# Friedrich Gustav Lang Observations on the Structure of the Gospel of John 

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In an article in 1977 it was pointed out that three sections of John's Gospel are of about the same size: chapters $1-6,7-12$, and $13-20 .{ }^{1}$ Counted were lines in the most recent edition of Nestle-Aland, the 25th of 1963, resulting in 624, 639 and 641 Nestle-lines respectively. In the meantime the structure of the book as well as the way in which ancient texts were measured have been studied in more detail. The results are presented here in the first two parts. In the third the composition of John is analyzed with regard to the length of its parts and the proportions among them. ${ }^{2}$

## 1. Structure of the Gospel of John

There is one almost undisputed break in the twenty-one chapters of this Gospel: the beginning of chapter $13 .{ }^{3}$ In the chapters before, Jesus acts in public, then he hides himself (12:36), and now, 'before the festival of the Passover', he 'knew that his hour had come to depart from this world and go to the father' ( $13: 1$ ). There is also a broad consensus that the first 18 verses (1:1-18) are to be separated as the book's prologue, before the narrative begins with the story of John the Baptist and the call of Jesus' first disciples (1:19-52). Some do see the whole chapter as a unit inaugurating the book. ${ }^{4}$ Yet mention of the Baptist in the prologue ( $1: 6-8,15$ ) is not as part of his story, but an introduction of his function as witness, related then in the narrative starting in 1:19. At the book's end, chapter

[^0]21 is an appendix or epilogue, after the formal conclusion of the book in 20:30$31 ;{ }^{5}$ it is often regarded as a secondary addition by a later hand. ${ }^{6}$ In our understanding, these three caesuras (at $1: 19 ; 13: 1 ; 21: 1$ ) are clearly worked out by the evangelist. There is no need for a "bridge-pericope" or "bridge-section" belonging to previous and following parts at the same time, as sometimes proposed. ${ }^{7}$

The book is usually divided into two main parts, for example in Brown's words: "The book of signs" (1:19-12:50) and "The book of glory" (13:1$20: 31) .{ }^{8}$ Yet how do we structure the long passage of chapters $2-12$ ? Several proposals have been made. Some, like Bultmann, have even given up on finding any order in the transmitted text, and they try to rearrange the passages and paragraphs. ${ }^{9}$ Often they assume that sheets of the first draft were transposed unintentionally. ${ }^{10}$ Others limit themselves to a series of smaller units without an overarching heading. ${ }^{11}$ Some begin a new section in chapter 5, with Jesus' sec-

5 Differently Thyen, Johannesevangelium, 771: "Epilog" beginning in 20:30.
${ }^{6}$ Cf. U. Schnelle, Das Evangelium nach Johannes (ThHK 4; Leipzig 20165) 396.
7 See G. Mlakuzhyil, The Christocentric Literary Structure of the Fourth Gospel (AnBib 117; Rome 1987) 154, 166: concerning 2:1-11 and 11:1-12:50; cf. G. Østenstad, "The Structure of the Fourth Gospel: Can it be Defined Objectively?" ST 45 (1991) 33-55, at 51: 8:12-12:50, centre of a concentric seven-partite outline, as "bridge-section"; Thyen, Johannesevangelium, 417: two halves of the central fourth act (8:12-10:42; 11:1-12:50) belonging to the book's two main parts (1:19-10:42; 11:1-21:25).
8 See R.E. Brown, The Gospel According to John (AB 29/30; Garden City, NY 1966/70) 1:cxxxviII.
9 See R. Bultmann, Das Evangelium des Johannes (KEK 2; 10th ed., Göttingen 1941) 5*9*; R. Schnackenburg, Das Johannesevangelium (4 vols.; HThK 4; Freiburg 1965/71/ 75/84) 2:6-11; J. Becker, Das Evangelium nach Johannes (ÖTK 4; 2 vols.; Gütersloh/ Würzburg 1979/81) 1:30-32; U. Wilkens, Das Evangelium nach Johannes (NTD 4; Göttingen 1998) v, 6; F. Siegert, Das Evangelium des Johannes in seiner ursprünglichen Gestalt (SIJD 7; Göttingen 2008) passim. - Against such hypotheses cf. E. Haenchen, Das Johannesevangelium (ed. U. Busse; Tübingen 1980) 57: "Die Zeit der Umstellungshypothesen ist vorbei."
${ }^{10}$ Cf. E. Schweizer, EGO EIMI. Die religionsgeschichtliche Herkunft und theologische Bedeutung der johanneischen Bildreden (FRLANT 56; Göttingen 1965²) 110-111: Calculations of the length of the passages in question made on the basis of the number of letters are supposed to demonstrate the possibility of such transpositions, but Schweizer abstains from a definite proposal.
${ }^{11}$ See C.K. Barrett, The Gospel according to St. John (London 1978²); German tr.: Das Evangelium nach Johannes (KEK; Göttingen: Vandenhoeck, 1990) 6-7. 30; Haenchen, Johannesevangelium, XVII-XVIII; J.H. Neyrey, The Gospel of John (NCBC; Cambridge 2007) IX-XIII.
ond visit in Jerusalem and the healing at the pool of Bethesda. ${ }^{12}$ Here and at the following festivals in Jerusalem he has to face serious opposition (5:18; 7:32; 9:16) leading to the death sentence of 11:53.

Others favor a main caesura before chapter 7, before Jesus' visit at the festival of Booths. ${ }^{13}$ This is an important break in terms of geography and development of the plot. Jesus definitely leaves Galilee (7:10) after his activity there has resulted in division among his followers and in Peter's confession (6:66-69). This caesura, also a part of our analysis, gives a tripartite structure for the entire book (1:19-6:71; 7:1-12:50; 13:1-20:31). The uneven number of parts implies a central main section, as is also proposed by several others structuring the book in five or seven acts. ${ }^{14}$

### 1.1 Signs of Jesus' Glory: John 1:19-6:71

In the first main section, a geographical structure can be recognized: the beginning at the Jordan (1:19-51), then two parts combining Galilee and Jerusalem (2:1-4:54; 5:1-6:71). The first subsection contains the testimony of John the Baptist and, in two steps, the calling of the first disciples (1:19-34, 35-42, 4351).

The second subsection is a kind of round trip beginning and ending in Cana of Galilee with the wine miracle at the wedding and the healing of the official's son (2:1-12; 4:45-54). ${ }^{15}$ In geographical terms it consists of five parts: Cana - Jerusalem - Judea - Samaria - Cana. ${ }^{16}$ Jesus' first stay in Jerusalem on Passover, containing the cleansing of the Temple and the nightly dialogue with Nicodemus (2:13-3:21), is theologically as important as the scene with the Samaritan woman at Jacob's well (4:1-44); since dealing with the spirit (3:5-8; 4:24) the two stories are internally related. In between, Jesus and his disciples stay in Judea baptizing, and John the Baptist gives testimony on Jesus again (3:22-36). The

[^1]Samaritan part is composed concentrically in seven scenes: in the center Jesus and the woman debating on true worship (4:19-26), framed by two notes on the woman's story with men (4:16-18, 27-30), then before and thereafter two weighty scenes about living water and true food (4:7-15, 31-38), finally the accounts on Jesus' tour through Samaria to Galilee (4:1-6, 39-44).

The third subsection takes place first in Jerusalem on an unspecified festival (5:1-47), then suddenly back in Galilee around the See of Tiberias (6:1-71). The narrative in Jerusalem consists of two parts: the Sabbath healing at the pool of Bethesda and Jesus' speech against the Jews (5:1-18, 19-47). There are three parts in the Galilean passage: the narrative of Jesus feeding five thousand and walking on the sea, the discourse located in the synagogue of Capernaum on the bread of life, and its effect on the disciples, some of whom leave him while others stay ( $6: 1-24,25-59,60-71$ ). The two speeches are theologically most important, dealing with Jesus as Son to whom the Father has entrusted resurrection and judgment, then with the bread from heaven which gives eternal life.

### 1.2 Conflicts about Jesus' Glory: John 7:1-12:50

In the second main section, we can distinguish three stages of the conflict: the debates on Jesus' authority at the festival of Booths (7:1-8:59) and the Sabbath healing of the man born blind (9:1-10:39), each followed by a stoning attempt ( $8: 59 ; 10: 31$ ), and the raising of Lazarus followed by the death sentence of the Sanhedrin (10:40-12:50; esp. 11:53). The geographical shift across the Jordan (10:40-42) denotes the beginning of the third subsection when Jesus stays outside of Jerusalem till his triumphal entry (12:12-19). ${ }^{17}$

The first subsection is one unit, taking place at the same feast. ${ }^{18}$ Five parts can be distinguished: Jesus' secret journey to Jerusalem (7:1-13), his first appearance in the temple district (7:14-36), the one on the last day of the festival (7:3752), the major dispute with the Pharisees at the temple's treasury (8:12-47), which leads to a stoning attempt (8:48-59). In the center is a "division in the crowd" ( $7: 43$ ) about the questions of where Jesus comes from and where he is going, discussed before and thereafter (7:27-29, 33-35; 8:14, 22-23). The stoning is provoked by his claim that God is his father (8:54).

The second subsection consists of five parts as well: the healing of the man born blind at the beginning (9:1-12), the Pharisees' investigation because of Je-

[^2]sus' breaking the sabbath law (9:13-34), the short encounter of Jesus and the healed man (9:35-39), Jesus' shepherd speech against the Pharisees (9:4010:21), and finally the dramatic escalation on the festival of dedication leading to the second attempt to stone him (10:22-39). A new part seems to begin with the shepherd imagery in 10:1, but Pharisees as the addressees enter the scene already in 9:40. ${ }^{19}$ The first three parts are connected by the person healed, the last two parts by the Jewish opponents and the shepherd parable (10:11, 27). ${ }^{20}$ All five parts are linked by the metaphorical understanding of blindness as unbelief ( $9: 39-41 ; 10: 37-38$ ), essentially referring to the point of the shepherd speech: "I and the Father are one" (10:30).

The central scene (9:35-39) contains a textual problem. In most manuscripts it is a dialogue of five parts, three of Jesus addressing the healed man who in between responds twice. In some witnesses the dialogue has only three parts: verses $38-39$ a are missing in one papyrus ( $\mathfrak{P}^{75}, 3$ rd cent.), in two early uncials ( $(\mathbb{W}$, 4th $/ 5$ th cent.), in one Old Latin codex (b, 5th cent.), and in three Coptic versions. ${ }^{21}$ This means that the external evidence of the short version is about the same in terms of age and geographical distribution as of the longer text, based on the slightly older $\mathfrak{P}^{66}$ (c. 200), and the uncials A B C D (4th/5th cent.). ${ }^{22}$ Therefore the internal criteria are deciding. In the longer version, Jesus' question "Do you believe in the Son of Man?" (35), and reference upon inquiry (36) to himself (37), is explicitly answered by a confession and gesture: "He said: 'Lord, I believe.' And he worshipped him" (38); the final statement is introduced by "Jesus said" (39a). In the shorter version, Jesus, after identifying himself as "Son of Man" (37), is immediately describing his function: that he has come for judgement to discern the truly seeing from the truly blind people (39b). In the one case, the healed man is characterized as an exemplary believer. ${ }^{23}$ That is the reason why the insertion was considered "an addition stemming from the

[^3]association of John ix with the baptismal liturgy and catechesis". ${ }^{24}$ It has been objected, however, that such an addition is unlikely as early as $\mathfrak{P}^{66} .{ }^{25}$ In the other case, the healed man is not interesting as believer, but because he has received his eyesight ( $\dot{\varepsilon} \dot{\omega} \rho \alpha \kappa \alpha \varsigma$ ), metaphorically used as insight in Jesus' identity. Understood this way, the little scene serves as a hinge between the preceding healing of blindness and the following blindness of the Pharisees, so that the short version fits quite well into the composition of the entire subsection. ${ }^{26}$

In the third subsection (10:40-12:50) Jesus retreats twice from Jerusalem, first "across the Jordan to the place where John had been baptizing" (10:40), later "to a town called Ephraim in the region near the wilderness" (11:54). In both cases he returns to Bethany near Jerusalem, first for raising Lazarus (11:17-44), then for being anointed in the house of Mary and Martha (12:1-8). At the end, he appears publicly in Jerusalem for the last time (12:12-50). The Lazarus story ( $10: 40-11: 44$ ) is concentrically composed in five scenes. In the middle Jesus meets Martha, presenting himself as resurrection and life, with the scene framed by two notes on Mary (11:20, 21-27, 28-30). In two short scenes before and after this centre, the Jews are mourning with the sisters (11:17-19, 31), and in two large scenes Jesus stays across the Jordan and comes to the tomb (10:40-11:16; 11:32-44). The scenes in Jerusalem belong together, too (12:12-50): in the middle Jesus' last debate with the crowd (12:29-36), preceded by the triumphal entry and the Greeks wanting to see him (12:12-19, 20-28), and followed by the evangelist's reflection on the Jewish unbelief and Jesus' summary of his message (12:37-43, 44-30). The passage in between (11:45-12:11) is preparing Jesus' passion, first by the death sentence of the Sanhedrin (11:47-53), then by the anointment "for the day of my burial" (12:1-8); the two scenes are tied together by three notes on the divided reaction of Jews (11:45-46, 54-57; 12:9-11).

### 1.3 Hour of Glorification: John 13:1-20:31

The last main section begins with the last night Jesus spends with his disciples. It is divided into three subsections: first the supper with the foot-washing (13:130), then - after Judas has left - the extensive farewell discourses (13:31-16:33) and finally the priestly prayer (17:1-26). The passion narrative in the strict sense

[^4]is a large subsection in itself (18:1-19:42). A fifth subsection, the Easter narrative (20:1-31), closes the last days in Jerusalem. Thus the main section consists of two longer subsections linked by three shorter ones, at the beginning, in the center and at the end.

The center of the first subsection is formed by Jesus' speech about the significance of the foot-washing as an example of Christian behavior (13:12-20). Before that, this action is described and then explained (13:1-5, 6-11). Then Jesus announces that he will be betrayed and designates Judas as betrayer (13:21-26a, $26 b-30$ ). The second subsection, the long farewell discourses, is structured by Jesus' short remark: "Rise, let us go from here" (14:31b, NKJV). Its position amid a continuous, uninterrupted speech (14:23-16:16) has led to several liter-ary-critical attempts to improve upon the transmitted order of the pericopes. ${ }^{27}$ When staying with the transmitted text, the remark divides the discourses into two parts (13:31-14:31; 15:1-16:33). Strictly speaking, the first part is a dialogue and four of the disciples participating are mentioned by name: Peter, Thomas, Philip, and the other Judas ( $13: 36 ; 14: 5,8,22$ ). At the end, after a long monologue, the disciples ask again and manifest their belief in Jesus, this time as a group (16:17-18, 29-30). This dialogue seems to be the third part of the farewell discourses (16:17-33), particularly since the two points in question, the "little while" and the "going to the Father" (16:17), refer back to the first part $(13: 33 ; 14: 12,19,28)$, not only to the preceding verses $(16: 10,16) .{ }^{28}$ In the third subsection, the disciples have disappeared, so to speak, when Jesus prays for them to the Father (17:1-26).

The long subsection on Jesus' passion has a crucial center, the trial before Pilate (18:28-19:16a). It is elaborately arranged in seven scenes in which Pilate switches every time between the Jewish accusers outside the praetorium and the accused Jesus inside. ${ }^{29}$ In a concentric composition the soldiers mocking Jesus as "King of the Jews" form the center (19:1-3), surrounded by Pilate stating the innocence of Jesus ( $18: 38 \mathrm{~b}-40 ; 19: 4-7$ ) and questioning him about kingship and political power (18:33-38a; 19:8-12a), the accusation being the beginning and the death sentence the end $(18: 28-32 ; 19: 12 b-16 a) .{ }^{30}$ Preceding this center, three

[^5]scenes tell about the night of the arrest: first the events in the garden across the Kidron valley, then the transfer to Annas, and then Jesus being questioned by the high priest and denied by Peter in the courtyard, which distinguishes the third scene from the second (18:1-11, 12-15a, 15b-27). ${ }^{31}$ The last part tells about the afternoon at Golgotha, also in three scenes: the soldiers crucifying Jesus with Pilate's inscription proclaiming the "King of the Jews", then Jesus' last words and death, and finally his burial before sabbath (19:16b-24, 25-30, 31-42). ${ }^{32}$

The fifth subsection contains the Easter story in seven paragraphs divided into two groups. ${ }^{33}$ Three scenes are about the morning: Mary Magdalene discovering the empty tomb, "Peter and the other disciple" going inside the tomb, and Jesus appearing to Mary in the garden (20:1-2, 3-10, 11-18). Three scenes then are about the disciples meeting in a closed room: the risen Jesus appearing on Sunday evening and commissioning them, Thomas doubting, and Jesus appearing to him one week later (20:19-23, 24-25, 26-29). The last paragraph summarizes the christological and soteriological message of the entire book (20:30-31).

### 1.4 Epilogue: John 21:1-25

The epilogue takes place not in Jerusalem but in Galilee, again at the lake of Tiberias. The entire chapter is one scene; place, time and persons are the same throughout. It has twice two narrative parts: first the disciples landing a wonderful catch and Jesus preparing a mysterious meal ashore (21:2-8, 9-13), and then - after the meal - Jesus talking to Peter concerning his destiny and that of the beloved disciple (21:15-19, 20-23). These parts are framed by three authorial notes: introducing the Galilean location, counting Jesus' appearances, and identifying the beloved disciple as the witness "who is testifying these things and has written them" $(21: 1,14,24-25)$. Peter is the main character in all four narrative parts; the beloved disciple is mentioned only in the first and last ones, indicating a chiastic order. Whereas the conclusion in 20:30-31 refers to Jesus' many deeds before Easter, the epilogue seems in 21:25 to refer to the unnumberable deeds of the risen Jesus experienced in the Church since then. Insofar can chapter 21 be understood as part of the gospel, not necessarily as an addition of a later hand. ${ }^{34}$

[^6]
### 1.5 Conclusion

Our survey of John's way of structuring his gospel has demonstrated that the author has been interested throughout in well-balanced narratives. We have often observed concentric compositions, in smaller units as well as in longer sections. Usually the central part is also theologically most important, as in the encounter with the Samaritan woman or in the raising of Lazarus (4:1-44; 10:4011:44). Sometimes the stories have two peaks, the center being rather short as in the central subsection on blindness or in the trial before Pilate (9:1-10:39; 18:28-19:16a). Can this also be observed when considering sizes and proportions in the particular passages?

## 2. Introduction to stichometry

How did the ancients measure the length of their texts? In poetry it is easy to count the number of verses. For every book of Homer or Vergil, we know the exact number of hexameters. This is useful when an interpreter wants to refer to a certain line of a poem. It seems that already the authors took note of the number of lines when composing an opus. In Vitruvius we read that Pythagoras and his disciples liked to structure their books according to mathematical rules, using the cube of $6=216$ vers $\bar{s}$ and the size of three times this number as a maximum. ${ }^{35}$ Besides this explicit instruction that an author should count verses in order to give his book the proper proportions, we have implicit proofs. Horace in his Ars poetica divided the 476 hexameters into two parts using an old approximation to the golden ratio: the first $294=14 \times 21$ verses deal with poetry as art, the following $182=14 \times 13$ with the poet. ${ }^{36}$ The ratios $13 / 21$ and $21 / 34$ are very close to the irrational value of the golden ratio $=0.6180339 \ldots{ }^{37}$ The three numbers belong to a sequence of numbers already known in antiquity, ${ }^{38}$ though we name it after the medieval mathematician Fibonacci today: $1,1,2,3,5,8,13$, $21,34 \ldots{ }^{39}$ Each number of this series is the sum of the two previous numbers,

[^7]and the ratio of two following numbers is approximating the irrational golden ratio.

For prose texts the ancients used a standard line of the same length as a hexameter verse, the so-called stichos. ${ }^{40}$ The hexameter is defined by 6 feet of 2 to 3 syllables. It has between 13 and 17 syllables, i.e. 15 syllables on average. We can suppose this also for the original Greek stichos. The Latin standard versus has 16 syllables, as does the Greek stichos in late antiquity. It is well documented that the stichos was used by publishers for paying the scribes and for calculating the prices. Librarians used it for determining the original size of a book. Stichometry also helped the readers to find a particular passage. The stichometric information can appear in subscriptions after the text or within the text in biographies or lists of Biblical books. Such references contain the totals of stichoi. A third possibility is a letter at the left margin to mark every 100 th or 50 th stichos, called "marginal stichometry". The oldest NT examples of stichometric subscriptions are Papyrus 46 (early 3rd cent.) and Codex Sinaiticus (4th cent.), but only for the Pauline letters. Later manuscripts contain the totals for all NT writings.

So far, the description of stichometry is generally accepted among classical philologists. Yet not all of them are aware that the stichos was also used by the authors themselves. It served as the standard measure in rhetorical instruction and in literary production. One important proof is Menander Rhetor (3rd cent. AD ), who taught his students that an honorific speech should not exceed 150 or 200 stichoi, a farewell address should not have more than 200 or 300, a funeral address not more than 150 stichoi. ${ }^{41}$ Another is Josephus ( 1 st cent. AD), who estimated the size of his 20 books of Antiquities at 60,000 stichoi. ${ }^{42}$ Pliny the Younger (c. 100 AD ) writes to a penfriend that he expects a letter in response at least as long as his letter: "I will count not the pages only, but the versūs, too, and the syllables" - counting lines as playful pleasure for leisure hours! ${ }^{43}$

Whether the authors of the NT applied the stichos as well while structuring and composing their writings, can be determined only by analyzing the individual books. Are there striking sizes and proportions between different parts? For

[^8]several writings studied this way the question could be affirmed. ${ }^{44}$ Having analyzed the structure of John by thoroughly observing shifts in the narrative, it is now possible to count and compare the stichoi numbers of smaller units and major sections.

## 3. Stichometry of the Gospel of John

A methodological remark is necessary at the beginning. We must distinguish between two types of stichoi numbers: the exact numbers of lines with 15 syllables, counted without any line breaks dividing the particular paragraphs, and the rounded numbers in which the last line of a paragraph is counted as a full stichos though usually incomplete. This means that the sum of stichoi in a larger unit depends on the number and place of its paragraphs. In our analyses the exact numbers are used where possible in order to calculate the exact ratios, and the rounded numbers in order to demonstrate how ancient authors were able to realize those ratios by applying numbers of the Fibonacci sequence. ${ }^{45}$ The following calculations are an attempt to reconstruct a possibly original structure of the book in terms of a mathematical plan. We do not know, however, how precisely the authors elaborated the formal arrangement of their materials. We can only try to discover their structuring by establishing the sizes and proportions of comparable text units. In fact it is possible to arrange the paragraphs in a way that matches the structure of the narrative as well as the data of the stichometric analysis.

### 3.1 Golden Ratio in the Prologue: John 1:1-18

Right at the beginning, the prologue measures exactly 33 stichoi and 4 syllables (abbreviated as 33:04), or - rounded up - 34 stichoi. This might be a random result. However, we find the same Fibonacci number in the prologues of Mark (1:1-13), Acts (1:1-11) and Romans (1:1-15). ${ }^{46}$ In the prologue of John there is

[^9]one obvious caesura before $1: 14$. The two parts ( $1: 1-13,14-18$ ) measure 21 and 13 stichoi - again numbers of the Fibonacci sequence. ${ }^{47}$ Thus the size of 34 stichoi seems to be chosen intentionally and, it will turn out, the author has used it as modulus for the entire composition.

### 3.2 Subsections of the same length: John 1:19-6:71

In the first main section, our first subsection consists of three scenes at the Jordan: the Baptist's testimony, the call of the first disciples, then of Philip and Nathanael the next day (1:19-34, 35-42, 43-51). Lengths are $39+21+24=84=$ $4 \times 21(80: 08)$ stichoi, the middle scene being $1 / 4$ of the subsection, the two others being in the Fibonacci ratio $3 \times 13 / 3 \times 8$. These ratios are achieved, of course, by the rounded numbers of the paragraphs. ${ }^{48}$

The two other subsections, both combining Jesus' activities in Galilee, Jerusalem and in between, are almost of the same size in exact counting: 270:00 and 275:13 stichoi. By slightly reworking the delimitation of the paragraphs, the rounded stichoi numbers can be adjusted to each other. As we have seen above, the second subsection $(2: 1-4: 54)$ is a concentric composition in five parts: two corresponding miracles of 30 and 29 stichoi (2:1-12; 4:45-54), two parts with dialogues of 84 and 102 (2:13-3:21; 4:1-44), and the central part of 36 stichoi (3:22-36), with the sum being $281=13 \times 21+8$ stichoi. ${ }^{49}$ The first, third and fourth parts measure $30+36+102=168=8 \times 21$, the second and last parts $84+$ $29=113=5 \times 21+8$ stichoi. The proportions in the two long dialogue scenes are remarkable. Jesus' public activity in Jerusalem (2:13-25) measures $32=4 x 8$ stichoi, the dialogue with Nicodemus (3:1-21) $52=4 \times 13$; and the four parts of the Samaria narrative with disciples and discussion of true water and food (4:1-$15,27-38)$ measure $63=3 \times 21$, the three parts with the woman's story ( $4: 16-26$, 39-44) measure $39=3 \times 13$ stichoi, being Fibonacci numbers in both instances. The third subsection (5:1-6:71) consisting of two parts in Jerusalem and three in Capernaum, measures $41+71$ plus $59+83+27$ stichoi, the sum being 281 as well. ${ }^{50}$ The subtotals for each location are $112=8 \times 13+8$ and $169=13 \times 13$ stichoi, matching the total $=21 \times 13+8$. In both subsections, the identical sum is thus realised in a similar way by applying Fibonacci numbers.

[^10]To summarise, the first main section is $84+281+281=646$ stichoi in this reconstruction. In terms of Fibonacci numbers, the sum can be dissolved, as we have seen, as $4 \times 21$ plus $2 \mathrm{x} 13 \times 21+2 \times 8$, resulting in $30 \times 21+2 \times 8$ stichoi. When using the size of the prologue as modulus, the total is 19 x 34 stichoi.

### 3.3 Subsections in the Golden Ratio: John 7:1-12:50

The central main section is divided into three subsections as well. The five parts of the first subsection taking place on the festival of Booths (7:1-8:59) measure $29+56+32+92+29=238$ stichoi. ${ }^{51}$ The debate about Jesus' origin and authority is held especially in the two longer parts whereas the three shorter parts primarily contain narrative. The total is a multiple of the Fibonacci number 34, our hypothetical modulus: $238=7 \times 34$. The subtotals can be derived from the Fibonacci elements of $34=8+13+13$, if we allow a minimal inaccuracy: the second part is $56=7 \times 8$ stichoi, the fourth $92 \approx 7 \times 13=91$, and the three others together are $90 \approx 7 \times 13$ as well.

The middle subsection dealing with blindness (9:1-10:39) also consists of five parts, the first three on the healing of the man born blind, the two others on the unbelief of the Pharisees. The sizes are: $27+55+8+55+37=182$ stich$o i .{ }^{52}$ It is remarkable that the two longer parts are equally long, and that the first three parts and the two others add up to 90 and 92 stichoi, again one less and one more than $91=7 \times 13$, the entire subsection being $182=14 \times 13$ stichoi. The gospel's stichometric centre lies in 10:25 ("The works that I do in my Father's name testify to me"). ${ }^{53}$

There are three textual adjustments in these subsections. In order to arrive at 92 stichoi for the part $8: 12-47$, the middle of its three paragraphs $(8: 21-30)$ is shortened by two syllables. In 8:28 the bracketed [ $\alpha$ vं兀oîc] ("to them") has been deleted so that the paragraph is exactly $24: 00$ stichoi. ${ }^{54}$ Secondly, the text of 9:13-34 is shortened by three syllables in 9:14 preferring ő $\tau \varepsilon$ ("when") instead of $\dot{\varepsilon} v \hat{\eta} \dot{\eta} \mu \dot{\varepsilon} \rho \alpha$ ("on the day when"), ${ }^{55}$ the paragraph 9:13-17 then being 13 and the subtotal of this part 55 stichoi; ${ }^{56}$ the same sum could be achieved without

[^11]any line breaks in 9:13-34. Finally, the central scene of the book's central main part, the encounter of Jesus and the healed man $(9: 35-37,39 b)$, has been shortened by $1: 10$ stichoi because the point is not the faith of the man but Jesus proclaiming himself. ${ }^{57}$ The paragraph, now measuring 8:00 stichoi, fits quite well to the overall stichometric analysis.

In the third subsection (10:40-12:50), the three parts measure $104+60+96=$ 260 stichoi..$^{58}$ The total can be dissolved as 20 x 13 , the middle part as $20 \times 3$, the two others together as $20 \times 10$. When using multiples of 13 , the Lazarus story $(10: 40-11: 44)$ is $8 \times 13$, the two others are $156=12 \times 13$ together, a ratio of $2 / 3$. Of these parts, the middle one with the death sentence and the anointment ( $11: 45-12: 11$ ) is $12 \times 5$, the last one with Jesus' last public appearance ( $12: 12-50$ ) $12 \times 8$ stichoi. For these results, the longer passages 10:40-11:16 and 11:4512:11 were regarded as one paragraph each. Similar ratios can be observed within the subsections which increases the probability of intentional design. In the Lazarus story, the scene playing across the Jordan (10:40-11:16) measures $40=$ 5 x 8 , the four scenes in Bethany $(11: 17-44)$ measure $64=8 \times 8$ stichoi together. In the Jerusalem subsection, the paragraphs with the people and on their unbelief $(12: 29-36,37-43)$ are $36=3 \times 12$; the three others $(12: 12-19,20-28,44-50)$ are $60=5 \times 12$ stichoi together.

Two subsections are dominated by Jesus' speeches (7:1-10:39), the third one by narratives beginning with the raising of Lazarus, followed by the death sentence, the anointing in Bethany and the triumphant entry into Jerusalem (10:4012:50). This seems to be reflected stichometrically: $238+182=420=20 \times 21$ stichoi for the subsections of speeches, $260=20 \times 13$ for the narratives, the total being $680=20 \times 34$ stichoi. ${ }^{59}$ The other caesura is also connected with a mathematical relation if we add the first subsection $(7: 1-8: 59)$ and the prologue (1:118), resulting in $1 \times 34+7 \times 34=8 \times 34$ stichoi. The two other subsections together are $14 \times 13+20 \times 13=34 \times 13$ stichoi, and $8 / 13$ again is a ratio of Fibonacci numbers. ${ }^{60}$ The combination of prologue and middle main section seems to be an element of the overall stichometric design, as will be demonstrated below.

### 3.4 Subsections in Elaborate Arrangement: John 13:1-20:31; 21:1-25

Finally, in the third main section together with the epilogue it seems that the sizes of the five subsections and the additional part are arranged in a highly sophis-

[^12]ticated way. Beginning with the four shorter parts, the foot-washing (13:1-30) measures $72=6 \times 12$ stichoi, the Easter narrative $(20: 1-31) 84=7 \times 12$, the sum being $156=12 \times 13$ stichoi; Jesus' last prayer (17:1-26) measures $65=5 \times 13$, the epilogue in Galilee (21:1-25) $78=6 \times 13$ stichoi, the sum being $143=11 \times 13$ stichoi. ${ }^{61}$ All four together have $23 \times 13$ stichoi. The two long subsections yield a similar picture: the farewell discourses (13:31-16:33) measure $252=12 \times 21$ stichoi, the passion narrative (18:1-19:42) is $231=11 \times 21$, the sum being $23 \times 21$ stichoi. ${ }^{62}$ That means that the total of these six parts is $23 \times 34=782$ stichoi, the short and the long parts being in the Fibonacci ratio of 13/21.

When going into detail, similar proportions can be observed. In the farewell discourses the dialogic passages at the beginning and the end (13:31-14:31; $16: 17-33$ ) are in the ratio $2 / 1$, measuring 100 and 50 stichoi. ${ }^{63}$ In the monologue in between, two paragraphs deal with the true vine (15:1-8, 9-17), two with the world's hatred (15:18-21, 22-25), and three with the coming Paraclete (15:26$16: 4 \mathrm{a}, 4 \mathrm{~b}-11,12-16$ ), measuring $42=2 \times 21,1 \times 21$, and $39=3 \times 13$, together $102=$ $3 \times 34$ stichoi. ${ }^{64}$ In Jesus' prayer, the first two paragraphs (17:1-5, 6-11a) add up to $26=2 \times 13$ stichoi, the three others $(17: 11 b-19,20-24,25-26)$ to $39=3 \times 13 .{ }^{65}$ In the passion narrative, the central Pilate scene (18:28-19:16a) is $88=11 \mathrm{x} 8$ stichoi in seven paragraphs, the night of arrest and the Golgotha scene (18:1-27; $19: 16 \mathrm{a}-42$ ) are $70+73=143=11 \mathrm{x} 13$ in three paragraphs each. ${ }^{66}$ In the Easter story, Jesus' appearances before all disciples (20:19-23, 24-25, 26-29) add up to $4 \times 8=32$ stichoi, the other four paragraphs (20:1-2, 3-10, 11-18, 30-31) to $4 \times 13$ $=52 .{ }^{67}$ Finally, the epilogue consists of two halves (21:1-13, 14-25) measuring 39 stichoi each. ${ }^{68}$

The principle idea of this reconstruction is that the total of $23 \times 34$ stichoi is split into $12 \times 34$ and $11 \times 34$, and that these subtotals are split up according to the ratio $13 / 21$. On the one hand, the farewell discourses (13:31-16:33) together

[^13]with the foot-washing plus the Easter narrative (13:1-30; 20:1-31) measure $12 \times 21+12 \times 13=12 \times 34$ stichoi. On the other hand, the passion narrative (18:119:42) together with Jesus' last prayer and the epilogue in Galilee (17:1-26; $21: 1-25)$ measure $11 \times 21+11 \times 13=11 \times 34$ stichoi. This result is strong evidence that chapter 21 is an integral part of the Gospel of John.

### 3.5 A Composition from One Mould: John 1:1-21:25

Now we can summarize. The size of the three main sections is $646=19 \times 34$ stichoi for the first section, $680=20 \times 34$ for the second, and $782=23 \times 34$ for the third including the epilogue in chapter 21 . On this basis we arrive at some interesting proportions. The first main section including the prologue, chapters $1-6$, and the second main section in chapters $7-12$ are of the same size, numbering $680=20 \times 34$ stichoi each. ${ }^{69}$ Secondly, the first two main sections (1:19-12:50) are $39 \times 34$ stichoi together; the rest of the Gospel - the third main section plus prologue and epilogue $(1: 1-18+13: 1-21: 25)$ - adds up to $24 \times 34$, which results in the Fibonacci ratio $8 / 13$. Finally, the prologue and the second main section (1:1-18 $+7: 1-12: 50$ ) add up to $21 \times 34$ stichoi, the first and third main sections plus the epilogue $(1: 19-6: 71+13: 1-21: 25)$ to $42 \times 34$. This means prologue and middle section together are one third of the entire gospel, its total being $2142=$ $63 \times 34=3 \times 21 \times 34$ stichoi.

How does this total from our counting and paragraphing relate to the stichoi numbers found in the manuscripts? The numbers transmitted in the subscriptions are primarily 2300,2024 , and $1938 .{ }^{70}$ When comparing with our result we have to keep in mind the following five points. First, in the manuscripts the exact numbers are counted without any paragraphs, in our counting these are 2083:11 stichoi of 15 syllables. Second, the standard line of 16 syllables is obviously used in parallel, the converted total being 1953:08 stichoi. ${ }^{71}$ Third, fifteen nomina sacra are usually abbreviated, the four main terms $\Theta E O \Sigma$, XPI $\Sigma T O \Sigma$, IH $\Sigma$ OY $\Sigma, \mathrm{KYPIO} \Sigma$ consistently in all manuscripts. If each abbreviation of the four terms is counted as one syllable (a plausible hypothesis), the total must be shortened by 46:02 stichoi of 15 or 43:04 stichoi of 16 syllables, the rest being

[^14]2037:09 or 1910:04. Fourth, the text of John is augmented in many manuscripts by the pericope of the adulteress (7:53-8:11), measuring 23:11 or 22:05 stichoi respectively, so then totaling 2107:08 or 1975:13, or including the four abbreviations, 2061:06 or 1932:09 stichoi. Fifth, the transmitted numbers are often corrupt. The total 2300, though found in quite a few witnesses, is unrealistically high and it seems that the Greek $\overline{B I}$ for 2010 (testified in one manuscript) ${ }^{72}$ was misread as $\bar{B} \bar{T}$ in an early stage. At any rate, the transmitted numbers 2024 and 2010 (2000) seem to refer to the text without $7: 53-8: 11$ counted by 15 syllables, the number 1938 (1930) to the longer text counted by 16 syllables. ${ }^{73}$ In both instances, also the other nomina sacra seem to be abbreviated. Other variants are either too high $(2700,2310,2210)$ or too low $(1800,1737,1700,1300)$, probably due to misreading. ${ }^{74}$

There is a fundamental difference in this use of the stichos: the numbers of the manuscripts are based on exact counting without reflecting any line breaks, whereas the author seems to have structured his work very carefully using the particular paragraphs as basis for designing the overall proportions. Under this precondition the transmitted totals of John fit quite well to the 2142 stichoi of our reconstruction.

## 4. Outline of the Gospel of John

Manifold stichometric observations corroborate the proposed structure of the narrative and particularly the main caesura before chapter 7. The result is lucid and well-balanced, with three main sections, two having three subsections each, the last one five, all framed by prologue and epilogue. Despite of the disparate materials incorporated into the gospel, the author was able to create a consistent composition.

The following table demonstrates the skilful structure. The righthand column contains the (rounded) stichoi count.

The reconstruction on the basis of stichos and Fibonacci numbers is still in an experimental stage. The stichometric approach has been successfully tested in other NT writings. Whether classical authors ${ }^{75}$ have designed their books in the

[^15]same way, is an open question. At least a few examples have so far been analyzed stichometrically.

| John <br> Chapters | Parts | Contents | stichoi |
| :---: | :---: | :---: | :---: |
| 1:1-18 | 0. | Prologue: Jesus as Word incarnate | 34 |
| 1:19-6:71 | 1. | Galilee and Jerusalem: Signs of Jesus' glory | 646 |
| 1:19-51 | 1.1 | Jordan: Testimony of the Baptist, first disciples | 84 |
| 1:19-34 | 1.11 | Bethany across the Jordan: John's testimony | 39 |
| 1:35-42 | 1.12 | Next day: First three disciples called | 21 |
| 1.43-51 | 1.13 | Next day: Philip and Nathanael called | 24 |
| 2:1-4:54 | 1.2 | Galilee-Jerusalem-Galilee: Signs and dialogues | 281 |
| 2:1-12 | 1.21 | Cana in Galilee: Wine miracle | 30 |
| 2:13-3:21 | 1.22 | Jerusalem: Cleansing the temple, Nicodemus | 84 |
| 3:22-36 | 1.23 | Judea: Testimony of the Baptist | 36 |
| 4:1-44 | 1.24 | Sychar: Jesus and the Samaritan woman | 102 |
| 4:45-54 | 1.25 | Cana in Galilee: Healing of an official's son | 29 |
| 5:1-6:71 | 1.3 | Jerusalem-Galilee: Jesus healing and feeding | 281 |
| 5:1-18 | 1.31 | Jerusalem: Healing at the pool of Bethesda | 41 |
| 5:19-47 | 1.32 | Temple: Jesus accusing the Jews | 71 |
| 6:1-24 | 1.33 | Galilee: Feeding the crowd, walking on the sea | 59 |
| 6:25-59 | 1.34 | Synagogue at Capernaum: On bread of life | 83 |
| 6:60-71 | 1.35 | Disciples: Partly leaving, Peter confessing | 27 |
| 7:1-12:50 | 2. | Jerusalem: Conflicts about Jesus' glory | 680 |
| 7:1-8:59 | 2.1 | Festival of Booths: Jesus' provoking speeches | 238 |
| 7:1-13 | 2.11 | Galilee-Jerusalem: Jesus' secret journey | 29 |
| 7:14-36 | 2.12 | Temple: Debate about Jesus' authority | 56 |
| 7:37-52 | 2.13 | Last day: Division among the people | 32 |
| 8:12-47 | 2.14 | Treasury: Debate about Jesus' origin | 92 |
| 8:48-59 | 2.15 | Jews: Rejection, stoning attempt | 29 |
| 9:1-10:39 | 2.2 | Sabbath: Healing of a blind man | 182 |
| 9:1-12 | 2.21 | Blind man: Healing at the pool of Siloam | 27 |
| 9:13-34 | 2.22 | Pharisees: Investigation because of sabbath law | 55 |
| 9:35-37, 39 b | 2.23 | Jesus and healed man: On faith and blindness | 8 |
| 9:40-10:21 | 2.24 | Against Pharisees: Jesus as good shepherd | 55 |
| 10:22-39 | 2.25 | Feast of Dedication: New stoning attempt | 37 |
| 10:40-12:50 | 2.3 | Bethany-Jerusalem: Lazarus and death sentence | 260 |
| 10:40-11:44 | 2.31 | Perea-Bethany: Jesus raising Lazarus | 104 |
| 11:45-12:11 | 2.32 | Before Passover: Death sentence, anointment | 60 |
| 12:12-50 | 2.33 | Jerusalem: Triumphal entry, final speeches | 96 |


| 13:1-20:31 | 3. | Last Passover: Hour of Glorification | $\mathbf{7 0 4}$ |
| :--- | :--- | :--- | ---: |
| $13: 1-30$ | 3.1 | Last Supper: Foot-washing | 72 |
| $13: 31-16: 33$ | 3.2 | Night: Farewell discourses | 252 |
| $13: 31-14: 31$ | 3.21 | Dialogue I: Jesus as way to the Father | 100 |
| $15: 1-16: 16$ | 3.22 | Monologue: On love, hatred, Paraclete | 102 |
| $16: 17-33$ | 3.23 | Dialogue II: Jesus going to the Father | 50 |
| $17: 1-26$ | 3.3 | Jesus: Prayer to the Father | 65 |
| $18: 1-19: 42$ | 3.4 | Friday: Arrest, condemnation, crucifixion | 231 |
| $18: 1-27$ | 3.41 | Night: Jesus arrested, questioned by Annas | 70 |
| $18: 28-19: 16 a$ | 3.42 | Praetorium: Trial before Pilate | 88 |
| $19: 16 b-42$ | 3.43 | Golgotha: Crucifixion, death, burial | 73 |
| $20: 1-31$ | 3.5 | Easter: Appearances of the risen Lord | 84 |
| $\mathbf{2 1 : 1 - 2 5}$ | $\mathbf{4 .}$ | Epilogue: The risen Lord appearing in Galilee | $\mathbf{7 8}$ |
| $\mathbf{1 : 1 - 2 1 : 2 5}$ | $\mathbf{0 . - 4 .}$ | Gospel of John: Revelation of God's Son incarnate | $\mathbf{2 1 4 2}$ |

## Summary

The Gospel of John, usually divided into one long part and one short (chapters 1-12; 13-21), gains a well-balanced structure through a further main caesura before chapter 7. This hypothesis is here proven by a detailed analysis of the narrative and corroborated by measuring the exact lengths of sections and subsections. For this purpose the stichos is introduced, the standard line of 15 syllables used for classical Greek prose. The numbers of the so-called Fibonacci sequence seem to have been applied to realise specific proportions. The article aims to demonstrate the fruitfulness of a stichometric approach.

## Keywords

Gospel of John, structure, stichometry, Fibonacci numbers, concentric symmetry


[^0]:    ${ }^{1}$ See F.G. Lang, "Kompositionsanalyse des Markusevangeliums", ZThK 74 (1977) 1-24, at 18.
    ${ }^{2}$ A shorter version was presented at the International SBL Meeting in Helsinki in August 2018. I would like to thank Dr. Beverly Olson, Heidelberg, for linguistic assistance.

    3 Some place this main break differently (unconvincingly), see: H. Thyen, Das Johannesevangelium (HNT 6; Tübingen 2005) 509: at 11:1; J. Mateos and J. Barreto, Juan (Lectura del NT 4; Madrid 1979) 34: at 11:55; J.A. Brant, John (PaideiaCNT; Grand Rapids, MI 2011) VIII: at 12:12.

    4 See M. Theobald, Das Evangelium nach Johannes: Kapitel 1-12 (RNT; Regensburg 2009) 100: "Bucheröffnung"; W. Klaiber, Das Johannesevangelium (2 vols.; Botschaft des NT; Göttingen 2017/18) 1:21: "Hinführung".

[^1]:    ${ }^{12}$ See Brown, John, 1:201; R.A. Culpepper, The Gospel and Letters of John (Nashville, TN 1998) 148; G. Zevini, The Gospel according to John (Rome 2009) 39; J. Beutler, Das Johannesevangelium (Freiburg 2013) 5, 179.
    ${ }^{13}$ See G. Korting, Die esoterische Struktur des Johannesevangeliums (2 vols.; BU 25; Regensburg 1994) 1:292; C.S. Keener, The Gospel of John (2 vols.; Peabody, MA 2003) 1:XII: 7.1-10.42; 11.1-12.50 as new sections; Klaiber, Johannesevangelium, 1:9.
    ${ }^{14}$ See E.A. Wyller, "In Solomon's Porch: A Henological Analysis of the Architectonic of the Fourth Gospel", ST 42 (1988) 151-167, at 162: 8.12-12.50 as third of five acts; cf. Østenstad, "Structure", 50; Thyen, Johannesevangelium, 419: see above n. 7. See also G.L. Borchert, John 1-11 / John 12-21 (2 vols.; NAC 25A/B; Nashville, TN 1996/2002) 2:30: 12:1-50 as "magnificent saddle text", central part of seven.
    ${ }^{15}$ See Schnelle, Johannes, 14: "Kana-Ringkomposition".
    ${ }^{16}$ Similarly: Brown, John, 1:CXL: 3:1-4:3 as third part of five; Klaiber, Johannesevangelium, 1:7; Theobald, Johannes, 7: 3:1-21 or 2:23-3:21 as separate part of six.

[^2]:    ${ }^{17}$ The note $10: 40-42$ is often seen as conclusion; it is drawn to the Lazarus story by: Bultmann, Johannes, 299; Theobald, Johannes, 705.
    ${ }^{18}$ Differently on 8:12-59: Thyen, Johannesevangelium, 419: beginning of "vierter und zentraler Akt $(8,12-12,50)$ " though still taking place on the feast of Booths; K. Wengst, Das Johannesevangelium (ThKNT 4; Stuttgart 20193) 260: new subsection since no explicit reference to Sukkot.

[^3]:    ${ }^{19}$ See Wengst, Johannesevangelium, 292; differently most other commentaries.
    ${ }^{20}$ Differently Theobald, Johannes, 687: 10:22-39 as a new subsection since taking place on the festival of dedication, the verses about "my sheep" $(10: 27-28)$ as insertion of a later redactor.
    ${ }^{21}$ See NA ${ }^{28}$ : sa ${ }^{\text {ms }}$ ly cw $=$ one Sahidic manuscript, the Lycopolitanic version, and that of Dialect W , all in manuscripts of 4 th $/ 5$ th cent. (see $\mathrm{NA}^{28}, 73^{*}-76^{*}$ ). Cf. B.M. Metzger, $A$ Textual Commentary on the Greek New Testament (Stutgart 1975) 229: "Diatessaron lacks verses 38 and 39 entirely."
    ${ }^{22}$ See C.S. Stevens, "John 9.38-39a: A Scribal Interjection for Literary Reinforcement", JGRChJ 11 (2015) 19-32, at 21.
    ${ }^{23}$ Cf. Schnackenburg, Johannesevangelium, 2:323: "Fortschritt des Mannes von seinem jüdischen ... zum christlichen Glauben".

[^4]:    ${ }^{24}$ See Brown, John, 1:375; cf. C. Porter, "John ix. 38, 39a: A Liturgical Addition to the Text", NTS 13 (1967) 387-394; Barrett, Johannes, 367.
    ${ }^{25}$ See Thyen, Johannesevangelium, 471.
    ${ }^{26}$ Cf. Schnackenburg, Johannesevangelium, 2:322 n. 5: The argument against the short text ("Außerdem erwartet man nach der Frage des Mannes V 36 eine Reaktion auf Jesu Selbstoffenbarung") can also be used against the longer text since it explains the insertion, the short text then being lectio difficilior; Schnackenburg admits on the other hand: "Die Auslassung ist allerdings schwer zu erklären."

[^5]:    ${ }^{27}$ See the overview in Schnelle, Johannes, 310-314.
    ${ }^{28}$ Cf. W.A. Brouwer, "The Chiastic Structure of the Farewell Discourse in the Fourth Gospel, Part 1/2", BSac 175 (2018) 195-214, 304-322: the distinction between dialogue and monologue (though mentioned: 318), is overlaid by the idea of macrochiasm (15:1-17 as centre).
    ${ }^{29}$ Cf. Bultmann, Johannes, 501: only six scenes, 19:1-7 as unit.
    ${ }^{30}$ See Brown, John, 2:858-859; Schnackenburg, Johannesevangelium, 3:275-276; Zumstein, Johannesevangelium, 688. Sometimes 18:28 is regarded as exposition (Schnackenburg, Zumstein), 19:16a as conclusion (Zumstein), the last scene beginning in 19:12a (Brown), 19:12b (Bultmann), or 19:13 (Schnackenburg, Zumstein).

[^6]:    ${ }^{31}$ Cf. Brown, John, 2:785: 18:1-11, 12-13, 14-27. Usually only two scenes, see Zumstein, Johannesevangelium, 659: 18:1-11, 12-27; Wengst, Johannesevangelium, 480: 18:1-14, 15-27.
    ${ }^{32}$ Usually six scenes, see Schnackenburg, Johannesevangelium, 3:311: 19:16b-22, 23-24b, 24c-27, 28-30, 31-37, 38-42; cf. Brown, John, 2:911: seven concentrically arranged scenes, 19:25-27 as center.
    ${ }^{33}$ Cf. Brown, John, 2:965; Klaiber, Johannesevangelium, 2:233: two parts as well, but four instead of six units.
    ${ }^{34}$ Cf. W. Bauer, Das Johannesevangelium (HNT 6; Tübingen 1933³) 235; Thyen, Johannesevangelium, 791; strongly denied by Schnelle, Johannes, 396-398.

[^7]:    ${ }^{35}$ Vitruvius, Arch. 5.preface.3.
    ${ }^{36}$ See F. Sbordone, "La poetica oraziona alla luce degli studi più recenti", ANRW 2.31.3 (1981) 1866-1920, at 1902.
    ${ }^{37}$ See $13 / 21=0.6190476 \ldots, 21 / 34=0.6176470 \ldots$
    ${ }^{38}$ See Nicomachus (2nd cent. AD), Introd. arithm. 2.28.6, 10; cf. Iamblichus (c. 300), In Nicom. arithm. intr. (ed. Pistelli/Klein) 117.20-23; 118.9-18.
    ${ }^{39}$ The name was given to the series by É. Lucas, after Fibonacci's [Leonardo's] book had been printed the first time; see Leonardus [Pisanus], Il liber abbaci (ed. B. Boncompagni; Rome 1857) 283-284; É. Lucas, "Recherches sur plusieurs ouvrages de Léonard de Pise", Bulletino di bibliografia e di storia delle scienze matematiche e fisiche 10 (Rome 1877) 129-193, 239-293, at 135.

[^8]:    ${ }^{40}$ For an extensive introduction see: F.G. Lang, "Schreiben nach Maß: Zur Stichometrie in der antiken Literatur", NovT 41 (1999) 40-57; idem, "Adam - Where to Put You? The Place of Romans 5 in the Letter's Composition", Textual Boundaries in the Bible: Their Impact on Interpretation (ed. M.C.A. Korpel and P. Sanders; Pericope 9; Leuven 2017) 189-218, at 195-204.
    ${ }^{41}$ See Menander Rhet. (ed. D.A. Russell and N.G. Wilson, Oxford 1981) 423.3-5; 434.6-9; 437.1-4.

    42 Josephus, A.J. 20.267: 20 books of 60,000 stichoi, i.e. 3,000 stichoi for one book on average (rounded up generously!).
    ${ }^{43}$ Plinius, Ep. 4.11.16: ego non paginas tantum, sed versūs etiam syllabasque numerabo.

[^9]:    ${ }^{44}$ See F.G. Lang, "Ebenmass im Epheserbrief: Stichometrische Kompositionsanalyse", NovT 46 (2004) 143-163; idem, "Maßarbeit im Markus-Aufbau: Stichometrische Analyse und theologische Interpretation", $B N$ 140/141 (2009) 111-134/101-115; idem, "Disposition und Zeilenzahl im 2. und 3. Johannesbrief: Zugleich eine Einführung in antike Stichometrie", BZ 59 (2015) 54-78; idem, "Adam: Romans", 189-218; idem, "Observations on the Disposition of Hebrews", NovT 61 (2019) 176-196; idem, "Remarkable Proportions in the Disposition of 2 Corinthians", CBQ 82 (4/2020, forthcoming).
    ${ }^{45}$ For a more extensive explanation see: Lang, "Adam: Romans", 205-206.
    ${ }^{46}$ The exact numbers are: 31:10 stichoi in 4 paragraphs (Mark 1:1, 2-4, 5-8, 9-13), 32:05 stichoi in 3 (Acts 1:1-3, 4-8, 9-11), and 33:01 stichoi in 3 (Rom 1:1-7, 8-12, 13-15); see Lang, "Maßarbeit" I, 125-126; idem, "Disposition 2-3 John", 74; idem, "Adam: Romans", 207.

[^10]:    ${ }^{47}$ Another line break is preferred before 1:11 instead of 1:6 (UBS $)$, the exact stichoi numbers then being: 14:12, 5:13, 12:09.
    ${ }^{48}$ Exact numbers of the three scenes: 37:03 stichoi in 3 paragraphs, 19:10 stichoi in 3, and 23:10 stichoi in 1 . Line breaks, additionally to UBS ${ }^{5}$ : before 1:32, 37, 40.
    ${ }^{49}$ Exact numbers: $27: 13,81: 08,34: 06,98: 14,27: 04$ stichoi; nine line breaks are added: before $2: 6,11 ; 3: 10,14,25 ; 4: 19,45,46 \mathrm{~b}, 54$; four are deleted: before $2: 12 ; 3: 16 ; 4: 43$, 46a.
    ${ }^{50}$ Exact numbers: $39: 08,69: 14,58: 04,81: 05,26: 12$ stichoi; three line breaks are added: before $5: 16 ; 6: 25,43$; two are deleted: before 5:30; 6:66

[^11]:    ${ }^{51}$ Exact numbers: $28: 08,54: 08,31: 08,91: 09,29: 00$ stichoi; two line breaks of UBS $^{5}$ are deleted: before 7:10; 8:39.
    ${ }^{52}$ Exact numbers: $26: 09,54: 02,8: 00,53: 09,36: 14$ stichoi; two line breaks are deleted: before 10:1, 31 .
    ${ }^{53}$ Cf. Thyen, Johannesevangelium, 419: 10:30 as "exakt die Mitte des Evangeliums".
    ${ }^{54}$ Both versions are backed by old witnesses: $\mathfrak{P}^{66^{*}} \mathrm{~B}$ etc. Nestle ${ }^{25}$ without $\alpha$ v̉toî̧; against $P^{66 c .75} \times D$ etc.
    ${ }^{55}$ The longer version is supported by better witnesses: $\mathfrak{P} \mathcal{P}^{66.75} \mathrm{\aleph}$ B L W etc. against A D $\Theta \Psi$ $0250 f^{1.13} \mathfrak{R}$ etc.; but the sabbath day is rather emphasized secondarily than the other way around.
    ${ }^{56}$ Exact number: 13:01, exceptionally counted as 13 stichoi.

[^12]:    ${ }^{57}$ See above nn. 21-26.
    ${ }^{58}$ Exact numbers: 102:07, 59:09, 95:01. Five line breaks are added: before 11:20, 31, 32; $12: 29,37$; nine are deleted: before $11: 1,28,38,54,55 ; 12: 1,9,27,36 b$; the last stichos is tolerated with 16 syllables in 12:37-43, 44-50.
    ${ }^{59}$ Exact ratio: 257:02 / 414:07 $=0.62039 \ldots$; cf. $13 / 21=0.61904 \ldots$
    ${ }^{60}$ Exact ratio: 268:07 / 436:06 $=0.61518 \ldots$; cf. 8/13 $=0.61538 \ldots$

[^13]:    ${ }^{61}$ Exact numbers: 68:14, 80:05; 62:13; 74:09 stichoi. Nine line breaks are added: before $13: 6,26 \mathrm{~b} ; 17: 11 \mathrm{~b}, 25 ; 20: 3,26 ; 21: 2,9,14$; one is deleted: before $21: 25$.
    ${ }^{62}$ Exact numbers: 241:07, 224:04 stichoi. Fifteen line breaks are added: before 14:8, 22, 27; $15: 9,22 ; 16: 17,19,23 b, 29,31 ; 18: 15 b, 33 ; 19: 4,12 b, 25$; twelve are deleted: before $14: 25 ; 15: 11 ; 16: 1,16,25 ; 18: 15$ a, 19, 25; 19:13, 23, 28, 38.
    ${ }^{63}$ Exact numbers: 96:04, 47:03 stichoi; 7 and 5 paragraphs.
    ${ }^{64}$ Exact numbers: 19:02, 21:07; 11:04, 8:12; 12:01, 14:09, 10:10 stichoi.
    ${ }^{65}$ See Barrett, Johannes, 484: paragraphing; Schnackenburg, Johannesevangelium, 3:191: caesura before 17:11b. Exact numbers: 12:02, 12:11; 19:05, 14:00, 4:10 stichoi.
    ${ }^{66}$ Exact numbers: 26:13, 8:02, 33:09; 13:02, 19:03, 7:01, 6:04, 13:00, 11:04, 13:09; 25:11, $14: 07,31: 14$ stichoi. The ratio of the exact numbers ( $83: 08 / 140: 11=0.59355 \ldots$ ) is closer to $3 / 5=0.6$ than to $8 / 13=0.61538 \ldots$
    ${ }^{67}$ Exact numbers: 6:13, 14:14, 22:11; 12:03, 7:01, 10:07; 6:01 stichoi.
    ${ }^{68}$ Exact numbers: 2:12, 22:14, 12:01; 1:09, 18:01, 11:06, 5:11 stichoi.

[^14]:    ${ }^{69}$ Exact totals: 659:10 and 671:09 stichoi in 46 and 31 paragraphs.
    ${ }^{70}$ See T. Zahn, Geschichte des Neutestamentlichen Kanons II/1 (Erlangen/Leipzig 1890) 393-395: table with n. 4: 2300 and 1938 stichoi; G. Zuntz, "Wann wurde das Evangelium Marci geschrieben?" Markus-Philologie (ed. H. Cancik; WUNT 33; Tübingen 1984) 60: 2024 stichoi in family 13.
    ${ }^{71}$ Cf. K. Lake, The Text of the New Testament (6th ed.; London 1953) 61: the 16 -syllable measure was supposedly used for Acts and Epistles, the 15 -syllable line for the Gospels. Yet the transmitted numbers allow the conclusion that the two different standard lines were used in all NT writings.

[^15]:    ${ }^{72}$ See I.M.A. Scholz, Novum Testamentum Graece (vol. 1; Lipsiae 1830) XXviII: cod. 20.
    ${ }^{73}$ For the bracketed and other variants see Zahn, Geschichte, 393-395.
    ${ }^{74}$ For 2700 see D. Serruys, "Anastasiana", MEFR 22 (1902) 157-207, at 201; for 2310: C.H. Turner, "An Unpublished Stichometrical List from the Freisingen MS of Canons", JTS 2 (1902) 236-253, at 242; for 1737: C. Markschies, "Haupteinleitung", AcA 1/1 (Tübingen 2012) 132: "syrisches Verzeichnis aus dem Katharinen-Kloster".
    ${ }^{75}$ See www.stichometrie.de/pdf/Thukydides-Analyse.pdf on Thukydides, 2.35-46; www.stichometrie.de/pdf/Cicero-Analyse-1995.pdf on: Cicero, fam. 7.1.

