

# The searching for a proportional system of the human body for students of the art school in Slovakia

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## **Abstract**

*Searching for relations lengths of individual parts of the human body to the overall body height between themselves did not represent only the aim to show the perfect body, but also the anchoring some rules to help students of art how to draw a figure easier. These rules differed in the history of art depending on the dictates of taste, rulers and individual ideas of the artists. But they always represented rules that help the beginners artists to learn how to show the figure harmoniously balanced and proportionated. Even in this post-modern time, students need to learn how to show the figure even if there is no single correct proportional canon. This work presents a report on the searching for the corresponding proportional model (canon) for students of art school in Slovakia.*

**Key words:** anatomy for artists, artistic canon, proportions, art school,

## **1. Introduction**

In Slovakia, basic art schools are in the system of schools with an artistic focus. The teaching is realized in the afternoon for all ages of students. The first stage prepares students for study at the secondary art schools and at the schools with an artistic focus. The second stage is an alternative for students who want to continue in art education, but in the high schools without an art orientation. The art schools have also study programs for adults. They offer such an alternative for college students and for those who do not study art at the university and do not professionally devote to it (the art schools offer in addition to their art studies even study music, dance and theater).

## **2. Different standards**

Today, despite more than half a century of existence of art schools adequate textbooks were not created for any level of study till now. The national education program for Art branch at art schools requires almost Renaissance shot of techniques and media that art teacher has to teach. During our eleven years practice at

the art school, We wanted to give to our students the maximum education in the wide thematic areas and techniques. For all this, was it hard for us as a teacher, to prepare everything on our own and to find the most appropriate samples, tools and other teaching materials. We would like to present our finding of the most suitable system of the proportional human figure for our students at the Art school of Karol Pádivý in Trenčín (Slovakia). The result of our search was also influenced by a simple survey among our students. This survey consisted of two basic questions:

1. What do you think: How many items in the proportional system (individual modular ratios) you can learn by heart?
2. Which parts of human body you consider for the most important proportionally ?

In the fact, the searching for a suitable system consist of the matter of fact that the representation of human figures intertwined during the periods of art development as the greatest challenge of the style or the art direction. Not only anatomical correctness of its representation, but also the balanced and coherent form have been the subject of passionate investigation and searching, of a desire to be perfect.



**1) Students of Basic art school in Trenčin (Slovakia)**

For the artists are the body proportions the most subjective aspect in the study of the human body. The way how we understand them is a combination of several factors. The first is to understand the concept of historical figures in the history of art. That varies depending on the geographical uniqueness of perception of the problem and within the same period (for example, showing a human figure in the Italian and Alps Renaissance) as well. Other factors that affect the understanding of human body proportions are the social standards of beauty and subjective aesthetic and artistic feelings, too. If the artist creates a live model, it is possible according to Eliot Goldfinger to talk about individual proportional system.<sup>1</sup>

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<sup>1</sup> GOLDFINGER, E. *Human anatomy for artists. The element of the form*. Oxford: Oxford Press, 1991. p. 386 ISBN 978-0195052060.

### 3. Module

The proportion of individual parts of the body to each other and to the whole body represents the proportions which create the appearance of the body (figure). The figure of the human differs in height (longitudinal proportions) in the longitudinal rates - the length of the limb proportions and transverse (transversal), deep (anterior-posterior) and the different circuits of the individual parts of the body. These proportions will also vary according to age, sex and type of the human race. Anthropometria of individual rates generates average values expressed as extend standards for assessment of physical properties and the stage of development for individuals and the whole groups as well. The artists are most interested in if there are the ideal proportions forming a type of character that would be a criterion for harmony of forms. It was created so-called „canon“ for this reason. Canon is a kind of proportion system from which the form can be drawn from one measurement (one part) to the other parts of the body (and vice versa). The basic unit of canon is called a module. It is a part of the body selected for the unit of measure applicable to all its parts. All parts compared with each other or compared with the total are as a fraction or multiple of this module. Generally we can say that the use of a proportional scale the work gains real balance and beauty. In the sense of the statement - *What is true, it is also beautiful*, artistic proportional canon makes approaching to the proportionally generalized ideal. There was a different module in the different periods of art history. The variability was due to contemporary taste or normative ruling class, or religious authorities. Some proportional systems in the human body creating inclined towards a realistic imitation of reality, while others emphasized the symbolic or spiritual interpretation of the human body<sup>2</sup>. The Greek word "canon" means rule, precept, canon<sup>3</sup>. According to Winslow it comes from the word of kane, or kaune, which means cane or stick<sup>4</sup>. The word canon meant a measuring line in Latin.<sup>5</sup>

### 4. Module in historical perspective

At first was the module of the length of the foot (the footprint) for the ancient Egyptians, thus the distance from the heel to the fingertips. In the height of the figure a foot was contained six times, at the period of the Ptolemaios (probably after the influence of ancient patterns) seven times. The younger egyptian canon considered as a module the height of the foot measured from the pad to the low marginal of the inner ankle. Slightly longer than a middle finger on the hand, was this module in the height of the figure contained eighteen times.<sup>6</sup> The newer proportional module of the Ancient Egypt art was the length of the middle finger. This module was included in the height of the figure (without the cranial vault) nineteen-times.<sup>7</sup>

In the classical Ancient period, when the art become the pattern in other historical periods, set by the Greek sculptor Polykleitos (477 – 410), the theoretical and practical form of the canon. The theoretical form is not preserved till today and its practical form, embodied in the bronze statue of a young boy with the spear - called Doryforos, is preserved only in the form of copies. The statue of the naked young boy in contrapposto was promoted by the clarity, symmetry, and completeness, and it embodied the idea of the statue creator in the composition composed by clearly defined parts. The smaller part was always a fraction of the height of whole body (the head was eight times in the height of the figure, a hole on the neck formed from the top the

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<sup>2</sup> WINSLOW, V. L. *Classic human anatomy*. New York: Watson-Guption, 2009. p. 303

<sup>3</sup> ŠPAŇÁR, J. *Latinsko – slovenský a slovensko – latinský slovník*. Bratislava: SPN, 1962. p. 609

<sup>4</sup> WINSLOW, V. L.

<sup>5</sup> FOLVARSKÁ – ROSEOVÁ, HÍSEK mention that the word canon comes from the Hebrew word qané, which means reeds, rákos, dimension (FOLVARSKÁ-ROSEOVÁ, K., HÍSEK, K. *Anatomie okem výtvarníka*. Praha: Aventinum, 2003. p. 173 ISBN 80-903284-3-1).

<sup>6</sup> KOS, J., ŽILÁK, P. *Anatomie člověka pro výtvarníky*. Praha: Aventinum, 1996. p. 168 ISBN 80-85277-98-0.

<sup>7</sup> The sitting figure it consisted of fifteen modules (MATIE, M. E. *Iskustvo drevnego Egypta*. Leningrad: Iskustvo, 1961. p. 591).

quarter of the height of the figure, the length of the foot was the sixth of height of the figure – as in the canon in the Ancient Egypt, respectively, it was related to the another part of the system of the ideal mathematical proportions and the balance).<sup>8</sup>

To the proportions of Doryforos (created by Polykleitos) also corresponds the canon of Vitruvius. The figure with straddled legs and outstretched arms which he placed on the drawing in the square and at the same time into the circle made around it with the centre in the navel of the figure. This canon, non- expertly called the „Andrews“ cross (according to the diagonal cross, created by stretched limbs of the figure) became the inspiration starting point by creation of a man (of the Leonardo Vitruvian) with a clearly-defined sections that divided the figure of Leonardo to the module proportional parts.

The human proportions reflect the personal view of the artist to the perception of the individual beauty of the human body rather than the objective proportions. Therefore we can say that there is no universal proportional canon. On the one hand, the simple logic can influence people to the conclusion that the closer the proportions approximate to the statistical average, the earlier it will be acceptable for the majority, on the other hand the history of art consists of the individual artistic manifestations differing from one to another. The Ancient Greeks created the individualistic pattern in the creation of the human figure, which persisted in western art in the variations till up to the current post postmodern period (or the altermodern period). It implicated the aesthetic, ethical and philosophical imagine of a man as the center of the universe and the basic point of the creation in its physical form, the balance between the force and the charm, between the nature and the ideals.<sup>9</sup> The middle ages became the opposite of the antique ideal, it rejected the beauty of the human body wrething it in the iconographical motifs of the mysteries and the darkness. The human body was often portrayed as the artist never had seen through it.

The ideal, located in the soul, reject the impure and the ephemeral body – the cause of the most sins. Within the limits of the symbolism of the period (with the function of the images within the period of the expression language as a part of the educational demonstrative lessons warning of the eternal damnation) is a human figure not naked, or symbolic and simplified. The naked human body can be seen only in the case of Adam and Eve (clean, made in the image of God, later overshadowed by the devil's seduction and convicted to the death), some of the martyrs and those who are in the hell because of their earthly sins. The unstable rules excluded any shift to the ideal proportions, or direct observation of the model. The evaluation, however, we can mention the name of Villard de Honnecourt in the 13. century, there is also the structural scheme of the human figure on his thirty-three parchment sheets.

The liberation of art from the bondage of religion in the period of the renaissance (the themes from the ancient mythology), together with the desire for the knowledge (interest in science, medicine, geometry, anatomy) made the figures closer to the classical ancient ideal in this period of the history of art (in fact about more naturalistic). In the mythological and religious paintings have the figures the faces of the

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<sup>8</sup> Times the heights of the head in the height of the figure of Dorfyforos by Polykleitos is in the literature referred sometimes different. For example, Frekl (CROISSANT, F. Grécke umenie. In Chateleta, A. , Grosliera, B. P. a kol. 1990. *Svetové dejiny umenia*. Praha: Ottovo nakladatelství, 2004. p.784 ISBN 80-7181-937-9) and Fairbanks (FAIRBANKS, A. T., FAIRBANKS, E. F. *Human proportions for artists*. Ballingham: Fairbanks Art and Books, 2005. p. 226 ISBN 0-9725841-1-0), as well Croissant in the chapter about the Greek art (CROISSANT, F.) report the seventh of the height of the head, Zrzavý lists the eight heads and Angrill seven and a half the height of the head in the height of the figure (<sup>9</sup>ANGRILL, M. C. *Velká kniha o kresbě a malbě aktu*. Praha: Svojtka & Vašut, 1996. p. 192 ISBN 80-7180-0791079-1).

<sup>9</sup> ANGRILL, M. C. *Velká kniha o kresbě a malbě aktu*. Praha: Svojtka & Vašut, 1996. p. 192 ISBN 80-71800791079-1

contemporaries. Leon Batista Alberti (1404 – 1472), Italian renaissance polyhistor, in addition to the amount of the well-known activities, has made numerous measurements on live humans, he tried to get the objective rate of the former population. Of those, which seemed to him as interested as beautiful, he was looking for the averages of the proportions, to establish the ideal of beauty (this was the average figure). He considered the length of the foot (footprint) as a basic module. The height of the figure he set at six feet. He divided the feet further to ten inches and each inch to the ten so-called ticks.<sup>10</sup> The proportional model of Michelangelo (1475 – 1564) was the height of the head. The figure had the height of the eight heads, and the length of the nose (the torso and legs by his figures are longer than the average of population). His figures are massive, muscular, balanced, created his ideal of the human and the divine. But he was not a slave of his canon and he kept the freedom in it.<sup>11</sup> Leonardo divided his model of Vitruvian in most easily detectable points of the skeleton to the quarter. This division, according to the actual joint parts of the body is suitable for the sitting and the kneeling figure. Perhaps the most significant representative of the Al- renaissance, born in Norimberg, was Albrecht Dürer (1471 – 1528). He devoted 28 years to the study of the human proportions. He designated 26 types -by the form and proportional qualities (according to sex, age, race, stature, occupation, temperament, etc.). According to Dürer, there is no perfect canon of the most beautiful figure, just for the great variability in form and proportions.<sup>12</sup> In the period of the latest renaissance, in the middle of the 16. century in arts, and the influence of the latest works of Michelangelo and Leonardo, was more and more common the style of the oblong, rhythmically wavy figures with the small heads. This way of expression typical with stylish affectation represented by mannerism, "in style"<sup>13</sup> identified Pijoan "beauty and surprising, heroic and cold at the same time".<sup>14</sup> Martindale said to the mannerism that in the widest and the least helpful concept of "it placed on the level of something strange, eccentric, an unexpected and special".<sup>15</sup> The figures of some authors related to this "style" exceeded with their proportions even the most bold marginal modules conditions throughout the then development of the art (excluding the cave wall paintings). Madonna and the figures at all, by authors such Pontormo, Parmigianino or El Greco exceed often the ratio of nine heads to the height of the figure. However, the art, which displayed the people this way, did not leave the theoretical creation, or better "canonisation" such as overstatement and affectation within the limits of an individual style.

The Baroque style was as procreative as the renaissance in displaying the human body. Through the senses charged mythological themes with pink and pearl shades of the skin in the complicated allegorical – historical compositions with the using of eight and more than eight heights of the head in the height of the whole figure. The figures of Tinotretto, Tizian, Veronese and Rubens are the idealized forms of the human body related to the period taste and thinking of the customer. They celebrated the strength, sensuality and pomposity. Against to them had the German beauties created by Cranach narrow hips and thin legs.<sup>16</sup> In the year 1606, the book of Jean Cousin the younger was published (1522 – 1595) (son of in professional circles known Jean Cousin older) *Livre de Pourtraiture*, in which he divided the height of the figure to 8 parts, according to the height of the head. The articles in the book, however, according to the Richer<sup>17</sup> contains a

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<sup>10</sup> ALBERTI, L. B. *O malbě, O soše*. Praha: Nakladatelství Vladimíra Žikeše, 1947. p. 220

<sup>11</sup> ZRZAVÝ, J. *Anatomie pro výtvarníky*. Praha: Avicenum, 1977. p. 400

<sup>12</sup> DÜRER, A. *Vier Bücher von menschlicher Proportion* (Faksimile der Erstaugabe). London: G. M. Wagner, 1970. S.B.N. 950.1463.0.7

<sup>13</sup> MARTINDALE, A. *The Rise of the Artist in the Middle Ages and Early Renaissance*. McGraw-Hill, 1972. p.144

<sup>14</sup> PIJOAN, J. *Dejiny umenia 6*. Bratislava: Tatran, 1989. p.352 ISBN 80-222-0003-4

<sup>15</sup> MARTINDALE, A.

<sup>16</sup> ANGRILL, M. C. *Velká kniha o kresbě a malbě aktu*. Praha: Svojtka & Vašut, 1996. p. 192 ISBN 80-71800791079-1

<sup>17</sup> RICHER, P. *Artistic anatomy*. New York: Watson-Guptill Publications, 1986. p. 255, ISBN 0-8230-0297-7

lot of uncertainties.<sup>18</sup> After the French revolution in 1789 found the artists a higher ideal of public life in the return to the ancient classicism. Ingres (1780 – 1867) rather than to anatomical fidelity,<sup>19</sup> attributed the more severity to the perfect proportionality. Romantic Delacroix (1798 – 1863) pursues a realistic anatomy of the human body (it remained his anatomical studies), but the English Fuseli (1741 – 1825) and Blake (1757 – 1827) complied the display of the human figure to the expression of the painting. In the year 1755 issued by Charles Antoine Jombert (1712 – 1784) in Paris a publication "Méthode pour apprendre le Dessin", in which as the module indicates the length of the nose (the length he divided more to obtain the length of the separated parts of the human figure, on the six "minutes").<sup>20</sup> The most famous German classicist sculptor Gottfried Schadow (1764 – 1850) published in the year 1830 the "Lehre von den Knochen und Muskeln von den Verhältnissen des menschlichen Körpers und von den Verkürzungen" in thirty paintings, in which he divided the human figure of the adult man in eight parts – according to the height of the head.

In 18. Century there were also a lot of canons, which contained modules smaller than 1/8 of the head. Ukrainian neoclassical painter, founder of the historical movement in the Russia Art, Anton Pavlovich Losenko (1737-1773) in his work "A short explanation of the proportions of man" the height of the figure was divided into 30 modules and each of them to the other 12 parts. These rates measured the distance between each of the striking parts of the human body (the height of the head by Losenko represents the 3 modules and 9 parts, i.e. approximately 1/8 of the height of the figure).

In 19. century, several scientists enriched the investigation of the proportions of the human body by their research. The French anthropologist, anatomist and physiologist Léonce Manouvrier (1850 – 1927), scientifically confirmed the researches of Dürer about the proportions of person with the long and the short limbs at the same height divided them into brachyscelic and makroscleric. The German author of the wide scientific focus Adolf Zeising (1810 – 1876) was convinced that the human proportions are related to the principle of the golden cut.<sup>21</sup> The use of his canon is complicated because of the chart, which he created for this purpose, as well as the fact that the reference points chosen for the definition of individual sections of the body (navel, larynx) are not steady, but for individuals are slightly varied. A German scientist (anthropologist, anatomist, physiologist, the traveler) Gustav Fritsch (1838 – 1927) in his work "Die graphischen Methoden zur Bestimmung der Verhältnissen des menschlichen Körpers" created the canon, which module has a height of spine (measured in the upright position from the base of the nose to the upper marginal of the belt of the pubic bone).<sup>22</sup> One quarter of this module makes one sub-module. The height of the human figure is according to him a 10,5 modules. The joints as well as the distances between them are a multiple of the submodules.<sup>23</sup> The zoologist, anthropologist and anatomist Julius Kollmann, the professor of anatomy in Munich and in Basel, issued in 1886, "the Plastic anatomy of the human body", in which he expressed the dimensions of the character by dividing its height to 100 parts (the height of the head

<sup>18</sup> In his proportional dividing Richer criticises, for example, a fourth length of head, which should correspond with the level of the genital area, but doesn't understand on which level exactly it ends. As well he disagrees with the not exactly mentioning in the form of "under the knee", "below calf" as well as with division of figures in different parts of the Cousin's article

<sup>19</sup> MAIGNE, J.-Y., CHATELLIER, G., NORLÖFF, H. 2004. Extra vertebrae in Ingres' La Grande Odalisque. In: *Journal of the royal society of medicine* [online], y. 97, Nr. 7, pp 342 - 344 [cit. 5. 9. 2015] Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1079534/> [2015-9-5]

<sup>20</sup> RICHARDSON, T. *The Art Student's Guide to the Proportions of the Human Form*. Tom Richardson, 2008. p. 220 ISBN 978-0-9821678-0-9

<sup>21</sup> PADOVAN, R. *Proportion: science, philosophy, architecture*. London/New York: Taylor & Francis, 2001. p. 400 ISBN 0-419-22780-6

<sup>22</sup> VIRCHOW, R. *Verhandlung der Berliner Gesellschaft für Anthropologie, Ethnologie und Urgeschichte*. Berlin: BGAEU, 1895. Jg. 27 H. 2

<sup>23</sup> Fritsch's canon of the modified canon of P. I. Karuzin by adding some proportions head and limbs.

represents the 13 parts, i.e. 13 % of the height of the figure, that is approximately 1/8 of the height of the body). In the fifties of the last century appeared five volumes of anatomy by Wilhelm Tank, under the title "Form und Funktion: Eine Anatomie des Menschen". Tank proportionally divided human figure into 56 parts, the height of the head consists of 7 modules, so it is the height of the body according to the Tank, contained eight times. The French anatomist, physiologist and sculptor, the professor of anatomy for the artists at the École nationale supérieure des Beaux-Art in Paris, Paul Richer (1849 – 1933) published in 1890 his first Anatomy for artists (New artistic anatomy, for which he worked between 1906 and 1929 in the range of 6. volumes. Robert Beverly Hale (1901 – 1985), emeritus curator Department of painting and sculpture in the Metropolitan museum of art, forty years a teacher of anatomy for artists at the Art Students League in New York, the translator and editor of the English edition of Richer anatomy, speaks of it as "the biggest of its kind since the days of renaissance". "Not only is ,the most integrated, but it is also the best from all the current work from the anatomy of this focus".<sup>24</sup> In the various languages to the present day was it translated, and by Richer's own research it brings the next artistic canon, whose modulus is the height of the human head, it is located seven and a half times in the height of the whole body.<sup>25</sup> The canon by Richer is redesigned to the detail, and the most important, it is anchored on the accuracy without vagueness of designation, variety, or the uncertainty of individual measure.

The last great author in the field of anatomy for artists is a German author, profesor at The High school of Arts in Dresden, Gottfried Bammes. His work consists of nearly two dozen of professional books of anatomy for artists and the extent of professional input can be assigned as the top of the field in the last century and at all. He created drawings for the canon for the male and female figures, both divided in the 8 heights of the head.

## 5. After „classical“ systems

These were the most important milestones in the search for the ideal, standard, or a kind of system that would allow the artists to show the man if not perfect, so proportionally balanced. The development of science and, in particular, with the passing of the knowledge from the field of the physiology of man, is also accruing of the anathomy for artists. Their task is to explain the sculpture of the human body consisting of bone basis and the muscle system, at compositional construction of the whole figure, no less important for the art application submitted to the anatomical knowledge. In selected anatomies for artists, we focused on the proportionate systems. In the former Czechoslovakia was the most respected theoretical capacity of this area professor Zrzavý. He did not created his own canon, but in his extensive book of anatomy for artists he provides a history of the development of this problem and the same time, contain frequently the chapter on human proportions, necessary to the examples of individual canons as well.<sup>26</sup> The sculptor and teacher of drawing and anatomy for artists David Kresz Rubins, whose brief, but plasticly attractive anatomy for artists was translated in many editions in other languages, does not mention any own proportional canon.<sup>27</sup> The founder of The Institute of Anathomy at the faculty of Medicine in Pilsen and its longtime chief, professor Jaroslav Kos, issued in 1996, the Anatomy of the man for artists.<sup>28</sup> In a separate chapter he devoted to various proportional canons, he does not favor any of them.

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<sup>24</sup> RICHER, P.

<sup>25</sup> RICHER, P.

<sup>26</sup> ZRZAVÝ, J.

<sup>27</sup> RUBINS, D., K. 2000. *Anatomie für Künstler*. Ravensburg: Ravensburger, 2000. p. 94 ISBN 3- 332-01079-4

<sup>28</sup> KOS, J., ŽILÁK, P.

## 6. Richer's modul and contemporary authors

Sarah Simbletová is a teacher of anatomical drawing at the Ruskin School of Drawing and Fine Art at Oxford University and a guest teacher at Barts and The London School of Medicine and Dentistry. At the age of he published *The Anatomy for artists*, in which, however, she did not deal with proportions of the human figure.<sup>29</sup> Another well-known author, a teacher of figurative art and anatomy for artists at several universities, is Valeria Winslow. In her anatomy for artists she mentions three equal proportionate systems - the eight, the seven and a half heights of the heads in the height of the figure and proportional system dividing the figure into thirds (torso) and half (lower limb).<sup>30</sup> Gicesku, Romanian author, in his *Plastic anatomy for artists*,<sup>31</sup> in addition to the already mentioned proportional systems (Schmidt-Fritsch) mentions the relatively complicated proportional chart for the height of the figure in the range of 150 to 180 cm for men and 140 to 170 for women, the proportions of individual body parts to the whole, stated in percentage. In the second half of the last century was, especially in The United States of America and in Western Europe, one of the most popular "textbooks" for drawers the book of American author, teacher of drawing at the American Academy of Art, Andrew Loomis "Figure Drawing for All Its Worth," from 1943, which is made to numerous reprints. The ideal proportions he sees in the figure containing to its height of eight heights of the head.<sup>32</sup> He also mentions the standardized proportionate canons for different "proportionate standards", in which he specified the normal figure ("rather dumpy"), which "applies the majority of schools" (7,1/2 heads in the height of the figure), the ideal figure (8 heads), fashion (8,1/2 heads) and the heroic figure (9 heads)<sup>33</sup>. Tom Flint and Peter Stanyer in his anatomy for artists mention the proportional system consisting of the eight heights of the head.<sup>34</sup> Rabinovič in the chapter about the human proportions mentions canon of Fritsch, he describes the periods of growth of a man from the birth to the adulthood, he extents differencies between the parts of the body and focuses on the differences between the taller and the smaller human beings, and at the same time, the impossibility of the application of the general canon, considering it for not responding to the reality.<sup>35</sup> Jenő Barcsay (1900 – 1988) mentions about two canons – Richer's seven and a half moduls and eight moduls.<sup>36</sup>

Arthur Thomson, the professor of Anatomy at Oxford university and the Royal Academy of Arts in London, in his anatomy focuses on the proportional system of Paul Richer, which he also mentions.<sup>37</sup> Richer's proportional system gives Eugene the Wolf in his *Anatomy for artists*.<sup>38</sup> He used the proportional ratio between the height of the heads and figures in the ratio of 1: 7,5 in his book the anatomy of Charles Bradbury.<sup>39</sup> Another author who prefers proportional ratio of 7.5 heights of the head in the height of the figure is Stephen Rogers Peck.<sup>40</sup> The earlier book "the pocket -" anatomy for artists of Hermann Schuster mentions in the chapter about the proportions the canons of several authors, finally, however, he prefers

<sup>29</sup> SIMBLET, S. *Anatomia dla artystów*. Warszawa: Arkady, 2004. p. 256 ISBN 83-213-4283-3

<sup>30</sup> WINSLOW, V. L.

<sup>31</sup> GICESKU, G. *Plastičeskaja anatomija v trech knjigach*. Buharest: Meridiane, 1963.

<sup>32</sup> LOOMIS, A. *Figure drawing for all it's worth*. London: Titan books, 2011. p. 208 ISBN 978-0857680983

<sup>33</sup> These his standardized proportionate canons criticized especially Bammes in his book "Der nackte Mensch" in the chapter, in which he mentions artistic anatomy English speaking authors as "the top of the scientifically completely unsustainable facts" (BAMMES, G. *Der nackte Mensch*. Dresden: Verlag der Kunst, 1982. p. 474).

<sup>34</sup> FLINT, T., STANYER, P. *Anatómia pre výtvarníkov*. Bratislava: Svojtka&Co, 2008. p. 208 ISBN 978-80-8107-068-6

<sup>35</sup> RABINOVIČ, M. C. *Plastičeskaja anatomija človeka, červoronogych i ptic*. Moskva: Viššaja škola, 1978. p. 208

<sup>36</sup> BARCAY, J. *Anatomy for artists*. London: Barnes&Noble, 1999. p. 344 ISBN 978-1566192453

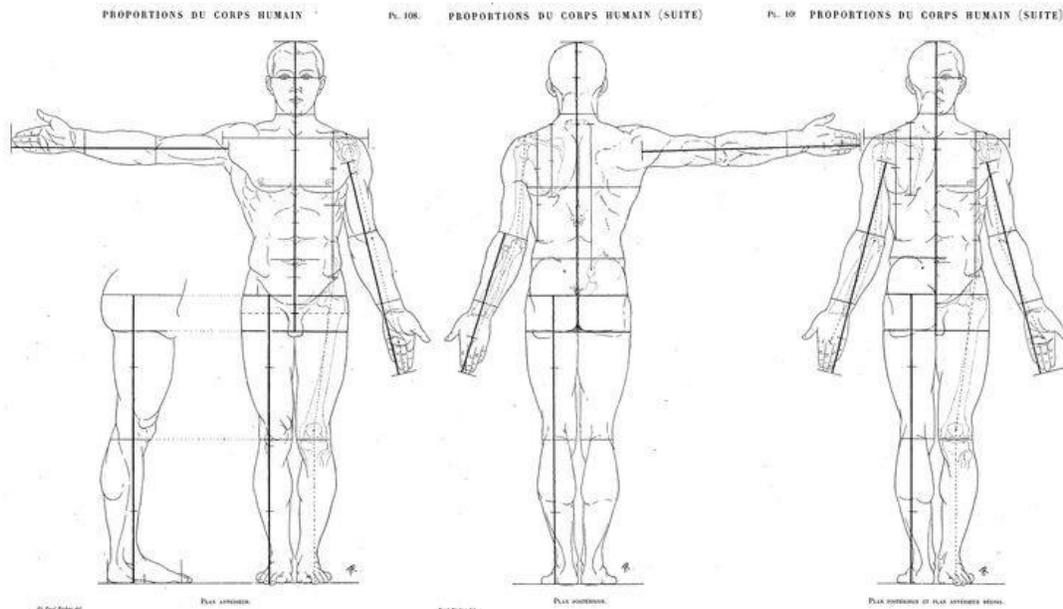
<sup>37</sup> THOMSON, A. *A handbook of anatomy for art students*. New York: Dover, 2011. p. 459 ISBN 0-486-21163-0

<sup>38</sup> WOLF, E. *Anatomy for Artists*. New York: Dover, 2005. p. 194 ISBN 0-486-44339-6

<sup>39</sup> BRADBURY, Ch., E. 2007. *Anatomy and construction of the human figure*. New York: Dover, 2007. p. 198 ISBN 0-486-45552-1

<sup>40</sup> PECK, S., G. *Atlas of human anatomy for the artists*. Oxford: Oxford university Press. p. 272, ISBN 0-19-503095-8

more the canon of Paul Richer.<sup>41</sup> Richer bases his canon on the basis of their own long-term observations and the experience of the doctor. He holds exactly to the module of the height of the head contained in the height of the figure for 7, 5 times. In comparison with others is Richer's proportional canon relatively simple,<sup>42</sup> and it can be easy to learn. It consists of the body points, which are formed with convex bone base (crest of the hip bone, the lower angle of the scapula, the media epicondylus, olecranon, etc.), but also with the sculpture of the soft tissue (plica glutealis, breast nipples, the navel,...).<sup>43</sup>



## 2) Richer's canon

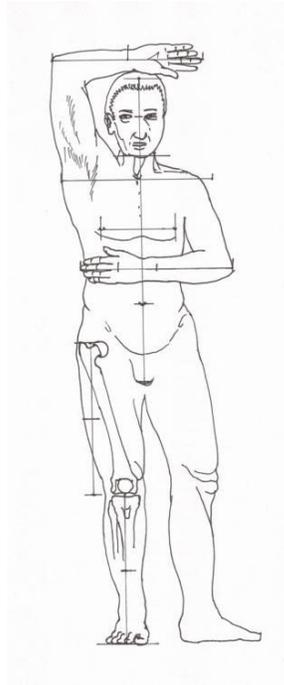
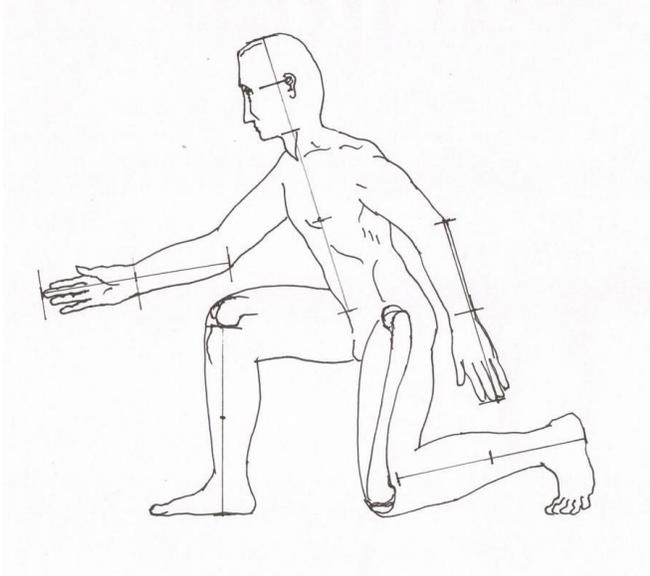
## 7. Conclusion

The distribution of the height of the figure to seven and a half heights of the head is considered more accurate than partitioning as the eight of the heights of the head. The result of the antropometrical investigation of the ratio of the height of the head and the whole body for more than hundred an half of adults by the author of this article brings the conclusions corresponding with such a proportional ratio. A comparison of a few tens books of anatomy for artists using by the students of art schools, as well as by not professional, to gain the knowledge about plastique and proportions of the human figure, the results of which we have also included in this text, we are coming to the conclusion of the clear recommendations of Richer's canon as the most adequate source of knowledge about the proportional system and the most suitable for the objectives of the artistic display of the human figure.

<sup>41</sup> „Nochmals sei darauf hingewiese, daß jeder Kanon, dem Künstler von Nutzen sein wird; besondere Vorzüge aber sind gute Meßpunkte und Vergleichsgrößen, die fest in der Erinnerung haften, so wie sie Richers Kanon bietet. Damit wird namentlich der Anfänger am besten zu stande kommen und erst später nach Bedarf sich in die Fachliteratur vertiefen.“ (SCHUSTER, H., HENRY, R. *Anatomisches Taschenbuch für Künstler*. Ravensburg: Otto Maier, 1953. p. 106.)

<sup>42</sup> He, however, in his anatomy indicates the extent of other authors, as for example, when dividing by the height of the head shows the division of Leonardo da Vinci, which marked the end of the nose for the center of the distance between the eyebrows and the tips of the chin. (RICHER, P.)

<sup>43</sup> Body points anchoring in the plastique of the soft tissue did not avoid any of the canons of the using for the module height of the head



**3) Simplified and adjusted Richer's canon (Basic school of art in Trencin, Slovak Republic)**