## PAPILIAN'S ANATOMY

- celebrating six decades -

## DINU IULIU DUMITRAȘCU, CARMEN BIANCA CRIVII, IULIAN OPINCARIU

Department of Anatomy, Iuliu Hatieganu University of Medicine and Pharmacy, Cluj-Napoca, Romania

Motto: "The word cannot is not listed in the dictionary" (V. Papilian)

## Abstract

Victor Papilian was born an artist, during high school he studied music in order to become a violinist in two professional orchestras in Bucharest. Later on he enrolled in the school of medicine, being immediately attracted by anatomy. After graduating, with a briliant dissertation, he became a member of the faculty and continued to teach in his preferred field. His masters, Gh. Marinescu and Victor Babes, proposed him for the position of professor at the newly established Faculty of Medicine of Cluj.

Here he reorganized the department radically, created an anatomy museum and edited the first dissection handbook and the first Romanian anatomy (descriptive and topographic) treatise, both books received with great appreciation. He received the Romanian Academy Prize. His knowledge and skills gained him a well deserved reputation and he created a prestigious school of anatomy. He published over 250 scientific papers in national and international journals, ranging from morphology to functional, pathological and anthropological topics.

He founded the Society of Anthropology, with its own newsletter; he was elected as a member of the French Society of Anatomy. In parallel he had a rich artistic and cultural activity as writer and playwright: he was president of the Transylvanian Writers' Society, editor of a literary review, director of the Cluj theater and opera, leader of a book club and founder of a symphony orchestra.

**Keywords:** history of medicine, anatomy

Sixty years have passed since the death of professor Victor Papilian (17 June 1888 – 14 August 1956), the founder of anatomy education at the Cluj Faculty of Medicine. From a historical perspective, he appears more and more convincingly as an outstanding personality, of great originality and charm. Papilian was the youngest of the four founding fathers: Iacob Iacobovici, a docent professor trained at the Coltea Hospital of Bucharest, founder of Cluj surgery at the age of 40; Iuliu Moldovan, docent professor of Vienna, who established, at the age of 37, the department of hygiene and public health; Iuliu Hatieganu, the only one educated in Cluj, who became the head of the internal medicine clinic at the age of 36, the first

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Address for correspondence: bianca.crivii@umfcluj.ro

dean of the Cluj Faculty of Medicine and its everlasting symbol; Victor Papilian, at the age of only 31, founded the school of anatomy and was at the same time a great figure of the cultural life [1].

All of them engaged with responsibility and enthusiasm in a heroic effort, with brilliant results that would astonish even the most skeptical. They teamed with other professors of the new Dacia Superior University, to which they belonged. They were inspired by the historical moment they were living. At the course opening of 3 November 1919 Vasile Parvan said, invoking "our life's duty": 'The fraternity of our University must understand life like a battle for more thought... This thought should bear the mark of our national soul, the Romanian soul... A nation's culture is born from the junction of foreign ideologies and the national creative instinct [2].

In his memoirs Sextil Puscariu, the first rector, is pleased to mention that "even before the Peace Conference in Paris and before our borders were clearly defined, the allied and friendly states sent their officials to pay homage to the new cultural institution created in Cluj". The opening ceremony was on 2-4 February 1920 in the presence of the Royal family [1,3]. The historical moment would thus be reflected in the Academy reception speech of Lucian Blaga (1936): "For more than a hundred years we intellectuals have tried to create a major Romanian culture, in an epoch of tragic crossroads. Our efforts go in parallel with the process of our political emancipation, the formation of the state and of our whole nation".

Victor Papilian was proposed as professor of the University Committee by his masters of the Bucharest Faculty of Medicine, Gh. Marinescu and Victor Babes, members of the academic staff nominations committee. He was the son of the army physician Constantin Papilian, future general and chief of the sanitary division of the army. He went to high schools in Turnu Severin and Craiova, and graduated the Sf. Sava Lyceum of Bucharest at the age of 17. He was a student of the Music Conservatory, violin section (Prof. Malicher). He was a member of the Education Ministry orchestra (conductor D.A. Dinicu) and a quartet, together with the violoncellist George Georgescu, the famous conductor to be.

At his father's insistence (who wanted his son "to become a doctor, not a fiddler") he accepts a change of profession. In 1907 he enrolls in the school of medicine, proving to be a brilliant student. In his 3rd year he starts to work at the Board of Civil Hospitals, then a year later as prep and then prossector (assistant-lecturer) of Anatomy (prof. Paul Petrini). He graduates as an intern at the Board of Civil Hospitals. He was also a disciple of professor Dimitrie Gerota, the head of the 2nd Department of Topographic Anatomy, collaborator and follower of the great Thoma Ionescu [4,5]. During all these years Papilian was very active in research work, authoring 58 papers for the "Anatomy Laboratory" journal. Most of them were contributions of descriptive anatomy for normal and abnormal structures.

Gerota was teaching Artistic Anatomy at the School of Fine Arts. He had Brancusi as a student here, whom he helped model the famous Ecorche after the drawings made in the dissection room. A copy would also be donated to Papilian in the 1930s for Cluj [6].

In 1914 Papilian is elected president of the Medical Students Society of Bucharest. He founds the "Music Society", which held weekly chamber music concerts. In 1915 he comes first place in the internship exams. He maintains his doctoral thesis in medicine and surgery on 31 March 1916, supervised by professor Gh. Marinescu, entitled "The anatomy of the frontal lobe cortex" (205 pages). It was a development of a previous study entitled "Cytoarchitecture of the frontal lobe" (1914). The thesis

received the maximal mark and magna cum laude, being considered one of the best dissertations of the time [4].

During the war he served as a surgeon in various army hospitals, and due to his skills he was appointed section chief physician. He met C.C. Velluda, a medical student at that time, and they both started to dream of a school of medicine in the recently liberated town of Cluj.

After peace was declared, Papilian opted for a position of neurologist in the Marcuta Hospice, led by professor Alexandru Obregia. Here he had the opportunity to perform joint clinical and anatomical research work. In 1918 they began to collaborate on comparative craniometric studies in psychiatric patients and healthy individuals. He built up an impressive collection of skulls (400 patients, 100 controls), a basis for subsequent anthropological studies. His confession regarding this professional trend: "It seems that I have become a good doctor, but I practised half heartedly and I escaped on the first opportunity... what I hated the most: medical practice! I ran away from it, I escaped and embraced the test tube and the experimental animal..." (cf. C.I. Bercus, 4).

He came to Cluj in the autumn of 1919 as a tenure professor and director of the Institute of Descriptive and Topographic Anatomy, proposed by the university committee that included professors Gh. Marinescu, Victor Babes and Ernest Juvara from Bucharest, Mihai Manicatide from Iasi, and Iuliu Hatieganu and Iuliu Moldovan from Cluj. He would put considerable effort into a modern education and research infrastructure. He added more space, equipment, dissection rooms, he created an Anatomy Museum, osteology and dry samples labs, collections of charts and a rich special library. He also set up an ample program of scientific research.

He rapidly gained an aura of fame. As he said to Valeriu Ananie, still a young student at the time, "medicine is first, or finally, an art... what a sublime work of art man is. Treat a patient for what he is: a piece of art damaged by time or disease, whom you, with your art, will restore to his original beauty" [7]. He was twice elected dean, including during the dramatic period of the refuge to Sibiu. He was member of the editorial board of the journal "Clujul Medical", which had its first issue on 1 February 1920.

He was respected and loved. He was full of charm when lecturing, but also very severe and feared when examining. Here is the description of one of his elite students, professor Victor Preda [8]: "As one of those academics who think that the school is not just a desk and a professor's platform, his lectures were a permanent dialogue with the students, sparing their memory of useless information. His lectures were truly an enchantment, as they established a spiritual link with the audience". Preda also characterized Papilian's anatomy teaching: "He went beyond the inventory of obsolete anatomy, he always related the form to the function, and theory to practice... He understood that modern anatomy should be linked to

comparative anatomy, philogenesis and ontology... hence its teaching through the prism of evolutional and antiteleological biology". This "unique performance" was characterized by Valeriu Ananie: "the lectures always ended defying academic sobriety with the students applauding" [7].

Another close disciple, prof. Albu, mentions: As head of department, professor Papilian showed a strong personality. Though he took this position at an early age, he knew how to inspire his collaborators with the passion for the profession. He was a true "school founder" [9].

Alexandru Olaru, also a former student and then professor of psychiatry in Craiova, reminisces from the period of Sibiu: "The professor appeared at 8 o'clock sharp and began the lesson which he finished after 50 minutes. Medium height, wearing the traditional red velvet cap and the white gown, he thrilled the audience with his sharp mind, he dominated us with his sparkling and vivid eyes, his powerful mimic and precise gestures that revealed precision, but also the turmoil and the vibration of a soul giving itself over... The lecture becomes alive and dramatic. Walking between the bench rows, the master asked a question... Nothing caused more outburst of laughter than an answer hastily given... The reprimand was overwhelming, stormy, endless..." [10].

Another memory is about an opening lecture: "Dear colleagues, I welcome you, and I wish that for two years from now we work together with joy and mutual satisfaction... Only if you feel the call, if you love man and are touched by human suffering, should you become doctors. Otherwise, you may choose other careers... It's not too late to change your mind"... (P. Neagos, 11).

About his last year of professorship the following were written: "His remarks for the students during the lectures were full of spirit. Most of them were literary, spontaneously improvised... Others referred to real life stories, history, art, or everyday life, all with a moralizing purpose. The students were delighted, as they represented a respite in the midst of a stark anatomy lesson. It was professor Papilian's teaching style, which attracted a large audience (Fl. Marin, 12).

An expressive portrait was handed down from the literary world by the writer Grigore Popa: "... two personalities, polar if you wish, harmoniously composed the professor's character, who was dynamic, enthusiastic and charming, the fear and awe of medical students... Beyond the great prose writer and bold cultural promoter, V. Papilian was a highly esteemed scientist, in the full and earnest sense of the word [13].

There were no anatomy textbooks in Romanian, and Papilian was the first to start such a project. In 1920, after only a year, the Practical Handbook of Dissection in two volumes was published (372 and 352 pages respectively), revised and re-edited several times with I.G. Russu and V.V. Papilian. It was an original concept, the expression

of the experience at the Faculty of Bucharest: a dynamic traditional study guide, essential and mandatory for every future doctor. At the same time he also edited the anatomy fascicules.

Opera didactica magna was the Treatise of Anatomy. The first volume (636 pages) appeared in 1923 and included general aspects, bones, joints and muscles. The author stated in the Preface: "He who really wants to become a physician – a scientist - must remain an anatomist and a physiologist throughout his entire life. This treatise written for the future doctors is conceived so as to contain only the information that is essential for the study of medicine or the understanding of certain biological facts that a doctor must know" [14].

In 1925 the 2nd volume appeared: angiology and neurology. Three successive editions were necessary, each revised and enriched with new data of physiology, radiology and clinical medicine, with practical applications. The 1928 edition, with over 1500 pages, 2 volumes, had an extended title: "Elementary treatise of descriptive and topographic anatomy with medical and surgical applications". It matched perfectly the content, exposed in an innovative, integrative spirit, as reflected by the author's words: "The conception to be embraced is that of functional anatomy... We should pay more attention to live anatomy, as it is the only way to make it an applied science, both the biological sciences and the clinical aspects" [15]. Other four editions followed, the last one in Sibiu. In 1944 the volume on visceral anatomy was published.

The project finished in 1946 with the publication of Embryology, edited jointly with Victor Preda, a specialist in the field. The handbook was anticipated by the Handbook of Embryology of 1937 (two editions, 152 pages), edited based on Papilian's lectures.

The medical world received the treatise extremely favorably, it was awarded the Academy Prize. Numerous reviews emphasized its didactic and scientific quality, the clarity and elegance of the text. The absolute novelty was represented by the systematic integration of the descriptive and topographical anatomical data into the medical approach by the "medical and surgical applications". At the same time the first Romanian terminology was created in accordance with international standards. Professor Iacobovici mentioned (1930): "Live anatomy is too beautiful, the dead one too boring. One must be an artist of writing to make dead anatomy a beautiful study. Professor Papilian is one of the nicest joiners. He joins knowledge to a writer's talent. This happy union resulted into those scientific pages that charm the reader" [16]. The subsequent revisions and re-editing by prof. I. Albu preserved their currency to this day.

But, as evidenced by the report of a group of professors in 1942, "Papilian's didactic activity was not limited to the books. Whoever visited the dissection halls in Cluj and the experimental laboratories could appreciate the

facilities created for the teaching of anatomy... Professor Papilian speaks in a manner you will only rarely hear. His literary and oratory talent make his anatomy lectures a real scientific delight" (I.Iacobovici, N.Hortolomei şi Tr.Nasta, cf. C.I.Bercus, 4).

Professor Papilian's research activity, together with his teams, is impressive (over 250 papers published in Romania and abroad), it stands out by diversity and originality. The list was published in an honorary volume in 1988 [17]. Professor V. Preda identified the dynamic nature of this research work with "the basic concept of human body wholeness, the unbreakable link between body and function, between man and his environment" [8]. The subjects tackled are classified systematically by the author himself:

- Anatomic anomalies and brain cytoarchitecture;
- Circulation of fluids in the body (cerebrospinal fluid, lymphatic, portal and portal pituitary circulation);
- Glycemia after ligation of the cava and portal veins;
- Action of the relational nervous system (role of trigeminal nerves in the pupil regulation);
- Functions of the sympathetic nervous system (adrenalin-chloroformic syncope, the influence of the sympathetic and parasympathetic systems on basal metabolism, glycemia, cardiac rhythm, vagotomy in the treatment of asthma);
- Embryonic development (experimental malformations obtained by bird egg centrifugation, gastrulation of superior vertebrates, role of some substances in embryogenesis);
  - Functions of the reticulo-endothelial system;
  - Postmortem movements;
- Therapeutic agents (Arnold's nerve anesthesia by novocaine in headaches and glaucoma, wound scarring agents, anti-angina, antibacterial agents, serum bactericide effects) and others.

This activity was very well described by C.C. Velluda, his first and most valuable collaborator in the first two decades, in a manuscript of 1975 (reproduced in 17,18). Since his arrival in Cluj, Papilian continued his old research into the brain anatomy of psychiatric patients, together with the psychiatry professor C. Urechia, also coming from Marcuta hospice. The range of conditions and the morphological data investigated was broadened, the results being interpreted based on biology and comparative anatomy.

The founding of the "Anatomic Reunion" (president Titu Vasiliu) in 1922 provided a stimulating forum in which Papilian's school manifested very actively, almost in every meeting. It is here that he presented the role of cavernous tissue muscles in the support of the pelvis (with S.T. Cruceanu), a comparative study on the sub-trochanter saddle in man, dog and horse (with I.G. Russu), new anastomoses in the carotid system by injection technique

(idem). For 10 years the research team investigated the formation of the orbit in several animal species. Also, the thoracic lymph vessels are studied in the dog, after ligation of the thoracic canal.

Papilian had important contributions to the study of gastrulation (with V. Preda), the influence of the vegetative substances on morphogenesis, gas exchanges, local infections and wound scarring, mechanism of lymph circulation, humoral control of osteogenesis (pilocarpine rushes, adrenalin slows), the relation between the cerebellum and the neurovegetative system, the role of the sympathetic nervous system in eye reflexes, neurovegetative control of granulo- and erythropoiesis, experimental injuries to the cerebellum, protuberances and vermix etc. Papilian reoriented anatomy from "morphological, as at present it could not offer us anything important", to another, which "could give us more". Experimental research was included here, extremely ingenious and diverse [4,17].

A very rich activity was in the field of anthropology, mainly in populational studies. Only one year after his arrival in Cluj he published "Study of the vertical and transversal cranial index in Romanians and Hungarians". Research would be extended based on 40 anthropological elements in isolated communities of the Western Mountains, ethnically pure, such as native villages between the two Aries rivers, but also others. He evidenced the so called "regional type" ("Carpathian", after the French E. Pittard, preoccupied for some time by such studies). The distribution of blood groups allowed for the identification of very old genetic links with Celtic populations [4,17].

In 1932 Papilian founded the Anthropologial Society of Cluj. In 1933, under his presidency, the Romanian Anthropological Society was founded (with its own Newsletter), among members being Emil Racovita, R. Vuia, N. Minovici, as well as specialists in hygiene, psychology, ethnography, clinics and military hospitals. It became a very well known and appreciated forum where issues of anthropometrics, paleoanthropology, anthropogenesis, blood groups, psychology, criminology were debated. It represented a counterbalance to the powerful center in Bucharest created by Francis Rainer, who was making a reputation by the study of the ossuaries of Curtea de Arges [19]. History marked its value: "By the number of studies and the publications, by its very existence, the anthropological center in Cluj was the most prominent (acad. St. Milcu, cf. 20).

The high number of works in the French publications attracted his election in the French Society of Anthropology. In 1937 the Congress of prehistorical anthropology took place in Cluj, and the International Congress of Anthropology in Bucharest. Papilian and Velluda presented, among other papers, the History of anthropology in Romania (published in the Memoirs of the Romanian Academy in 1941), and Anthropologial Considerations of the Western Mountains population (190

pages, printed in 1940). Anthropology was a research theme also of the Hygiene Institute of Cluj (professor Iuliu Moldovan), which published the Bulletin of Eugeny and Biopolitics (later controversial for certain aspects) [4].

After his retirement Papilian continued his experimental research on the neurovegetative system in the zoology laboratories of Cluj University, as an external collaborator of the Institute of Normal and Pathological Physiology of Bucharest (director Daniel Danielopolu). In 1952, together with professor Manta, he succeeded in extracting an active principle from the stellate ganglion, which he calls "stelerine".

An elite professor and scientist, Victor Papilian was also an outstanding representative of the artistic world: a writer (prose and theater), violinist (in the beginnings), cultural promoter: director of the theater and opera houses, chief editor of cultural reviews (Mircea Popa, 17). He successfully led a literary circle for many years, "marking some people to be writers for the rest of their lives... though the Master was not a boss, but an oversensitive road companion" (Eduard Pamfil, 21). A reputed disciple, Octavian Fodor, saw his vivid presence in the students' minds through "the conscience of an effervescence in which the meanings of culture are sublimed into a new dimension", through his turmoil handed down as a legacy of his "nobility to lend himself" [17]. In an emblematic characterization, professor Crisan Mircioiu also said: "For me, Victor Papilian, a Renaissance man, represents the culture resulted from the union between science and art. And always 'a professor' as a model" [17]. Papilian himself was aware of the complexity of his personality: "Science compels me to rigorous precise observation, literature to the picturesque and fantastic game of imagination".

## References

1. Marin Florea. Școala medicală clujeană, vol. I. Cluj-Napoca:

- Ed. Casa Cărții de Știință; 2000.
- Pârvan V. Datoria vieții noastre. Aninoasa-Gorj: Ed. Ram;
  1920.
- 3. Dragoș E, Sextil Pușcariu, primul rector al Universității românești din Cluj. Steaua. nr. 7-8, 1998.
- 4. Bercuş CI. Pagini din trecutul medicinii româneşti. Bucuresti: Ed. Medicala: 1981.
- 5. Chira C, Miloşescu P. Profesorul doctor Dimitrie Gerota. Oltenița: Ed. Tridona; 2011.
- 6. Albu I. Un exempar al ecorșeului lui Brâncuși în Muzeul catedrei de Anatomie din Cluj-Napoca. Clujul Med. 1979, nr. 1.
- 7. Ananie V. Rotonda plopilor aprinși. Bucuresti: Ed. Cartea Rom.;1983.
- 8. Preda V. Victor C. Papilian (1889-1956). Steaua. nr. 8, 1981.
- 9. Albu I. Centenar Victor Papilian. Steaua. nr. 6, 1988.
- 10. Olaru Al. Interferențe medico-culturale. Craiova: Ed. Scrisul Românesc; 1983.
- 11. Neagos P. Victor Papilian. Steaua. nr. 8, 1981.
- 12. Marin Florea. Viața și activitatea lui V. Papilian, în Vieți dedicate omului, vol. I. Cluj-Napoca: Ed. Dacia; 1993.
- 13. Popa G. În conștiința contemporanilor, interviu cu Nae Antonescu. Steaua. nr.6, 1988.
- 14. Papilian Victor, prefață la Tratat de Anatomie umană, vol. I, ed. I. Cluj: Inst. de arte grafice «Ardealul»; 1923.
- 15. Papilian Victor, prefață la Tratat elementar de anatomie descriptivă și topografică, vol. I, ed. II. Cluj: Inst. de arte grafice "Ardealul"; 1928.
- 16. Iacobovici I. Tratat elementar de anatomie descriptivă și topografică de V. Papilian, recenzie. Clujul Med. nr. 8, 1930.
- 17. Mircioiu Crişan, Ionescu G.N. şi colab. (red), Omagiu Victor Papilian, 100 de ani de la naștere. Cluj-Napoca: Litografia IMF; 1988.
- 18. Kory Calomfirescu Şt. Figuri ilustre ale medicinei românești. Suceava: Ed. "C"; 1994.
- 19. Riga Theodor, Călin Gheorghe. Dr. Fr. I. Rainer. Bucuresti: Ed. Şt.; 1966.
- 20. Albu I. Victor Papilian. J. Fund. Univ. "Hipocrate", Cluj, nr. 1, 1997
- 21. Pamfil E. Amintiri din cenaclul Papilian, Atelier al cercurilor literare. Bucuresti: Ed. Facla; 1977.