicle, missile, etc.). Many of these actions result in an interaction with another action taken by someone in a completely separate department. As it turns out, the processes are so complex that it has been very frustrating trying just to document them, let alone improve them.

Sounds like a great challenge for Mind Mapping! And so it is. I have developed a technique using Mind Mapping to speed up the development of the process model. I have implemented it not only for the development of Technical Publications, but for all of the processes involved in the support of the system after it is delivered to the customer. The advantages of the technique that I have developed are numerous. The greatest advantage seems to be the speed at which you can develop the process model. Mind Mapping allowed me to develop models in a few days that others have spent months developing.

I am preparing a technical paper describing the Mind Mapping approach to process definition/improvement. This paper will be presented in Washington DC in October, 1992.

If you think that articles addressing technical issues such as described above would be of interest to the readers of *Synapsia*, I would be happy to prepare such articles. Please advise me if you are interested.

There are two other projects that I have been working on, not related to the technical field. The first is to

Mind Map books of the Bible. The second is that I am writing a book on some techniques that I have developed for memorising scripture. If you are interested in either of these projects I would be happy to elaborate in a short article.

Michael Stanley
32135 32nd Avenue Southwest
Federal Way, Washington 98023
USA

I am delighted to think that Synapsia could be used to assist a support group for technicians seeking to develop their Mind Mapping skills – there are plenty of Mind Maps to study in this issue!

Mike Stanley is the technical publications manager of the Boeing Defence and Space Group, and uses Mind Maps to instruct his engineers.
– Ed.

Benign cell

Dear Editor,

Thank you very much for writing an article about B F Skinner in *Synapsia*, and especially for your intention to include pictures of our Walden Two community *Los Horcones*. We are happy to serve as the living reference for B F Skinner's proposal to use the science of behaviour to design a society more suitable for our species and its survival.

We enclose some pictures, and hope that you will find some of them useful for publication. Please let us know if we can be of further assistance.

Linda Armendariz
Comunidad Los Horcones
Hermosillo Sonora 83000
Mexico

The photographs will appear in the autumn Synapsia. In the meantime, see inside back cover.
– Ed.

contd. on page 19

THE SILICON GRAPHICS WORLD DRAUGHTS (CHECKERS) CHAMPIONSHIP

Man v Machine – London 1992

Raymond Keene OBE BCM 275

This unique event is a turning point in the evolution of intelligence, and is being supported by the Brain Club! How appropriate! Raymond's article follows David Levy's feature on CHINOOK in the spring edition of *Synapsia*. The autumn issue will detail the result of this epoch-making contest.

Who?

Defending Champion – Dr Marion Tinsley, born 1927 in Ohio. As far as the world of draughts is concerned, Tinsley is Gary Kasparov, Chiyonofuji and Mohammed Ali combined. He is the greatest draughts player the world has ever seen. It is a sensation when he loses even a single game. Since 1954, when Tinsley first became dominant, he has lost the incredibly small total of eight games. Indeed, Tinsley is one of the greatest and most commanding champions of all time in any arena.

Challenger – The CHINOOK computer program. CHINOOK is the official world number two, winner of the Challengers' tournament, and brainchild of Dr Jonathan Schaeffer of the University of Alberta, Canada. CHINOOK 'thinks' at the phenomenal rate of three million moves per minute. Yet Tinsley still just leads their personal combat. The score so far between the two contenders in past games is: one win to Tinsley, with 17 draws. The two protagonists are superbly matched.

What?

The first-ever World Championship fought out between Man and Machine. The Man is the supreme champion of the game, while the Machine is the fastest rising star in the draughts firmament. This Championship will mark the dawn of a new chapter in the history of Artificial Intelligence.

Where?

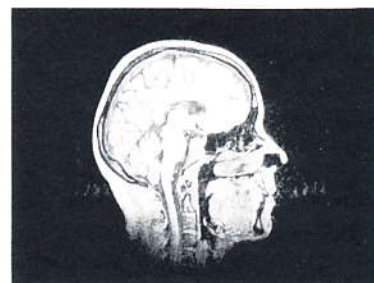
London's prestigious five-star **Park Lane Hotel**, Piccadilly, W1, also the venue for the celebrated 1986 Kasparov v Karpov World Chess Championship. The draughts champions will use the same table as the legendary chessplayers. This has been generously provided by City of London solicitors Watson, Farley & Williams.

Prize

\$10,000 – the largest-ever prize fund in a draughts championship, split 60-40 in favour of the winner.

When?

August 17-29th – four games a day from 9am to 10pm. Free days are August 19, 23 and 27.



Silicon Graphics' system generated picture of the brain.

Sponsors

The main Championship sponsor is Silicon Graphics, famous worldwide for their innovations in the exciting new field of Virtual Reality and their sensational special effects in the blockbuster movie, **Terminator II** with Arnold Schwarzenegger. The Championship is jointly sanctioned by the three leading bodies in the field: the Mind Sports Olympiad, the International Checkers Hall of Fame and the American Checkers Federation.

Organisation and Contacts

The organisational team features the world's leading promoters of Mind Sports: Tony Buzan, Chairman of the Brain Foundation, renowned author and TV lecturer on the brain and thinking; David Levy, International Chess Master and President of the International Computer Chess Association; Raymond Keene OBE, Chess Grandmaster and chess correspondent of **The Times**. In addition, Buzan, Keene and Levy are the co-founders of the Mind Sports Olympiad while Buzan and Keene are co-founders of the Memoriad. All three are available for interviews. For photos, inside and in-depth stories, features and exclusives, contact: 0628 482765 for Tony Buzan; 081 459 2388 for David Levy and 071 262 5348 for Raymond Keene. The Championship press chief (and a Mind Sports delegate to the government-backed Central Council for Physical Recreation) is Adam Papier Black who can be contacted by telephone on 071 703 0266, or fax at 071 277 0201.

History

Draughts is the most popular international Mind Sport in the world with more than 150 million identified players. The first World Draughts Championship was held in 1840 and won by Andrew Anderson of Scotland. In the past, only Scotland, USA and England have been successful in providing a World Champion. Will Canada now join that select group?

The Future

The London Championship is a turning point in the history of intelligence. It raises vital questions such as: can creativity

be regarded as a function of the perfect calculation of virtually infinite possibilities? Can certain advanced functions of the human brain be replicated or, indeed, replaced by thinking machines? Will future wars be fought and the exploration of space carried out by armies of thinking robots? (The Pentagon has funded research into chess computers for years.) Are humans, in fact, ultrasophisticated computers? Will this be the first time in history that a machine intelligence defeats a great human World Champion? This World Championship will answer some of these fascinating questions.

Tickets

£25 per day or £150 for a full season ticket, entitling you

to entry to the games every day plus lectures by draughts Grandmasters, and Mind Sports and Thinking experts. There will also be books on mind games and thinking for sale, as well as computers. It will be a real Festival for the Mind. Order your collector's item tickets from: Adam Papier Black, 294 Southampton Way, London SE5 7HQ. Please enclose a cheque made payable to Mind Sports Promotions Ltd with your reservation, for the appropriate amount. **Brain Club members receive a 10% discount.** There are only 100 seats available, so book soon to avoid disappointment. For press complimentary tickets please phone the press officer on 071 703 0266, or alternatively fax him on 071 277 0201.

A TINSLEY GAME

by Philidor

A revolutionary new method of recording the moves of a game of draughts is going to be employed in this World Championship. Remember, yet another first is possible – a computer program could win the 'human' World Draughts title!

The following game was played by Marion Tinsley in the 19th American Checkers Tourney, Ohio 1954. Black was Asa Long, World Champion from 1933-48. Tinsley won the tournament without losing a single game and with it the Championship of America.

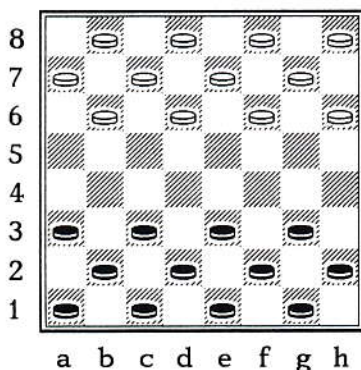
Draughts writers are, in general, uncertain as to whether black or white should appear at the top or bottom of the diagram and also whether, in diagrams, the pieces should appear on the black or white squares. (See **The New Complete Hoyle Revised 1991** edition, pages 613 and 614). Also, the traditional draughts notation is rather cumbersome for the non-initiate. *For the Silicon Graphics World Draughts Championship, therefore, we have revised and simplified the notation for presentation of game moves.*

This article is the first public appearance of the new system!!

It is based on the following three principles:-

- 1 Black moves first, therefore, the black pieces appear at the bottom of the diagram.
- 2 Games are played on the dark squares rather than the light squares. Therefore, in all of our diagrams, the pieces will appear on the dark squares, accurately replicating genuine playing conditions.
- 3 Replacing the cumbersome system of square naming, we will use algebraic coordinates, as with the chessboard. For immediate ease of reference, these coordinates will appear around all of our diagrams.

Black: Asa Long White: Marion Tinsley
Edinburgh Opening

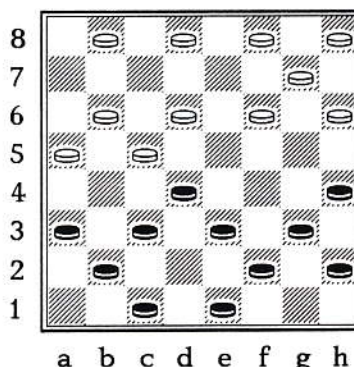


1 **g3-h4**

This is the so-called Edinburgh Opening considered dubious since it pays insufficient attention to the centre.

1 ... **d6-e5**
2 **c3-d4** **e5-c3**

3	b2-d4	b6-a5
4	d2-c3	c7-d6
5	h2-g3	a7-b6
6	a1-b2	d6-c5
7	g1-h2	e7-d6

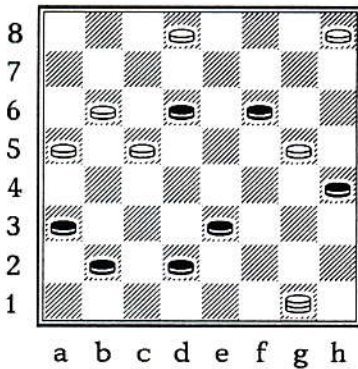


Black has an alternative here which has to be considered which however leads to a White win. It goes like this 8 g3-f4 f6-g5 9 h4-f6 g7-e5-g3 10 h2-f4 h8-g7 11 d4-e5 d8-c7 12 c3-d4 h6-g5 13 f4-h6 d6-f4-d2 14 c1-e3 f8-e7 15 h6-f8=K a5-b4 16 f8-d6 and now White wins with a beautiful sweep 16 ... c7-e5-c3-a1=K.

- | | | |
|----|-------|----------|
| 8 | c1-d2 | d6-e5 |
| 9 | g3-f4 | e5-g3 |
| 10 | h2-f4 | f6-g5 |
| 11 | h4-f6 | g7-e5-g3 |
| 12 | f2-h4 | f8-e7 |
| 13 | d4-e5 | h6-g5 |
| 14 | h4-f6 | e7-g5 |
| 15 | e5-f6 | b8-c7 |
| 16 | e1-f2 | c7-d6 |

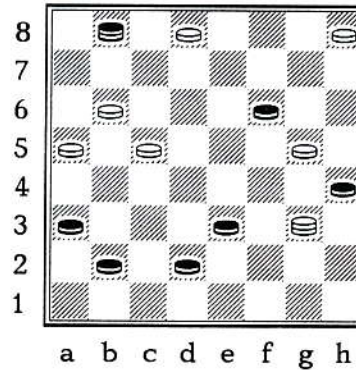
White is going all out to promote a piece to a king. The situation might be compared to a queenside pawn majority leading to a passed pawn in chess.

- | | | |
|----|-------|---------|
| 17 | f2-g3 | d6-e5 |
| 18 | g3-h4 | e5-f4 |
| 19 | c3-d4 | f4-g3 |
| 20 | d4-e5 | g3-f2 |
| 21 | e5-d6 | f2-g1=K |



Black may try an alternate route to promote his man but White still wins after this long forcing variation. From the diagram 22 d6-e7 g1-f2 23 d2-c3 f2-d4 24 c3-e5 h8-g7 25 f6-h8=K d8-f6-d4 26 h4-f6 a5-b4 27 f6-e7 b4-c3 28 e7-d8=K c3-a1=K 29 d8-c7 b6-a5 30 e7-b6 a1-b2 31 h8-g7 d4-c3 32 b6-d4 b2-a1 33 d4-b2 a1-c3 34 g7-f6 c3-d4 and White wins, e.g. 35 f6-g5 d4-e5 36 g5-h4 e5-f4, and Black loses pieces on successive moves.

- | | | |
|----|---------|-------|
| 22 | d6-c7 | g1-h2 |
| 23 | c7-b8=K | h2-g3 |



There is no salvation by 24 b8-a7 on account of 24 ... g3-f4 25 b2-c3 f4-e5 and Black is utterly helpless.

- | | | |
|----|-------|-------|
| 24 | d2-c3 | g3-f4 |
| 25 | e3-d4 | c5-e3 |
| 26 | b8-a7 | b6-c5 |
| 27 | c3-d4 | f4-e5 |
| 28 | d4-b6 | e5-g7 |
| 29 | h4-f6 | g7-e5 |
- Black resigns**

White is a piece up and Black is paralysed.

Animal Intelligence

contd. from page 28

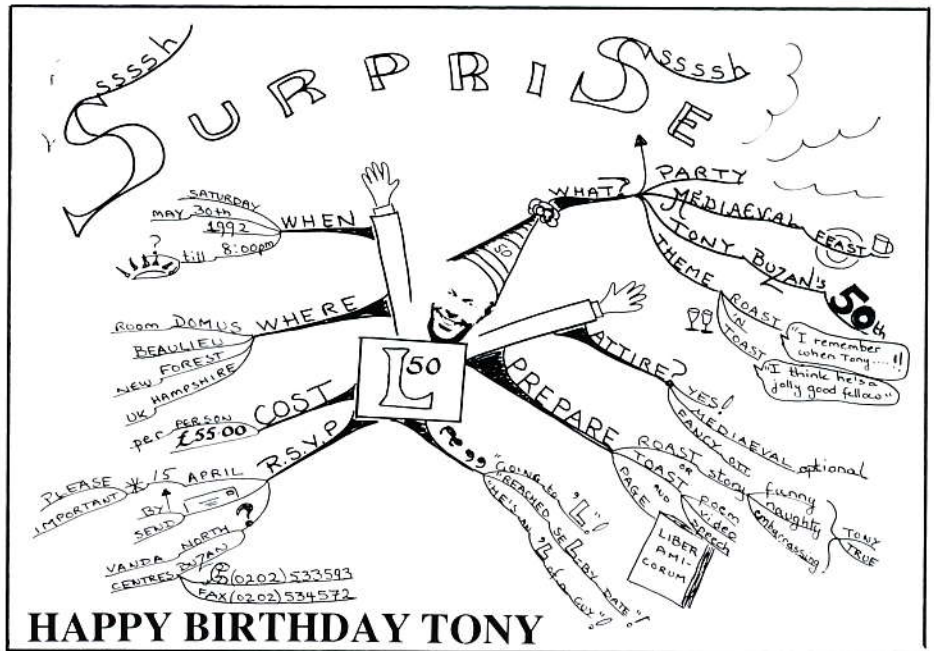
time was spent in 'active' sleep, compared with 71% in 'quiet' sleep.

The patterns of activity in the brain, the researchers in Mexico say, are different from those of mammals - slow waves did not occur.

From these studies a number of questions arise. Without the 'slow waves' what, then, is the difference between reptilian and mammalian 'quiet' sleep? What actually happens in the tortoise's brain/body during 'quiet' sleep? And finally, now that we know that tortoises do dream, about what do they dream?!

Parrart

Ripley's **Believe It or Not** reports that Paul Cézanne's parrot would sit proudly on its perch saying "Cézanne is a great painter!"



NEXT ISSUE

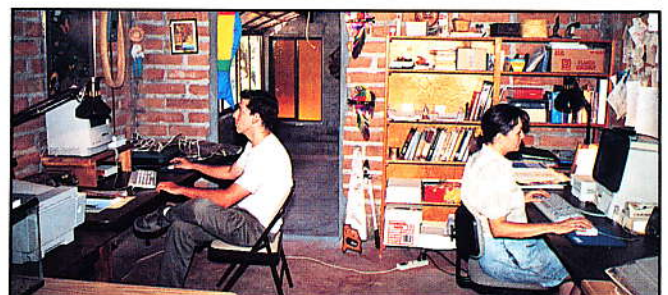
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