# LEARNING RESOURCE CENTER

**PALOMAR COMMUNITY COLLEGE**

**Building Size:** 85,000 sf

**Site Area:** 165,528 sf

**Cost:** $45,000,000

The project transcends the traditional role of the library on a community college campus. It expands on the notion of the library as an equitable provider of information, becoming a destination for a wider range of users. Beyond its core function as a resource center, the building was designed to acquire other identities: student union, community center, social venue, instructional facility for lifelong learners and observation deck.

SOUTH ELEVATION, MAIN ENTRY

*"The LRC is a flagship academic library, strategically located to serve students, faculty, staff and the community for generations to come. It is not only a state-of-the-art facility, but the true heart of our campus,"* - Palomar College Superintendent/President Dr. Joi Lin Blake

# EXECUTIVE SUMMARY

## A MODERN REINTERPRETATION OF A LIBRARY

The design for Palomar College's new Learning Resource Center (LRC) reimagines the basic concept of a library, creating an open, bright facility which will serve multiple purposes now and into the future.

From the start of the master planning process, the 85,000-square-foot, four-story learning center was designed as the heart of the campus, "the jewel in the crown," connecting the buildings to an arrival plaza with social areas for students. In addition to the book stacks, there are computer rooms, tutoring spaces, study rooms and social areas. The entrance is an open atrium flooded with natural light and views of the campus, a sharp contrast to the closed off libraries of the past. Flexible furniture and collaboration spaces are available throughout the lobby, creating a place for students to hang out and study. Each floor of the buildling, visible from the atrium, represents a different function, including academic technology spaces, a tutoring center, the traditional library book stacks and reading rooms.

In many ways, the new LRC is designed to connect with nature, including the transparent separation of indoor and outdoor spaces and the framed views of the campus and mountains. The views and the interaction between buildings were strategies and goals explored years ago as part of our informed design process. The outdoor spaces focused on drought-resistant landscaping and integrated stormwater management system with student spaces. An amphitheater with terraced seating also serves as a stormwater basin.

# CHALLENGE

## LIBRARY AS A SOUGHT-AFTER DESTINATION

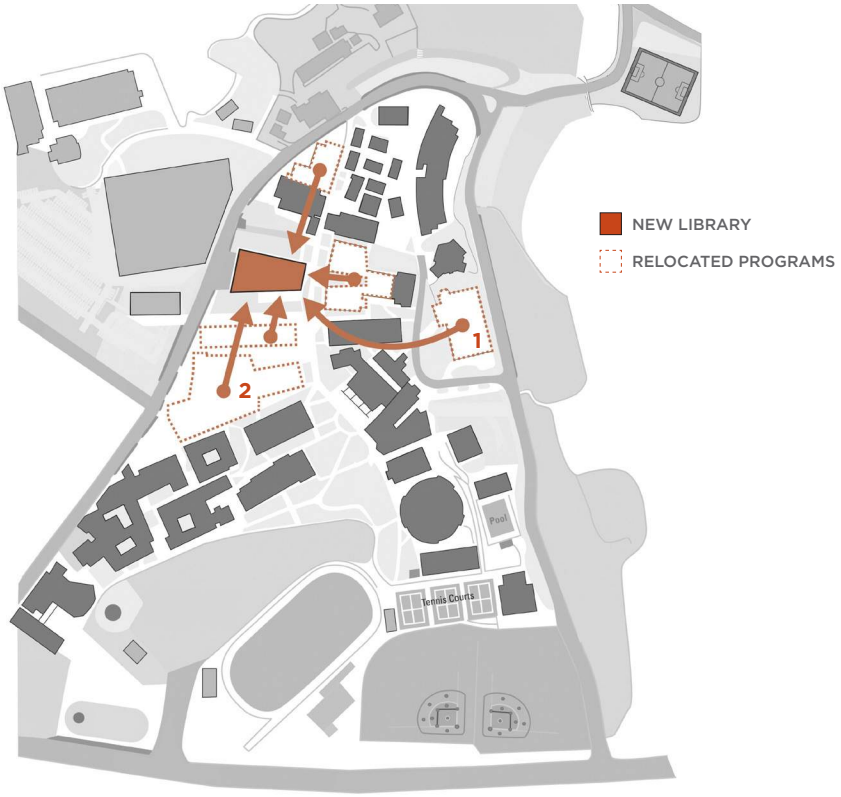
The most significant challenge for the client was identifying what would make the library a successful destination. In a bold move, the response was to identify where students would get the most benefit from the building organization. Views, places to study, socialize, and exchange ideas were the highest priority. So, working from the top down, the fourth floor became the ‘magnet’ and named Sky Level. The main reading room, collection, group study rooms, and lounge areas were located there, enticing students to come up to connect and enjoy the panoramic views of the surrounding valley.

# PLANNING PROCESS

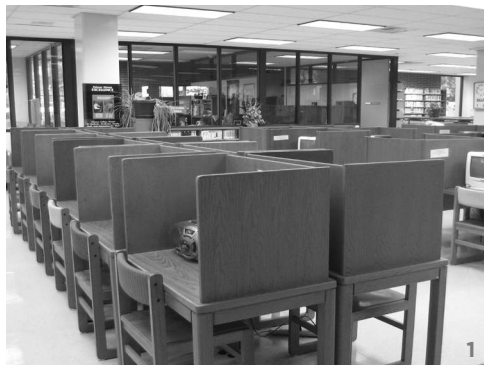
**NURTURE A CULTURE OF COMMUNITY**

The planning process involved students, faculty, administration and community representatives throughout the development. It began by taking a step back from discussing spatial needs and looking at what would make the LRC a successful destination that allowed their campus culture to grow and become even greater than before. Ultimately this drove the decision to centralize tutoring and academic technology spaces which were previously scattered and disconnected across campus. This consolidation and expansion of programs created a one-stop destination centered around the student experience.

*[In the previous library] "Haun said she and other students would often go hunting for study space in empty classrooms and most held group meetings in the campus dining room...'This is now our home away from home,' said Haun, pointing up proudly at the new building."*
- Palomar student, The San Diego Union Tribune

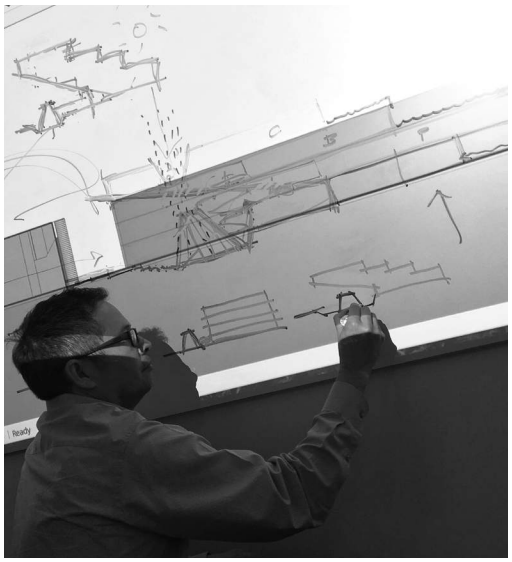


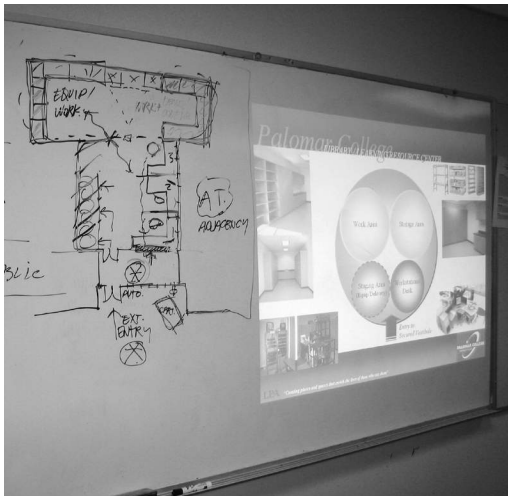

EXISTING CONDITIONS



ENGAGEMENT PROCESS

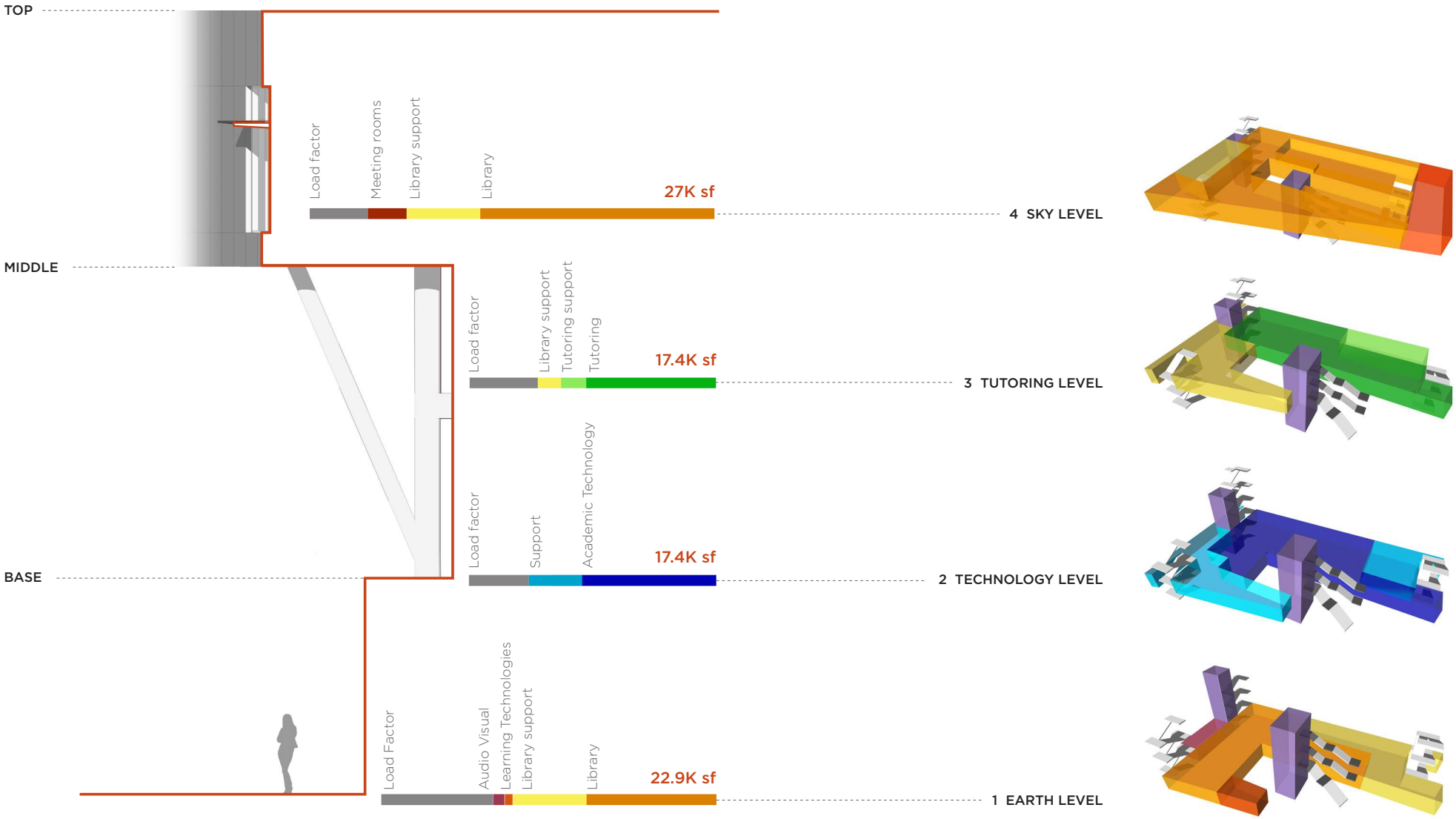


# INSIDE-OUT

## PROGRAM AS A BUILDING FORM GENERATOR

The design team used the ideal program stacking configuration to shape the massing, with each floor 'pushing out' the building enclosure until meeting the required program size. This innovative approach delineated a unique profile of 'base, middle and top'. The Librarians' and students' preferred option, with the library on the fourth floor, created a top-heavy building with a relatively small footprint. The resulting mass presented a technical challenge for the cantilevered library but was well-suited for a site with constraints all around. The reduced base dodged the relocation of a major utility corridor, directing the savings back into the programmed spaces.

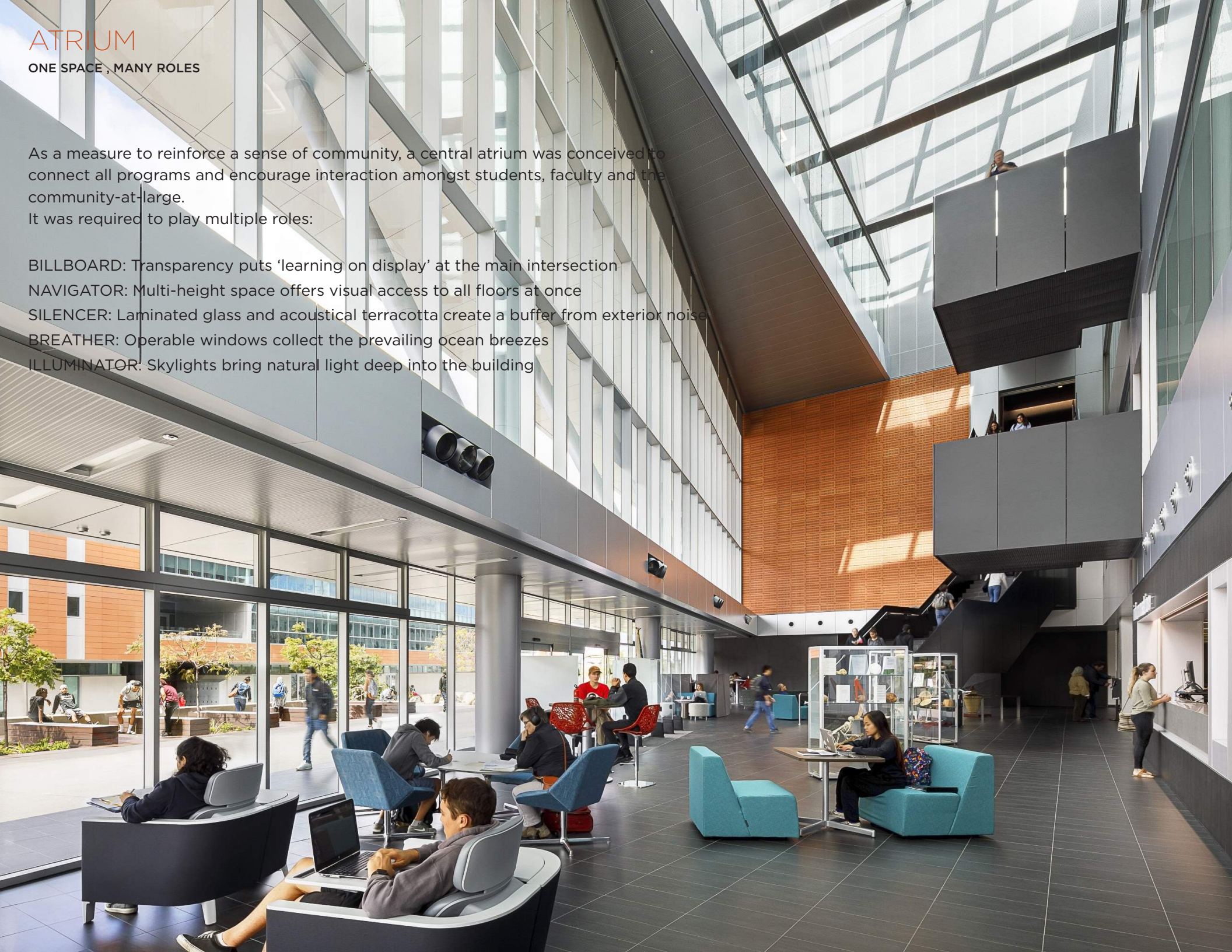


# ATRIUM

**ONE SPACE , MANY ROLES**

As a measure to reinforce a sense of community, a central atrium was conceived to connect all programs and encourage interaction amongst students, faculty and the community-at-large.
It was required to play multiple roles:

BILLBOARD: Transparency puts ‘learning on display’ at the main intersection
NAVIGATOR: Multi-height space offers visual access to all floors at once
SILENCER: Laminated glass and acoustical terracotta create a buffer from exterior noise
BREATHER: Operable windows collect the prevailing ocean breezes
ILLUMINATOR: Skylights bring natural light deep into the building

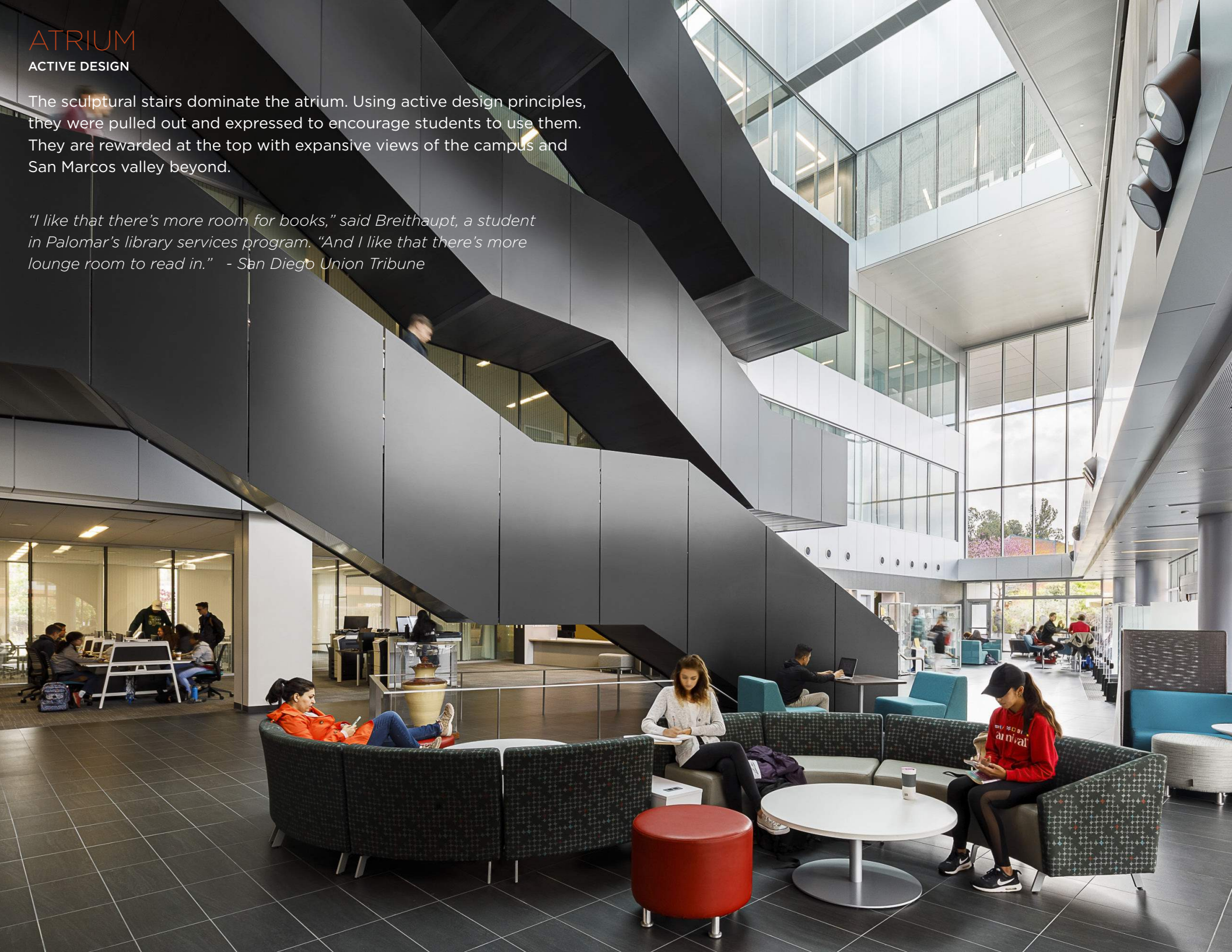


# ATRIUM

## ACTIVE DESIGN

The sculptural stairs dominate the atrium. Using active design principles, they were pulled out and expressed to encourage students to use them. They are rewarded at the top with expansive views of the campus and San Marcos valley beyond.

*"I like that there's more room for books," said Breithaupt, a student in Palomar's library services program. "And I like that there's more lounge room to read in."  - San Diego Union Tribune*



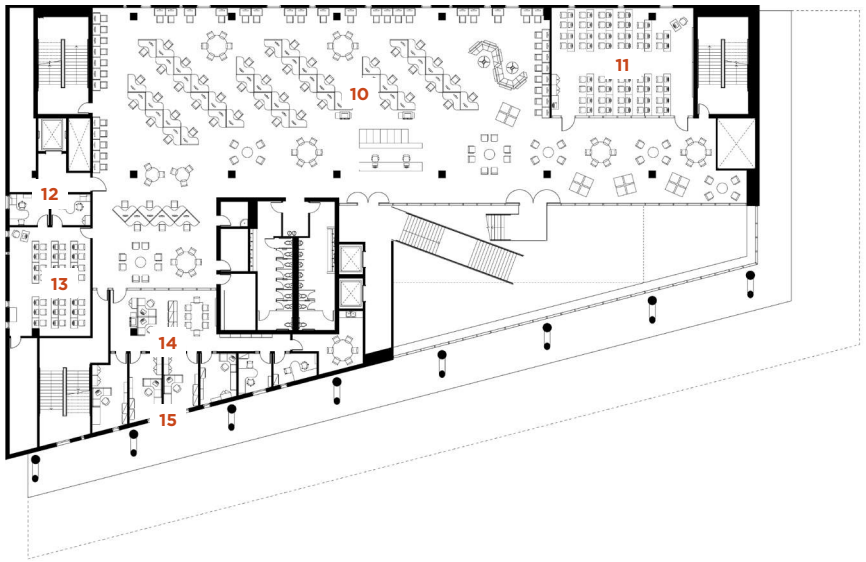
# PLANS

40'

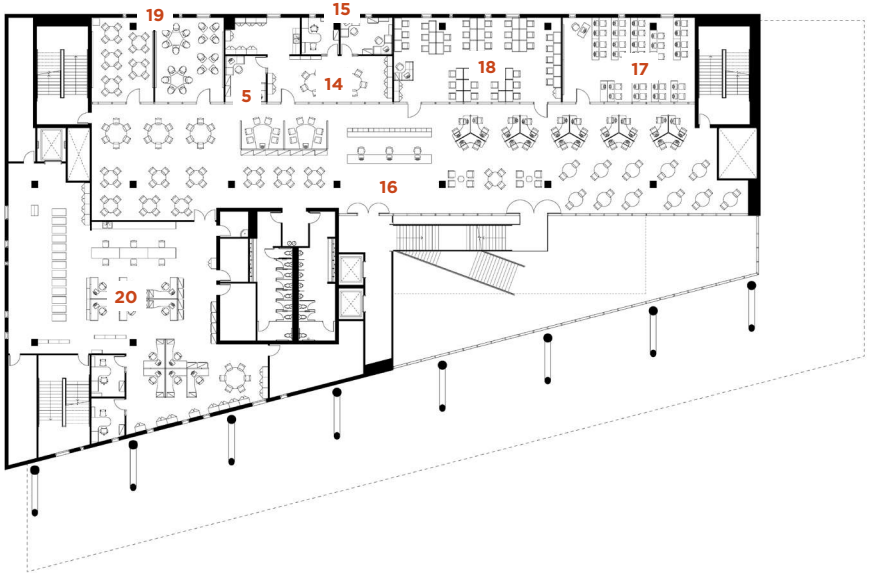
1 lobby
2 information & circulation
3 meeting room
4 computer area
5 reference & periodicals
6 reading & study area
7 archive room
8 science lab
9 technology center
10 computer commons
11 training room
12 audio recording room
13 faculty technology center
14 work room
15 offices
16 open lab tutoring
17 multi-purpose lab space
18 proctoring room
19 group study room
20 library work room
21 main & oversize collections
22 meeting room
23 staff office suite
24 classroom

## FIRST FLOOR / EARTH LEVEL


## SECOND FLOOR / TECHNOLOGY LEVEL




## THIRD FLOOR / TUTORING LEVEL




## FOURTH FLOOR / SKY LEVEL

ATRIUM: SUSPENDED STUDY ROOMS AND STUDENT PLAZA BELOW

# GENIUS LOCI

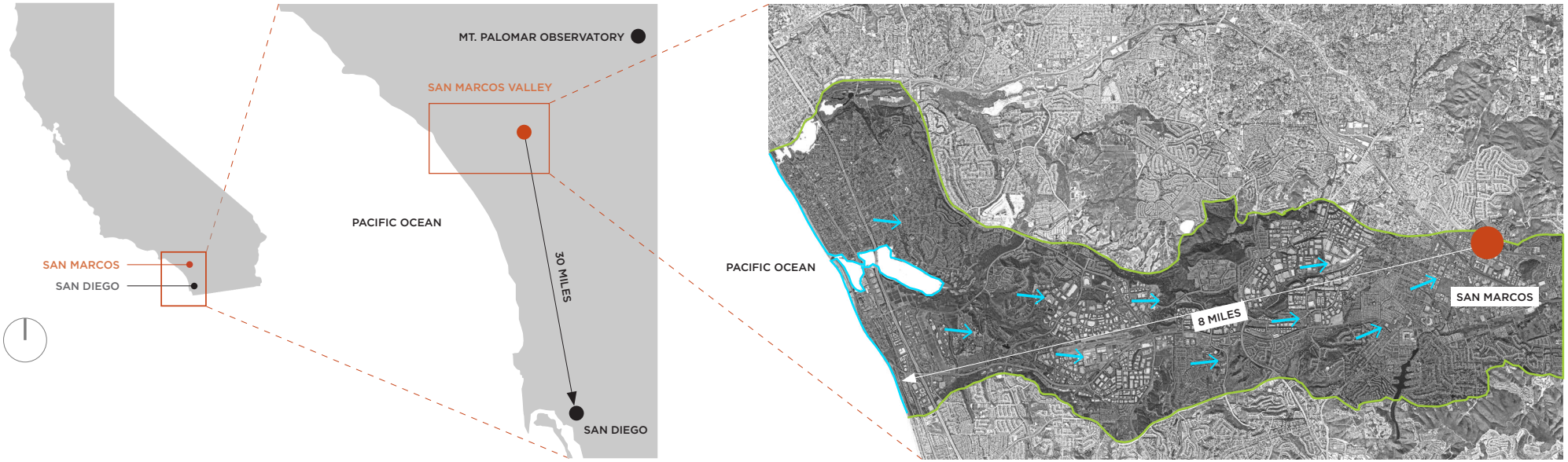
**'THE VALLEY OF DISCOVERY'**

Framed by the Pacific Ocean and surrounded by emerald green hills, the San Marcos area is also known as "The Valley of Discovery" since Spanish Colonial times. The epithet has attained new meaning over time. It proved a fitting name in the 1930's with the construction of Mt. Palomar Observatory and it still does so today, as the home of five colleges and universities.
The design draws from this rich history to honor the legacy of the valley as a 'place of discovery', elevating the library (quite literally) as the center of knowledge within the community.

CALIFORNIA

SOUTHERN CALIFORNIA

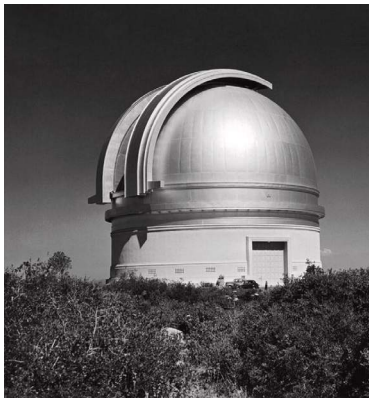
SAN MARCOS VALLEY




## CLIMATE

The project leverages one of the mildest climates in the country by offering outdoor social spaces as extensions of the building.
Using mixed-mode natural ventilation, the public lobby captures the prevailing ocean breezes funneled to the site by the coastal canyon hills.

## MT. PALOMAR OBSERVATORY



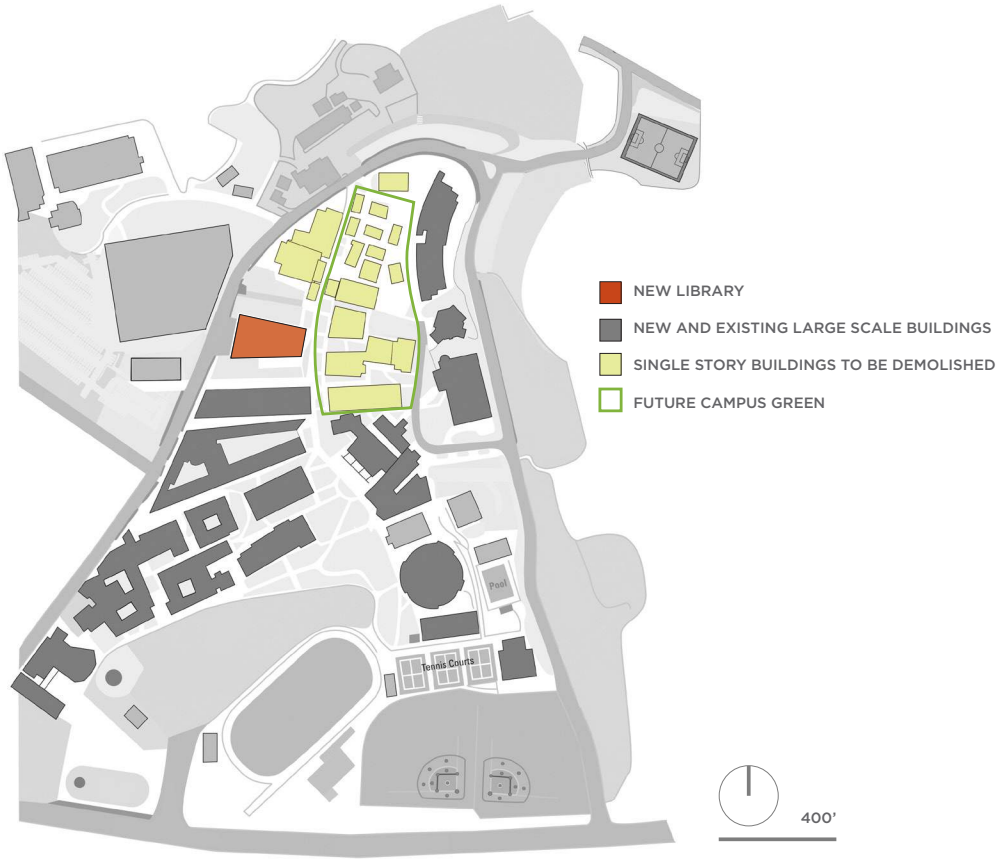
## COASTLINE

## COASTAL CANYON HILLS

# CONTEXT

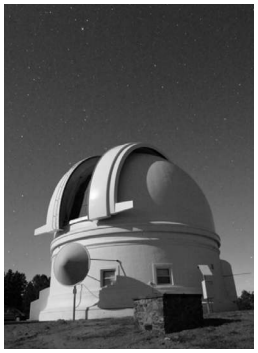
## FROM MODEST BEGINNINGS TO PROUD COLLEGIATE CHARACTER

For the last decade, and fueled by a local bond, the campus has undergone a complete transformation in its character and scale. The LRC marks the final step of a planning and construction process that increases instructional and support spaces while freeing large areas for open space. This was achieved by replacing the original single story classroom structures with fewer but larger multi-story buildings.
Anchoring the academic core of the 21st century campus, the LRC rivals many facilities in the regions' large universities. Its character, scale, services, and outreach have instilled a sense of pride with students and the community.




# VIEWS

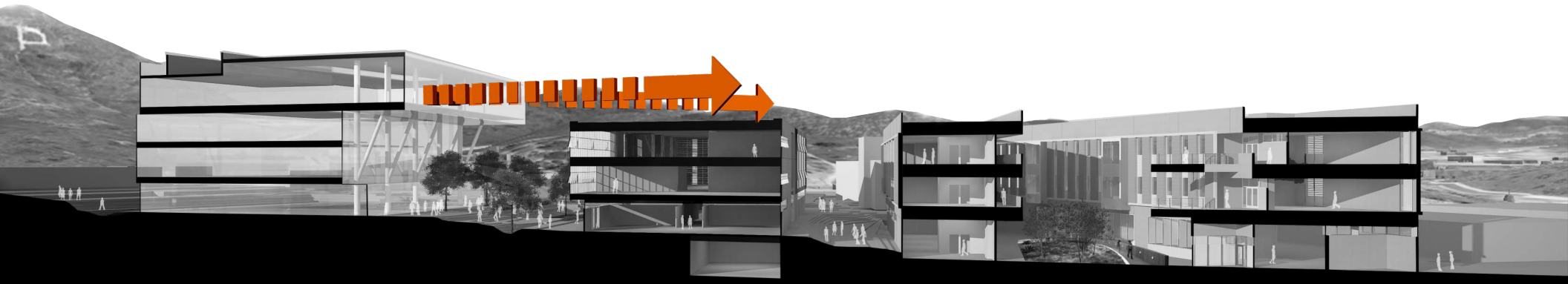
Inspired by the tradition of Palomar as a center for observation of the skies, the top floor was conceived as an observation deck, where reading areas and community rooms face nearby Mt. Whitney and the surrounding coastal valley becomes a dramatic backdrop.



*"I like that there's more room for books," said Breithaupt, a student in Palomar's library services program. "And I like that there's more lounge room to read in." - San Diego Union Tribune*

**REVERSE-ENGINEERING THE VIEWS**

After designing the LRC and before it started construction, the same team completed the adjacent three-story Humanities building. Its roof was deliberately devised as a low-profile plane of photovoltaic panels, free of any obstructions to allow for the future library views (above).



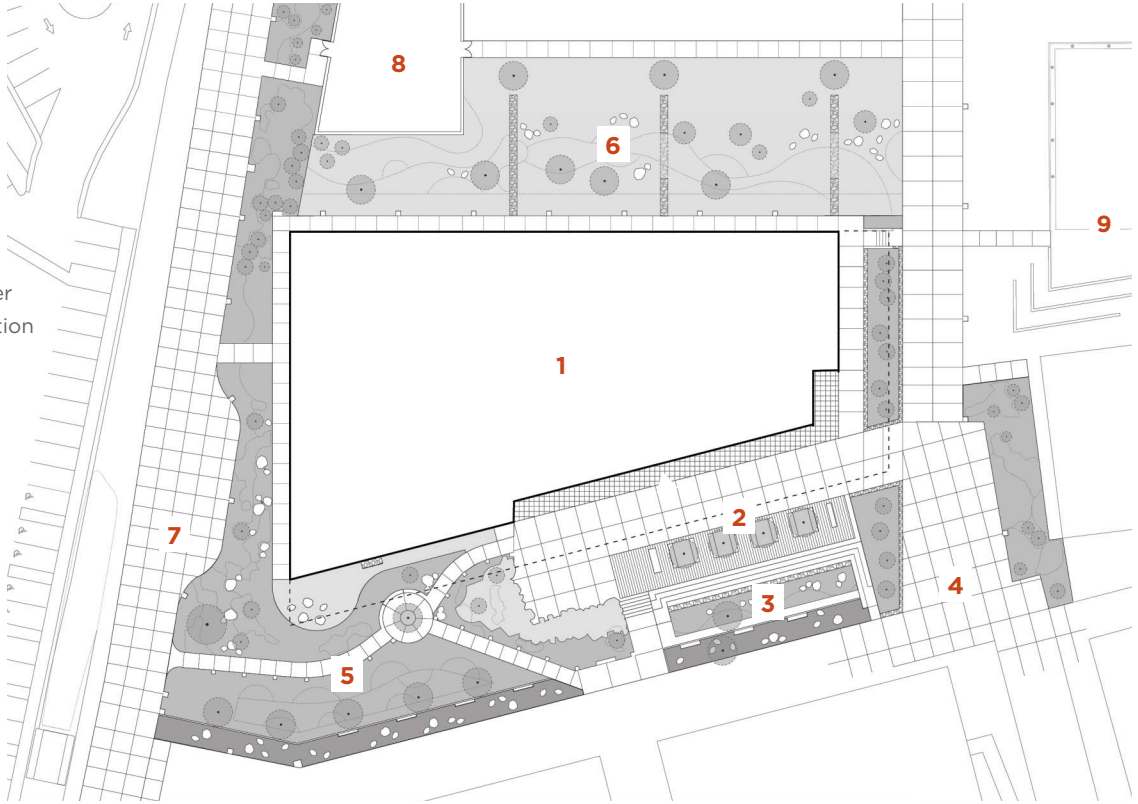
# SITE CONNECTIVITY

## VISUAL ACCESS, PEDESTRIAN FLOW AND OUTDOOR AREAS

As the cornerstone of the new master plan, the LRC was placed at the main pedestrian crossing, acting as a gateway from the west parking areas and the center of the academic core. By building vertically, the project carves out much needed open space, including an amphitheater, shaded social spaces, and a reading garden landscaped with native planting.

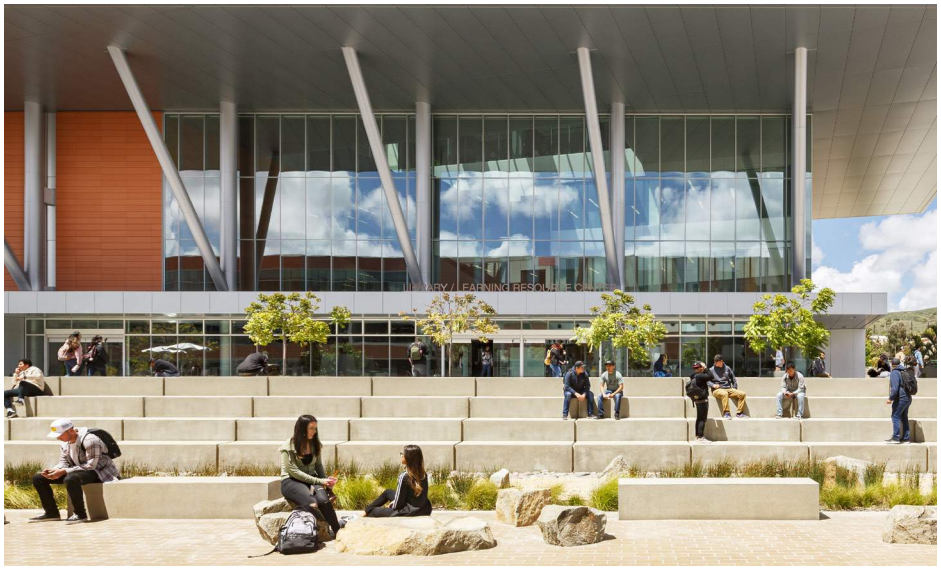
A large campus green is planned immediately adjacent to the library once the small buildings are demolished.

1 library
2 plaza
3 natural amphitheater
4 pedestrian intersection
5 reading garden
6 bio-swales
7 deliveries
8 central plant
9 future quad




5 READING GARDEN

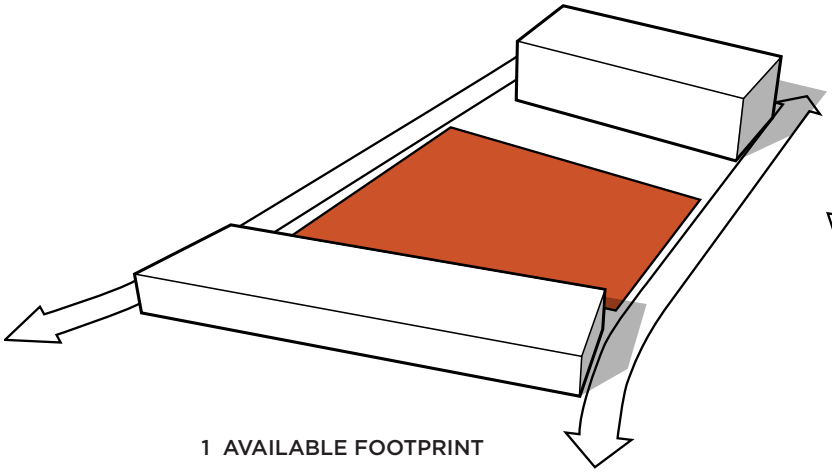
3 AMPHITHEATER



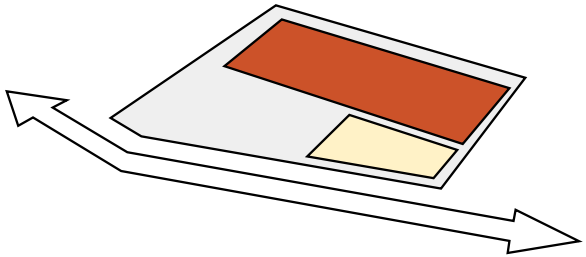
2 STUDENT PLAZA

# OUTSIDE-IN

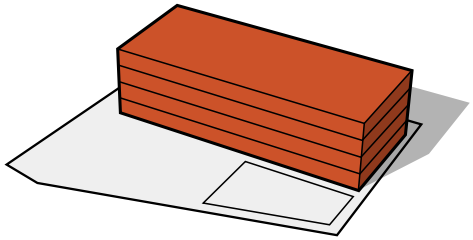
## FORM GENERATION



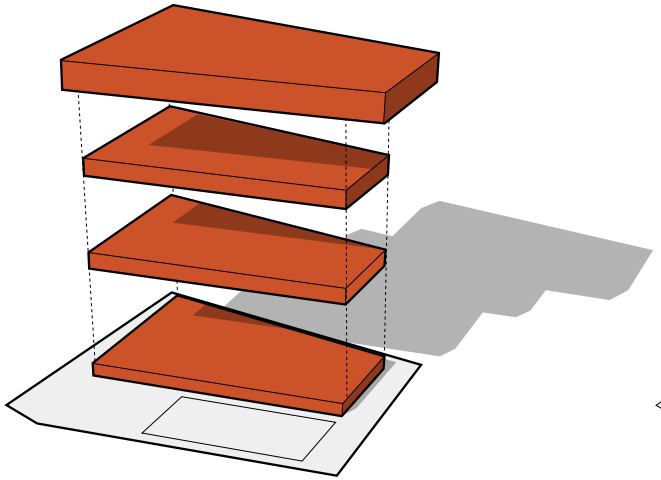
1 AVAILABLE FOOTPRINT



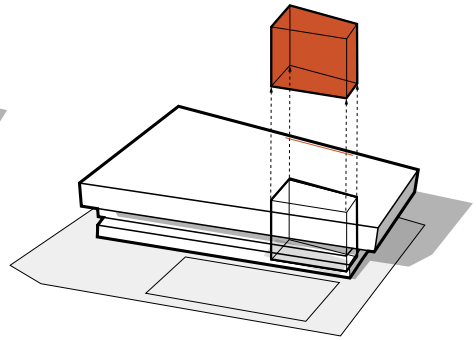
2 AVERAGE FLOOR FOOTPRINT + PLAZA



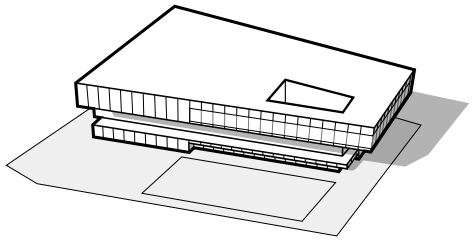
3 EQUAL FLOORS STACKED



4 FLOOR SIZE AND SHAPE ADJUSTED PER PROGRAM



5 ATRIUM CARVED OUT

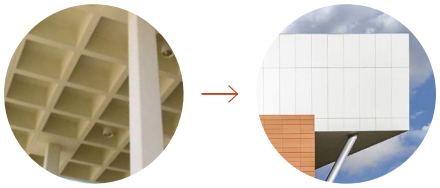


6 FINAL MASSING

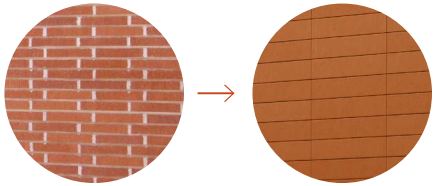
# MATERIALITY

## REINTERPRETING THE CAMPUS ORIGINAL 'KIT-OF-PARTS'

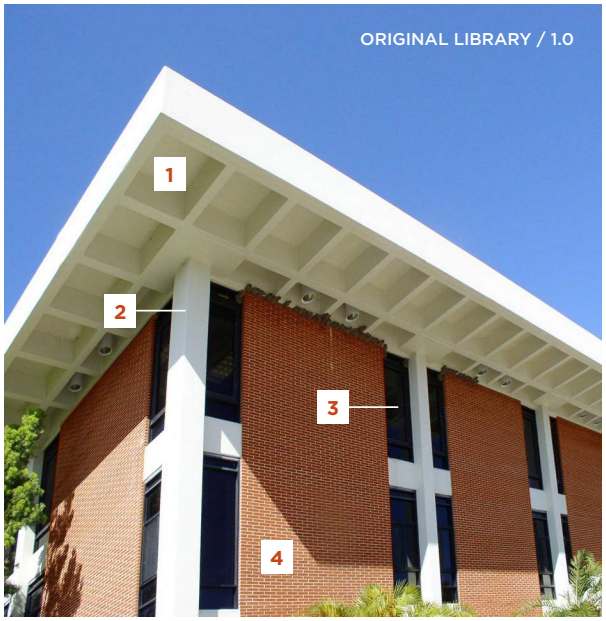
1.0 → 2.0



concrete → steel and metal

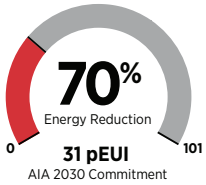


Palomar brick → terracotta tile




# SUSTAINABILITY

- Predicted EUI of 31. Meets the AIA 2030 Challenge goal of 70% fossil fuel reduction for new buildings.
- It performs 38% better than the California Energy Code.
- LEED Gold certified.





**1 Energy efficiency**

HVAC systems connect to air cooled water chilled central plant.
PV array offsets 20% of building energy use.

**2 Air**

Lobby utilizes mixed mode ventilation with operable windows, leveraging prevailing breezes.

**3 Daylighting + sunshading**

Daylighting strategies help reduce interior lighting demands to 25% better than code.

**4 Acoustics**

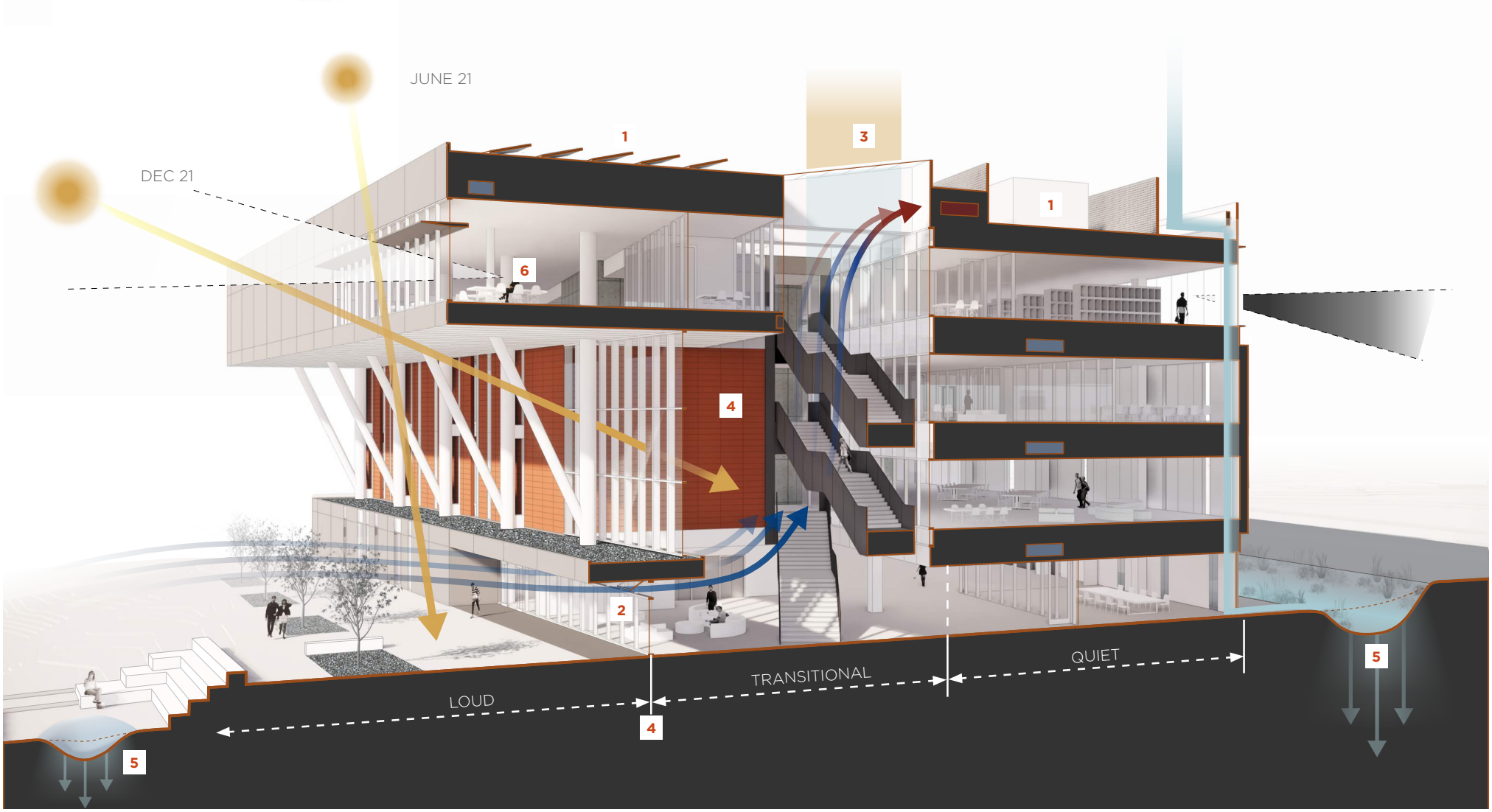
Absorbent acoustical terracotta tile.
Variety of spaces with range of acoustical character to fit multiple activities.

**5 Water**

100% of site stormwater is treated locally via bioretention ponds.

**6 Views**

External elevated views of surrounding valley.
Internal views encourage discovery and collaboration.



# TIMELESS VISION

**RESULT**

Due to funding after the initial design was completed, construction would not start for another 12 years so the solution needed to withstand the test of time. The vision endured, and it is just as relevant now.  The different stakeholders offered the team a deep understanding of what the library represented for their college and community. The Librarians inspired and informed the process by considering how change may affect future library services and their impact on student success.

Today, the project has instilled a renewed sense of pride in the community and student population, increasing enrollment and helping attract quality faculty members to come teach at Palomar Community College.

**NORTH ELEVATION**

*"Every time I see the way students are using the space and enjoying the space, it reminds me why we're here... It reminds me we need to continue investing in our students. There's a lot of learning going on in this building."*

- Palomar College Superintendent/President Dr. Joi Lin Blake

## LEARNING RESOURCE CENTER

**PALOMAR COMMUNITY COLLEGE**

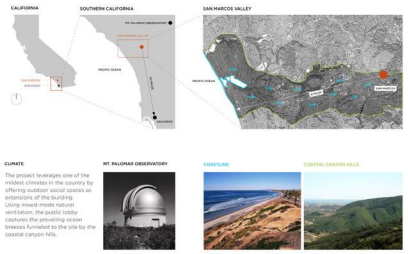
The project transcends the traditional role of the library in a community college campus. It expands on the notion of the library as an equitable provider of information, becoming a destination for a wider range of users. Beyond its core function as a resource center, the building was designed to acquire other identities: student union, community center, social venue, instructional facility for lifelong learners and observation deck.

SOUTH ELEVATION, MAIN ENTRY

## GENIUS LOCI

**'THE VALLEY OF DISCOVERY'**

Framed by the Pacific Ocean and surrounded by emerald-green hills, the San Marcos area is also known as "The Valley of Discovery" since Spanish Colonial times. The epithet has attained new meaning over time. It proved a fitting name in the 1930's with the construction of Mt. Palomar Observatory and it still does so today, as the home of five colleges and universities.
The design draws from this rich history to honor the legacy of the valley as a 'place of discovery', elevating the library (quite literally) as the center of knowledge within the community.




**CLIMATE**

The project leverages one of the mildest climates in the country by offering outdoor social spaces as extensions of the building.
Using mixed-mode natural ventilation, the public lobby captures the prevailing ocean breezes funneled to the site by the coastal canyon hills.

**MT. PALOMAR OBSERVATORY**



**KNAUSTUNE**



**COASTAL CANYON HILLS**



## CONTEXT

**FROM MODEST BEGINNINGS TO PROUD COLLEGIATE CHARACTER**

For the last decade, and fueled by a sizable local bond, the campus has undergone a complete transformation in its character and scale. The LRC marks the final step of a planning and construction process that increases instructional and support spaces while freeing large areas for open space. This was achieved by replacing the original single story classroom structures with fewer but larger multi-story buildings.
Anchoring the academic core of the 21st century campus, the LRC rivals many facilities in the regions' large universities. Its character, scale, services, and outreach have instilled a sense of pride with students and the community.



## CHALLENGE

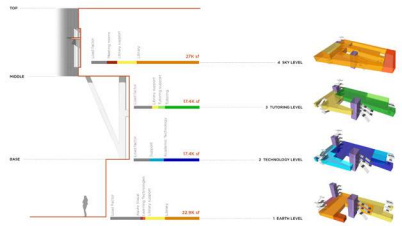
**LIBRARY AS A SOUGHT-AFTER DESTINATION**

The most significant challenge for the client was identifying what would make the library a successful destination. In a bold move, the response was to identify where students would get the most benefit from the building organization. Views, places to study, socialize, and exchange ideas were the highest priority. So, working from the top down, the fourth floor became the 'magnet' and named Sky Level. The main reading room, collection, group study rooms, and lounge areas were located there, enticing students to come up to connect and enjoy the panoramic views of the surrounding valley.

## INSIDE-OUT

**PROGRAM AS BUILDING FORM GENERATOR**

The design team used the ideal program stacking configuration to shape the massing, with each floor 'pushing out' the building enclosure until meeting the required program size. The innovative approach delineated a unique profile of 'base, middle and top'. The Librarians' and students' preferred option with the library on the fourth floor created a top-heavy building with a relatively small footprint. The resulting mass presented a technical challenge for the cantilevered library but was well-suited for a site with constraints all around. The reduced base dodged the relocation of a major utility corridor, directing the savings back into the programmed spaces.

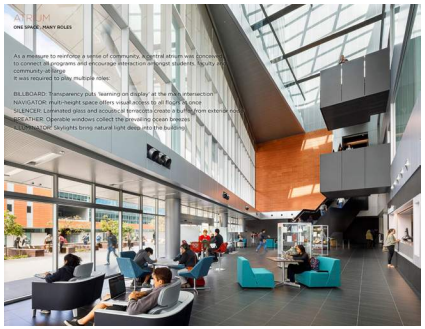



## ATRIUM

**ONE SPACE, MANY ROLES**

As a measure to reinforce a sense of community, a central atrium was conceived to connect all programs and encourage interaction amongst students, faculty and community at large.
It was required to play multiple roles:

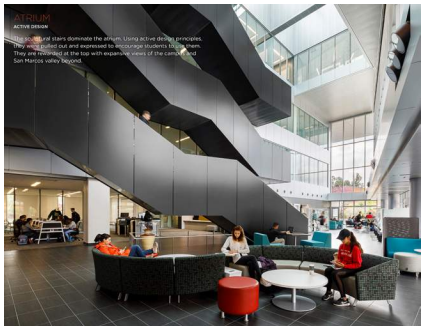
BILLBOARD: Transparency puts 'learning on display' at the main intersection
NAVIGATOR: multi-height space offers visual access to all floors at once
'SILENCER': Elevated glass and acoustical terracotta create a buffer from external noise
REGATHER: Operable windows collect the prevailing ocean breezes
LIGHTMONITOR: Skylights bring natural light deep into the building



## ATRIUM

**ACTIVE DESIGN**

The exposed stairs dominate the atrium. Using active design principles, they are carved out and expressed to encourage students' usage. Users. They are rewarded at the top with expansive views of the campus and San Marcos valley beyond.

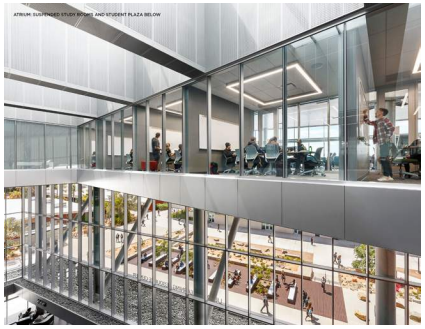


## PLANNING PROCESS

**NURTURE A CULTURE OF COMMUNITY**

The planning process involved students, faculty, administration, and community representatives throughout the development. It began by taking a step back from discussing spatial needs and looking at what would make the LRC a successful destination that allowed their campus culture to grow and become even greater than before. Ultimately this drove the decision to centralize tutoring and academic technology spaces which were previously scattered and disconnected across campus. This consolidation and expansion of programs created a one-stop destination aimed to enhance student experience.

## PLANS


## VIEWS

Inspired in the tradition of Palomar as a center for observation of the skies, the top floor was conceived as an observation deck, where reading areas and community rooms face nearby Mt. Whitney and the surrounding coastal valley becomes a dramatic backdrop.

**REVERSE-ENGINEERING THE VIEWS**

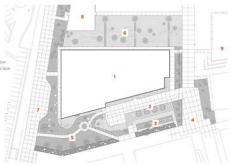
After designing the LRC and before it started construction, the same team completed the adjacent three-story Humanities building. Its roof was deliberately devised as a low-profile plane of photovoltaic panels, free of any obstructions to allow for the future library views (above).


## SITE CONNECTIVITY

**VISUAL ACCESS, PEDESTRIAN FLOW AND OUTDOOR AREAS**

As the cornerstone of the new master plan, the LRC was placed at the main pedestrian crossings, acting as a gateway from the west parking areas and the center of the academic core. By building vertically, the project carves out much needed open space, including an amphitheater, shaded social spaces, and a reading garden landscaped with native planting.

A large campus green is planned immediately adjacent to the library once the small buildings are demolished.



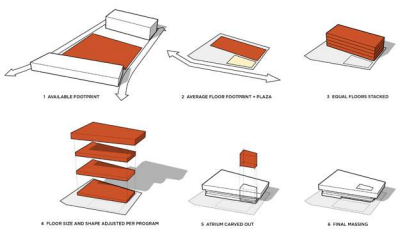

**5 READING GARDEN**

**3 AMPHITHEATER**

**2 STUDENT PLAZA**

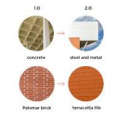
## OUTSIDE-IN

**FORM GENERATION**




## MATERIALITY

**REINTERPRETING THE CAMPUS ORIGINAL 'KIT-OF-PARTS'**






## SUSTAINABILITY

- Predicted EUI of 31. Meets the AIA 2030 Challenge goal of 70% fossil fuel reduction for new buildings.
- It performs 38% better than California Energy Code.
- LEED Gold certified.




**1 Energy efficiency**
Highly insulated envelope to air-sealed water-proof curtain wall.
PV array offsets 20% of building energy use.

**2 Air**
Lobby utilizes mixed-mode ventilation with operable windows, leveraging prevailing breezes.

**3 Daylighting + sunshading**
Daylighting strategies help reduce interior lighting demands by 25% better than code.

**4 Acoustics**
Absorbent acoustical terracotta tile.
Atrium spaces with range of acoustical conditions to fit multiple activities.

**5 Water**
100% of site storm water is treated locally via bio-retention ponds.

**6 Views**
External elevated views of surrounding valley and campus encourage discovery and collaboration.




## TIMELESS VISION

**PROCESS**

Due to funding, after the initial design was completed, construction would not start for another 12 years so the solution needed to withstand the test of time. The vision endured, and it is just as relevant now. The different stakeholders offered the team a deep understanding of what the library represented for their college and community. The Librarians inspired and informed the process by considering how change may affect future library services and their impact on student success.
Today, the project has instilled a renewed sense of pride in the community and student population, increasing enrollment and helping attract quality faculty members to come teach at Palomar Community College.

NORTH ELEVATION