

Perspectives on the Evolution of Structures  
Spring 2012  
Exam 2

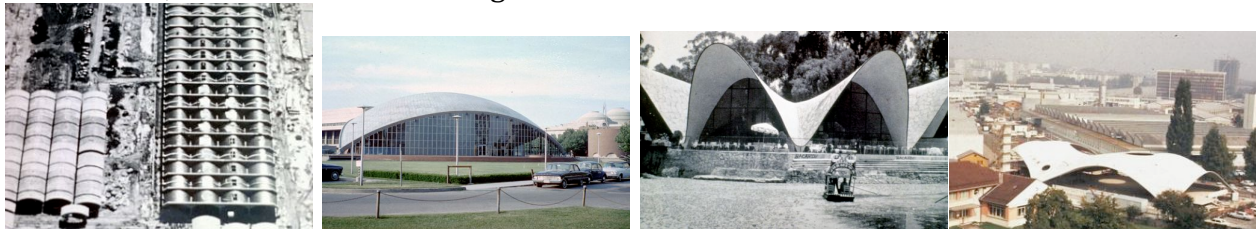
**SELECT ONE OF THE FOLLOWING QUESTIONS**

AND

- Provide an organized essay in response to one of the questions below.
- Make sure to include a clear thesis statement for your essay
- You are highly encouraged to include sketches within your essay to illustrate your points, number your sketches and refer to them by that number in your essay
- You are encouraged to use any of the library of structures, or any other structure you are aware of, to effectively illustrate your points
- You are encouraged to develop an outline before writing your essay

Option 1:

Consider the notion of discipline and play. Write an essay that discusses the role of discipline in structural forms and the role of play in structural art. Provide examples where (i) discipline is followed without play in creating structures, (ii) play is pursued without discipline in creating structures, and (iii) discipline is followed along with play in the design of structures. Many structures and engineers can be used to illustrate your thesis. At a minimum include a Finsterwalder or Tedesco Barrel Shell, Kresge Auditorium, Candela's Xochimilico, and Isler's Sicli Building.



Option 2:

Write an essay that describes the importance of stiffness in railroad bridges, analyzes the different methods for obtaining that stiffness, and discusses the social and aesthetic implications of the engineering choice for obtaining the necessary stiffness. At a minimum consider the following bridges in your essay: Britannia, Saltash, Niagra, Garabit.

