



IN
MINIATURE

SAFETY MATCHES

'Garfield writes with a winning informality and freshness'
DIANA ATHILL

'Garfield's knowledge is wide and his enthusiasm matchless'
THE TIMES

HOW SMALL THINGS ILLUMINATE THE WORLD

FROM THE
BESTSELLING AUTHOR
OF *JUST MY TYPE*

SIMON GARFIELD

The Art of Seeing

Not so long ago, bigness was the thing. A big pack was better value. The department store had more of everything, as did Texas. *Encyclopaedia Britannica* had all the knowledge and occupied one-sixth of all available living-room shelving.

Then small was beautiful. The toy poodle. The Mini. The boutique. Nouvelle cuisine. The exclusive club. The stacking chair.

And then, in the age of technology, even smaller was all: the microchip, the microwave oven, the in-ear headphone, 1,000 songs in your pocket, the nanosecond, the slider.

A while after that – which brings us to now – things are confusingly big again. The flat-screen television. The Airbus A380. The intractable size of our global economic and security dilemmas. Dwayne Johnson.

Size is one thing, but scale is another, and this book is about scale. It is specifically concerned with how the miniature world informs the world at large. At its heart it is a book about looking, and about seeing; and with this may come elucidation. We bring things down to size to understand and appreciate them. Something too big to visualise at full scale

– a building perhaps, or a war – may be rendered comprehensible at 12:1. Artists – sculptors, set designers, poets – work in miniature because it encourages greater scrutiny and deeper participation, and I hope this book will do the same.

This is also a book about pleasure and vision – a celebration. Miniature items help us imagine grander schemes. A signal box on a model railway is eyed with needling precision, and with the care we would seldom apportion to one at full size. Before we landed on the Moon, at least one NASA scientist clung for inspiration, through difficult times, to the marionettes and rockets on the British television series *Thunderbirds*. Architects of future cities must first scheme in model form, and the model may be the only proof that they attempted such a thing.

Of all the miniature things we'll encounter in the following pages, not all of them will be small. The miniature railway in Hamburg prides itself on being the biggest in the world. The Venetian hotel in Las Vegas, with its fully workable gondola rides for the romantically obtuse, sleeps 4,000. But everything here will be miniature in scale, compared to the thing it's a miniature of.

The word 'miniature' derives from the world of books, but it was popularised by the world of art. Before the printing press, when books were written by scribes and illustrated by hand, the word evolved from the Italian word *miniatura*, which itself derived from the Latin *miniare*, to colour with red lead. There were very few uses of 'miniature' before the sixteenth century, when the word became associated with

illumination in general, and became frequently interchangeable with ‘limning’ or the painting of small portraits. Thereafter, anything small was referred to as miniature, and the word entered common usage from about 1630. The development of both miniature books and miniature portraits will be examined in later chapters, and both will confirm that it is only with close scrutiny that we may uncover secrets within.

To distinguish between the miniature and the merely small I have adopted a simple qualifier: a miniature must be a reduced version of something that was originally bigger, or led to something bigger, and it should be consciously created as such. It may also perform a miniature duty – explain a concept, solve a puzzle, jog a memory. A souvenir of a building on a key ring, though not very interesting, fits the bill. As does a miniature bottle of gin. A Volkswagen Beetle does not, and nor does an ever so small thimble, no matter how keen are those who collect them. Minibars and lapdogs are borderline, as is the art of bonsai cultivation, in which small is created by purposeful pruning and potting. A toy poodle made of plastic in a classroom tableau made by five-year-olds is of no interest to anyone. One could create further rules, and dictate dimensions the way an airline dictates the carry-on, but it will soon become clear that miniatures occupy a significant enough space in our world to create their own instinctual presence: you’ll know one if you see one, and after a while you may see nothing else.

The miniature world embraces control. The toys we enjoy

as children invest us with a rare power at a young age, conferring the potency of adults, and possibly giants. Toy cars and dolls and plastic construction kits are not merely pliable in our hands; they render us conquerors. We may never have such dominion over the world again, unless we continue the play into adulthood. Those men with their train driver's caps and their tiny models in sheds and attics! Their wives long gone! And their wives with their own china madneses, their little toy families, their smooth hedgehog collections, their treasured things in felt. Who will speak for them? The creation of small universes in which we may bury ourselves to the exclusion of all else will be at the core of this book. The people crouching over tiny details as if the world depended on it are only doing it because their world *does* depend on it.

The miniature world is more than an artless conglomeration of miniature things; it is instead a vibrant and deeply rooted ecosystem. The psychology of miniaturisation is an intriguing academic discipline, if a miniature one in itself, hinting at an intricate tangle of connections. The essays in this book are conceived similarly.

The French anthropologist Claude Lévi-Strauss has observed how a miniature may completely reverse the way we comprehend an object: rather than examining it piecemeal and gradually, so that we may slowly derive an understanding of the whole, we see the whole in its entirety and understand it at once – the substitution of what he calls 'sensible dimensions' with 'intelligible dimensions'. This is a humanising force, and it is why we give homey, comical and

diminishing names to huge and intrusive structures: those buildings dominating the centre of London nicknamed the Gherkin, Walkie-Talkie and the Cheesegrater – by turns edible and hand-held – are not only fun monikers for us, but also useful for the owners and constructors, transforming what might otherwise be something wholly objectionable and threatening into something instantly friendlier and seemingly smaller.

We would struggle to educate ourselves without models. They have been part of the intellectual architecture of museums for more than 200 years, and it is often the spatial encounter with these objects that make a child's first encounter with a museum memorable. The desire to play with small things becomes a desire to make small things, and both stages address the human need for mastery. We live in a huge and doomy world, and controlling just a tiny scaled-down part of it restores our sense of order and worth. We may not play in the World Cup or the Ryder Cup, but there is always table football and minigolf. What is a drone if not a modern remote-controlled model aeroplane? And what is a globe if not everything we understand about the lay of the land?

I think we may also struggle to educate ourselves without the amateur. The world advances on enthusiasms and ingenuity from the attic and shed (the steam engine, the personal computer), and the miniaturist with the Maplins loyalty card and the early circuit board is almost always an amateur. Until their work is appreciated and valued, they know only private passion and familial disapproval. This book is intended to

double our admiration. We should note that the word ‘amateur’ derives from the Latin word *amare*, to love.

But still: how to explain the model village with a cricket match underway on the village green and the tiny firemen nearby climbing tiny ladders to view the tiny damage to a tiny thatched roof? Who designs and visits these things? What can they tell us about our lives? When Princess Elizabeth stepped among the houses at Bekonscot model village in Buckinghamshire, was she the only visitor that afternoon who believed they ruled the kingdom?

I hardly need add (for you will already have ascertained this from the dimensions of the work) that this is not intended as an encyclopaedia or manual. As well as an introduction to some dedicated people, the book is an attempt to tell the history of a few key events as they’ve been represented in miniature form, and show how the form informs our deeper comprehension. The wider shores of humanity are thus (and often) explored in ways that would be impossible without this reduction in scale.

We should be grateful that the miniature universe is not policed. It is not created by corporation or committee, but by committed individuals. And in this way the miniature aspires to art: at its best, it may offer up the illuminating and profound. At the very least, it may expand our perception of the things the mind already thinks it knows.

The subject matter dictates that this analysis is a microcosm, and perhaps it’s best regarded as a brief history of the model village commonly known as the world. The village is

large and welcoming, but it doesn't contain everything. If you are looking for Sylvanian Families or Dinky cars or the history of Lego you will be disappointed, but if you are in the market for a flea circus, 1,000 tiny Hitlers and the revolving model box used by the set designer of *Angels in America*, then you're in luck.

Almost all the miniature objects here have been made by hand. These days, such objects – a miniature book, an elaborate model train layout, the luminescent portrait on ivory – would be considered part of the maker movement, or perhaps the slow movement. Often they are things out of time – not always nostalgic, but frequently redolent of childhood, or the myth of childhood. And of course we will enter the arena of the obsessive, and wonder if there has ever been a more desirable place to be.

The powerful kingdoms of fantasy and Hollywood lie beyond our village borders, so there is only fleeting reference to *Gulliver's Travels* and hardly any space at all for shrinking portal transportations or the movie *Downsizing*. (A flea circus is included not because it involves fleas – I'm not interested in small things per se, and even less in things created small in the natural world – but because it is a minuscule circus. The fleas try to do things that exist in the human world – they dance a ballet, fight a duel with swords, drive a mail van; they are a wonder to us. The training of circus fleas has its own academic specialism: 'pulicology'. Reader, try putting this book back on the shelf *now* . . .)

The significance of the miniature is not new, and neither

is it slight, which makes the paucity of writing on its collective value a mystery, at least to me. The desire for the miniature that begins in childhood is usually jettisoned as adulthood approaches, the way the boosters fall off as the rocket streaks towards the Moon: teenagers don't want toy cars, they want real cars. And if they don't, they may be considered peculiar, and it is this peculiarity that captivates us. Before I entered the miniature world, I regarded with suspicion the sign on the door of the doll's house emporium near my home that says 'this is not a toy shop'. For what else could it be? But when I gathered the courage to enter (the shop is dark, imposing and sits behind mesh grilles, and the owner has a reputation), I found tiny tennis racquets with real stringing, and jars of Marmite so small that even a mouse wouldn't be satisfied come teatime, and hundreds of other tiny things too familiar to mention. It wasn't a toy shop, it was a universe. It performed that familiar miniature trick: it had indelible belief in its own existence. And because everything was miniature, nothing looked small. I left the shop believing that the cars outside were juggernauts, and the pillar box was the size of the Guggenheim.

Worlds within worlds existed long before those suggested by Lewis Carroll or quantum physics. The history of the miniature stretches back to the ancients, and its path tracks an irreducible line. Lucretius had it right when he observed, 'A small thing may give an analogy of great things, and show the tracks of knowledge.' In her book *On Longing*, the poet Susan Stewart suggests that we inhabit a daydream in which

the world of the miniature may one day reveal a secret life. The daydream maintains an internal logic: as we fall down the rabbit hole, we should instantly forgive anyone who considers the larger everyday world to be the normal one.

The following chapters will, I hope, both celebrate and clarify our fascination with bringing things down to size in order to grasp their essence. Very shortly, Egyptian pharaohs, English abolitionists and Rod Stewart will all have their say, as will a woman from Chicago who believes the only way to solve a crime is to reduce it to its smallest constituent parts. But the story begins on a grand scale 130 years ago in the centre of Paris, where Gustave Eiffel is ascending his tower in a stiff wind, and the excitements of human engineering are changing for all time the way we view the world.



'Like some fabled city descending to the bottom of the sea': the view of maintenance workers on the Eiffel Tower in 1924.

The View from Above

Amid the many expressions of outrage and delight that accompanied the opening of the Eiffel Tower in the late spring of 1889, there was one response that took even its creators by surprise. Visitors were shocked to find that the tallest structure on earth had suddenly shrunk the world around it.

Anyone possessed of the immense courage necessary to climb the 363 steps to the first platform, and then 381 to the second, saw the world beneath anew. A cliché now, but then it was a revelation: people had become ants. This is what the birth of modernism looked like: an iron-clad sense of upward progress coupled with an omniscient sense of measured order. From above, Paris was both map and metaphor. Unless you had previously floated in a balloon, this was the first time the world appeared to scale: Haussmann's boulevards became grids; the World's Fair glittered like a bauble below, and its chaos was momentarily quelled. The thrill of the climb culminated in blissful serenity: the stench of horse manure and soot just evaporated. On a clear day the views stretched to Fontainebleau and Normandy, to the chalk of Dover and

the inglorious Belgian battlefields of Waterloo, and, beyond that, to the clear pure future of everything.

Because all of this was new, it was also noteworthy. Those who went up the Eiffel Tower in the first few months kept a careful record of what they saw, for their way of seeing was as new as the tower itself. Reading their prose today, we may still perceive their wonder humming along the gantries. 'He climbs slowly, with his right hand on the bannister,' one reporter noted as he followed Gustave Eiffel up the stairs before the official opening (even the climbing was novel; the highest fixed view before had been the gallery at Notre Dame). 'He swings his body from one hip to the other, using the momentum of the swing to negotiate each step.' Even on the first platform (190 feet) 'the city already appears immobile. The silhouettes of passers-by and fiacres are like little black spots of ink in the streets.' The ascension continues until, at 900 feet, 'Paris seems to be sinking into the night like some fabled city descending to the bottom of the sea amid a murmur of men and church bells.' A few weeks later, once the tower had opened to the public, another observer described how '975 feet above the world people become pigmies . . . all that looked large had disappeared'. Eiffel himself described it as 'soul-inspiring' and hinted at the possibility of achieving a form of transcendence hitherto impossible – a higher, weightless plane. A reporter from *Le Temps* found he was overtaken by 'an indescribable melancholy, a feeling of intellectual prostration . . .' On the first platform, at 350 feet, 'the earth is still a human spectacle; an ordinary scale of comparisons is

still adequate to make sense of it. But at 1,000 feet I felt completely beyond the normal conditions of experience.’ The art critic Robert Hughes has observed that for the vast numbers who ascended the tower in its first few months the view ‘was as significant in 1889 as the sight of the Earth from the Moon would be 80 years later’.

The view from above continues to enthral: the thrill from the Shard or the Empire State is, at first sight, quite as enticing as the one that transfixed Parisians in 1889. Thirty years after the tower opened, the writer Violet Trefusis experienced the same thrill in an aeroplane. She called herself a ‘puny atom’, and she felt her old self die. She saw ‘a little map dotted with little towns, and a little sea’, and thought ‘what a wretched little place the world is! Humanity had been wiped out . . . It seemed to me that I had become suddenly and miraculously purged of all meanness, all smallness of spirit, all deceit.’ That peculiar combination of humility and awe – how insignificant we are among the clouds, but how significant to have advanced towards them – does not change with the seasons or the admission prices; they are adventures in scale, and in seeing our world afresh. Eiffel had given us 1,000 feet, the early plane 3,000; from all heights, the view beneath was miniature and the city beneath was ours.

Eiffel had designed his tower as a symbol of formal strength, a *tour de force*, the triumph of the machine astride a city hith-

erto fondly regarded for tender aesthetics. Its dizzying height was its virtue and its point. It was symbolism without purpose, and no wonder so many literary lights took against it. No one did so more vociferously than Guy de Maupassant, who classified it as ‘an ever-present and racking nightmare’. His loathing only intensified after it opened: the fable goes that, before he fled Paris to avoid the tower, he felt compelled to patronise one of the tower’s second-platform restaurants, for it was the only place in Paris he was in no danger of seeing the tower itself. Maupassant was joined in his indignation by fellow writer Léon Bloy, who tagged it a ‘truly tragic lamp post’.

But the public loved it, of course, and we still do. In the first week, almost 30,000 paid 40 centimes to climb to the first level, while 17,000 paid 20 centimes more to go to the second. Almost two million ventured at least part of the way during its starring role at the Exposition Universelle between May and October 1889, and many were delighted to encounter M. Eiffel himself, installed in his office halfway up. Here he welcomed Thomas Edison, Buffalo Bill, Annie Oakley, Grand Duke Vladimir of Russia, King George of Greece and the Prince of Wales.

But what use was the tower beyond scaling down the world beneath it? Its creator, troubled by the thought that others might see it as inconsequential and hubristic – a toy even – worked hard to establish its worth. (It’s fair to say that its investors had no such qualms – in its first five months the tower took admission fees of almost six million francs.) But Eiffel had aims beyond avarice, and inscribed the names of more than seventy

French scientists around the first level to justify his monument, and perhaps equate his accomplishment with theirs. He stressed that his tower would have many meteorological and astronomical applications, and might even serve an important role in defence, should Paris ever come under attack.

But above all, and at its heart, the Eiffel Tower *was* a toy, and the lifts also made it a ride, and everyone could have a turn on it. It was a plaything for the newly wealthy industrialist, and it was a grand day out for *tout le monde*. The public needed none of the scientific justification sought by its engineer; they loved it merely for its wonder.

But something else began at the Eiffel Tower: the ability, at the end of the day, to take it home. The opening of the tower marked the birth of the mass-consumed souvenir and the dawn of the factory-made scale model. The Shah of Persia left with a tower-topped walking cane and two dozen iron miniatures, enough for the whole harem. Other visitors found trinkets at every turn, with kiosks on every floor. Predictably, Guy de Maupassant didn't like this either: not only was the tower visible from every point in the city, 'but it could be found everywhere, made of every kind of known material, exhibited in all windows ...' The Eiffel Tower not only shrunk the world, but it shrunk the world on your mantelpiece too. Henceforth, a symbol only truly became part of the landscape when it also became part of one's luggage home.

The tower was available in pastry and chocolate. Handkerchiefs, tablecloths, napkin rings, candlesticks, inkstands, watch chains – if something could be made tall, triangular and pointy it was. The most dazzling was the *Tour en diamants*, 40,000 stones in all, on show at the Galerie Georges Petit in the tower's shadow. But the tower was also available in less precious metals in every other shop, and almost 130 years later production has yet to slow. Gustave Eiffel believed that souvenir rights were his to trade, and he granted an exclusive image licence to the Printemps department store on Boulevard Haussmann. The agreement lasted but a few days, or just until every other Parisian shopkeeper brought a class action lawsuit arguing that such a magnificent day out in the sky should be celebrated and exploited by all.

The word 'souvenir' is, naturally, French. Its translation denotes its purpose: 'to remember' (an earlier version of the word first appears in Latin: *subvenire* – to bring to mind). A miniature souvenir does not diminish its worth, for its partiality supplies its force: it provokes a longing to remember and tell its story. The Eiffel Tower at sunset, drink in hand, just the two of you, we'll always have Paris – that's never a story that gets any smaller.

Of course, true miniaturists may not be content until they have made the souvenir themselves. Frequently in these pages we will encounter miniaturisation as an all-consuming hobby,

and we will discover that our appetite to manipulate a reduced world is only partially sated by ownership; we also must satisfy our innate human need to create. A handmade miniature Eiffel Tower was always going to be a challenge, but the ultimate challenge would be to make it out of something that was both seemingly impossible and evidently stupid. So we should, in the first instance, admire both the application and the triumph of a New York dental student who, in 1925, built a model of the tower with 11,000 toothpicks. According to *Popular Mechanics*, which photographed the student in a long white coat ‘putting finishing touches’ to the model just a little taller than he was, the whole enterprise required tweezers, glue and approximately 300 hours. And there was a scientific justification for it: by building the model from toothpicks, the unnamed student confirmed the triangular structural rigidity of the genuine tower (not that this really needed proving after so many millions had ascended it).

In the 1950s, a 5-foot version was made in Buenos Aires, this time from international toothpicks gathered from all over the world: a global media appeal yielded an enthusiastic response from hundreds, and they mailed in their wooden splinters as if reacting to an emergency disaster appeal. After that it was only a matter of time before the enthusiast’s material of choice switched from toothpicks to matchsticks, and so it proved when a Detroit man named Howard Porter occupied his days by gluing together an Eiffel model at 1:250th scale using 1,080 small matches, 110 larger fireplace matches, and, for old times’ sake, 1,200 toothpicks. Like the

model by the New York student, this also took around 300 hours to build, but both of them would be made to look like lightweights compared to the French watchmaker Georges Vitel and family, who spent several years and an estimated half a million matchsticks building the tower at 1:10th scale. When the French press celebrated it in 1961 (*'La Tour Eiffel – En Allumettes!'*) it was almost big enough to climb. Better



Seventy kilos of matchsticks: the Vitel family applying the finishing touches in their living room.

still, or worse still, the 70-kilo model was wired up to the mains. The electricians operated the internal lifts, and lit the lamps in the tower's restaurants. Because Georges Vitel and his family didn't live in a chateau, but in a quiet suburban house in Grigny, almost 30 kilometres south of Paris, the team had to build the model in two sections, top and bottom, both of which reached the ceiling of their living room. They had a television, but the tower blocked the view. Was this part of a life well spent, or was there a suggestion that the Vitels judged life so disappointing that all that remained for them to do was bolt the doors and get matchsticking?

A miniature, even a miniature that reaches the ceiling, is a souvenir in physical form, a commemoration of our own tiny imprint on the planet. We made this, we say; we bought this. We understand and appreciate this. Sometimes we control this. These are fundamental human desires, and they lie at the heart of our lives and at the heart of this book. But what happens when we believe that a miniature souvenir from this world may be carried forward to the next?