Annexes
In the present Annex, references are made to the list of books and notes in the end of the Annex.

Curtius [d1], Schwyzer [d2] and Cherny [d3] noted the similarity between systems [d4] of perfective and imperfective aspects of the verb in the ancient Greek and Slavonic languages. Thus, the imperfective aspect of a verb (praesens) indicates that the action in question is rather a process that goes through various stages over the course of time. Cf.: I am dying (imperfective aspect), I have died (perfective aspect), I am dead (conveys effective aspect). While perfective aspect of a verb (aoristus) (cf.: similarly) indicates either a momentary action (cf.: gave a cry, drew breath), or the moment when a given action begins (cf.: she started singing), or ends (cf.: she stopped singing). One should note, however, that the ancient Greek language has, besides perfective and imperfective aspects, effective aspect (perfectum) (cf.: gave a cry, drew breath), which does not exist in contemporary Slavonic languages but still can be seen as traces (in the Russian language, for instance ([d5])). This aspect is used to either refer to an achieved result of action usually continuing at the moment of speech, or a state caused by such completed action which is still a reality.

Let us look at a phrase by Thucydides:

… ὃ ἡλιος ἔξελπε … καὶ πάλιν ἀνεπληρώθη …

That is, “The sun darkened (disappeared)… and again (anew) replenished”. The form [d4] ἔξελπε (darkened) is used to refer to the 3rd person, singular, active voice of the verb ἐκλείπω, indicative mood, perfective aspect (3 Sin. aoristi indicative activi). The form [d4] ἀνεπληρώθη (replenished) is used to refer to the 3rd person, singular, passive voice of the verb ἀναπληρῶ, indicative mood, perfective aspect (3 Sin. aoristi indicativi passivi). Further: ἔξελπε and ἀνεπληρώθη are similar predicates related to the subject ὃ ἡλιος (the sun). Actions expressed by these verbs in perfective aspect are not simultaneous. This difference, a certain gap between ἔξελπε (darkened) and ἀνεπληρώθη (replenished), is indicated by πάλιν (again, rursus, wieder, вновь).

Note 1. In the Greek language, in order to indicate the simultaneity of actions performed by the same person (in present, past, and future tense), personal form of one verb and the imperfective aspect of another one’s participle [d6]. E.g.: “The sun, darkening, replenished”, “The sun, having darkened, replenished”.

Note 2. A number of verbs in imperfective aspect, being predicates with one subject, can denote actions which at a certain moment of development occur simultaneously (i.e. imperfective aspect neither indicate the beginning nor the end of an action).
The next part of the phrase:

γενόμενος μηνοειδής καὶ ἀστέρων τινὸς ἐκφανέντων

— explains circumstances that provide us with additional information. In adverse case, these actions would likewise be expressed by personal forms of verbs:

ό ἣλιος ἐξέλιπε ... καὶ πάλιν ἀνεπληρώθη καὶ ἐγένετο μηνοειδής καὶ ἀστέρες τινες ἐξεφάνησαν ἐξεφάνησαν,

“The sun darkened... and again replenished, and became similar to the crescent, and some stars appeared in sight”. Further: γενόμενος – the perfective aspect participle from the verb γίγνομαι, the coordinated in masculine gender, singular, nominative with the subject ο ἣλιος. The participle is used instead of adverbial modifier subordinate clause, when the subject of a subordinate clause is a part of the principal clause (in this case, the subject of the principal clause) [d7].

Perfective aspect participle (adverbial modifier and the predicative participles) always expresses precedence [d8] to the action of the principal verb, as opposed to the imperfective aspect participle that refers to the simultaneity of its action and that of the principal verb. See Par. III, Note 1. In our phrase γενόμενος (having become, having turned) means precedence only to the action ἀνεπληρώθη (replenished). First, if the author should need to indicate that this action (γενόμενος – having become) equally precedes action ἐξέλιπε (darkened) and action ἀνεπληρώθη, then the phrase would be constructed differently, along the lines of:

... γενόμενος μὲν μηνοειδῆς ὁ ἣλιος ἐξέλιπε καὶ πάλιν ἀνεπληρώθη ἐκφανέντων ὑπὲρ ἀστέρων τινῶν ἐκφανέντων

or “having become similar to the crescent, the sun darkened and again replenished”.

Second, καὶ πάλιν means a strict sequence of actions ἐξέλιπε and ἀνεπληρώθη, clearly dividing one from the other [d9]. Therefore, one should not believe the circumstances accompanying one action (ἀνεπληρώθη) to equally relate to the other (ἐξέλιπε). Thus, the sun had acquired the shape of the crescent before it replenished, and after (or simultaneously with) having darkened. Translators to German, English, and French can only convey this sequence by description: these languages have no participle which would possess the meaning of precedence. Adverbial modifier subordinate clause, the subject of which does not occur in the principal clause, neither in nominative nor in any other indirect case, can be replaced by a special adverbial modifier construction Genitivus Absolutus, where the subject of a subordinate clause is in the genitive case, and the predicate is replaced [d10] by the genitive case of the participle of the same verb.

If the construction Genitivus Absolutus contains an imperfective aspect participle, then the action of the construction occurs simultaneously with that of the principal clause [d10]. E.g.,

ό ἣλιος ἀνεπληρώθη ἀστέρων τινῶν ἐκφανέντων,

“The sun replenished, at the same time some stars were coming in sight”.

If the construction Genitivus Absolutus contains a perfective aspect participle, then the action of the construction precedes that of the principal verb [d10]. E.g.,

ό ἣλιος ... ἀνεπληρώθη ... ἀστέρων τινῶν ἐκφανέντων,

“The sun replenished, before that some stars came in sight”.

In our phrase, the action of the construction Genitivus Absolutus only precedes the action ἀνεπληρώθη (replenished). Indeed, the phrase:

... ὁ ἣλιος ἐξέλιπε ... καὶ πάλιν ἀνεπληρώθη γενόμενος μηνοειδῆς καὶ ἀστέρων τινῶν ἐκφανέντων

the conjunction καὶ πάλιν joins the predicate ἐξέλιπε (darkened) and the predicate ἀνεπληρώθη (replenished), while the conjunction [d11] καὶ joins the circumstance actions which, for the purposes explained above, are constructed differently from the grammatical viewpoint. However, Thucydides might have expressed both circumstance actions through similar adverbial modifier phrases, such as:

... ὁ ἣλιος ἐξέλιπε ... καὶ πάλιν ἀνεπληρώθη, ἐπεὶ ἐγένετο μηνοειδῆς καὶ ἐπεὶ ἀστέρες τινες ἐξεφάνησαν

“The sun darkened and again replenished after it had become similar to the crescent, and after some stars have come in sight”.

472 | HISTORY: FICTION OR SCIENCE? CHRON 1
Thus, the actions γενόμενος and ἀστέρων τινῶν ἐκφανέντων are joined by the conjunction καὶ and compose a united adverbial modifier group related to ἀνεπληρώθη; however, it is impossible to establish, judging merely by the grammatical analysis, the correlation between the actions γενόμενος μπορείνης and ἀστέρων τινῶν ἐκφανέντων (the appearance of the crescent sun and the stars) – namely, the precedence of one over the other, or the determination of a dependence existing between the two events.

Note 3. If we consider καὶ to unite the construction Genitivus Absolutus with the whole of the phrase

... ὁ ἡλίου ἐξέλισε ... καὶ πάλιν ἀνεπληρώθη ... καὶ ἀστέρων τινῶν ἐκφανέντων,

– then the appearance of stars in the sky turns out to have preceded both the darkening and the replenishing of the sun. In this case, the contraposition (of the appearance of stars against the darkening and the replenishing of the sun) is obvious and not expressed by particles μὲν and δὲ grammatically:

... ὁ ἡλίου ἐξέλισε ... καὶ πάλιν ἀνεπληρώθη ... καὶ ἀστέρων δὲ τινῶν ἐκφανέντων.

Therefore, such a stance is erroneous. On the other hand, acknowledging that καὶ simply unites the construction Genitivus Absolutus with the whole of the phrase, without any contrapositions of any kind attests to the fact that the action of the “appearance of stars” is of equal value with, and similar to, the action of “darkening-replenishing”, which is impossible. Firstly, Genitivus Absolutus is by nature an adverbial modifier and of equal value with a subordinate clause, therefore cannot have equal rights with the principal clause, but should be subordinate thereto. Secondly, ἐξέλισε, ἀνεπληρώθη and ἀστέρων τινῶν ἐκφανέντων, possess no similarity, and so it would be an error to ascribe the actions “darkened”, “replenished”, “stars appeared”, etc. to the same class of events.

Conclusion. Sequence of events is as follows: the sun darkened – assumed the shape of a crescent – the stars came into sight – the sun replenished again.

As a rule, contemporary languages convey the constructions of the ancient Greek by proxy of description, where the forms available are clarified by means of adverbs or other form words [d13]. Thus, the construction of Genitivus Absolutus is replaced by a subordinate clause, and the adverb γενόμενος – by a personal form of verb. To show the precedence of the action “assumed the shape of a crescent” to the action “replenished”, a relevant word order is used.

Literature and Notes to Annex 2.1.
[d3] Cherny, On Relation of Aspects of Russian Verb to Greek Tenses. SPb., 1887, pp. 4-8.
[d4] The issue of terms needs to be discussed: verbal forms are a complex fusion of meanings – aspect, mood, tense, etc. Disagreement may arise on whether a verb is in an indicative mood of the perfective aspect, or whether the verb of perfective aspect is in the indicative mood; whether an aspect has the participles of verb “x”, or whether the verb “x” of a certain aspect has participles. Issues like that are beyond the scope of the current work and believed to be terminological issues. In this case, we are concerned with the fact that two forms can be contraposed by the same feature – aspect of verb, e.g.: ἐξέλισε, ἐξέλισε – 3rd person, singular, active voice, indicative mood, but ἐξέλισε is a verb of the imperfective aspect, while ἐξέλισε is a verb of the perfective aspect.
[d5] Such as gender contraposition in the past tense. The existing form originates from a perfect adverb.
[d7] Ibid., paragraphs 45 and 138—143.
[d8] Ibid., paragraph 103 b, Cherny, On the Relation of Aspects..., pp. 21—28.
[d12] Ibid., paragraph 522. On simultaneity and the precedence of actions, see also Cherny, On the Relation of Aspects..., especially the pages 21-28.