**History of building construction 2017/2018**

**Lesson 3 Exercises**

*21tst March 2018*

Reading Comprehension

Rowland J. Mainstone , *Justinian’s church of St. Sophia, Istanbul. Recenti studies of its construction and first partial reconstruction*, “Architectural History”, vol. 12, 1969, pp. 39-49, 102-107.

*Introduction p. 39*

The main dates of Justinian’s church St. Sophia

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The spatial characteristics of St.Sophia, underline the key words and match the terms with figure 24.



The primary sources for St. Sophia’s history. Which methodology did Mainstone use to check the informations given in these texts?

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*Architectural origins p. 40*

The fundamental concepts of St. Sophia design considering the plan and the function.

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The role of another Justinian’s church, St. Sergius and Bacchus as a model for St. Sophia

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*Structural problems p. 41*.

The arch as a catenary form and the origin of the line of thrust

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The first important decision taken considering structural action

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The importance of the tie..if the dome and the semidomes were constructed today

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Construction p. 43

Construction of the main arches and the level of structural awareness

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The function of lead joints and of brick dust in the mortar

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Failures and remedial actions p. 44

How can we distinguish the original design and the addition done during the initial construction?

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The “active demons” cited by Procopius were referred to?

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The change to the dome profile made by the young Isidorus, a solution against new risks…

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The primary cause of the collapse of the dome is due to the…

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