One might assume that a functional university laboratory building ought to look the part, since so many of them resemble the experimental apparatus they house and overpower the rest of the campus with their size. One might further assume from the evidence (including that produced amply at the University of Oregon during the past four decades) that science buildings cannot be designed or built in a manner that complements the complicated and sensitive physical contexts of a traditional college campus.

But the expansion of the science complex at the University of Oregon is different. It has not only produced flexible, functional laboratory space but also resulted in a set of buildings whose siting, massing and exterior design advances the quality of the campus environment. This outcome is a tribute to the vision of the University's planners and administrators and of the scientists who participated in the design process.

As designers, our job was to fashion a new science campus from the somewhat unpromising existing buildings as well as the potentially unyielding large blocks of new laboratory space. We were guided by the participants' concerns and suggestions: They proposed ways of returning the science complex to the high standard set by Ellis F. Lawrence's 1914 plan, expressed a preference for buildings that responded in unique and idiosyncratic ways to the context rather than buildings of standard academic historical styles, and opposed anything that seemed to present a technological vocabulary.

Using New Buildings to Solve Old Problems

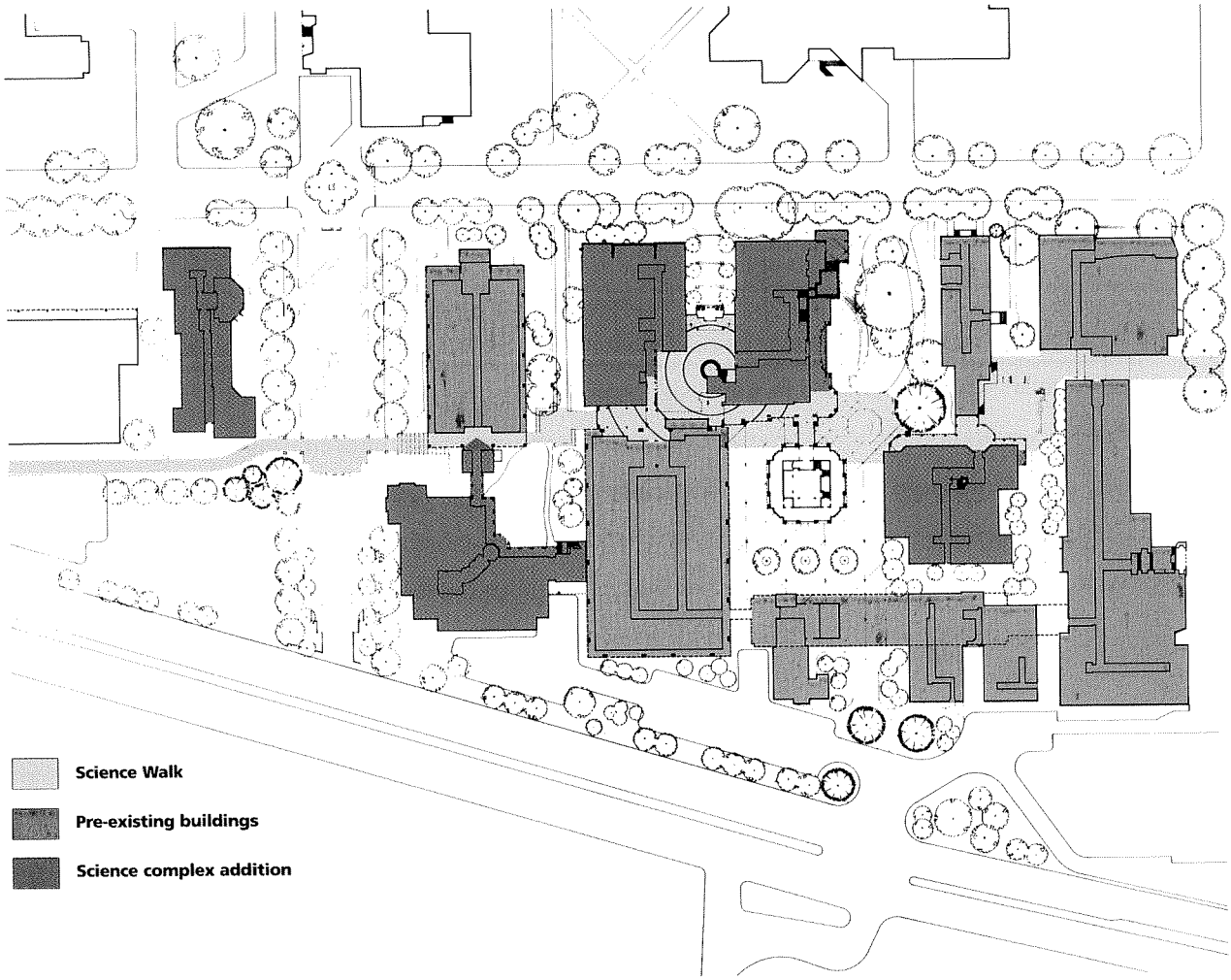
Stephen Harby

We focused on a number of basic issues: strengthening the relationship of the science complex to 13th Avenue, which is a major campus axis; turning the amorphous open spaces surrounding the science buildings into defined courtyards; and preventing the expansion from imparting the sense that it was a monolithic project.

Along much of 13th Avenue, the campus' major east-west street (and one of Lawrence's original campus axes), there is a pattern of alternating facades and courtyards, all about 50 feet wide. This pattern provides a rhythm that a pedestrian experiences when walking down the street, and the courts often lead to larger and more complex spaces beyond. We wanted to establish a similar pattern where the science complex fronts 13th Avenue, thereby strengthening the sense that 13th Avenue is a major axis and imparting a stronger identity to the buildings and open spaces that connect to it.

Willamette Hall, the largest of the new buildings, is fragmented into several elements that approach 13th Avenue in different ways. At the southwest corner of the building, a small, open tower shelters an entrance to a cluster of lecture halls, accents the low-rise mass of the

Willamette Hall main entrance, facing 13th Avenue.
Photo by Timothy Hursley.



The new science buildings were set among the existing ones. The open spaces in the complex are now better defined and there are more physical connections between buildings. Graphic courtesy Moore Ruble Yudell. Photo by Timothy Hursley.

west wing and provides a counterpoint to the higher four-story mass of the east wing. The 13th Avenue facade of the east wing is divided into a pair of elements that reinforce the more intimate scale along the street frontage. Between these wings is a 75-foot deep forecourt that leads to a four-story glass facade and the main entrance to the atrium. The atrium carries this court into the building, integrating the concepts of human-scaled buildings and courtyards.

Older Buildings as Allies

Another goal was to treat the older buildings as allies and to rehabilitate them by incorporating them into the new composition rather than to banish them by ignoring them. The newer part of the campus, particularly the science complex, consists of larger buildings that float independently from one another in poorly defined open spaces. The newer buildings differ from the older structures and from one another, since their designers sought originality of appearance. The placement and massing of the four new buildings engage the existing buildings with courts, linked arcades and porches to create a more meaningful composition. The oppressive scale and austerity of the older science buildings have been tempered because they are now part of a larger and more varied composition.

Klamath Hall is a monolithic concrete box designed in the brutalist style. It formed a dominant center to the science complex although it was set back from 13th Avenue. To the east of that is Huestis Hall. These two buildings, constructed in the 1960s, were sited diagonally to each other as inde-

pendent objects in space with no engagement between them. By adding Streisinger and Willamette halls to this pair, we created a group of four buildings that function collectively.

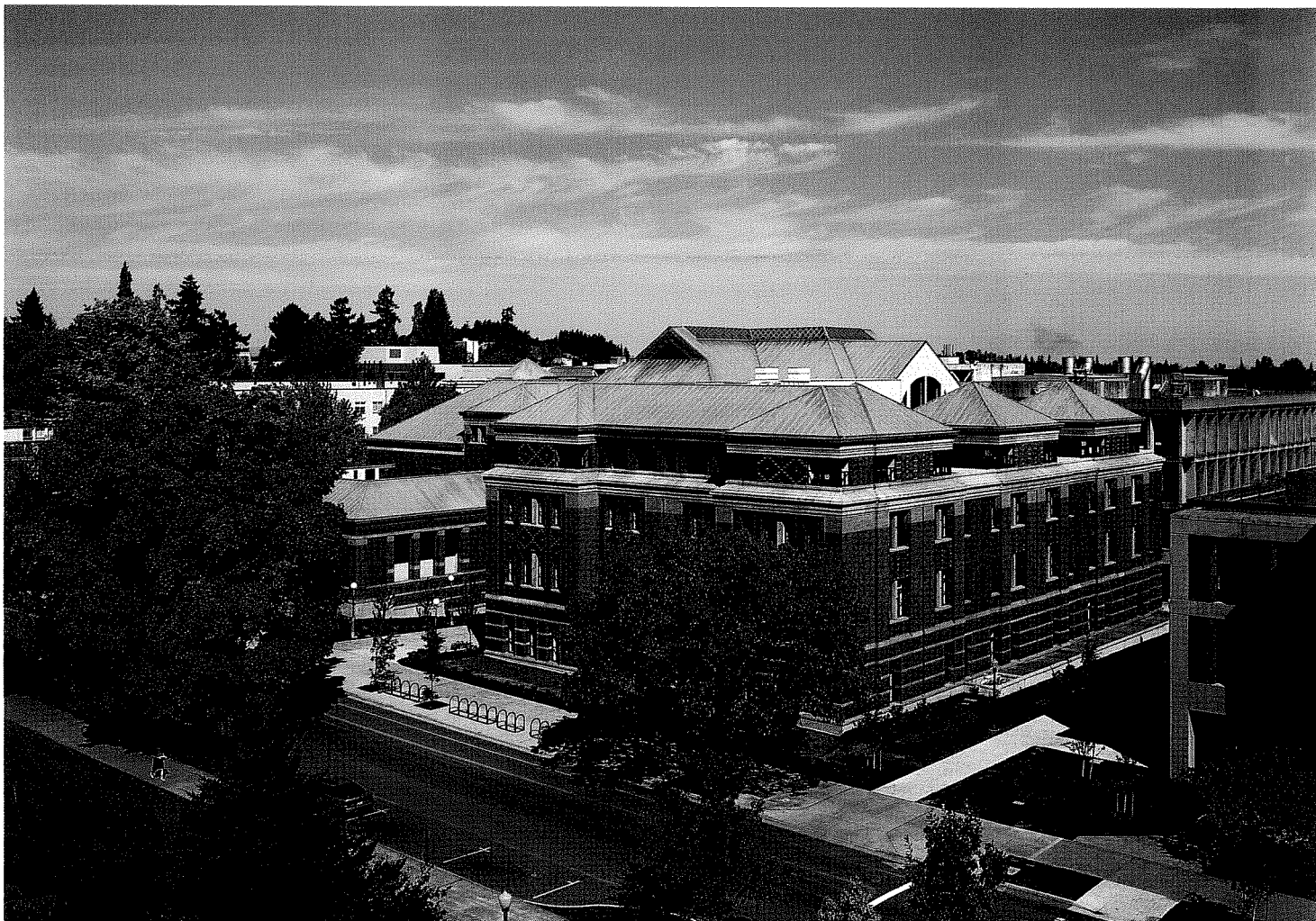
Strong internal linkages connect all these buildings. Primary among them is the new Willamette Hall atrium, which provides a grand prelude to the chemistry department's lobby in Klamath (whose previously overbearing gridded facade now forms an essential part of the intricate composition of the atrium's north wall).

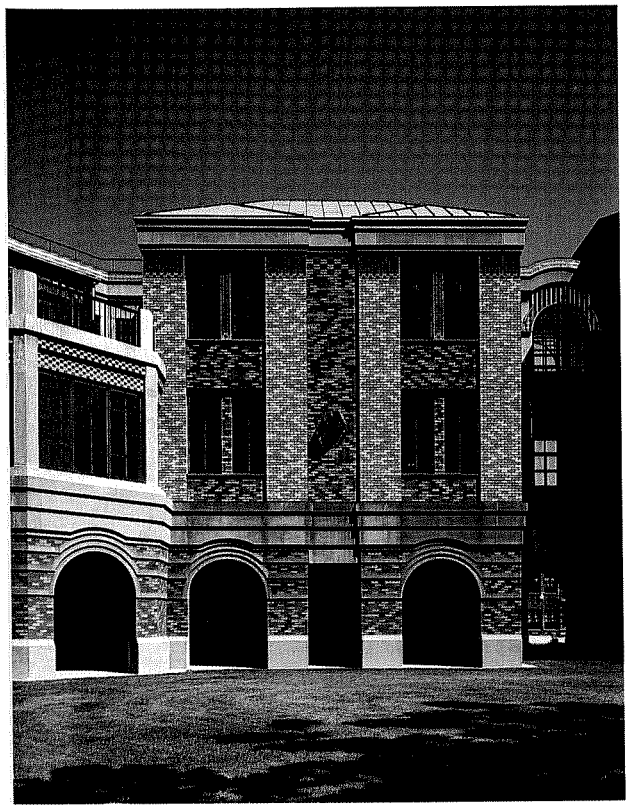
The four buildings also are sited to define an appropriately scaled courtyard. Huestis Hall, once a freestanding object, now forms the eastern edge of a green leading from 13th Avenue to an inviting plaza bounded by Klamath and the new cell biology laboratory.

Even the concrete egg-crate facade of Klamath Hall takes on a pleasing regularity, since the amount of it that can be seen has been reduced by half and has been joined by other, more varied elements. The west side of Klamath Hall's concrete frame structure is "woven" into the new facade of Willamette Hall.

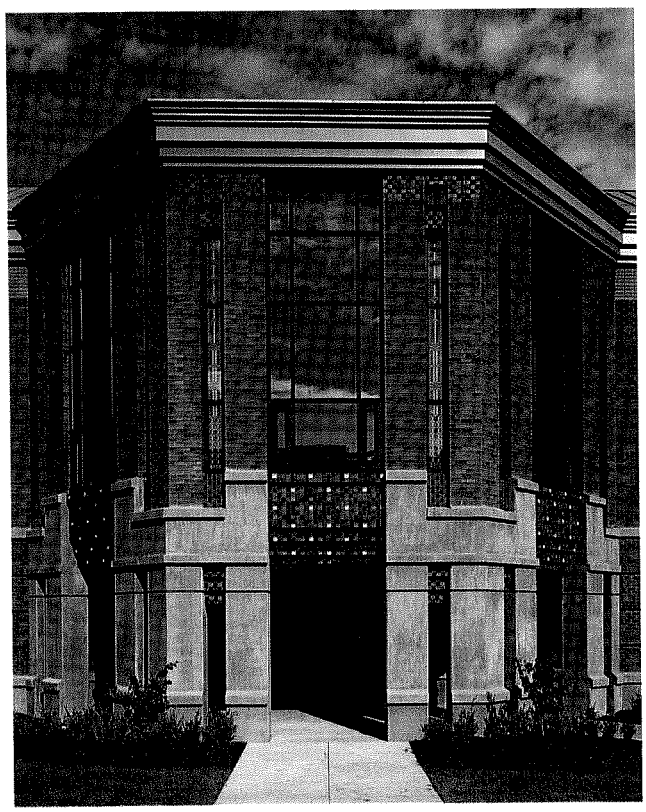
Similar engagements between old and new buildings occur elsewhere. A courtyard that was strategically placed where a parking lot had been has woven two existing buildings (Columbia and Volcanology) and Cascade Hall into a strong composition. Alice Wingwall chose this site for the fountain and sculptural stair that she designed as part of the art program. The fountain, which climbs up the side of an existing accelerator building, has transformed what had been an eyesore into one of the most popular spots on campus.

Huestis Hall and the new Streisinger and Deschutes halls were grouped to create a larger, more formal open space — a new quad. Deschutes Hall, home to the computer and information science department, encloses the east edge of the green and provides a balancing mass to Huestis Hall. A projecting wing at the north end of the building, coupled with a similar tower on Streisinger Hall, marks the point at which Science Walk crosses the green and divides it into two smaller spaces. The ensemble anticipates future growth by reserving a logical site for a fourth building, which would complete the quad. The green also anchors a new campus axis that recognizes an





The variety of materials and colors used in the facades, and the consistent organization of the facades, allow each building to be unique while establishing continuity throughout the complex.
Photos by Timothy Hursley.



existing path to the athletic fields, stadium and river, and could be extended to a future planned research center.

The final element of linkage in the science complex is Science Walk, which provides an understandable and direct connection among the various focal courts, porches, building entrances and major public interior spaces like the atrium. Reflecting the spirit of the principle of "piecemeal growth," it is fashioned not as a unified element like an arcade or gallery but as a collage of varied experiences using different forms, materials and scales both inside and out. Previously existing gateways, like the bridge linking two existing buildings at the west end of the site, were improved, and existing important places like the lobby of Klamath Hall are incorporated and made inviting.

To reinforce the importance of Science Walk and underscore its informal character, the Art Selection Committee selected Scott Wylie's proposal to install special paving patterns along its length. Wylie used ceramics, bricks and stone to weave a visual and textural pattern along the sequence of exterior courts, paths, porches, entrances and interior gathering spaces that connect the opposite sides of the buildings that front 13th Avenue. The experience of moving along Science Walk is rich and varied, providing the kinds of choices and diverse sensations that the complexity of the program suggests.

Developing Variety with an Architectural Vocabulary

Designing the exteriors of the buildings, we were faced with conflicting goals. We wanted to make the new buildings relate to each other and look familiar. But we also wanted to make each of them unique, to avoid the

The exterior design of the new buildings reflects the presence of special places inside — such as the entrance to a cluster of lecture rooms in Willamette Hall (above), a department hearth in Streisinger Hall (top left) and a colloquium room in Deschutes Hall (below left).

impression that a monolithic complex had been inserted into the campus.

We gathered a family of materials (such as brick, tile, concrete and copper) and elements (such as pilasters, capitals, belt courses, cornices, sloping roofs, windows and doors) that could be combined in an infinite number of ways. This resulted in a certain commonality while also permitting opportunities for variation.

We also suggested continuity among the new buildings and with the oldest section of the campus by organizing the facades in a consistent way. Each is recognizably divided into the traditional zones of base, shaft and top. Bases are used to tie the buildings together horizontally. The pilaster and window elements of the shafts are arranged in overlapping layered elements of different scales while patterns in the brick and ceramic tile weave through the composition. The new buildings are unified by the stepped cornices and metal roofs.

Studying the older parts of the science complex, we noted the brick color varied from building to building: Geology and Volcanology are dark red-brown, Huestis Hall is bright red and Oregon Hall is orange-red. In the new buildings we subtly varied the palette of colors for brick and elements like metal windows and door frames — continuing this tradition while avoiding an overly uniform appearance.

The expansion would have taken a vastly different form had we not followed the cues of the users, who sought a physically integrated and connected network of departments and institutes and who wanted to build on the campus' historic architectural and planning character. We hope that as the new buildings develop a patina of age, and as the spaces inside and out become a part of people's everyday lives, distinctions between old and new, good and bad, and large and small will be tempered and dispelled into unified groupings of experience.