

**Exercise**

A few weeks ago\* I was sitting in a clinic waiting room, accompanying someone for their appointment. There was a long bookshelf containing a multitude of leaflets on dealing with health issues and how people can look after themselves to improve their health. As these were hospital publications, they advised consulting the doctor or healthcare professional before starting with the easier and gentler activities and developing\* them once you become stronger\* and more familiar with the exercises. Patients were invited to attend a series of exercise sessions which are supervised by exercise specialists, who can tailor the programme to individual needs and medical conditions.

There were\* comments from people who felt it had greatly improved\* their strength and stamina, and they were very pleased with the results, which they had achieved with the support and help of the exercise specialists and instructors.

- \* Omission phrase "few wee(k)s ago" "there (w)ere"
- \* "developing" This optional contraction is for "development" but it is safe to use it for the verb as well
- \* "stronger" Optional contraction omitting the hard G sound

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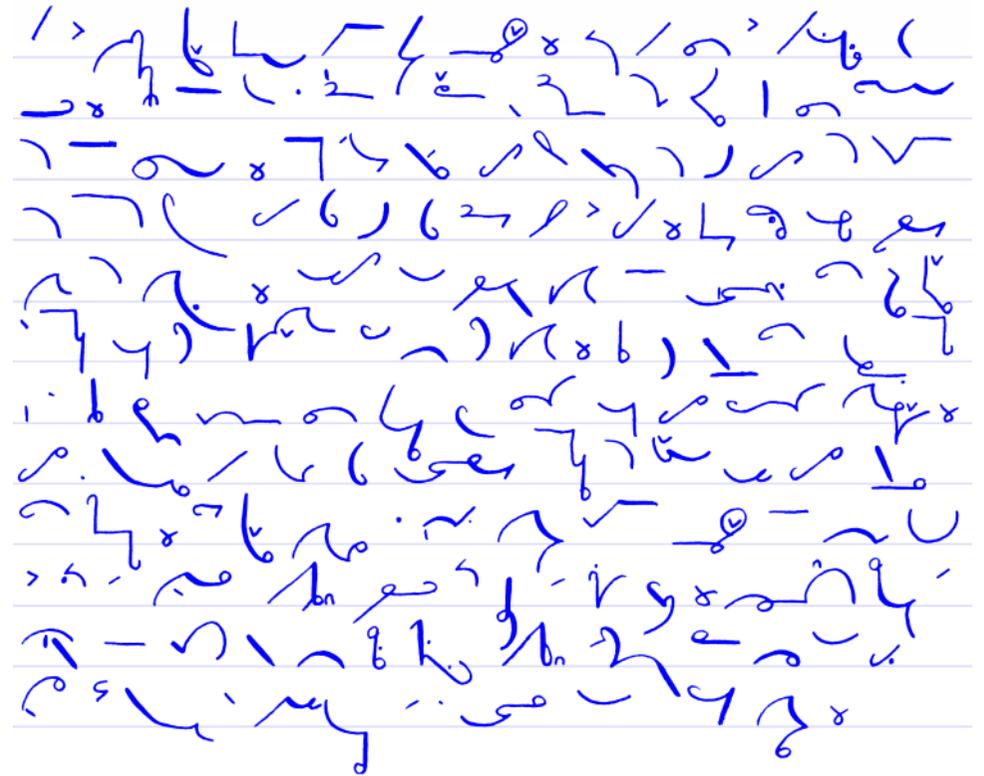
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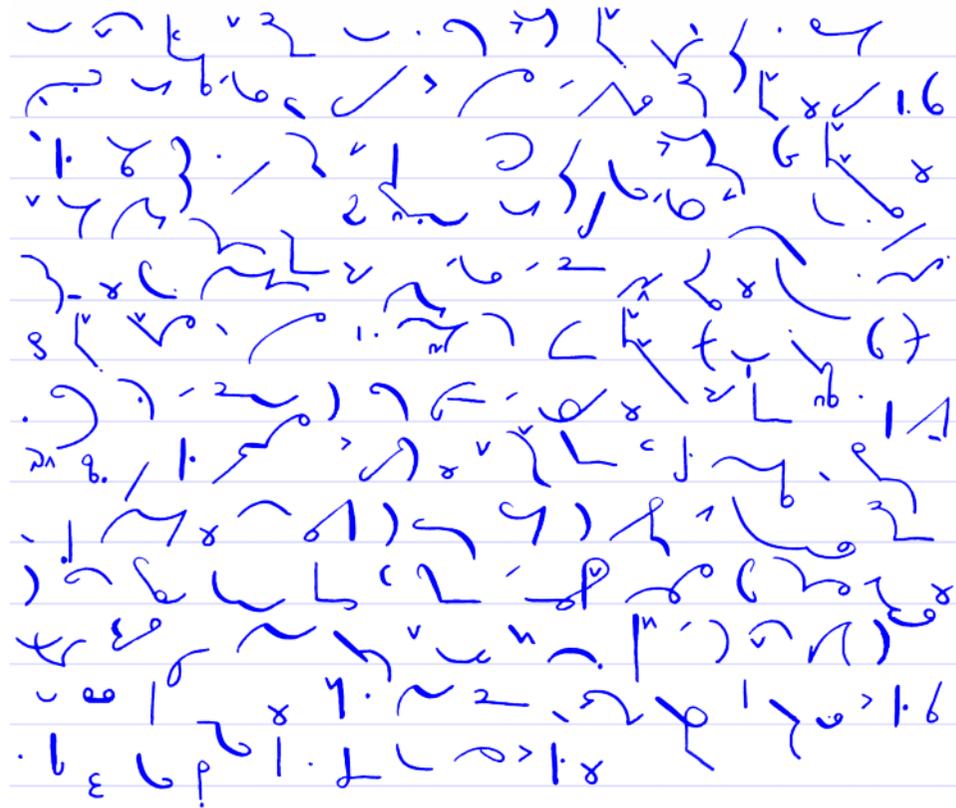


**Exercise**

Much of the literature advised taking regular gentle exercise. Here are some of the recommendations they gave. Go for a walk, cycle to work or the shops, do some gardening or go swimming. Get off the bus one stop before your usual one, or park your car further away than usual, then walk the rest of the way. Take the stairs instead of using the lift or elevator. Anyone in reasonable health can incorporate\* more of these types of activity into their daily life\* in order to\* improve their health. It is easy to become more physically active, but a decision has to be made\* to make some changes, however small, into one's normal lifestyle. Once the benefits are felt, then increasing the activities or finding new ones becomes more attractive. According to the\* advice leaflets, a moderate level of regular exercise can improve the efficiency of the heart and lungs, reduce the risk of heart disease and control blood pressure\*.

Muscular strength and mobility can also be improved, stress and depression reduced, and there may be significant improvements in weight loss, with the benefit of renewed confidence and an increase in energy levels.

- \* "incorporate" The P stroke is the "first up or downstroke" and is therefore in position, on the line for 3rd position, as it is halved.
- \* "daily life" This could also be written with only one L stroke, as an omission phrase, but this version is clearer
- \* Omission phrase "in ord(er to)" "according (to) the" "blood (pre)ssure"
- \* "has to be made" Ensure the first circle is well above the line, as "is to be made" could also make sense in some contexts

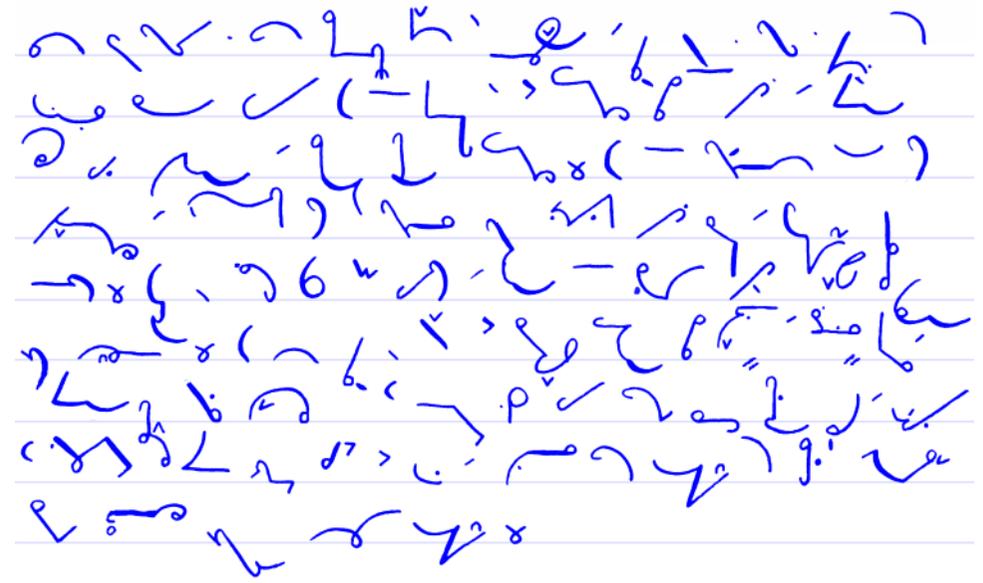


**Exercise**

In my twenties I worked in a very noisy typing pool, which was a central location in the office building where all the letters and reports were typed. We did this all day, unless there was an hour or two on the duplicating machine, which was even noisier than the typewriters. I only left the room to take shorthand in the general offices, maybe for an hour or so. Every lunchtime\* I would leave the office and walk round the shops. After a morning spent typing piles of letters on a manual or electric typewriter (no computers\* then), the fresh air and walking was very welcome and necessary. I would take a different route around the streets each day, regardless of the weather. I arrived back with ten minutes to spare to eat lunch. My head was clearer, energy was restored and the afternoon's work was more pleasant, having taken that break and exercised

muscles other than arms and fingers. Unfortunately\* that was still long before I knew about improving diet and so my health was not as good as it could have been\*. I had a long walk to and from the bus-stop at both ends of the day, which is an advantage when you have been sitting at a desk for most of the day.

- \* "lunchtime" Halving for the T of "time"
- \* "computers" Does not use doubling in the plural, as the U diphthong cannot be joined
- \* "pleasant" "pleasing" Helpful to insert a vowel, as these are similar in outline and meaning
- \* "Unfortunately" Optional contraction
- \* "it could have been" The "could" is not phrased with the "it", in order to show it in its true position, so it is not misread as "can"



**Exercise**

Some people prefer a more structured time of exercising and choose to become a member of a gym or fitness centre, where they can take advantage of all the equipment, such as running and jogging machines, weight lifting and strength training equipment. They can programme in their requirements\* and monitor their progress, breathing, heart rate, running speed and virtual distance covered. They do not have to concern themselves about the weather and can safely run whilst listening to their music. They may choose to buy all the specialised\* clothing, such as Lycra and Spandex tops and jogging trousers, base layers that keep the sweat

away from the skin, trainer shoes and footwear\* that absorb the shock and protect the joints of the feet and legs from injury or strain, and various support garments to prevent muscle injury.

- \* "requirements" This can also be written as an intersection
- \* "specialised" Essential to insert the diphthong, to differentiate from "specialist"
- \* "footwear" Insert the vowel in this and in "knitwear", and keep the thickening clear in "underwear" as these are all similar in shape and meaning (i.e. all items of clothing)

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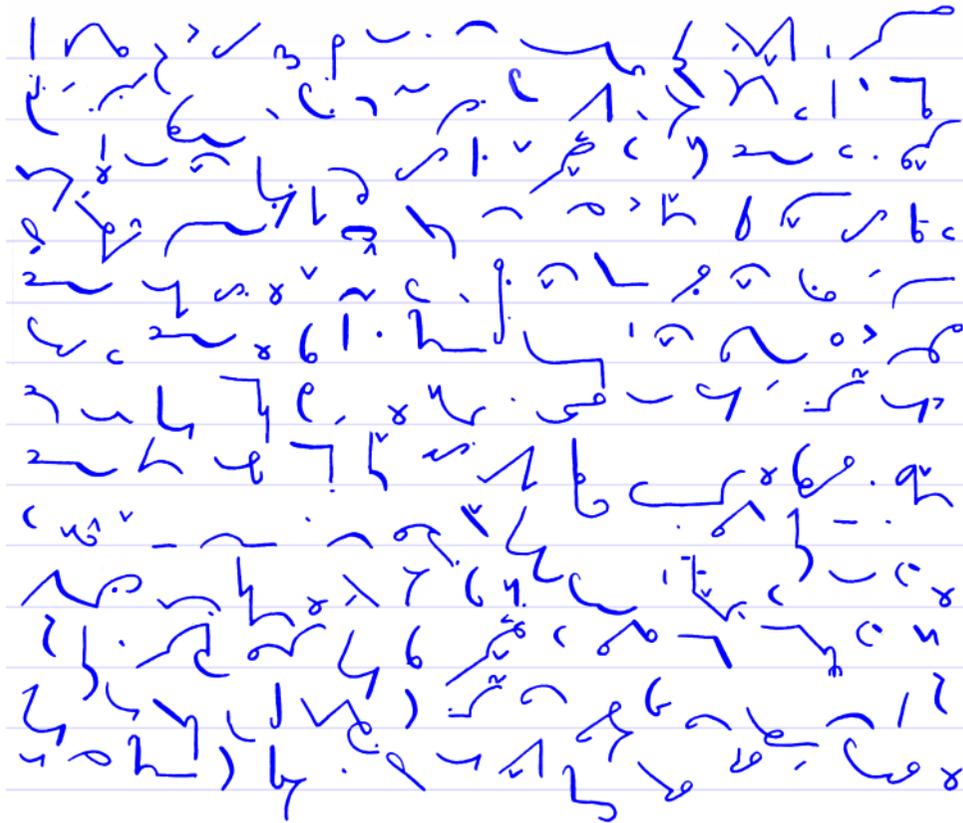
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**Exercise**

It helps to think of the way you would sit in an important interview, which would be upright but relaxed, attentive and alert, listening to every word, and not leaning over ready to fall asleep when it all gets too much! In my teenage years, one day I realised that I was walking with a slightly stooped posture, looking at the ground before me most of the time, just like one does when walking into the wind. I made the effort to straighten\* my back, raise my face and look forward when walking. This had a dramatic effect on my wellbeing, as all the muscles were now doing the activity as they should. I felt an increase in energy and actually enjoyed walking much more\* instead of getting tired and wanting to reach the destination quickly. This was the first time that I found I could\* make an improvement simply by changing a habit\*

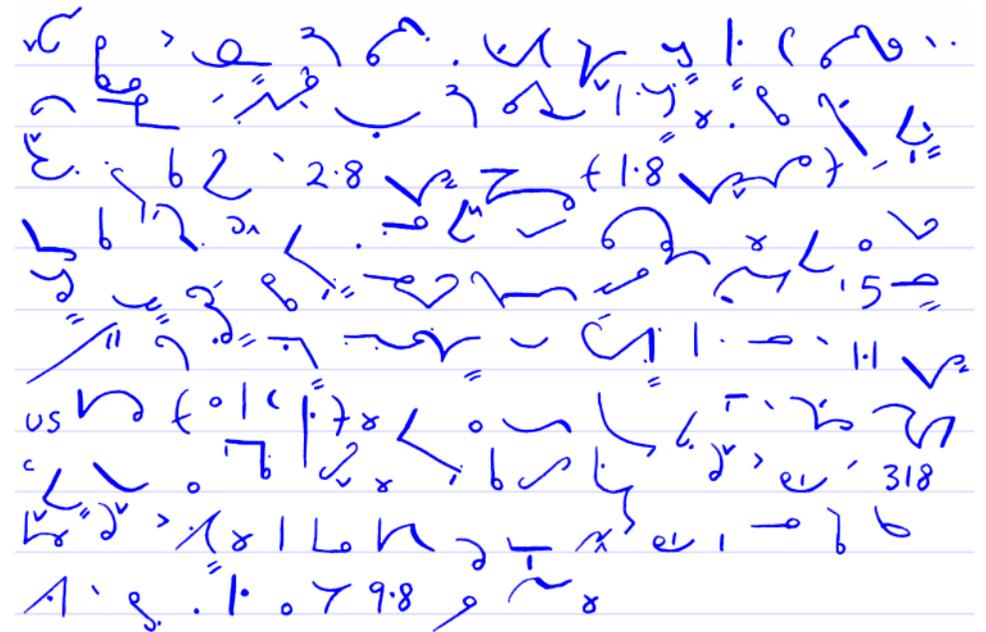
and it was quite a revelation to me at the time. Up until then I did everything on autopilot without any thought. Although it was a relatively small change, this realisation, that habits\* can be captured, thought about and changed for the better, if done purposefully, was actually more useful than the mere physical improvement, which, although not the most dramatic, was definitely a step in the right direction: upwards, onwards and forwards. (1236 words)

\* "straighten" Note that the past tense "straightened" is disjoined, as the two T strokes are different lengths

\* Omission phrase "much m(ore)"

\* "I could" Not phrased, so that it is not misread as "I can"

\* "habit" "hobby" Insert the first vowel, as these are similar in outline and meaning



**Jupiter And Juno**

While the citizens of the United States of America\* were celebrating the Fourth of July, Independence\* Day, other celebrations of a more ecstatic and rapturous nature were happening at NASA\*. The space probe Juno finally completed its journey of 2.8 billion kilometres (1.8 billion miles) and began its orbit around Jupiter, the gas giant of our solar system. Juno is part of NASA's New Frontiers space exploration programme and was launched on 5 August 2011\* from Cape Canaveral in Florida at a cost of 1.1 billion US dollars\* (as at that date). Jupiter is named after the chief god of Roman mythology, with Juno being his goddess wife. It is one tenth the size of the sun and 318 times the size of the Earth. It takes 12 years to go round the sun but because of its fast rate of\* spin, the day is only 9.8 hours long.

\* Omission phrase "United States of America"

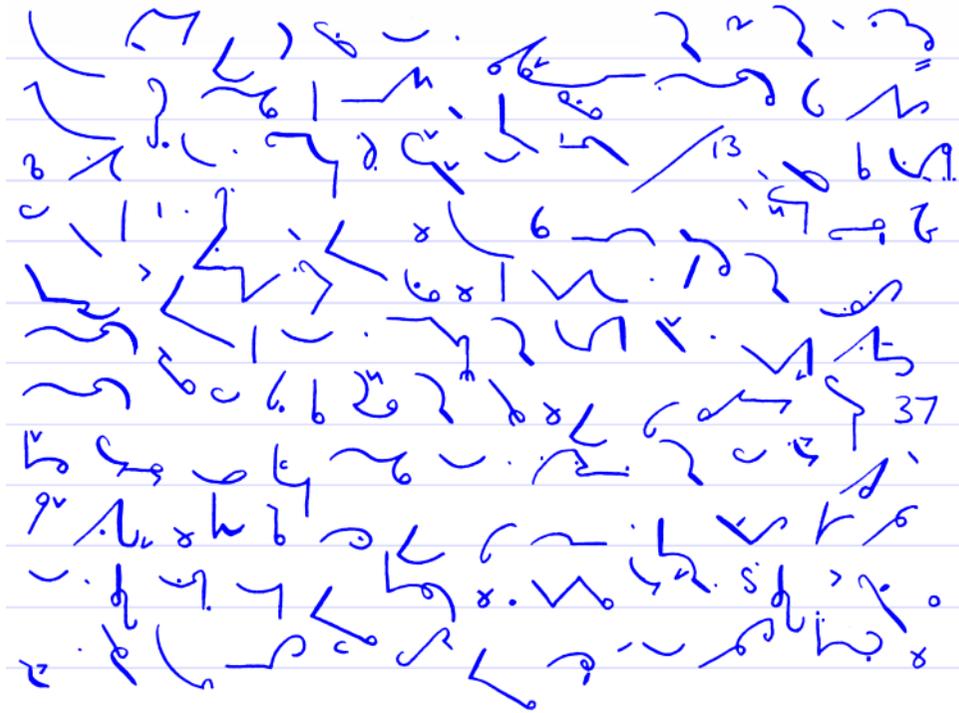
\* "Independence" A well-known phrase, therefore safe to use the contraction, but could be written in full if felt necessary, to distinguish it from "independent"

\* "NASA" An acronym, i.e. initial letters pronounced as a word, therefore use an outline for the spoken sound

\* "dollars" You can intersect stroke Ds for "dollars" where convenient but not possible here

\* "tenth" "eighteenth" Vowels essential, similarly ten/eighteen, eight/eighty

\* "rate of" Not using the F Hook for "of", because it might be misread as "rotation"



**Jupiter And Juno**

After launch Juno was placed in a heliocentric\* orbit beyond the orbit of Mars and after 13\* months it carried out\* two deep space manoeuvres, then returned towards Earth for a gravity assist flyby in October 2013\* to boost its velocity, in order to\* put it on a trajectory to Jupiter. After this came two years of quiet cruise and then the beginning of the Jupiter approach phase. It performed a large orbit insertion manoeuvre to place it in a capture orbit, followed by a period reduction manoeuvre in order to\* achieve its science orbit position. Juno will circle the planet 37 times over the course of the next 20 months, in an elliptical orbit in order to\* avoid the regions of high radiation. At the end of its mission, Juno will make a deorbit burn which will result in a destructive entry into Jupiter's atmosphere. The purpose for the planned destruction of the probe is to

avoid\* a possible future collision with one of Jupiter's moons and any resultant contamination.

\* "heliocentric" The outline needs a downward L, therefore it cannot have a Tick Hay

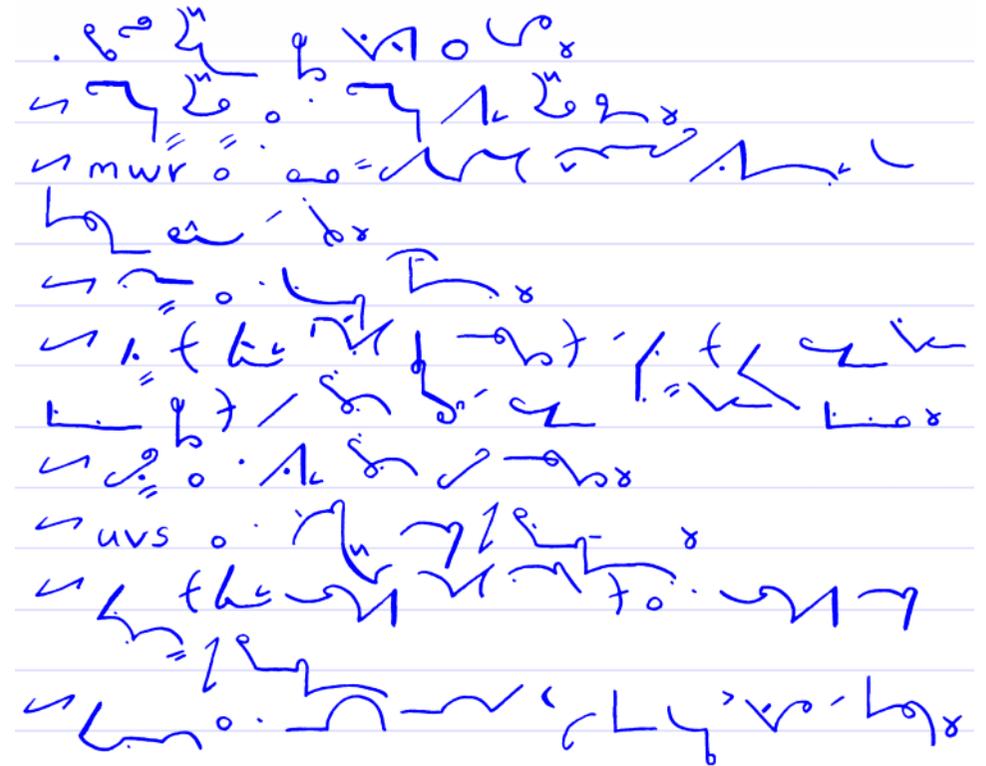
\* "thirteen" Ensure the hook is clear, so it is not misread as "thirty"

\* "carried out" Halving for the T of "out"

\* "2013" Long slash for current century, arbitrary sign with no phonetic value

\* Omission phrase "in ord(er to)"

\* "avoid" Insert the diphthong, as it is similar to "evade" in outline and meaning



**Jupiter And Juno**

The spacecraft's scientific instrument payload is as follows:

- Gravity Science is a gravity radio science system
- MWR\* is a six-wavelength microwave radiometer for atmospheric sounding and composition
- MAG is a vector magnetometer
- JADE (Jovian Auroral Distributions Experiment) and JEDI (Jupiter Energetic Particle Detector Instrument) are plasma and energetic particle detectors

- Waves is a radio plasma wave experiment

- UVS\* is an ultraviolet imager/spectrometer

- JIRAM (Jovian Infrared Auroral Mapper) is an infrared imager/spectrometer

- JunoCam is a colour camera that will take photos of the poles and atmosphere

\* "MWR" "UVS" These are initialisms, therefore use lower case longhand letters, the others are acronyms, i.e. they can be pronounced as words, like NASA in para 1



**Jupiter And Juno**

Jupiter is five times further from the sun than Earth and receives one twenty-fifth of the amount of sunlight that we do, therefore the solar panels are larger than those used on other missions. Juno is the first spacecraft to travel this far using only solar power. The three solar panels were folded into four segments in order to\* fit into the launch vehicle, and when the solar array is open\* the spacecraft has a span of 66 feet or 20 metres. The orbit paths have been planned so that the panels are in continuous sunlight. Power requirements are quite low, as it is only\* needed for approximately 6 hours per orbit, at the time when Juno is closest to the planet, in order to\* power the scientific equipment.

Juno has a titanium\* outer shell and is carrying the first radiation shielded electronics vault, to protect the sensitive electronics, an essential feature for exploring in this heavy radiation space environment.

- \* Omission phrase "in ord(er to)"
- \* "open" Ensure the P is clearly full length, as "opened" would also make sense
- \* "as it is only" On its own, "only" is written with full N and L strokes
- \* "titanium" Can also be pronounced "tye-"

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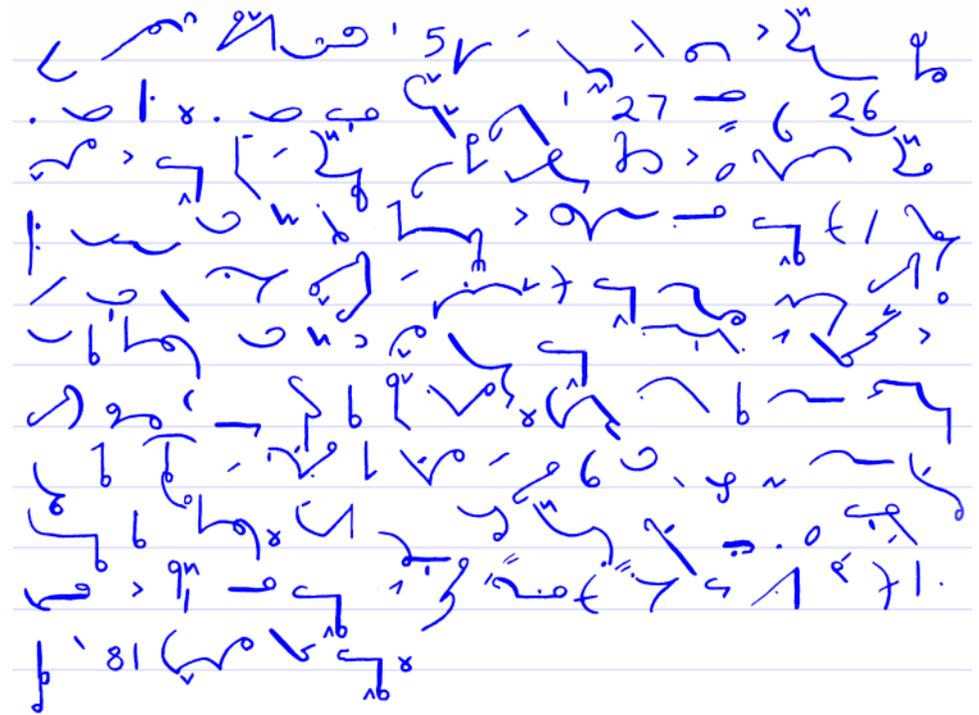
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**Jupiter And Juno**

Juno resumed high-rate communications on 5 July and powered up some of the scientific instruments the next day. The next close flyby will be on 27 August, within 2,600 miles of the cloud top, and scientists will start to receive the transmission of the first preliminary science data including information about the composition and temperature of the swirling gas clouds (which presently are known to be mainly hydrogen and helium), cloud movements, how much water is in its atmosphere, information about what lies beneath the cloud canopy and the

behaviour of the weather systems that give the planet its striped appearance. They will be able to map its magnetic and gravity fields, and its magnetosphere and auroras at the poles and use this information to understand how the magnetic force affects its atmosphere. Forty years ago NASA's Pioneer probe gained the first close-up photographs of the striated gas clouds and the high pressure\* vortex (commonly called the red spot), at a distance of 81,000 miles above the clouds.

- \* Omission phrase "high (pre)ssure"

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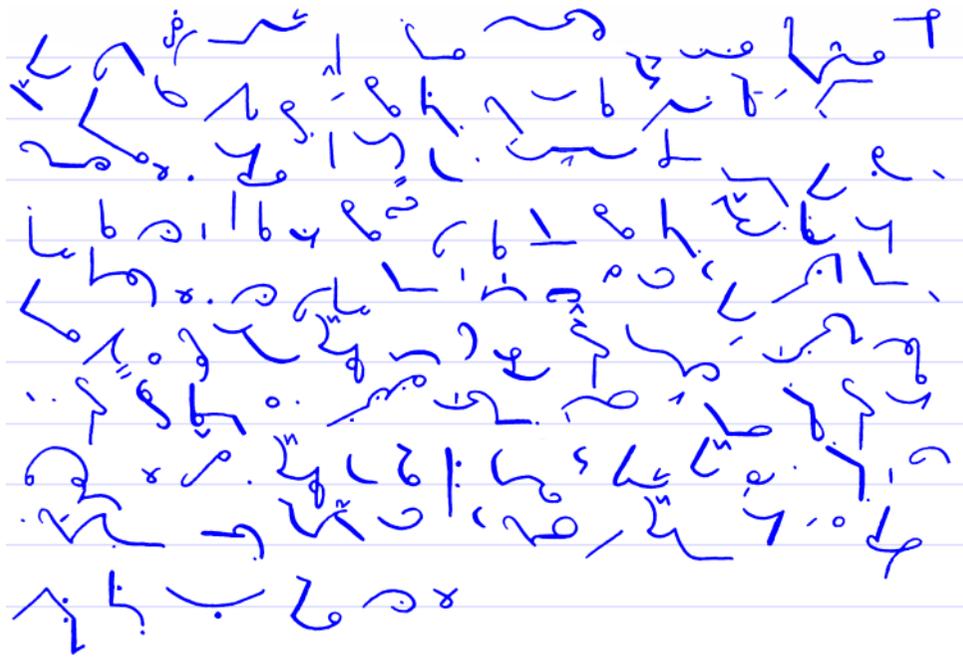
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**Jupiter And Juno**

Juno will be constantly carrying out complex manoeuvres to avoid the intense turbulence caused\* by Jupiter's fast rate of spin and space debris, principally in its ring of dust and rock fragments. The engineers at NASA have an ongoing task to keep Juno safe to continue its mission, but at its end the spacecraft will itself become space debris and finally descend into Jupiter's atmosphere. The mission will continue back on home ground, as the information that Juno relayed back to Earth is processed, enabling scientists to improve their understanding of planet formation and

unravel the mysteries of a planet that has been described as a relentless unforgiving monster and the biggest baddest planet in the solar system. Once the scientists have all this data, they may find that the Jovian giant is not a baddie but more a prolific giver of valuable information that progresses our scientific knowledge and has generously repaid the daring nature of Juno's mission. (894 words)

\* "caused" Special outline, to differentiate from "cost"

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**RAF Museum**

Back in March we visited the Royal Air Force Museum in Colindale, in North West London, built on part of the former Hendon Aerodrome. It is a large site with five huge hangars\* plus one ex-factory building, all filled with examples of innovative and pioneering aircraft, from the earliest wood and canvas machines with their bicycle wheels underneath, to gigantic bombers and military carriers. We first went into the Milestones of Flight Hall, a collection of examples from the long history of aviation. Covering the entire side wall is an Aviation History Timeline. At one end is a large balcony area and along the side a long raised walkway, allowing close-up inspection of the suspended airplanes. I thought these were quite amazing\* on their slender\* steel cables, hanging from a

curved tent-like roof, until I realised that the planes obviously did not have their\* engines and other equipment inside.

\* "hangars" Dictionary outline, for the pronunciation "hang-gars". Alternatively use the outline shown in para 8

\* "amazing" and "amusing" Always insert the vowel

\* "slender" Helpful to insert the vowel, as "cylinder" could possibly make sense as well

\* "have their" Doubling for "their"

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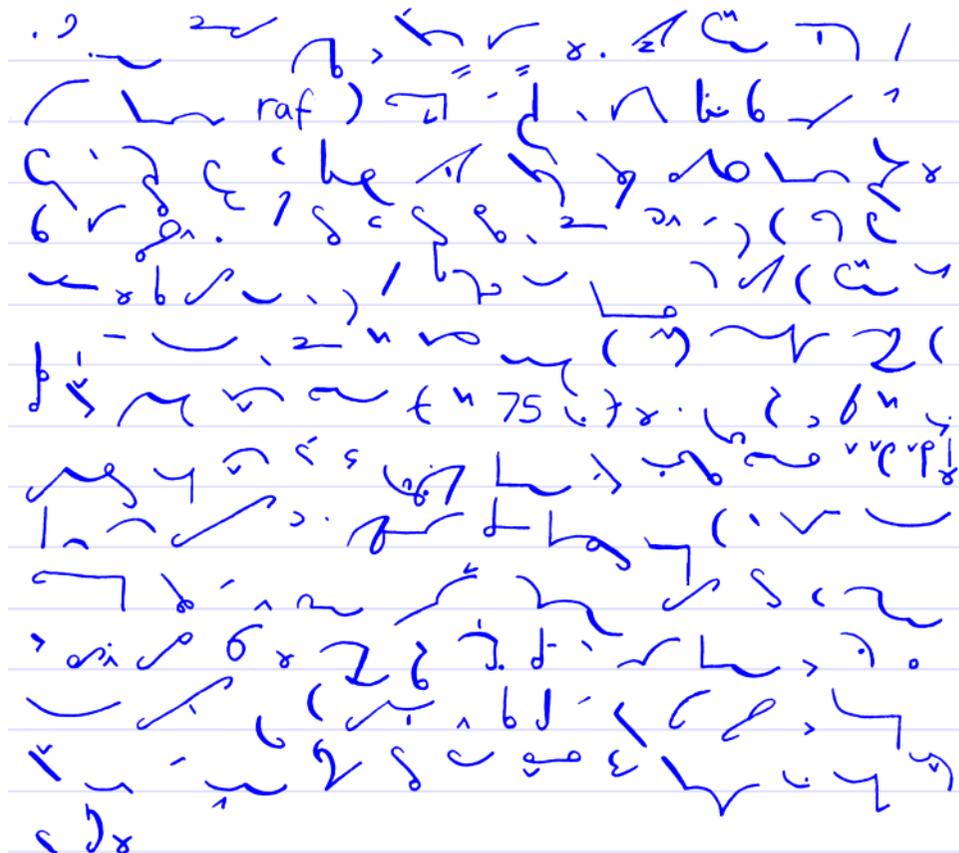
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**RAF Museum**

A short connecting walkway leads to the Bomber Hall. The Royal Flying Corps, which later became the RAF, was created and developed to help defend this country and the development\* of airplanes fulfilled that defensive role before passenger services became available. This hall houses the larger planes, with plenty of space to walk around and see them from every angle. It is one thing to see large aircraft in pictures or watch them flying in the distance, but quite another to walk about almost underneath them, and I was mentally measuring them by the length of my garden (about 75 feet\*). A few of them would just about fit the wingspan into my plot, with the fuselage taking up the neighbours' gardens on either side! It made me wonder what a logistical task it must have been\* to get them all parked in their

correct positions, and how you could not really remove one plane without moving all the surrounding ones as well. Imagining all these umpteen tons of metal taking to the air is another wonder, even though we know how it is done and ought to be well used to the fact by now, and knowing that there are planes in our skies that would barely fit into the entire building on their own.

\* "development" Optional Contraction. This is safe to use for the verb as well, but the official outline for "developed" is given here.

\* "75 feet" and "foot" Always insert the vowel in these, as either can be used in measurements. "Foot" is used when the measurement is used as an adjective e.g. "A 75-foot boat"

\* Omission phrase "it must (have) been"



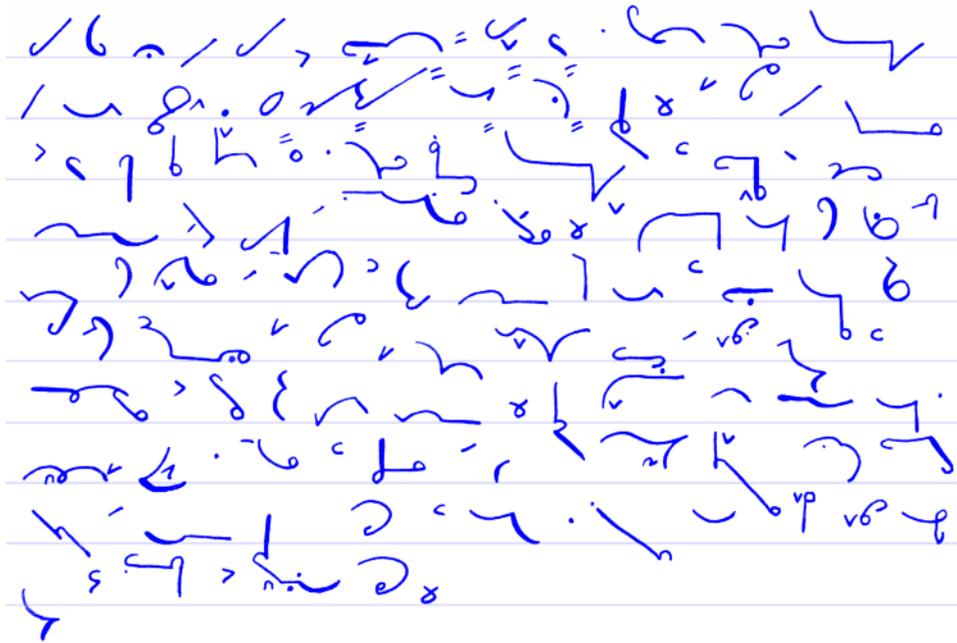
**RAF Museum**

The Bomber Hall connects to the Historic Hangars Hall but unfortunately\* plane fatigue was setting in, with a fading supply of energy and attention, and we decided to halt there and get home before the rush hour on the trains. We would return another day to continue our tour through aviation history. This we did two weeks ago\*, and carried on where we left off. We

saw the helicopters, both military and rescue, a gyrocopter and a lone ejector seat showing the mechanism, and many more historic aircraft.

\* "unfortunately" Optional contraction

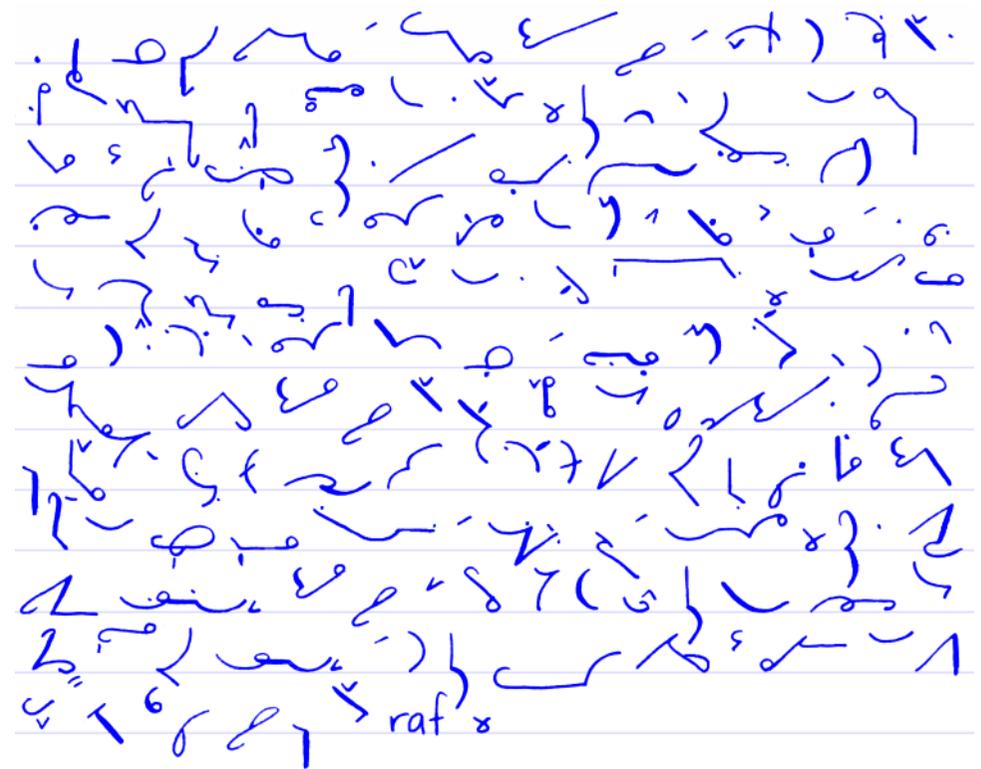
\* Omission phrase "two wee(k)s ago"



**RAF Museum**

We then made our way to the Grahame-White Building, a former aircraft factory, which now houses the First World War In The Air display. On the walls are pictures of the building during its time as an aircraft construction factory, with crowds of women making up the wood and canvas components. I looked into their faces and tried to imagine their lives, and also what they would make of it now, with grey

photos of themselves and their workmates on the walls, but the room entirely clean and silent, and filled with examples of the planes that they helped to make. It would be like me going into a museum showing an office, with desks and old manual typewriters, messy carbon paper and ink duplicating machine, with never a computer in sight, silent instead of filled with the clatter of the machines.



**RAF Museum**

The display cases showed the uniforms and equipment that were used, and my attention was arrested by a set of protective outer garments for a pilot. It was made of sheepskin, in separate parts, with the wool innermost, and there was a rather\* scary looking leather mask shaped to fit the face, with small holes for eyes and the base of the nose, and a slit for the mouth, to protect the skin during flight in an open cockpit. In one glass case was an array of small bomb cases and grenades, and I was appalled\* to see a particular anti-personnel weapon that was used by both sides in the First World War, a selection of different types of flechette (meaning little arrow) which are sharp tipped steel darts that would be dropped in clusters, to cause panic and injury to people and animals. There was an original

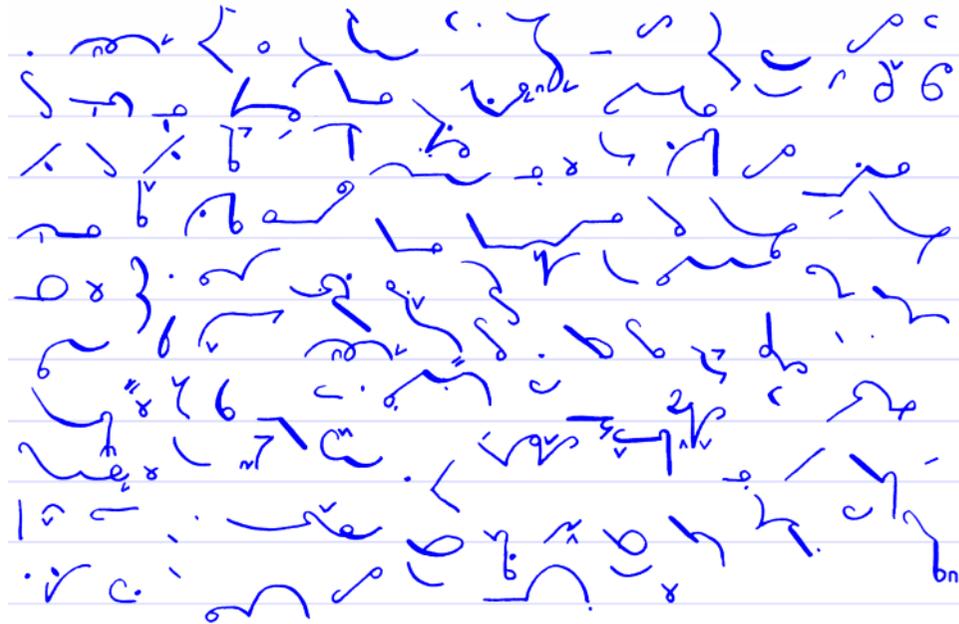
Union Jack\* insignia that was used on the planes, until they found it was being mistaken for the German cross-shaped insignia and so it was quickly replaced with the circle in red, white and blue that is still used today by the RAF.

\* "rather" If you felt this could be misread as "rare" it would be helpful to insert a first place dot vowel, although it is not dictionary to do so

\* "appalled" Always insert the vowel after the P stroke in "appall" and "appeal" and their derivatives, although unlikely to be misread in this particular context

\* Contraction "U(nion) Jack"





**RAF Museum**

The museum shop is full of everything that an enthusiast could want, especially the younger ones, with plane covered coats, jumpers, bags, pyjamas and various uniforms in child sizes, as well as row upon row of toys and model making kits. For the older ones keyrings, mugs, ties, ladies' scarves, books, bookmarks, pens, pencils and pencil cases. There was a small inflatable\* Spitfire airplane, ideal for hanging from the bedroom ceiling, just like the museum planes, the best place to avoid\* the disappointment of a puncture. I think this could be called a hanger\*, in order to\* give you the shorthand outline that reflects the pronunciation. For actual flying, the cheap polystyrene glider kits are better, and it might occur to an enterprising youngster to trace round the pieces before assembly, in order to\*

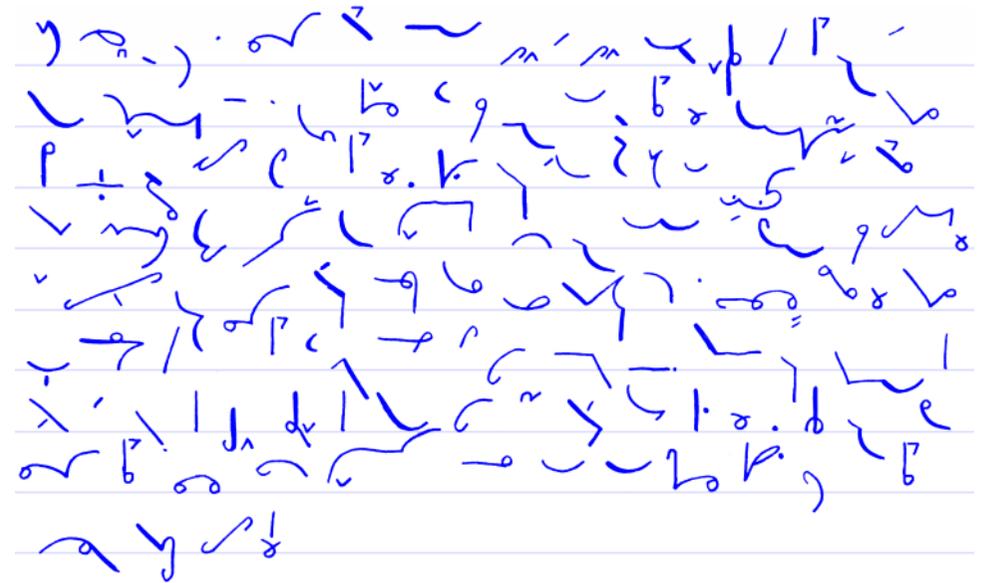
produce a whole fleet of similar ones for colouring in.

\* "plane covered coats" Just like normal listening, you would have to decide from context whether this was "plane" or "plain" as both make sense, as they are identical in pronunciation.

\* "avoid" "evade" Always insert the second vowel

\* "hanger" Outline exactly as pronunciation "hang+er". You could use this outline for "hangar" if preferred, especially as this is its most likely pronunciation nowadays, see para 1

\* Omission phrase "in ord(er to)"



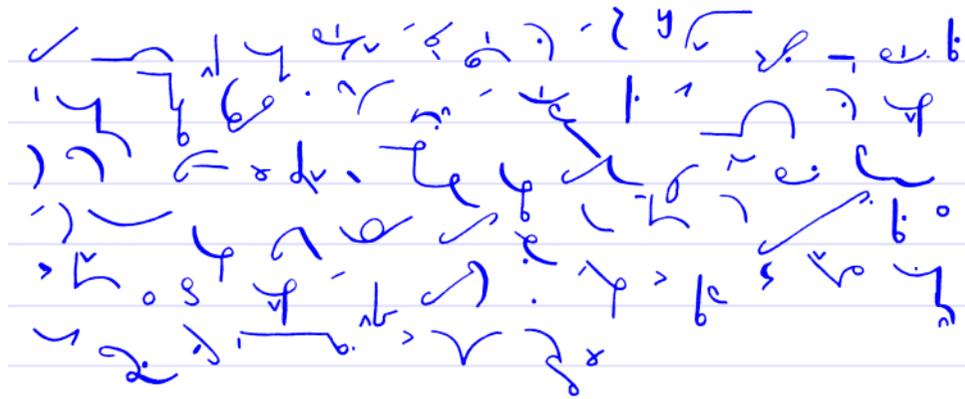
**RAF Museum**

I was amused\* to see a small boy going round and round, unable to decide which toy to have and being reminded quite a few times that he could have any two toys. Eventually the parents said OK two planes and one other toy. The delay paid off, although I think not intentional on the boy's part, and I am sure they would really have liked him to have anything and everything he wanted. I wonder if they secretly bought extra for his next birthday or a Christmas surprise. Parents know

exactly which toy that should be because the child will keep coming back to it, picking it up and putting it down, despite it being well beyond the budget for the day. The decision to have several small toys seems more likely, because, in language terms at least, three toys must be better than one!

\* "amused" and "amazed" Always insert the vowel

Handwritten lines for notes, currently blank.

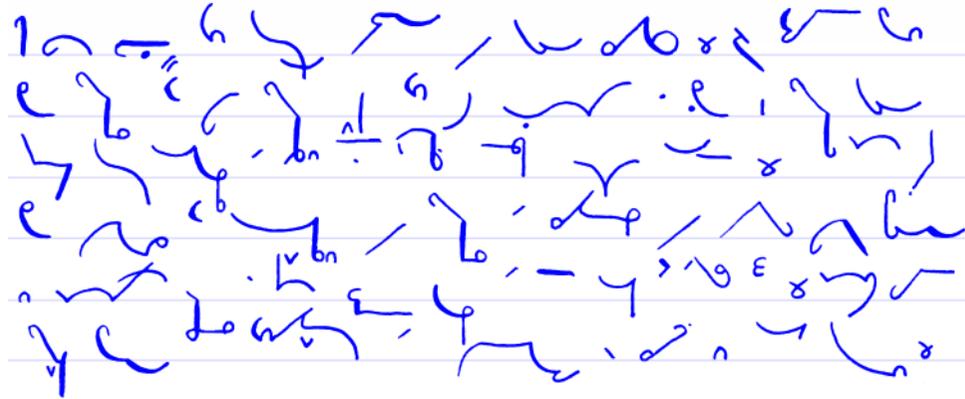


**RAF Museum**

We came out into the sunlight and hot summer air, and although I do not like to waste good sunny days on indoor activities, this was a particularly humid and uncomfortable day and the cooler air inside was very welcome. Despite two extensive visits, we have still not seen everything and so another visit will be necessary, one to save for autumn or winter days, as all the

time is spent inside and out of the weather, the opposite of the discomfort that the pilots endured in the freezing\* open cockpits of the early airplanes. (1402 words)

\* "freezing" and "frozen" Always insert the first vowel, as they are similar in outline and meaning



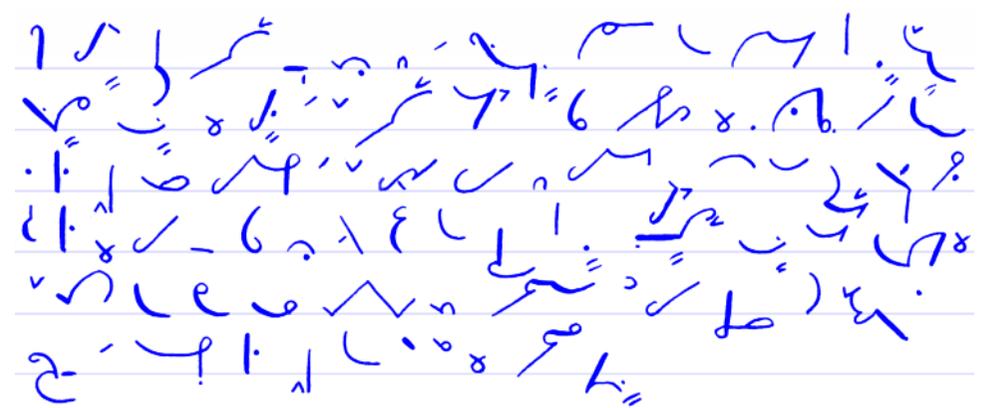
**Short Letters 8**

Dear Mr Gray, Thank you for your enquiry regarding our financial services. I believe that we can offer you several products that will produce the outcome that you wish, namely a safe but productive financial package for your investments, and a modest extra yearly\* income. I am attaching several leaflets that introduce our products, and as requested our representative will be telephoning you

tomorrow morning to discuss a time when he can visit and go into all the options with you. I am sure we can provide everything that you require and look forward\* to serving you in the future. (100 words)

\* "yearly" Keep clearly through the line, as "early" could also make sense in this context

\* Omission phrase "look fo(r)ward"



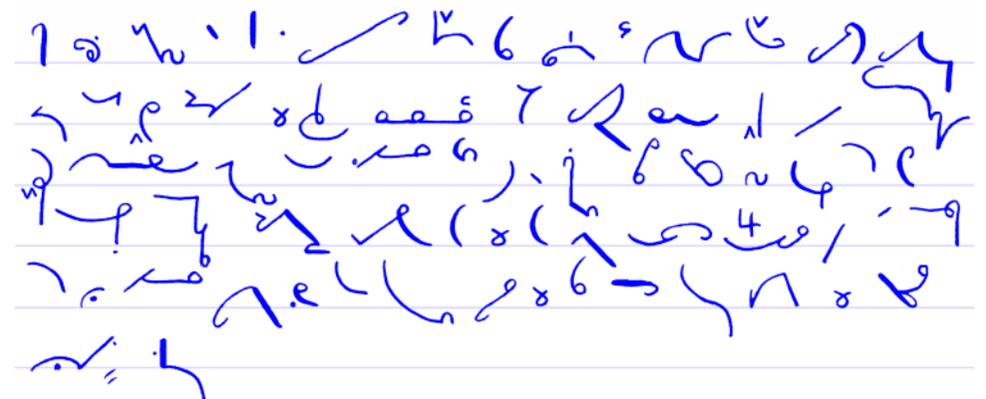
**Short Letters 8**

Dear John, It was really good to meet you and Brenda last week\* for lunch at The Five Bells Inn. Jane and I really enjoy this restaurant. The ladies are having a day out next Wednesday and I wondered whether you wanted to join me in seeing the boat race on that day. We could\* then meet up with them for dinner at The Galleon Inn in the village. I also have several things to

report to you regarding what we discussed, so I think it would be a fruitful and interesting day out for all of us. Regards, Jim (100 words)

\* Omission phrase "las(t w)eek"

\* "we could" Not phrased, so that it is not misread as "we can"



**Short Letters 8**

Dear Friends, I hope you have\* all had a wonderful time this summer, with the lovely fine weather we have had here in the south of the country. It is only\* six weeks\* until we shall be sending out our quarterly society magazine and if you have any articles that you wish to contribute, such as places you have visited or other interesting activities, I would be glad to receive them. They should be no more than 400 words each, and extra or late articles will be

saved for future use. Thanks again for your help. Best wishes\*, Mary, Editor\* (100 words)

\* Omission phrases "I (h)ope you have", "six (w)eeks" (The W sign is helpful but could be omitted)

\* "it is only" On its own, "only" is written with full N and L strokes

\* "Best wishes" Upward Ish to make a join

\* "Editor" Special distinguishing outline, vs "debtor"



**Short Letters 8**

To whom it may concern. This letter\* is to confirm that I have known Mr James Black for about twenty years. I can confirm that he has lived at the above address for the last 15 years and that he attended the above school, as we both attended there for our secondary education. I believe him to be a man of good honest character, who is hardworking and has an interest in caring

for those around him. I therefore have no hesitation in recommending him for the post of Personal Assistant to the Social Services Manager. Yours faithfully, John Whiteley (100 words)

\* "This letter" Downward L to make the join possible



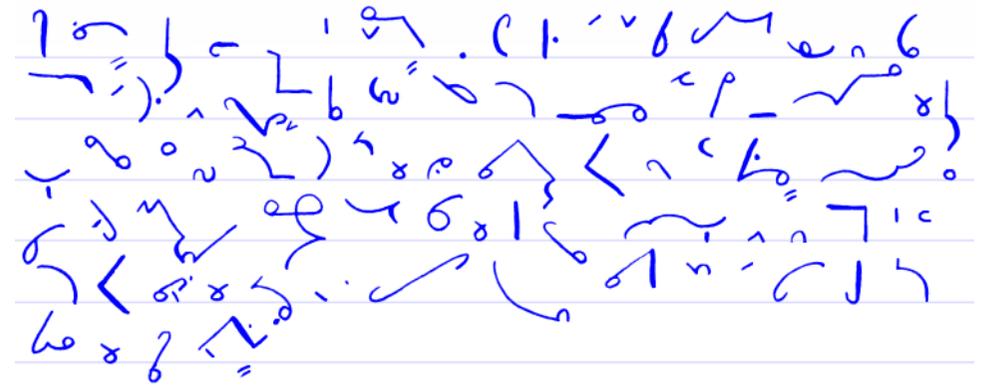
**Short Letters 8**

Dear Edith, It is a long time since we met and I have so much to tell you. I am not sure I can get it all in this short letter and so I think it would be absolutely marvellous if you could\* come to us one weekend and we can have a long chat about everything. You could stay over on Saturday night, which means we could have\* a really long day seeing the sights and maybe visiting the shopping mall. I can't wait to hear from

you to say you will be able to come! Love from Patricia (100 words)

\* "could" Not phrased with the preceding words, so that it is not misread as "if you can"

\* "we could have" Not phrased with the "we", so that it is not misread as "we can"

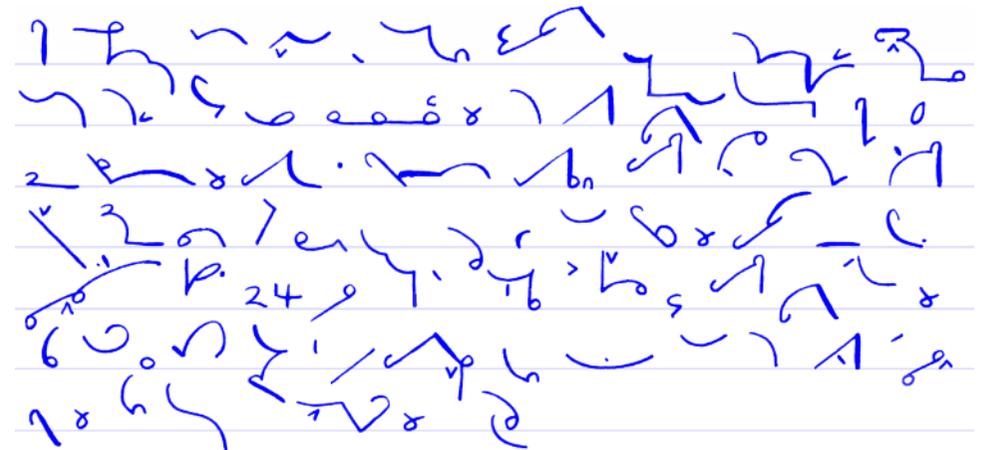


**Short Letters 8**

Dear Sam, It was great to talk on Skype the other day, and I just wanted to send you this card and say how brilliant it is that you have passed your exams, and with such good marks. It was no surprise, as you have worked so hard. Let's hope that the job opportunity that James mentioned

is still open, and I hope\* that you are successful in that as well. Do please let me know how you get on with your job hunting. Here's to a wonderful future ahead of you and well done on your achievements. Cheers, Robert (100 words)

\* Omission phrase "I (h)ope"



**Short Letters 8**

Dear Customer, I am writing to inform you that we will be undertaking remedial groundworks in your area over the next six weeks\*. Your road will be affected during the first week of September. We have a programme to reduce water loss from the older pipework, some of which is now fifty years old in places. We will give every household at least\* 24 hours of notice of the times when the water will be off. This information is also available on our website,

if you enter in your road and house number. Thank you for your cooperation. Yours faithfully (100 words) (Total 700 words)

\* Omission phrase "six (w)eeks" (The W sign is helpful but could be omitted)

\* "at least" and "at last" Advisable to always vocalise these two. Although only one makes sense here, you would not know that until after the sentence is finished.