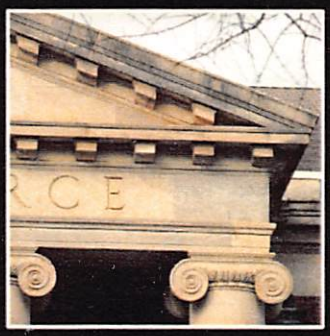
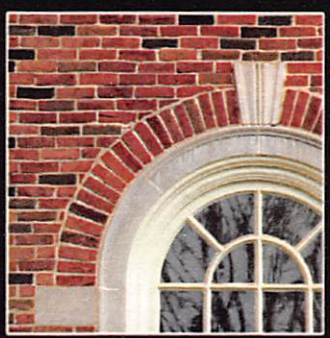
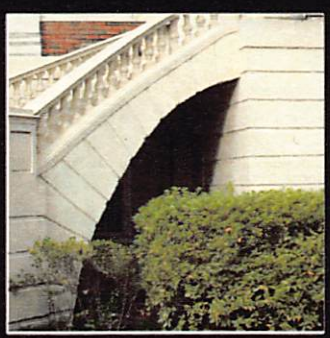
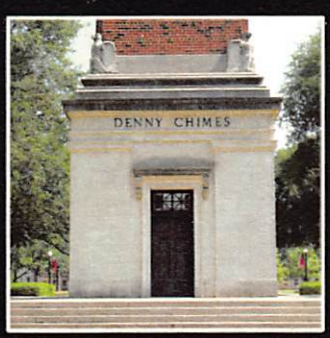


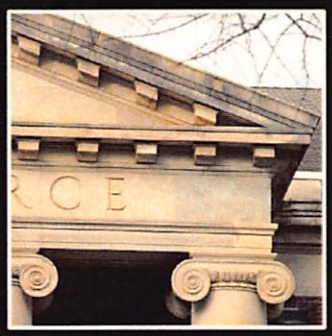


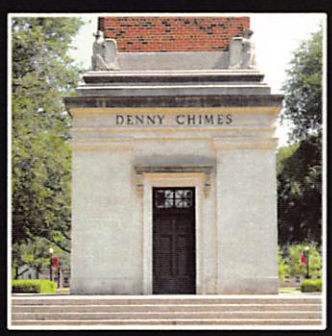




The University of Alabama

Architectural Guidelines





The University of Alabama

Architectural Guidelines

Table of Contents

I. The Purpose Statement

I. The Purpose of Architectural Guidelines

A campus has an identity. When we think of "campus" we visualize an environment shaped by buildings that establish its character and define its space. These two aspects: the facades of building and the exterior spaces they shape define the identity of a campus. These Guidelines will address both the fundamentals of building placement and form that shape the campus and the architectural appearance of the buildings themselves that creates the visual fabric or tapestry that is such a recognizable feature of the campus. The goal of the Guidelines is to recognize and acknowledge the identity of the University of Alabama Campus and guide new construction toward the reinforcement of that identity. The objective is not to create "sameness" but harmony and cohesion. The purpose is not to restrict the creativity of the designer but to direct the Designer's creativity toward adding buildings that will not only "fit" into the campus, but contribute to its overall enhancement.

1. **Companion to Campus Plan.** These Guidelines go hand in hand with the Campus Master Plan (CMP). They are developed as a tool to assist in the implementation of the CMP. Since the CMP establishes a long term campus wide vision, it is important for this document to guide the form and physical appearance of the architecture that is a part of that vision. The CMP contemplates new construction in five distinct land use areas on campus: academic, housing, support / administration, athletic, and recreation. Most new academic construction will occur in a classically inspired new Science and Engineering Quadrant southwest of Shelby Hall. Most of the balance of the academic construction will be comprised of infill projects within the traditional campus. The CMP anticipates some academic as well as student activity growth in the perimeter region of the campus where the influence of the central campus is not as strong. The fourth and fifth areas for new construction are designated for residential construction. The fourth comprises residential infill projects and stretches sporadically along the "Old Fraternity Row" houses; behind Rose Administration Building; including Sorority Row; and west of Stadium Drive with the fraternity houses and existing dormitories. Architecturally, there is little difference between this infill construction and the academic infill construction other than the scale of architectural elements. The fifth area of new construction is the perimeter residential block along the northern boundary of campus where new construction relates least to the central campus.

   The Guidelines respond to these areas of construction in particular. The degree to which the standards apply may vary depending on a building's placement. This document establishes a single set of standards that can be adjusted due to campus context.

2. **Responsibility to the Campus.** In the end every piece of new construction should be an asset to the campus. Though one obvious intent of any architectural guideline is to avoid "sore thumbs", the challenge to the Designer is to go beyond "doing no harm" to actually improving the campus environment. New structures should relate to and establish a dialogue with adjacent campus buildings. Existing axes should be recognized and extended. Harmony of form and detail should be shared with surrounding buildings. With this approach each addition to the campus will contribute to its quality and truly make the campus greater than the sum of its parts.

3. **The Power of Context.** One must consider what the "context" is into which a building must fit. In our case, "context" is the University of Alabama campus. While most think of the campus as the central quad area surrounded by neo-classical buildings, there are both subtle and dramatic shifts in styles as one moves through the rest of the campus. Within this seemingly homogenous core there are distinct variations in the style of the historical architecture.

The Victorian Woods Hall Quad, which includes Woods, Garland, Manly and Clark Halls, is located north of the classical Gorgas Library. The Gorgas Library is flanked by two more Victorian structures in Toumey and Barnard Halls. Opposite these two structures are the twin neo-classical "book ends" to Capstone Drive: Morgan Hall and Smith Hall. Their distinctive yellow brick cladding and delicate classical detailing contrast sharply with other classical campus buildings, as well as their Victorian Gothic neighbors. Through all this discord, there is harmony. This is not because everything is old or not "modern", although that certainly helps. Common among all these structures is a level of detail and a presence of scale that allow them to become a comfortable backdrop to the campus environment. The detail is within reach, touchable, and scaled to be enjoyed by the beholder, the student or passerby. These structures also add a level of visual texture to the environment that is subtly and perhaps subconsciously appreciated by all who experience the campus. Each structure expresses its dignity through its ornament, celebration

of entry, and the vertical emphasis in its design. These structures all respond to axis and symmetry of the campus well beyond their individual sites.

Together, these dissimilar buildings contribute significantly to the image and character of the campus. Yet in their differences they modify the context of their various locations.

4. **Context as Modifier.** The standards developed for this document are based on the University's desire to present a cohesive and dignified campus image and to strengthen the campus's best traditions. The standards are based on the classical tradition in architecture recurrent over the past two and a half millennia. Due to the diverse nature of the existing campus architecture, the context within which a project is placed should affect how these Guidelines are applied. The simplest example is with red brick. There are a variety of red brick blends that are considered appropriate for use on campus. However, any addition or auxiliary structure planned for Morgan, Smith or Comer would be a regrettable mismatch without acknowledging the yellow brick of the buildings' context. In this example, as elsewhere on campus, context is a modifier. Other areas of campus context will prompt different modifications. Some will entail a relaxing in the application of classical detail and ornament while maintaining the form and geometry of traditional architecture such as in the addition to Bryant-Denny Stadium. A discussion will follow in these Guidelines, which will examine a methodology for applying the standards to various areas of campus.

5. **Bridging Context.** Sometimes, in dealing with the campus environment, physical modifications will be deemed necessary to bring an existing structure into line with the desired campus. In such an effort the context is unified or bridged". This is an effective means of dealing with a structure that does not rest comfortably in its context, otherwise known as a "sore thumb." There are several examples of bridging context on campus. Recent projects include the addition of the curved pediment on Coleman Coliseum and the addition to the western side of Ferguson Student Center. In each case a sixties or seventies era building was modified to re-establish a context consistent with the University's traditional image.

6. **Green Design.** In recent years, the concept of "green design" has infiltrated the construction industry. Green design promotes environmentally conscious building practices, such an energy efficiency, indoor air quality, protection of watersheds, use of renewable resources, and preservation of forests and other natural areas. In an historical campus setting, buildings had to be more "green" with regard to indoor air quality because no HVAC systems existed. This led to buildings with natural ventilation and integral shading devices, such that it became part of the vernacular. The University of Alabama is committed to "building green" where possible while still maintaining the character and dignity of its campus.

II. Application of Standards

B. *Application of Standards*

1. **Realms of Campus Context.** The Guideline is based on the application of certain design standards to achieve the desired result: a cohesive college campus. Once context is recognized as a modifier of a standard, the way in which it is allowed to modify the application of a standard becomes significant. As a result, the process by which the standards are applied is as equally important as the standards themselves. Where the Urban Design Guidelines divided the campus into precincts, the Architectural Guidelines divide the campus into three Architectural Realms. These realms are geographic or thematic zones and provide the organizational structure for the application of standards. They establish the various areas of campus context which affect the application of the design standards.

2. **Central: Furthering the Campus Classicism.** The first realm, which is the most obvious, is the central campus. It comprises the neoclassical structures surrounding the Quad and extends northeast to include the new Science and Engineering Complex surrounding Shelby Hall. Geographically, this area of context is defined by Paul Bryant Drive on the south, Bryant-Denny Stadium and Stadium Drive on the west, the soccer fields on the east and a zigzag line running from the Ferguson Student Center northeast excluding Bevill but including and terminating with the Science and Engineering complex.

This centrally located realm is flanked by two additional residential areas of similar context. Though the structures and their scale are residential, the character of these building is equally Classical when compared to the adjacent academic structures. The first of the two is to the east, beginning at Devotie Drive and stretching east to the soccer fields. The second includes Old Fraternity Row and the residence halls immediately to the north and crosses University Drive to include Sorority Row. The architectural style and detail of these areas closely matches that of the educational structures within the realm; however, the scale is decidedly smaller. Other than this shift in scale the Guidelines implemented for these residential areas would be consistent with the rest of the realm.

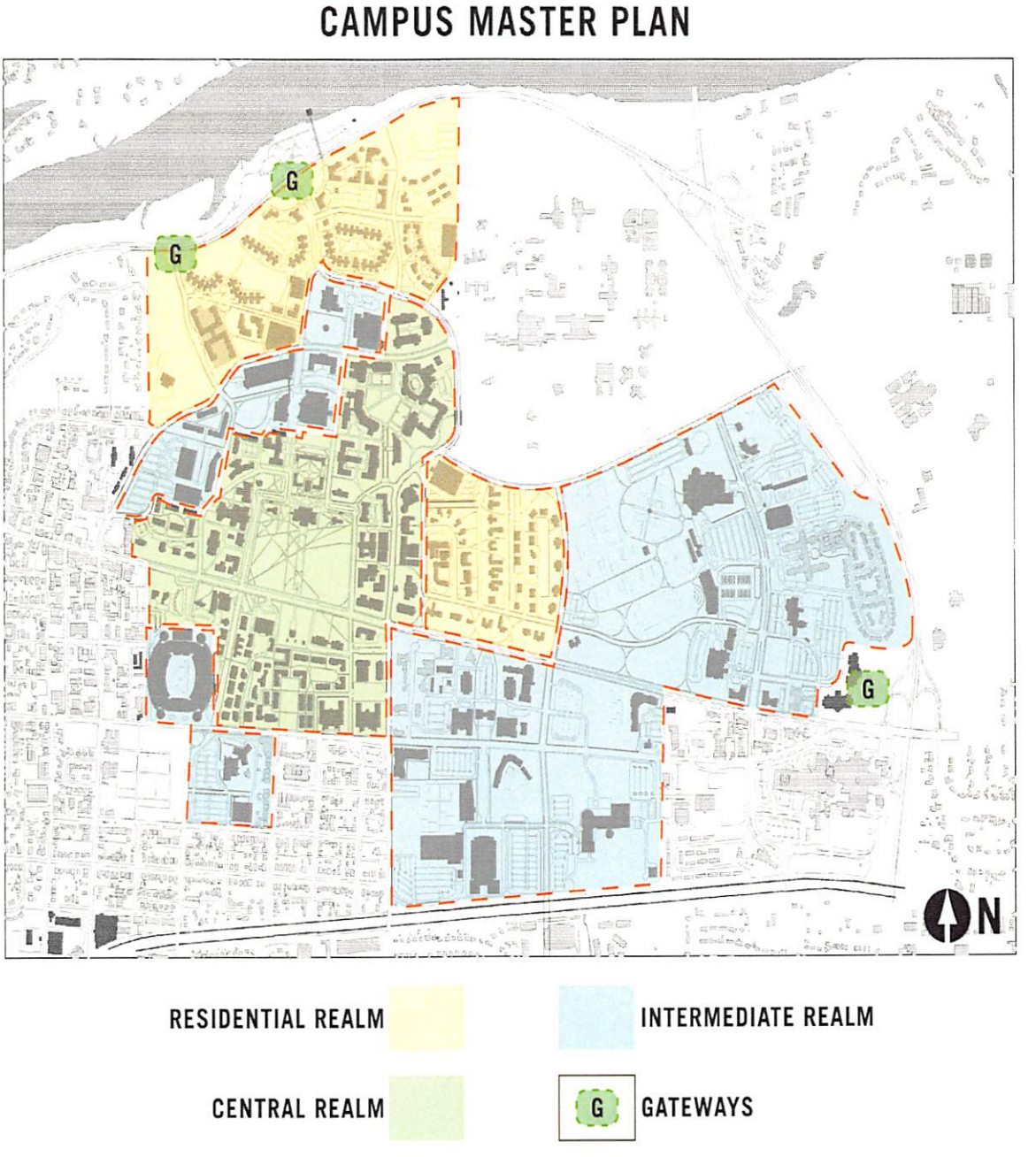
3. **Intermediate Realm:** Relaxing the Classical Expression. The second realm is immediately outside the first and is referred to as the Intermediate Realm for two primary contextual reasons. First, it constitutes an intermediate region separating the Central Realm from the outside world, acting as a buffer or transitional zone. Second, stylistically, it is perceived as a transitional expression as well. Here the Guidelines remain in full force for placement, form, and massing while the treatment of the envelope is relaxed in architectural detail. Acceptable materials remain consistent with the Central Realm as well as the traditional overtones of the campus and design guidelines. Geographically this realm occurs in three

areas around the central campus. One area starts at Bevill and the AIME Buildings west of the proposed Science and Engineering complex and continues westward along Campus Drive including Ferguson Student Center and new campus structures occurring within the arc of Campus Drive. Another comprises the super blocks around Coleman Coliseum, the Law School, the athletic facilities, and the intramural facilities stretching northeast to Bryce Hospital and McFarland Blvd. The final part of this realm is the portion of campus stretching between Bryant-Denny Stadium and the Tutwiler Hall block on the southwest edge of the campus.

4. **Residential Realm.** The Residential Realm is the third realm identified for use in these Guidelines. It consists of the residential area of campus along the northern perimeter. Contextually unique for several reasons, the zone is experiencing significant growth. Large housing blocks are joining others already constructed. Rose Tower dominates the sky line. Here the environment is being transformed dramatically. This realm will become home to many students on campus. The context is and will become even more so, a unique residential environment for the students. The University intends to develop this realm as a University Village or Main Street thoroughfare; thus, projects in this area should be approached with this concept. The Guidelines, through the application process, recognize this Residential Realm, in which the context modifies not only the scale but organization, massing, and form of the campus structures within. In the realm, the classical architectural detailing with in the standards will be maintained while the classical concepts of axis, symmetry and order will be relaxed allowing for a more organized assimilation of structures within the residential context.

5. **Gateway Projects.** In perimeter locations around the campus, there are building sites within what has been thought of as intermediate or Residential Realm that offer unique opportunities to establish the campus identity. The importance of creating a first impression rises above context as a guide to architectural design. In these gateway projects, the application of architectural guidelines should enhance the highest expressions of the classical image of the University campus and follow the guidelines of the Central Realm.

6. Graphic Representation of Realms

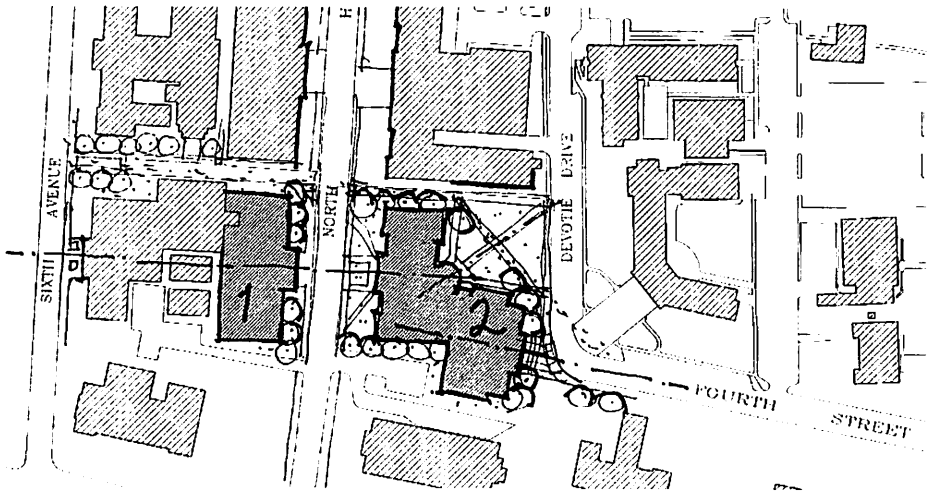


III. The Design Standards

C. The Design Standards

1. **Placement.** To expand upon the Urban Design Guidelines, the physical placement of a building in relation to its surroundings is an architectural gesture as well. As the purpose statement indicated, each new piece of architecture should enhance its position on campus or extend the campus into undeveloped areas. A building should also respect its neighbors and establish a dialogue of relationships with adjacent structures, responding to existing axes and symmetries. Finally, a building should create and shape outdoor spaces. The discussion of placement will illustrate the various tools available to the architect and guide how those tools should be used in obtaining a well placed campus building.

   A. **Enhancing / Extending / Creating Campus.** New buildings and additions should strive to improve the environment within which they occur. "Enhance" in this case has a very large and inclusive definition. As a guideline it is more of an attitude established to get the maximum value from adding a structure to the campus.



The above illustration shows two structures being added to the campus in the vicinity of Hackberry Lane, Devotie Drive and Fourth Street. Together these structures accomplish many contextual enhancements to the campus.

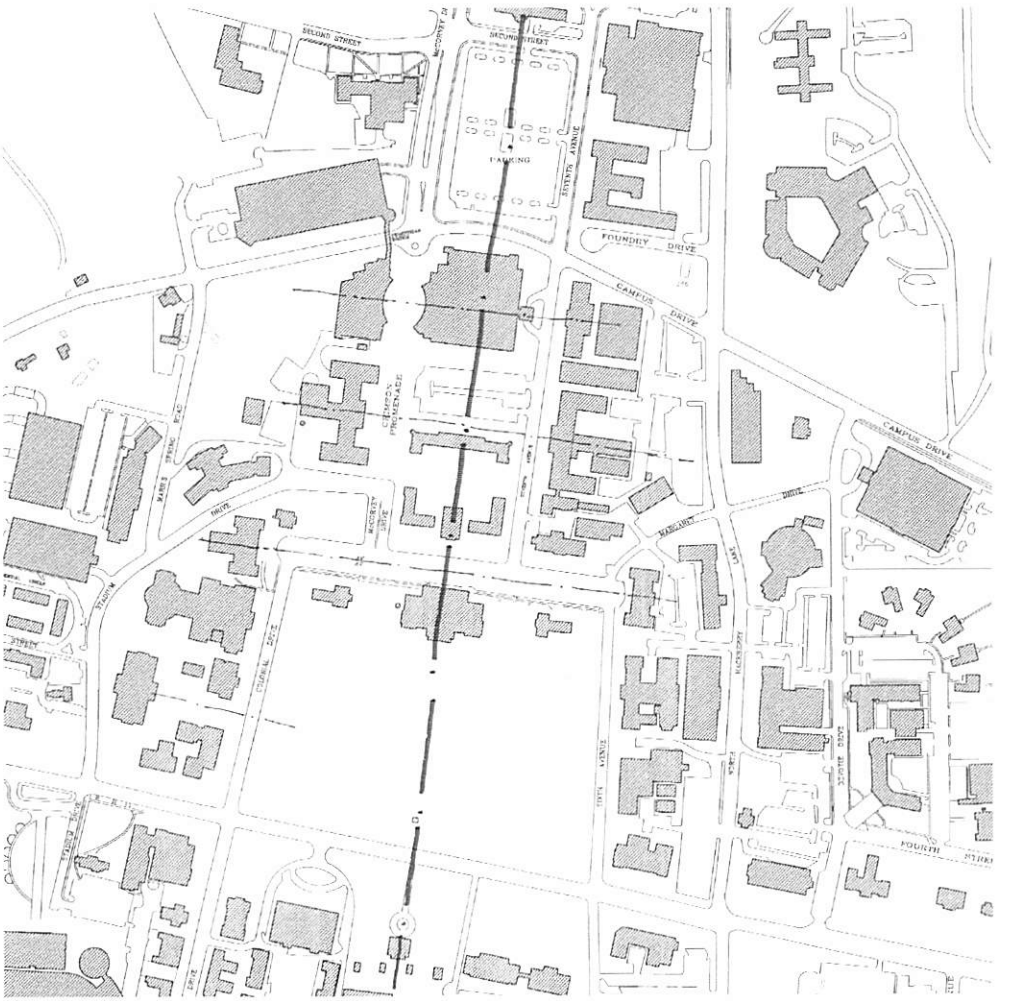
Building One:
1. Axial relationship to Nott Hall
2. Building screens Nott Hall service area.
3. Building conceals Nott Hall modern addition.
4. Building maintains Hackberry Lane building line.

Building Two:
1. Axial relationship to Nott Hall and Building One.
2. Building creates terminus for redirected Fourth Street.
3. Building, along with Gordon Palmer Hall, shapes outdoor plaza facing Bryant Hall.

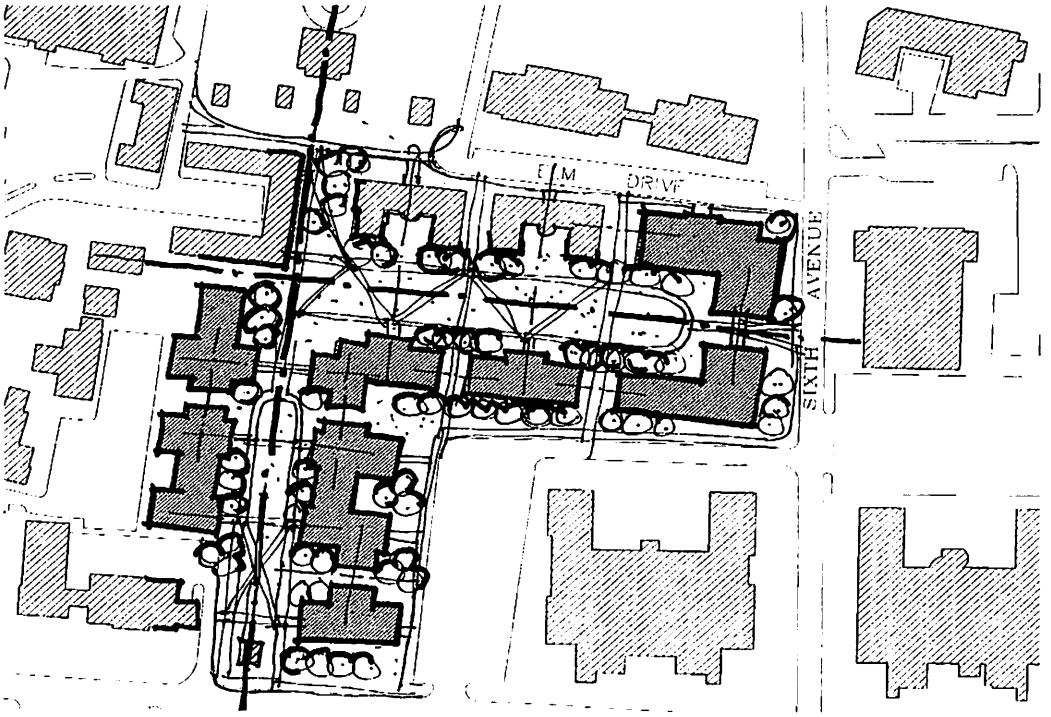
4. Building maintains Hackberry Lane building line.

Both Buildings Together:
1. Reinforce formal campus building relationships.
2. Encourage and provide for pedestrian paths through the campus street on which the main campus Quad is located.

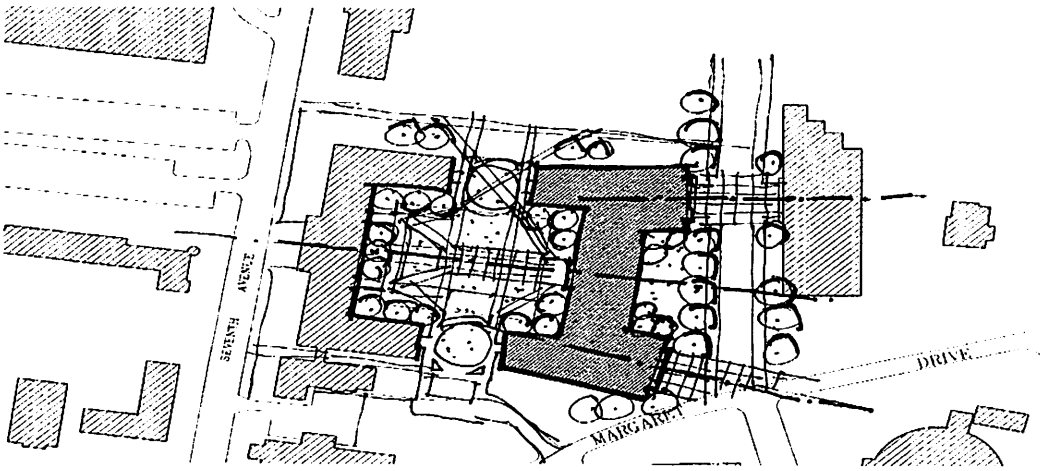
B. Axis and Symmetry. As the Campus Design Guidelines have illustrated, there are numerous prominent examples of axial organization of elements on the University Campus. The most obvious is the axis that includes the President's Mansion, Denny Chimes, Gorgas Library, and Woods Quad. This axis is the primary organizational feature of the campus. Several cross axes provide further organization for the campus, such as the Morgan / Smith and Comer / Hardaway axes. The axial symmetry orders and formalizes the beauty of the University.



In placing new structures, the architecture shall recognize existing axes.



This plan illustrates new construction responding to the primary campus axis as well as secondary axes created by introduction of symmetry about existing structures. Through thoughtful planning, this diagram illustrates over twelve axial connections between the existing and new structures, creating a harmonious response to the needs of campus growth and rejuvenation.



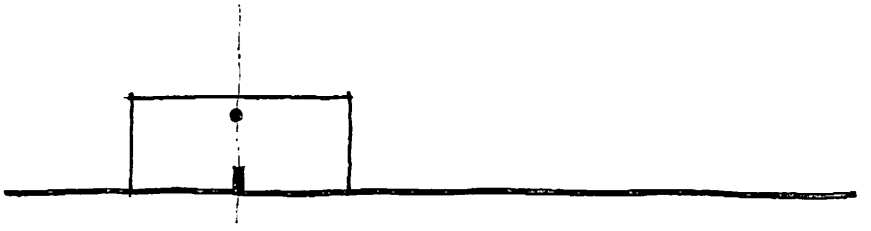
The plan above illustrates a response to the opportunities that exist around Hardaway Hall and Rogers Library. The proposed footprint of a possible structure shapes a courtyard behind Hardaway Hall. The footprint also responds to the symmetrical layout of Hardaway Hall and extends the Corner / Hardaway axis. It also establishes a formal relationship with Rogers Library through a simple twist to the side wings to recognize the symmetrical front entry.

C. **Shaping Outdoor Space.** As stated throughout this design guide, it is the building that shapes the exterior environment. Each building or addition must contribute to the quality of the outdoor environment by enhancing the shaping of outdoor space. Smaller buildings may do this by simply continuing an existing edge, whereas larger buildings may create two or more walls of an outdoor space.

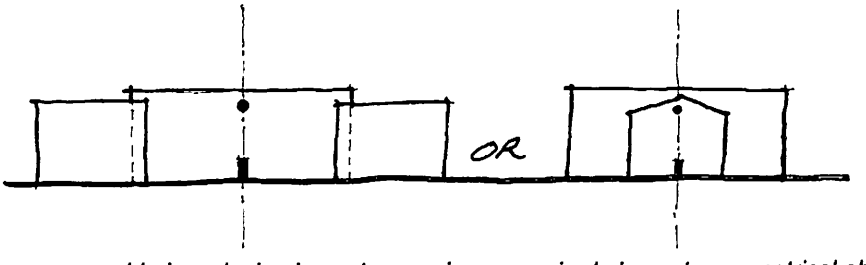
2. **Building Form.** The previous examination of placement illustrated how the shape of a building should be used to affect its environment. The following guidelines effect how the form of a building should be influenced through the pursuit of traditional architecture on the University campus.

   Once a building's shape is determined by the site and program, the form it takes, as it is developed, will be subject to the guidelines contained herein. Rules for massing, scale and the design response to gravity will be illustrated. Proportion will be discussed along with a few principles developed to ensure continuity between campus structures. The classical use of symmetry and the horizontal and vertical organization of building components will complete these guidelines on building form.

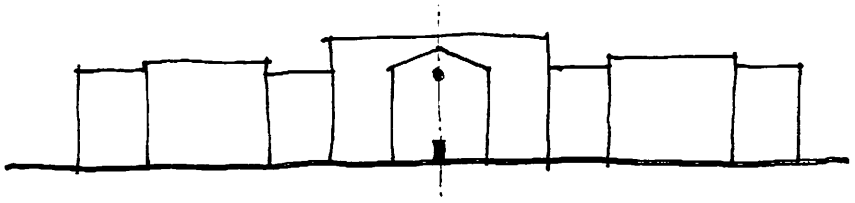
A. **Massing.** Classically inspired buildings begin with a principal mass organized by a simple form. To that principal mass, additional simple forms are added to obtain the desired shape. The extent of the simple added forms should remain throughout the process. Symmetry and rules of organization will influence the massing of elements within a design as the program and site needs are met.



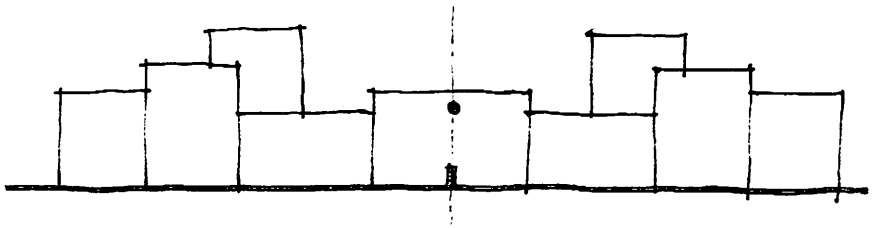
The classical form begins with a simple mass, which should include the most important and / or most public spaces.



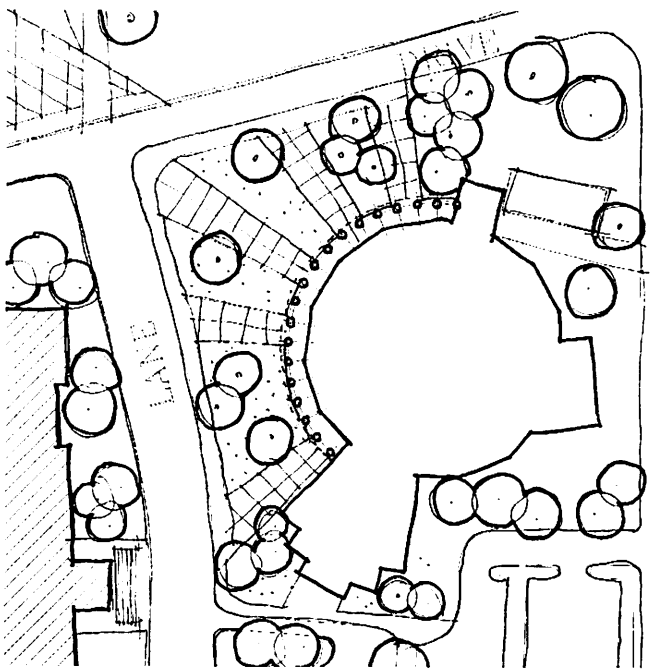
Additional masses are added as single elements on axis or as paired elements symmetrical about the axis.



Maintain a hierarchy of mass elements while adding elements.



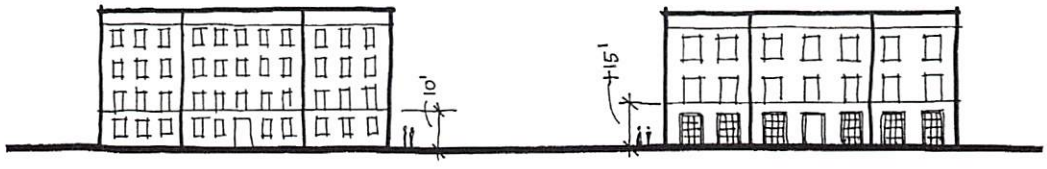
Use restraint in establishing a hierarchy of massing. Emphasize for a specific purpose such as the entry. (Emphasis for its own sake is wasted and confusing.)



Where programmatic and functional need requires unique shapes, classical architecture has an answer. For example, curves can be found at the Roman. Observe how an otherwise non-compliant, out of context structure can be made a special part of the campus again.

The multi-facetted Biology Building, if functionally appropriate, could easily become a classical masterpiece by the addition of a curved colonnade along the north and west sides of the awkward structure. Such additions would better relate to the new engineering quad both functionally and in terms of scale.

B. Scale. Scale is a relative measure of size and is usually measured relative to humans. It can be as simple as "residential scale" versus "institutional scale." In a project of residential scale, one would expect windows to be smaller than those of an institutionally-scaled classroom or lab facility. Floor to floor heights at a residential scale would also be nearly half that of an institutionally scaled building. Additionally, the basic form of a residential scale building will likely be derived from and expressive of a roughly 10' x 12' module (the size of a basic sleeping room), while the building form of an institutionally scaled building is usually expressive of a larger physical module of over 30' x 30'. All buildings should be in a scale appropriate to their function.

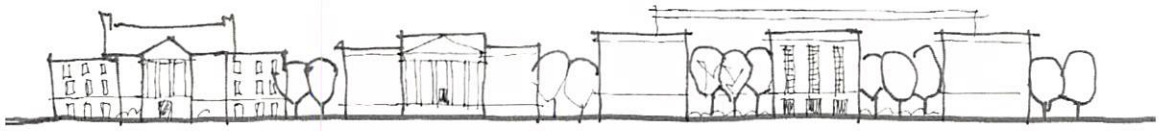


Smaller Windows
"Bedroom" Size Module
10' +/- Floor to Floor Height

Oversized Windows
Large "Classroom" Size Module
Greater Than 15' Floor to Floor

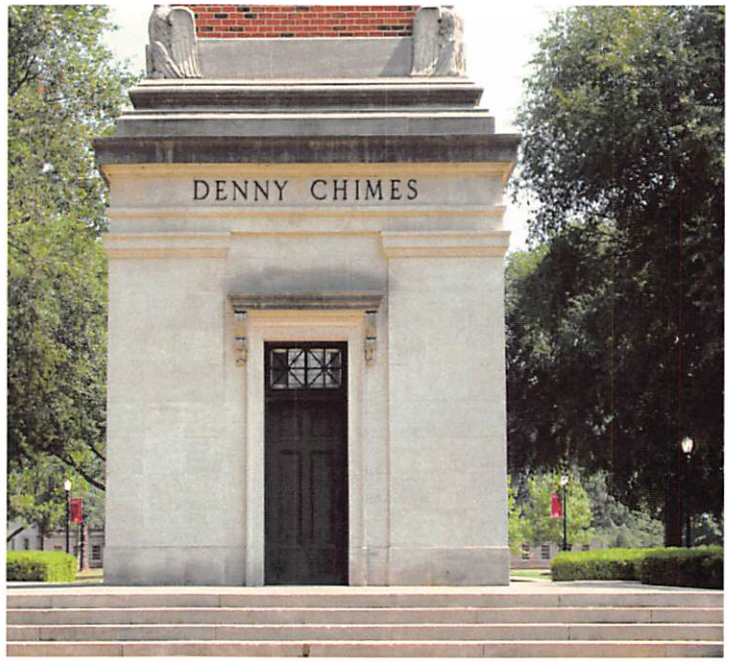
The sketch above illustrates the concept of residential scale.

The scale of a building's context must be recognized in order for that building to "fit in". The academic portion of the University campus has its own scale. Most structures are three to four stories in height. Within their composition are boldly scaled elements (colonnades and porticos of 24' to 30' tall column and 6' to 8' entablatures.) The form of a new building or addition must recognize and conform to the scale of the environment where it will be placed.

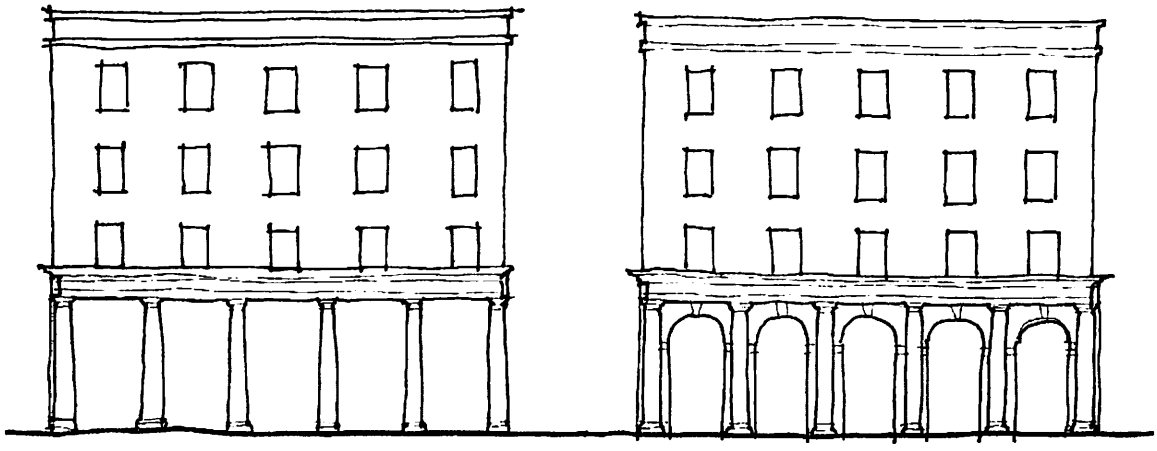


As illustrated above, even a large building can fit harmoniously into an environment of smaller structures by respecting the scale of the masses with which its neighbors meet the street. By careful manipulation of its massing, it can match the scale of its context.

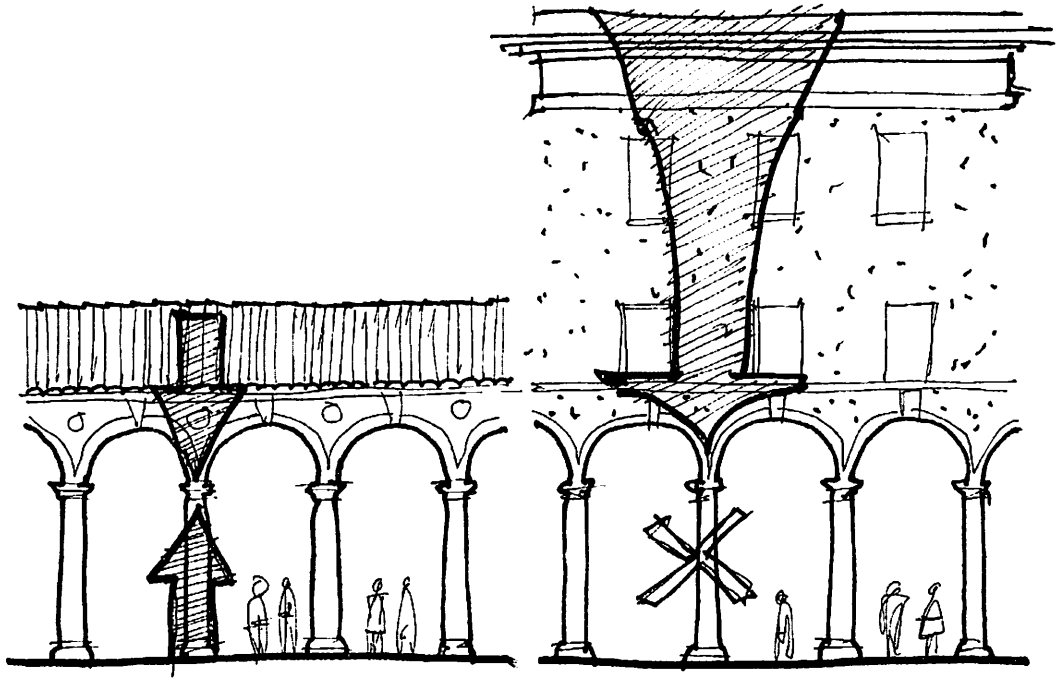
C. Gravity. Building materials are often categorized by gravity (i.e. by their apparent weight.) Stone and masonry are "heavy," while glass and metal are spoken of as being "light." In traditional architecture, heavy materials must appear to resist the force of gravity. In detail, this concept is as simple as using an arch to span an opening. In building form it is organizing the mass to where the heaviest supports the lighter. Structural steel has dramatically changed the way buildings are constructed such that it is now possible to construct dramatically top heavy buildings that appear to defy gravity. On the University of Alabama campus, however, this would be inappropriate.



Towers, such as Denny Chimes Campanile, taper as they rise to resist gravity and stand tall. The base is the heaviest part and is able to withstand the weight of the shaft.



Spindly columns are unable to support the heavy mass above. Classical elements can be used to support heavy masses as these arches show.



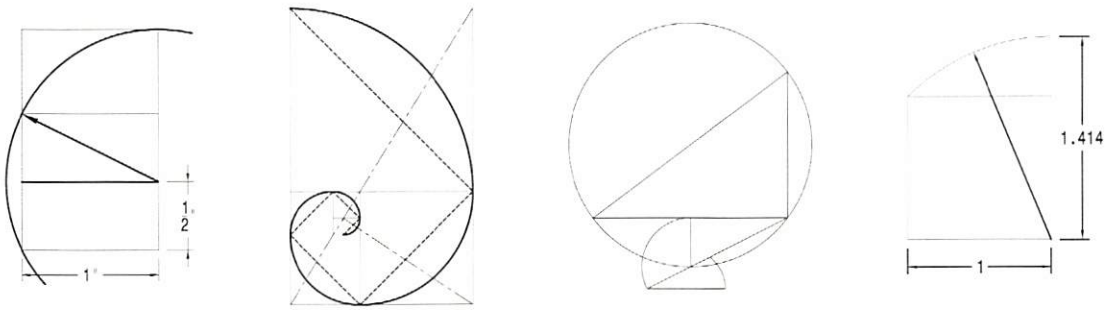
The weight is transferred through the arch into the column successfully on the left. On the right the mass above the arcade becomes too much for the column to carry and defies gravity.

D. Proportion. There are many theories of proportion which have found acceptance in art and architecture over the centuries. The simplest is that classical architecture's proportions are more vertical just like the human body. Doors, windows, and bays between columns are all vertical. It is in part a

response to function (we stand upright) and part a response to gravity. Less structure is required to span narrower openings. Throughout traditional architecture, there is consistent emphasis on the vertical - not the uninterrupted vertical of the gothic tradition, but rather the vertical stacking of elements.

These six images illustrate the many ways traditional campus architecture incorporates vertically proportional elements.

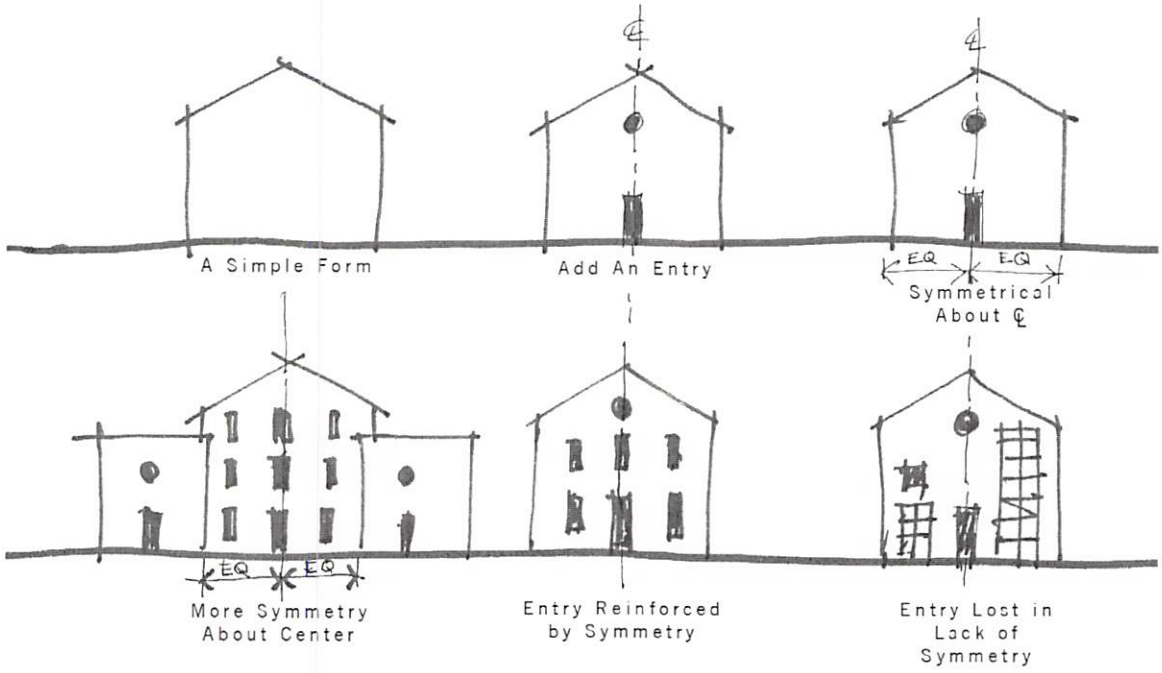
Great buildings can be created using a small number of simple proportions, which normally include the rational proportions of 2:1, 3:2, 4:3, and 1:1, and the proportions of v2 (1.414...) and the Golden Mean (1.618...).



Even when programming, gravity, and other forces spread out a building horizontally, the building form has been designed to emphasize the vertical.

E. Symmetry. Symmetry is the most recognizable attribute of classical architecture. Symmetry begins with the massing and organization of elements and can influence the tiniest of details. The challenge for the designer is that often a building's program, the influences of a particular site, and other factors are not symmetrical. There are numerous classically derived "tools" available to the designer. In the following paragraphs, the importance of symmetry in building form will be reviewed, and applicable guidelines will follow. In addition, the Design Guidelines will illustrate ways to organize a building form to enable it to respond to these challenges in order to maintain a classically styled symmetrical appearance.

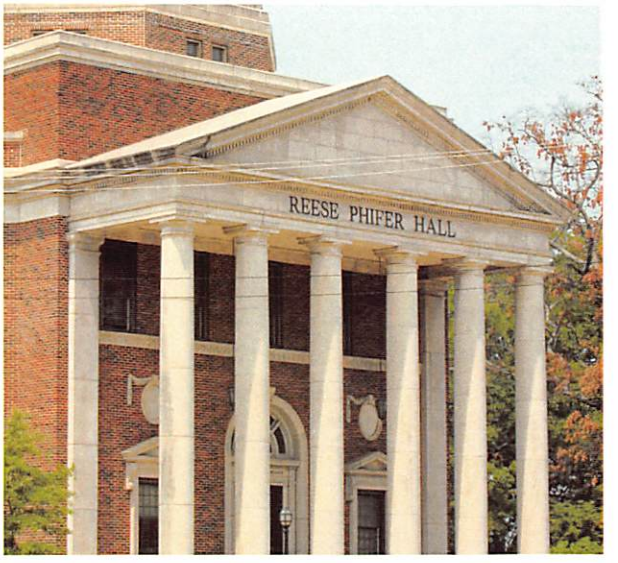
Symmetry is a result of placing the entrance in the center of an element. If each resulting half does not mirror the other, then something distracts from the importance of the entrance.

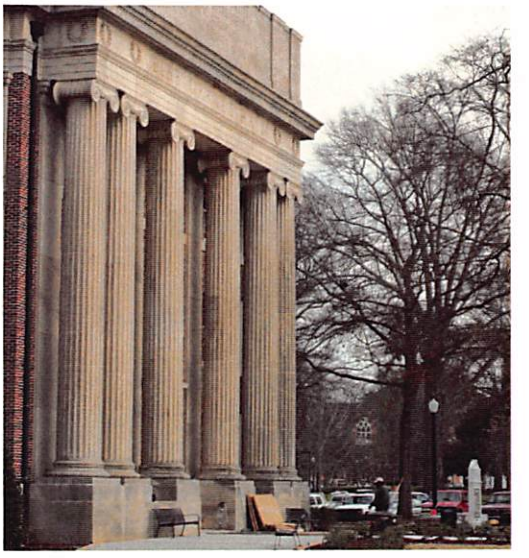


The above diagrams illustrate the fundamentally simple yet rational purpose for symmetry in traditional building.

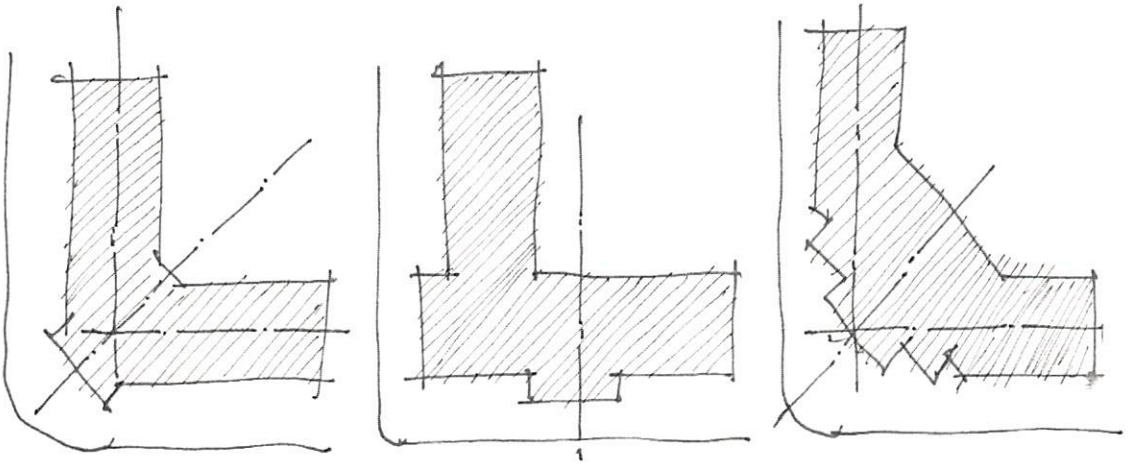
Most campus buildings are symmetrical in numerous ways. All new buildings and additions should respond to existing incidences of symmetry within their environmental and should present a symmetrical appearance of their own.

As simple as this rule sounds, it does present challenges. What happens when the site demands an "L" shaped building, and the programs want an entrance near the corner of the "L" shape?





Several campus buildings have responded to this dilemma in a classically successful manner. Above are two: Reese Phifer Hall and Bibb Graves Hall. The following illustration demonstrates several potential responses to the need for symmetry in an asymmetrical environment.

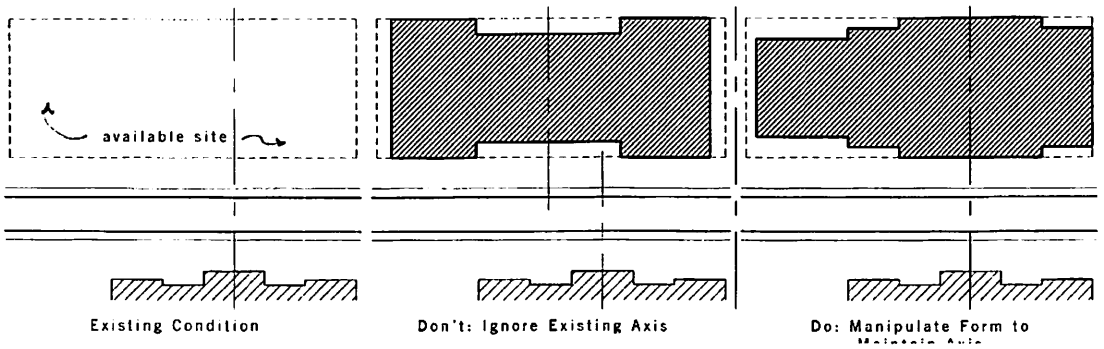


Symmetry About Diagonal
Bibb Graves & Reese Phifer Halls

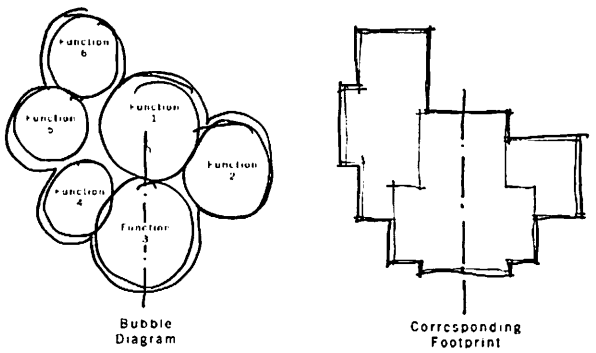
"L" Shape Without Corner Entry

Rotate Primary Element to Address Corner. Balance of Facility in Wings

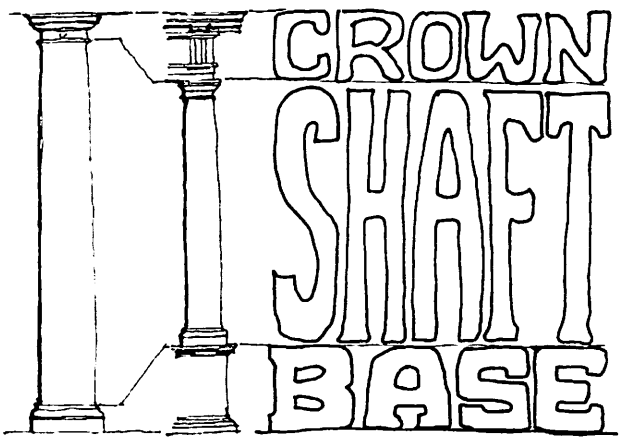
Often as the campus infill process proceeds, building sites may become available that are not symmetrical about an existing or desired axis. The building form, however, can be designed to obtain the symmetry needed, as illustrated below.



Even the most convoluted conceptual footprints can be worked into the symmetrical arrangement of simple elements necessary to harmonize with the classical University of Alabama campus.



F. Crown, Shaft and Base. Where organization and symmetry guided the horizontal organization of a traditional structure, the three-part construct of "crown, shaft and base" guide the vertical organization. The most obvious application of three-part organization and namesake of this construct is the classical column.



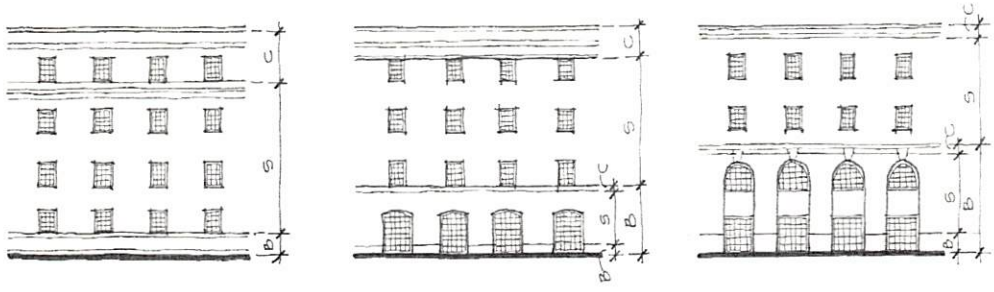
The intent of these Design Guidelines is to focus on the larger scale applications of the three-part organization. Each and every classical building

(plus some modern buildings) on the University campus have a recognizable base, shaft (middle,) and crown (cornice). In most cases a column (or pilaster) somewhere on the facade helped establish the proportions of base, shaft, and crown.

On Reese Phifer Hall, the steps establish the base. The columns establish the shaft, while the entablature makes up the crown.

Denny Chimes and even McClure Library illustrate the base, shaft and crown.

The designer must determine the appropriate three-part vertical organization based on the form and shape of the building program.



The illustration above shows three of many possible means of dividing a four story building facade into three parts. They demonstrate a variety of guidelines, summarized below, which should be adhered to in designing a traditional campus structure.

- Three-part organization of facade (base, shaft and crown)
- Crown should be less than base or shaft relative to the classical proportions of the crown, base, and shaft.
- Shaft should be equal to or greater than sum of crown and base unless three-part organization employs "stacked orders" of classical elements where other rules apply (see: 3.5.5).
- Avoid near equal bases and shafts.
- When sizing crown (cornice) consider how large it would be if an

appropriately scaled column was supporting it. Generally, the height of the cornice should be 1/4 the height of the column. See the illustrations following 3.3.5.B *Proportions and Intercolumniations* for further information.

The original east and west wings of Gorgas Library provide a perfect example of the use of the three-part vertical organization of a wall surface. The stone base supports all that is above it. The walls and engaged pilasters become the shaft based on the proportions of a column. To top it all off, the crown is composed of a classically proportioned entablature and pediment supported by the column scaled shaft.

3. **The Envelope.** The previous portion of these guidelines dealt with the form of a building and its envelope. This section will consider the building envelopes surfaces in greater detail. Acceptable materials will be reviewed and common details illustrated. Throughout the discussion, the theory and means by which building walls become successful components of a traditional structure will be examined.

   The "Base, Shaft and Crown" three-part organization will serve as the framework for this examination of the envelope. Appropriate materials and details will be demonstrated for each of these elements.

A. **The Base.** Historically the base was the foundation upon which the structure rested. Over time the base evolved from functioning as a physical barrier, protecting inhabitants from the mob, to become a base above which the building was celebrated.

   Base Materials. On the University of Alabama campus only two materials are used consistently on the bases of buildings. These materials consist of brick in a subtle variety of ranges (omitting the Victorian era and the yellow brick phase of B. B. Comer Hall, Smith Hall, and Morgan Hall) and limestone or stone-like material.

Brick. The campus is constructed primarily of Red Brick. It is a range of red with flashed black and grays and a minimum amount of orange. Since brick is a natural material it will continue to vary as clay deposits and manufacturing processes change.

Brick used on campus fall into two general types: wood mold and wire cut. Wood mold brick have a handmade character, while wire cut has more of a manmade appearance. Some manufacturers are producing a "distressed" wire cut brick that appears as a wood mold, which is generally less expensive than a true wood mold brick. However, because this brick is a conventional cored masonry unit, special shapes may be required at trim conditions and transitions bonded by mortar. Brick mortar color affects the overall tint of a brick surface. Mortar color on campus structures is generally a very light buff to whitish gray in part due to the bleaching effect of age. Currently, there are two approved brick types for new buildings - Crimson Red by Ragland and Pine Hall Full Range by Jenkins Brick. Use of these brick types or proposal of alternate brick colors must be approved by the University. Approval of brick samples should be done in conjunction with mortar color.

The most common masonry bond on campus is running bond, although several exceptions do exist. Common bond was used on Nott Hall and the Victorian Gothic campus structures. Flemish bond is used on the Gorgas House.

Control joints in masonry should be carefully detailed. Where possible, these should be hidden behind downspouts or located at inside corners. Joints should be minimized to the degree allowed by industry standards and the structural designer. Special care should be taken in selecting sealant color. Horizontal joint material should match the color of the adjacent masonry mortar. However, vertical joint material should match the color of the adjacent masonry, thereby making the joints less obvious.

In summary, the following guidelines apply with regard to brick:

- ***All realms:***
  - Approved brick types are Crimson Red by Ragland and Pine Hall Full Range by Jenkins Brick.
  - Unless altered by context (additions to existing structures) a wood mold brick should be used at new construction within the Central Realm. Simulated wood mold brick (distressed wire cut) may be used as a substitute for wood mold in this realm.
  - Brick selections and mortar color shall be presented and approved by the University Facilities Planning Department in the preliminary design phases of a project.
  - Brick color is all about context. The red blends used on campus should be considered a guide in selecting brick for new construction. Additions to or work in the vicinity of Morgan, B. B. Comer, and Smith Halls or the Woods Hall Quad are distinct exceptions.

- Avoid matching neighboring buildings. Color should harmonize, not imitate. The campus has grown for almost two centuries. A little variety is welcome.
- All brick in all realms should be laid in common bond or running bond.
- Control joints should be minimal and hidden behind downspouts or at inside corners where possible. Horizontal joint color should match mortar color. Vertical joint color should match the masonry.

- *Intermediate and Residential Realms:* Unless altered by context, either wood mold simulated wood mold or wire cut brick may be used on construction.

Stone. Limestone occurs on most campus buildings. Traditionally it has been used for its carvability, strength and weathering characteristics. Stone used on campus is consistent in appearance with limestone from both the Russellville area of Alabama and Bloomington, Indiana.

Stone-like materials consist of two basic products: cast stone and precast concrete. Of the two, cast stone is generally considered to match the appearance of limestone more effectively than precast concrete. Simulated stone materials, however, cannot imitate the naturally occurring variations of true limestone.

Cast stone is produced in pieces similar in size to actual stone and is laid in a similar manner. Besides a slightly more consistent color, cast stone does not possess the self-supporting structural character of limestone and must be carried by structural steel lintels. Crisp lines and detail are common in the product in part due to the dryness of its molding process. Being a molded product, cast stone is unable to be fabricated in multi-facetted or cylindrical shapes without vertical joints or mold lines. Mold lines and vertical joints distinguish it from real stone. Attention to detailing is necessary when working with this material to obtain a natural stone appearance. Joint size varies from natural stone, which is typically 1/4". The accepted grout joint for these materials is 3/8".

Precast concrete, unlike cast stone, can be structurally reinforced to at least carry its own weight. The support of a brick veneer without its own structural lintel above precast is not recommended by current industry standards. These same industry standards have dictated an increase in joint width in the product's use. One-half inch joints or larger are now common with this material. Shadows may be used to hide properly placed horizontal joints, but vertical joints require different design techniques.

Joint spacing used on slabs or panels in vertical applications, such as building bases, should resemble those used in natural stone. Often in precast construction, actual panel size may be detailed by numerous faux-joints to obtain the necessary effect.

New oversize concrete masonry units are available that almost reach the size

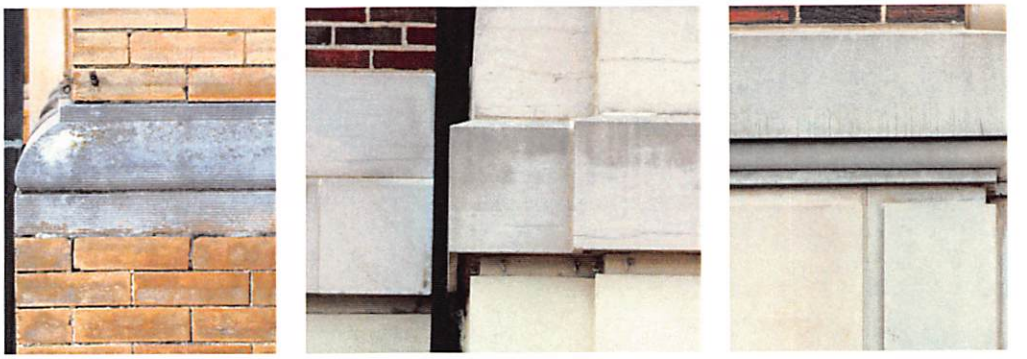
required to appear as "natural cut stone". These materials are very close to stone in color and texture, but creative detailing will be required to avoid appearing as "concrete blocks".

Traditional stucco may be used as a substitute for stone (with some restriction) only in the Residential Realm. Stucco must, however, be used only over masonry. For durability, a smooth finish product may be used. As with other stone substitutes, stucco should be detailed with joints to match natural stone and located according to recommended practices to control cracking. Overuse of control joints, however, should be avoided.

Base Design and Details. The base of a traditional building must appear capable of supporting what is above it. On most Central Realm structures the base projects beyond the face of the wall above. This projection will vary based on the size and importance of the base.

The projection could be as little as one inch where the base is a simple beveled stone footing near grade. For bases in excess of 24" in height, an appropriate projection would be two to four inches. Once a base exceeds a story in height, four to eight inch projections are common.

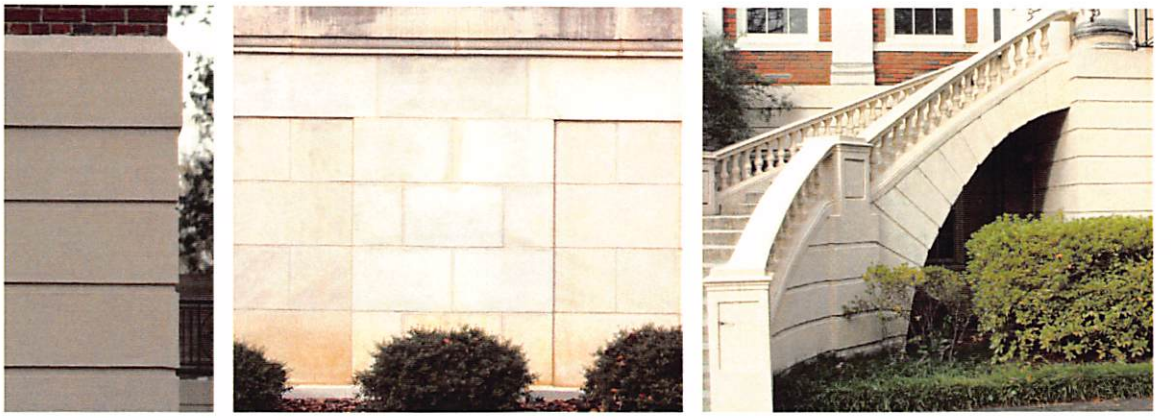
To shed water sheeting down the face of a wall, the top of the projection or "base cap" shall have a sloping top surface. If the "base cap," is over a stone base, it must project to provide for a drip to improve its weatherability and prevent stains.



On one-story or larger bases of traditional buildings, a stone base shall incorporate the three-part vertical organization with the base cap, wall material and sub-base.

With a brick base on a building, the same need for projection occurs. This projection usually is either two or four inches. The common size of a brick tends to restrict greater projections, unless stone is used as a "base cap" material. Historically, a common method of creating an all brick base is through use of a "water table" brick unit. This is a custom shape that allows the wall to thicken, creating a base out of the same brick material of the wall. This same effect can be done using fewer special brick shapes through jobsite cutting. Outside corners will require special shapes.

Scale is important in the design of building bases. As illustrated above, its projection from the wall above gives it the appropriate mass to carry its load. The size of a base's pieces is also a critical influence on scale.



The photographs above show how various campus buildings have used detailing to enhance the massive nature of their bases through exaggerated joints and panel size.

Brick bases, such as those above, can express this same rustication.

In summary, attributes of building bases are as follows:

- ***All realms:***
  - Bases shall be of brick or limestone (including cast stone) on all structures in all campus realms.
  - Bases should project from the wall above (a minimum of two inches) in the Central Realm. Bases approaching a story in height should project a minimum of four inches.
- ***Central Realm:***
  - Bases, other than brick, should be articulated with large scale patterns of joints.
- ***Intermediate Realm:***
  - Oversized calcium silicate masonry units (Arriscraft International can provide these units) and appropriately detailed precast and cast in place concrete may be used.
  - Bases other than brick should be articulated with large scale patterns of joints.
- ***Residential Realm:***
  - Stucco on masonry back up or ground face concrete masonry may be used as a base material.
  - Bases may be flush.

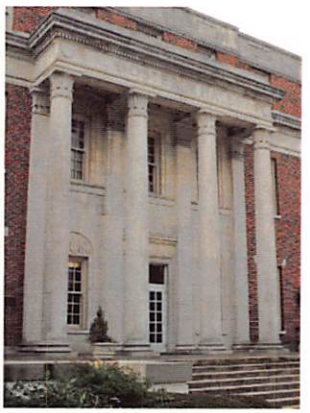
- Stucco bases should be designed with sub-bases of concrete or concrete masonry where they interact with the ground plane.

B. The Shaft Materials and Details. The shaft is the largest element of the facade and is essentially the portion of wall between the base and cornice. The shaft or exterior wall will be required to accommodate the program within and the needs of classically inspired campus architecture on the outside. Colonnades, arcades, porches, doors, and windows will exist with the wall surfaces in this area of shaft. These features will be discussed in a separate section.

Materials. Brick is the major wall material used on the University of Alabama Campus. Limestone and stone-like materials occur within the walls, but only as trim and accents. Other material used in intermediate and Residential Realms are stucco, wood, and metal.

Brick. (Reference 3.A / Materials / Brick)

Stone. (Reference 3.A / Materials / Stone) Unlike its use on bases, limestone will occur in the shaft area, predominately as trim. This includes horizontal belt courses, vertical pilasters, window and door surrounds, keystones, and quoins. The use of stone as a wall cladding at an accent area, such as the recessed entries at Gordon Palmer, Lloyd, and Doster Halls, is appropriate on the campus.



Stone-like materials. The smaller, narrower and more linear profile of trim lends itself to fabrication from stone-like materials. In particular, the use of cast stone and architectural precast concrete works well. The three dimensional profile associated with many trim applications will conceal or draw attention away from the uniformity of these manmade materials.

Another stone-like material suitable for use as trim within a wall is the oversize masonry unit. Its stone-like finish and color allow it to be used as simple trim shapes in less critical areas of campus.

Stucco's use as a stone substitute is acceptable in restricted applications.

Other Materials. Across the University campus, the need or desire to use additional materials within the shaft area of the envelope may emerge. Currently on campus, wood is used as a siding material in isolated locations within the central and Intermediate Realms. Most instances are associated with residential structures. In the Residential Realm, wood siding and wood-like materials (cement bond plank) on small-scale projects may be appropriate. Use of such materials must be first approved by the University. Exterior insulation finish systems (EIFS) may also be implemented as trim material only in this realm.

Aluminum and metal siding products currently occur within the Intermediate Realm. Most uses are on athletic structures. Composite metal panels used as wall cladding occur in the Intermediate Realm. The panels are generally flat (as opposed to corrugated) and can be fabricated with stone-like reveal joints and profiles as necessary. Continued use of such applications is acceptable. However, metal and vinyl siding designed to look like wood shall be avoided.

In summary, guidelines for exterior wall finish are as follows:

- ***All realms:***
  - Brick shall be the major wall material in all realms.
  - Limestone may be used as a cladding for accent walls only.
  - Limestone may be used as wall trim in all realms.
  - Cast stone may be used in lieu of limestone in all realms.
  - Metal siding is not permitted as an exposed wall material on new construction in any realm.
- ***Intermediate Realm:***
  - Architectural precast concrete may be used in lieu of stone.
  - Oversized stone-like masonry units may be used in lieu of stone trim.
  - Metal wall panels may be used. Color of panels must match color of stone or color of windows / storefront.

- ***Residential Realm:***
  - Architectural precast concrete may be used in lieu of stone.
  - Oversized stone-like masonry units may be used in lieu of stone trim.
  - Stucco may be used in lieu of limestone cladding and trim.
  - EIFS may be used in lieu of limestone on trim only.

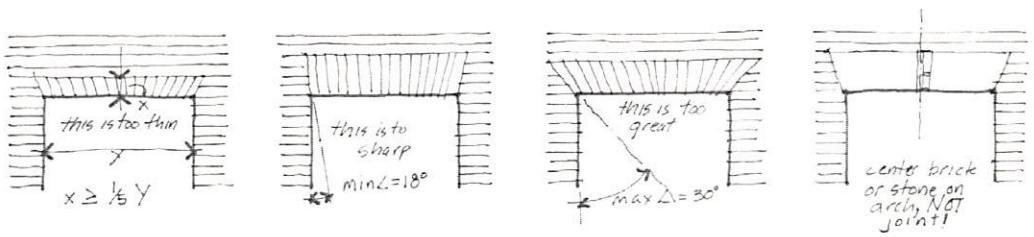
Shaft Design and Details. The shaft portion of wall originated as an extension of the columns and entablature from the principal entrance of a classical structure. On the University of Alabama Campus this is no exception.

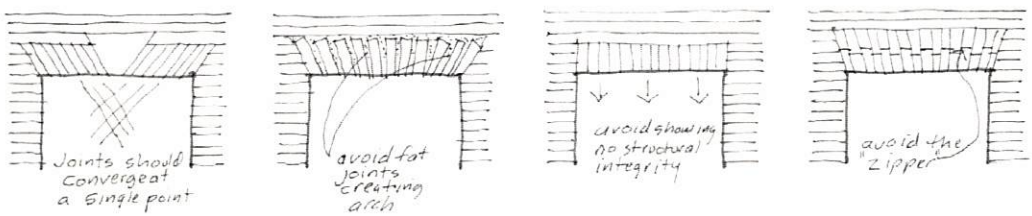
This shaft, as shown above, is one of the most consistent features of a campus building.

The primary ingredients of this area of facade include the surface, vertical pilasters, openings, ornament, and horizontal belt courses. Surface, as previously discussed in this section, is generally brick with stone used as a special feature. Vertical pilasters will be addressed in Section 5 entitled *Colonnades, Arcades, and Porches.*

Openings. Openings are the most significant feature within the shaft area, or facade. Since the walls must span over openings, arches or stone lintels must be employed.

The following sketches illustrate details to avoid when designing jack arches.

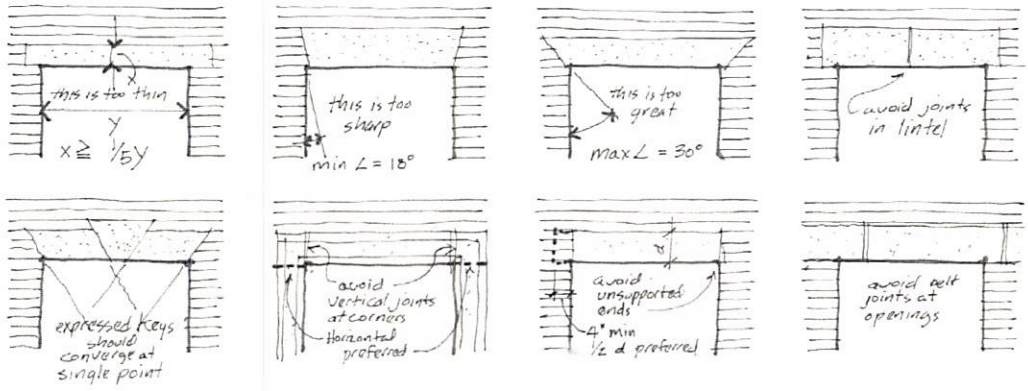




The use of stone is an alternative method to spanning an opening. This is done with either stone lintels or stone surrounds.

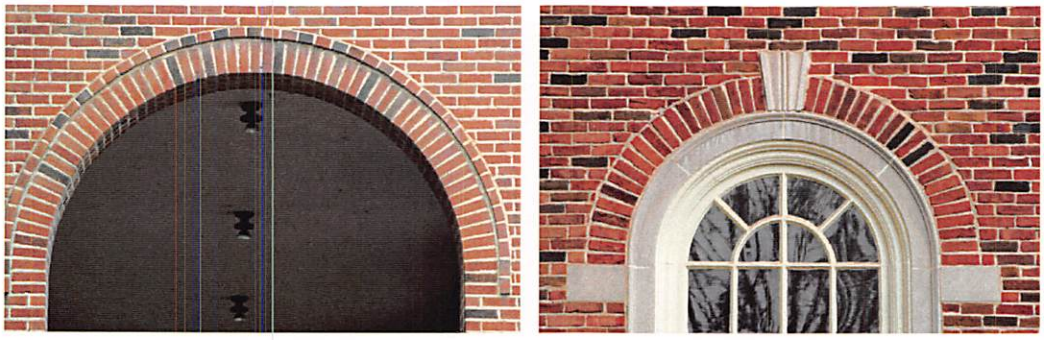
The following photographs illustrate successful means by which stone has been on campus to span openings.

The following sketches illustrate details to avoid when designing stone lintels and surrounds.



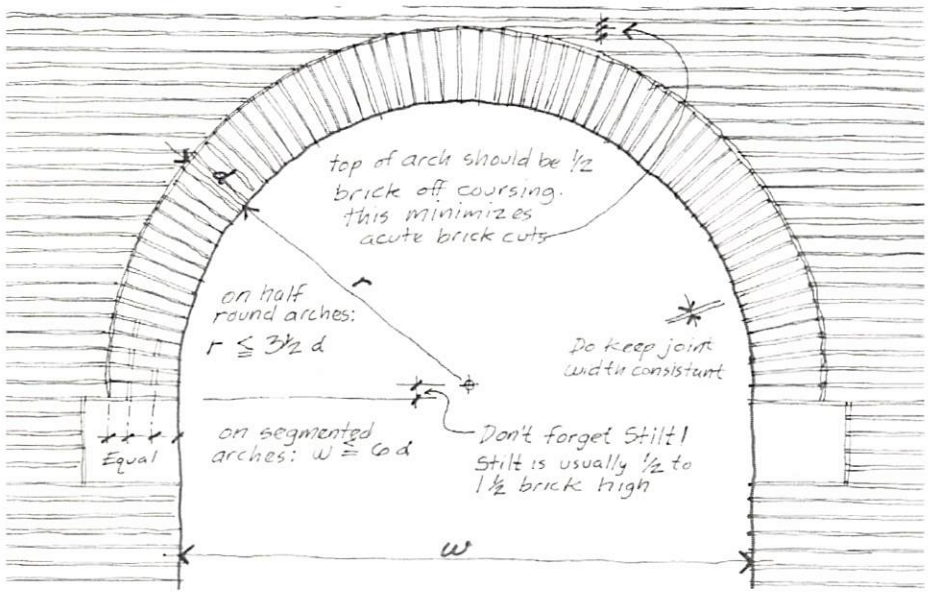
The radial arch has long been used on campus buildings.

The following photographs illustrate round brick arches used on campus structures.



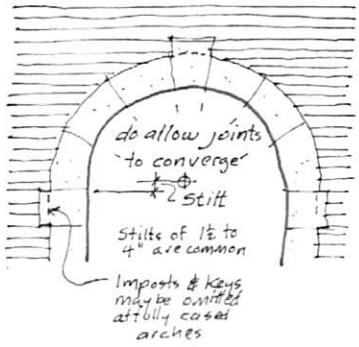
Brick arches have been constructed to maintain more consistent mortar joints when the brick is given a wedge like shape.

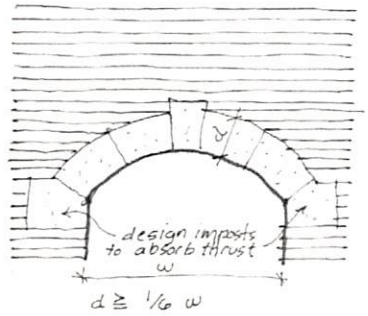
The following sketches illustrates some of the principal "do's and don'ts" of masonry arches.

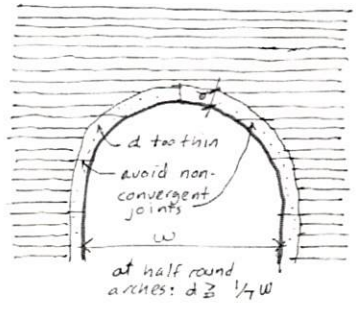


Stone is used as a surround to embellish round arches on campus buildings. The following photographs illustrate the use of stone in this manner.

The following sketches illustrate principles in designing stone arches.







Ornament. Decorative features, functional and aesthetic, applied to the surface of the shaft are considered to be ornament. There are two principal types of ornament: structural embellishments and sculptural elements (such as sculptures in the tympanum.) On the University of Alabama Campus ornament shall be detailed using stone (or stone-like material), brick and metal. Campus buildings have used stone ornament in many ways. Ornament appears as wall panels used to emphasize the order of a facade, embellishment of principal openings, such as monumental entrances, and as quoins enhancing the scale of a campus structure. Ornament is a means to enhance both monumentality and human scale at the same time.

The following photos catalogue the numerous ways stone has been used as ornament on campus structures. Both types of ornament (structural embellishment and sculptural elements) are illustrated.

Brick has been used in decorative ways in the facades of University structures. Care shall be taken in detailing this material due to weather ability of its numerous joints.

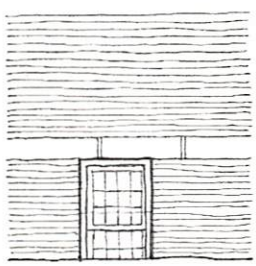
The following photographs illustrate many fine examples of brick ornament on campus structure.

Belt courses occur within the shaft region of the envelope of campus building, though they are rare. More often, a belt will be used to separate the base from the shaft. When there is a belt within the shaft, it traditionally occurs as an

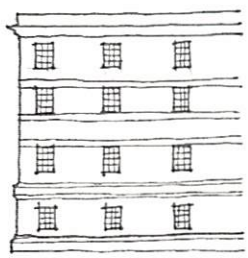
extension of a pedestal feature about a building's entry portico, or it separates an arcade from the wall surface above.

The following photographs depict the acceptable use of stone and brick belts found on campus.

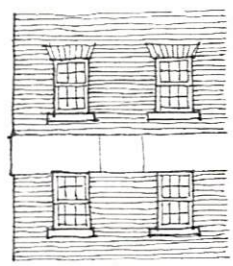
As with any feature of a facade, over-use and misuse are possible. The following sketches illustrate belt features to avoid.



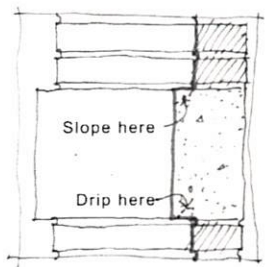
Avoid belt details that are not aligned with openings



Avoid overuse of belts



Don't oversize the belt



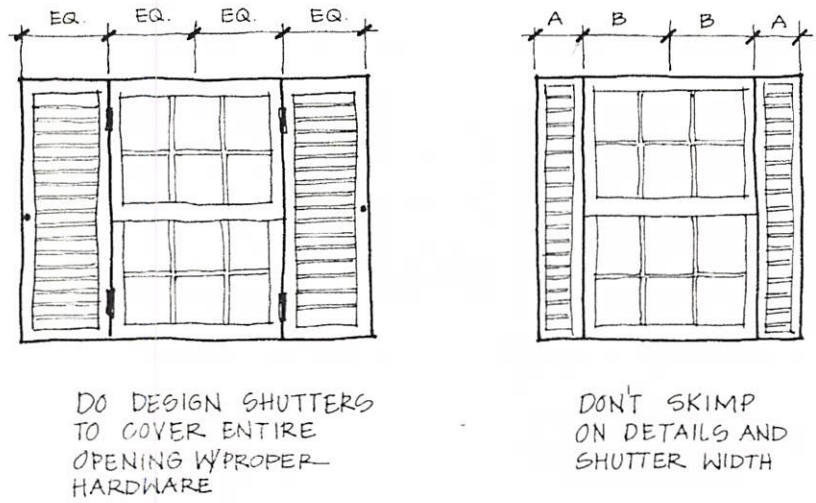
Account for water drainage in the design

Metal ornament is used primarily within the shaft area of a building's facade at the leader heads and downspouts. The most abundant application is on leader heads and downspouts. This functional element has successfully added a fine scale level of detail to numerous campus buildings. Appropriate materials will be outlined in Section 3.3.6.B in the discussion of roof materials.

Metals of wrought iron appearance are used on campus buildings typically in small sconces or other highly decorative elements.

Wood shutters may also be incorporated into the shaft region in the Residential Realm. When shutters are incorporated as window ornament, they

shall be detailed as a true shutter although they will not function. As such, the shutter size should match that of the window it flanks. Appropriate hardware shall be provided as well.



The detail above illustrates the guidelines for shutters proportional to corresponding windows.

In summary, the shaft region of the envelope is the most prominent and visible feature of a classical building. As such, it offers the best opportunity to promote the history, dignity, and vision of the University of Alabama.

- ***All realms:***
  - Elements of a facade should be placed in an orderly manner that responds to the symmetry of the building.
  - Arches and lintels, where used, shall be designed in accordance with these guidelines and follow the patterns of traditional design.
  - Ornament should be applied to enhance the building's facade, not distract from it.
  - Use of ornament and horizontal belts should enhance the building's massing and order, not detract from it.

- ***Central Realm:***
  - Openings in the shaft must appear to be structurally sufficient through the use of masonry arches or stone lintels. (Secondary semi-concealed openings are exempt.)
  - Develop the shaft region of a facade based on the vertical dimensions of the principal entry element of a building.
  - Ornament should be used to enhance the principal features of a building's facade.

- ***Residential Realm:***
  - Develop the shaft region of a facade based on the vertical dimensions of the principal entry element of a building.

- Ornament should be used to enhance the principal features of a building's facade.
- Shutters may be utilized if detailed appropriately.

C. The Crown Materials and Details. The crown is the highest part of the three-part vertical organization of the envelope. In a traditional building the crown is an extension of the classical entablature or pediment above the principal entry colonnade or portico.

Materials. As visible on the previous sets of photographs, there are a limited number of materials used on the crown of campus buildings. Brick and stone comprise most of the materials used in the crown region.

Brick. (see Reference 3.A / Materials / Brick). Brick at the crown is most appropriately used in the frieze rather than the cornice, as its shapes prevent proper detailing of a traditional cornice. Use of brick to a greater extent in cornices shall be restricted to the Residential Realm only.

Stone. (see Reference 3.A / Materials / Stone-like materials). Since the crown is the highest part of the envelope, it offers more options for use of stone-like materials. Its height means that the crown is both out of reach and typically farther than 20' from a viewer. This opens up more opportunity for precast concrete since the large- scale vertical joints will be difficult to see.

The use of stucco and EIFS as a stone substitute is acceptable in restricted applications.

Other Materials. The crown's distance from the viewer allows use of other materials as well. In residential structures, the soffit and eave are part of the

crown. Wood and metal profiles are often used in these elements. On some buildings the metal gutter is designed as the uppermost part of the cornice. The finish on this metal used in this manner should either match the corresponding roofing metal (like copper) or receive a durable color coating selected to match the balance of the cornice.

In summary, guidelines for materials encompassing the crown are as follows:

- ***All realms:***
  - Brick may be used as a material within a crown as part of the frieze.
  - Limestone may be used as the material or one of the materials of the crown.
  - Cast stone may be used as the material or one of the materials of the crown.
  - Architectural precast concrete may be used as the material or one of the materials of the crown where it will occur at least 25' above the ground.
  - Metal gutter shapes may be used.

- ***Intermediate Realm:***
  - Architectural precast concrete may be used as the crown material.

- ***Residential Realm:***
  - Architectural precast concrete may be used as the crown material.
  - Stucco and EIFS may be used as a crown material in restricted applications.
  - Wood and metal may be used as crown materials.
  - Brick may be used as the entire crown.

Crown Design and Detail. There are two basic crown designs, based on the roof type, used on campus buildings. Pitched roofs result in a crown composed of a cornice element of the eave. However, on relatively flat roofs the crown usually involves the use of a parapet in conjunction with the elements of the entablature.

In many campus buildings, only a portion of the entablature is extended around the building. Often the cornice or a derivation of the cornice becomes the envelope's crown. Sometimes either the frieze or architrave is the portion of the entablature that becomes a part of the crown along with (or without) the cornice.

The following photos illustrate this concept.

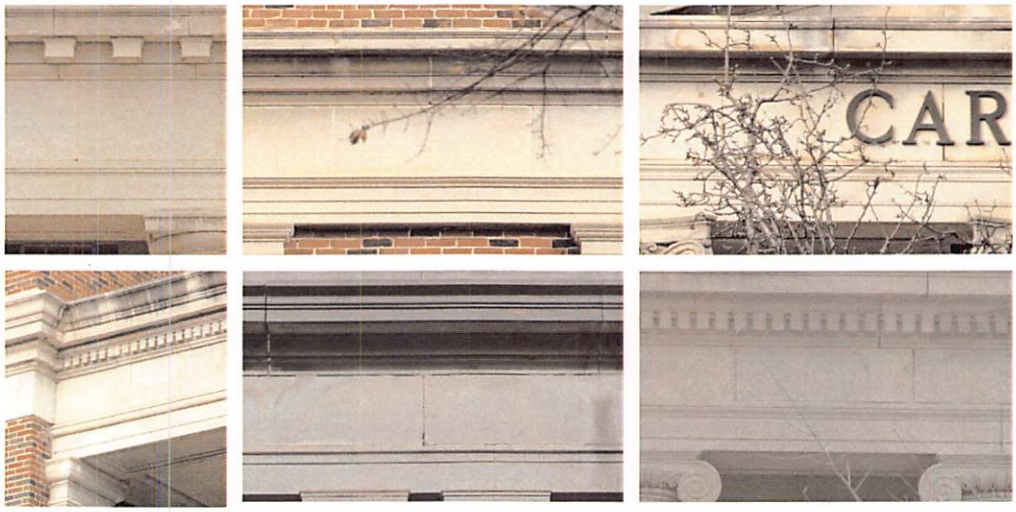
There are many examples of crowns on the University campus that consist of a parapet-like element used in conjunction with a portion of the entablature. The parapet is often treated as a balustrade and consists of its own three-part organization.

The following photos illustrate the use of parapets as part of the crown on campus buildings.

A product of the pitched roof design is the tympanum or triangular pediment at the gable end. Where it occurs, this element is part of the crown. The tympanum is surrounded by projections of the cornice profiles, as illustrated on the following photos.

Elsewhere, a cornice constructed of limestone may have vertical joints offset from course to course. At the frieze, these joints should be staggered relative to the columns or pilasters (either aligned or centered between them). The joints at the architrave shall always be centered over the columns or pilasters.

The following photos show these offsets on campus buildings.



When designing architectural precast concrete cornices, care shall be taken to conceal joints that extend vertically through a cornice. Historically, stone pieces were sized to allow for hand laborers to install using simple mechanical tools. Obvious oversized pieces diminish the historical character of the appearance when using stone-like materials.

In summary, the guidelines for the design of the crown are as follows:

- ***All realms:***
  - In all realms parapets shall not project beyond the face of the wall.

- ***Central Realm:***
  - The elements of a building's crown shall be derived from the entablature over a building's principal entry or facade.
  - At the eave of a pitched roof, the cornice shall be derived from the cornice of the entablature over the principal entry. In absence of an entablature, the cornice shall be based on the cornice of a similar height consistent with the application of the classical orders of architecture. (Refer to Section 3.3.5.B Proportions and Intercolumniations)
  - Where a parapet is part of the building's crown, the parapet should resemble the three-part design of a balustrade or raised pedestal.
  - Metal copings are allowed to substitute for stone if the color and finish are indistinguishable from stone from a distance of 25'.
  - The parapet shall recede back from face of the exterior wall below the cornice.

- The vertical joints in a crown shall be staggered or concealed.
- Where stone or stone-like elements of the crown perform as lintels over openings, material thickness and joint design shall respond to the structural needs of a lintel.

- ***Intermediate Realm:***
  - Detail and articulation within the cornice may be reduced or deleted. Where present, detailing shall reflect the classical tradition.
  - Metal is an acceptable coping material. Color shall match stone, windows or roofing metal color (Refer to 3.3.6.B Materials)

- ***Residential Realm:***
  - Metal is an acceptable coping material. Color shall match stone, windows or roofing metal color (Refer to 3.3.6.B Materials)
  - Size (projection and height) of the cornice shall be based on the appropriate to height of the shaft below based on the classical orders of architecture (Refer to 3.3.5.B Properties and Intercolumniations)

4. **Windows and Doors.** Throughout the history of the University of Alabama campus, a variety of windows and doors have been used. An examination of a building's windows and doors reveals much about the building's age as well as the number and period of renovations. Styles and materials have changed over time. Placement and size traditionally varied after the introduction of artificial light. In early campus buildings the windows were the only means employed to light a classroom during the day.

   Windows in the classical tradition were used for daylighting the interior (before electricity made natural light functionally unnecessary.) However, today's renewed interest in providing daylighting to a building's occupants has again promoted the practical use of windows.

   Materials and Style. In central campus buildings, windows and doors historically have been made of wood. Steel was used as a window material beginning in the 1930's. Steel windows were painted in a similar manner as wood, but the perimeter jamb treatment was only a fraction of the size employed on wood windows.

   The original wood windows were double-hung style with a minimum 4" perimeter, which included a carved brick mold. Some older wood windows were casement style, and the 4" jamb was reduced slightly in the absence of counter weights. Both the predominant wood double-hung and the wood casement windows were built with wood muntins and individual panes of glass.

   Steel windows brought reduced profiles for muntins and perimeters, but still consisted of individual panes of glass. Pivot and awning style operators became common and replaced double hung with the introduction of steel.

Aluminum, in clear finish, came into use in the 1960's. This brought a return to the double-hung window but maintained the narrower profiles of the steel windows.

Since then, there has been a mandate to restore the "historical" appearance of windows, which has brought back muntin sizes and detailed perimeter trim similar in appearance with the older wood windows. The material used currently for windows and doors varies from "clad wood" to color coated aluminum.
Some campus building's "replacement windows" have been used to upgrade wood windows where rot has taken its toll. Early replacement strategies took a stock window, placed it in an opening and filled in the difference with aluminum sheet in a clumsy manner. This is made obvious by the oversize and shapeless perimeter trim. However, this practice has been abandoned and is not acceptable.

Technology and the need to reduce energy costs have brought about the use of large insulated glass units with attached "grids" replacing the true wood muntin. Today, various degrees of "simulated divided light" options are used on campus structures. As illustrated in the following photographs of campus windows, some attempts appear as wood (the two left windows are wood) have been more successful than others. In the Central Realm, an aluminum grid applied as a muntin should be used on both sides of the glass. In the Intermediate Realm, a grid is not required. In the Residential Realm, the grid may be between the panes of glass in an insulated unit.

Advancement in door technology has not been as radical as with windows. Wood is still a popular material in protected locations on campus. Historically, wood doors were and still are of the panel type with true wood muntins where used. Wood doors, however, should be used only on historical buildings such as the Gorgas House and the President's Mansion.

For ease of maintenance, the University prefers aluminum to wood in door applications. The 1960's introduced the clear anodized aluminum storefront door to campus. Once considered "modern", the doors are historically inappropriate in the central campus. New technology has improved the appearance of aluminum storefront doors. Today, historically accurate profiles of aluminum trim (muntins, brick molds and panel molding) allow for a well detailed door while modern long-lasting coatings make it indistinguishable from wood.

Some structures within the central campus have been retrofitted with "bronze" color aluminum storefront. While this is an attractive and monumental approach, it does vary from the historical precedent of wood and shall not be replicated.

A. Panes and Proportions. As with other elements of proportion on campus buildings, windows and their subdivisions into panes emphasize the vertical. In unique applications panes may be square, but never horizontal.

Many elements influence the spacing of the muntins, which defines the apparent pane size. Many of the classical buildings on campus consist of a 12 over 12 or 8 over 8 arrangement of window panes. A 6 over 6 arrangement may be appropriate for masonry openings smaller than 40 inches in width. Within a given structure the horizontal spacing of muntin bars will remain relatively consistent. The vertical spacing will vary based on the window height, often where the height is restrained from growing an 8 over 8 to a 12 over 12, an 8 over 12 is used. Often this allows for pane height to be more consistent. The goal of window design in a classical environment is to minimize variation in pane size since needless variation is a distraction from the classical composition of a facade.

On some campus buildings a stacked window or transom has been introduced into a window opening. This is just another tool for the designer that allows a thickened horizontal member to be used to even out the pane height and maintain consistent sizes in window panes.

B. Jamb Conditions and Trim. The two most important features of window / door jamb conditions and trim are the size of the perimeter trim and the distance it is from the face of the wall about the opening. Historically, walls were thick load-bearing construction. Windows and doors were placed within the wall closer to the interior face than the exterior. While this protected the wood construction from the weather, it also expressed the thickness of the wall. In current masonry veneer construction, technology is continually thinning up the exterior envelope.

The appearance of thickness adds to the perception of permanence and is more contextually complimentary with the rest of the University campus construction. How the window trim is designed and placed are important tools available for creating an appearance of permanence.

In modern construction, the windows or door can be surrounded by extruded aluminum “panning”. This panning replaces the wood casings and brick mold found in traditional buildings. Properly designed, panning will bridge the wall cavity, allowing the window or door to be supported by the interior of the envelope construction. If the panning overlaps a 4” veneer by 1” then the window surface could be recessed in excess of 6” from the face of the veneer. This appearance would be consistent with Central Realm buildings. The top three windows shown are wood. The bottom three are aluminum, some of which are easily detected as faux wood.

Almost universally, double-hung window jambs and heads on historical campus structures are four inches in width, as measured from the brick return at an opening to the start of the hung sash. Most sashes are a nominal two inches in width. This, combined with the jamb / brick mold dimension, is 6", which is referred to as the "sight line". Many modern windows reduce or increase sash width from the historic 2". Critical to consistent appearance is the total 6" width. If a sash width is greater, then the jamb width must be less. Avoid single-hung windows where there is a difference in apparent sash width between operable and fixed. The key to a consistent window appearance is maintaining the 6" sight line at (faux) double-hung window conditions.

To summarize, the guidelines for windows and doors are as follows:

- Sight line at head and jambs of window shall be the same.
- Sight line at fixed sash and operable sash shall be the same.
- Combined sill and bottom sash rail height shall be no greater than width of jamb sight line.
- Typical sight line on windows with (faux) operable windows shall be 6".
- Minimum width of fixed glazing jamb / head shall 4".
- Minimum muntin width is 7/8".
- Muntin width shall be no less than 1/12 pane width. Maximum width shall be no greater than 1/9 the pane width.
- Unless square, all window panes shall be vertical in orientation with ratio of horizontal / vertical of 5/6 to 4/7.
- Applied muntins are required at the Central Realm, but not in the Intermediate Realms. In the Residential Realm, these may be between the panes of glass as part of an insulated unit.

5. **Arcades, Colonnades and Porches.** Of all the architectural features on a campus building, the most classically inspired are the colonnades or porticos used to define and accentuate the principal entry. This is a very consistent feature of the University of Alabama campus.

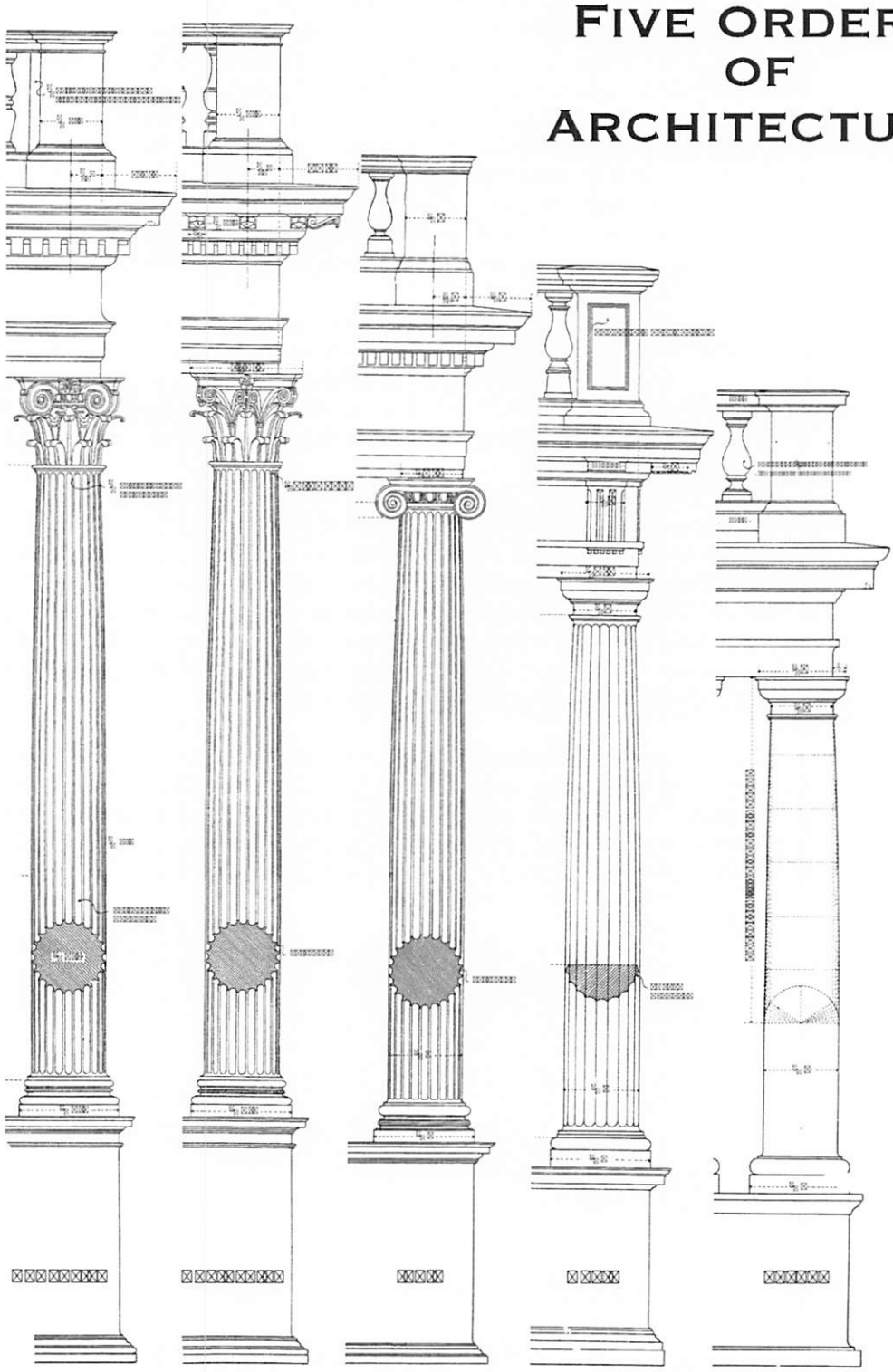
A. Classical Origins and Regional Influence. The Classical Orders of architecture originated with the Ancient Greeks two thousand five hundred years ago. They were further developed under Roman guidance beginning over twenty centuries ago. The Italian Renaissance, almost a thousand years after the fall of Rome, brought about the modern codification of these concepts of style and proportion. This sense of order, which is at the heart of classical architecture, is with us today.
A more local influence is the Greek Revival Architecture of the South. This style of architecture, of course, was of classical origin itself and brought an appreciation for this style to new generations of southern America.

Through the influence of Modernism, the pursuit of the classical became unimportant. Much intuitive understanding of what and how classicism is applied to architecture has been lost. There are numerous resources available to re-acquaint architects with the "rules" of classical architecture. The Design Guidelines include illustrations of the basics as they relate to the University Campus.

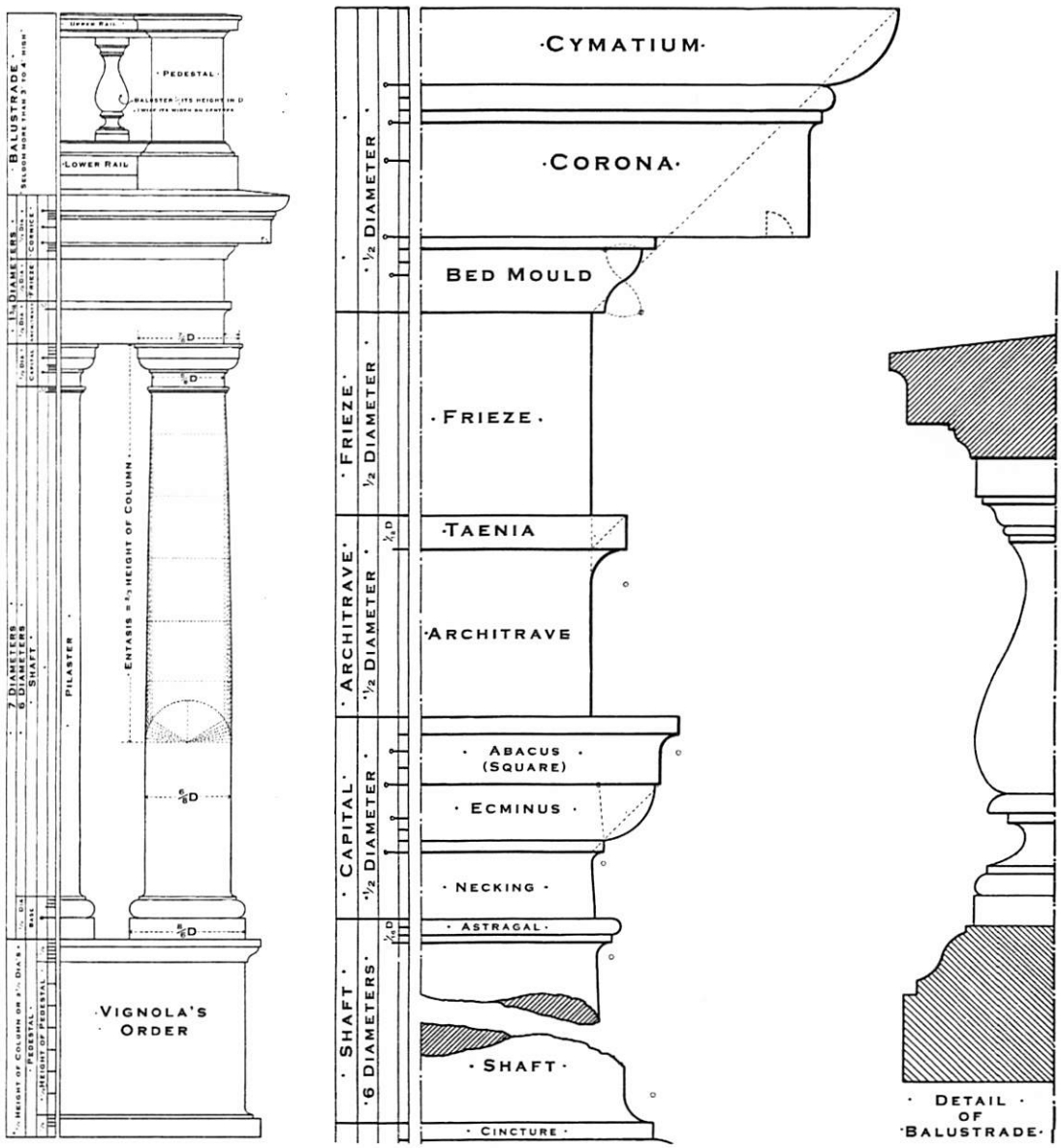
Porches occur on the campus as a more residential feature. They are often constructed of wood, iron or similar materials. They are typically detailed in a similar manner as a columned portico with vertical columns and a horizontal entablature. The main difference is scale (porches are composed of smaller elements). Columns are often square and relatively thin for their height in a classical sense. Even so, the vertical height of the base and capital should be in proportion with the overall height of the column.

B. Proportions and Intercolumniations. Twenty-five hundred years of effort have gone into developing and refining the Classical Orders of architecture. The following illustrations are hopefully worth as many words. After the explanations of the orders, there will be a graphic review of simple "Do's and Don'ts" often overlooked in the design of classical structures.

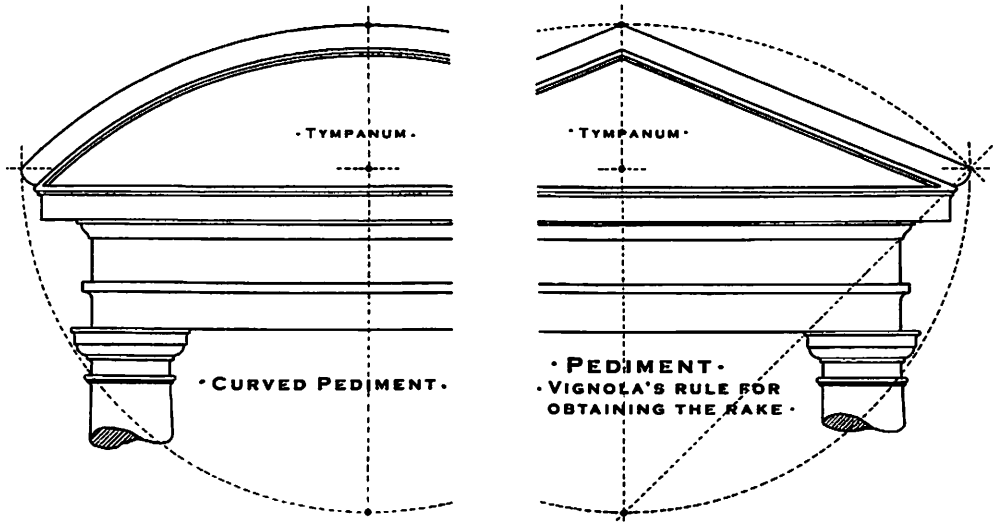
Five Orders of Architecture

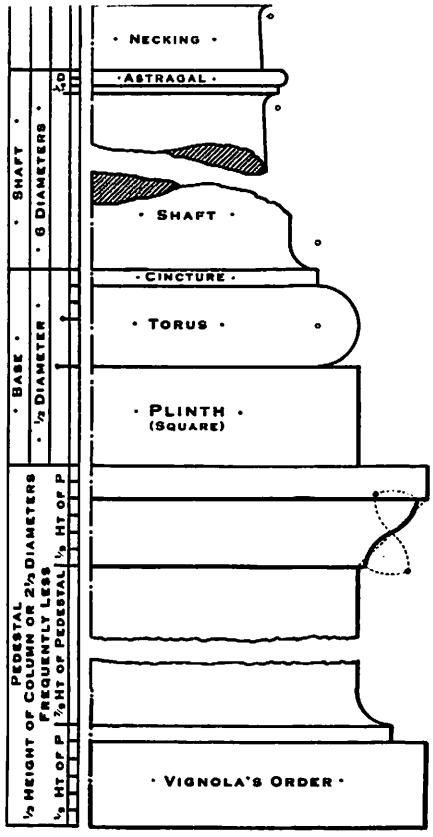


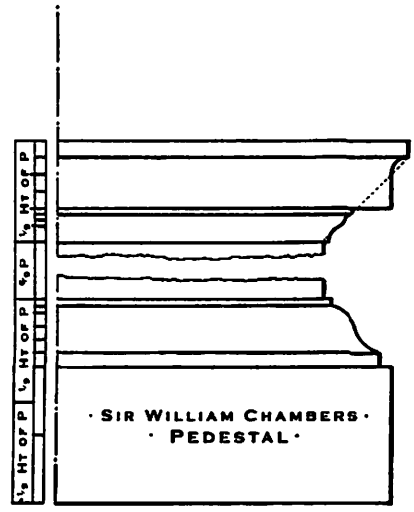
TUSCAN ORDER



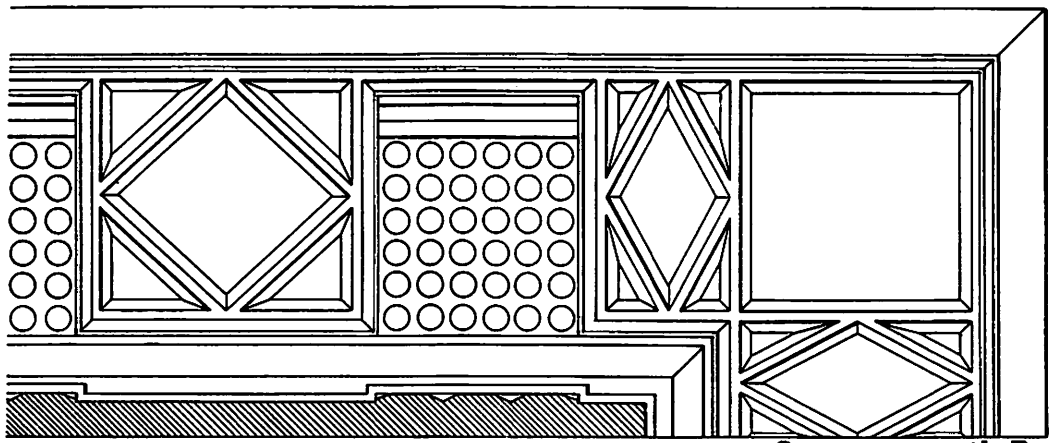
TUSCAN ORDER



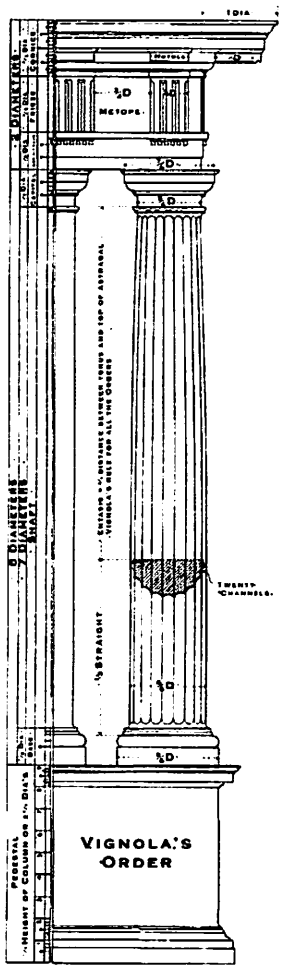


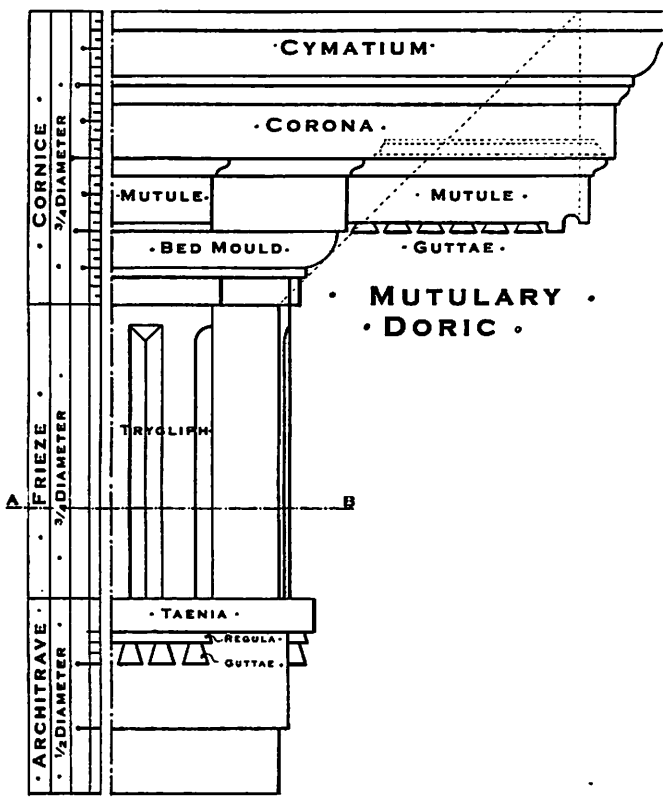


DORIC ORDER



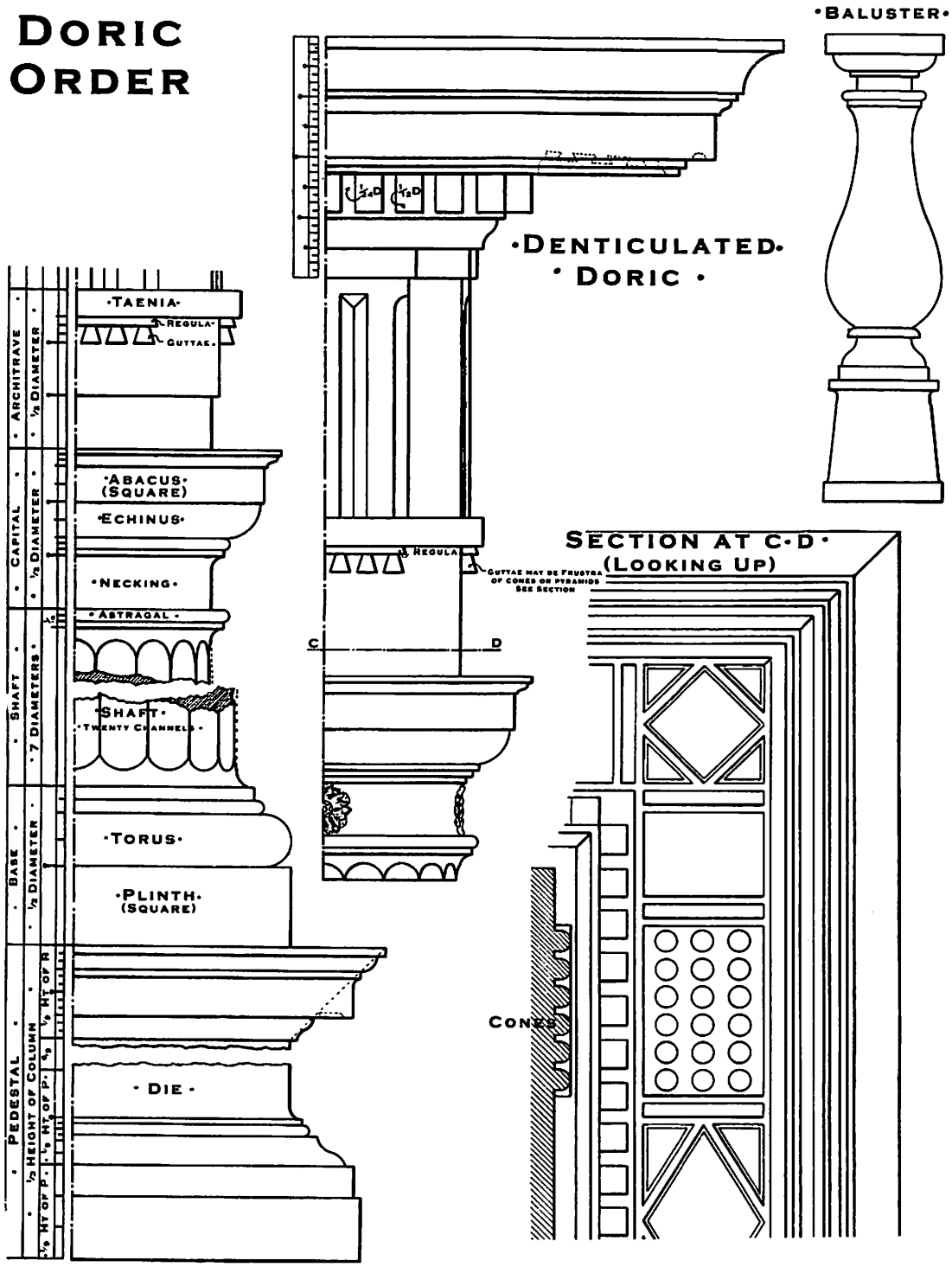
SECTION AT A B
(LOOKING UP)



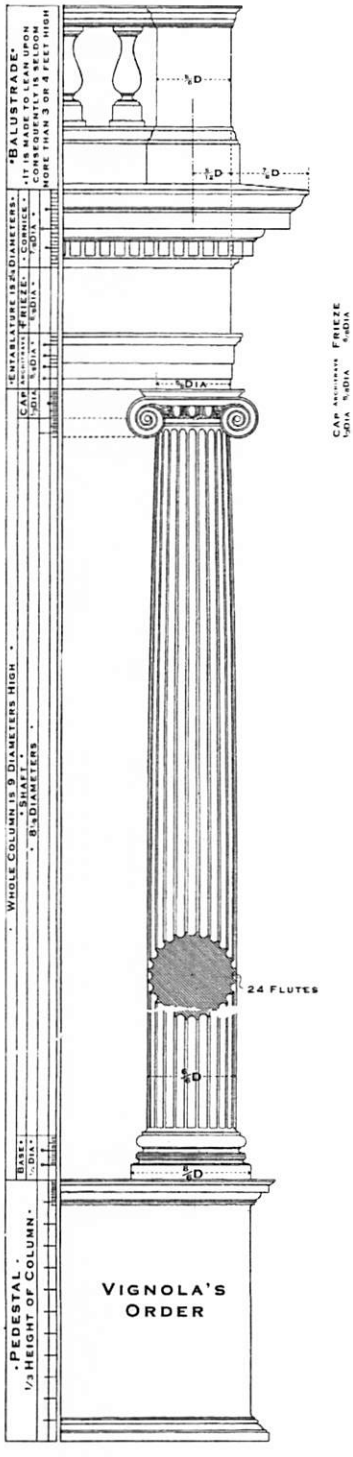


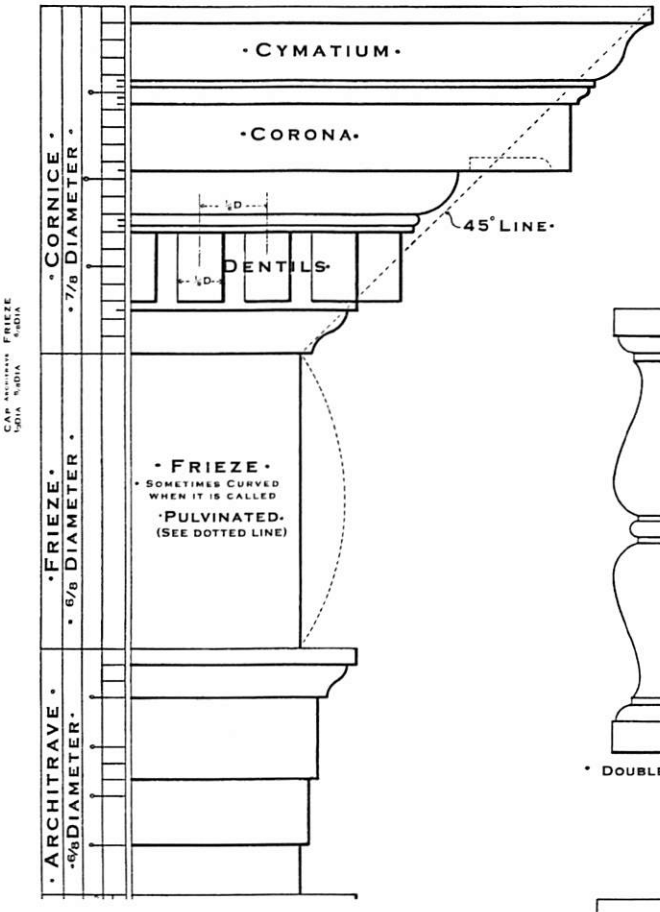
MUTULARY
DORIC

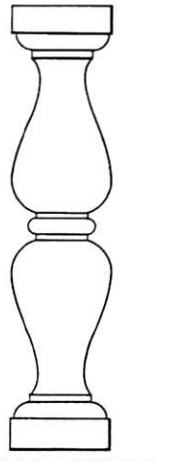
DORIC ORDER


·BALUSTER·
·DENTICULATED·
· DORIC ·
·TAENIA·
·REGULA·
·GUTTAE·
·ABACUS·
(SQUARE)
·ECHINUS·
·NECKING·
·ASTRAGAL·
·SHAFT·
·TWENTY CHANNELS·
·TORUS·
·PLINTH·
(SQUARE)
· DIE ·
· PEDESTAL ·
· BASE ·
· SHAFT ·
· CAPITAL ·
· ARCHITRAVE ·
½ HEIGHT OF COLUMN
½ DIAMETER
7 DIAMETERS
½ DIAMETER
½ DIAMETER
C
D
SECTION AT C·D·
(LOOKING UP)
CONES

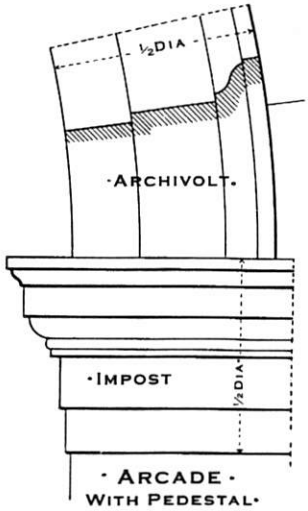
IONIC ORDER

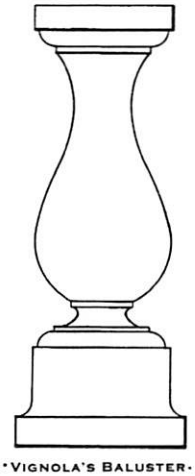






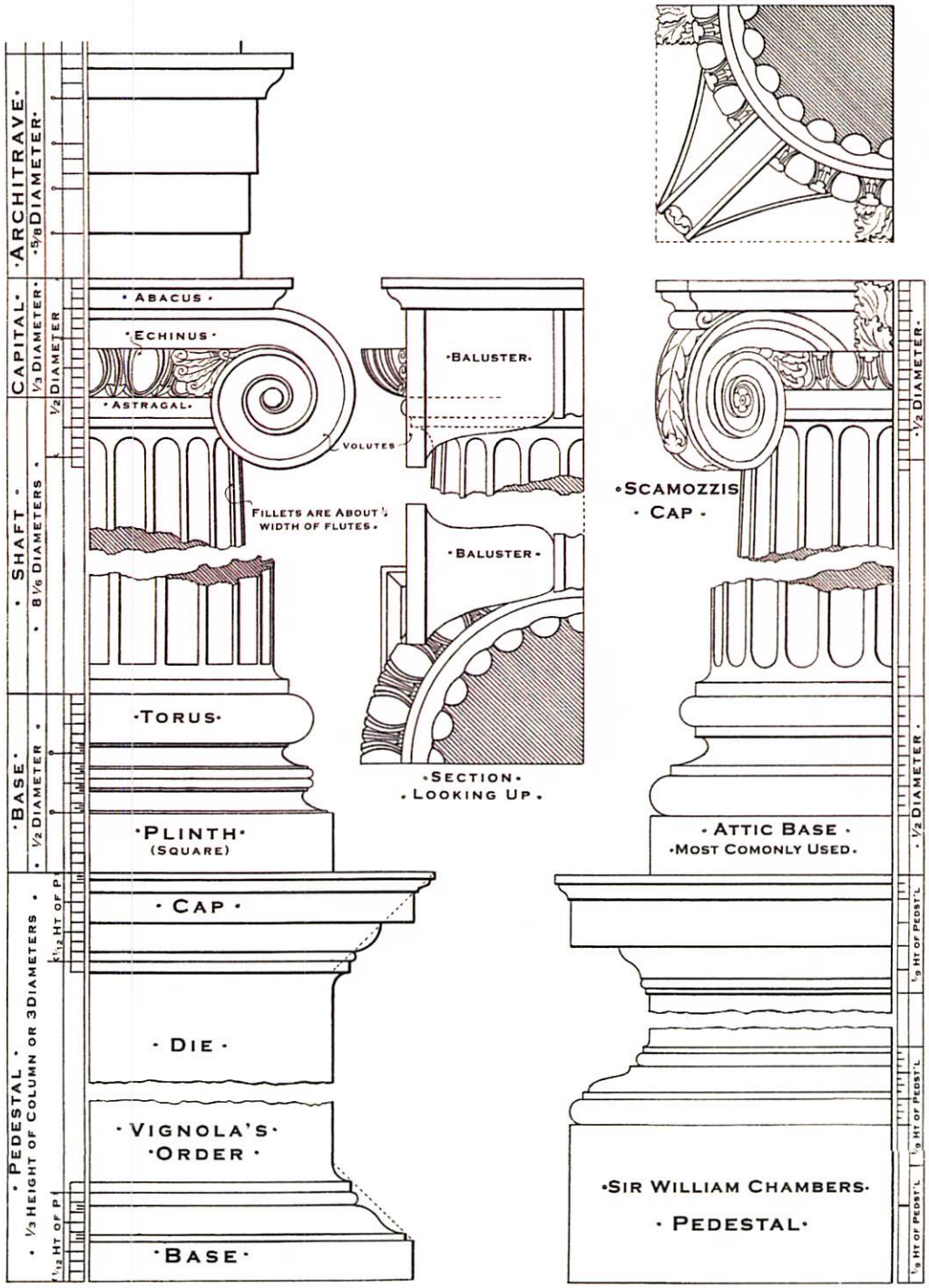
·DOUBLE BALUSTER·



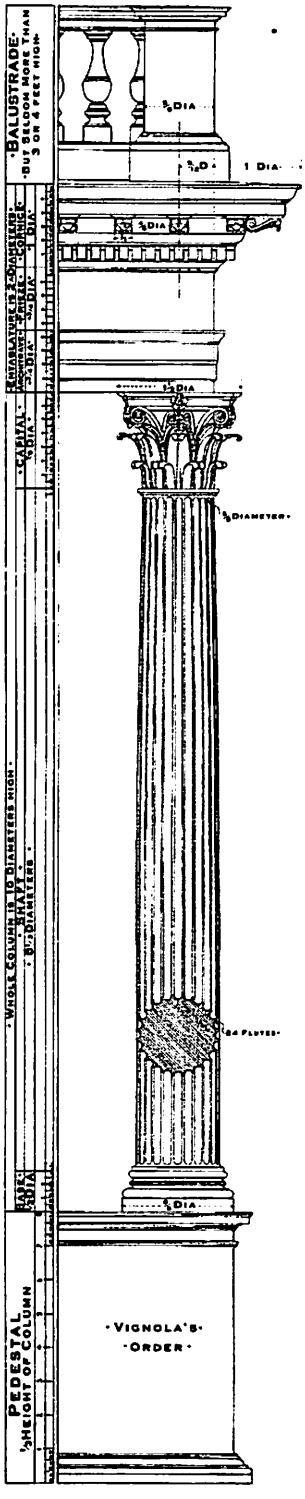


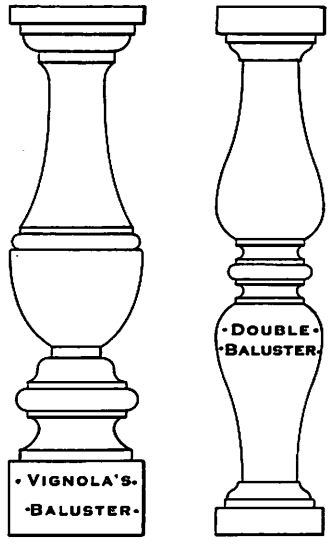
·VIGNOLA'S BALUSTER·

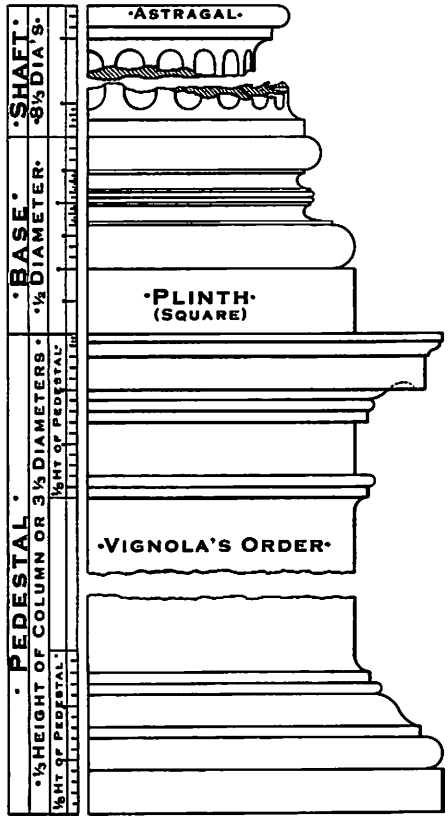
Ionic Order


·Architrave·
·5/8 Diameter·
Capital·
·1/3 Diameter·
·1/2 Diameter
· Shaft ·
· 8 1/6 Diameters ·
·Base·
· 1/2 Diameter ·
· Pedestal ·
· 1/3 Height of Column or 3 Diameters ·
· Abacus ·
·Echinus·
·Astragal·
Volutes
Fillets are About 1/3 Width of Flutes·
·Torus·
·Plinth·
(Square)
· Cap ·
· Die ·
· Vignola's·
·Order ·
·Base·
·Baluster·
·Baluster·
·Section·
· Looking Up ·
·Scamozzis
· Cap ·
· Attic Base ·
·Most Comonly Used·
·Sir William Chambers·
· Pedestal·
·1/2 Diameter·
1/9 Ht of Pedst'l

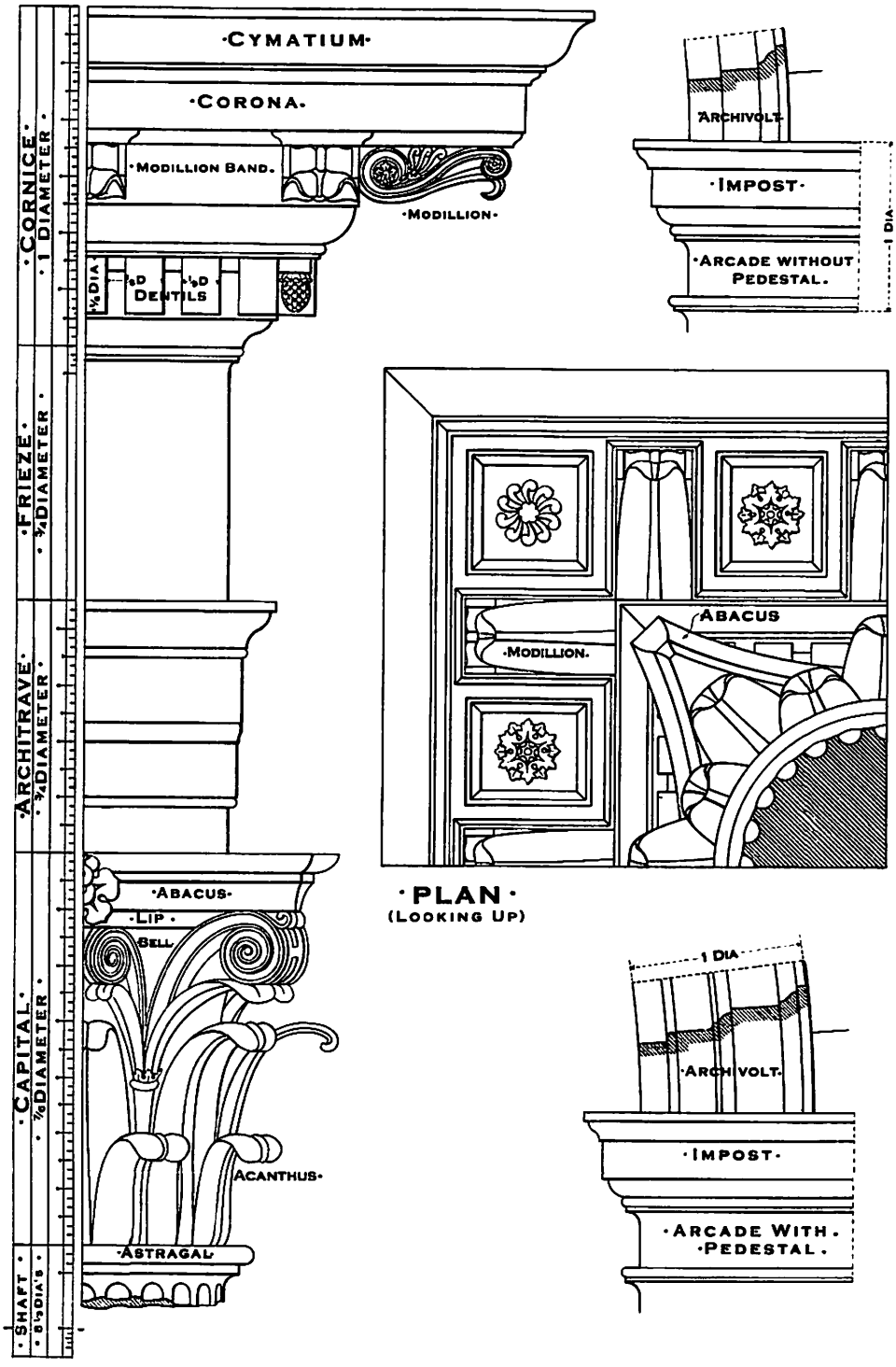
CORINTHIAN ORDER



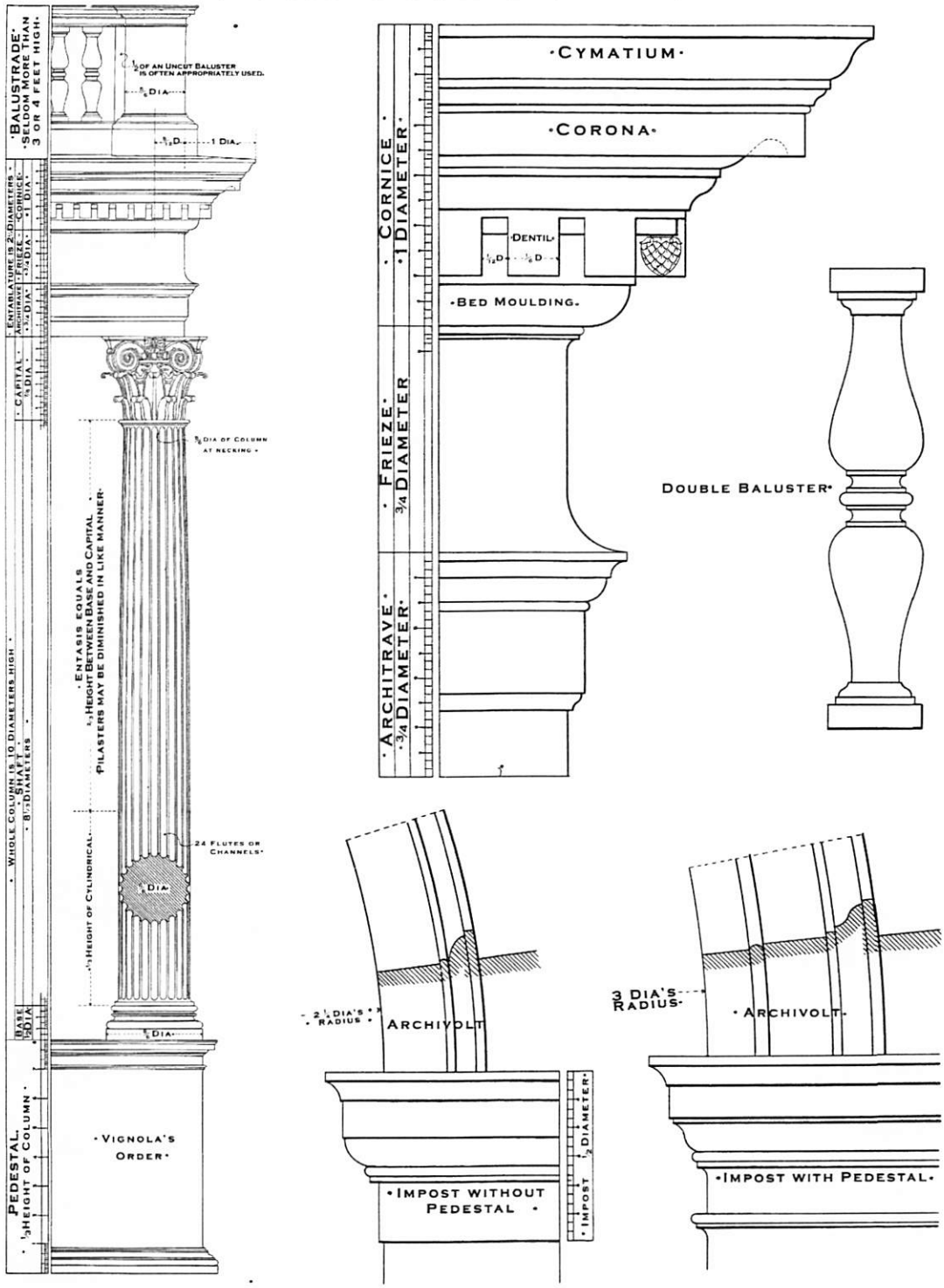


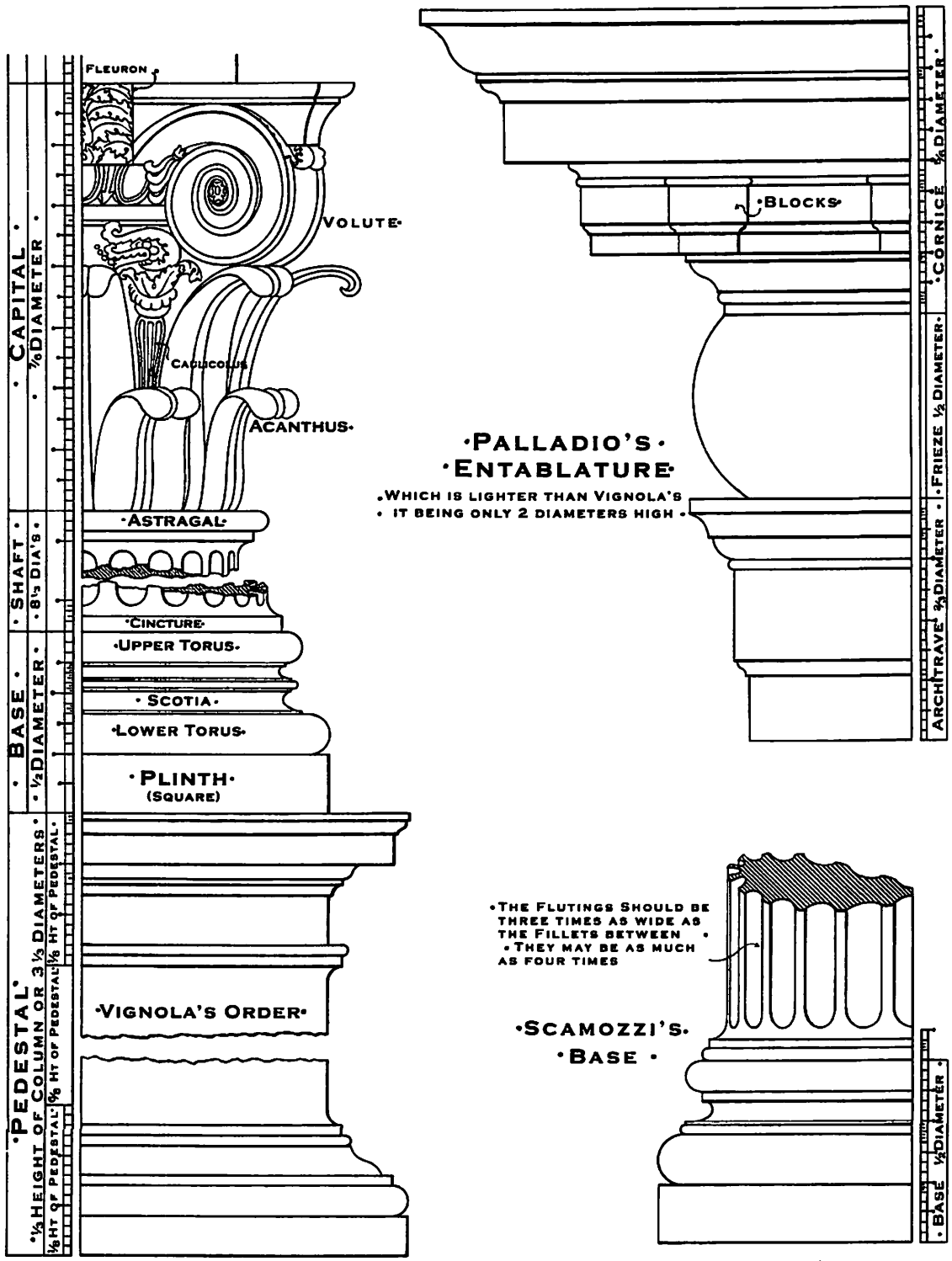


CORINTHIAN ORDER

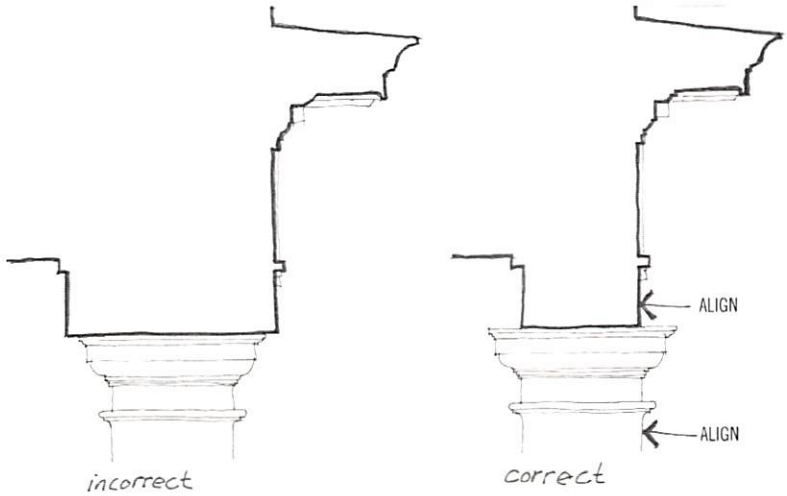


COMPOSITE ORDER




FLEURON
VOLUTE
CAULICOLUS
ACANTHUS
ASTRAGAL
CINCTURE
UPPER TORUS
SCOTIA
LOWER TORUS
PLINTH
(SQUARE)
VIGNOLA'S ORDER
PEDESTAL
½ HEIGHT OF COLUMN OR 3⅓ DIAMETERS
⅛ HT OF PEDESTAL
⅛ HT OF PEDESTAL
⅛ HT OF PEDESTAL
BASE
½ DIAMETER
SHAFT
8½ DIA'S
CAPITAL
⅞ DIAMETER
BLOCKS
CORNICE ¼ DIAMETER
FRIEZE ½ DIAMETER
ARCHITRAVE ¾ DIAMETER
PALLADIO'S
ENTABLATURE
WHICH IS LIGHTER THAN VIGNOLA'S
IT BEING ONLY 2 DIAMETERS HIGH
THE FLUTINGS SHOULD BE THREE TIMES AS WIDE AS THE FILLETS BETWEEN
THEY MAY BE AS MUCH AS FOUR TIMES
SCAMOZZI'S
BASE
BASE ½ DIAMETER

The illustrations below depict the correct and incorrect column / crown alignment.



In summary, guidelines for arcades, colonnades, and porches are as follows:

- ***All realms:***
  - Colonnades shall be based on proportions of the classical orders of architecture.
  - Colonnades shall be used with purpose such as embellishment of the principal entry.
  - When possible, stone columns should be load-bearing or independent of the building structure altogether to avoid vertical joints required for wrapping structure.
  - Arcades should follow Roman proportions. In absence of columns, openings no greater than 2/3 of the center to center dimension between arches.
  - Pointed arches are not permitted beyond the Gothic Revival area of campus.
  - Single centered arches shall be Roman (half round) or channel (segment) type.
  - When arches are used in combination with columns and entablatures, the classical orders should be followed.
  - All arches should appear to be "live" (structurally sufficient).
  - All Roman arches should be stilted.

- ***Central Realm:***
  - Colonnades shall be based on the classical orders of architecture.
  - Columns shall be constructed of limestone.
  - Cast stone and architectural precast may be substituted for limestone where it occurs 25' or more above the grown.
  - All visible vertical joints should course and appear to be developed from structural need.
  - Arches in arcades shall be single or triple contoured or flat (jack).
  - On non-residential construction, porches shall be based on the classical arches of architecture.

- ***Intermediate Realm:***
  - Cast stone and architectural precast concrete may be use on all elements of a colonnade.
  - Detail may be removed from colonnades as long as the proportions remain consistent with the classical.
  - Colonnades may be created with non-stone-like materials.
  - Porches may be constructed of non- stone-like materials. Color must match trim or window color.

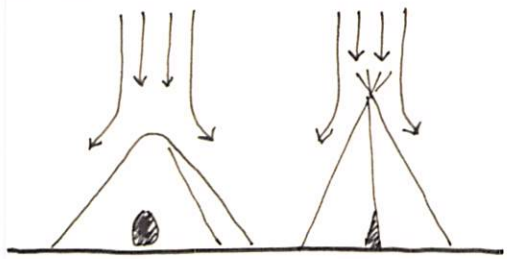
- ***Residential Realm:***
  - Cast stone and architectural precast concrete may be use on all elements of a colonnade.
  - Wood and wood-like materials may be used on all elements of a colonnade.
  - Arches in arcades shall be single or triple contoured or flat (jack).
  - Column and entablature proportions of porches may be reduced in width while horizontal elements of porches are reduced in depth.
  - Wood and wood-like materials may be used in the construction of porches.
  - Painted steel and wrought iron may be used in the construction of porches. Color shall be black to match President's Mansion.

6. Roofs

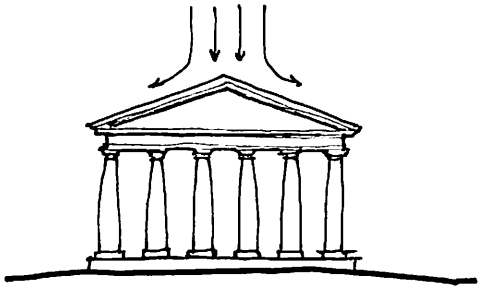
As with other building components, this section on roofs concerns what is visible and, as such, is a contributor to the character and appearance of the University of Alabama campus. The features covered include a little history, a few general guidelines of form and slope, and a description of acceptable roof materials that, when taken together, will contribute to the desired vision of a cohesive campus. A roof is considered "visible" if it can be seen by an individual standing on the ground at a distance of 1000'.

A. Principles of Roof Design.

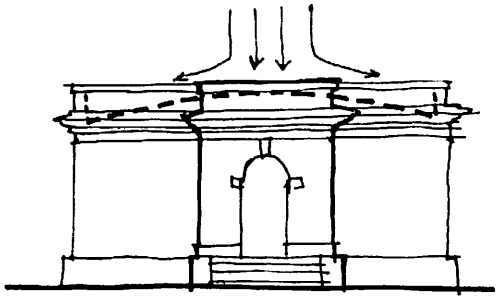
Roof: An Historical Perspective. In order to respond to the roofing needs of a classically inspired structure, it is useful to observe the evolution of roofs covering such structures. Hopefully, this simple review of history will provide an understanding of how to approach the shaping of a roof within a traditional campus context.



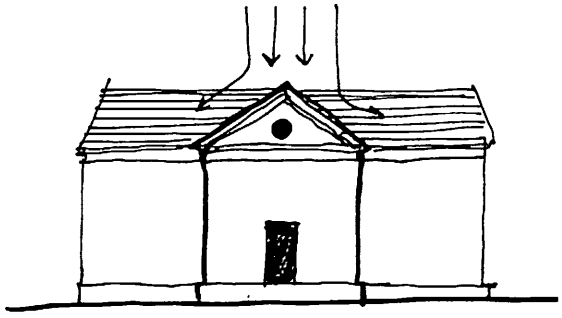
Roof as simple shelter from weather in pre-classical time.



Roof as decorative shelter from weather in early classical times.



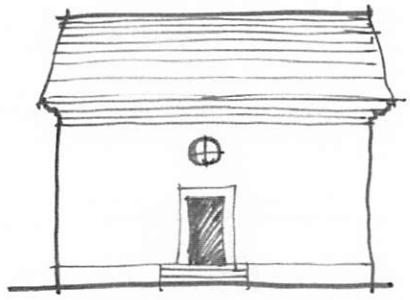
Roof still provides shelter but loses visual importance by being concealed behind parapet or other device, which leads to an invisible roof.



The Colonial precedent. Materials and weather combine to bring back "visible" roof, which thereby becomes a necessary design element.

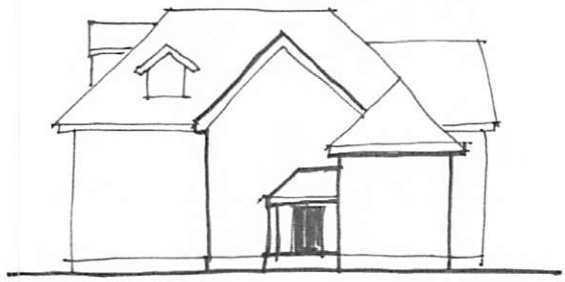
Roof has evolved into a character adding feature.

B. General Guidelines on Form and Slope of Roof Design

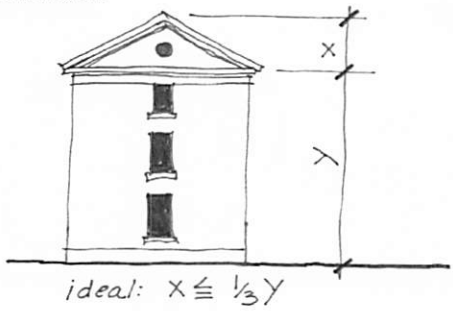


Simple Form, Simple Roof. Roof form should begin with functional need to shed weather.

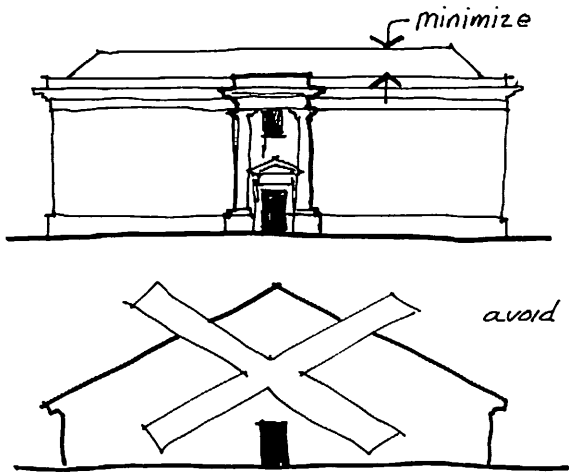
Roof Accentuates Door and Creates Balance. Complexity is added by the restrained use of articulation to achieve a purposeful end.



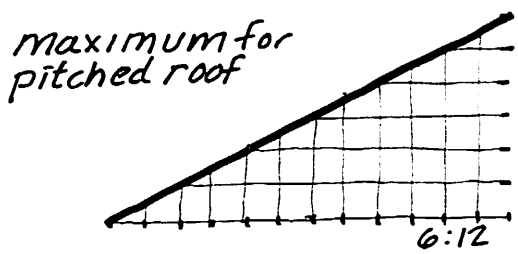
Avoid Busy Roofs. The statement is not the roof! The roof is a part of the building's statement.

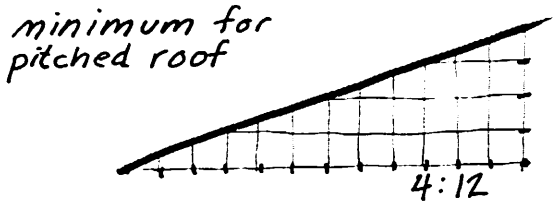


High narrow buildings can support steeper roof slopes.

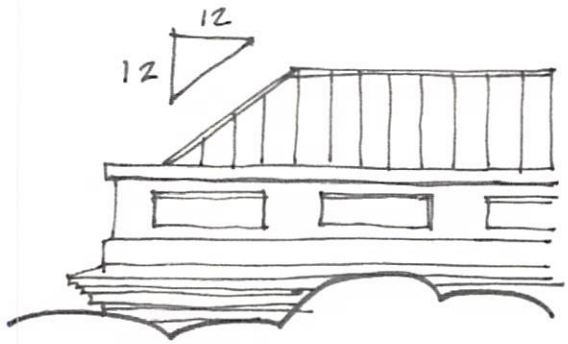


Low, wide buildings should have no visible slope, or they should have partial hip / faux mansard roofs to disguise or conceal roof slope. Avoid steep slopes on low, wide buildings. "Visible" roofs should not dominate a building's profile.

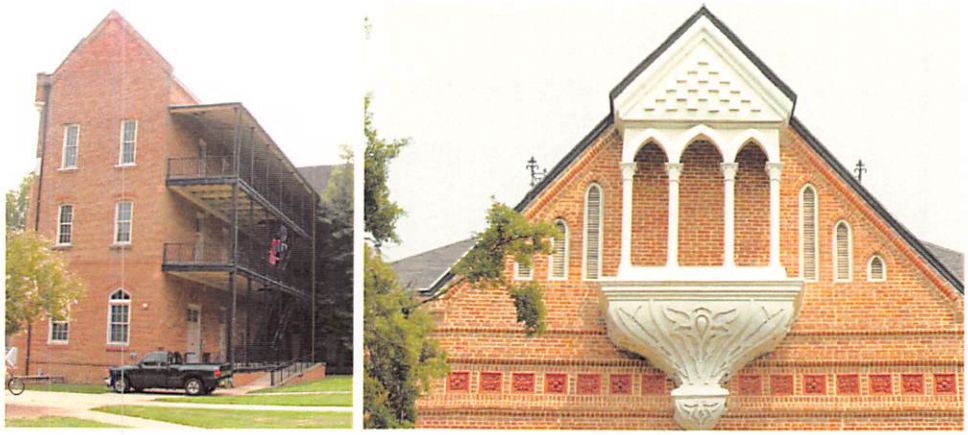




Commonly acceptable slopes for pitched roofs for campus structures will range between 4:12 and 6:12.



Shallow (faux mansard) roofs and equipment screens may be as steep as 12:12 when placed behind a parapet.



Context will modify roof form guidelines as well as other Design Guidelines. These photographs of the Woods Hall Quad illustrate the steep roof pitch.

C. Roof Materials

Materials used on "visible" roofs shall be one of the following approved materials.

Materials considered acceptable for use of pitched roofs:

1. Slate: natural gray to black slate is the most historically correct roofing material for pitched roof. This material may be used in all realms.

2. Simulated Slate: "three dimensional" synthetic slate shingle is an acceptable alternative to slate assuming the color matches the natural gray to black color of the natural slate. There are several cement fiber or recycled rubber products in the marketplace that provide an acceptable

slate-like appearance. This material may be used in all realms.

3. Asphalt shingles that are fabricated to provide "slate-like" appearance within the natural gray to black color range. This material is appropriate for use in the residential and Intermediate Realms only.

Note: Avoid shingles simulating wood shakes, clay tile or other non-slate material.

Application of non- "slate like" roofing materials:

1. Metal: The use of metal as a material for covering pitched roofs is not allowed within the Central Realm. However, use of metal is acceptable in accent applications and on isolated roof elements, such as narrow roofs above pediments within a facade. Acceptable metals include copper and "terne coated" (TCS) steel. Copper has no substitute; however, it may be replaced by steel or aluminum panels in long lasting coated finish of similar color. This material is appropriate for use in the residential and Intermediate Realms only.

   Acceptable materials for other roof forms beyond simple pitched roof:

   Domes, vaults and similar roof elements:

1. Metal: flat seam and low profile standing seam metal of approved material may be used to clad domes and vault structures occurring on visible portions of roofs.

2. Stone: is acceptable as a roof covering at dome structures occurring on visible roofs. Beyond the Central Realm, a single-ply white to light gray membrane may be substituted, provided the seams when visible are placed to simulate stone.

3. Avoid: slate-like materials as covering for domes, vaults, and similar roof elements.

Shallow roofs and equipment screens occurring behind a parapet may be either of the following materials with the attached provisions.

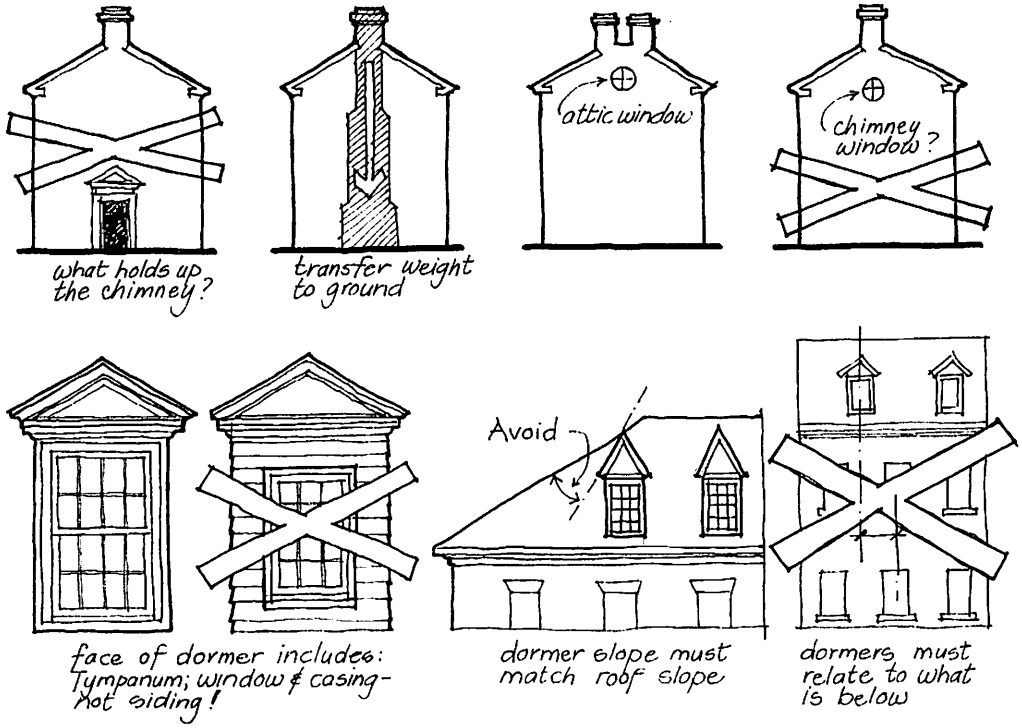
1. Slate-like shingle may be used where slope does not exceed 8:12.

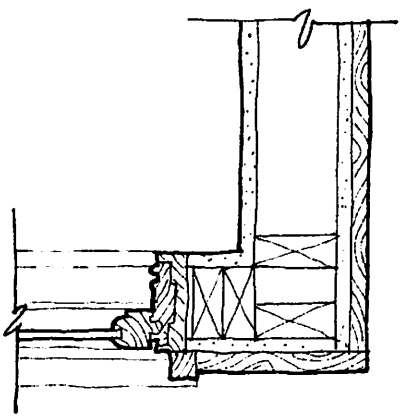
2. Metal of approved type may be used where slope ranges between 5:12 and 18:12.

D. Appurtenances

Campus buildings utilize numerous appurtenances for both functional and decorative purposes. These fall into three basic types: chimneys, dormer windows, and dormer vents.

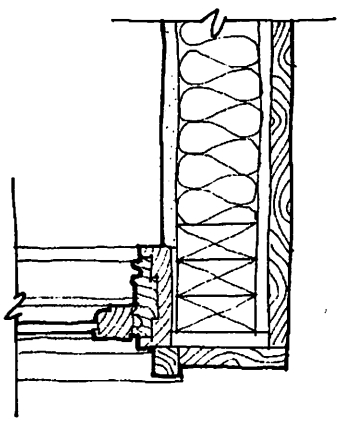
Chimneys: Chimney-like structures originally provided opportunities to exhaust flue gasses from heat sources. More recently, such structures have been used for many other exhaust functions. Chimneys are also used for decorative purposes when a chimney does not function. The size and shape of the chimney must match that of a functioning one. Chimneys must respond to the force of gravity. They are heavy and should appear to transfer their load through the building to the earth below. Chimneys should be of masonry construction with brick or stone articulation at the crown.





INCORRECT DORMER JAMB

DOUBLE 2x4's AT SASH CAUSES DORMER TO BE TOO WIDE, CAUSING SQUAT PROPORTIONS



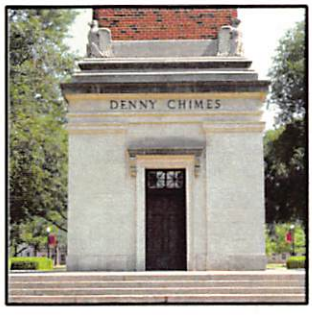
CORRECT DORMER JAMB

SASH ABUTS 2X4 SIDEWALL STUDS AS SHOWN, MAKING A SLENDER ATTRACTIVE PROPORTION

Dormers Windows. Dormer windows are composed of three basic elements: the facade, the sides, and the roof. The facade is the most visible and includes the window, its casing and the triangular tympanum or arched pediment. Typically, the sides of a dormer are clad in a vertical application of general roofing material of the building. The final element is the dormer roof. Slope of pitched roof dormers shall match the building roof slope. Pitched roof dormers shall be of the same material as the roof. The roofs of arched top dormers shall be of an approved metal in either standing seam or flat seam construction.

Dormer Vents. Dormer vents consist of two primary types, which are described below. The most common is the half-round metal (usually copper) roof vent installed within a slate-like shingle roof. The half-round facade is virtually all louvers with 1-1/2 to 3 inches of curved perimeter trim in the same material as the dormer. Sides and roof at this type of dormer vent are one in the same.

There is an alternative dormer vent which is acceptable to use in combination with dormer windows. It is related by uniting the window portion of a dormer window and replacing it completely with a louvered vent. The casing and tympanum shall remain the same as that of the companion dormer windows.



IV. Application Matrix

These guidelines attempt to communicate concept of enhancing the traditional heritage and appearance of the University of Alabama campus architecture. There are many "musts" and "must nots", recommendations, and suggestions for designers to follow. With the application matrix, the guidelines are put into context with the whole campus and its realms.

1. ***Responding to Context.*** Throughout the Architectural Guidelines, the importance and power of context has been stressed. Context is foremost the immediate neighborhood. The guidelines have gone beyond this notion to create three architecturally distinct realms of campus context. The subsequent Design Standards acknowledge these realms in their implementation requirements. The following graphic representation of the application matrix plots the application of various guidelines against the realms of campus context. Each element of architectural design from building placement to roof materials is listed down the diagram, while the realm of campus context is listed across the top. Within the resulting matrix are general descriptions of the intent of the Architectural Guidelines.

   The "Big Picture" introduction is as follows: Within the Central Realm every effort should be made to preserve and enhance the historical (and classical) character of the University. This requires the strictest application of the guidelines, which are based on the Classical Orders of traditional architecture.

   Within the Intermediate Realm, many of the classically inspired guidelines remain in effect. Building placement issues and the palate of exterior materials remain consistent throughout the campus. In this realm, the attention to classical detail is relaxed.

   In the Residential Realm, the attention to classically inspired detail and ornament is strengthened while the axis and symmetry of classical building placement is relaxed. "Residential" materials, prohibited in the other realms, are allowed.

   Establishing a single set of guidelines for such a diverse environment as a University campus is a challenge. This challenge is only enhanced by the influence of the existing campus context. The following diagram summarizes the application of the Design Guidelines.

2. Graphic Diagram

APPLICATION MATRIX

	CENTRAL REALM	INTERMEDIATE REALM	RESIDENTIAL REALM
BUILDING PLACEMENT	Axial and Symmetry vary in position from placement of structures in classical context	Axial and Symmetry vary in positions; strict application of Classical	More organic vernacular or informal
BUILDING FORM	Hierarchical ordered composition of simple massing	Hierarchical ordered composition of simple massing	Informal massing and vernacular forms
BUILDING ENVELOPE	Three part vertical organization of facade elements. Formal application of classical ornament and detail	Continuity of natural palette with reduced classical detail and trim	Traditional style architecture with use of stucco and wood like products permitted
WINDOWS & DOORS	Simulated or true divided light windows. 4" minimum jamb. Profiled trim. Limited use of storefront.	Larger pane sizes and use of store front doors and glazing permitted	Application of "grids" allowed at windows and doors. Aluminum storefront entries are permitted.
COLONNADES, ARCADES, & PORCHES	Colonnades at principal entries are encouraged. All features derived from application of classical orders of architecture.	Colonnades permitted without application of classical orders	Classically inspired colonnades arcades. Porches with residentially scaled proportions allowed wood and metal permitted.
ROOFS	Ordered composition of roof forms. Slate like material required at pitched roofs.	Ordered composition of roof forms. Expanded material palette	Ordered composition of roof forms. Slate like materials required at pitched roofs.

KEY — FORMAL APPROACH | MODERATE APPROACH | RELAXED APPROACH