

Mohammed VI University in Benguerir, Morocco - SENSEable Cities Brief 2015

The creation of Mohammed VI University within Morocco's new Green City at Benguerir, offers an exciting opportunity for a new approach to education in Morocco and Africa. Its unique context, 75km from Marrakech and 175km from Casablanca, in a largely undeveloped area of northwestern Morocco, will require innovations that reflect the local and regional context even as they incorporate novel design and technological components. With an understanding of the legacies of the past and opportunities of the future Mohammed VI University can be a 21st century pioneer in its educational, environmental, and social goals.

We have identified two central questions and four key context points that will direct how we imagine shaping the university campus and education and will be focus areas as we visit the site in March.

Key Questions:

- How can we improve the educational experience for local students studying at the university?
- Using technology, how can the university link to other global universities and research centers?

Context:

1. Technology:

As we identify design and program innovations for Mohammed VI University, we will pay particular attention to opportunities for new technologies to enhance the University's mission. Proposals should make use of the Green City's extensive fiber optics and telecommunications infrastructure to improve exchanges of information both within the University as well as with the rest of Morocco, Africa, and the World. Additionally, innovations related to Cloud-based sharing and MOOCs (Massive Open Online Courses) will encourage collaboration within the University and with the local R&D and IT institutions.

2. Local Urban Morphology:

While incorporating new educational technologies, our recommendations for the Mohammed VI University should be informed by traditions of Moroccan architecture and urban form. In particular, we aim to explore how the medina and its pocket squares, or maidans, can inform the design of educational spaces. For instance, student living arrangements might be structured around sets of alleys that encourage chance interactions. The traditional Islamic school, or madrasa, contains a range of private and public rooms that facilitate both seclusion and meeting. By providing both types of spaces the university could embrace a range of learning styles from reflective self-study to group collaboration.

3. Local Climate:

In addition to OCP's established goals for sustainable treatment of water and waste, the specific climatic context can be leveraged to complement university life and new educational technologies. Average minimum and maximum temperatures range from 40F to 100F and for much of the academic year, temperatures are mild. This offers the opportunity to use exterior space in creative ways. Furthermore, during fall, winter, and spring, there's an average of 2 inches of rainfall. Annually, this amounts to approximately 11 inches of annual rainfall. The rainfall could be captured for reuse on site though it is interesting to note that, on average, it only rains 47 days per year.

4. MOOCs:

In recent years, MOOCs (Massive Open Online Courses) have become a popular online learning tool and we believe they have the power to re-shape education. A MOOC is a type of online class that can be of any size with students from any part of the world. MOOCs also provide various ways for students to digitally interact with professors and teaching assistants. MIT, MINES ParisTech and many other prestigious universities offer MOOCs. We are excited to see how this online educational infrastructure can influence the design of the physical campus to achieve a more productive, interactive, and attractive learning environment.