Driving Questions from Architects

Learning Spaces Collaboratory Roundtable
Spring 2016: Focusing on the Future of Planning Learning Spaces
University of Illinois at Chicago

Notes:

A.

1. Awareness: How do we manufacture spatial configurations that drive awareness of the learning experience through visibility, vertical integration, and cultural connectivity?

2. Proximity: What do we know about manufacturing spaces that enable proximity, aware the probability of knowledge exchange is proportionally related to the proximity of coworkers (colearners)? Being on a different floor is being in a different world. (Tom Allen—MIT)

3. Connectivity: What do we know about manufacturing spaces that enable connectivity, enable the informal, chance encounters that support dynamic connections, networking connections?

4. Ambiguity: What do we know about manufacturing departmental networks, about translocating people and programs in ways that breakdown departmental silos?

B.

5. How does research on learning—learning as social, contextual, real world—inform the design and spaces in which students prepare for life and work in the world beyond the campus?

6. How is our planning influenced by research on how students from diverse backgrounds and with different career aspirations are motivated to persist and succeed in acquiring essential work-related skills?

7. How do expectations of what students should be able to do upon graduation (as those articulated by national associations such as AAC&U & BHEF) influence how we think about the experience of learning in facilities and spaces we are designing?

8. In our planning, how do we capitalize on the unique potential of new kinds of collaborations— across the educational pipeline (middle school through baccalaureate) and with community and regional stakeholders?

9. In the spirit of supporting Project-Based and Competencies-Based Learning, how can facility design better enable a robust Design Thinking process? How can we ensure that students and innovators have an appropriate palette of spaces for individual creativity, contemplation, collaboration, prototyping, testing, and presentation? What does a learning space look like in order to support this full spectrum, iterative, process of invention, where students can shift through spaces in a self-directed fashion?

Notes:

10. In our planning, how do we capitalize on lessons learned from unique workplace designs illustrating the value of agile and flexible spaces, spaces in which the soft skills of leadership, entrepreneurship, and communication are as essential as the ability to work in teams, solve problems, advance knowledge?

11. How do we address the human side of change (and innovation) in education? How can the design process include a design effort to support new pedagogical methods (teacher training)? How can an institution improve success rates with new facilities via effective "User Commissioning"?

C.

12. How can we transform the impression that people have of our aging science facilities?

13. How can we create increased connectivity between departments and increase interdisciplinary activities?

14. Can we upgrade existing facilities to meet the needs of current and future pedagogies?

15. How do we increase student and faculty connections among multiple STEM facilities?

16. How do we create new state of the art STEM facilities within the historic fabric of an iconic campus?

17. How can we create spaces for interactive learning outside the classroom?

D.

18. How can the metaphor of a learning street drive the planning of 21st century learning spaces? Can we imagine a learning street as a single space, a cluster of spaces, spaces serving formal and informal learning?

19. How can walls become a critical "spatial affordance" of learning spaces that serve 21st century learners, that enable and enhance the process of externalizing what is being learned, of putting nascent ideas out for examining and critiquing and reshaping?

20. What are the affordances of a space that inspires, motivates and nurtures 21st century learners?

21. How do we furnish and equip a learning street so that it allows for faculty to interact in different ways with students, to move to and from groups large and small? How do we imagine the role of the faculty member in such a space?

22. How can a registrar-assigned space (classroom) provide the flexibility as a formal learning spaces to accommodate different pedagogical approaches and course enrollments as well as a space for informal learning?

23. How can the design of an individual learning space inform and influence larger building scale design approaches to create new spatial concepts that are flexible and high performing?

Notes:

E. 24. How can we make the excitement of science more visible to those walking by and through the building? What are the ways that we can express it to the outside, in the common areas, and into the laboratories? Are displays still effective? If so how do we keep them active?

25. How can we create a more interdisciplinary community that encourages faculty and students from various departments to interact? Can learning and research spaces be shared between departments? What will draw students and faculty together across disciplines? How can we draw non-science majors into the building?

26. How can we design instructional and research spaces that support active hands-on inquiry in a class-wide, small group and individual setting? How can research and teaching functions be integrated. How can we better anticipate the instructional and research needs of the future? What role will technology play?