

Readings/Rereadings

Drawing is a Miracle! Aldo Rossi's *A Scientific Autobiography*

Paolo Belardi

First published under the title *A Scientific Autobiography* [Rossi 1981a], as part of the *Oppositions Books* series by the prestigious editors, Peter Eisenman and Kenneth Frampton, translated with great lyrical sensitivity by Lawrence Venuti and commented upon with extraordinary critical acuity by Vincent Scully (author of a memorable afterword entitled *Ideology in Form*), Aldo Rossi's *A Scientific Autobiography* (a story in a personal key to the relationship with architecture and the profession of architect) is an absolutely atypical book, because it manifests itself as a diary, a notebook and a memoir, all at once. But, on closer inspection, it is much more than that. This is evident from the start: it is one of the most engaging and, in some ways, most moving pieces of Italian literature in recent decades. Perhaps because it was written by an architect-poet who has never hidden his sense of awe, in the stories of his "dear architectures" [Posocco, Radicchio, Rakowitz 1998], suspended between mobility and immobility, or in his own personal story, suspended "between here and an elsewhere on the border between life and death" [Rossi V. 2009, p. 11].

"I began these notes about ten years ago, and I am trying to conclude them now so that they do not turn into memories. From a certain point in my life, I considered craft or art to be a description of

things and of ourselves; for this reason, I have always admired Dante's *Commedia*, which begins when the poet is around thirty years old. By thirty, one ought to have completed or begun something definitive, and come to terms with one's own formation. All my drawings and writings have seemed to me definitive in two ways: first, they concluded my experience, and second, I then had nothing more to say. Every summer seemed to me my last summer, and this sense of stasis without evolution may explain many of my projects. Nonetheless, to understand or explain my architecture, I must again run through things and impressions, must again describe them, or find a way to do so" [Rossi 1981a, p. 1].

A Scientific Autobiography has certainly been (and still is) a fortunate book, having been re-edited many times and translated into many languages (from Spanish to Japanese; from German to French). But it is also a book that has, in certain respects, been misunderstood. At least, it was, initially, since it was published in Italy by the *Pratiche Editrice* of Parma publishing house only in 1990 [Rossi 1990], almost ten years after the first American edition. Published, moreover, in an austere editorial guise, which highlights many differences with respect to the original, both in its physical dimensions and in its collection of images: presu-

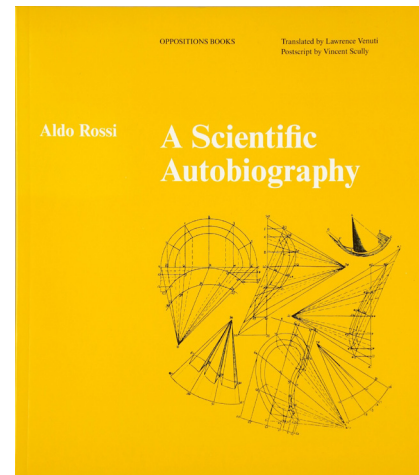


Fig. 1. Cover of the first edition [Rossi 1981a].

ably by choice of the same Rossi, who has never loved publishing magnificence. "I will not talk about my projects, because I do not think this is the occasion and the place: I will only say that I like their publication in a continuous and bare form and so different from the fashions we are used to, where are redundant color and format and comment [Rossi 1981b, p. 7]"

In fact, whilst the American edition comes in the form of an album (22x24 cm), flaunting a hardback cover signed by Massimo Vignelli and displaying a representative masterpiece taken from Guarino Guarini's *Civil Architecture*, and is accompanied, in the appendix, by a selected body of twelve autographed

drawings entitled *Drawings, Summer 1980*, the first Italian edition comes in a pocket format (12x20 cm), with a paperback cover framing a detail of the photograph *Palm tree by the lake* taken by Gianni Braghieri, and is almost bereft of images, except for a portrait of the author, leaning against a railing overlooking the backdrop of a lake and lovingly embracing his daughter, Vera. And yet, despite its editorial austerity (the book is devoid of any devices: no colophon, no index, no preface, no notes and no bibliography), even in Italy *A Scientific Autobiography* has soon risen to cult status: it is the object, not only of passionate critical reviews and learned academic dissertations, but, also, of continual re-interpretations.

One was conducted with rigorous methodology by Giovanni Poletti in a doctoral thesis discussed in 2009 [Poletti 2009] and published in 2011 after a minimal revision [Poletti 2011].

"From the study and the charm of the great courtyards of his country, of his homeland, Rossi arrives – following the routes of a landscape that is also, and above all, symptomatic of the existential motions of being – at other buildings of the cities of Galicia and of Andalusia, revealing his intimate premonitions, the *correspondances* (Baudelaire) between people, "things" and these buildings that, whilst belonging to their own time, evoke the memory of 'other' things. Rossi thus explores the role of memory and places:



Fig. 2. Cover of the first Italian edition [Rossi 1990].

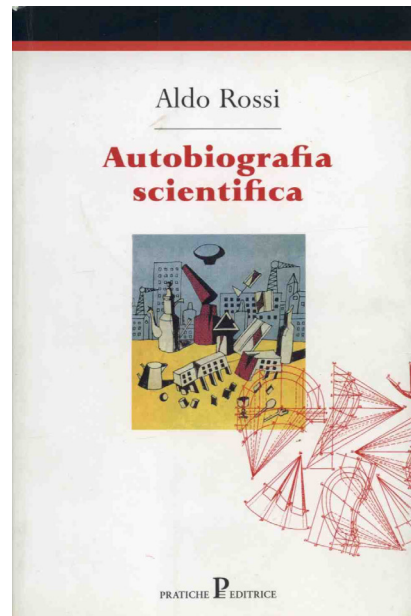


Fig. 3. Cover of the second Italian edition [Rossi 1999].



Fig. 4. Cover of the third Italian edition [Rossi 2009].

the *corral* typology evokes, in the present, other courtyards already seen and experienced in the houses of old Milan, but also in the farms of the Lombardy countryside, and from these landscape-places, through the gallery closely linked to the courtyard –through a sort of archetypal space-time continuum– he returns to the Sevillian *corrales*, with architectural structures continually orbiting, pursuing and identifying each other; beyond time and space. [Poletti 2011, p. 3]”

Whilst explicitly citing Max Planck’s *Wissenschaftliche Autobiographie* and yet implicitly pre-empting the self-monograph *S, M, L, XL* by Rem Koolhaas, *A Scientific Autobiography*, precisely because it was conceived at the end of the Seventies, within the context of the rampant proliferation of visual messages, presents itself as a precious opportunity to rediscover an inverse relationship between text and image. The text, punctuated by personal reminiscences (the Sirena hotel; the Magdalene inn; the Odessa hospital) and fond memories (the San Carlone in Arona; the Filarete column in Venice; the buttresses of the cathedral in Milan), as well as by precise iconographic references (above all, the paper by Opicino De Canistris), emulates the evocative tone of the old serial novels, where insights and visualisations were left to the imagination and culture of the reader. This is betrayed by the title, *A Scientific Autobiography*, which Rossi chose, having long considered another, very different title, *Destroying architecture* [Leoni 2004, p. 124]. *A Scientific Autobiography* is, in fact, an oxymoronic title that “connects two different and usually distinct narrative modes: one is overtly intended to portray a mirror image of life, whilst the other is scientifically dedicated to mapping the relevant instruments of a discipline (field of work; art) for architecture” [Marini 2017].

“Certainly a very important point of reference is Max Planck’s *Scientific Autobiography*. In this book, Planck returns to the discoveries of modern physics, recapturing the impression made on him by the enunciation of the principle of the conservation of energy; he always recalled this principle in connection with his schoolmaster Mueller’s story about a mason who with great effort heaved a block of stone up on the roof of a house. The mason was struck by the fact that expended energy does not get lost; it remains stored for many years, never diminished, latent in the block of stone, until one day it happens that the block slides off the roof and falls on the head of a passerby, killing him. It may seem strange that Planck and Dante associate their scientific and autobiographical search with death, but it is a death that is in some sense a continuation of energy. Actually, the principle of the conservation of energy is mingled in every artist or technician with the search for happiness and death. In architecture this search is also undoubtedly bound up with the material and with energy; and if one fails to take note of this, it is not possible to comprehend any building, either from a technical point of view or from a compositional one. In the use of every material there must be an anticipation of the construction of a place and its transformation” [Rossi 1981a, p. 1].

A Scientific Autobiography is an elusive book, open and closed at the same time. It is an open book because, although it departs from a pre-determined point, it does not arrive at a pre-defined destination, developing freely within a setting that enmeshes places that are very distant, geographically (Belo Horizonte, Berlin, Cordoba, Galveston, Granada, Milan, New York, Sintra, Seville, Zurich), and as part of a screenplay that entwines characters who are even more

distant, historically (Leon Battista Alberti, Dante Alighieri, Rosso Fiorentino, Ernest Hemingway, Edward Hopper, William Shakespeare), or even epic personalities (Alceo, Hamlet, Melville). But *A Scientific Autobiography* is also a book which closes in on itself because, retracing the salient stages of ten long years of project activity by the author (punctuated by absolute masterpieces such as the expansion of the town cemetery in Modena, the design competition projects for a student house in Chieti and for a new business centre in Florence, the theatre of the World in Venice and the monument of the Resistance in Cuneo), it loses itself in a circular *ad lib* trend. In the pursuit of happiness.

“As I continue these autobiographical notes, I should speak of several projects which characterize certain moments in my life; they are well-known projects which I have always avoided discussing directly. The first is the project for the cemetery at Modena, the second the project for student housing at Chieti. I believe that the first, by its very theme, expresses the end both of adolescence and of an interest in death, while the second signifies a search for happiness as a condition of maturity. In neither project I have renounced the liturgical sense of architecture, meaning that I have not done much more than has already been established by convention, even though the results are quite singular. The first project is strongly bound up with certain experiences and with the conclusion of the search for fragments in the skeletal form. The second has to do with a state of happiness; it is like Christmas and, in another way, like Sunday. The quest for happiness is identified with the happy time of a holiday – especially because at such times, when things come to a halt, it seems impossible to withstand the force of happiness” [Rossi 1981a, p. 8].

"In the project for the municipal center at Florence, I imagined restored statues in the piazzas, like the alabaster Davide destined for tourists, thinking all the while that the copy is never entirely dissociated from the original, that in the plastic paintings of Venice with their ever-present lightbulb, hung in poor but decent kitchens among the family portraits, the mystery of the theater, whose performance is so important for us, is evoked again. We abhor directors who tamper with the text and ignore the period in which it was written; the ritual and hence the moment in which actions are performed constitute one of the fundamental rules of architecture and the theater. The rule applies equally to the places of the city. I thought about all these things during the Venetian autumn, when I was observing the construction and birth of the theater of the world'. This unique building made me feel quite happy; in it I rediscovered the oldest threads of my experience and the more recent ones of my own history. Perhaps I also saw rising from the water my projects from Modena and Cuneo which so resemble the cube-like theater; but as I have said, stasis had become a condition of my development. The compulsion to repeat many manifest a lack of hope, but it seems to me that to continue to make the same thing over and over in order to arrive at different results is more than an exercise; it is the unique freedom to discover. In this light, ought I now to view my projects as a succession of unfinished and abandoned undertaking, or as a pursuit of the unexpected appearance of some new event? It seems to me that the event constitutes the novelty of a thing, and it is in this context that I have spoken of a competition, a particular place, a monument" [Rossi 1981a, p. 54]. But above all, *A Scientific Autobiography* is a book on drawing, interpreted in its Albertian form of thought. Nor could it

have been otherwise, given that, in the works of a controversial master like Aldo Rossi (who shared with Robert Venturi the prize for being the architect who was most detested yet, at the same time, most loved by his contemporaries), writing, drawing and construction co-exist in a tumultuous fashion [Dal Co, 1999], creating a triangle which may become equilateral, or isosceles, or scalene, according to the circumstances. But it still remains a triangle or a geometrical figure typical of the building site, where it allows the establishment of orthogonality and the mapping of buildings. "I have always associated a rather complex meaning with the wooden yardstick used by bricklayers. Without this yardstick there is no architecture; it is both an instrument and an apparatus, the most precise apparatus in architecture. This sense of measurement and distances made me especially fond of the investigation of topography made by Professor Golinelli at the Politecnico in Milan. We use to spend entire mornings measuring the Piazza Leonardo da Vinci, perhaps the ugliest piazza in the world, but certainly the one most measured by generations of Milanese architects and engineers. Now it would happen that because the spring measurements were taking place with a certain laziness, and for a thousand other reasons which were not figured into the probabilities of inexactness, our triangulations often failed to close. The final form of the piazza became something absolutely original, and I found in this inability to close the triangulations not only our incompetency and indolence (of course) but also something mythical, like a further spatial dimension. Perhaps from these experiences my early projects for the bridge at the Triennale and the monument at Segrate were born. The unsuccessful attempt to close the triangle was an affirmation of a

more complex geometry, which, however, proved to be inexpressible and could demonstrate only the most elementary facts" [Rossi 1981a, pp. 49-50]. Paradoxically, *A Scientific Autobiography* is a book on drawing, precisely because, although it is not illustrated by drawings, it invites one to reflect on the biunivocality of relationships which, through the practice of drawing, bind together past and future, survey and project, knowledge and design. Even if Rossi, relying on interest for the reconstruction of fragments and proceeding with feed-back between order and disorder, does not list the graphic instruments in the form of a manual and does not describe the representative techniques in the form of a compendium, but re-interprets the foundations of 'D Factor' in the form of a poem. "Professor Sabbioni, whom I particularly admired, discouraged me from making architecture, saying that my drawings looked like those of bricklayer or a rural contractor who threw a stone to indicate approximately where a window was to be placed. This observation, which made my friends laugh, filled me with joy, and today I try to recover that felicity of drawing which was confused with inexperience and stupidity, and which has subsequently characterized my work. In other words, a great part of the meaning and evolution of time escaped me and still does so today, as if time were a material which I observe only from the outside. The lack of evolution in my work has been the source of some misunderstanding, but it also brings me joy" [Rossi 1981a, p. 39]. "Drawing was, for a long time, the only concrete way for Aldo to create architecture, and not only in terms of planning, but also in the sense that he would nurture the fruits of his imagination as if they were small objects to be displayed on a table; they were endowed with a certain

substance and vitality, often manifested through colour, a colour at times swirling with dense shadows, at times piercing and absolute like the blue of the sky that appears in the drawings for the cemetery of Modena. [...] As far back as the Seventies, the method of drawing reveals a connection with certain aspects of modern painting: Sironi, above all, but also cubism, metaphysics and tonal painting. In particular, the collage technique allows him to introduce, in a drawing from as early as 1970, the decontextualised historical reference that will only later be transmitted into the architecture designed and built" [Portoghesi 1999, p. 7].

A Scientific Autobiography speaks mainly of project drawing but, on closer inspection, it also speaks of survey drawing. Challenging the concepts of measure and dimensions, as interpreted from the technical manuals, or celebrating the fertility of metric imprecision. And of the invisible distances (but also insurmountable distances) between thought and communication, between past and present.

"How does one establish the dimensions of these things, and indeed, what dimensions do they have? In this summer of 1977 I was staying at the Osteria della Maddalena when I came upon an architectural definition in the course of a conversation that was otherwise not very memorable. I have transcribed it: 'There was a sheer drop of ten meters from the highest point of the room.' I do not know the context that this sentence refers to, but I find that a new dimension was established: is it possible to live in rooms which drop off so suddenly and precipitously? Does the possibility exist of inventing such a project, a representation which lies beyond memory and experience? It is useless for me to declare that I have tried in vain to draw this project or this room: I could do it if it were not for the fact that the drawing always stops at

a void which cannot be represented. For many reasons this void is both happiness and its absence" [Rossi 1981a, p. 24].

"When I write about architecture, I seem to be able to encompass these things in a general design, and I don't know to what extent this concerns only my architecture. Now it seems to me that that something, perhaps a nothing, that always existed between thought and communication, between past and present, ever more persistently disappeared. So when I wrote: 'It is strange how I resemble myself', it seems I still did not know how to consider that something that defines the differences, or certain differences, between the things we do" [Rossi 1989, p. 244].

"But it is this love for collecting that underlines the separation, the fragmentation of things without any further possibility for relationships, where distances become insurmountable" [Moschini 1979, p. 8].

Not only *A Scientific Autobiography*, in developing themes already addressed by Rossi in other writings, also speaks implicitly of survey drawing, electing it as the medium of a renewed synergistic relationship between the new and the ancient.

"Finally, any statement of the relationship between new buildings and the pre-existing configuration of the town and its architecture is more than a mere correlation between different qualities and quantities. (The attempt to discover that relationship in external facts stems from a mechanical point of view). Any such statement to be capable of affording a solution to more general problems, must be generated from within the project according to the limits of the theme developed" [Rossi 1976].

On the other hand, "how can one measure buildings, if an amphitheater can become a city, and a theater a house?" [Rossi 1981a, p. 77]. And, above all, how can one measure time?

"The double meaning of the Italian word *tempo*, which signifies both atmosphere and chronology, is a principle that presides over every construction; this is the double meaning of energy that I now see clearly in architecture, as well as in other technics or arts. In my first book, *The Architecture of the City*, I identified this precise problem with the relation between form and function: form persists and comes to preside over a built work in a world where functions continually become modified; and in form, material is modified. The material of a bell is transformed into a cannon ball; the form of an amphitheater into that of a city; the form of a city into a palace. [Rossi 1976, p. 1]"

"I have always known that architecture was determined by the hour and the event; and it was this hour that I sought in vain, confusing it with nostalgia, the countryside, summer: it was an hour of suspension, the mythical *cinco de la tarde* of Seville, but also the hour of the railroad timetable, of the end of the lesson, of dawn. I loved the railroad timetable, and one of the books I have read most attentively is the timetable for the Swiss railroads. This is a volume written entirely in small, precious characters, where the world intersects the black typography, where trains, buses, steamers, and ferries carry us from east to west, and where a few pages, the most mysterious ones, contain places and distances shaded pale rose. Thus they brought me again to the idea of analogy, which I have always regarded as the realm of probability, of definitions that approximated the object through a kind of cross-referencing. They intersected like train switches. [Rossi 1976, pp. 80-81]"

Reading the pages of *A Scientific Autobiography*, many questions emerge. One wonders, for example, how it is possible that a book bound so closely to personal experience is still loved and devoured by such distant cultures. Just as one wonders how it is possible that, in a world dominated by

digital manipulation and automated heuristics, this small book, which places the theme of handmade drawing at its core, can still be of interest. I certainly don't know. Or perhaps I do. Because, having established a good interpersonal relationship with Aldo Rossi at the time of the construction of Piazza Nuova in Perugia, I know he had a great love for the cinema. In particular, I know that he loved the opening sequence of the film *Good Morning Babylon*, directed by the Taviani brothers, in which the old contractor Bonanno, at the end of the restoration work on the cathedral of Santa Maria Assunta in Pisa, sits solemnly on a chair and, contemplating the façade together with his workers, exclaims, enraptured: "It's a miracle!". Which is what many of us think when ad-

miring the writings, drawings and, above all, drawings-writings bequeathed to us by Aldo Rossi: "a human vision of the city, [...] that today dissolves in the daring architectural visions of Dubai" [Scully 2009, p. 13]. Perhaps because, at a time when research is suffocated by the addiction to the parametric modeling exhibitionism, we need to return to breathe the poetic freedom of handmade drawing. "I have thought of using this book to analyze my projects and writings in a continuous narrative sequence –understanding, explaining, and simultaneously redesigning them. Yet I have seen how, in writing all this down, one creates another project, which in itself contains something unforeseeable and unforeseen. I said that I have always liked things that were brought to

a conclusion, and that every experience has always seemed conclusive to me: I have always felt that I was making something that would permanently exhaust my creativity. But always this possibility of conclusion has escaped me, even though an autobiography or an ordering of one's work might well be such a decisive occasion. Other memories, other motives have come into view, modifying the original project which is still very dear to me. Thus, this book is perhaps simply the history of a project, and like every project, it must be conclusive in some way, even if only so that it can be repeated with slight variations or displacements, or assimilated into new projects, new places, and new techniques –other forms of which we always catch a glimpse in life [Rossi 1981a, p. 84].

Author

Paolo Belardi, Department of Civil and Environmental Engineering, University of Perugia, paolo.belardi@unipg.it

Reference list

- Dal Co, F. (1999). *Aldo Rossi. I quaderni azzurri 1968-1992*. Milano: Electa/The Gehry Research Institute.
- Ferlenga, A. (1999). *Aldo Rossi tutte le opere*. Milano: Electa.
- Koolhaas, R., Mau, B. (1998). *S, M, L, XL*. New York: Monacelli Press.
- Leoni, G. (2004). Intervista a Gianni Braghieri. In *d'Architettura*, XIV, 23, pp. 120-125.
- Marini, S. (2017). L'architettura dell'autobiografia scientifica. In *Engramma*, n. 150, <http://www.egramma.it/eOS/index.php?id_articolo=3279> (accessed 2019, April 24).
- Moschini, F. (1979). Ora tutto questo è perduto. Moschini, F. (a cura di). *Aldo Rossi. Progetti e disegni 1962-1979*, pp. 7-11. Firenze: Centro Di.
- Planck, M. (1948). *Wissenschaftliche Autobiographie*. Leipzig: Johann Ambrosius Barth-Verlag.
- Poletti, G. (2009). *Aldo Rossi, Autobiografia scientifica, scrittura come progetto. Indagine critica tra scrittura e progetto di architettura*. Doctoral Thesis in Architectural Composition. Supervisor prof. G. Braghieri. Co-supervisor prof. G. Leoni, Alma Mater Studiorum-Università di Bologna.
- Poletti, G. (2011). *L'Autobiografia scientifica di Aldo Rossi. Un'indagine critica tra scrittura e progetto di architettura*. Milano: Bruno Mondadori.
- Portoghesi, P. (1999). I disegni di Aldo Rossi. "Cara architettura!". Brandolisio, M., da Pozzo, G., Scheurer, M., Tadini, M. (a cura di). *Aldo Rossi: disegni 1990-1997*, pp. 6-21. Milano: Federico Motta Editore.
- Posocco, P., Radicchio, G., Rakowitz, G. (a cura di). (1998). *Scritti su Aldo Rossi. «Care architetture»*. Torino-Londra-Venezia: Umberto Allemandi.
- Rossi, A. (1966). *L'architettura della città*. Padova: Marsilio.
- Rossi, A. (1976). Thoughts About My Recent Work. In *a+u Architecture and Urbanism*, No. 65, p. 83.
- Rossi, A. (1981a). *A Scientific Autobiography*. Cambridge (Mass.)-London: The MIT Press.
- Rossi, A. (1981b). Premessa. Braghieri G. (a cura di). *Aldo Rossi*, pp. 6-7. Bologna: Nicola Zanichelli Editore.
- Rossi, A. (1989). Le distanze invisibili. Ciucci G. (a cura di). *L'architettura italiana oggi. Racconto di una generazione*, pp. 237-246. Roma-Bari: Editori Laterza.
- Rossi, A. (1990). *Autobiografia scientifica*. Parma: Pratiche Editrice.
- Rossi, A. (1999). *Autobiografia scientifica*. Milano: Nuove Pratiche Editrice.
- Rossi, A. (2009). *Autobiografia scientifica*. Milano: il Saggiatore.
- Rossi, V. (2009). Crescendo. In Rossi A. 2009, pp. 11-12.
- Scully, V. (2009). Missing Rossi. In Rossi A. 2009, pp. 13-14.