A. Student Union Building Design Process

a. Project Site and its Programs

This program for this project was based on a competition for a Student Union Building. The required program elements were a theater, university store, meeting/dancing room, student administrative office, game room, post office, dining area with kitchen and other support areas such as a lobby, restrooms and mechanical room. As it should be a multi-purpose building for students, I chose a site which was near the center of the campus. So, students can easily get there by walking from their department offices, classrooms or dorms.
b. Initial Sketch: to use the reflection of the Drillfield to make metamorphic boundaries.
c. Material Study

Highly Reflective ‘Sunshade’ Glass

When you see many high-rise buildings, mostly you cannot see inside, but when you are in the building, you can see outside. This is because of the reflective glass. One type of reflective glass, TE-15, is used for my Student Union Building Project, because it reflects a much higher quantity of incident light than other types.

Kinds of Reflective Glass

- SS-08 / SSN 14 / TE-15

R : Reflection
T : Transmittance
Re-R : Re-reflection
Re-T : Re-transmittance

Figure 3. The Quantity of Reflected Light

Pic 19-1. Examples of buildings with Reflective Glass
d. Space and the inclined wall

Preliminary design ideas with inclined wall
At this stage in design process, two half pyramids were attached at each end of the structure, providing places for entry without interrupting continuous approaches to the building.

However, the attached shapes defeated the main concept of the pyramidal units, so they were abandoned. This allowed a focus on the metamorphic spatial moments created by the inverted pyramids.
f. Reflection Area by Inclination of the Glass Wall

The interlocking triangular elements are the structural units.

Reflection of the ground surface of the drill-field through the inclined wall
B. Final Design with Metamorphic Boundaries

a. Metamorphic Boundaries through the Reflection of the Drill-field

[Diagram showing the Reflection Area]
c. Metamorphic Boundaries in the entrances and the theater

It is possible to approach the theater and university store from all directions.
The glass wall does not produce undesirable reflections from the Sun because of its inclination. Its reflection is for the harmonization of the environment.
It is possible to enter the theater from all directions.

2nd Floor Plan
1. Lobby
2. Theater
A: Lobby for Theater

B: University Store
The view of the theater, which is created by the four pyramidal units.
3rd Floor Plan

1. Post-Office
2. Administrative Office
3. Kitchen
4. Dining Hall
5. Lobby
6. Student office
7. Restroom
8. Storage
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EDUCATION
2003-05 Master of Architecture, Virginia Polytechnic Institute & State University, USA
1994-01 Bachelor of Engineering in Architecture, Yeungnam University, South of Korea.

EXPERIENCE
2001-02 Construction Engineer, Hana Construction Corp, Seoul, South Korea.
- Managed construction materials and structure applications for building sustainability.
2001 Service Works, JCWP 2001 Habitat for Humanity, Korea, 2001
- Translated, Ceiled and Sheathed.
2000 Intern, Daesang Architectural Office.
- Site inspections and constructing architectural models.
- Redesigned military buildings and reconstructed runways.

COMPETITIONS
2005 AISC Student Union Building Competition
2004 C2C-Home, Student & Professional Competition
2004 AISC Student Wood Structure Competition
2004 Virginia Society Prize Student Design Competition, Virginia
2003 Solar House 1 week Competition
2001 European Competition, Renovation of Chiostri di S. Corona, Vicenza, Italy.
2000 Student Competition, Daegu Architecture Association.
1999 Interior Design Competition, Daegu Gyeungbuk Interior Design (DGID)

PRIZES
2000 The Honorable Prize, International Church, Daegu Architectural Association Design Competition
1999 The Selected Prize, Dok-do Art Gallery, Daegu Gyeungbuk Interior Design Competition
1998-9 Scholarships, University Services, Department of Architecture, Yeungnam Univ
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