

Introduction to *Life, Art, and Mysticism*

WALTER P. VAN STIGT

1 Introduction Signs of human weakness in a hero, the naive religious beliefs of great scholars or extreme dissent from established opinion and behavior are often a cause of disappointment or embarrassment to their admirers. In the hagiographic tradition of biography such imperfections were deemed to detract from the genius of the hero and conveniently forgotten; biography turned into an unreal sum-total of respectable and admirable qualities and actions, and posthumously published “collected works” into a selection of writings which editors considered worthy of the great man. The modern, more enlightened view of biography is more ready to admit certain darker shades for the sake of a more comprehensive portrait, especially if past unorthodoxies or weaknesses have become more acceptable and are no longer taboo. But even then, the selective principle remains at work when parts of the life and thoughts of the hero are omitted, being considered by the biographer or editor to be “irrelevant” or unmentionable as new taboos have arisen. It leaves a portrait and a record which are incomplete, unreal, and lacking in vitality. In the case of a great original thinker, the omission from his collected works of controversial or “irrelevant” material deprives the reader of valuable insight into the background and sources of his ideas.

Brouwer’s *Life, Art and Mysticism* is the ideological manifesto of one of the greatest mathematical philosophers of this century. It is a seemingly contradictory declaration of romantic rebellion against rationalism and science by a man who brought constructivist rigor to mathematical and logical practice; the emotional plea of a fanatical environmentalist for a return to ‘nature’, a defiant call to reject the formal trappings of society arising from a deep resentment of authority and of the intellectual and social aspects of the human make-up. The intellect is unmasked as the source of all evil, human company as a distraction, and every attempt at communicating with fellow beings as fatally flawed. In particular the company of women is branded as dangerous and degrading, and women themselves as a species of lower order. Long drawn-out passages spell out the evils of science and human interference in nature, the failings of communication and language and the lowly role of women. Man’s only salvation is to be found in withdrawal from the sophistication of modern society into a solitary, simple life with ‘nature’ and into the contemplative thought-world of his own mind.

It is not surprising that *Life, Art and Mysticism* presented a problem to the editors of Brouwer's *Collected Works* [2], in particular to Heyting who had undertaken to edit Brouwer's foundational work. Heyting was one of Brouwer's most loyal students; he kept the cause of *intuitionism* alive when Brouwer withdrew into "silence," albeit with a change of emphasis. When in a discussion in 1968 on the Brouwer bibliography I first mentioned *Life, Art and Mysticism*, Heyting seemed rather embarrassed and dismissed "that booklet" as "quite irrelevant...a youthful aberration...better forgotten." He admitted he had not read it but knew of its outrageous content. Suggestions that it should be included in the *Collected Works* were rejected out of hand. Further arguments in my Ph.D. thesis, *Brouwer's Intuitionism* [5], detailing the relevance of the work for an understanding of Brouwer's fundamental notions and assumptions could only persuade him to include a selection of relevant passages. I was pleased to provide the English translation of the parts selected, but felt that *Life, Art and Mysticism*, complete and unexpurgated, should have been given its rightful place in the *Collected Works* [2]. Moreover, its main importance derives solely from its relation to its author and his other foundational work. By itself and dissociated from its author, *Life, Art and Mysticism* has only some historical significance, reflecting a late-romantic and antirationalistic mood among the intelligentsia of The Netherlands at the turn of the century and a male chauvinist, antisocialist tendency among students of Amsterdam University at the time. A separate reissue of *Life, Art and Mysticism* weakens this all-important link with Brouwer's other work; it could also be wrongly interpreted: part of a modern trend to debunk the great and famous by sensational disclosure of their private lives and thoughts.

The justification of a republication of *Life, Art and Mysticism* in English translation is based on the importance of the work for an understanding of the man Brouwer, his *lebensanschauung* and his philosophy of mathematics. Access so far has been restricted; it was written in Dutch and only a few copies of the original can still be found. The importance Brouwer himself attached to his *Life, Art and Mysticism* can be gauged from the facts surrounding the writing and publication and his subsequent backing. It can hardly be described as a "youthful aberration": it was written in 1905, at the same time that Brouwer was working on his doctoral thesis, his epoch-making *Foundations of Mathematics*. The strong views expressed on a wide range of subjects are reinforced in *The Foundations*, especially in its first version rejected by his supervisor. Far from disowning *Life, Art and Mysticism*, Brouwer promoted and backed it all his life. In 1916, when he had established an international reputation as one of the greatest topologists and secured himself a professorship at Amsterdam University, he promoted the booklet in a series of lectures at the *Signific Circle*. Frederik van Eeden, a poet of national standing, a friend and co-founder of the Circle, published a series of five substantial articles on "this Mighty Brew (Een Machtig Brouwsel!)" [4] in one of the national papers. Brouwer further made various attempts to have it republished, one for an English translation as late as 1964. He proudly mentions it in his entry for *Who's Who* [3] as one of the two books he has written.

Brouwer's method of philosophical exploration is genetic: it searches for the ultimate nature of things and human activity in their origins, the processes that brought them into being. In [5] I have argued that the "genetic" approach is particularly appropriate for an investigation in his intuitionism, that most if not all his intuitionist con-

cepts and innovations follow naturally from his conception of mathematics, indeed that his intuitionism is primarily a philosophy of mathematics, and that in turn the origin of his philosophy can be traced to the man Brouwer, his character and *weltanschauung*. The central thesis of this philosophy is his characterization of mathematics as the whole of man's constructive thought-activity on the basis of the time intuition alone.

Accepting the mind's monopoly of thought, Brouwer draws his radical conclusion that the origin and seat of mathematics is to be found exclusively in the mind of the individual. The abstraction of the individual mind acting on and with the elements of the primordial intuition alone is referred to as "the subject," and mathematics is identified with "the life of the subject": a mental process, man-made and time-bound. Man's interpretation of the exterior world is a mathematical application: "things" and "the causal coherence" of things no more than "sequences of sequences." Acting upon such causal knowledge is "cunning" and condemned by Brouwer as "not beautiful," that is, immoral. Other human beings are mere "things," part of "the exterior world of the subject," the existence of other minds, mere hypothesis. There is no basis for direct communication with other minds. Language, a system of physical signs assigned by the subject to his existing mathematical constructs, is essentially private, an alien medium, and an imperfect carrier of thought. Its inadequacy is further compounded when it is used as a means of communication with other individuals. Logic is a mathematical application, a causal and post factum investigation of the language of mathematics; as such it cannot claim any role in the foundation of mathematics. Moreover, it is essentially unreliable.

Brouwer's arguments in interpreting mathematics, science, language, and logic have the simplicity and rigor so characteristic of his topological work. Undoubtedly, there are also clear signs of personal hang-ups and moral bias in his "philosophical writings" such as *The Unreliability of the Principles of Logic* (pp. 107–111 in [2]), *Will, Knowledge and Speech* (pp. 418–431 in [5]), *Consciousness, Philosophy and Mathematics* (pp. 480–494 in [2]), and especially his first draft of *The Foundations of Mathematics* (pp. 11–101 in [2]). They were the main reasons for the rejection of the latter by his supervisor, who wrote in exasperation: "Honestly Brouwer, I cannot accept it in its present form...it is all interwoven with a kind of pessimism and mystical attitudes to life which is not mathematics and has nothing to do with mathematics...One could totally disagree with you on these points and still share your ideas about the foundations of mathematics" (pp. 494 in [5]). In the development of philosophical argument, bias and personal beliefs obviously have no place. They are, however, very relevant to the fundamental tenet on which the whole of a philosophy is based. In revolt against rationalism—the critique of reason by reason itself—the nineteenth century ideologists acknowledged that the basic disciplines of metaphysics, epistemology, and ethics can only be founded on accepted posits or commitments. According to Fichte these commitments are made ultimately on temperamental ground, "as suits the kind of man one is." Brouwer's fundamental intuitionist tenet is the individual mind's monopoly of thought. He sought the justification of reason in the self-contained world of individual consciousness, the self, with its faculty of grasping reality directly and creating thought. The concentration of his search in 'the self', ignoring other sources such as the social aspects of the human make-up, was

certainly due to “the kind of man” Brouwer was. It is in this context that *Life, Art and Mysticism* is particularly illuminating. More than in any other of his writings, he exposes himself as someone self-obsessed, driven by resentment against established authority, human company, and social conventions. He expresses his deeply felt beliefs forcefully and unreservedly, almost relishing the outrage and ridicule his pronouncements would provoke. His reflections and outbursts reveal emotions, attitudes, and views which clearly moved him toward the radical subjective posits of his intuitionist philosophy and predetermined his negative stance on science, language, and logic.

The individual self is the dominant figure of *Life, Art and Mysticism*; indeed, the whole of the action is a one-man show, the self being the sole actor, universe, and audience, or as Brouwer later put it “a soliloquy.” It reads like “a morality,” the author, a latter day *Everyman* or *Pilgrim*, describing his progress through life, exiled from his lost paradise, keeping himself through self-exhortation on the right path toward the “freed life.” The original, prerational state of innocence, living in harmony with nature, is lost in a fateful act, his “downfall through the intellect.” The birth of reason in Brouwer’s *Life, Art and Mysticism* has elements of the Christian original sin and the act of re-incarnation of the Hindu and Buddhist karma. The great evils distracting the pilgrim self from his return to his solitary free destiny are the intellect and human company. The curse of the intellect is its cunning power to dominate and destroy nature by exploiting its weak sides. Science in its various forms distracts the self from his righteous path to self-contemplation by the lure of possession; it is a treacherous misrepresentation of nature and leads to its destruction. The danger presented by other human beings does not lie in their separate existence but in their interaction with the self. The author of *Life, Art and Mysticism* does not show any interest in the *self in others* or their welfare. At the naive stage of innocence they are part of nature to which the self responds spontaneously. The rot sets in at the rational stage, when human beings begin to interact, try to influence one another. The various aspects of human interaction, such as social organization, authority, and social intercourse, are demonstrations of the evil power of man’s cunning intellect. Language in particular is described as its evil creation, no more than an instrument for the imposition of one’s will on others. This condemnation of human subordination is conveniently forgotten when he describes the inevitable karma of the self’s female companion, wholly subordinate to the good and welfare of the self. Woman is a danger to the self, who is at least by implication, essentially male. In her sexual directedness toward man and to procreation she epitomizes humanity in all its social aspects; moreover, her sexual attraction distracts the self from his destiny in solitary contemplation.

As in Brouwer’s intuitionist campaign, much of the action and rhetoric of *Life, Art and Mysticism* concerns the “negative issues,” exposing the real and imagined wrongs of established opinion and practice. On the positive side, however, there is an equally strong emphasis on the spiritual part of the human make-up and the individuality of mind as the real source of knowledge and the basis of morality. The self is identified with “consciousness” and the “soul.” It is a spiritual being. In line with Christian tradition the soul is not bound by time and space; it is temporarily imprisoned in a body while passing through “this sad world.” Brouwer confesses that “one cannot get further or reason about it.” He accepts God as the necessary

justification of the self, but a personal God, the only other being in the universe of the self. In his *Profession of Faith*, written at the age of sixteen and read out in church on the occasion of his Confirmation he declares: "My weltanschauung accepts my self and my God as the only living beings...my God, my Master...something independent of me, something which like me lives and which stands above me and under me...the originator of my life and outside my life." Church religion and bourgeois morality are part of the social organization, "good for the stupid masses to keep them in respectful ignorance under the thumb of a power-thirsty church." His role models are the medieval mystics, Christian as well as Buddhist and Hindu. Their attraction lies in their reliance on personal experience, their acceptance of 'inner vision' as their supreme authority, transcending the external authority of an established orthodox church. Moreover, these "spiritual anarchists" were contemptuous of the rational argumentation and sophistry of professional theologians; they expressed themselves in simple allegory, well aware that language can never capture spiritual values adequately and precisely. Brouwer was particularly impressed by the lack of logic in their writings: "Nowhere in mysticism is there a thread or appropriate sequence; every sentence stands by itself and does not need another to precede or follow it" (p. 76). The language and imagery of mysticism were felt to be especially appropriate in expressing elements of his own metaphysical reflections and were adopted in his intuitionist-philosophical writings, terms such as 'consciousness in its deepest home', 'stillness', 'insight', 'inner vision', 'introspection', 'externalization', and similar terms.

Undoubtedly, much of *Life, Art and Mysticism* can be described as naive and trivial, the immature outpourings of an arrogant, angry young man. Some of his views, no doubt, are outrageous and offensive to liberal and politically correct opinion. They reveal the less attractive side of Brouwer's character, but one that is an integral part of his personality and therefore relevant for an understanding of the man and his ideas. It can even be argued that such character features are an indispensable ingredient in the make-up of the human original genius. Originality requires an independence of thought, a willingness to question established opinion; unorthodoxy and originality are inseparable partners. Controversial ideas are an integral part of his individual thought-world: a living organism of ideas, intuitions, and emotions. It is from this organism that the grand designs of the human genius grow, often from the humble seed of an irrational hunch or even prejudice.

LIFE, ART, AND MYSTICISM—HISTORICAL NOTES Luitzen Egbertus Jan Brouwer was born at Overschie, Holland on February 27, 1881. His remarkable and wide-ranging talents were in evidence from early childhood. At the age of sixteen he had qualified with distinction for university entrance in arts as well as in science. He registered at Amsterdam University in 1897 to read mathematics and science and graduated cum laude in June 1904.

Brouwer did not enjoy his student years. The mathematics course which concentrated on applications and did not concern itself with the "deeper foundational issues" left him bored and disillusioned. There were illnesses, real and imaginary, and long periods of depression which drove him to the point of abandoning his studies. Neither did student society with its loud affectation appeal to him. He preferred the isolation of his own island universe, moving from one address to another in constant search

for the perfect sanctuary. The only human company he seemed to enjoy was that of poet friends such as Adama van Scheltema, Lockhorst, and Plasschaert and of the lady to whom he became engaged in 1900, Elizabeth de Hol. Although twelve years older than himself “her Memlinck face” appealed to Brouwer. She was an established pharmacist, and was calm, loyal, and undemanding. She also provided the financial and emotional stability he so badly needed. The marriage took place in August 1904, a few months before the publication of *Life, Art and Mysticism*. At the same time Brouwer went ahead with plans for his “Cabin,” a small cottage in the woods some twenty miles outside Amsterdam, where he settled in the early summer of 1905.

Having graduated, Brouwer felt at last free to pursue the subject of his real interest: the philosophical study of the fundamental issues concerning human nature, in particular the apparently conflicting metaphysical values of truth and beauty. ‘Truth’ to him was the reality of consciousness and reasoning, the latter essentially mathematical, and ‘beauty’, that is, goodness, identified with naiveté, the very absence of ‘cunningness’, that is, calculated reasoning. For his doctoral dissertation Brouwer decided to concentrate his enquiry on the nature of reasoning and mathematics and write a second book on “morality.” However, being so intimately bound up with the nature of mathematics, the moral issue could not entirely be isolated, as was reflected in the original title of the dissertation, *The Value of Mathematics*. In the later, submitted plan of the thesis, then called *The Foundations of Mathematics*, two of the six chapters were to deal with “The Value of Mathematics for Society” and “The Value of Mathematics for the Individual.” The last three chapters never materialized.

The immediate cause of Brouwer taking a public stand on the “moral” issue in the autumn of 1904 was the appearance of Bolland on the national scene. G. J. P. J. Bolland, a secondary teacher of English, turned philosopher, was appointed to the Chair of Philosophy at Leiden University in 1896. An arch-Hegelian and great orator, Bolland started a national campaign to “bring philosophy to the educated citizen,” promoting his book *Pure Reason, a Book for the Friends of Wisdom* [1]. Brouwer was at first intrigued by Bolland. His attacks on hedonism and materialism appealed to him, but Bolland’s extreme version of rationalism, his populism and his arrogance were utterly repellent and stirred Brouwer into action. In a series of scathing articles in *Propria Cures*, the student magazine of Amsterdam University, he ridiculed “the Thundering Cloud of invective, the Platonic King, the Great Treasurer of Fireworks, the ‘Tolerant’ Exterminator of the Free...the Vesuvius of Pure Reason, etc.” and denounced his version of a platonic universe independent of the individual mind, the sovereignty and power of reason and his code of bourgeois morality. Brouwer’s articles contributed to the disruption of Bolland’s lecture at Amsterdam on October 7, 1904 by students of Amsterdam University and to “the riot” that followed. Having established himself as the champion challenger of Bolland, Brouwer was invited by the *Society of Free Study* to give a series of lectures in reply to Bolland’s lecture course in Delft. He accepted the invitation and spent the winter of 1904 working on his *Delft Lectures*. Not surprisingly, these lectures aroused further controversy. In a letter to his friend Adema van Scheltema, Brouwer records with some relish the reaction of his female audience: “You should have seen how during the second interval some girls, devastated and in tears, screamed that they could not stand any more of it, and asked to be taken home. Your nostrils would have quivered, and

snorting with hatred you would have felt yourself growing to the height of the ceiling” (7 April 1905).¹ The reaction of Professor Korteweg, Brouwer’s doctoral supervisor, was more diplomatic but equally damning. On receipt of a complimentary copy he wrote: “I paged through it, but it is not the kind of reading that appeals to me nor that is good for me. True, close to us there are unfathomable abysses, but I don’t like walking close to the edge. It makes me dizzy and less capable for the task in front of me. Whether it is good for you I very much doubt. I’d rather see you walk other paths, although even there I find it difficult to follow you, especially where you dig so deep down to fundamentals.”² The *Delft Lectures* were published in March 1905 under the title *Life, Art and Mysticism*.

NOTES

1. Brouwer’s letters to Adama van Scheltema have been published in van Dalen, D., *L. E. J. Brouwer C. S. Adama van Scheltema, Droeve snaar, vriend van mij*, Uitgeverij de Arbeiderspers, Amsterdam, 1984.
2. Most of the Brouwer-Korteweg correspondence is part of the Korteweg Nachlass in the Library of the University of Amsterdam. Letters concerning Brouwer’s doctoral thesis have been published in Van Stigt[5], pp. 488–505. This letter from Korteweg to Brouwer dated 13 May 1905 has not yet been published. It reads:

Dear Brouwer,
 You are certainly not mistaken in assuming that I take an interest in you and therefore appreciate your sending me a copy of your booklet. Whether I shall read it? Well, I paged through it, but it is not the kind of reading that appeals to me nor that is good for me. True, close to us there are unfathomable abysses, but I don’t like walking close to the edge. It makes me dizzy and less capable for the task in front of me. Whether it is good for you I very much doubt. I’d rather see you walk other paths, although even there I find it difficult to follow you, especially where you dig so deep down to fundamentals.
 Friendly greetings,
 Yours,
 D. J. Korteweg

REFERENCES

- [1] Bolland, G. J. P. J., *Zuivere Rede, een boek voor vrienden der wijsheid*, Adriani, Leiden, 1904. 2
- [2] Brouwer, L. E. J., *Collected Works*, North-Holland, Amsterdam, 1975. Zbl 0311.01021 MR 58:27140 1, 1, 1, 1, 1
- [3] *Who’s Who*, A. & C. Black, London, 1960. 1
- [4] Van Eeden, F., “Een Machtig Brouwsel (A Mighty Brew)” in *De Groene Amsterdammer* vol. 8 (1916), Amsterdam. 1
- [5] Van Stigt, W. P., *Brouwer’s Intuitionism*, Ph.D. Thesis, London University, 1971. (Also published in an extended version under the same title by North-Holland, Amsterdam, 1990 [Van Stigt 1990].) Zbl 0707.03001 MR 92d:01054 1, 1, 1, 1, 2

Wolfson College
University of Oxford
email: wpvanstigt@compuserve.com