

The New Studio Laboratory Building of UP Diliman College of Architecture

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Figure 1. Former UPCA Dean Mary Ann Espina, Architect-on-Record of the UPCA Studio Laboratory Building.

Just a few blocks south from the famous landmark Oblation sculpture in Quezon Hall of the University of the Philippines (UP) in Diliman, one can find the UP College of Architecture (UPCA) Complex. Boldly identified with the four letters of A-R-K-I along its drop-off, and the yellow-painted façade with the “100% ARKI” banner, the complex spreads over three hectares, between the streets of E. Delos Santos and I. Delos Reyes. The UPCA Complex has three buildings and an outdoor amphitheater. Currently, Benito Sy Pow, a 413-seating capacity auditorium is nearly finished within the complex. Building 1, designed by former UPCA dean Ar. Jose Danilo Silvestre, was intended as a gallery for annual exhibits and college-based social activities. For now, laboratory works by design classes are being held there. It is also where the “tambayans” or college organization spaces are

temporarily located. Building 2, which was once the Campus Maintenance Office (CMO), was designed through the principles of adaptive reuse by Ar. Nicolo Del Castillo, also a faculty member of the College. It is where most of the lecture-based classes are held. The UPCA Library, which has a collection of around a thousand books, magazines, theses, and other references, can also be found in this building.

The latest addition to the complex is the newly constructed Building 3 or the UPCA Studio Laboratory Building. Considered to be the tallest structure within UP Diliman campus to date, this building has seven floors divided into 36 senior and 39 junior faculty rooms, 24 critique rooms, 24 undergraduate and two graduate studio laboratory rooms, a printing room, a model-making room, and a roof deck. Its main entrance faces west along I. Delos Reyes Street, where students and faculty can view sunsets in the afternoon. Soon to be called home to UPCA’s growing number of more than 50 faculty members, 800 students, and 20 staff and utility members, Building 3 will make its mark in history by providing a building to inspire architects and landscape architects of the future.

The MUHON Editorial staff sat down with Architect-on-Record Mary Ann Espina for an interview. She described in detail how Building 3 was conceptualized, major challenges in construction, and how the new building fits in the vision she foresees for the college. The article that follows is based mostly from that conversation.

Expansion of the UPCA Complex

Newly sworn in 2010, former Dean Ar. Mary Ann Espina started her term through a college-wide house-cleaning project. On her immediate to-do list as dean was to ensure that the existing two buildings of the College of Architecture were rain-proofed and can easily be accessed to and from each other. Being a tropical country with pronounced dry and wet seasons, the UPCA complex should be adaptable to extreme weather conditions and climate-sensitive to Diliman’s microclimate. Beyond just fixing leaking roofs and canopies, she was compelled to respond to the increasing need due to increasing population of the college and the changing academic landscape of the UPCA complex.

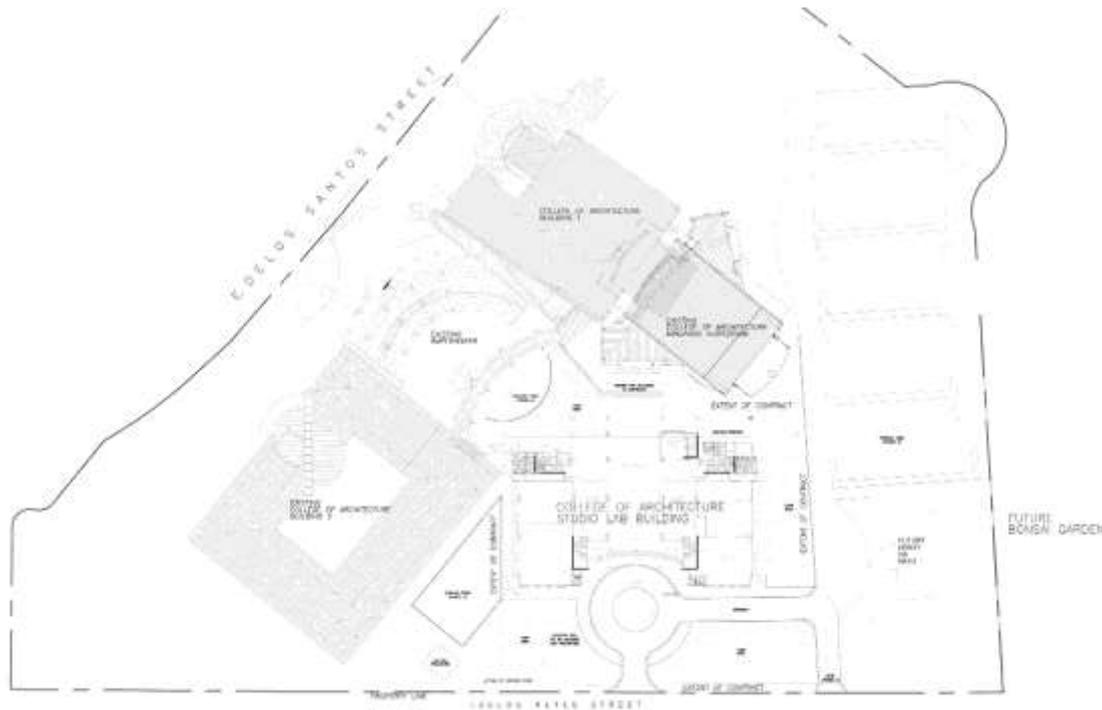


Figure 2. Master Development Plan of the UP College of Architecture Complex.

Source: UP Office of Design and Planning Initiatives

Mapping Buildings 1 and 2, Ar. Espina saw an opportunity to accommodate the increasing spatial needs between the two existing buildings. This was when she and then College Secretary Ar. Del Castillo had a conversation that led to the inception of a studio laboratory building. On paper, the structure was long and elongated, primarily positioned where the amphitheater now is. Figuring out the perfect fit for the building posed some challenges which resulted to several awkward configurations. There was also the risk of ending up with three buildings that were not in harmony with each other. There was also the probability that the third building in the middle of the complex will not have the same “look” architecturally as the previous structures. But one thing that both of them agreed upon was to align of the proposed building along the North-South axis. To them, this was non-negotiable.

To connect Buildings 1 and 2, plans for a bridge designed by Ar. Bronne Dytoc and Engr. Ruel Ramirez were presented to and approved by the previous college deans. Already approved by the faculty, Ar. Espina honored the intention to build the bridge and saw its completion. Since the bridge was deemed more urgent, the proposal for the third building was shelved temporarily and its proposed location eventually was converted into an outdoor amphitheater. Tall *Eucalyptus deglupta* or *Bagrass* trees, growing gracefully on its steps, mark this outdoor space. Other projects involved fixing worn-out roofs and parking areas, and addition of plants along the entrances to give the complex a more natural welcoming ambiance. Picking up from Ar. Del Castillo’s idea, Ar. Espina had more time on her hands to ponder on the location of the proposed building, eventually deciding to construct on the open area at the back of Building 2.

The North-South orientation is the most important aspect of the proposed building. A centerline runs all the way to the auditorium that was attached to the rear side of Building 1. The auditorium followed the axis of Building 1, but its entrance was skewed and oriented to follow the axis of the proposed third building.

Proposed Studio Laboratory Building

Several ideas were thrown around. Initially, the first storey will be used by the Bachelor of Landscape Architecture (BLA) students while three floors will be occupied by Bachelor of Science in Architecture (BS Arch) students. Another was that only third year students and upper year levels shall occupy the new building, while the first and second years shall remain in Building 1. But that setup seemed unfair for incoming students so the faculty came into an agreement that all students will occupy Building 3 for their studio works. Thus the risk of construction of a taller building with the addition of two more floors would be risky. But it was a risk that Dean Espina dared to take.

Ar. Espina collaborated with Toymi Imao, a UPCA alumnus and a multi-media visual artist, to come up with a mock up design of the façade. She requested Toymi to make a design impressive enough to have a distinct look, exclusive to the College of Architecture and not like any other building in the campus. The artist made perspectives of the façade and placed four caryatids in front of Building 3. “*Ang gusto ko, isang design na tayo lang talaga makakagawa, walang gusto kumopya,*” Espina says describing the potential façade design.



Figure 3. Aerial view of the UPCA Complex showing the three major buildings.
Source: UP Office of Design and Planning Initiatives



Figure 4. View of new buildings – Studio Laboratory Building (left) and Auditorium (right) within UPCA Complex.

Images of the perspective of Building 3 were released online and the proposed building was criticized on social media. People found the caryatids unattractive. One comment was all it took for others to join in and post negative comments about the façade. Ar. Espina called a town hall meeting to clarify issues people have regarding the building. Procedures, design constraints, production issues, and fund sourcing were also discussed. A student asked why there was no consultation involved. Ar. Espina said: *"If I consulted you, what would you have told me? What kind of building would you want?"* The student wanted classrooms. She said she did that, even adding a studio laboratory with a space that would last each student the rest of his/her academic life. *"See? You should just trust me because I thought for you,"* she says. *"I'm telling you already, what I'm delivering to you students is really, really nice."*

Building 3 for a while was a hot topic online. Students, alumni and colleagues in the design profession said their two cents worth on Facebook and heavily critiqued the façade of the building. As the online bashers dissipated, Ar. Espina beamingly claims she survived it. She adds, *"I'm still around. I'm finishing it. (And) I think we're going to get a good project, a good building."*

Sustainable Features and Good Practices through Proper Design and Management

MUHON: What is the general design philosophy of the new building or did you have any inspiration behind the design of the building?

"Well it's not so much as inspiration but compliance with Canberra Accord. Canberra Accord is one big goal," Espina says. Canberra Accord is a document signed by international accreditation agencies in architectural education around the world. To be accredited under the Canberra Accord through mentorship of the Korea Architectural Accreditation Board (KAAB), UPCA's BS Architecture will require a studio laboratory facility. *"I was only driven by the studio laboratory technique of training, of education, and then sustainable design,"* she adds. With Ar. Del Castillo's idea, the Canberra Accord accreditation and enough funds, the building will materialize at a faster pace.

MUHON: How do the architectural and landscape features of the building reflect the image of the College or the University?

Ar. Espina wanted the construction management, not just the building itself, to be a model of good practice not just in the Diliman campus and in all government buildings as well. She knew that it may seem ambitious at first, but that was her wish. *"To aim for good practice is already sustainable practice,"* she claims. It still remains to be seen, whether the College achieved it or not, *"but what's more important is the effort to try,"* she adds. *"What we achieved for you is higher value for the money spent. Those are correct practices."*

The College has at least 50 faculty members who are also design professionals, and the brand of the University will always be at the center. The College prides itself to be the mold where the finest of architects and landscape architects are to be trained. Once they see the materials installed in the building, they will personally recommend

the quality materials and workmanship that contractors provided and use it for their own future projects. *"Think of the number of architects here. Then you put a value to it. They will forever remember that you supplied this,"* she usually says to the suppliers. This is the advertisement that contractors can use – an actual project.

The most evident sustainable feature of the Building 3 is its position along the north-south axis. Windows facing the east and west are larger than those fronting the north and south so that fresh air will enter each of the individual faculty rooms. Building orientation is the first feature. *"That's the highest Energy Efficient Rating (EER) given. And that's compliant with sustainable design,"* Espina says.

The building's outer skin is another important feature to cool the building. On the north and south sides, a skin was created to filter air before it enters the hallways and rooms. Particularly in sustainable architecture, it is an important feature that countries consider especially in warmer countries. The space between the outer skin and the building itself cools the air. Potted bougainvillea plants shall climb on this skin. Of all the climbers, bougainvillea plants thrive best in containers even when exposed to harsh conditions like rain and extreme heat. *"The more contained the roots, the better they flower,"* she describes the bougainvillea plants. Even if regular watering is limited, it still thrives.

The windows are large enough that you could leave two-thirds of the expanse open to receive more than enough light and a breeze of cool air. Columns are spaced nine meters apart, thus the opening in between them is roughly around eight meters wide. This has six panels of sliding windows – four of which are sliding while the remaining two are fixed in place. Students can freely open the windows with the outer skin still providing protection. So on ordinary days, there is plenty of air and less need for air conditioning. During severe weather conditions, students may need to close the windows but airways are provided under the raised drawers to allow air to pass through.

A ledge of at least 60 centimeters deep is placed by the windows, designed with drawers to provide additional storage. Each student shall have his or her own locker to store materials and tools. The ledge can also serve as a resting area where students can lie down and take naps. This is considered a sustainable design approach to address mental health. It is necessary to provide spaces to de-stress and unload. *"The University is a highly stressed environment. But you can create de-stressing areas within your buildings,"* she says. These little nooks are where students can interact with each other. *"Because we are a creative College, to lie down and sleep and daydream is part of the creative process. And I will deliver that to the College,"* she claims. These ledges provide views of the outside for season discernment. Being aware of the weather outside is significant to one's overall health. In this building, students will be able to get well without missing classes. Students can simply lie down on the ledge to daydream while enjoying the outdoors. Students being more creative and can accomplish more during night time are already a measure of productivity. *"Mental health and*

productivity level are counted here," she says about these design considerations. Ar. Espina believes that sleep deprivation is bad for one's health; that is why getting enough sleep, even if some are done in the daytime, is of utmost importance.

The partitions between the studio rooms and the outside corridors look like steel grills with odd patterns for displays and pin ups. Ar. Espina patterned the individual frames to A3-size papers. The plates can easily be changed, depending on the class output.

Each floor has its own pantry and kitchen, where the faculty can privately eat lunch and sip coffee. The faculty will take responsibility of maintaining the cleanliness and orderliness of this space.

The toilets are designed for individual use only. Each studio room has its own toilet. The toilet has a small space so that students will learn to maintain the cleanliness of the toilet themselves. *"Not to be dependent on the janitors - that is also good practice,"* Espina says. As compared to a large toilet with several stalls that can be used and shared by a number of people at the same time, the toilets in Building 3 are meant to feel personal. If one feels that the toilet is a personal space, the student tends to be more cautious on how to use it. Students can be trained to make the toilet seat clean and the counter dry using rags and toilet washers that the College will provide. Teaching them how to clean a small space such as this, results to discipline. The toilets are designed ergonomically and appropriately applied, setting a standard on how students should properly design. *"We're setting the standards that they will use in practice. And then they can use it in their own homes. They will improve their lives too,"* she explains. *"So I think we will have some points on improving the lifestyle of our students. Leadership in Energy and Environmental Design (LEED) does not make a rating of that."*

The corridors at the upper floors surround the atria at the center, with the proposed vertical garden standing on one side against the wall surface. Students can easily pull out chairs along the corridors and enjoy the vertical landscape. *"So you have all opportunities to enjoy nature, to enjoy (the) landscape,"* Espina further describes. Looking down the atria, plants will adorn the courtyards on the first floor. The vertical landscape can be a canvass that is alive and ever thriving. Perhaps, this living canvass will be changed annually, just like how the UP College of Fine Arts changes the mural in front of their building every year. She says, *"We can keep the plants permanent if you want, but it should be a living canvass, a mural."*

Ideally, drip irrigation systems will be installed in the gap between the vertical garden and the wall so that the water supply can reach the top floors. This makes the living mural easier to design.

A garden is provided at the roof deck area. The space can be set up with tables and outdoor furniture. A raised platform for those who want to unwind by singing, strumming instruments, dancing, and even doing exercises will also be placed in the area. This is a way for the faculty to de-stress too.



Figure 5. Lobby area at the ground floor level of the UPCA Studio Laboratory Building.



Figure 6. View of the studio, faculty rooms, and open atrium within the UPCA Studio Laboratory Building.



Figure 7. View from the rear balcony of the Studio Laboratory Building of the Bridge connecting UPCA Buildings 1 and 2.



Figure 8. View of a portion of the roof deck area of the UPCA Studio Laboratory Building showing the pedestals for solar panels and water storage tanks.

The building will have the first bicycle parking on campus. Showers will be built at the rear side of the building near the pump room and will be opened to the entire University, until such time that respective units can provide their own facility. This promotes a healthy lifestyle of bicycle use in the campus, especially now that some faculty members of the College use their own bicycles coming to work. Hopefully, this will influence other colleges to do the same.

Other features of the building include provisions for rainwater and variable refrigerant volume (VRV) air conditioning systems. There is also an allotted area at the roof deck for solar panels. *"The lowest hanging fruit is the building orientation, which we achieved already. The solar panel is the highest hanging fruit of sustainable design,"* she claims. The power generated from these solar panels will decrease the College's dependence on outdoor electric power sources.

MUHON: How do the articulation of the design and the allocation of spaces in and around the building embody Filipino culture and society?

"The fact that our building is naturally ventilated, it's responsive to the Filipino conditions, Philippine climate," she starts. *"Yung Filipino culture in architecture kasi is largely dictated by our response to climate."* Traditional houses have spaces underneath that could act as air passageways. But Building 3 does not have that specific feature. Instead, the sides of the building were designed to become air passages. Ar. Espina further described a feature that she wanted to incorporate to the overall design but did not materialize, *"I was going to put pipes that will carry cold water inside the floor of the gallery. We call the ground floor the gallery, yung open space na yan (that open space). If you put the pipes there, and you just allow cool water through it, it will cool the slab. And then a cool slab will cool the air above it."* She tried to replicate this principle from a building that she visited in Aurora province. One of the buildings was elevated due to the area being flood-prone. When she entered one of the closed rooms, she noticed immediately that it was cooler than usual. Apparently, the high water table keeps the soil moist. The coldness of air is transferred to the floor and to the building interior. Although it was not incorporated in the final design of Building 3, cool breeze passes through the ground floor level. In the end, there was no need for the installation of the pipes after all.

MUHON: How does the new building blend or interact with its immediate surroundings and with the urban fabric of the campus or what will make it stand out?

Building 3's connection to the other buildings has been an important consideration right from the beginning. The bridge that connects Building 1 and 2 will be extended to link Building 3 to assure that students carrying plates and models can move from one building to the other without worrying about getting wet in case of rain.

The amphitheater has been an area for quite an interesting mix of outdoor activities like students playing games or enjoying the lawn. If the space can be used to accommodate all these functions, then it has achieved its purpose, which Ar. Espina even challenges LEED to rate experiences that enhance human well-being. *"How do you*

measure human well-being? Isn't that good design?" she asks. It has become a place where people remember good times, a place for memories. This is how the College can be remembered when people share their own experiences about it.

Project Considerations and Challenges – From Conceptualization to Construction

Providing ample work spaces for the students is a planning challenge that is prioritized. Students should be given enough space to put drafting materials on the table and a laptop at the side. *"When students have enough space to maneuver and move around, it increases their capacity to become good designers,"* Ar. Espina explains. The challenge ahead lies in making everything work and teaching students proper discipline.

What's ahead for the practice of Architecture and Landscape Architecture in the Philippines?

The practice of architecture and landscape architecture in the Philippines has a lot of lessons to impart, most especially to the students of the College who are groomed to be the best in their professional fields in the future. *"The newly constructed Building 3 for now tried to achieve the goals of sustainable design, well-being of man, concepts of memorability and legibility in the urban fabric of the campus,"* Espina says. Design may be subjective, but in time, she hopes that the building can be used as proof *"that the concepts and principles could actually work."* Both designers and contractors can be seen playing an important role in the success of a project to achieve good practice, as long as they keep an open dialogue.

The UP College of Architecture has always kept its doors open to the watchful public, welcoming both the critic and the hopeful. It strives to listen to the inquisitive and the naysayer, finding balance to what design should be and what it could be.

After all has been said and done, the UPCA will thrive amidst changing landscapes by continually answering the call of a generation who dreams of making the world better through design, research and instruction. Some may see the UPCA Complex as a learning space made up of buildings while others regard it as a second home where memories are made. As we make meanings out of shared experiences that come from the people we interact with and the places that we shape, the values that we attach to the buildings and open spaces of the UPCA Complex essentially evolve as well, affecting the world as we know it.