

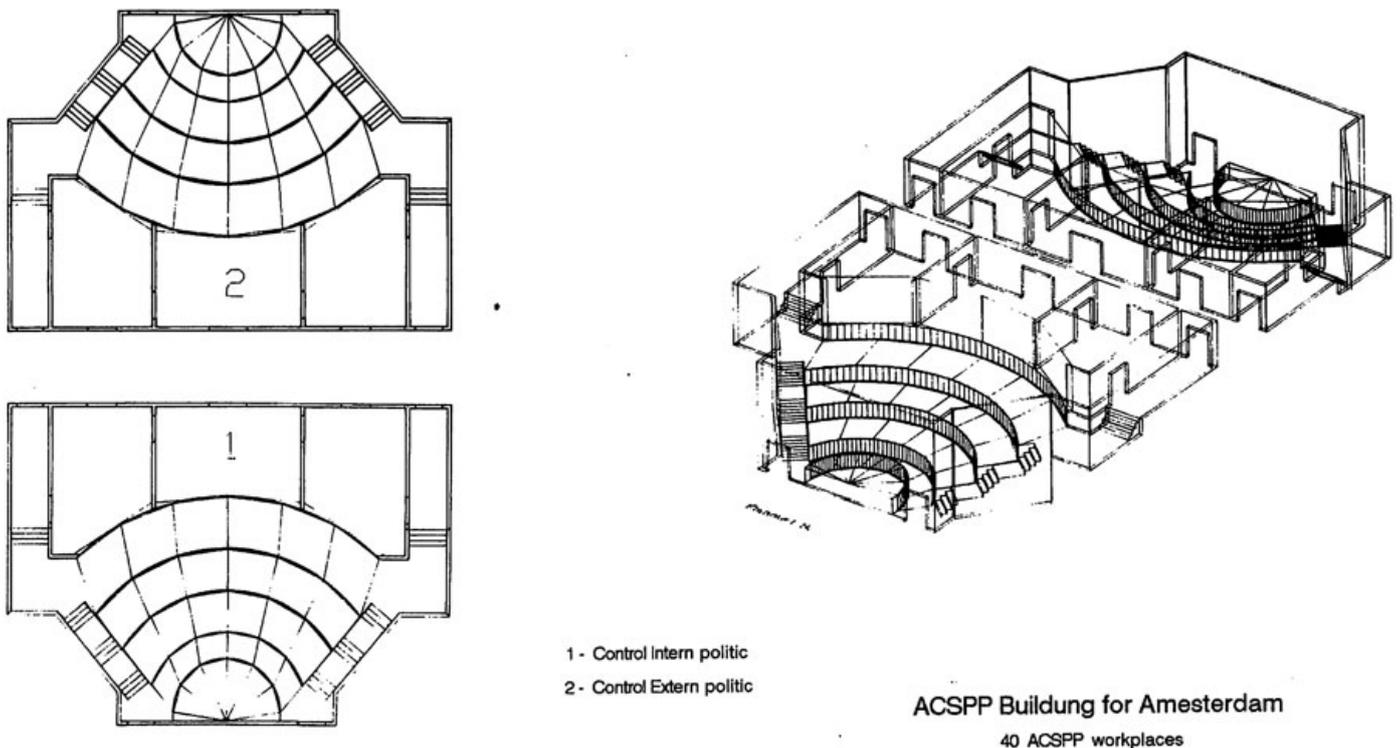
## Chapter 18

### Computer Graphics in Political Architecture

**18.1- Prologue** - Computer graphics applications in architecture extend from computer aided drafting to the automatic generation of a virtual architectural reality.

We give preference to the use of computer graphics in architecture as an active tool for design rather than reducing it to presentation purposes. To this end,- we develop rapid visualization programs that support decision making during the design process. We also consider computer graphics the most important tool to demonstrate similarities and relations between building performance factors.

As research and practice discover more applications for computer graphics, the view of the design process and the process itself change. The tool begins to influence the task. Visualization has improved the understanding of complex relations in architecture and can lead from the one-dimensional view of performance factors in design.

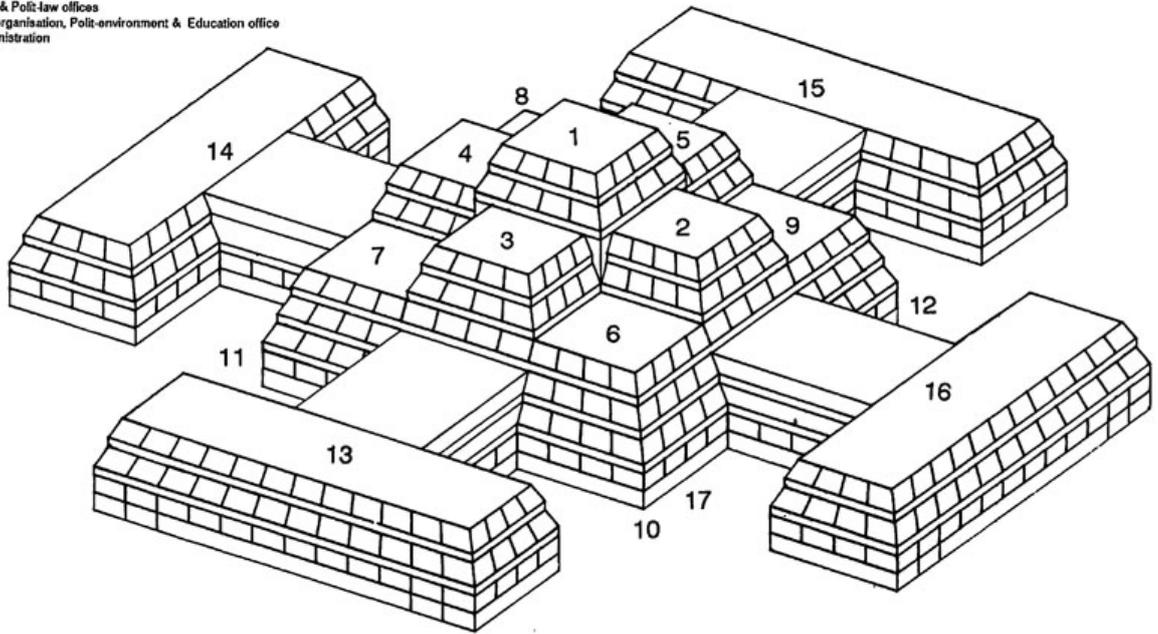


ACSPP Plan Holland  
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FIG. 18.1

**FIG.18.1.** IS A PERSPECTIVE OF DOUPLE HAAL WITH 40 POLIT-USER WORKPLACE. THE POLIT ENTERPRISE BUILDING IS CONSTRUCT FOR THE AMSTERDAM CITY. THE FIRST BAAL IS FOR AUTOMATION CONTROL SYSTEM OF INTERN POLITICAL PROCESSES, AND THE SECOND SAAL IS FOR FORIEGN POLICY. (FROM THE ACSPP PLAN FOR HOLLAND KIANOURI N. COPYRIGHT)

- 1-Central Control office
- 2-Central Control office of region North (Friesland, Groningen, Drenthe)
- 3-Central Control office of region East (Flevoland, Gelderland, Utrecht)
- 4-Central Control office of region South (Limburg, North Brabant, Zeeland)
- 5-Central Control office of region West (South Holland, Flevoland, North Holland)
- 6-Central Control for region Europa
- 7-Central Control for region America
- 8-Central Control for region East Asia & Australia
- 9-Central Control for Africa & West Asia
- 10-ACSPP, CIPS, DBMPS & CAPC offices
- 11-CAPE, CAPSD, CAPP & CAPD offices
- 12-CAO, CAG, CAPHD & Technical science offices
- 13-Polit, Polit-social & Polit-economic offices
- 14-Polit-defence, Polit-science & Polit-law offices
- 15-Polit-communication, Polit-organisation, Polit-environment & Education office
- 16-Government offices & Administration
- 17-Central library



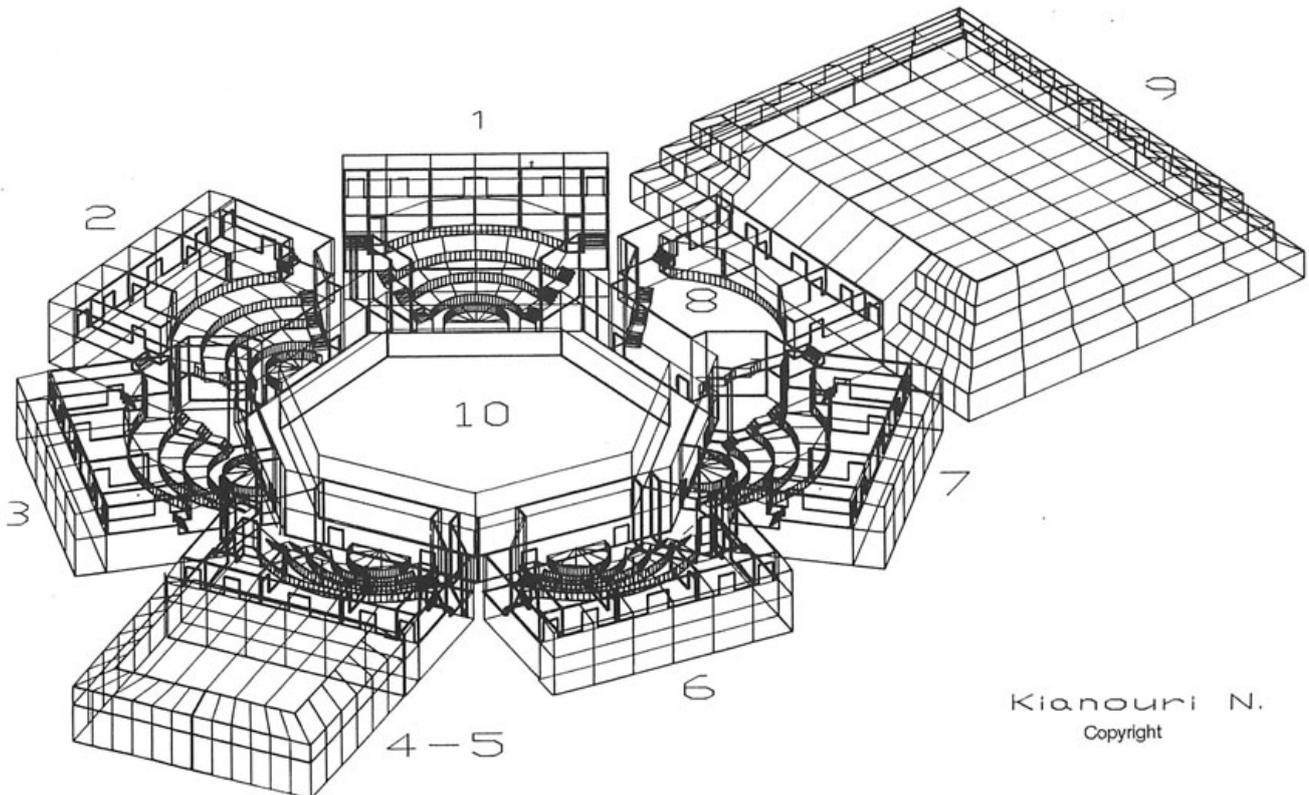
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ACSPP Building for Rotterdam

FIG. 18.2

FIG.18.2. IS A PERSPECTIVE FOR A CIPSE CENTER IN HOLLAND. (FROM THE ACSPP PLAN FOR HOLLAND KIANOURI N. COPYRIGHT)

FIG. 18.3



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FIG.18.3. IS AN ALLGEHINE BUILDING FOR A POLIT-ENTERPRISE. THE BUILDING CONSIST OF 6 HAAL AND A BIG PLACE FOR CENTRAL LIBRARY (KIANOURI N. COPYRIGHT).

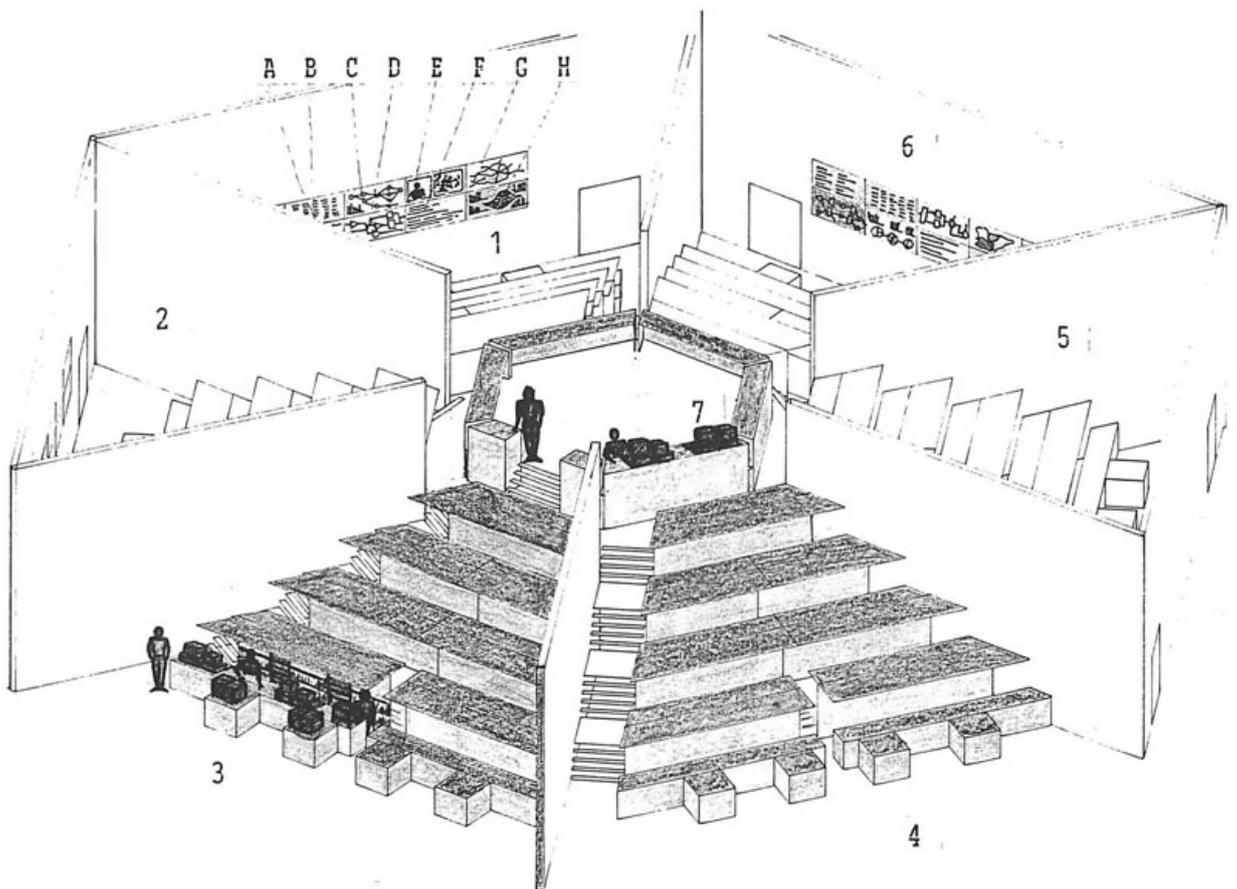
**18.2- Computer Graphics in Presentation** - Computer graphics in presentation require a completed architectural design as input. Because presentation and rendering packages are often separated from modelling software, the same person rarely creates design and presentation images. It is more likely for small and medium size offices that external firms produce realistic renderings and videos.

The introduction of computer graphics has reversed the traditional handling of three dimensional objects in architecture. Although designers think in three dimensions, drawings were the two dimensional projection of this process and three-dimensional physical models were then built based on those drawings. It is now common to model and visualize design ideas three-dimensionally. The extraction of two-dimensional orthogonal projections from these three-dimensional models seems a trivial task. But traditional documentation requirements have developed a high degree of specialization in architecture which standard CAD packages are often unable to duplicate.

**Video** - The use of videos for existing architecture in the form of physical model walk-through has a long history. Computer generated wire frame videos preceded animations featuring surface models. Several minute long videos of fully rendered architectural models stress the limits of even the fastest available computers.

**Design Architecture** - Architectural design is one of the most challenging applications for computer graphics researchers and architects describe design as a dynamic process that incorporates not only imagination but also formal top-down and bottom-up approaches which the new medium is able to support. Computers in design must support interactivity, semantic and multi-dimensional modelling.

**18.2- From Idea to Model** - Architecture learn to create and manipulate the model of an entire building in their memory. This includes syntactic and semantic aspects, the ambience of the design and specific design intentions. The computer should support the designer by communicating his ideas precisely and in understandable form. It should also offer appropriate feedback for further development of design alternatives.



A, B, C, D, E, F, G, H- COMMON DEMONSTRATION BLACKBOARD FOR CIPSE STATIONS

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2- CENTRAL CIPSE HAAL FOR INTERN REGIONS

3- PRESIDENTIAL HAAL FOR STRATEGIC INTEGRATION OF POLITICAL AND TECHNICAL PROCESSES IN ENTERPRISES, INTERN AREA, AND WORLD-WIDE

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**FIG.18.4.** IS A PERSPECTIVE FOR A CIPSE CENTER (FROM THE CIPSE STRATEGY PLAN COPYRIGHT KIANOORI NIKROOZ)