



POINTS FOR A VICTORY

THE ROOM FROM HELL

THE SECRET LIVES OF

NUMBERS

THE CURIOUS TRUTH
BEHIND EVERYDAY DIGITS

THE PINT GLASS PUZZLE

9x9: SQUARES IN A SUDOKU GRID

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About the Book

YOUR DAYS ARE NUMBERED.

Look around you and numbers are everywhere. On your pint glass, your golf ball, your sunscreen, your football team. They code the car you drive, your mobile phone, the very food you eat.

Have you ever wondered what those numbers mean? Where they come from? Who determines what they are? In *The Secret Lives of Numbers*, their mysterious stories are exposed. At long last, their number's up...

The Secret Lives of Numbers

The Curious Truth Behind Everyday Digits

Michael Millar

Illustrated by Louise Morgan



For Susanna and Freddie,
both of whom can count better than me.

INTRODUCTION

FIRST THINGS FIRST: this book is not boring. Yes, it's a book about numbers and, for many people, that is a concept best resigned to the days of the schoolroom, ne'er to be seen again. But stay with me. In fact, this book is far from dull; instead, it will make you see various parts of your daily life in a whole new light.

This is a book about the past, the present, and the future. Indeed, it goes right up until the end of the world ... It is about culture, sport, music, work - and bouts of heavy drinking.

After numerous failed attempts to sum up for friends exactly what I was writing, I settled on the straightforward moniker of 'a history book about numbers'. In some senses that is quite apt; the origins of many of the numbers featured in these pages stretch back a long, long way - sometimes millennia.

But I think calling it a 'history book' is also a disservice - because it is about much more than just the happenings in days of yore. It is about things that shape your modern, twenty-first-century life on a daily basis. Certain habits and numbers that we accept as normal - mundane, even - might have been adopted at the beginning of recorded time, but that doesn't stop them having a direct impact on questions like 'Why are you on your way to work today?' And, indeed, 'Why is today, today at all?'

I've chosen the numbers featured in this book based on the fact that pretty much all of them are likely to impinge on you in one way or another during your life. Of course,

some will have more direct impact than others; practising Satanists might find themselves drawn to '666' before they turn to the chapter on tennis scores.

These entries have to include a certain amount of informed guesswork. After all, many of the customs and numbers that form integral parts of our lives – such as the seven-day week – were set in place so long ago that we're really not sure exactly why they are there. You can criticise this unfortunate truth all you like, but until you bring me an example of ancient man mulling over how many fingers and toes he might or might not have, then we'll have to agree to disagree.

Nonetheless, while some numbers are shrouded in mystery, others charge out at you as clear as day. They are the numbers on the back of your football shirt; they are the credit cards that keep us in the manner to which we are accustomed; they are the Sudoku puzzles that keep us entertained on the way to and from work. This book will hopefully make them more than just random items in your day-to-day life.

If all else fails, the information inside is sure to help in a pub quiz at some time or another.

Michael Millar

9

BEHIND CLOUD NINE

IN CASE YOU haven't been fortunate enough to go there, Cloud Nine is a metaphorical place of great joy or euphoria. The origin of this expression is often attributed to a system of cloud numbering created in the 1950s by the US Weather Bureau. However, while it is eminently possible that meteorology was behind Cloud Nine, to attribute the system to the US Weather Bureau is incorrect, as the original classification actually came in the *International Cloud Atlas* of 1896.

High as a Kite

The *Atlas* classification gave the cumulonimbus cloud the number nine out of a list of ten. This cloud is one of the highest (reaching heights of 45,000 feet) and is certainly the fluffiest and most comfortable-looking of the clouds.



Cloud Nine therefore seemed a nice metaphor for floating, carefree, high above the Earth (and was

enthusiastically adopted by marijuana smokers during the 1960s).

We should point out that the tenth cloud in the list is the 'stratus', which is the lowest-forming of all the cloud types and is basically just boring, featureless mist. This in itself is a useful metaphor to show how easily you can fall back to Earth if you're not careful!

Many people attribute the original popularity of the phrase to a 1950s radio show called *Johnny Dollar*, in which the hero was transported 'to Cloud Nine' whenever he was knocked out.

The Cloud Next-Door-But-One

Despite the current popularity of the expression Cloud Nine, there is also evidence that Cloud Seven was once a popular term for describing happiness. It may well have been the cloud of choice for joyful folk long before Cloud Nine got so popular it had to start putting up 'no vacancy' signs. For example, the 1960 edition of the *Dictionary of American Slang* described living on Cloud Seven as being 'completely happy, perfectly satisfied, in a euphoric state'.

This may have its origins in 'seventh heaven', another term for great joy. This in turn came from the belief in several religions that the seventh is the highest of all the realms of heaven, where God and the angels live.

Visiting Cloud Eight to Get to Cloud Nine

Finally there is another cloud, which really doesn't get the recognition it deserves: Cloud Eight. In fact you may well have visited it yourself without realising it. In the 1930s, if

you were said to have been on Cloud Eight it meant that you had had too much to drink.

The Underworld Speaks, a book published by the FBI in 1935 to help police spot gangsters by how they talked, defined the expression Cloud Eight as 'befuddled on account of drinking too much liquor'.



This might explain why hangovers hurt so much: you've just plummeted off a cloud, after all.

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THE FIVE-STAR HOLIDAY MYTH

THE PLAQUE PROCLAIMING five-star status is likely to be emblazoned with pride in the foyer of the luxury hotel you have chosen for your holiday (or perhaps in the lobby of the building you look at longingly as you wander back to Pedro's Bargain Hotel & Sewage Works).

Tourists tend to believe such ratings offer an accredited assessment of the establishment they have chosen, providing them with reassurance about what to expect upon arrival. Little do most travellers know: the stars that guide them could be seriously misleading.

Putting Your Faith in the Stars

The premise is simple: the higher the standards of cleanliness, ambience, hospitality, service and food at the hotel, the more stars an establishment earns. But the wisdom of putting your faith in the star rating of a hotel will depend on where in the world you are travelling.

In fact, there's just as much chance that your hotel will be graded by letters or diamonds as stars. This is because, contrary to widespread belief, there is no international standard to rate hotels - and in some cases the hotels award the accolades to themselves.

What qualifies a hotel for a certain number of stars (or diamonds or numbers for that matter) varies by global

region, country, and in many cases what area of a country you are in.

There are also questions around just how high the ratings can go. Until recently five-star status was a byword for top-end luxury, but a growing number of hotels boast six or even seven stars. In fact there is talk of a hotel in the Middle East that will lay claim to ten.

From Brandy to Bedrooms

Probably the oldest hotel rating system in the world was introduced in the United Kingdom in 1912, when the Automobile Association's secretary, Stenson Cooke, came up with the idea.

The official story goes that he once worked as a wine and spirit salesman and 'felt that the star rating of brandy would be a familiar yardstick to apply to hotels'. Thus a three-star classification system was born, which evolved into a five-star system now overseen jointly by the AA and the national tourist bodies of each area of the UK. However, even with a major head start over successors around the world, this system was not harmonised until 2007.

Diamonds or Stars?

The United States has several competing awards, including those of the American Automobile Association, which assigns diamonds, and Forbes Travel, which assigns stars.

Forbes send in inspectors who judge the hotel based on a range of classifications, such as graciousness, efficiency and luxury. For every negative, a hotel loses points, and they're pretty tough in their assessment.

So if you go to a Forbes-rated hotel, you're likely to know what you're getting. But to put this in context, there are approximately 50,000 hotels in operation today in North America, whereas *Forbes Travel Guide* only recommends around 3,000. So in many cases you will be on your own. In fact there's nothing to stop you rating the other 47,000 or so yourself if you have some time on your hands.

Something for Everyone

The story of competing systems, contrasting systems and systems that are just plain made up is one that is repeated across the globe. If you book a room in Turkey, for example, you might face a choice between the rating system run by central government and one controlled by local municipalities.

One of the most coherent cross-border approaches is found in Europe, where 11 countries have banded together to create the Hotelstars Union classification system. This is based on a traditional star system: Tourist (*), Standard (**), Comfort (***), First Class (****) and Luxury (*****).

The system involves 21 qualifications encompassing 270 elements, where some are mandatory for a star and others optional.

To get one star the hotel must have the following:

- A shower/WC or bath tub/WC in each room
- Colour TV and remote control, and a table and chair in each room
- Soap or body wash provided
- Daily room cleaning
- Reception service
- Public telephone and facsimile for guests
- Extended breakfast available

- Beverages on offer within the hotel
- The option to leave items securely at reception

As the ratings build, everything from a reading light next to the bed and bath towels (among the requirements for two stars) to a bathrobe and slippers on demand (for four stars) is included. However, for the most discerning among you, the key things that separate a five-star hotel from a four-star hotel are:

- Reception open 24 hours, with multilingual staff
- Doorman service or valet parking
- A concierge
- A spacious reception hall with several seats and a beverage service
- A personalised greeting for each guest with fresh flowers or a present in the room
- A minibar in the room and food and beverage offered via 24-hour room service
- Personal care products in 'flacons' (those small stoppered bottles)
- Internet connection in the room
- A safe in the room
- An ironing service (returned within one hour) and shoe polish service
- Turndown service in the evening

The Sky's the Limit

This brings us to the extraordinarily opulent hotels that claim, or have been attributed, six- and even seven-star status. No formal body awards or recognises any rating over 'five-star deluxe', so be wary of such claims as they are predominantly used for advertising purposes.

Nonetheless, it would be a mistake to think that these establishments don't try to live up to the name. The

Emirates Palace in Abu Dhabi uses 5 kg of edible gold each year to decorate food. Australia's Palazzo Versace is not only packed with the designer's furniture and fittings, it has its own 90-berth marina, and the Indonesian resort of Amanjiwo offers you a live-in butler.



Quite simply, there is something for everyone wherever you travel. Just make sure you look at more than the star rating to be sure you get what you think you are paying for. The moral of the story: following stars doesn't necessarily make you a Wise Man.

2-3-5

WHY THE GOALKEEPER WEARS 1

‘IN 1911 THERE was a sensational innovation at a local “Australian Football” match in Sydney,’ records the International Federation of Football History & Statistics.

What was this extraordinary change that set the footballing world agog in 1911? Shorts that daringly exposed the players’ knees? Perhaps a new ball that gave you a fighting chance of not breaking your neck when you headed it?

No, it was something that is now present as a matter of course in every game: shirt numbers.

Making Football History

The Federation reports that Sydney soccer clubs Leichhardt and HMS *Powerful* were the first official teams to follow suit, wearing squad numbers on their backs in the very same year, and making football history as they did so.

Numbers were quite simply forms of identification so the fans and journalists present at the games could work out who was doing what.

Behind-the-Times Brits

This event seems to pour cold water on English claims that shirt numbers were their innovation. In fact, it wasn’t until seventeen years later that English teams got in on the act, when, in August 1928, The Wednesday (renamed Sheffield

Wednesday shortly after) took on Arsenal and Chelsea played Swansea Town.

Both teams sported numbers on their shirts, marking the earliest recorded use of shirt numbers in Football League play.

The Shirt Number System

Five years later, on 29 April 1933, shirt numbers were worn for the first time in the Football Association Challenge Cup final. But the system was not quite as we know it now: Everton players wore numbers 1 to 11, while Manchester City had numbers 12 through 22.

In 1939 the Football League decided all teams should wear numbers 1 to 11, with each number pertaining to a particular position.

However, this decree was limited in its initial impact as the football season was almost immediately interrupted by the small matter of the Second World War.

Some clubs reserve a number for their fans, refusing to issue it to any player. The most common number used is 12, since the fans in a stadium are often given the moniker of 'The Twelfth Man' due to the boost their support gives the team.

What's Your Number?

There is some confusion about how the shirt numbering system worked, as the number 5 is often found to be in the centre of defence, for what appears to be no reason whatsoever.

As is so often the case, the reason for this anomaly is rooted in numerical evolution. Until the 1960s, football