

Two mathematicians poets: Ion Barbu and Florentin Smarandache

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According to his own confession, till 25 years old Florentin Smarandache was not interested by literature, but he even scorned it. Was it a normal reaction, till a point, of the scientist (the mathematician, in this case) against the imagination's products- the arts and literature? The fact that only then he began to write could have many explanations and significance. The beginning of figures' vibration will have, however, for the mathematician Smarandache, an importance at least equal with that one of the algorithms and the figures themselves.

Another poet's confession, according to, he appealed to literature in order to be able to express his protest, is plausible; with inherent risks and adventures, the literary creation could be published (even censored and truncated), and the language of the literature was more accessible, however, than that one of the mathematics. The innate nonconformism of a Smarandache saturated by dogma, clichés and all kinds of habitudes, would certainly sent him towards mathematics in order to look for new means of expression for the renewal of the language.

Although many of the exegetes of paradox and paradoxism start their analysis from the affiliation to logic or aesthetics of this notion -"an old structure in philosophy and a matter of study in logic"(Titu Popescu), Smarandache explains unequivocally in one of his poetical manifestoes : Je suis parti des mathematiques. Proprement, j'ai ete etonne: pourquoi il existe en mathematiques des paradoxes?... pourquoi pas en litterature (...) qui parait assez ouverte, assez malleable?" In our opinion, any paradoxist have to stop before this "declaration" of the movement's founder, although the term and the notion of *paradox* are common to many fields, the author himself extending it subsequently towards other sciences: logic, semantics, enigmistic

etc. An interesting idea for our approach results from here: as well as at his famous precursor, Ion Barbu, the “discovery” of Florentin Smarandache, besides its deliberate character, seems to be previous to his creation-”an inner condition and previous to the creation”¹⁾. In the case of Barbu, the brilliant essayist Alexandru Cioranescu talked about “a treble concubinage”, referring to his treble quality of a poet, a literary critic (theorist, n.n.) and a mathematician. What would have to be told from this point about “the case Smarandache”, who is in the same time a poet, a prose writer, a playwright, a literary theorist, a philosopher (as founder of the neutrosophy), a mathematician, a painter etc. ?!

The exciting life with unforeseeable ascents and descents, like a strange sinusoid, somehow similar at the two poets, through its novelty, spectacular and exceptional nature, would have doubtless had its significant role in the originality of their creation. The relatively mediocre level of the media the child and then the young Ion Barbu lived in, would have impelled him for a noble (as an effect) compensation, in searching of “the absolute lyricism”. The frequent contradictions and paradoxes of the social life would have determined Florentin Smarandache to try (and to succeed) their conversion into poetry. The frequent loneliness of Ion Barbu was certainly one of the causes that often made him to ascend/ to sink into “the sphere of abstract serenities”, while the misunderstanding faced by Smarandache in a standardized society, hostile to the spirit emancipation and freedom, provoked him a normal reaction of adversity in his social attitude and of negation (“no”) in his literary creation plan.

A sulking and introverted nature as that of Ion Barbu could, logically, straighten and aspire only towards a somehow utopian world; to Dinu Flămănd this world reminded of Plato’s *Republic*!²⁾ The complex nature of Smarandache with his deliberate seclusions for feverish and tormenting seeking at the desk, always alternating with plunges in the immediate reality and in the middle of his fellows who neglected him, when they did not repudiate him, although he loved them from the bottom of his heart and craved for their proximity, like a child eager for the understanding and affection of some parents who don’t love him! This is a multiplied paradox that will dictate to Smarandache his aesthetic way to approaching.

In their relative (with moments of... absolute) in-adaptation we easily guess not a handicap of a psycho-social nature, but a displayed nonconformism of an *avowed* verticality, a rectitude that we can find only at the strong natures and brave people

The mathematical qualities appear for both at secondary school already, manifesting themselves through contributions with problems and solutions in *The mathematical newspaper*. The literary debut of Ion Barbu was at 22 years old and that of Smarandache when he was 25. Thus, the difference of age when the two poets affirm themselves in both fields, mathematical and literary, is insignificant. They have also a commune idol in mathematics- Gauss, whom they often invoke.

In spite of their common inadaptation, a feature distinguishes them clearly: to the relatively untidy spirit of Barbu, Smarandache opposes punctiliousness and an order almost soldierly, benefic for his creativity. The rebel from Balcesti-Gallup, an extroverted and active nature, will use the writing like a weapon, for a multiple and prolific protest against the ugliness of world and life, his protest reaching even “the upper spheres”. Both of them, once affirmed (also) as poets, will oscillate all life long between their two passions- mathematics and literature-, in case of Ion Barbu the “loops of oscillation” being bigger, as a rule.

The mathematics influenced on different degree and way the literary creation of the two poets. Thus, for Ion Barbu we have to mention from the beginning the subtle and exact observation of Alexandru Cioranescu: ”The results (as regards the barbian poetry exegetics, n.n.) until now are unsatisfactory. On the one hand the literary critics who did not pass through mathematics could not detect but an elementary and heavy scientific vocabulary (G. Calinescu,

Istoria...). On the other hand the mathematicians foray in the literary critique assured us that Barbu's poetical art is a system of symbols that make cognoscible the world of spirit through a superior geometry....But the postulate proposed is not also demonstrated³⁾. The observation of the famous literary critic and historian is an essential one and it is followed by a deep and subtle analysis of barbian work. Following Tudor Vianu, this exegetics, in which the writer Al. Cioranescu meets happily the scientist with the same name, is the most complete, pertinent and nuance monography about the man and the writer Ion Barbu, a model of how to apply the interdisciplinarity to analyzing a literary work. This is what had done before C. M. Popa and Titu Popescu as concerns the paradoxism, less (or in a less measure) about the mathematics implication in this movement.

The influence of the mathematics -essential professional field- in the creation of the two writers has many similitudes, as we have seen, especially as regards their *evolution*, but there are also many distinctions, some of them essentially.

Thus, at Ion Barbu, the mathematics, especially the geometry, began to join ,at a moment, the art thinking, particularly the poetry, in an ascending complementarity, finally resulting an exciting conception about poetry, brilliantly applied to a unique poetic work-" a second game more pure" of the objective reality. With a partly improper term and incomplete, anyway, Ion Barbu was (and continues to be) considered to us the representative of the current named *hermetism*. As well as other denominations from the literary terminology, at an attentive analysis, also this one proves to be insufficient, because it considers the poetic style -of Gongora, Lully, Mallarme or Barbu, no matter- only from the point of inaccessibility, a disputable criterion, especially in the conditions of the postmodernism. In fact, it is about an effort of concentration and bringing to essence of the poetry, compared with that of Mallarme, in poetry, and with that succeeded by Brancusi, in sculpture.

We will try, in the case of Florentin Smarandache, not to fall in the trap observed by Cioranescu in which have fell many of the barbian work's researchers: to look for the influence of the mathematics in the terminology used by the founder of paradoxism in titles of volumes and poems, names of characters, in the language of some commentaries etc⁴⁾.

An obvious distinction between the two mathematicians poets refers to a certain accessibility or their method and ,implicitly, their style :at Florentin Smarandache everything is clearly exposed in the manifestoes of the movement, that could be appreciated, simplifying, as a transfer of the paradoxes from mathematics to literature and, eventually, a transfer of "the reduction to absurd " method. The other figures of speech (hard contradictions, antithesis, puns etc.)belong to other fields and are only...paradoxical (full of strange, absurd contradictions).

The relative abundant mathematical terminology used by Smarandache in his creation, especially in poetry and drama, is somehow outside the ideation and belongs more to the language used. In this sense, the French writer Jean Michel Levenard was right when he talked about the effort of the mathematician Smarandache for the literary language renewal "en le monde autonome et quasiment vierge dans cet usage des mathematiques"⁵⁾. This is one of the sources of originality for paradoxism's founder: at once with the paradoxes- who would represent the fundamental substance of the movement, he took from mathematics almost everything that could have been taken, as vocabulary, and transferring it in a deliberate and inspired way in literature. So he enriched with expressions and new words the world of the used language, in strange relations full of colors and diversity.

At a strictly "statistical" analysis of the mathematical terms or the mathematical meanings of some words in the work of Ion Barbu, it comes out that those are pretty a few: *groups, totality, line, triangle, heptagon, unit* and a few others. At Smarandache words like these are met by the hundreds! "The mathematical" of the poetry of Ion Barbu is an essential... problem and merges

with the poetry itself. As well as in mathematics, Ion Barbu came in poetry to “abstract generalizations with tendencies towards unity” (Al.Cioranescu). Famous mathematician, talking about the organization and the orientation of the mathematical research, Dan Barbilian (alias Ion Barbu) asserted that these are “contiguous with the poetical functions which, approaching disjunctive elements through metaphor, unfolds the identical structure of the sensitive universe. In the same way, through axiomatic foundation or theoretical-grouping, the mathematics assimilate the varied doctrines and serve the purpose to teach about the unity of the moral universe of the concepts. In this way they stop to be a laborious barbarousness but, participating to the fulfillment of the world’s harmonious image, become the new humanism”⁶⁾.

Thus, after the own Ion Barbu’s avowal the poetry has to represent, as well as the mathematics, a principle and an ordering method for universe, serving to its harmony and unity. The conception was marvelously applied in the famous *Second game* (“From time inferred”) (Joc secund, “Din ceas dedus”). Ion Barbu’s merit and contribution to the great poetry of the world is that he discovered that in a high and bright place the mathematics (especially the geometry) meets the poetry, that the abstract god of the world’s order, unity and harmony, imagined to have the forehead of a mathematician and the heart of a poet has (must to have) two foreheads and two hearts named *the Mathematics and the Poetry!*

At Smarandache the two fields manifest themselves in a unique sense, from mathematics towards literature, even though Charles Ashbacher considered the movement “a combination of literature and mathematics”, and the purpose of the mathematical terms and notions used is not to order but to explain the world and the life. *To put in harmony* but not to agree with this world, because the paradoxist writer’s dissatisfaction, revolt and protest are present in all his creations. Although the essayist Marian Barbu considers that it could be talked about a certain “mathematization” of the playwright Smarandache’s conception, through the way of thinking the structure of the drama from **Metahistory**. The absolute reached by Smarandache is different from that of Ion Barbu: it belongs, in intention, to the freedom of creation without hindrance and in achievement it is expressed through the aspiration towards minus infinite. The negative is considered here in the sense of the *non-* and *anti-*, sense analyzed and accepted by almost all of the paradoxism’s/smarandachism’s exegetes. The summit of Barbu becomes the abyss of Smarandache! We could assert without fear of exaggeration that the two poets met in this point each other: the summit is the “crest” from *Second game* and its reflection on water-“the bottom of this calm crest”- could be assimilated with the paradoxist’s opposition/negation.

Both of the founders-writers reached a critical point in their (poetical, firstly) creation, this expressing for both the attainment of the absolute. At Barbu (as well as others European hermetics) this one has a modern structure with a Platonic essence, because he places himself on the absolute beauty behalf, that could be framed within the general-positive principles of philosophy. The absolute reached by Smarandache belongs to the postmodernist orientations (see the chapter *Paradoxism and postmodernism* in this book) through its position in a certain aesthetics of the ugliness and a *constructive destructionism* of the antiliterature. Otherwise we met also at Smarandache, enough poems in which “the *second* interpretation does not exclude the apparent one... examples when the literature and the *antiliterature* do not exclude each other, though they have been provoked simultaneously”⁸⁾.

Reaching the absolute height of the poetry, Barbu reacts mallarmean through a hidden sadness, that appears like a combination of despair and fright of that one who “has seen ideas”. “The azure! Azure!...” exclaimed Mallarme in *Je suis hante (I am haunted)*; “latent nadir!” writes Barbu in *Second play*, while Smarandache talks about “l’armonie celeste de l’inharmonie”(*Sans moi qui deviandra la poesie?*). He reaches his extreme limits in the volume **Nonpoems**, where the antiliterature not only has reached its extreme point, the (non)absolute, but also has passed

beyond this limit, transforming the literature in something else: informatics, graphics, philosophy etc.(blank pages, signs, drawings etc.).

There are significant and interesting through their relative similitude, the reactions of the three poets, once reached the poetic absolute, as every of them understood and conceived it: Mallarme was “visited” by the suicide ghost, Barbu is seized with “a incurable, lucid sadness”(Dinu Flamand) and will plunge again in “the laborious barbarousness” of the mathematics, nostalgically aspiring towards a poetry of “things that are seen”(Ion Barbu). It can be said that his wish, that he couldn’t and hadn’t enough time to achieve, have been applied after almost half of a century by Florentin Smarandache. His lucidity and artistic intelligence helped him to intuit a certain dangerous deadlock where **The nonpoems** had brought him, because the nonliterary fields on which his poetry had plunged had not served the cause anymore. Caliope, Euterpe and Talia claimed him from other muses that seduced him with mermaid cunning! And then he came back from “beyond”, from a literary way that seemed plugged, beginning to explore on horizontal, in order to apply his paradoxist manifestoes to other genres and species, in an impressive amplitude.

We should tell that Ion Barbu returned to his first love to which he remained faithfully all the rest of his life. But it would be partly inaccurately, as in his conception “the mathematics and the poetry use both of them a symbolist language and consequently cryptic for uninitiated, thanks to it being possible the generalization of some observations”⁹⁾. In mathematical language, when certain terms -between the ones essential!- are identical in the case of two crowds, these ones seem or tend to superpose themselves and the appreciation of their different character will be doubtful/reserved.

Continuing the comparison, at Smarandache the common terms of the two spheres are fewer or do not touch essential points. This fact could be an explanation that for two decades the Paradoxism’s founder has been served with gift and passion both fields- the mathematics and the literature. His “bigamy” is a benefic and fertile one, because “the successors” have already reached an international notoriousness.

Unlike Barbu who betrayed in a way asserting with a certain occasion that he esteemed himself “much as a practician of the mathematics and only in the measure in what his poetry reminds of geometry”¹⁰⁾, Smarandache will remain faithfully perhaps all his life his two great loves. Perhaps just because in his conception, method and vision they are distinct enough, excepting, certainly, the paradoxes - common to both oh them. Talking about the oscillation of some poets like Paul Valery and Ion Barbu between poetry and mathematics, Alexandru Cioranescu rightly observed that at these ones “the unequilibrium of the balances” is obvious. At Smarandache , in spite of some little and passing exceptions, this “balance” permanently tends to equilibrium, to ”the play with equal possibilities on the both tables”(Al. Cioranescu). And - paradoxically, again!-just at the same time, we would allow us to complete. Here are a few patterns in which at least three fields join: The mathematics- through symbolistic and language, the poetry- through metaphor and the puzzles- through puns and the aspect of rebusist definitions:

Symbol of (Leopold) Kroneker = L.K
Kolmogorov’s space = URSS
Language of Chomsky = AMERICAN
Axiom of separation = DIVORCE
Close set = PRISONERS
Catastrophic point = ATOM BOMB”¹¹⁾ etc.

The assertion of Cioranescu is successfully sustained with multiple performances- parallel with the literary ones- of the mathematician Florentin Smarandache: publication in USA from 1990 of “Smarandache Function Journal” review (since 1996- “Smarandache Notions Journal”); in august 1997, at Craiova, under the aegis of UNESCO, was organized the first international conference on the Smarandache notions in the theory of numbers; in 1997 (at the Chair in Algebra of the State University from Moldova) he obtained the title of doctor in mathematics with the thesis **New functions in the theory of numbers**; about the Smarandache function have already been written books (Charles Ashbacher, K. Kashihara etc.) and countless studies and articles and at the University from Craiova (Romania) was formed a research group concerning this field.

As a world wide recognition of the Romanian mathematician’s merits, *CRS Concise Encyclopedia of Mathematics* by Eric W. Weistein, published at the prestigious American publishing house CRC Press, Boca Raton -Florida, includes between the mathematical notions some of Romanian origin, among that: the function Smarandache , the sequences (41) Smarandache, the constants Smarandache, the paradox Smarandache etc.

As well as his famous precursor, he emphasized the philosophical connotations of the mathematics; but he went further on founding interferential sciences and notions. Thus, founding “the neutrosophy”-a generalization of Hegel’s dialectics, the mathematician Smarandache discovered subsequently the neutrosophic logic, the neutrosophic crowd, the neutrosophic probability and the neutrosophic statistics.

As regards the formal aspect of the problem, it reflects - not at all paradoxically!- the content: ”The construction, this finality and economy!” - it was one of the obsessions of Barbu, in other words the linguistic form in what he was going to pour the idea. Corresponding to that, Smarandache’s paradoxism has “the nostalgia of the disciplinary rigors - programme, manifesto, theoretical insitences, express delimitations”¹²). From this point of view the two founders - of the Romanian hermetism and of the international paradoxism - meet each other again, because their vocation as “constructors” is evidently, their literary approaches being voluntarily, deliberately. Both of them have been concerned until obsession about the poetry stage and condition and they made efforts to detach themselves of the poetical chorus that were acting in their times. They might have been sounded in ears the ironical/gentle verse of their brilliant fellow countryman: ”My dears, this path has been walked before!”

The smarandachian “construction” has (also) from this point of view stateliness in amplitude, because its system, baroque-postmodernist in essence, allows successive ads, as a tree that grows every year. The barbian hermetic building shows outwardly a concision of a modern temple of the Poetry and a simplicity of lines that could cheat the superficial or uninitiated onlooker/reader; the hyperborean coldness of the marbles bricks of words, recalls that one of the high icy summits, accessible only for strong nature or choice minds.

The postmodernism of Smarandache (whom we dedicated a separate chapter in this book) allows the author to bring down the poetry on street, to “democratize” (again!) the language, to render (volunteer!) expressiveness to some words and expressions that seemed “fallen” from the condition of messengers of some sentiments and ideas, because of a too frequent utilization. To the bivalence of Barbu’s language, able to serve both the scientific research -the mathematics and the poetical one (Tudor Vianu), correspond at Smarandache the use of a regenerated language with paradoxes from mathematics; through an ingenious translation from quantity to quality the paradoxist alchemist turned the respective notions and terms into method, sending them afterwards towards other fields :logic, philosophy, semantics, puns etc.

As if wanting to continue Al. Cioranescu and Marian Barbu which talked about a “mathematical humanism” at Ion Barbu, in an interview with Ada Carstoiu, Florentin Smarandache advanced the notion/idea of “scientific humanism”¹³⁾.

It is a truism the assertion that in art and literature the accessibility is not a criterion; therefore we won't insist on the echoes in times of the barbian hermetism and of the “smarandachism”. More interesting appears the fact that although they have not arisen on an empty ground, each of the two writers followed his own way, detaching further on by other “competitors”. The hermetism, as such, was not invented by Barbu, its appearance is due even to Gongora, poet of the seventeenth century, and it knows periods of revival in the age of Lully, Mallarme etc. However Ion Barbu, unchallenged founder of the Romanian hermetism, which made “school” until our days (when his epigones become fewer in front of the postmodernism's attacks !), proved the first (and the only one) that there is a similitude that anytime could generate identity between the mathematical and the poetic language. He demonstrated this thing through a work unequalled until today, although small as dimensions. (It is interesting, in this sense, the point of view of Laurentiu Ulici, who considers the mathematician Ion Barbu a repressed poet. “Not only the vocation guided him towards mathematics -says him- but also the vanity of the poet refused by the poetry”¹⁴⁾.

In his creative effort, from a modern viewpoint of a profound original poetical universe, however, Ion Barbu has not successors, because “he closes an epoch without opening another one” (Nicolae Manolescu). Suits this assertion of the brilliant critic also to Florentin Smarandache? The creative possibilities opened by paradoxism seem so many and diverse, that we tend to give a negative answer to this question. Otherwise, the paradoxist movement and Smarandache himself do not conceive *ad litteram* other creations in this style, but as some new “scriptural practices, efficient and tensioned, preserving the energy resulted from the clash between opposite semantic fields” (Constantin M.Popa). From this point of view, the paradoxism has the chance of a much longer life than the barbian *hermetism*, because it may be considered having a “postmodernist channel” after Titu Popescu's expression, who situates it in a at least honorable company in the triad “modernism-postmodernism-paradoxism”¹⁵⁾.

At the same time with the essayist mentioned, we hope that the “literary history not to establish a too fast passing of the paradoxism into its own posterity”! The theoretical, but, especially, the practical possibilities of the movement, with gift applied by its founder, justify our trust and prove the paradoxism's viability.