**Mar 24, 2016 at 2:03pm**

Here is the entire Cicada Playbook:

1. **Steganography**: Outguess-able images. Steganographic methods involving audio files and boot-sectors
2. **Classic ciphers**: Book-codes, Substitution ciphers, Esoteric scripts
3. **Geo-coded shenanigans**: Geocoded locations with QR codes
4. **Social Media and TOR**: Hidden services. Hidden URLs, subreddits/twitter
5. **Basic Modern Cryptanalysis**: Weak RSA key cracking
6. **Basic Programming and DevOps**:  Basic Network Programming, and TOR hidden service administration.

Based on 13 QR codes in nations aligned with the USA, around 2012 shows there were ~13 members in it in 2012.  
  
Compare this to the MI6/GHCQ recruitment playbook:

1. **Steganography**: x86 instructions which print clues. hypothetical RISC machines which need to be emulated to get clues.
2. **Advanced Modern Cryptanalysis**: pre-image attacks, differential cryptanalysis, etc.
3. **Social Media and TOR**: Hidden URLs

MI6/GHCQ puzzles are vastly superior to Cicada puzzles. So my best guess is that Cicada aren't as great as we think they are.

Apr 4, 2016 at 4:25am

### Post by Slim on Apr 4, 2016 at 4:25am

Depends how great we think they are, I suppose.  
  
They set interesting puzzles, but nothing that's not achievable. Remember it is always far, far easier to set a puzzle than it is to solve it...  
  
I've been lurking around the wiki and the IRC channels for some time. My knowledge of cryptography - and to be honest, coding generally - is about as good as my knowledge of aeroplane design or playing the violin. I know what it does and basically how it works, but don't ask me to do any! So I'm not really equipped to solve the puzzles.  
  
I'm looking at this purely from a human behavioural psychology viewpoint (that's my area), and it's fascinating.  
  
For starters, let's address these QR codes. You don't need to be a hyper-intelligent "member of Cicada 3301" to tape a sheet of paper to a lamppost. The geographical distribution was a neat trick, but that's all it really was. I'm an ordinary guy and I have about 500 friends on Facebook in around 30 countries. That's probably average.  
  
Let's say there are 4 or 5 core individuals. Each of them is a real person with real friends. It's not too much of a stretch to ask a mate in some random city to tape something to a lamppost, geolocate it and keep quiet about it (possibly with some bribery :D )  
  
What's also telling about 3301 is not what's there, but what's missing.  
  
There's clearly an obsession with primes. Mathematically this is a fair point as it is a very interesting topic. However, other interesting mathematical topics are conspicuous by their complete absence, such as pi, e, i, unsolved problems etc. There's no reference to any mathematician, problem or theorem. (One might expect at least Euler's identity from a source that espouses a philosophical approach to numbers and describes primes as "sacred".)  
  
There are some, but honestly not many, references to classical and canonical European culture. Rome was used in the very early clues, but this was presumably due to the "Caesar" cipher rather than for any cultural reason. (It doesn't take much Googling to find out the fourth emperor). I don't remember them all, so forgive me if I've missed some. The Arthurian mythos (the "Matter of Britain") is referenced, but only as a book code, and as "this is not the quest for the Holy Grail". William Blake seems to be a favourite go-to. Runes and gematria are appropriated without any real demonstrable understanding of their context and symbolism.  
  
In this genre alone, we're noticeably missing (as far as we know - I know it's not all deciphered yet) any references to Shakespeare, the King James Bible, Homer, da Vinci, even the Sherlock Holmes stories, so many more I can't be bothered to list. Works that one might think could influence, or at least be useful to, a well-rounded cryptographic puzzler.  
  
Science is pretty well absent. There's no chemistry, biology or engineering here. Nor is there quantum physics, surprisingly (given the pseudo-mystical nature of the presentation). I suppose biology is obliquely referenced by the constant motif of the cicada and the instar. But that's for very specific puzzling purposes, not related to entomology.  
  
What "philosophy" has been extracted (let's take the leaked email and etc. at face value for now as it does seem to fit) is rather weak. It's basically 6th-form Nietzschean transhumanism summarised by someone who's Googled it. There are a couple of koans referenced in Liber Primus (itself a Latin misnomer) but they don't reveal any understanding of Buddhism. They're populist koans beloved of the Western-friendly Zen ("California Zen" if you like) that made its way over to the US in the 60s. There's no indication that the writers' knowledge extends any further into any Asian religious tradition.  
  
I'm going to hazard a guess that when these guys were putting these puzzles together there was a \*lot\* of Googling... Wikipedia, Wolfram Alpha etc. would have been hammered ;)  
  
They're very smart. In some areas. But they're not anyone in any way notable.