

Steps In The Right Direction

A 14 week course in wayfinding



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Chapter 2

Memory Boost

Enhancing mental maps

Overview: We continue to upgrade the quality of our mental maps

If you found geographic information naturally interesting you would not need this book, instead you have a “Child within” who rejects and spits out the information, so how do we coax it to “swallow and absorb” this stuff?

We need to add the flavours of the “Right side of the brain” to the information we are aiming to retain.

Flavour of imagination

Imagination When the information is boring- turn it into images spiced up with fantasy, the more funny, bizarre, rude, vivid, colourful and full of movement, the better.

For instance if you need to remember that the tennis courts are on the Bath Road, you can picture someone sat in a bath scrubbing their back with a bath brush shaped like a racket and holding a soap shaped like a tennis ball, or if you need to remember a tree next to a fence envisage the fence wrapped around the tree.

Flavour of the Senses

Visual This is the most powerful sense for memory, generally we think in pictures not words and so when making your mind maps, note “key points” in every “screen shot” of the environment to be recalled- door colours, distinctive tree shapes, Original garden features, (be aware of any memorable details). “Shoot” them with your mental camera in vivid colours, for a lasting impression.

Auditory Especially sounds you are likely to hear again along that route - the beeps of a pedestrian crossing, children playing at a nearby school.

The Aborigines use traditional songs sung in sequence to help them to navigate the Outback and the ancient Polynesians (arguably the best trail finders of all time) used chants to memorise the direction of bird flight to nearby islands. You too could create a song or rhyme using the key points of your route.

Smell Smells evoke strong memories - if you walk past a bakery – take note.

Touch As you walk you may feel when the texture of the ground changes from tarmac to paving slabs. If you pass a railing, run your hand against it, to record it sensually.

Kinaesthetic This is the scientific name given to our awareness of the movements and positions of our body. Notice how the tilt of your body changes subtly when the ground is steeper.

When recording mental maps, if you enrich them with a variety of material you encourage many areas of your brain to participate, that means more neurons (nerves) become connected - for example the popular mnemonic “long legged Italy kicked little Scilly into the Mediterranean Sea” is successful because it appeals to several mental processes:

Brain area

Visual	The shape of Italy is latched onto the familiar image of a leg.
Kinaesthetic	Kicked” give us movement and our memory loves images to move.
Auditory	The singsong rhyme sounds very distinctive.
Sense of fun	Our memory loves humour; this silly image will latch on to the “fun” section.

In their research, scientists Craik and Lockhart noted that the more meaning you give a memory, the easier it is to retrieve.¹

¹ @Craik, FIM, & Lockhart, RS (1972). *Levels of processing: A framework for memory research. Journal of Verbal Learning and Verbal Behavior*, 1972

Having got our brain to take in the information it needs to be filed away in the library of our memory, in such a way that it can be efficiently retrieved. This is when the Left side of the brain “does its thing”.

Memory Peg System

Sense of Sequence

Our memory loves order and will work better if new information is associated with a sequence it is already familiar with.

There are various memory training techniques that are based on this trait, for example the memory peg system, it works like this:

Take the numbers 0 to 10, the shape of each number reminds you of a certain object.

0	Bubble	3	Seahorse	6	end of a golf club	9	Balloon on a string
1	magic wand	4	Sail	7	Walking stick	10	Knife and plate
2	Swan	5	Hook	8	hourglass		

These objects will form your “peg list, commit this list to memory until the object automatically springs to mind when you think of the number.

Once you have committed this peg list to memory it can be used whenever you have a list of landmarks or road numbers to remember.

(Usually the peg system begins with one. I have included nought to use with road numbers. But for memorising a list of landmarks I start at one.)

Pegs to remember a route

The order of landmarks along a route within a town can be linked to these pegs by also representing them with mental imagery. It is important to form a clear mental “snapshot” of your landmark, so focus on it with your full attention for a few seconds.

Say that on your route you first pass a letterbox then a pub, thirdly a roundabout where you need to take the second turning.

1 = Associate “Magic wand” with letterbox” e.g. As the magic wand is waved at the letterbox, its starts to wobble.

2 = Associate “swan” with the pub e.g. Think of the swan drinking from a glass.

3 = Associate “seahorse” with the roundabout e.g. Picture the roundabout flooded with water and two giant seahorses swimming inside it (two to remind you that it is the second turning you need).

And so it goes on.

Pegs to remember road numbers

To remember a primary road number, create a story to form an association between the peg number and the road numbers.

For instance A 592. : 5=hook 9 =balloon 2 = swan

Visualise a door hook. The string of the balloon is then tied to it, when you look into the balloon you see a toy swan.

People often begin the new year writing the old year’s date on forms until they have established a memory of the new date, this is an example of memory interference, it happens when new information is very similar to existing data and interferes with its encoding, Therefore choose your landmarks for their individuality to prevent confusion.

Linking memories together

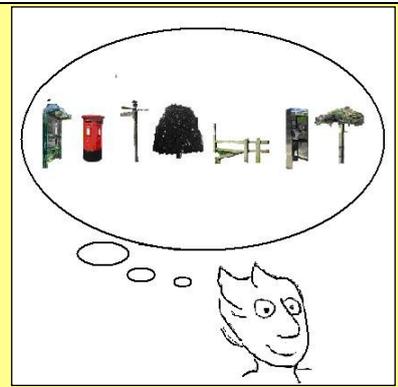
As we see from the Peg system a piece of information is less likely to float away if it has been linked to a stable memory. If you know someone who lives in the village mentioned on the Television News you are more likely to remember the news event.

Memorising geographic knowledge will enhance and merge with your mental maps increasing their accuracy. The more information you have in your stable memory of a place the easier it is for new information to stick. If you hear someone say they are from Leeds, briefly scan your memory for all you know about the place including where it is on a map.

With regular practise, these multisensory/multi-data mental maps will increase in intensity and clarity and become firmly imprinted in your brain. After much repetition these methods will become easier and the information will be remembered naturally without needing the associations you previously attached to it.

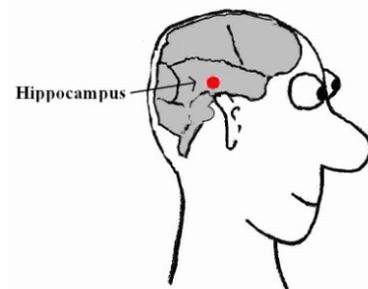
The richer the library of wayfinding knowledge you have stored in your mind, the more readily new experiences can be associated with it. Good navigators are constantly adding to their mental maps of the world as they learn about new destinations.

When you are holding information temporarily in your head for a short amount of time (in your working memory), you will only be able to hold about seven items of information at the most. So if someone tries to direct you with more than seven landmarks to remember you will need to write it down.



Remember how the hippocampus is the brain region where most spatial reasoning takes place?

The hippocampus also deals with long term memory; if we encounter a new situation our brain will send information about it to the hippocampus and compare it to familiar experience. Apparently even visualising a route can cause the hippocampus to fire up; think of this when you work through this chapter on memory.²



² *The Human Hippocampus: Cognitive Maps or Relational Memory?* Dharshan Kumaran and Eleanor A. Maguire. *The Journal of Neuroscience*, August 3, 2005

Swots and Trots Week 2

Swots

At the beginning of this week's swots spend a few minutes running through the number peg system.

Sunday Study this picture for a few minutes and form a multisensory image, then look away and sketch down everything you recall. The Police regularly do this exercise to sharpen their observation and memory skills.



Monday

Another picture to study: this time observe carefully the position of features then turn to Appendix 1 on page **Error! Bookmark not defined.** and ascertain what has changed.



Tuesday

A memory task: after observing the picture, turn to Appendix 1 on page **Error! Bookmark not defined.** and match the railings and windows to each house.

1



2



3



4



Wednesday

Mental imaging of the brain indicates that vision and imagination share the same parts of the brain which explains why playing with mental images enhances memory. I have included some examples of how I remember the shapes of certain countries on page 8 hopefully you will find them useful too.

In the media and in conversations, see how many places are mentioned in your day and look them up in an atlas. Notice also that Chile is long and thin like a chilli pepper and because I remember that there are many cattle farmers in Patagonia I think of its shape as a huge steak. Find yourself a colourful atlas to inspire you, a children's pictorial atlas may be a good start and create your own good multisensory images. Record them in your journal.

Learning the shape and position of countries will orientate you when you travel.

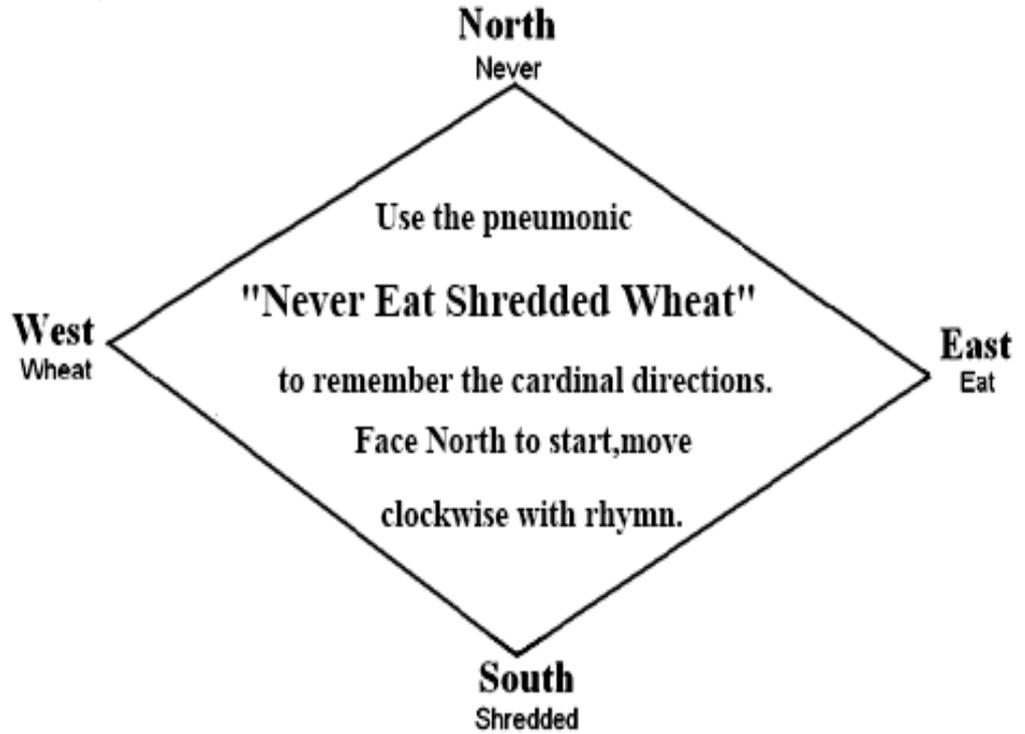
Thursday

Take a simple unfamiliar picture of a place, look at it for a few seconds and then get someone to question you on the key details of the scene.

Friday

We have focused on visual memory but you could also ask someone to describe a route, which you then repeat back to them as accurately as possible.

Saturday Memorise this, if you do not already know it



In the media and in conversations, see how many places are mentioned in your day and look them up in an atlas.



Figure 1 : How I remember the shape of these countries

Trots

Take a walk along a familiar route, no longer than a mile. At this stage go alone on your trots to avoid distraction as you are concentrating on what is happening inside your head.

Make a multisensory movie with your mental lens. Practice using both sides of your brain. Before you turn around to return home, stop, and run the film backwards, can you visualise the order in which you will see your images on the way back?

When memorising a route, the brain tends to learn in twenty minute cycles, remembering most from the beginning and end of a learning session, so plan short breaks in your walk to just daydream or think about something different.

From now on as you travel about, observe carefully what is around you, what colour is a gate? Note the curve of a path, you will never remember every detail, nor do you need to, but memorising what landmarks look like and their whereabouts is the first stage to finding your way around.