

Hungarian Ministry of Local and Regional Development Energy Program

Architectural Programming. Fall 2007

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ENERGY PROGRAM FINAL

Politics affects architecture at all levels. I am interested in the implications political identity may have on architectural design. I have chosen to examine this relationship in a new government complex being planned for Budapest, Hungary. My thesis project will be the Ministry of Local Government and Regional Development. This building will be among 11 other ministries within the new government district being built behind one of the city's oldest train stations. Existing within a post-communist context, the city, its people, and the vision create a strong set of ideological and social forces to address in the construction of a new public building.

Energy, given the popularity of every format of sustainability in the world today, will no doubt play a strong role in political statement. Architecture is one of the largest arenas in which this sustainable association can be made, especially for a dominantly left political climate in which this project is happening. As the white house gets solar panels, the application of energy conservation and environmental responsibility becomes strategy. With the controversial status of global warming and the banalization of sustainable architecture discourse, energy attention is only necessary. The degree to which it drives a buildings' design is the choice of the client or the architect/engineer.

The potentially crucial energy-conscious things to utilize and address after energy scheming are

- a. Attention to extreme heat and solar exposure in the Budapest climate
- b. large supply of geothermal energy below much of the city
- c. north west and south facades open to light
- d. due to the apparent need for the offices to assume a block-style configuration, solar shading devices, and passive cooling such as cross ventilation could be very useful
- e. the use of green space to separate functions such as the less active portions of the community center from the main ministry building

These are only first-glance factors and probable solutions that may become utilized in the schematic phase of this project and its site plan.

The winning masterplan for this entire development (Peter Janesch and Kengo Kuma) won the jury over on grounds of its "environmental responsibility" according to star jury member, Daniel Libeskind.

Through site and contextual analysis, a building type has emerged for my study. The ministry as a somewhat ambiguous typology demands a strong focus on the political implications of architecture in this context. I have narrowed my selection to three Ministries: Local Government and Regional Development, Social Affairs and Labour, or the Ministry of Culture and Education. Out of the eleven ministerial facilities to move to the new government district, these three are set within a context that can address very pertinently current political impetus, national v. international dynamics, cultural preservation, and post-communist capitalism in the eastern bloc. I have outlined here briefly the program elements I wish to address in the project.

- **Ministry Offices:** As the rudimentary type of government space, the office and its array, hierarchy, and adjacencies are an absolute necessary for most new government facilities. Besides obvious layers and hierarchy for the minister and his staff, these typical spaces will examine the role of the official to the people and to the city in general. After doing security diagrams, energy scheming, and scheduling diagrams, it makes sense that the office will be stacked rather than linear, also fitting better to the long narrow site.
- **Public Outdoor Space:** This element represents the detail of the city meeting the building. Inversely, the building meeting the city requires a strong level of critical thought and design in order to provide a positive notion of any new political or power structure. The provision for public gathering, protest (common in Hungary), recreation, contemplation, and overall solidarity outside-in must be examined. This space could be used to separate spaces not working well next to one another such as the exhibition and dance house from the office block proper.
- **Community Center:** Relating to the municipal-national issues in current Hungarian politics and larger nation-states as a whole, the community center can begin to address issues such as the preservation of folk culture, minority and national awareness, European Union officials visitors services/education, etc. The amount of housing near the site would make amenities much-needed. The dance-house will be a very important piece of the community center, as a place to continue the dissemination of folk culture to the public. This would be a very interesting component granted that this type of public display was not allowed until the fall of communism granted its anti-internationalist tendencies.

PROGRAM OUTLINE

Ministry Office Facility

| Office Title | Activities in Space | Lighting needs | Scheduling | Occupancy | # | SF |
|-------------------|--|---------------------------|-----------------|------------------|-----|--------|
| Minister | Ministerial office space with small meeting area | low ambient/ high task | 9-5 during week | 1-5 | 1 | 200 SF |
| Senior Secretary | office task and small meetings | low ambient/ high task | 9-5 during week | 1-5 | 1 | 160 SF |
| Cabinet Member | office task and small meetings | low ambient/ high task | 9-5 during week | 1-2 | 40 | 140 SF |
| Department Staff | general office tasks | low ambient/ high task | 9-5 during week | 1 | 120 | 100 SF |
| State Secretarial | general office tasks | low ambient/ high task | 9-5 during week | 1 | 24 | 140 SF |
| | | | | TOTAL = 20960 SF | | |

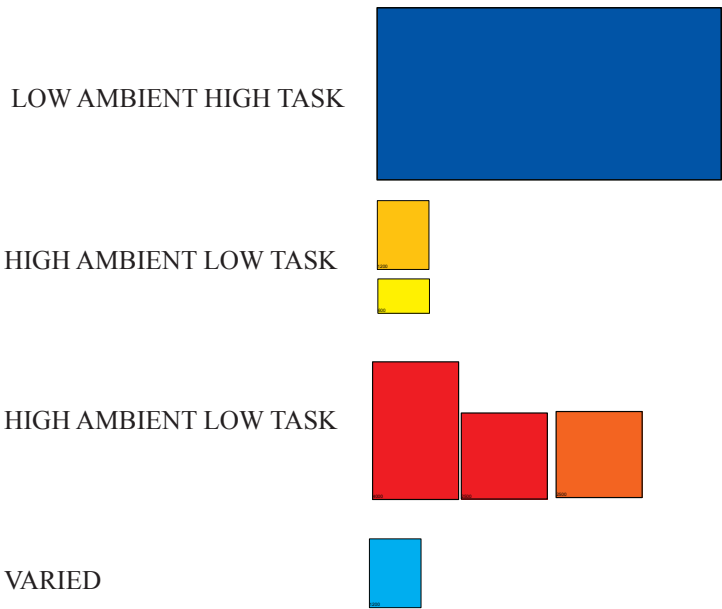
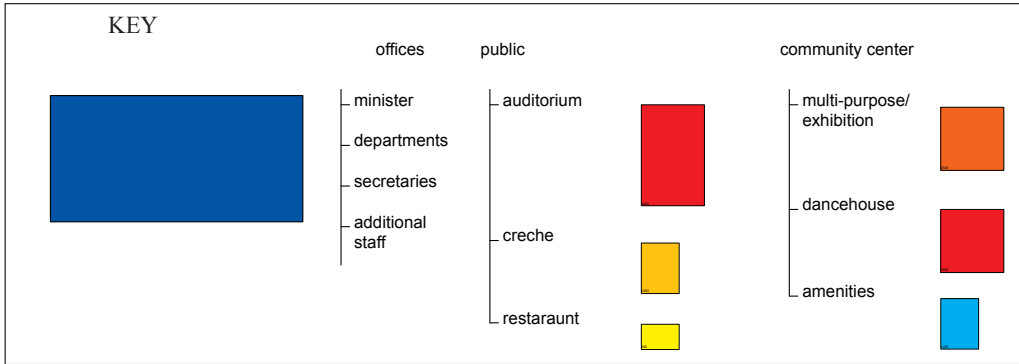
Ministry Public Functions

| Title | Activities in Space | Lighting needs | Scheduling | Occupancy | # | SF |
|----------------|----------------------------------|----------------------------|-----------------|------------------|---|---------|
| Creche/Daycare | games, child care, etc. | high ambient/ low task | 8-5 during week | 10-65 | 1 | 1200 SF |
| Auditorium | lectures, public cultural events | high ambient/ high task | 9a-10p daily | up to 300 | 1 | 4000 SF |
| Restaraunt | eating, drinking, etc. | high ambient/ low task | 8-9 M-Sat. | 70 | 1 | 600 SF |
| | | | | TOTAL = 20960 SF | | |

Community Center Spaces

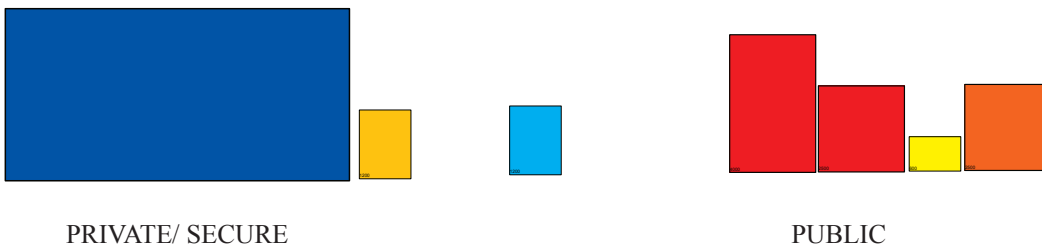
| Title | Activities in Space | Lighting needs | Scheduling | Occupancy | # | SF |
|------------------------------|--|----------------------------|------------|-----------------|----|---------|
| Dance House | dancing events, socials | high ambient/ high task | varies | 1-200 | 1 | 2500 SF |
| Multi-purpose/ exhibition | exhibits, workshops, conferences, etc. | high ambient/ high task | varies | 1-250 | 1 | 2500 SF |
| Amenities | counselling, clinic, classes, market | varies | varies | 1-250 | na | 1000 SF |
| | | | | TOTAL = 6000 SF | | |

PROGRAMMATIC AND FUNCTIONAL NEEDS DIAGRAMS

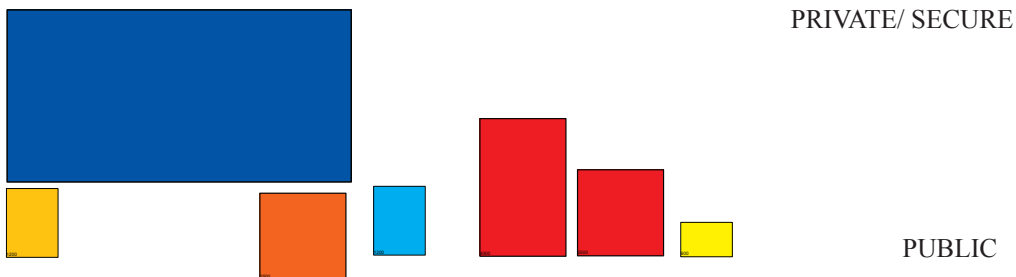


Large public spaces such as the auditorium, dance house, and exhibition space require a lot of high energy-use light situations. This could be partially resolved through the use of day-lighting during the day-time events. The office block will use a lot of light for tasks, and a lot of energy due to running appliances such as computers and servers.

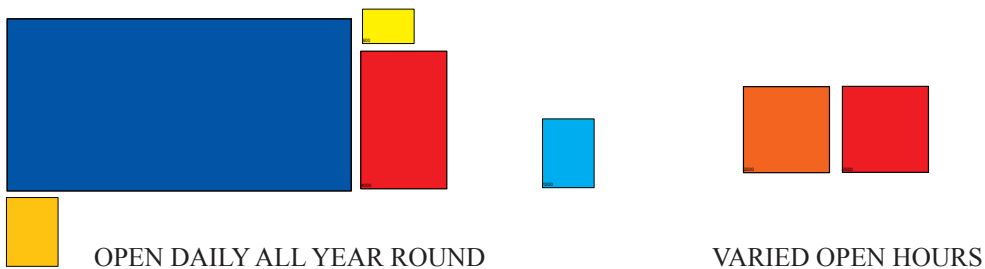
PROGRAMMATIC AND FUNCTIONAL NEEDS DIAGRAMS



Grouping the creche and the office together makes sense on a daily basis, thus their proximity, while the auditorium, dance house, restaurant, and exhibition space are very public. These have been put into their own group.



In section, the office block will most likely take on a linear bar scheme given the site and sun condition and existing shadows. The creche will need to be on the way to the offices in section and in a close proximity to the secure building. The public community center functions can begin to agglomerate in their own type of extension of the ministry (not necessarily an entirely different building). This gives potential for public green space to separate the two.



With most program elements being open daily, some on weekends there is only a small part of the building left that is varied. Both the exhibition spaces and the dance area make up this group thus they could potentially be grouped near each other in the scheme to allow them to have their own corner and not get in the way of more daily functions.