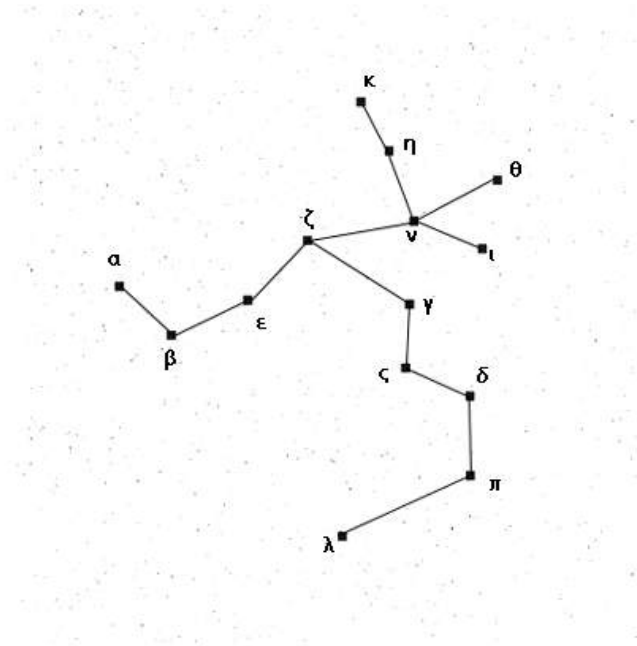


ASTRONOMICAL  
GARDEN

# INTRODUCTION



Astronomy is considered as the oldest natural science. From the beginning of the mankind people have been observing stars and their movement, which was important from religious, mythological, calendrical, astrological and cosmological aspects. Ancient civilizations have been erecting buildings with such function which would help them in more precise star observation. Throughout history these buildings have been transformed in more refined shapes and sizes, but remaining with the same function.



Figure 1-El Caracol, Yucatan, Mayan Observatory



Figure 2-Jantar Mantar, Jaipur, Indian Observatory

Idea for such building was implemented on the former property of mathematician and astronomer Nagy Károlyi, where the observatory was used in his research work. Once one of the most modernly equipped scientific sites in Hungary, today only the remaining of the buildings are slowly disappearing in the dense forest. Consequences from historical events which occurred on the plot and lack of sources necessary for maintenance of the site created visible traces on the buildings, which are today standing in the ruins and reminding of once majestic property. The question has risen in what way can the spirit of former astronomical garden be revived, so the remaining buildings and their function does not fall into oblivion.



# SITE PLAN

1.



2.



3.



5.



8.



7.



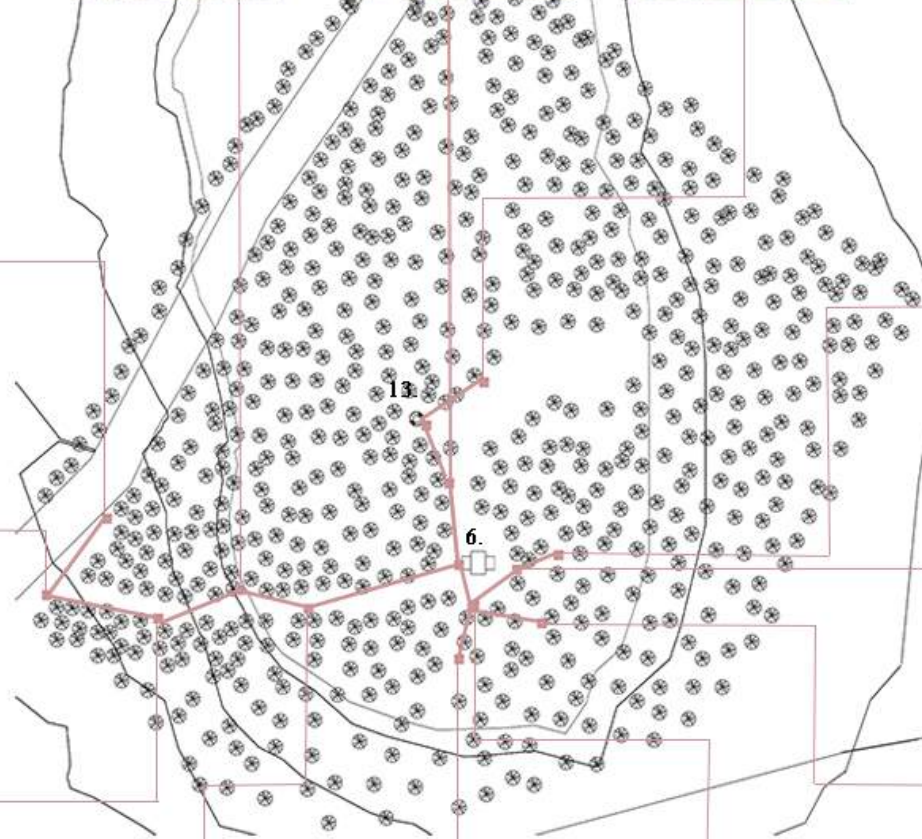
4.



12.



14.



11.



10.

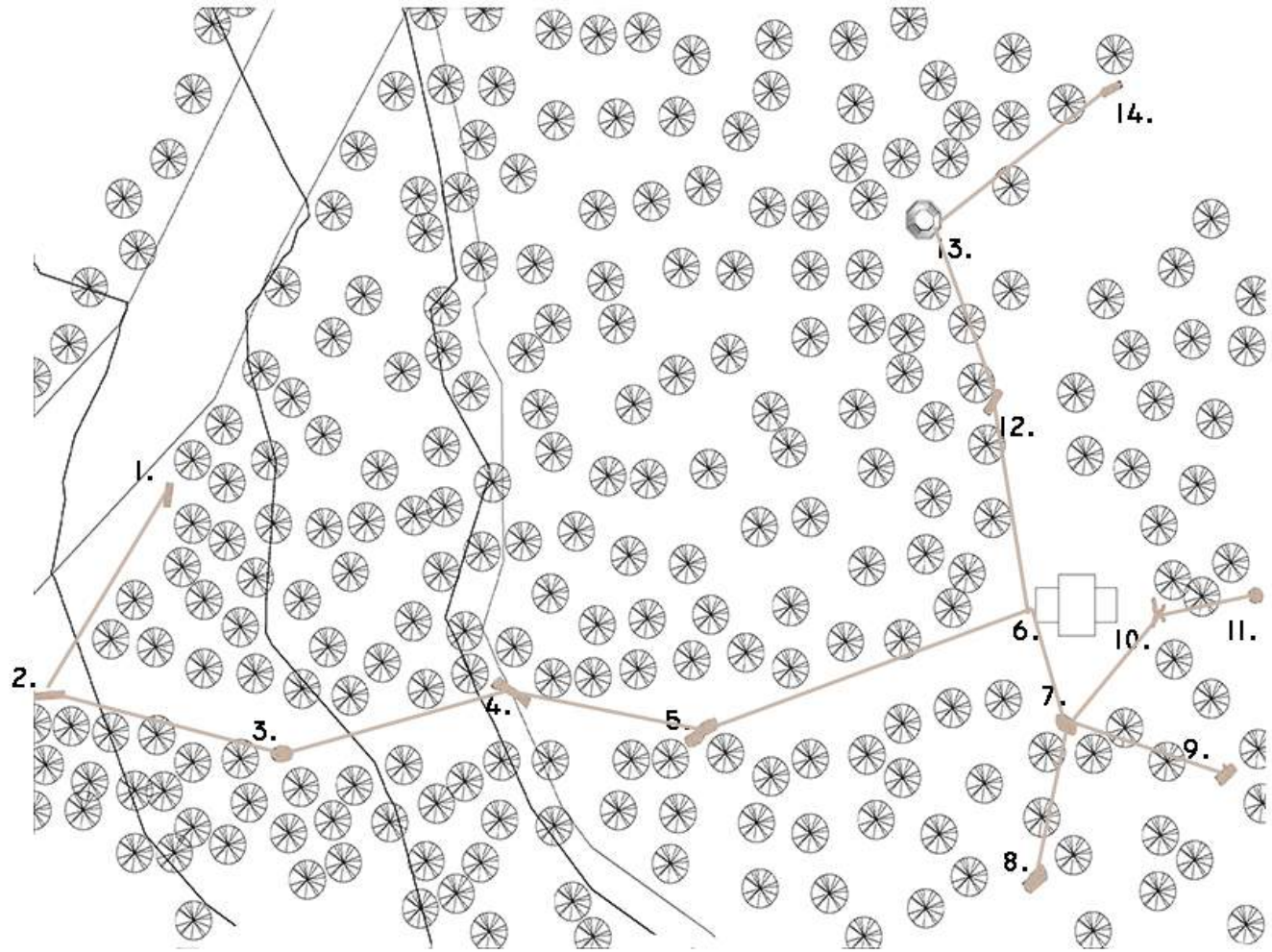


9.



1.  $\lambda$  Centauri – “running chicken nebula”
2.  $\pi$  Centauri – “double main sequence”
3.  $\delta$  Centauri – Ma Wei – “third star of horse’s tail”
4.  $\zeta$  Centauri – Alnair – “from the southern fish’s tail”
5.  $\gamma$  Centauri – Mukhtilifain – “two things”
6.  $\zeta$  Centauri – Alnair – “the bright one”
7.  $\nu$  Centauri – “ellipsoidal variable star”
8.  $\iota$  Centauri – Alhakim – “wise one”
9.  $\theta$  Centauri – Menkent – “shoulder”
10.  $\eta$  Centauri – “shell star”
11.  $\kappa$  Centauri – Ke Kwan – “third star of imperial guards”/  
“the cavalry officer”
12.  $\epsilon$  Centauri – “1<sup>st</sup> star of southern gate”
13.  $\beta$  Centauri – Hadar – “the settled area”
14.  $\alpha$  Centauri – Rigil Kentaurus – “the foot of the Centaur”

# SITE PLAN



1.  $\lambda$  Centauri

2.  $\pi$  Centauri

3.  $\delta$  Centauri

4.  $\zeta$  Centauri

5.  $\gamma$  Centauri

6.  $\zeta$  Centauri

7.  $\nu$  Centauri

8.  $\iota$  Centauri

9.  $\theta$  Centauri

10.  $\eta$  Centauri

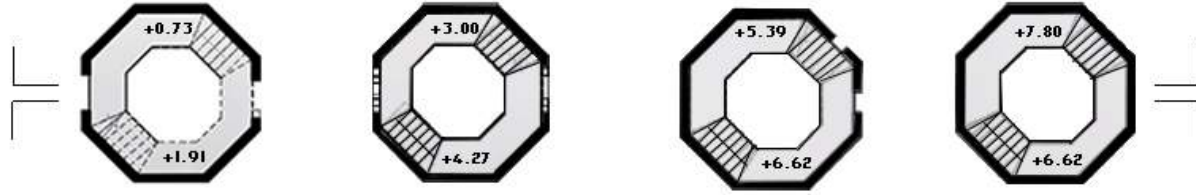
11.  $\kappa$  Centauri

12.  $\epsilon$  Centauri

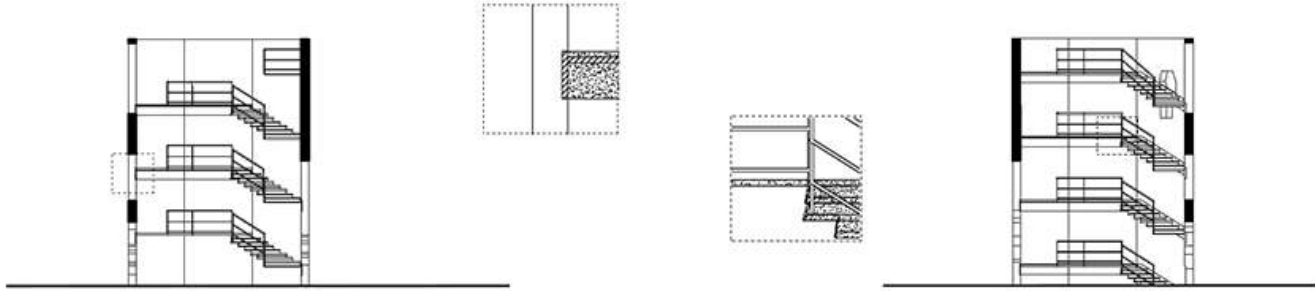
13.  $\beta$  Centauri

14.  $\alpha$  Centauri

# TECHNICAL DRAWINGS



LEVELS OF OBSERVATORY TOWER



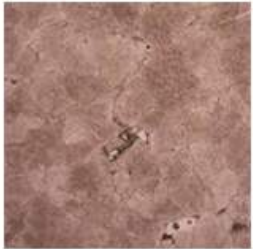
SECTIONS OF OBSERVATORY TOWER  
AND DETAILS



SITE PLAN SECTIONS



# MATERIALS



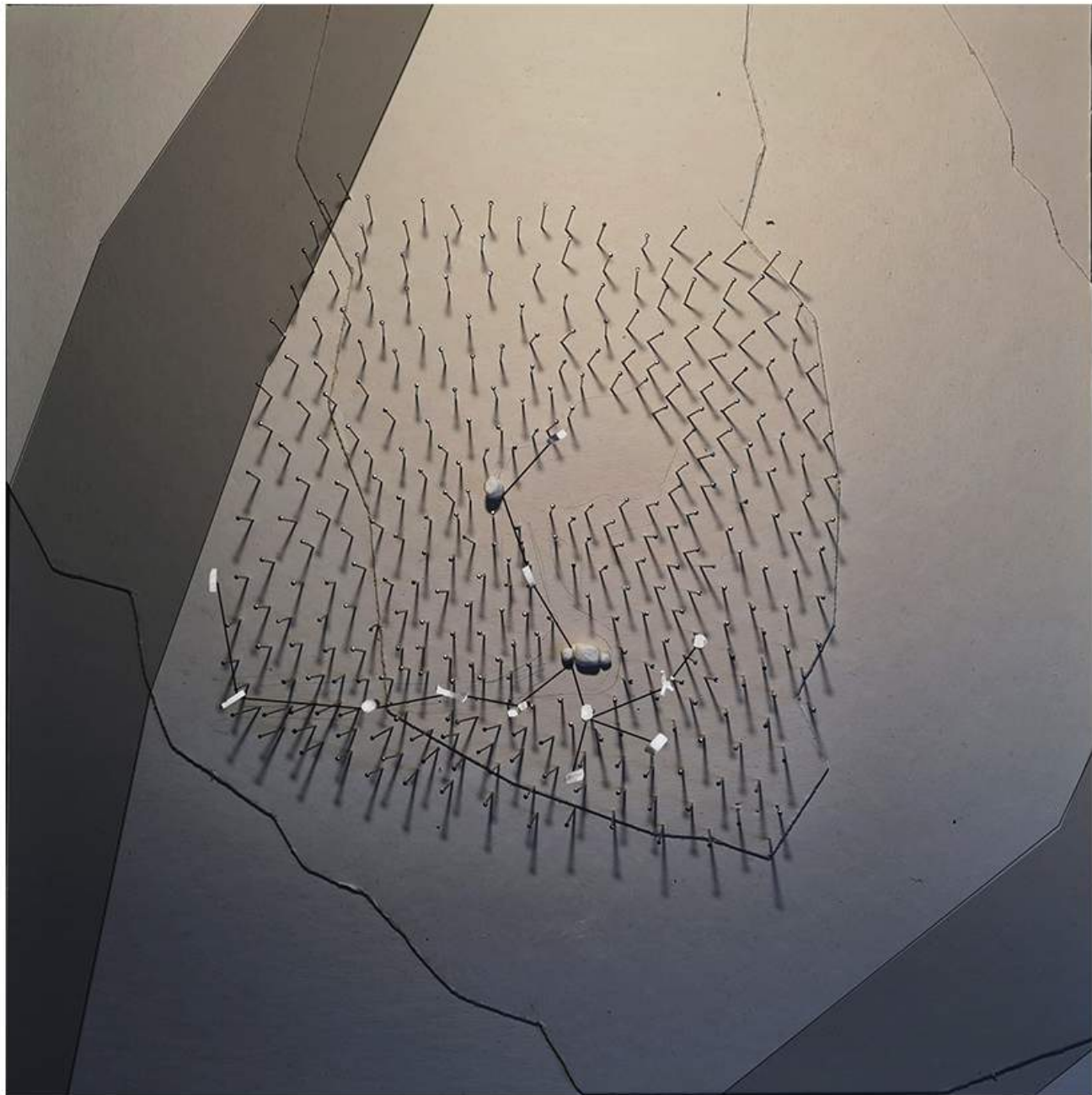
When choosing the material, it was important to select the proper one, in order to represent the “stars” in the most adequate way, and at the same time to use materials which do not require maintenance and are in harmony with the surroundings.

With the research of the area and the geological composition of the soil, it was clear that the area was full of limestone, dolomite, marble and andesite stones, which would fulfill the requirements as the materials of the sculptures, and contribute from an ecological point of view simultaneously, since there is a quarry in the vicinity of the site, from which the materials could be used.

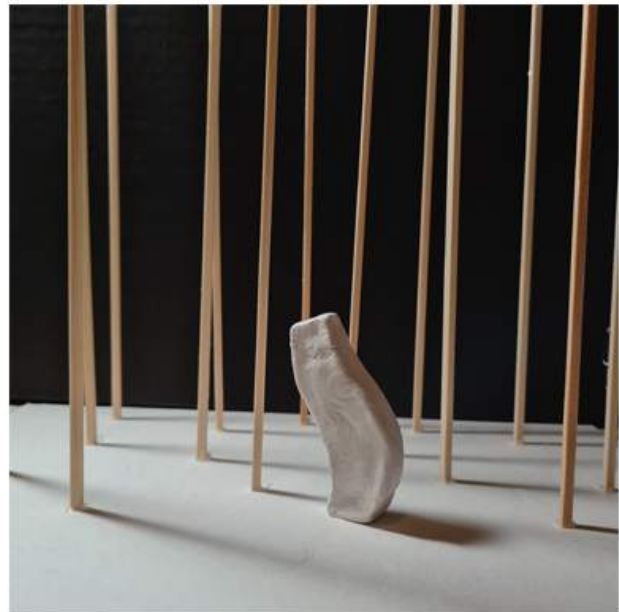
In the quarry a wide range of colors of stones can be found, which helps to better represent the sculptures, since each star/sculpture has different characteristics and meanings and will create diversity among them.

As every sculpture represents in an abstract way the name or the meaning of the star in the Centaurus constellation, so should the material fit to the used form. For the sculptures representing human body or life with its shape, such as  $\alpha$  Centauri, or known as Rigil Kentaurus, meaning “the foot of the Centaur”, or  $\theta$  Centauri, also known as Menkent, meaning “the shoulder”, material with reddish color, such as dolomite, fits the suitable appearance used in sculptures for this representation. For  $\epsilon$  Centauri, which means “1<sup>st</sup> star of the southern gate”, limestone as material is used, because it enhances in the best way the shininess of the sculpture representing the bright gate. Sculptures representing stars  $\delta$ ,  $\zeta$  and  $\eta$  Centauri, whose meaning is related to animals, have material with grey color, such as andesite.

As for the material of the staircase, using the example of the remaining loadbearing parts of the tower, steel has been used in order to maintain the harmony with the structure and provide loadbearing support and prevent the tower from collapsing in the future.







Astronomy is considered as the oldest natural science. Since the beginning of mankind people have been observing stars and their movements, which was important from religious, mythological, calendrical, astrological and cosmological aspects. Ancient civilizations have been erecting buildings with such function, which would help them observe the stars more precisely. Such civilizations, like Maya and Inca used heavens for guidance. Their observatories were built aligned with the motion of the celestial bodies. Throughout history these buildings have been transformed in more refined shapes and sizes but remaining with the same function.



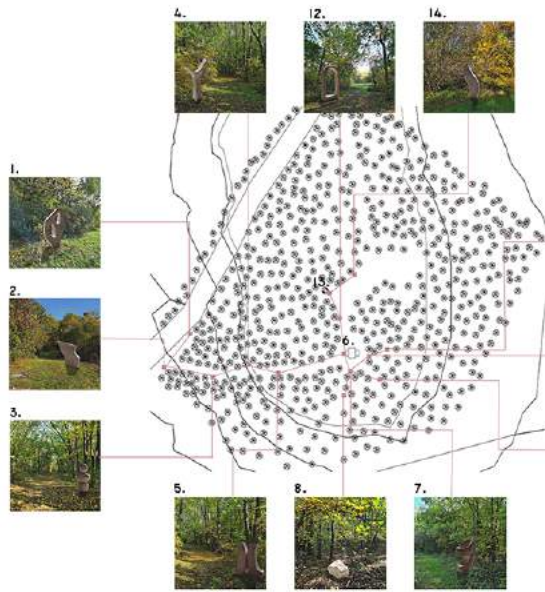
Figure 1-El Caracol, Tiahuacatan, Mexico Observatory



Figure 2-Jantar Mantar, Jaipur, India Observatory

An idea for such a building was implemented on the former property of mathematician and astronomer Nagy Károlyi, where the observatory was used in his research work. Once one of the most modernly equipped scientific sites in Hungary, today only the remaining of the buildings, slowly disappearing in the dense forest. Consequences from historical events which occurred on the plot and lack of sources necessary for maintenance of the site created visible traces on the buildings, which are today standing in the ruins and reminding us of a once majestic property. The question has risen in what way can the spirit of the former astronomical garden be revived, so the remaining buildings and their function do not fall into oblivion.

1



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