The daughter of England's most famous (and notorious) poet, Ada is raised on a diet of mathematics and French verbs by her strict mother. But Ada's imagination flies free nevertheless. As she grows up, Ada is desperate to learn more – of love and passion, of science and stories, and the full truth about her long-lost father Lord Byron. Then Ada meets a man whose invention might just change the world – and he needs her visionary brilliance to bring it to life ...

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THE ASTONISHING TRUE STORY OF

TUMULTUOUS TEENAGE YEARS

Ada Lovelace,

ANDERSEN PRESS

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JULIA GRAY



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For my parents, Stanley and Jennifer, and in memory of Ada We talk much of Imagination. We talk of the Imagination of Poets, the Imagination of Artists, &c; I am inclined to think that in general we don't know very exactly what we are talking about . . . Imagination . . . is the Combining Faculty. It brings together things, facts, ideas, conceptions, in new, original, endless, ever varying, Combinations . . . Imagination is the Discovering Faculty, pre-eminently. It is that which penetrates into the unseen worlds around us, the worlds of Science. It is that which feels & discovers what is, the real which we see not, which exists not for our senses.

> From 'Essay on Imagination', by Ada, Countess of Lovelace, in 1841



(Augusta) Ada King, Countess of Lovelace (1815–1852) by Margaret Sarah Carpenter (1793–1872)

Prologue

London August 1836

The summer rain covers our faces like a fine gauze as we step down from the carriage. It's a long time since I've been in London, and I'd forgotten how loud it is here: rattling coal-wagons, hurtling omnibuses; street sellers advertising their wares with guttural yells on either side of the Strand. I stand, a little hesitant, before the entrance of New Somerset House, not wanting to enter until I am ready.

'Ada, are you feeling quite well?' comes a voice from beside me.

'Yes,' I reply, for the sake of brevity.

'Well then, let us not waste any more time on the pavement,' says my mother.

A small hand presses between my shoulders, urging me on. Short in stature, quick-footed, utterly formidable, Mamma is, today, in her element, as she leads me into the Annual Exhibition.

'All the world and his wife seem to be here, don't they?' she says, surveying the scrabbling throng on the marble staircase: fine-feathered ladies calling out to each other, gentlemen in coal-black top hats, their tailcoats flurrying like ravens' wings. We make our way slowly, Mamma stepping nimbly into vacant spaces, never letting go of my arm. (I am not as strong as I would like to be, and at the moment have difficulty walking, much to my irritation.)

Mamma used to despise places like this one. When I was a little girl, we avoided them; she never wanted anyone to notice us, to point and stare and call attention to who we were, and gradually I came to despise them too. But there's no evidence of that avoidance today on her part. 'Oh, where have they put it?' she mutters, as we reach the top of the stairs. A sequence of high-ceilinged rooms now opens out in several directions. The walls are a rich, forest-like green - not that much of them can be seen, for every inch, right up to the top, is covered in paintings. I am reminded of a magnified mosaic, or a patchwork quilt of extraordinary variegation overwhelming at first glance, but quite wonderful too. It's a shame, really, that there are so many people. The crush of bodies obscures so much that one might want to see. And the noise: I cannot hear myself think above the bellowing laughter, the shrill screeches of praise and recognition.

'It is so *nice*,' cries one woman, passing us, 'to see which of one's friends have been immortalised in the exhibition.'

I am just admiring one of Mr Turner's paintings; it's a view of Venice – a place I have never visited, although I would like to – when Mamma comes hurrying over with a programme and beckons for me to follow. Through the crowds we thread, until we reach a room with a domed

ceiling, on which the rain pounds ominously. It is as though we are in the middle of a huge drum.

'I still can't see it,' Mamma says crossly, as though the entire exhibition should really have been planned with her involvement. (Very Mamma, this: she likes to be in control of everything.)

'Oh well,' I say. 'I never much liked it anyway.'

'Don't say that, Ada; Mrs Carpenter might be here somewhere.'

'I never liked her much either.'

Wisely, Mamma decides to ignore me. I am sorry I was rude; there's just something about being with Mamma sometimes – even though I am a woman of twenty, I still want to behave like a petulant child when I'm with her. Mamma cranes her neck upwards, to those sorry paintings that have been squashed unceremoniously close to the cornice. 'I fully expect the painting to be in a position of prominence,' she says. 'Not, for example, near a doorway, or placed too high.'

'It's called being "skyed",' says a kindly, grey-haired gentleman standing nearby. 'The painters hate it, especially the well-known ones.'

Mamma turns to him eagerly. 'Have *you* seen my daughter's portrait, sir?'

He studies me curiously, not quite with an eyebrow raised, but with a certain amount of surprise. I have not, I admit, taken any particular care with my clothing today; why should I, when there are more interesting things to think about? Just this morning, for example, I reminded myself of the correct way in which to approach biquadratic equations, and lost myself quite blissfully in the process, at least for a while. Then, I think, the gentleman does recognise me, as people tend to do; he is just opening his mouth to speak, when Mamma gives a squeak of delight.

'Oh, look! There.'

As she says the words, the crowd parts, with appropriately dramatic timing, and – for the first time since it was painted, last year – I come face to face with another Ada, in threequarter profile, dressed in oyster-coloured silk. A rising staircase in the background is illuminated by a tempting square of daylight. That staircase promises far more interest, far more excitement, than dull, staid, pale-skinned Ada, who stands with a hand to her middle as though she is wrestling with the pains of indigestion. One foot pokes out from beneath my skirt, hinting at a step that I will not take.

Oh, how incredibly I dislike it.

Looking at it now, I have a brief, intense recollection of being painted by Mrs Carpenter late last summer, in Surrey. Margaret Carpenter was forthright and eccentric; she had a habit, when tired, of flinging down her brushes with a dramatic clatter, and of making me hold my position for far longer than was comfortable, even though she knew I was suffering from debilitating sickness. But I'd agreed willingly enough to the portrait. Mamma had commissioned it in a state of great excitement, pride and (I suppose) relief, and I couldn't bear to deprive her of any of those emotions.

'What a handsome thing it is,' says Mamma, still staring

with the fond-eyed indulgence of nursemaid to newborn. 'It is quite – *quite* – perfect.'

Is she referring to the skill of the artist, the composition of the painting, or the appearance of the sitter? Is she referring to perfections that I myself have never personified?

Is this the Ideal Ada – a person whom neither of us has ever met?

'Well, Ada, and what do you think?' she says.

'I believe, Mamma,' I say, with deliberate slowness, 'that you told Mrs Carpenter to exaggerate my jaw.'

'I . . . well, I . . . No. Not exactly . . .'

She cannot lie – she is terrible at it – and so she does not quite know how to respond. But I can imagine the conversation so easily, knowing my mother and the way she works, and it would have gone something like this:

'But of course, Mrs Carpenter, you're acquainted with Mr Phillips' renowned portrait of Ada's father? Well, I hardly think it would be a mistake to, perhaps, heighten the resemblance to him a touch.'

'Why, yes, certainly, milady.'

'For example, around the . . . hmm. Around the jawline. Yes.'

So there we stand, one Ada facing another, and I see myself, familiar and yet unfamiliar: wide of jaw, and strangely dumb-looking, as though a clever thought never so much as skated around the periphery of my head. When I was a child, I longed to look more like my father than I actually did; now, Mrs Carpenter has deliberately enhanced my features to resemble his. It's not the resemblance that I object to; it's the fact that it is an artificial one. My jaw *is* wide, yes: so wide that you could write the word MATHEMATICS across it, if you so desired. As a friend of Mamma's once told me, I really am not beautiful. But Mrs Carpenter has made it as broad as a boat's hull; I loom, moon-faced, in my silks, and do not look like me in the slightest. Suddenly I long to be anywhere else but here, in the presence of this painted stranger.

'I'm going for a walk,' I say to my mother. 'I won't be long.'

Out in the street, I find that the rain has stopped. I walk along the Strand before turning left towards Waterloo Bridge, where I feel in my pocket for a couple of pennies for the toll. The bridge isn't as busy as it normally is, and I make my way slowly to its midpoint. I feel unusual. The portrait has done something strange to me; it has reflected me to a gallery full of strangers with all the force of some darkly enchanted mirror. Captured in space and time, that Ada lays claim to every identity that I might hope to possess, leaving no room for anything else, or anything more. She is proud, bold, declarative . . . and yet, I do not know her. But if I do not know that Ada, do I know this Ada – the one who is, just now, walking over a bridge, unsure of her destination? And is this Ada different to those Adas who have gone before - I think of myself aged four, eight, twelve, sixteen, and reflect that in some ways there have indeed been many Adas - and, if so, then how different is she?

It's a thought of intriguing, almost mathematical complexity: I imagine a line of Adas, like dolls cut from card, each ever so slightly bigger than the last, stretched out alongside me. Do they form a progression, a pattern? Is it a pattern that must perpetuate, or might the pattern possibly ... be changed?

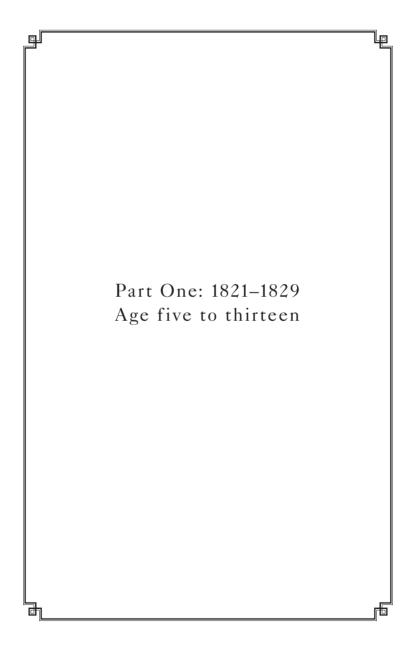
In short: who is the Actual Ada, and what does she intend to do with herself?

In the absence of company; in the relative tranquillity afforded to me now by solitude, and the prospect of water, I stand perfectly still, and think about it. The sun comes out, faint behind the ever-present veil of vellowy smog, and I look – as I always do – for a rainbow. Sure enough (even as a small child, I used to believe, sometimes, that I was quite able to will rainbows into existence) that band of brilliant light spans the heavens like a pale smile. I lean for support against the stone wall, staring at the rainbow all the while. Then, briefly, I feel my eyes close, and – almost without any impulse, any intention on my part – an Ada comes to me ... There she is: round-faced, snub-nosed, and quite innocent. Fittingly, she is by the sea – from the looks of it, Brighton beach. No - it's Hastings. I remember now. Our hotel is not far away. How old is this Ada, who has appeared out of almost nowhere? I think, perhaps, she is five. She is building something out of stones and shells, examining each item with delicate care. It looks like a fortress of some kind, or a house. She is intent on her work. I watch her, breathing in the sweetsalt air, and suddenly I am her; I am her entirely, my own body forgotten. Her thoughts are mine.

I am not alone. Mamma is somewhere not far away – I know this, somehow, although she cannot be seen; and

perhaps my nurse, Nanny Briggs, is also keeping watch, somewhere in the shade, worrying that I may wet my feet. But there are others here too, a pair of women, as comfortable and gossipy as nesting hens. They are sitting perhaps ten feet away, and they are talking, and their voices carry.

'My dear, do you know who that is? Why, she's quite famous, you know. It's little Ada Byron. Lord Byron's daughter.'



Kirkby Mallory, Leicestershire May 1821

I am in the vegetable garden of my grandparents' estate, hunting for fairies. *Hunting* is the wrong word, because I do not intend to kill and eat the fairies – I would simply like to observe their gossamer-winged ways, and perhaps, if I can, to be friends with them. My suspicion is that these particular fairies live beneath cabbage leaves, and so that is where I am looking when I see the spider's web. Strung like a silvery scarf between the plants, it could have been wrought by the fairies themselves. I've never seen one so close. I stretch out one finger – not to touch, just to get a better *sense* of it, so intricately woven, so slight and yet so strong – when I hear Mamma.

'Ada, where are you? Ada!'

Obeying the summons, I scramble up via a wheelbarrow onto the low garden wall. I intend to jump off the wall in one neat movement, but the hem of my dress catches on something, and I end up tumbling off it like Humpty Dumpty and into the arms of my mother.

'What in heaven's name were you *doing*, Ada?' she says, as she sets me down upright and pats the earth from my skirts.

'Looking for fairies. They're quick, you know – so quick that I can't quite catch them. But I mean to, one day—'

She makes a loud, impatient sound with her teeth as she drags me back along the path towards the house. 'Fairies! I never heard such foolishness. Why must you tear about so?'

'Stillness is for statues,' I protest. 'You wouldn't want me to be motionless all the time, would you, as though I were a horrid, sad, dead thing?'

'Really, Ada,' she mutters. 'Your father asks for evidence of your development. I've no intention of reporting that you spend your time having about the grounds like a wild creature.'

In mentioning my father, she has won the point. I am mindful of what she writes to him - she is a prolific, passionate letter-writer - and I want her to tell him good things. (She does not write to him directly, but through someone else, for reasons that I do not quite understand.) I think of him often, this Lord Byron whose name I bear. I would like to see him, but I know that he doesn't live in this country. I do not know why. He sends me gifts - a locket, a ring; items that I treasure and writes letters to Mamma, in which he demands news of my progress. I have, of course, read nothing of his work. But I know that he writes poems. He is famous for them. I know that he is somewhere in Europe, a place I have never been. I imagine that he lives in a castle on a high cliff overlooking a vast, grey-green sea. He sits at a desk from where the waves are visible, and he dips his pen with a flourish, words of great beauty on his lips as he writes. Servants wait at a respectful distance in case he should have need of anything. It's a hot

place, populated by strange insects, unfamiliar scents; these things weave themselves into his poems, adding colour and light. Just sometimes, they weave themselves into my dreams as well.

I am occasionally so spellbound by this vision that I struggle to detach myself from it, earning myself a sharp telling-off from Mamma, or from Nanny Briggs. 'Don't daydream, Ada,' they say, in the same urgent tone of voice that they might use to warn me of an incoming tide or unfriendly dog. But I can't help myself. Other people don't understand how easy it is for me to slip into the unbordered realms of the imagination.

For perhaps four months of each year, we live here in Leicestershire, at a place called Kirkby Mallory Hall. Not far from the market town of Hinckley, Kirkby Mallory is a beautiful, broad, cream-coloured house, whose front windows I love to count (there are seventeen) each time I approach it. Inside, there are cool, high-ceilinged rooms, and secret passageways that I explore with all the vigour of an intrepid voyager, scuffing my knees as I crawl alongside skirting boards with my cat Puff in search of mouse-trails or hiding places for my dolls. There are outbuildings full of promise and delight: a bakehouse, a cheese house, a beer cellar. The parkland is populated with deer, creatures of magic and myth; I tell myself that Hercules' hind is among them, and spend long hours looking for a telltale flash of gold.

I am not supposed to run around so freely and with such abandon, as the gardener's sons are wont to do. I know this, but it's not enough to stop me from doing it. We enter Kirkby through the kitchen door. Mamma strides down the passage – she is short, but able to propel herself forwards with tremendous speed – and I hasten after her. Just ahead of us, the parlourmaid, Lotty, is carrying a tray into the drawing room. Under the chandelier in the hall, Mamma pauses and takes hold of my hands, scanning them for vestiges of dirt. 'Hmm,' she says. 'You'll do, I suppose.'

The drawing room door stands ajar: I can see Grandmama in her reading-chair, head bent in pleasant silence over a little book. Grandpapa is out of sight, but he may well be at his desk, looking over some correspondence to do with the estate. I am very fond of my grandparents.

'Your new governess has arrived,' says Mamma, interrupting my thoughts. 'I want you to be a good, diligent, obedient child – when she's teaching you, and at all other times as well. Will you, Ada?'

She looks down at me, her expression conveying exasperation and affection in equal measure, as it so often does. I look back at her in contemplation. I *do* want Mamma to be pleased with me. I want it so much that I can feel it in my very veins; if you opened me up, you'd find it written large inside of me, I'm sure.

But then there's the other thing that I want, and it's to do things my own way. I wish those things were reconcilable. It seems, so much of the time, that they are not; that I am not one person, but two people, who want different things.

'Well, Ada?'

She is waiting for a reply, and I give it to her. 'Yes, Mamma,' I say.

A governess! I hadn't realised that I was to have such a thing. What will she be like? I perch on the sofa, laughing at Grandpapa as he makes amusing animal-noises for my benefit, and keep a close eye on the door. Will she be strict? Serious? Young or old? What will she teach me?

Soon enough, the door opens, and Miss Lamont is shown in. Her face has the appearance of being freshly scrubbed, but she still seems a little hot and dishevelled from her journey. She is small and neat, with fairish hair combed strictly away from a central parting, and cheeks as round and rosy as apricots. Miss Lamont takes my hand with solemnity, but a smile lurks at the corners of her mouth, hinting at a sense of humour.

'Ada is in great need of intellectual discipline,' Mamma says, pouring tea. 'You must take a rigorous approach.'

'Yes, milady,' says Miss Lamont respectfully. Her Irish accent is soft and pleasant to hear. She darts a look in my direction, a questioning sort of look, as though she is testing the validity of Mamma's request. I nibble at a piece of sugared fruit and listen as they organise my education: we are to do French and music and geography, and drawing too, and reading and grammar and spelling . . . the list seems almost endless.

My grandmother says to my mother: 'A fine range of subjects, Annabella.' Turning to my new governess, she adds: 'We made sure our daughter was just as well-educated at a similar age. It was of great importance to us.'

'But we must also make sure,' says Grandpapa, giving me

a wink of solidarity, 'that little Ada has time enough for amusements.'

'Arithmetic,' says Mamma, as though she has not heard this. 'It is through mathematics, Miss Lamont, that I feel sure that the wildness of Ada's nature will be successfully trammelled.'

I do not know the meaning of the word *trammelled* but it sounds like the sort of thing my mother would want my nature to be: a mixture of trained and pummelled. Something meaningful and intense, like a basin full of shockingly cold water into which one must plunge one's face.

'This is a beautiful house,' says Miss Lamont, rather hesitantly, looking out through the great bay windows. 'And what woodland!'

'I prefer my own childhood home,' Mamma says, 'at Seaham.' She sighs. 'But this place is not without its attractions. There is a tree in the park – a Lebanon cedar – that Lord Byron particularly loved. He accompanied me here – only once, before my parents inherited the estate from my uncle, but I recall he spent a full afternoon in the shade of its branches, writing verses. Alas, I cannot remember which ones.'

Miss Lamont expresses surprise and interest. I too am fascinated. A tree that my father loved – here at Kirkby Mallory? It is news to me, and exciting news. It is very unlike her to mention my father at teatime; perhaps it is for the benefit of my new governess.

'Where is the tree, Mamma?' I say.

But my mother is asking the parlourmaid for more milk and does not, I think, hear me.