



Callum: Hello I'm Callum and this is 6 Minute English. With me today is Neil, hello Neil.

Neil: Hi Callum

Callum: In today's programme we're going to be looking at an interesting story of war, secret messages, codes and ...

Neil: And, and what?

Callum: Pigeons.

Neil: Pigeons?

Callum: Yes, pigeons.

Neil: Those birds that are everywhere in London?

Callum: That's it.

Neil: Well, what do they have to do with war, secret messages and codes?

Callum: Well, we'll find out after today's question. A question about codes. Who is the first person recorded using written codes to keep his or her communications secret? Was it Roman emperor, Julius Caesar, English king, Harold or Egyptian pharaoh, Tutankhamun?

Neil: I have no idea whatsoever. So I'm going to go for the English king, Harold. For no reason at all.

Callum: OK. We'll find out if you're right at the end of the programme. Now, back to the pigeons.

Neil: Yes, I am intrigued.

Callum: It all started when a man was cleaning out the chimney of his house in the south of England. In the rubbish from the chimney he found a pigeon's leg. Attached to the leg was a small container and inside the container was a message written in code. From details on the paper it was clear this was a military message from the Second World War.

Neil: Were birds really used to carry messages during the Second World War?

Callum: Well here's BBC security correspondent Gordon Corera answering that question and also explaining why. What reason does he give?

Gordon Corera

There were important messages carried by pigeon. Particularly, the theory is, that this might have been an army unit, in Europe, on the move, and it was on the move and basically it was moving so fast it couldn't put up an aerial for a wireless transmission to be sent so they would quickly release a pigeon with a quick message.

Callum: So why would they use a pigeon, rather than the radio?

Neil: He says that when an army unit was moving fast they might not have had time to put up an aerial and it would have been quicker just to release a pigeon with a message. Of course pigeons can be trained to fly back to a particular place.

Callum: That's right and in fact the military used over 250,000 pigeons to send messages during the Second World War.

Neil: So what was the message that the pigeon was carrying?

Callum: Ah, well, the truth is, they don't know, they have no idea.

Neil: What, even with all the power of modern computers and the best minds.

Callum: Yes, here's Gordon Corera again talking about the message. What word does he use to describe the process of understanding a code?

Gordon Corera

They've been looking for a few weeks, the truth is that it was designed not to be cracked easily.

Callum: What word does he use, Neil?

Neil: He says the code was designed not to be 'cracked' easily. We use the verb 'to crack' when talking about codes.

Callum: So, the code is designed not be cracked easily. Let's hear a little bit more about what kind of code it might be. Here's more from the BBC's Gordon Corera who mentions one of the ways this code might have been created.

Gordon Corera

One is using something called a one-time pad which is a technique where you apply a random key to a code and if you keep that secure and it's truly random, it is basically unbreakable.

Callum: What kind of code is he talking about here?

Neil: A code created with what's called a 'one-time pad'. As I understand it, if you think of a code like a lock, what do you need to open a lock?

Callum: Well you need a key to open a lock.

Neil: That's right, and if you don't have the key and there is no record of what the key was like or who made it or where it was kept, you're going to have a problem.

Callum: You won't be able to open the lock.

Neil: Exactly. With a code created with a one-time pad there is only one key and it's only used once. After that, it's destroyed. Without the key you can't crack the code – it's an uncrackable or unbreakable code.

Callum: Gordon said that key should be random.

Neil: That's right. If something is 'random', it means there is no pattern to it. It's not predictable or repeatable. And, if the key is truly random they'll never be able to crack the code.

Callum: Unless they find the key! And that's what they are hoping. Gordon Corera again. What information are they hoping to find to help them?

Gordon Corera

What they are saying is without more contextual information, basically who the sender was who the recipient was, when it was sent and exactly the identity of the pigeon it may be impossible to crack it.

Callum: So what extra information are they looking for?

Neil: They really need to find out who sent the pigeon, to whom it was sent and even the identity of the pigeon itself. That information might help them locate the key.

So I guess for the time being, the pigeon message will remain a mystery.

Callum: Well, perhaps not.

Neil: What do you mean?

Callum: Well a man in Canada heard this story and he thinks he's got the code book to crack the message and he says it a much simpler code than has been thought.

Neil: Really?

Callum: But unfortunately, we don't have time to go into that now, but there is a link to the story on our webpage.

Time now for the answer to the question. Who is the first person recorded using written codes to keep his or her communications secret? Neil, you said:

Neil: I said King Harold in England.

Callum: And the correct answer is actually Emperor Julius Caesar. And there's in fact a Caesar Cipher, which is a kind of code which is attributed to Julius Caesar. It's a very simple one actually, that each letter is just moved three places along. So, instead of writing 'A', he wrote 'D'. And instead of writing 'B' it would have been 'E'. So perhaps not a particularly difficult code to crack. These days, anyway. Well, that's all from us today. Thank you very much Neil, goodbye.

Neil: Goodbye.

Vocabulary and definitions

a pigeon	a common bird which can be trained to fly back to a particular place wherever it is released from
a chimney	a brick structure in a house which takes smoke from a fireplace up and out of the house, usually through the roof
to crack / to break (a code)	to work out the meaning of a hidden message
a one-time pad	a technique for creating unbreakable codes
random	unique, unpredictable, without any pattern

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