

Quevedo & Cajal

The Story of the True AGI Architects.

By David Vivancos

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Intro V1.0 June 1st 2026

To Don Santiago and Don Leonardo, a century overdue.

Contents

| | |
|-------------------------------------------------------|-----------|
| Why I Wrote This? | 1 |
| Sons of 1852 | 8 |
| 1.1 A Spring Morning in 2026..... | 9 |
| 1.2 The Mountain Village, May 1852 | 11 |
| 1.3 The Valley in Cantabria, December 1852 | 14 |
| 1.4 A Country in Decline..... | 18 |
| 1.5 Two Childhoods, Two Trajectories | 21 |
| 1.6 Hardware and Software | 26 |
| 1.7 Why This Matters Now..... | 30 |
| 1.8 The Cajal–Quevedo Blueprint | 32 |
| The Boy Who Built What Didn't Exist | 36 |
| 2.1 A Man Who Did Not Believe in "Impossible" | 37 |
| 2.2 Molledo: An Inheritance of Valleys | 39 |
| 2.3 The Silent Years: 1876 to 1893..... | 42 |
| 2.4 The Memoir That Redefined the Machine, 1895 | 46 |
| 2.5 The Cableways: From Molledo to Niagara | 50 |
| 2.6 Paris: Validation at a Distance..... | 52 |
| 2.7 The Chess Machine, Take one | 57 |
| 2.8 The End: December 1936 | 59 |
| 2.9 What Kind of Man He Was | 61 |
| The Artist Who Drew the Invisible | 66 |
| 3.1 Two Images | 67 |
| 3.2 Petilla: The Stone Village..... | 69 |
| 3.3 Medicine or Art? | 73 |
| 3.4 Cuba 1874..... | 75 |

| | |
|------------------------------------------------------|------------|
| 3.5 The Years of Wandering | 78 |
| 3.6 Simarro's Kitchen..... | 80 |
| 3.7 The Breakthrough..... | 83 |
| 3.8 Berlin, October 1889 | 85 |
| 3.9 Madrid: The Road to the Nobel..... | 88 |
| 3.10 The Kind of Mind He Had | 92 |
| A Machine That Calculates | 97 |
| 4.1 A Sentence Fifty-Two Years Apart..... | 98 |
| 4.2 Two Brains, Two Futures | 100 |
| 4.3 What Cajal Actually Did..... | 104 |
| 4.4 Dynamic Polarization..... | 107 |
| 4.5 The Synapse..... | 110 |
| 4.6 1943 - Rebirth..... | 113 |
| 4.7 The Artificial Neuron | 117 |
| 4.8 The Four Generations..... | 120 |
| 4.9 What Gets Forgotten..... | 124 |
| 4.10 What Cajal Would Not Have Anticipated | 125 |
| From Thoughts to You | 130 |
| 5.1 Missing Pieces | 131 |
| 5.2 Dynamic Polarization II..... | 133 |
| 5.3 The Retina: The First Feed-Forward Network | 134 |
| 5.4 The Cerebellum: Parallel Architecture | 139 |
| 5.5 The Cerebral Cortex: Layered Processing..... | 142 |
| 5.6 The Growth Cone: Architecture Builds Itself..... | 147 |
| 5.7 The Dendritic Spine | 150 |
| 5.8 The Drawings..... | 154 |

| | |
|----------------------------------------------------------|------------|
| 5.9 The Blueprint, Assembled | 157 |
| The Brain That Sculpts Itself | 161 |
| 6.1 A Sentence That is My life | 162 |
| 6.2 Cajal's Fight | 165 |
| 6.3 The Evidence | 168 |
| 6.4 1894: The Formulation of the Principle | 171 |
| 6.5 The Long Rejection | 174 |
| 6.6 The Spine, in Real Time | 177 |
| 6.7 The Parallel Story in Humans | 179 |
| 6.8 Current AI Struggle | 182 |
| 6.9 Neuraxon: A Sketch of a Sculptor..... | 185 |
| The Machine That Decides | 192 |
| 7.1 From Brain to Program..... | 193 |
| 7.2 Why He Built Machines Instead of Writing..... | 195 |
| 7.3 Computing Without a Computer..... | 198 |
| 7.4 The Equation Solver: An Algorithm in Brass..... | 203 |
| 7.5 The Telekino: Information at a Distance | 209 |
| 7.6 El Ajedrecista: The First Machine That Decides | 214 |
| 7.7 January 1951: A Ritual Vindication..... | 218 |
| 7.8 More Machines | 221 |
| 7.9 What Turing Inherited..... | 226 |
| 7.10 Quevedo the Philosopher | 229 |
| The Automaton That Learned | 243 |
| 8.1 The Memoir That No One Read | 244 |
| 8.2 The First Move: Stating the Impossible..... | 247 |
| 8.3 Constant Coordination | 249 |

| | |
|-------------------------------------------------------|------------|
| 8.4 Conditional Branching in 1911 | 252 |
| 8.5 The Four Pillars | 255 |
| 8.6 Commutator Network in Brass and Copper | 259 |
| 8.7 Trial-and-Error & Floating Point Prophecies | 261 |
| 8.8 Why He Could Not Build a Learning Automaton..... | 268 |
| 8.9 Turing Formalized What Quevedo Built | 269 |
| 8.10 The Lineage Quevedo Planted | 272 |
| Where Hardware Meets Software | 278 |
| 9.1 The Wizard of Kinematics..... | 279 |
| 9.2 The Engineer's Silence..... | 281 |
| 9.3 The First Translator | 285 |
| 9.4 1943: The Formal Fusion | 288 |
| 9.5 The Borrowed Name | 290 |
| 9.6 1950: Turing's Question | 293 |
| 9.7 Back to the Photograph..... | 295 |
| 9.8 What the Fusion Enables..... | 297 |
| 9.9 What the Fusion Does Not Yet Enable | 300 |
| The Great Silence..... | 305 |
| 10.1 Two Deaths on the Brink | 306 |
| 10.2 The Disciples That Weren't | 308 |
| 10.3 Spain beyond 1936..... | 312 |
| 10.4 How a Canon Closes | 315 |
| 10.5 The Slow Recovery | 319 |
| Everything We Built on Them..... | 325 |
| 11.1 Working Inventory | 326 |
| 11.2 Cajal's Unit, Abstracted | 326 |

| | |
|----------------------------------------------------|------------|
| 11.3 The Cajalian Architecture | 329 |
| 11.4 Plasticity as Learning | 333 |
| 11.5 The Quevedian Program | 337 |
| 11.6 The Quevedian Automaton | 340 |
| 11.7 Brain-Computer Interfaces..... | 342 |
| 11.8 Wetware..... | 345 |
| The Grandfathers of AGI | 355 |
| 12.1 What AGI Still Needs | 356 |
| 12.2 From Choice to OpenClaws | 357 |
| 12.3 World Models and Coordinate Systems..... | 364 |
| 12.4 From Growth Cone to Test-Time Reasoning | 370 |
| 12.5 What the Brain Does Off-Hours | 375 |
| 12.6 The Mothership..... | 383 |
| 12.7 The Interface to a Mind..... | 389 |
| 12.8 Rules That Modify Themselves | 396 |
| 12.9 E-AGI as the Next Us..... | 400 |
| Afterword | 404 |
| Acknowledgments | 411 |
| References | 413 |
| Glossary | 427 |

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Why I Wrote This?

2 Why I Wrote This?

Have you ever felt the need to express deep gratitude to someone because of the influence they have had on you, and in this case on most of humanity at large?

Have you ever felt the need to vindicate someone who has been forgotten, uncredited purposefully or not, while others took fame and glory, when clearly their work would not have been possible without these foundations?

Have you ever felt the need to look back and recognize the connections that incredible minds started, or continued, to the point where what they accomplished made most of what you take for granted possible?

These are just some of the thoughts, that are not only the reasons behind this book, but also life motives I had when decided to embark on the journey, decades ago, of building what some people saw, and some still see, as impossible: the quest to replicate human or other intelligences on a non-biological substrate. Some call this AGI, or Artificial General Intelligence, for the mind; and physically with what I coined E-AGI, the title of my 4th book, in any case, a task of a lifetime.

And what better way to start this task than humbly following the steps, the methodology, and the rigor of the greatest minds our shared species has been able to "produce," since the journey, believe it or not, really started thousands of years ago. The minds I am going to present to you are just two, but at the top of my list.

What is true, is that looking back, connecting the dots, finding the inspiration, and building from there are usually key

ingredients if you want to dance between the realm of the barely possible and the almost impossible.

I am very fortunate in many dimensions. First, thanks to my parents, who provided a lot, including the genes, or the shared inheritance from the past that drives my curiosity, fuelled by art and by the scientific view of using technology as an enabler for change. But also, thanks to my supporting wife, family, close friends, and colleagues, and to living at the right time in history.

And because I was born in a country where exploration and discovery were imprinted in the hearts and souls of their people, flowing relentlessly through their DNA over generations, even if it doesn't always manifest. Sad to say, it is at the same time a place that has seen glory but also deep shadows that occluded its great past, letting it play just a fading role in the current world, probably due to a lack of vision and perspective.

Since we now live in a world going through a change of paradigm like never before, the past may seem not worth remembering, good only for nostalgia, or just to pinpoint where we came from.

But I think it is the contrary: we have the responsibility to unravel what happened, and to vindicate who the real pioneers were, the ones that made the current world of wonders possible.

After the Second World War this view turned almost exclusively to the Anglo world, and without trying to disregard at all the great minds that helped shape our world in the US, UK and beyond— and I am personally deeply thankful for what they did

4 Why I Wrote This?

in many fronts, most of what I have learnt and built is thanks to them — But I also see that some of the pillars that made their work possible are buried and forgotten.

In my country, Spain, besides many other feats of other times, there are two great men who paved the way, willingly or not, to what is about to happen in our present world. There are many others, but this book is just about them. Incidentally, both were born in the year 1852, so they were more than contemporaries.

The first one is Leonardo Torres Quevedo, someone I admire deeply because he was the real theoretical and practical father of Artificial Intelligence, something I re-discovered about 10 years ago and introduced in an article I wrote on April 7th, 2016, "A tribute to the father of Artificial Intelligence (1912)." Half of the book will be about him: what he did, why he did it, what his real influence on current AI and AGI is, and why so few people really talk about him or know him.

My connections to Leonardo, even though we live more than a century apart, beyond being a recurring theme in my AI opening keynotes worldwide, are several. I share his spirit of exploration, of discovery, and his builder mindset, and I developed it in my own journey, unknowingly at the time, sadly, because even in his own country he is not widely acknowledged. When I started learning to code assembly, the native language of machines, at eight years old, I was indeed following his legacy; when I was building, at the same time, my first try of "space" rocket, I was also following a parallel path; or when I started my first Nanotechnology initiative back in 2004, and of course when I started creating AI algorithms and

researching AGI, because that's what he started, and we will dig deep into this throughout the book.

The second "figure," not because he was any less important but because he did have much more international recognition, is Santiago Ramón y Cajal, someone I also admire and who is profoundly linked to my life trajectory too. I also wrote many times about him, including another article from October 26th, 2014, titled "A tribute to the father of Neuroscience."

My links to him are also deep, I learned to code at the age of eight in a room on Ramón y Cajal Street, in León, and the machine on which I learned descended conceptually from the first calculating automaton built by Torres Quevedo, in Madrid, in 1912. At the time, I didn't know either of those two things. Neither did the few who learned to program in Spain in those years; forty-two years later, I have had to write this book, in part, because we still don't know it.

When I started creating technology startups back in 1995, one of my first deep interests was creating and using Neurotechnologies (started in 1996, and something I keep very much alive), including their applications to Art and Science also the previous century, and later in 2002, I participated in the XXV anniversary of one of the main hospitals in Spain, "The Ramón y Cajal," where we introduced and developed several technological "wonders" of the time for several years; and later still, advising Neurotechnology startups like the pioneer Emotiv and others, or building MindBigData, the largest open dataset of brain signals for machine learning.

But beyond that, and many more things that we will unravel through the book, his words (I changed man for human here) —

6 Why I Wrote This?

"Every human can, if he so determines, become the sculptor of his own brain" — is one of my daily mantras, and I live by it.

So beyond having declared interests, thousands of hours of experience, that will entwine in several chapters, since they help me draw the picture and connections between them and what is happening today, what I call the new golden age of AI, the motive was clear: what we all are building today would not be possible without them, and connecting with them in these pages gives purpose, meaning, and direction to something that is impacting every human alive.

I could say paraphrasing Cajal with a Quevedo's twist, and something from my repertoire.

"Every human — and every what-comes-next before us — needs to be the sculptor of their brains — whatever the substrate is — and explorer of their own reality "

Ready for a journey to the past to understand the future?

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San Lorenzo de El Escorial
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