Decoding Wittgenstein's Stonborough Villa

God does not reveal himself *in* the world. The facts all belong only to the task and not to its performance.
—*Tractatus Logico-Philosophicus* 6.432 (English edition, 1922)

In the 1980s and the beginnings of widespread personal computing, people used programming language to write key in own applications. We didn't buy readymade software like today, so every night found me frantically writing 1000 lines of program. The very first image I made with my completed CAD program was a wireframe drawing of Wittgenstein's Stonborough Villa. Beyond the dithered lines floating on the monitor spread an infinite unknown. It was actually while inputting the XYZ coordinate data to generate the image that I first noticed something odd about the orientation of the door handles.
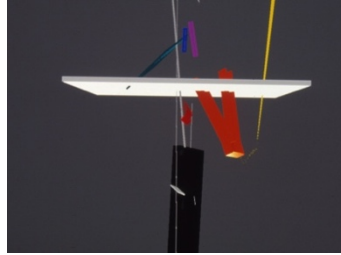
1 **Machines that make humans think, 1989 Paris**

Computers have neither gears not engines; they are language machines. As I did more and more programming, I came to appreciate programming language in and of itself. And I began to create architecture-based works dealing with the synergies of human ideas projected via programs. I wasn't interested in "machines that think like humans" so much as "machines that make humans think. In looking at computers, I wanted to overturn prevailing notions of artificial intelligence (AI) and robotics so as to explore human-machine relations in an unprecedented way. Rather than projecting human ideas onto computers, my constant quest was to bring the intrinsic sensibilities of computers out into the real world.

Throughout my creative efforts, I always had in mind Wittgenstein's thinking about the workings of human language, specifically the contrasting propositions of his *Tractatus Logico-Philosophicus* and *Philosophical Investigations.* The difference between those two works got me thinking about many things, and eventually led me to the idea of computers as "machines that operate in natural human language" via the conventions of programming language. Gradually, my interest shifted from computers to the "riddles" of Wittgenstein's thought. How had the change from the *Tractatus* and *Investigations* come about? Might it have had something to do with the Stonborough Villa, which he designed during the interval between the two books.

The first time I visited the Villa I couldn't help thinking it was simply an empty void, but in due course I began to question the significance of the doors. If not the blank space of the rooms, might he have been trying to express something in the doors that connected room to room? By reinterpreting it as an architecture of doors, might it possible to discover some connection between the Villa and his philosophy or even some relation to contemporary computing? The Stonborough Villa had truly become a device for making me think.

Were the *Tractatus* and *Investigations* progressive developments in the timeline of his thinking? Or were they programmed as two different ideas from the very beginning? Would the Stonborough Villa offer any clues? Was there perhaps some numerical order to the spatial composition? And what of the placement of left- or right-opening door handles, could that mean? It is almost as if the Stonborough Villa were composed symmetrically in the centre between the two books — if only we could read the clues hidden in the design.


2 **Stonborough Villa, Vienna 1928**

3 **View from Hall to Living Room(left) and Breakfast Room (right)**

The ground floor of the Stonborough Villa centres on a main entrance Hall (*Halle*) encircled by a Breakfast Room (*Früstückszimmer*), Living Room (*Wohnzimmer*), Salon (*Salon*) and Dining Room (*Speisezimmer*). On entering the Hall from the Entryway, the left hand wall is completely in transparent glass — including glass doors — through which can be seen a terrace. Whereas the opposite right hand wall is completely opaque and features a steel door to the Salon.

The symmetries continue in each of the four adjoining rooms, each of which has a wall with symmetrically placed doors whose numbers increase 1 - 2 – 3 - 4 in anticlockwise progression from Breakfast Room (1 door) to Dining Room (4 doors), but otherwise there are no decorative elements anywhere. Lighting consists of bare light bulbs on the ceiling, the walls are stark white with doors as the only features. An arsenal of built-in climate control mechanisms — huge counterweighted iron shutters that raise out of the basement, heated flooring, forced air heating, a complex system of built-in blinds and roll-away screens — all serve to create an unobstructed room-to-room schematic, an interior of enigmatic empty voids wherein all detail, all information has been erased, save for the door apertures.
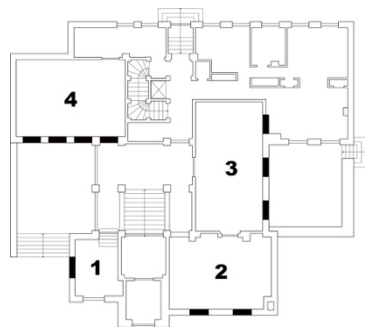

4 Sequence of rooms
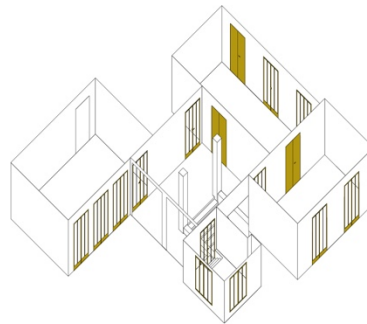
5 Axonometric projection of the four rooms

Supposing, however, that Wittgenstein was not focusing on the design of the doors or the empty rooms, but rather on the number of doors in the abstract? Or even the placement of the door handles? Wittgenstein's sister, Mrs. Margaret Stonborough initially commissioned an architect friend Paul Engelmann to design the Villa in the autumn of 1925, and they in turn invited Wittgenstein to help out that Christmas. A protégé of modernist Adolph Loos, Engelmann's initial sketches show a row of decorative round columns with in the Hall, while the overall façade emulates a classical symmetry. On his rough floor plan we can make out rooms numbered 1 - 1 - 3 - 3. After Wittgenstein joins the project, Engelmann's decorative elements summarily disappear. The round columns are squared off and the façade eschews all semblance of symmetry as rooms are re-ordered asymmetrically into the 1 - 2 - 3 - 4 progression by number of symmetrically placed doors.

In the Villa as ultimately constructed, the Hall has four similar doors, placed symmetrically two to the left of the axis of entry and two to the right. Straight ahead to the left, the door to the Dining Room has a left-handed handle and the door to a stairway vestibule on the right has a right-handed handle. Turn about-face, and the door to the Breakfast Room has a left-handed handle and the door to the Living Room has a right-handed handle. So far so good, perfect symmetry with respect to the line of entrance. But wait, the doors straight ahead open out, while the about-face doors open inwards, which gives the very same handles different operational functions (and of course, when entering the Hall from the adjoining four rooms, the orientation of the handles mirrors those functions.) Clearly, Wittgenstein intended some kind of order-in-arbitrariness by arranging symmetrical pairs of door elements — transparent and opaque, outward and inward — on either side of the central axis, and even more so in the door-numbered sequence of adjoining rooms.
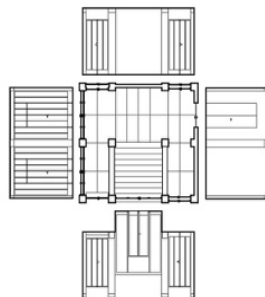
6 Floor plan and interior elevations of the Hall

It has been suggested that Wittgenstein's concept of language games (*Sprachspielen*), which comes to the fore in his *Investigations*, can be traced back to his interactions with children at the school where he worked while writing the *Tractatus*. The freedom with which children made up expressions that did not adhere to dictionary definitions, as if they were constantly reprogramming language itself, must have given him cause to reflect on the symmetry and asymmetry of words with respect to their meanings.

Wittgenstein repeatedly uses the word "sequence" to explain his language game ideas. Even in what appears to be a simple arithmetic progression, he argues, depending on the equation there are always infinite possible next numbers in the series. That is to say, changing the rules of a game is what gives flexibility to human language; it the very essence of generating language. And sequencing is the very core concept to his language game thinking.

Among themselves, Wittgenstein's family called the Stonborough Villa a "house turned into logic", but they might just as well have called it a "language game house" — a structure where his early philosophy cohabited with his later philosophy. I cannot claim to have decoded Wittgenstein's intentions in designing the Villa, though it is clear enough to me that here is an architecture of doors to his thinking.

—Akira Koyama (Professor Emeritus, Kobe Design University) media researcher/architectural historian