

Diploma project: Prague – Troja: Integrated Daylight Design on Cz Floral Conservatory
Student: Rafail Afandiyev
Supervisor: Henry W.A. Hanson IV, MA, MLA
External Reviewer: Doc. Peter Kumble, MLA, PhD. Associate Professor, CZU FES
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Objective

The student has set out to demonstrate how humans and plants derive their energy from solar radiation. He has attempted to use the context of a botanical garden expansion at Prague Botanical Gardens located in Troja.

Analysis

The text dealing with analysis, or understanding of the issues central to the overall design, thematic approaches, and factors that will influence the project has attempted to quantify elements of light, illumination, color and temperature, etc. It is commendable that the author, Mr. Afandiyev, has attempted to present a brief and concise understanding of the factors that may guide the overall design intentions. I must point out that the text in this section of Theoretical Research contains numerous errors in the use of English grammar and punctuation and the document would have benefitted from a good proof reading. Unfortunately this carelessness in the text continues throughout the document. There are many scientific and academic statements made regarding light and aspects of daylight yet very few references to support the statements. I would encourage the student to also see a recent book by the author Bruce Watson entitled, *Light*, (Bloomsbury, 2016) where Mr. Watson eloquently discusses the subject of Light from an historic analysis of both art and science with references to Stonehenge; how architects battled darkness and despair and thus created radiant cathedrals; the work by Leonardo, Newton, and even Edison... this would be a good book for you to read.

Context

The text in the chapter Site Analysis begins to explore the context of the Botanic Garden located in Troja. The graphics are clear however the text is often so small that it suggests the pages are in fact A4 examples from larger A0 boards.

What is missing here is WHY did you select this location as a place to study light and based on your analysis, and specifically what is your analysis of this site other than the basic information presented.

The chapter of Case Studies researched six other botanical gardens. My earlier comment regarding illegibility of the text (tiny font) applies here. Each of the one-paragraph summaries and accompanying photos lack proper reference citations. Some introduction and summary discussion regarding why these six locations were selected for review, as case studies, would be helpful to guide the reader through your analytical thought process. What are the similarities or differences between each of the six; where they designed by a master or part of an estate or on going evolution; are any conservation botanical gardens; how have others used light as both an energy source and educational element in their design and user experience?

The pages that present Average Temperatures, Precipitation, Sun, Wind Speed, Sun Direction, etc appear to be part of the Case Studies chapter. Are they miss-placed here? Also, please provide some of your analysis about the information presented.

Design Concept

This section begins with pages that present elements of a Conservatory vs. Outdoor exhibition; it is not clear if you are presenting what is at the Botanical garden now or if this is your concept(s) for the future. I also don't "get" the connections of a Czech wetland to that of the Nile Delta; an evergreen forest to that of a tropical forest, the Czech meadow to that Savanna

landscape. Why would a botanical garden choose to present such contrasting ecosystems rather than showing the dependence of and transitions of ecological zones to one another?

A circulation diagram then follows this. Is this what you are proposing? I cannot determine from this what is existing, and what is proposed? It would be much more logical to show the existing circulation with an aerial image and then what you are proposing as a change or modification to this. Overall, this information is not clearly presented to help the reader understand what is presented herein within the context of existing conditions and proposed interventions. If this is existing-conditions, should this then be presented in your analysis and inventory?

Utility and layout

I don't "get" the concept of creating a wall that separates the city from the botanical park as you have stated. The wall seems to be the overall driving concept for the entire design and the elements of it. However, in what is a botanical garden where the visitor can experience nature and natural systems and collections from both, why the establishment of a man made wall as the means by which to guide people or convey their experience here? There is no topographic or slope/sections to suggest that a wall is necessary. Also, there has been a well-established trend in the design and development of botanical gardens to favor the concepts of sustainability and conservation, meaning that the garden is presenting how local ecological systems and zones integrate and relate to each other. This allows the visitor to learn from what they see and perhaps apply these concepts at home, etc. In your design, you have a desert garden situated next to a tropical rain forest, neither of which are present here in central Europe. Why? Much of the wall structure and innovative shading device that you have designed seem to be given to a garden café, education reading rooms, a library, an exhibition hall, auditorium, and gift shop. Less than 50% of what you are showing is devoted toward space for collections, and those that you do show are for the aforementioned tropical rain forest and desert garden adjacent to one another.

Presentation

Note that some of the text in the section Site Analysis is so small that it is difficult to read (ie 5 point font); why? Also there are many photographs presented, are they yours? If not, credit the sources.

The two large sections on page 39: it is not clear where these sections are cut throughout the plan. The axonometric plan does not contain any north arrow for orientation or scale (nor do the sections) thus making the four elevations difficult to evaluate. The South Elevation also shows many tall urban buildings; are these even present in this location? They would be more than 70 stories in height if taken in context to the section. Note that the illustrated digital section on Page 47 would be from the same angle yet the tall urban skyscrapers are not present here.

Overall, the printed book or thesis seems to be more of a compellation of larger illustrative boards and what is missing is some commentary narrative that threads all of the work together into a cohesive whole. This work needs to be able to present itself in printed form without an oral presentation accompanying it.

Questions

See my comments in Case Studies and please respond.

Note my confusion in your overall circulation plan vs. existing conditions.

Why the wall as a driving design element?

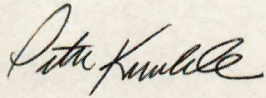
Why place a desert savannah landscape next to a tropical rain forest? What about the other ecological habitat zones, particularly here in central Europe? Are they presented? Where?

Why would a botanical garden choose to present such contrasting ecosystems rather than showing the dependence of and transitions of ecological zones to one another?

Proposed Evaluation

C (good)

Respectfully,

A handwritten signature in black ink, appearing to read "Peter A. Kumble". The signature is written in a cursive style with a large initial "P".

Peter A. Kumble, MLA, PhD
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