America Builds

Source Documents in American Architecture and Planning

Edited by
Leland M. Roth

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Preface

Architecture requires a broad definition. It involves more than simply questions of style, esoteric theory, or technical progress; it is the physical record of a culture's relationship to its technology and the land, and, most important, of the system of values concerning men's relationships with one another. Hence this volume, like my *Concise History of American Architecture,* deals with all the spatial and environmental arts. Conceived as a companion volume to the *Concise History,* this similarly surveys architecture, landscape architecture, and planning from the arrival of European settlers up to 1980. The need for this anthology arose from the unavailability of Don Gifford's *The Literature of Architecture* (New York, 1966), a collection most useful but out of print for almost a decade. That anthology, however, covered only architecture in the nineteenth century, and other collections were equally selective in their foci. David R. Weimer, *City and Country in America* (New York, 1962), surveys planning and landscape architecture, while Lewis Mumford, *Roots of Contemporary American Architecture* (New York, 1952), is concerned primarily with the sources of the Modern Movement in the United States. Another collection, William A. Coles and Henry Hope Reed, Jr., *Architecture in America: A Battle of Styles* (New York, 1961), is comprised of many short fragments concerning five subject buildings, and the brevity of its selections is equaled by the clipped fragments in Christopher Tunnard, *The Modern American City* (New York, 1968) which surveys planning. Each of these is good for the limited subject it covers, but architecture in the broad sense outlined here crosses chronological and thematic boundaries. Hence this volume seeks to combine something of the breadth of these previous collections in one anthology. Like the *Concise History,* this sampling of source documents is offered in the hope of spurring the reader to further investigation. For data on the many architects mentioned here, *see* the *Macmillan Encyclopedia of Architects,* 4 vols. (New York, 1982), which appeared as this was going to press.

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I

THE LAND AND FIRST HOMES

1 J. Smith, Of the naturall Inhabitants of Virginia,* *1624*

Among the earliest observations by an Englishman of native building, those by Captain John Smith (c. 1580–1631) cover the period 1607 through 1609 when he served for a time as the president of the Jamestown colony he had been instrumental in establishing. His account, published later, reveals certain prevalent European prejudices which conditioned Smith's perception. Nonetheless, his observation about the natives placing their villages "not farre distant from some fresh spring" was no doubt prompted by the unfortunate siting of the first Jamestown settlement next to a pitch pine swamp so that the wells repeatedly filled with brackish water, plaguing the first residents with numerous "Fluxes and Agues."

OF THE NATURALL INHABITANTS OF VIRGINIA

The land is not populous, for the men be few; their far greater number is of women and children. Within 60 myles of *Iames* Towne, there are about some 5000 people, but of able men fit for their warres scarce 1500. To nourish so many together they haue yet no means, because they make so small a benefit of their land, be it ever so fertile. Six or seauen hundred haue beene the most hath beene seene together, when they gathered themselues to *haue surprised* mee at *Pamaunkee,* having but fifteene to withstand the worst of their fury. . . .

Their buildings and habitations are for the most part by the rivers, or not farre distant from some fresh spring. Their houses are built like our Arbors, of small young springs bowed and tyed, and so close covered with Matts, or the barkes of trees very handsomely, that notwithstanding either winde, raine, or weather, they are as warm as stooues, but very smoaky, yet at the toppe of the house there is a hole made for the smoake to goe into right over the fire. [Figure 1]

Against the fire they lie on little hurdles of Reeds covered with a Mat, borne from the ground a foote and more by a hurdle of wood. On these round about the house they lie heads and points one by th' other against the fire. some covered with Mats, some with skins, and some stark naked lie on the ground, from 6 to 20 in a house. Their houses are in the midst of their fields or gardens, which are small plots of ground. Some 20 acres. some 40. some 100. some 200. some more. some lesse. In some places from 2 to 50 of those houses together, or but alittle separated by groues of trees. Neare their habitations is little small wood or old trees om the ground by reason of their burning of them for fire. —So that a man may gallop a horse amongst these woods any way, but where the creekes or Rivers shall hinder. . . .

**The Generall Historie of Virginia, New-England, and the Summer Isles, with the Names of the Adventurers, Planters, and Governours, from their First Beginning, an. 1584 to this Present 1624,* by Captaine Iohn Smith, Sometymes Governour in those Countryes and Admirall of New-England (London, 1624), pp. 29–31, 32.

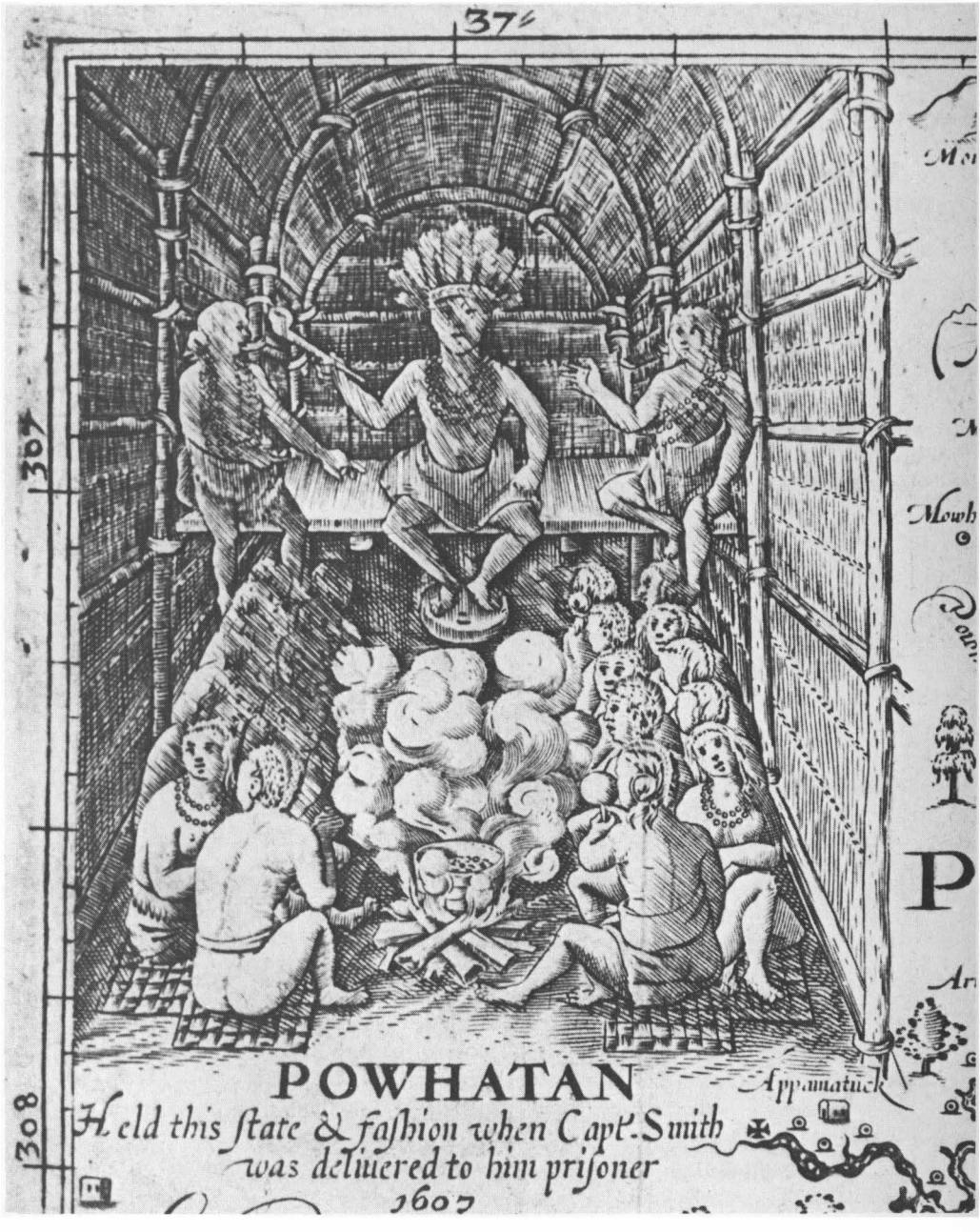

Figure 1. **Lodge of Powhatan, Secotan; detail from map of Virginia drawn by Captain John Smith, 1608, engraved by William Hole, published 1624. (Division of Geography and Maps, Library of Congress.) One of the earliest published views of an aboriginal dwelling.**

In their hunting and fishing they take extreame paines; yet it being their ordinary exercise from their infancy, they esteeme it a pleasure and are very proud to be expert therein. And by their continuall ranging, and travell, they know all the advantages and places most frequented with Deere, Beasts, Fish, Foule, Roots, and Berries. At their hunting they leaue their habitations, and reduce themselues into companies as the *Tartars* doe, and goe to the most desert places with their families, where they spend their time in hunting and fowling vp towards the mountaines, by the heads of their rivers, where there is plentie of game. For betwixt the rivers the grounds are so narrow, that little cometh here which they devoure not. It is a marvell they can so directly passe these deserts, some 3 or 4 days iourney without habitation. Their hunting houses are like vnto Arbours covered with Mats. These their women beare after them, with corne, Acornes, Morters, and all bag and baggage they vse. When they come to the place of exercise, every man doth his best to shew his desteritie, for by their excelling in those qualities, they get their wiues. Fortie yards will they shoot levell, or very neare the marke, and 120 is their best at Random. At their huntings in the deserts they are commonly two or three hundred together. . . . In one of these huntings they found me in the discovery of the head of the river of *Chickahamania*, where they slew my men, and tooke me prisoner in a Bogmire, where I saw those exercises, and gathered these Observations.

2 Articles of Agreement for Springfield, Massachusetts* *1636*

The first perceptions of the New World by English colonists to the north were similar to those of Captain John Smith; to them, too, it was at first "a hidious and desolate wilderness, ful of wild beasts and willd men."† The first homes were burrows dug into hillsides; "thus these poore servants of Christ provide shelter for themselves, their Wives and their little ones, keeping off the short showers from their Lodgings, but the long raines penetrate through, to their great disturbance in the night season." Soon, as Edward Johnson relates, the Lord was "pleased to turn all the wigwams, huts, and hovels the English dwelt in at their first coming, in to orderly, fair, and well-built houses, well furnished many of them."‡ But the demand exceeded the

* *New England Historical and Genealogical Register* 13 (1859), pp. 295–97.

† William Bradford, *Of Plymouth Plantation*, ed. Harvey Wish (New York, 1962), pp. 59–60.

‡ Edward Johnson, *A History of New England [Johnson's Wonder-Working Providence*, 1654], ed. J. Franklin Jameson (New York, 1910), pp. 113–14. A thorough analysis of "fair" framed houses is given in Abbott Lowell Cummings, *The Framed Houses of Massachusetts Bay, 1625–1725* (Cambridge, Mass., 1979).

working capacity of the few carpenters, driving up prices and requiring wage controls; for example: "Carpenters, joyners, bricklayers, sawers, and thatchers shall not take above 2s a day, nor any man shall giue more vnder paine of xs to taker and giver and that sawers shall not take aboue 4s 6d the hundred for boards, att 6 scoote to the hundred, if they have their wood felled and squared for them, and not aboue 5s 6d if they fell and square their wood themselues."§

The "New-England Plantation" in Massachusetts was originally clustered tightly in a small geographical area by necessity for protection and to encourage godly ways. Gradually, however, new settlements were founded to the west, colonized by the established seaboard communities. One was Springfield, founded in 1636 by emigrants from Roxbury led by William Pynchon. To clarify their mutual goals and establish priorities and responsibilities, the founders framed these articles, typical of those written for towns throughout New England.

May the 14th, 1636

We whose names are underwritten, being by God's providence engaged together to make a plantation at and over against Agawam upon Connecticut, do mutually agree to certain articles and orders to be observed and kept by us and by our successors, except we and every [one] of us for ourselves and in our own persons shall think meet upon better reasons to alter our present resolutions.

1ly. We intend by God's grace, as soon as we can, with all convenient speed, to procure some Godly and faithful minister with whom we purpose to join in church covenant to walk in all the ways of Christ.

2ly. We intend that our town shall be composed of forty families, or, if we think meet after [ward] to alter our purpose, yet not to exceed the number of fifty families, rich and poor.

3ly. That every inhabitant shall have a convenient proportion for a house lot, as we shall see meet for everyone's quality and estate.

4ly. That everyone that hath a house lot shall have a proportion of the cow pasture to the north of End Brook lying northward from the town; and also that everyone shall have a share of the Hassokey Marsh over against his lot, if it be to be had, and everyone to have his proportionable share of all the woodland.

5ly. That everyone shall have a share of the meadow or planting ground over against them, as nigh as may be on Agawam side.

6ly. That the long meadow called Masacksick, lying in the way to Dorchester, shall be distributed to every man as we shall think meet, except we shall find other conveniency for some for their milch cattle and other cattle also.

7ly. That the meadow and pasture called Nayas, toward Patuckett on the side of Agawam lying about four miles above in the river, shall be distributed [erasure of six lines] as above said in the former order—and this was altered with consent before the hands were set to it.

8ly. That all rates that shall arise upon the town shall be laid upon lands

§*Records of the Governor and Company of the Massachusetts Bay*, ed. N. B. Shurtleff (Boston, 1853–54), I:74.

according to everyone's proportion, acre for acre of house lots and acre for acre of meadow, both alike on this side and both alike on the other side, and for farms that shall lie further off a less proportion as we shall after agree; except we shall see meet to remit one half of the rate from land to other estate.

9ly. That whereas Mr. William Pynchon, Jeheu Burr, and Henry Smith have constantly continued to prosecute this plantation when others fell off for fear of the difficulties, and [have] continued to prosecute the same at great charges and at great personal adventure: therefore it is mutually agreed that forty acres of meadow lying on the south of End Brook under a hillside shall belong to the said parties free from all charges forever—that is to say, twenty acres to Mr. William Pynchon and his heirs and assigns for ever, and ten acres to Jeheu Burr, and ten acres to Henry Smith, and to their heirs and assigns for ever—which said 40 acres is not disposed to them as any allotments of town lands, but they are to have their accommodations in all other places notwithstanding.

10ly. That whereas a house was built at a common charge which cost 6£, and also the Indians demand a great sum to buy their right in the said lands, and also [considering] two great shallops which was requisite for the first planting: the value of these engagements is to be borne by inhabitants at their first entrance, as they shall be rated by us, till the said disbursements shall be satisfied. Or else in case the said house and boats be not so satisfied for, then so much meadow [is] to be set out about the said house as may countervail the said extraordinary charge.

11ly. It is agreed that no man except Mr. William Pynchon shall have above ten acres for his house lot.

12ly. [Cancelled] It is also agreed that if any man sell any timber out of his lot in any common ground [and] if he let it lie above three months before he work it out, it shall be lawful for any other man to take it that hath present use of it.

13ly. Whereas there are two cow pastures, the one lying toward Dorchester and the other northward from End Brook, it is agreed that both these pastures shall not be fed at once, but that the town shall be ordered by us in the disposing of [them] for times and seasons, till it be lotted out and fenced in severally.

May 16th, 1636

14. It is agreed that after this day we shall observe this rule about [the] dividing of planting ground and meadow: in all planting ground to regard chiefly persons who are most apt to use such ground; and in all meadow and pasture to regard chiefly cattle and estate, because estate is like to be improved in cattle, and such ground is aptest for their use. And yet we agree that no person that is master of a lot, though he have no cattle, shall have less than three acres of mowing ground; and none that have cows, steers, or yearolds shall have under two acres apiece; and [for] all horses not less than four acres. And this order in dividing meadow by cattle [is] is to take place [on] the last of March next; so that all cattle that then appear, and all estate that shall then truly appear at 20£ a cow, shall have this proportion in the meadows on Agawam side, and in the long meadow [called] Masacksick, and in

the other long meadow called Nayas, and in the pasture at the north end of the town called End Brook.

15. It is ordered that for the disposing of the Hassokey Marsh and the granting of home lots these five men undernamed (or their deputies) are appointed to have full power—namely, Mr. Pynchon, Mr. Mitchell, Jeheu Burr, William Blake, Henry Smith. It is ordered that William Blake shall have sixteen poles in breadth for his home lot, and all the marsh in breadth abutting at the end of it to the next high land, and three acres more in some other place.

Next [to] the lot of William Blake [to the] northward lies the lot of Thomas Woodford, being twelve poles broad, and all the marsh before it to the upland.

Next [to] the lot of Thomas Woodford lies the lot of Thomas Ufford, being fourteen rods broad, and all the marsh before it to the upland.

Next [to] the lot of Thomas Ufford lies the lot of Henry Smith, being twenty rods in breadth, and all the marsh before it; and [it is] to run up in the upland on the other side to make up his upland lot [of] ten acres.

Next [to] the lot of Henry Smith lies the lot of Jeheu Burr, being 20 rods in breadth, and all the marsh in breadth abutting at the end of it, and as much upland ground on the other side as shall make up his lot [of] ten acres.

Next [to] the lot of Jeheu Burr lies the lot of Mr. William Pynchon, being thirty rods in breadth, and all the marsh at the east end of it, and an addition at the further end of as much marsh as makes the whole twenty-four acres, and as much upland adjoining as makes the former house lot thirty acres—in all together fifty-four acres.

Next [to] the lot of Mr. Pynchon lies the lot of John Cable, fourteen rods in breadth, and four acres and a half in marsh at the fore end of his home lot.

The lots of Mr. Matthew Mitchell, Samuel Butterfield, Edmond Wood, [and] Jonas Wood are ordered to lie adjoining to Mill Brook—the whole being to the number of twenty-five acres—to begin, three of them, on the great river, and the fourth on the other side of the small river.

It is ordered that for all highways that shall be thought necessary by the five men above named, they shall have liberty and power to lay them out where they shall see meet, though it be at the ends of men's lots, giving them allowance for so much ground.

We testify to the order abovesaid, being all of us first adventurers and undertakers for the said plantation.

William Pynchon
Matthew Mitchell
Henry Smith
the mark L of Jeheu Burr
William Blake
Edmond Wood
the mark T of Thomas Ufford
John Cable

3 Virginia's Cure* *1661*

Virginia had begun with the establishment of Jamestown and the beginnings of a glass works, but the inducement of land grants and the gradual receding of the frontier caused settlers to move farther into the piedmont, away from the fortified towns and churches, inhibiting the growth of towns and repressing manufacturing. It was not only the availability of land but a unique geography that held back the growth of towns; as John Clayton wrote in 1688, "No Country in the World can be more curiously watered. But this Conveniency . . . I look on [as] the greatest Impediment to the Advance of the Country, as it is the greatest Obstacle to Trade and Commerce. For the great Number of Rivers, and the Thinness of the Inhabitants, distract and disperse a Trade. So that all Ships in general gather each their Loading up and down an hundred miles distant. . . . The Number of Rivers, is one of the chief reasons why they have no Towns."† Not only did the expanding estates become self-sufficient, but, wrote Anthony Langston in 1657, "every man builds in the midst of his own land."‡ The lack of strong commercial centers was strongly felt at the end of the century, when it was pointed out that

> for want of towns, markets, and money, there is but little encouragement for tradesmen and artificiers. . . . A tradesman having no opportunity of a market, where he can buy meat, milk, corn, and all other things, must either make corn, keep cows, and raise stocks himself; or must ride about the country to buy meat and corn where he can find it . . . which there would be no occasion for if there were towns and markets. . . .
>
> In New-England, they were obliged at their first settlement to settle in towns, and would not permit a single man to take up land, till a certain number of men agreed together, as many as might make a township; then they laid them out a town, with home lots for gardens and orchards, out lots for cornfields, and meadows and country lots for plantations . . . which would have proved an excellent way in such a country as Virginia is. But this opportunity being lost, they seated themselves, without any rule or order, in country plantations.§

In contrast to the focus on towns in the north, and the emphasis on the church, the dispersal in Virginia served to diminish communal spirit and an interest in education and religious life. To correct this, in 1661, a petition signed by "R. G." was

*R. G., *Virginia's Cure: or An Advisive Narrative Concerning Virginia,* September 2, 1661 (London, 1662), reprinted in P. Force, ed., *Tracts and Other Papers Relating Principally to the Origin, Settlement, and Progress of the Colonies in North America,* 4 vols. (Washington, D.C., 1836–46), 3:15.

†John Clayton, "A Letter . . . to the Royal Society," May 12, 1688, reprinted in Peter Force, ed., *Tracts and Other Papers . . . ,* 3:11.

‡"Anthony Langston on Towns and Corporation . . . ," *William and Mary Quarterly,* 2nd ser. 1 (1921), pp. 100–102.

§From *Large and True Account of the Present State of Virginia,* 1697, reprinted as "An Account of the Present State and Government of Virginia," *Massachusetts Historical Society, Collections,* 1st ser. 5 (1798), pp. 124–25, 128, 129–30.

addressed to Lord Guilbert, bishop of London (and published the next year), urging increased support for towns and more established parishes.

VIRGINIA'S CURE: OR AN ADVISIVE NARRATIVE CONCERNING VIRGINIA

That part of Virginia which has at present craved Your Lordship's assistance to preserve the Christian religion and to promote the building God's church among them, by supplying them with sufficient ministers of the gospel . . . is divided into several counties. And those counties contain in all about fifty parishes, the families whereof are dispersedly and scatteringly seated upon the sides of rivers, some of which, running very far into the country, bear the English plantations above a hundred miles, and being very broad, cause the inhabitants of either side to be listed in several parishes. . . .

The families of such parishes being seated after this manner, at such distances from each other, many of them are very remote from the house of God, though placed in the midst of them. Many parishes as yet want both churches and glebes; and I think not above a fifth part of them are supplied with ministers. Where there are ministers the people meet together weekly, but once upon the Lord's Day, and sometimes not at all, being hindered by extremities of wind and weather. And diverse of the more remote families being discouraged by the length or tediousness of the way, through extremities of heat in summer, frost and snow in winter, and tempestuous weather in both, do very seldom repair thither.

By which brief description of their manner of seating themselves in that wilderness, Your Lordship may easily apprehend that their very manner of planting themselves has caused hitherto to rob God in a great measure of that public worship and service, which, as a homage due to His great name, He requires to be constantly paid to Him at the times appointed for it in the public congregations of His people in His house of prayer.

This sacrilege I judge to be the prime cause of their long-languishing, improsperous condition. . . . But, though this be the saddest consequence of their dispersed manner of planting themselves (for what misery can be greater than to live under the curse of God?), yet this has a very sad train of attendants which are likewise consequences of their scattered planting. . . .

Their almost general want of schools, for the education of their children, is another consequence of their scattered planting, of most sad consideration, most of all bewailed of parents there, and therefore the arguments drawn from thence most likely to prevail with them cheerfully to embrace the remedy. This want of schools, as it renders a very numerous generation of Christians' children born in Virginia (who naturally are of beautiful and comely persons, and generally of more ingenious spirits then these in England) unserviceable for any great employments either in church or state, so likewise it obstructs the hopefulest way they have for the conversion of the heathen, which is, by winning the heathen to bring in their children to be taught and instructed in our schools, together with the children of the Christians. . . .

The cause of their dispersed seating was at first a privilege indulged by

the royal grant of having a right to fifty acres of land for every person they should transport at their own charges; by which means some men transporting many servants thither, and others purchasing the rights of those that did, took possession of great tracts of land at their pleasure; by degrees scattered their plantations through the country after the manner before described, although, therefore, from the premises, it is easy to conclude that the only way of remedy for Virginia's disease (without which all other help will only palliate, not cure) must be by procuring towns to be built and inhabited in their several counties. Yet, lest any man be hereby injured in his just right, even this remedy ought to be procured after such a manner as the present manner of planting themselves, their poverty, and mean condition will permit. According to which, whether the building towns in each county of Virginia will be best promoted by reviving a former act of that county for markets in stated places of each county . . . or whether they may best be promoted by some other way (it being out of my sphere), I dare not presume to determine. . . .

What way soever they determine to be best, I shall humbly, in obedience to Your Lordship's command, endeavor to contribute toward the compassing this remedy by propounding:

1. That Your Lordship would be pleased to acquaint the King with the necessity of promoting the building towns in each county of Virginia, upon the consideration of the forementioned sad consequences of their present manner of living there.

2. That Your Lordship, upon the foregoing consideration, be pleased to move the pitiful and charitable heart of His Gracious Majesty (considering the poverty and needs of Virginia) for a collection to be made in all the churches of his three kingdoms. . . .

3. That the way of dispensing such collections for sending workmen over for the building towns and schools, and the assistance the persons that shall inhabit them shall contribute toward them, may be determined here by the advice of Virginia's present or late honorable governors, if in London; and whom they shall make choice of for their assistants (who have formerly lived in Virginia). And that the King (if he shall approve what is so determined) may be humbly petitioned to authorize it by his special command, lest what is duly ordered here be perverted there.

4. That those planters who have such a considerable number of servants, as may be judged may enable them for it, if they be not willing (for I have heard some express their willingness, and some their averseness) may, by His Majesty's authority, be enjoined to contribute the assistance that shall be thought meet for them, to build themselves houses in the towns nearest to them and to inhabit them; for, they having horses enough in that country, may be convenienced, as their occasions require, to visit their plantations. And the masters who shall inhabit the towns, having families of servants upon remote plantations, may be ordered to take care that upon Saturday afternoons (when, by the custom of Virginia, servants are freed from their ordinary labor), their servants (except one or two, left by turns to secure their plantations) may repair to their houses in the towns, and there remain with their masters until the public worship and service of the Lord's Day be ended.

5. That for a continual supply of able ministers for their churches, after a set term of years, Your Lordship would please to endeavor the procuring an act of Parliament whereby a certain number of fellowships, as they happen to be next proportionably vacant in both the universities, may bear the name of Virginia fellowships, so long as the needs of that church shall require it. And none be admitted to them but such as shall engage by promise to hold them seven years and no longer; and, at the expiration of those seven years, transport themselves to Virginia and serve that church in the office of the ministry seven years more (the church there providing for them), which being expired, they shall be left to their own liberty to return or not. And if they perform not the conditions of their admittance, then to be incapable of any preferment.

These things being procured, I think Virginia will be in the most probable way (that her present condition can admit) of being cured of the forementioned evils of her scattered planting. . . .

Men may wonder why the attempts made by the . . . honorable governors to reduce Virginia's planters into towns did never succeed, and perhaps it may be hard for any that never lived among them rightly to conjecture. But the truth in plain Enrlish is this:

Whatsoever is of public concernment in Virginia is determined by their Grand Assemblies, which are usually held once a year, and consist of governor and Council, which make the Upper House, and the burgesses, which represent the people, and make the Lower House, and are chosen out of every county by the people after the manner that burgesses are chosen for parliaments in England, and are more or fewer according as the people agree, who are to defray their charges.

Whatsoever passes into an act of Assembly must be agreed upon by the major part of burgesses, and these are usually such as went over servants thither; and though, by time and industry, they may have attained competent estates, yet, by reason of their poor and mean education, they are unskillful in judging of a good estate, either of church or commonwealth, or of the means of procuring it. No marvel, therefore, if the best proposals which have been made to such persons for reducing them into towns, offending in the least against their present private, worldly interest (though never so promising for the future), have been from time to time bandied against by such major parts of their burgesses, and the fewer wise heads overvoted by them. . . .

To contemplate the poor church (whose plants now grow wild in that wilderness) become like a garden enclosed, like a vineyard fenced, and watched like a flock of sheep with their lambs safely folded by night and fed by day; all which are the promised fruits of well-ordered towns, under religious pastors and magistrates, with what joy and delight may you likewise think upon their comely and most ingenious children, like hopeful plants growing up in nurseries of learning and piety; and, when their time of fruit is come, transplanted into the enclosed gardens of God, and becoming fruitful and useful trees of righteousness; which is the promised happiness and benefit of well-ordered schools, in well-governed towns. . . .

For encouragement, therefore, of ministers to adventure thither to help them, I humbly propound:

First, that Your Lordship be pleased to procure that the next Grand Assembly in Virginia may enact that what tobacco any parish agrees to pay their minister shall be paid of the best tobacco of every man's own crop, and with cask, otherwise experience has shown that a minister's livelihood there will be very uncertain.

Second, that, at the same Assembly, it be enacted that every parish choose a vestry (in case they have not one already chosen), and the vestry of each parish be enjoined to subscribe what quantity of corn and tobacco of the best of their own crops, with cask, they will allow a sufficient minister yearly.

Third, that, in the next and every Assembly, the act for paying 15 lb. of tobacco per annum for every tithable person in every parish destitute of a minister (which act was made at an Assembly, March 17, 1656) be carefully executed and strict inquiry made whether the tobacco due by that act be duly collected and employed to the ends expressed in that act; viz., building churches, purchasing glebes and stocks of cattle to belong to them. . . .

Fourth, that the act made in the same Assembly concerning disposing intestate estates to public uses, in case no administrator of kin to the deceased proprietor appears, may serve in the first place the needs of the church for furnishing each parish with glebes, and the glebes with stocks of cattle before any part of such estates be employed to any other use.

Fifth, that there being diverse persons already in the colony fit to serve the church in the office of deacon, a bishop be sent over so soon as there shall be a city for his see. As for other needs of that church, so also, that, after due probation and examination, such persons may be ordained deacons, and their duty and service be appointed by the bishop.

Sixth, that the ministers that go thither be not hired by the year, as is now usual, but firmly instituted and induced into livings of stated value. . . .

Seventh, that all ministers desirous to go to Virginia, and not able to transport themselves, be acquainted with an act of Assembly of that country, whereby it is provided that whatsoever sufficient minister shall not be able to pay for his transportation, any merchant that shall defray the charge of it (if such minister agree not with him upon other conditions) shall receive £20 sterling for his passage from the parish that entertains him, or 2,000 lb. of tobacco, who shall also repay any sums of money disbursed for his accommodation, and the minister to be free to choose his parish. . . .

This is all I can think meet to propound at present, only for a conclusion I shall add, for the encouragement both of bishop and ministers that shall adventure thither out of pity and compassion to the souls of so many of their poor brethren, that, as their reward will be great in Heaven, so also they shall (in a very pleasant and fruitful land) meet with a people which generally bear a great love and respect to their ministers. And (if they behave themselves as becomes their high calling) they shall find there ready help and assistance in their needs; and (which should be much more encouraging) they will find a people which generally bear a great love to the stated constitutions of the Church of England, in her government and public worship; which gave us (who went thither under the late persecutions of it) the advantage of liberty to use it constantly among them, after the naval force had reduced that colony under the power (but never to the obedience) of the

usurpers; which liberty we could not have enjoyed had not the people generally expressed a great love to it.

And I hope even this will be a consideration (not of least regard) to move Your Lordship to use all possible care and endeavor to supply Virginia's needs with sufficient orthodox ministers, in the first place, and before any other of our foreign plantations which crave your help, because, in the late times of our Church's persecution, her people alone cheerfully and joyfully embraced, encouraged, and maintained the orthodox ministers that went over to them, in their public conformity to the Church of England, in her doctrine and stated manner of public worship.

II

TRANSPLANTATIONS IN THE NEW WORLD

4 J. Gibbs, A Book of Architecture* *1728*

The regional variations of seventeenth-century building along the Atlantic seaboard—the transplanted vernaculars of England, Holland, Flanders, Germany, and perhaps a vague memory of Sweden—gave way to a more canonical and uniform Georgian baroque. Toward the end of the seventeenth century, display of wealth in building was considered an emblem of divine favor, and in the following century this liberated desire for display was manifested in Palladian classicism closely emulating high-style English models. It began in newly established Williamsburg, the colonial Virginian capital built to take the place of Jamestown. The present Williamsburg is a painstaking reconstruction of the colonial town whose original buildings, except for the College of William and Mary, had been repeatedly altered during the ensuing centuries. Some buildings, such as the Governor's Palace, had burned and been reduced to basement ruins. But contemporary glimpses of the town's original grandeur survive in the Bodleian Library plate, engraved about 1737 (Figure 2), and in such descriptions as Robert Beverley's of several gentlemen who have "built themselves large Brick Houses of many Rooms on a floor, and several stories high, as also some Stone-Houses. . . . They always contrive to have large Rooms, that they may be cool in summer. Of late they have made their Stories much higher than formerly, and within they adorn their Apartments with rich Furniture." †

By mid-eighteenth century, a few individuals began to advertise themselves as knowledgeable of latest architectural trends. John Ariss, for example, born in Virginia but trained in England, returned and placed this notice in the *Maryland Gazette*, May 22, 1751, which demonstrates the period's lack of concern for consistent spelling, even of one's own name:

> John Oriss,—"By the Subscriber (lately from Great Britain) Buildings of all Sorts and Dimensions are undertaken and performed in the neatest Manner, (and at cheaper rates) either of the Ancient or Modern Order of Gibbs' Architect and if any Gentleman should want plans, Bills of Scantling or bill of Charges, for any Fabric, or Public Edeface, may have them by applying to the Subscriber at Major John Bushrods at Westmoreland County, Va., where may be seen a great variety and sundry Draughts of Buildings in Miniature, and some buildings near finished after the Modern Taste." John Orliss ‡

Ariss clearly understood that his familiarity with Gibbs's work bestowed on him greater status as an "architect," but other wealthy gentlemen-amateur designers had the means to acquire for themselves such handsomely produced folios as Gibbs's *Book of Architecture*, the prefatory remarks in which indicate how the architect hoped the plates would serve builders in outlying regions. Ariss apparently owned a

* James Gibbs, *A Book of Architecture, containing Designs of Buildings and Ornaments* (London, 1728).

† Robert Beverley, *The History and Present State of Virginia* (London, 1705, 1722), ed. Louis B. Wright (Chapel Hill, N.C., 1947), pp. 289–90.

‡ Thomas T. Waterman, *The Mansions of Virginia, 1706–1776* (Chapel Hill, N.C., 1946), p. 244.

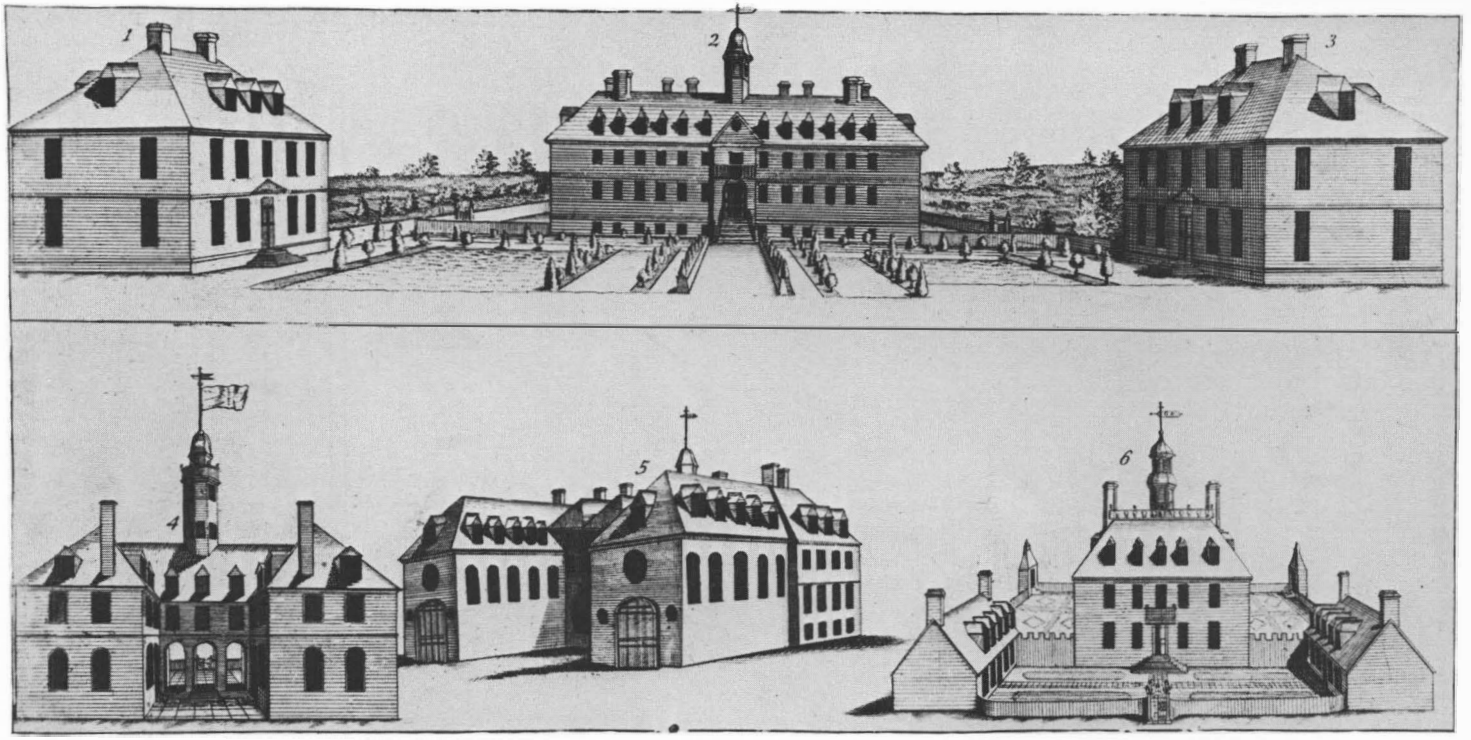

Figure 2. Principal buildings of Williamsburg, Virginia, depicted in the "Bodleian Plate," engraved c. 1737 for a projected publication. (Courtesy, Colonial Williamsburg Foundation.) The buildings, as numbered in the engraving, are: (1) the Brafferton house, 1723; (2) the main building of the College of William and Mary, 1695–1702; (3) President's House, 1732; (4) The Capitol, 1701–05; (5) rear of the College of William and Mary; (6) the Governor's Palace, 1706–20, destroyed but restored on the basis of this view.

A

BOOK

OF

ARCHITECTURE,

CONTAINING

DESIGNS

OF

BUILDINGS

AND

ORNAMENTS.

By JAMES GIBBS.

LONDON:

Printed MDCCXXVIII.

copy of this, as well as William Adam's *Vitruvius Scoticus* (Edinburgh, 1750). Another folio used in the colonies was William Kent's *Designs of Inigo Jones*, published by Lord Burlington, 1727; but even more popular were the many carpenter's handbooks such as the following: William Halfpenny, *The Modern Builder's Assistant* (London, 1742); Batty Langley, *The City and Country Builder's and Workman's Treasury of Designs* (London, 1740); Robert Morris, *Rural Architecture* (London, 1750); Robert Morris, *Select Architecture* . . . (London, 1755), much used by Thomas Jefferson; William Salmon, *Palladio Londinensis* (London, 1748); and Abraham Swan, *British Architect* (London, 1745), reprinted in Philadelphia, 1775.

TO HIS GRACE JOHN Duke of *Argyll* and *Greenwich*, &c.
One of his Majesty's moft Honourable Privy Council, Colonel of the Queen's own Royal Regiment of Horfe, General of the Foot, Mafter General of the Ordnance, and Knight of the Moft Noble Order of the Garter.

My LORD,
The early Encouragement I received from Your Grace, in my Profeffion, upon my Return from *Italy*, and the Honour of Your Protection ever fince, give Your Name a juft Title to all my Productions in this kind.

AS feveral of the Defigns here exhibited have had Your Grace's Approbation; fo Your Patronage will be a fufficient Recommendation to the whole Work.

IT is a particular Pleafure to me that this Publication gives me an Opportunity to declare the real Sentiments of Gratitude and Refpect with which I am,

My LORD,
Your GRACE's
Moft Dutiful and moft
Obliged humble Servant,
JAMES GIBBS.

Introduction

What is here prefented to the Publick was undertaken at the inftance of feveral Perfons of Quality and others; and fome Plates were added to what was at firft intended, by the particular direction of Perfons of great Diftinction, for whofe Commands I have the higheft regard. They were of opinion, that fuch a Work as this would be of ufe to fuch Gentlemen as might be concerned in building, efpecially in the remote parts of the Country, where little or no affiftance for Defigns can be procured. Such may be here furnifhed with Draughts of ufeful and convenient Buildings and proper Ornaments; which may be executed by any Workman who underftands Lines, either as here Defign'd, or with fome Alteration, which may be eafily made by a perfon of Judgment; without which a Variation in Draughts, once well digefted, frequently proves a Detriment to the Building, as well as a Difparagement to the perfon that gives them. I mention this to caution Gentlemen from fuffering any material Change to be made in their Defigns, by the Forwardnefs of unskilful Workmen, or the Caprice of ignorant affuming Pretenders.

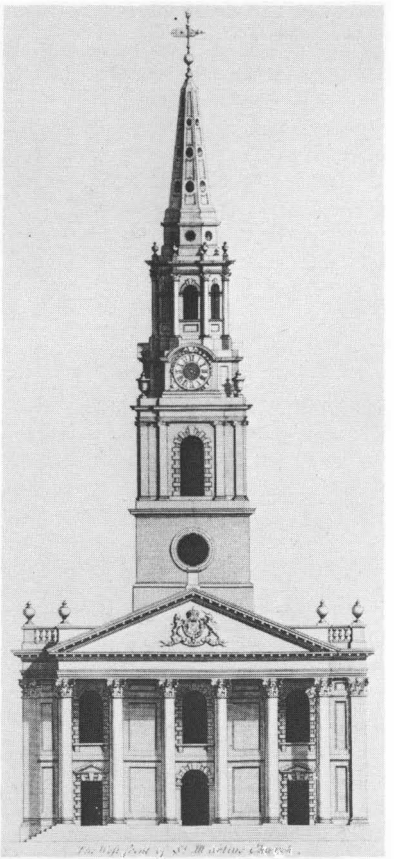

Figure 3. James Gibbs, elevation, St. Martin-in-the-Fields, London, Plate 3 from ***A Book of Architecture***, London, 1728 (Avery Library, Columbia University).

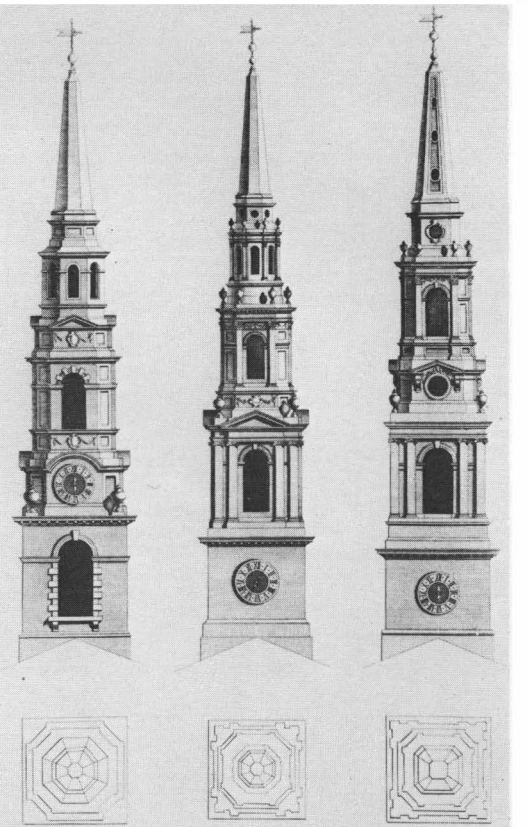

Figure 4. James Gibbs, alternate steeple designs for St. Martin-in-the-Fields, Plate 30 from ***A Book of Architecture*** (Avery Library, Columbia University). The center design served as the basis for the steeple of the First Baptist Meetinghouse, Providence, R.I., 1774–75.

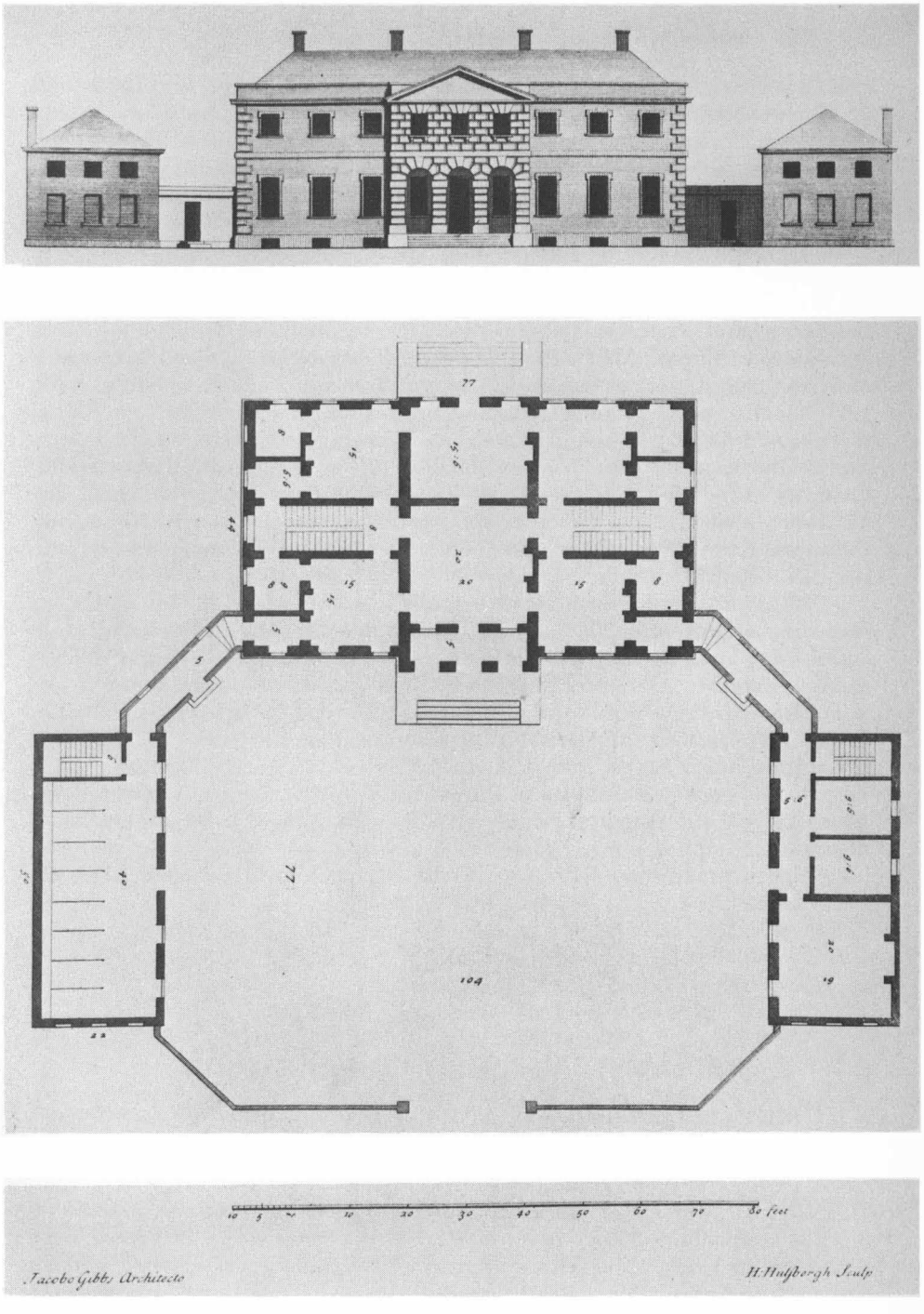

Figure 5. **James Gibbs, "A Design made for a Gentlemen in Dorsetshire," Plate 58 from *A Book of Architecture* (Avery Library, Columbia University). This plate served as the basis of the Colonel John Taloe house, "Mount Airy," Richmond County, Virginia.**

Some, for want of better Helps, have unfortunately put into the hands of common workmen, the management of Buildings of confiderable expence; which when finifhed, they have had the mortification to find condemned by perfons of Taft, to that degree that fometimes they have been pull'd down, at leaft alter'd at a greater charge than would have procur'd better advice from an able Artift; or if they have ftood, they have remained lafting Monuments of the Ignorance or Parfimonioufnefs of the Owners, or (it may be) of a wrong-judged Profufenefs.

What heaps of Stone, and even Marble, are daily feen in Monuments, Chimneys, and other Ornamental pieces of Architecture, without the leaft Symmetry or Order? When the fame or fewer Materials, under the conduct of a skilful Surveyor, would, in lefs room and with much lefs charge, have been equally (if not more) ufeful, and by Juftnefs of Proportion have had a more grand Appearance, and confequently have better anfwered the Intention of the Expence. For it is not the Bulk of a Fabrick, the Richnefs and Quantity of the Materials, the Multiplicity of Lines, nor the Gaudinefs of the Finifhing, that give the Grace or Beauty and Grandeur to a Building; but the Proportion of the Parts to one another and to the Whole, whether entirely plain, or enriched with a few Ornaments properly difpofed.

In order to prevent the Abufes and Abfurdities above hinted at, I have taken the utmoft care that thefe Defigns fhould be done in the beft Taft I could form upon the inftructions of the greateft Mafters in *Italy*, as well as my own Obfervations upon the antient Buildings there, during many Years application to thefe Studies: For a curfory View of thofe Auguft Remains can no more qualify the Spectator, or Admirer, than the Air of the Country can infpire him with the knowledge of Architecture.

If this Book prove ufeful in fome degree anfwerable to the Zeal of my Friends in encouraging and promoting the Publication of it, I fhall not think my Time mif-fpent, nor my Pains ill beftow'd.

I fhall now proceed to give a fhort Explanation of the Plates as they ftand in the Book.

5 T. Jefferson, Notes on the State of Virginia* *1782–84*

The *Notes on Virginia*, Jefferson's only full-length book, was written in response to inquiries made by the Marquis de Barbé-Marbois, then secretary of the French legation in Philadelphia. While recovering from a fall from a horse, Jefferson worked over material he had been gathering for some time; this was revised in the years 1782–83, and the first edition printed at Jefferson's expense in Paris, 1784, shortly

**The Writings of Thomas Jefferson*, ed. Albert E. Bergh and Andrew A. Lipscomb, 20 vols. (Washington, D.C., 1903–05), 2:208, 211–15, 228–30.

after his arrival there to serve as ambassador to the Court of France. Numerous editions in England, Germany, and the United States followed, exerting a particular influence—hence, the significance of Jefferson's views on architecture and on the questionable need for cities.

QUERY XV. THE COLLEGES AND PUBLIC ESTABLISHMENTS, THE ROADS, BUILDINGS, &C.

The college of William and Mary is the only public seminary of learning in this State. It was founded in the time of king William and queen Mary, who granted to it twenty thousand acres of land, and a penny a pound duty on certain tobaccoes exported from Virginia and Maryland, which had been levied by the statute of 25 Car. II. The assembly also gave it, by temporary laws, a duty on liquors imported, and skins and furs exported. From these resources it received upwards of three thousand pounds *communibus annis*. The buildings are of brick, sufficient for an indifferent accommodation of perhaps an hundred students. By its charter it was to be under the government of twenty visitors, who were to be its legislators, and to have a president and six professors, who were incorporated. . . .

The private buildings are very rarely constructed of stone or brick, much the greatest portion being of scantling and boards, plastered with lime. It is impossible to devise things more ugly, uncomfortable, and happily more perishable. There are two or three plans, on one of which, according to its size, most of the houses in the State are built. The poorest people built huts of logs, laid horizontally in pens, stopping the interstices with mud. These are warmer in winter, and cooler in summer, than the more expensive construction of scantling and plank. . . . The only public buildings worthy of mention are the capitol, the palace, the college, and the hospital for lunatics, all of them in Williamsburg, heretofore the seat of our government. The capitol is a light and airy structure, with a portico in front of two orders, the lower of which, being Doric, is tolerably just in its proportions and ornaments, save only that the intercolonations are too large. The upper is Ionic, much too small for that on which it is mounted, its ornaments not proper to the order, nor proportioned within themselves. It is crowned with a pediment, which is too high for its span. Yet, on the whole, it is the most pleasing piece of architecture we have. The palace is not handsome without, but it is spacious and commodious within, is prettily situated, and with the grounds annexed to it, is capable of being made an elegant seat. The college and hospital are rude, mis-shapen piles, which, but that they have roofs, would be taken for brick-kilns. There are no other public buildings but churches and courthouses, in which no attempts are made at elegance. Indeed, it would not be easy to execute such an attempt, as a workman could scarcely be found capable of drawing an order. The genius of architecture seems to have shed its maledictions over this land. Buildings are often erected, by individuals, of considerable expense. To give these symmetry and taste, would not increase their cost. It would only change the arrangement of the materials, the form and combination of the members. This would often cost less than the burthen of barbarous ornaments with which these buildings are

sometimes charged. But the first principles of the art are unknown, and there exists scarcely a model among us sufficiently chaste to give an idea of them. Architecture being one of the fine arts, and as such within the department of a professor of the college, according to the new arrangement, perhaps a spark may fall on some young subjects of natural taste, kindle up their genius, and produce a reformation in this elegant and useful art. But all we shall do in this way will produce no permanent improvement to our country, while the unhappy prejudice prevails that houses of brick or stone are less wholesome than those of wood. . . .

A country whose buildings are of wood, can never increase in its improvements to any considerable degree. Their duration is highly estimated at fifty years. Every half century then our country becomes a *tabula rasa*, whereon we have to set out anew, as in the first moment of seating it. Whereas when buildings are of durable materials, every new edifice is an actual and permanent acquisition to the State, adding to its value as well as to its ornament.

QUERY XIX. THE PRESENT STATE OF MANUFACTURES, COMMERCE, INTERIOR AND EXTERIOR TRADE?

We never had an interior trade of any importance. Our exterior commerce has suffered very much from the beginning of the present contest. During this time we have manufactured within our families the most necessary articles of clothing. Those of cotton will bear some comparison with the same kinds of manufacture in Europe; but those of wool, flax and hemp are very coarse, unsightly, and unpleasant; and such is our attachment to agriculture, and such our preference for foreign manufactures, that be it wise or unwise, our people will certainly return as soon as they can, to the raising raw materials, and exchanging them for finer manufactures than they are able to execute themselves.

The political economists of Europe have established it as a principle, that every State should endeavor to manufacture for itself; and this principle, like many others, we transfer to America, without calculating the difference of circumstance which should often produce a difference of result. In Europe the lands are either cultivated, or locked up against the cultivator. Manufacture must therefore be resorted to of necessity not of choice, to support the surplus of their people. But we have an immensity of land courting the industry of the husbandman. Is it best then that all our citizens should be employed in its improvement, or that one half should be called off from that to exercise manufactures and handicraft arts for the other? Those who labor in the earth are the chosen people of God, if ever He had a chosen people, whose breasts He has made His peculiar deposit for substantial and genuine virtue. It is the focus in which he keeps alive that sacred fire, which otherwise might escape from the face of the earth. Corruption of morals in the mass of cultivators is a phenomenon of which no age nor nation has furnished an example. It is the mark set on those, who, not looking up to heaven, to their own soil and industry, as does the husbandman, for their

subsistence, depend for it on casualties and caprice of customers. Dependence begets subservience and venality, suffocates the germ of virtue, and prepares fit tools for the designs of ambition. This, the natural progress and consequence of the arts, has sometimes perhaps been retarded by accidental circumstances; but, generally speaking, the proportion which the aggregate of the other classes of citizens bears in any State to that of its husbandmen, is the proportion of its unsound to its healthy parts, and is a good enough barometer whereby to measure its degree of corruption. While we have land to labor then, let us never wish to see our citizens occupied at a workbench, or twirling a distaff. Carpenters, masons, smiths, are wanting in husbandry; but, for the general operations of manufacture, let our workshops remain in Europe. It is better to carry provisions and materials to workmen there, than bring them to the provisions and materials, and with them their manners and principles. The loss by the transportation of commodities across the Atlantic will be made up in happiness and permanence of government. The mobs of great cities add just so much to the support of pure government, as sores do to the strength of the human body. It is the manners and spirit of a people which preserve a republic in vigor. A degeneracy in these is a canker which soon eats to the heart of its laws and constitution.

III

BUILDING A NEW NATION

6 T. Jefferson and the Virginia State Capitol* *1785*

Jefferson was well known among his political colleagues in Virginia as an enthusiastic student of architecture. When it was decided by the legislature to vacate the colonial buildings at Williamsburg in favor of a new location, closer to the hinterlands, up river at Richmond, Jefferson, then in Paris, was asked to develop a design. These two letters explain the basis of his design and why he believed it important to adhere to classical models. The fervent urgency of Jefferson's letter to Madison was caused by the start of construction of a locally procured design when it was felt Jefferson's took too long to arrive.

LETTER TO JAMES MADISON, FROM PARIS, SEPTEMBER 20, 1785

Dear Sir,

. . . I received this summer a letter from Messrs. Buchanan and Hay, as Directors of the public buildings, desiring I would have drawn for them, plans of sundry buildings, and, in the first place, of a capitol. They fixed, for their receiving this plan, a day which was within about six weeks of that on which their letter came to my hand. I engaged an architect of capital abilities in this business. Much time was requisite, after the external form was agreed on, to make the internal distribution convenient for the three branches of government. This time was much lengthened by my avocations to other objects, which I had no right to neglect. The plan, however, was settled. The gentlemen had sent me one which they had thought of. The one agreed on here, is more convenient, more beautiful, gives more room, and will not cost more than two-thirds of what that would. We took for our model what is called the *Maison Quarrée* of Nismes, one of the most beautiful, if not the most beautiful and precious morsel of architecture left us by antiquity. It was built by Caius and Lucius Caesar, and repaired by Louis XIV, and has the suffrage of all the judges of architecture who have seen it, as yielding to no one of the beautiful monuments of Greece, Rome, Palmyra, and Balbec, which late travellers have communicated to us. It is very simple, but it is noble beyond expression, and would have done honor to our country, as presenting to travellers a specimen of taste in our infancy, promising much for our maturer age. I have been much mortified with information, which I received two days ago from Virginia, that the first brick of the capitol would be laid within a few days. But surely, the delay of this piece of summer would have been repaired by the savings in the plan preparing here, were we to value its other superiorities as nothing. But how is a taste in this beautiful art to be formed in our countrymen unless we avail ourselves of every occasion when public buildings are to be erected, of presenting to them models for their study and imitation? Pray try if you can effect the

**Writings of . . . Jefferson,* ed. Bergh and Lipscomb, 5:134–37.

stopping of this work. I have written also to E.R. [Edmund Randolph] on the subject. The loss will be only of the laying the bricks already laid, or a part of them. The bricks themselves will do again for the interior walls, and one side wall and one wall may remain, as they will answer equally well for our plan. This loss is not to be weighed against the saving money which will arise, against the comfort of laying out the public money for something honorable, the satisfaction of seeing an object and proof of national good taste, and the regret and mortification of erecting a monument of our barbarism, which will be loaded with execrations as long as it shall endure. The plans are in good forwardness, and I hope will be ready within three or four weeks. They could not be stopped now, but on paying their whole price, which will be considerable. If the undertakers are afraid to undo what they have done, encourage them to it by a recommendation from the Assembly. You see I am an enthusiast on the subject of the arts. But it is an enthusiasm of which I am not ashamed, as its object is to improve the taste of my countrymen, to increase their reputation, to reconcile to them the respect of the world, and procure them its praise.

LETTER TO THE DIRECTORS, FROM PARIS, JANUARY 26, 1786†

Gentlemen,

I had the honour of writing to you on the receipt of your orders to procure draughts for the public buildings, and again on the 13th of August. In the execution of those orders two methods of proceeding presented themselves to my mind. The one was to leave to some architect to draw an external according to his fancy, in which way experience shows that about once in a thousand times a pleasing form is hit upon; the other was to take some model already devised and approved by the general suffrage of the world. I had no hesitation in deciding that the latter was best, nor after the decision was there any doubt what model to take. There is at Nismes in the South of France a building, called the *Maison Quarrée,* erected in the time of the Caesars, and which is allowed without contradiction to be the most perfect and precious remain of antiquity in existence. Its superiority over anything at Rome, in Greece, at Balbec or Palmyra is allowed on all hands; and this single object has placed Nismes in the general tour of travellers. Having not yet had leisure to visit it, I could only judge of it from drawings, and from the relation of numbers who had been to see it. I determined therefore to adopt this model, & to have all its proportions justly drewed. As it was impossible for a foreign artist to know what number & sizes of apartments could suit the different corps of our government, nor how they should be

†Quoted from Kimball, Fiske, "Thomas Jefferson and the First Monument of the Classical Revival in America," reprinted from the *Journal of the American Institute of Architects* 3 (September 1915), pp. 379–80. Charles-Louis Clérisseau (1721–1820), trained as a painter, and winner of the Prix de Rome, 1746, studied in Rome and was among the first advocates of neoclassicism in France. The plates of the Maison Carrée, Nîmes, in his *Antiquites des la France,* Rome, 1778, were much admired by Jefferson and served as the basis of their collaborative design for the Virginia State Capitol.

connected with one another, I undertook to form that arrangement, & this being done, I committed them to an Architect (Monsieur Clerisseau) who has studied this art 20 years in Rome, who had particularly studied and measured the *Maison Quarrée* of Nismes, and had published a book containing 4 most excellent plans, descriptions, & observations on it. He was too well acquainted with the merit of that building to find himself restrained by my injunctions not to depart from his model. In one instance only he persuaded me to admit of this. That was to make the Portico two columns deep only, instead of three as the original is. His reason was that this latter depth would too much darken the apartments. Economy might be added as a second reason. I consented to it to satisfy him, and the plans are so drawn. I knew that it would still be easy to execute the building with a depth of three columns, and it is what I would certainly recommend. We know that the *Maison Quarrée* has pleased universally for near 2000 years. By leaving out a column, the proportions will be changed and perhaps the effect may be injured more than is expected. What is good is often spoiled by trying to make it better.

The present is the first opportunity which has occurred of sending the plans. You will accordingly receive herewith the ground plan, the elevation of the front, and the elevation of the side. The architect having been much busied, and knowing that this was all which would be necessary in the beginning, has not yet finished the Sections of the building. They must go by some future occasion as well as the models of the front and side which are making in plaster of Paris. These were absolutely necessary for the guide of workmen not very expert in their art. It will add considerably to the expence, and I would not have incurred it but that I was sensible of its necessity. The price of the model will be 15 guineas. I shall know in a few days the cost of the drawings which probably will be the triple of the model: however this is but my conjecture. I will make it as small as possible, pay it, and render you an account in my next letter. You will find on examination that the body of this building covers an area but two-fifths of that which is proposed and begun; of course it will take but about one half the bricks; and of course this circumstance will enlist all the workmen, and people of the art against the plan. Again the building begun is to have 4 porticos; this but one. It is true that this will be deeper than those were probably proposed, but even if it be made three columns deep, it will not take half the number of columns. The beauty of this is ensured by experience and by the suffrage of the whole world; the beauty of that is problematical, as is every drawing, however well it looks on paper, till it be actually executed: and tho I suppose there is more room in the plan begun, than in that now sent, yet there is enough in this for all the three branches of government and more than enough is not wanted. This contains 16. rooms. to wit 4. on the first floor; for the General court, Delegates, Lobby, & Conference. eight on the 2nd floor for the Executive, the Senate, & 6 rooms for committees and juries: and over 4. of these smaller rooms of the 2nd floor are 4. Mezzaninos or Entresoles, serving as offices for the clerks of the Executive, the Senate, the Delegates & the court in actual session. It will be an objection that the work is begun on the other plan. But the whole of this need not be taken to pieces, and of what shall be taken to pieces the bricks will do for inner work, mortar never becomes so hard &

adhesive to the bricks in a few months but that it may easily be chipped off, and upon the whole the plan now sent will save a great proportion of the expence. In my letter of Aug. 13, I mentioned that I could send workmen from hence as I am in hopes of receiving your orders precisely in answer to that letter I shall defer actually engaging any till I receive them. In like manner I shall defer having plans drawn for a Governor's house until further orders, only assuring you that the receiving and executing these orders will always give me a very great pleasure, and the more should I find that what I have done meets your approbation. I have the honour to be, etc.etc.

7 T. Jefferson, Letter to Trustees of East Tennessee College* *1810*

To Jefferson the philosophical content of public education and the buildings in which that instruction was given were intimately interconnected. He was thinking of such a union of curriculum and architecture when he wrote to the Trustees of a proposed college in Tennessee.

LETTER TO THE TRUSTEES CONCERNING THE LOTTERY OF THE EAST TENNESSEE COLLEGE, MAY 6, 1810

I consider the common plan followed in this country, but not in others, of making one large and expensive building as unfortunately erroneous. It is infinitely better to erect a small and separate lodge for each separate professorship, with only a hall below for his class, and two chambers above for himself; joining these lodges by barracks for a certain portion of the students, opening into a covered way to give a dry communication between all the schools. The whole of these arranged around an open square of grass and trees would make it, what it should be in fact, an academical village, instead of a large and common den of noise, of filth, and of fetid air. It would afford that quiet retirement so friendly to study, and lessen the dangers of fire, infection, and tumult. Every professor would be the police officer of the students adjacent to his own lodge, which should include those of his own class of preference, and might be at the head of their table, if, as I suppose, it can be reconciled with the necessary economy to dine them in smaller and separate parties rather than in a large and common mess. Those separate buildings, too, might be erected successively and occasionally, as the number of professorships and students should be increased or the funds become competent.

**Writings of . . . Jefferson,* ed. Bergh and Lipscomb, 12:387–88.

I pray you to pardon me if I have stepped aside into the province of counsel; but much observation and reflection on these institutions have long convinced me that the large and crowded buildings in which youths are pent up are equally unfriendly to health, to study, to manners, morals, and order.

8 P. C. L'Enfant's Plan for the Capitol City* *1791*

The establishment of the federal government was both political compromise and symbolic act, and most significant was the decision to build a new federal city on open land, a seat of representative government free of political pressure and commercial influence, or so it was hoped. Eager to participate in this bold enterprise, Pierre Charles L'Enfant, who had served in the Continental army and met Washington, wrote the president on September 11, 1789:

> Your Excellency will not be surprised that my ambition . . . should lead me to wish to share in the undertaking. No nation had ever before the opportunity offered them of deliberately deciding on the spot where their Capitol City should be fixed, or of combining every necessary consideration in the choice of situation, and although the means now within the power of the Country are not such as to pursue the design to any great extent, it will be obvious that the plan should be drawn on such a scale as to leave room for that aggrandizement and embellishment which the increase of the wealth of the nation will permit it to pursue at any period however remote.†

L'Enfant's Parisian training as an artist and his experience in the Colonial army engineering corps were well known. Following his appointment to lay out the new city, L'Enfant requested aid from Thomas Jefferson, who replied, April 10, 1791:

> I have examined my papers, and found the plans of Frankfort-on-the-Mayne, Carlsruhe, Amsterdam, Strasburg, Paris, Orleans, Bordeaux, Lyons, Montpelier, Marseilles, Turin, and Milan, which I send in a roll by the post. They are on large and accurate scales, having been procured by me while in those respective cities myself. . . . I will beg your care of them, and to return them when no longer useful to you, leaving you absolutely free to keep them as long as useful. I am happy that the President has left the planning of the town in such good hands, and have no doubt it will be done to general satisfaction. . . . Whenever it is proposed to prepare plans for the Capitol, I should prefer the adoption of some one of the models of antiquity, which have had the approbation of thousands of years; and for the President's house, I should pre-

*Elizabeth S. Kite, ed., *L'Enfant and Washington, 1791–1792* (Baltimore, 1929), pp. 52–58.

†Quoted in Kite, *L'Enfant*, p. 34.

fer the celebrated fronts of modern buildings, which have already received the approbation of all good judges. Such are the Galerie du Louire, the Gardes meubles, and the two fronts of the Hotel de Salm. But of this it is yet time enough to consider.‡

In conjunction with his final plan, L'Enfant prepared this written report, presumably addressed to President Washington.

REPORT ON THE PLAN FOR THE INTENDED CITY, JUNE 22, 1791

Sir;

In delineating the plan for the intended city here annexed, I regretted very much being hindered by the shortness of time from making any particular drawing of the several buildings, squares, and other improvements which the smallness of the scale of the general map, together with the hurry with which it had been drawn could not admit of having lain them down, as correct as . . . is necessary to give a perfect idea of the effect when executed. My whole attention was directed to a combination of the general distribution of the several situations, an object which, being of almost immediate moment, and importance, made me sacrifice every other consideration—and here again must I solicit your indulgence, in submitting to your judgment—my ideas, and in presenting to you a first drawing, correct only as it respects the situation and distance of objects, all which were determined and well ascertained having for more accuracy had several lines run upon the ground cleared of the wood, and measured with posts fixed at certain distances to serve as bases from which I might arrange the whole with a certainty of making it fit the various parts of the ground.

Having determined some principal points to which I wished to make the others subordinate, I made the distribution regular with every street at right angles, North and South, east and west, and afterwards opened some in different directions, as avenues to and from every principal place, wishing thereby not merely to contract with the general regularity, nor to afford a greater variety of seats with pleasant prospects, which will be obtained from the advantageous ground over which these avenues are chiefly directed, but principally to connect each part of the city, if I may so express it, by making the real distance less from place to place, by giving to them reciprocity of sight and by making them thus seemingly connected, promote a rapid settlement over the whole extent, rendering those even of the most remote parts an addition to the principal, which without the help of these, were any such settlement attempted, it would be languid, and lost in the extent, and become detrimental to the establishment. Some of these avenues were also necessary to effect the junction of several roads to a central point in the city, by making these roads shorter, which is effected [by directing them] to those

‡ *Writings . . . of Jefferson*, ed. Bergh and Lipscomb, 8:162–63. For Jefferson's own proposals for the new city and a thorough treatment of the plan development, see John W. Reps, *Monumental Washington: The Planning and Development of the Capitol Center* (Princeton, 1967).

leading to Bladensburg and the Eastern branch—both of which are made above a little shorter, exclusive of the advantage of their leading immediately to the wharves at Georgetown. The hilly ground which surrounds that place the growth of which it must impede, by inviting settlements on the city side of Rock Creek, which cannot fail soon to spread along all those avenues which will afford a variety of pleasant rides, and become the means for a rapid intercourse with all parts of the city, to which they will serve as does the main artery in the animal body, which diffuses life through the smaller vessels, and inspires vigor, and activity throughout the whole frame.

These avenues I made broad, so as to admit of their being planted with trees leaving 80 feet for a carriage way, 30 feet on each side for a walk under a double row of trees, and allowing ten feet between the trees and the houses. The first of these avenues and the most direct one, begins at the Eastern branch and ends over Rock Creek at the wharves at Georgetown, along the sides of which it is continued to the bridge over to the Virginia shore, and down to the lower canal to the Potomac, along the sides of which it may be of great advantage to have such a road extended to the upper canal to facilitate dragging the boats up and down.

With respect to the point upon which it is expedient first to begin the main establishment, however various the opinions thereon are, I believe the question may be easily solved, not viewing in part but embracing in one view the whole extent from the Eastern branch to Georgetown, and from the banks of the Potomac to the mountains, for in considering impartially the whole extent, viewing it as that of the intended city, it will appear that to promote a rapid settlement throughout, across the Tiber above tide water is the most eligible one, for an offset of the establishment which . . . should be begun at various points equi-distant as possible from the center; not merely because settlements of this sort are likely to diffuse an equality of advantages over the whole territory allotted, and consequently to reflect benefit from an increase of the value of property, but because each of these settlements by a natural jealousy will most tend to stimulate establishments on each of the opposed extremes, to both of which it will undoubtedly become, as so many points of union, particularly considering that a canal is easily opened from the Eastern branch across those primary settlements of the city to issue at the mouth of the Tiber into the Potomac, giving entrance to the boats from the falls of that river into the Eastern branch harbor, which will undoubtedly facilitate a conveyance, which will be of the utmost convenience to all trading people, and the supplies of the city by markets, as designed in the map, which may be built over ground capable of sheltering any number of boats and to serve as a depository, when the city is grown to its whole extent, from whence all the internal parts may be supplied. At the place first mentioned above, where the tide water comes into Tiber Creek, is the position the most capable of any within the limits of the city, to favor those grand improvements of public magnitude which may serve as a sample for all subsequent undertakings, an edifice erected there such as the peculiarity of the ground may admit, well combined with the various directions of those avenues concentrating there, should stand to future ages a monument of magnificence.

After a minute search for other eligible situations, I may assert without an apprehension of appearing prejudiced in favor of a first opinion, that I could not discover one in all respects so advantageous . . . for erecting the

Federal House . . . [as] the western end of Jenkin's Heights [which] stands really as a pedestal waiting for a superstructure, and I am confident were all the ground cleared of wood, no other situation could bear a competition with this. Some might perhaps require less labor to be made agreeable, but after all none could be made so grand, and all would appear secondary to this.

The other position of a different nature offers a local equality, answerable for a Presidential palace, better calculated for a commodious house and which may be rendered majestic and agreeable. This position which very justly attracted your attention when first viewing the ground which is upon the west side and near the mouth of the Tiber, on that height dividing Burns and Pierces plantations—

The spot I assigned I chose somewhat more in the wood, and off the creek than when you stood in the partition line . . . two considerations determined me; first, to lessen the distance to the Federal House, and secondly to obtain a more extensive view down the Potomac, with a prospect of the whole harbor and town of Alexandria; also to connect with more harmony the public walks and avenue of the Congress House with the garden park and other improvements round the palace, which, standing upon this high ridge, with a garden in a slope towards the canal would overlook the vast esplanade in the center of which, and at the point of intersection of the sight from each of the Houses, would be the most advantageous place for an equestrian statue, which with proper appendages and walks artfully managed, would produce a most grand effect. In the present unimproved state of the ground it will appear that the hight upon which the plan of this monument is marked, will intercept the view of the water from the palace, which in part it would were it not to be observed that to bound the entrance of the Tiber to 200 feet, which is the extreme width of the canal to prevent its being drained at low water, will require a great quantity of ground to fill up, at least as much as will serve to level all the high ground in the way to the edge of the water, especially as there will be a propriety to extend it as far as low water mark upon the Potomac.

Fixed as expressed on the map the distance from the Congressional house will not be too great . . . as . . . no message to nor from the President is to be made without a sort of decorum which will doubtless point out the propriety of Committee waiting on him in carriage should his palace be even contiguous to Congress.

To make however the distance less to other officers I placed the three grand Departments of State contiguous to the principal palace; and on the way leading to the Congressional house, the gardens of the one together with the park and other improvements . . . are connected with the public walk and avenue to the Congress house in a manner as must form a whole as grand as it will be agreeable and convenient to the whole city . . . and all along side of which may be placed play houses, rooms of assembly, academies and all such sort of places as may be attractive to the learned and afford diversion to the idle.

I proposed continuing the canal much farther up, but this not to be effected but with the aid of lock, and from a level obtained from the hight of the spring of the Tiber, the greatest facility being to bring those waters over the flat back of Jenkins. I gave the more readily the preference . . . to supply that part of the city as it will promote the execution of a plan which I

propose in this map, of letting the Tiber return to its proper channel by a fall, which issuing from under the base of the Congress building, may there form a cascade of forty feet high, or more than one hundred wide, which would produce the most happy effect in rolling down to fill up the canal and discharge itself in the Potomac, of which it would then appear the main spring when seen through that grand and majestic avenue intersecting with the prospect from the palace, at a point which being seen from both, I have designated as the proper for to erect a grand equestrian statue.

. . . The whole will acquire new sweetness being laid over the green of a field well level and made brilliant by shade of a few trees artfully planted.

I am with respectful submission,

Your most humble and obedient servant,

P. C. L'Enfant.

9 P. C. L'Enfant's Plan for Paterson, New Jersey* *1792*

Aside from establishing a stable and flexible Federal government, a second important objective of the new union was decreasing dependence of foreign manufactures, for in this respect the new United States was still very much an economic "colony." In January, 1790, Secretary of the Treasury Alexander Hamilton was instructed by Congress to develop a plan "for the encouragement and promotion of such manufactures as will tend to render the United States independent of other nations for essentials." His "Report on Manufactures" presented to the House of Representatives on December 5, 1791, noted that "the expediency of encouraging manufactures . . . which was not long since deemed very questionable, appears at this time to be pretty generally admitted," and he concluded, "there are circumstances which render the present a critical moment for entering, with zeal, upon the important business."† While preparing this report, Hamilton and like-minded associates formed the Society for Establishing Useful Manufactures, purchasing a large tract of land at Paterson, New Jersey, there to lay out the prototype of a new type of American community, devoted to industry. The ambitious scheme was being planned by L'Enfant, and although the plan itself was destroyed in 1840, a description dated August 19, 1792, survives in the proceedings of the Society for Useful Manufactures. Of major concern to L'Enfant was bringing water to Paterson from above the Passaic Falls to power the projected mills, and after he described how this was to be done he turned his attention to street layout:

*Henry James, "A Review of Earlier Planning Efforts," *Regional Plan of New York and Environs*, Regional Survey, Physical Conditions and Public Services (New York, 1929), 8:173.

†Alexander Hamilton, "Report on Manufactures," *American State Papers, Documents, Legislative and Executive, of the Congress of the United States . . .*, ed. Walter Lowrie and Matthew Clarke (Washington, D.C., 1832), 5:123, 144.

The shortness of the time I have had to take a knowledge of the situation, to combine the system of conveying Water as I propose and to satisfy myself of the practicability has left me so little leisure to consider about the plan of Distribution for the Town as induces me to confine to a few general outlines of the manner in which I conceive it is most proper to have it laid out.—Surrounded by high Mountains as is the tract the Society has at disposal, I considered it was not material to observe a regular North and South, and East and West direction for the Streets, a method which I apprehend would farther be improper, because it would end every street against steep Mountain, which would impede a free circulation of air, the better to be secured by determining variously the direction of the principal streets as are marked upon the Map where I have taken advantage of a rising ground to reserve the summit of it for the erection of some Public Building, carrying the streets from thence according as the accidental opening may admit prolonging them at a distance in measure as the town will enlarge, or as arrangement may be made with the owners of the land whose property the prolongation of the streets will increase in value.

Considering also as the opening of proper avenues through the internal part of the country would be of advantage to promote the settlement of the Town, I have caused a line of experiment to be drawn from Newark, parting from the Bull's head Tavern in a particular direction by which the road from Newark to the Town will be made shorter above five Miles. I also propose bringing the Road from above the Mountain along side of the Canal making there by the Aquaduct proposed subservient to the double purpose of facilitating an entrance in the town that way avoiding the inconvenience of passing up and down the Mountain.

A great object also for the Society should be to extend their purchase more downward the River, and up above the fall to become possessed of as much of the Land on the other side of the River as will embrace the whole fall.

10 Report of Commissioners on Plan for New York* *1811*

To reduce political disputes, the New York State legislature appointed a commission of three in 1807 "to lay out . . . the leading streets and great avenues" for the projected expansion of New York in such a way as to be "final and conclusive" in determining the growth of the city northward on Manhattan Island, particularly in the public lands forfeited to the state by loyalists in the Revolution.† The commissioners—Simeon De Witt, Gouverneur Morris, and John Rutherford—took a far more practical view than had L'Enfant, whose geometries they appear to refer to in the opening passages of their manuscript report attached to the plan. The commissioners make it plain:

One of the first objects which claimed their attention was the form and manner in which the business should be conducted; that is to say, whether they should confine themselves to rectilinear and rectangular streets, or whether they should adopt some of those supposed improvements, by circles, ovals, and stars, which certainly embellish a plan, whatever may be their effects as to convenience and utility. In considering that subject, they could not but bear in mind that a city is to be composed principally of the habitations of men, and that strait sided, and right angled houses are the most cheap to build, and the most convenient to live in. The effect of these plain and simple reflections was decisive.

Having determined therefore, that the work should in general be rectangular, a second, and, in their opinion, an important consideration, was so to amalgamate it with the plans already adopted by individuals as not to make any important change in their dispositions. This, if it could have been effected, consistently with the public interest, was desirable, not only as it might render the work more generally acceptable, but also as it might be the means of avoiding the expense. It was therefore a favourite object with the Commissioners, and pursued until after various unfruitful attempts had proved the extreme difficulty; nor was it abandoned at last but from necessity. To show the obstacles which frustrated every effort, can be of no use.

If it should be asked, why was the present plan adopted in preference to any other? the answer is, because, after taking all circumstances into consideration, it appeared to be the best; or, in other and more proper terms, attended with the least inconvenience.

It may, to many, be matter of surprise, that so few vacant spaces have been left, and those so small, for the benefit of fresh air, and consequent

*"A Map of the City of New York and Island of Manhattan," manuscript map and report, 1811; published by William Bridges, with plates engraved by Peter Maverick, 1811. "Commissioners Remarks," published by Bridges, reprinted in I. N. Phelps Stokes, *The Iconography of Manhattan Island* (New York, 1913), 1:472.

†Acts of New York, 1807, quoted in John Reps, *The Making of Urban America* (Princeton, 1965), p. 297.

preservation of health. Certainly, if the City of New York were destined to stand on the side of a small stream, such as the Seine or the Thames, a great number of ample places might be needful; but those large arms of the sea which embrace Manhattan Island, render its situation, in regard to health and pleasure, as well as to convenience of commerce, peculiarly felicitous; when, therefore, from the same causes, the price of land is so uncommonly great, it seemed proper to admit the principles of economy to greater influence than might, under circumstances of a different kind, have consisted with the dictates of prudence and the sense of duty. . . .

To some it may be matter of surprise, that the whole Island has not been laid out as a City; to others, it may be a subject of merriment, that the Commissioners have provided space for a greater population than is collected at any spot on this side of China. They have in this respect been governed by the shape of the ground. It is not improbable that considerable numbers may be collected at Haerlem, before the high hills to the southward of it shall be built upon as a City; and it is improbable, that (for centuries to come) the grounds north of Haerlem Flat will be covered with houses. To have come short of the extent laid out, might therefore have defeated just expectation, and to have gone further, might have furnished materials to the pernicious spirit of speculation.

11 A. Benjamin, The American Builder's Companion* *1806*

Throughout the eighteenth century, architectural publication played a crucial role in the development of architecture in the colonies, as the selection from Gibbs's *Book of Architecture* illustrates. So great was the demand for pattern books in the colonies that, in 1775, John Norman of Philadelphia brought out an "American" edition of Swan's *British Architect*, followed in 1786 by his own *Town and Country Builder's Assistant*, largely pirated from English pattern books.† In the same year appeared the *Articles of the Carpenters Company of Philadelphia and Their Rules for Measuring and Valuing House-Carpenters Work*, published in Philadelphia. Although it was the first original work published in the United States, it was loaned only to members under exceedingly strict rules of secrecy; its existence became known to Charles E. Peterson about 1950. John Norman continued to print American editions of British works through 1792, a tradition continued by William Norman into the nineteenth century. The first truly original American pattern book, widely circulat-

*Asher Benjamin, *The American Builder's Companion; or, a New System of Architecture Particularly Adapted to the Present Style of Building in the United States of America* (Boston, 1806), pp. iv-vii.

†See Henry-Russell Hitchcock, *American Architectural Books*, rev. ed. with introduction by Adolf Placzek (New York, 1976).

THE

American Builder's Companion;

OR, A

NEW SYSTEM OF ARCHITECTURE:

PARTICULARLY ADAPTED

TO

THE PRESENT STYLE OF BUILDING

IN

The United States of America.

CONTAINING,

FORTY FOUR ENGRAVINGS,

REPRESENTING,

Geometrical Lines.
Twenty different Designs for Mouldings.
The five Orders of Architecture, with great alterations, both in size and expense.
Glueing up and diminishing of Columns.
How to find the different Brackets of a Groind Ceiling.
Base and Surbase Mouldings, Architraves, &c.
Twenty four different Designs for Cornices, both for external and internal finishing.
Stone Window Caps and Sills, showing the manner of setting them in a Brick Wall.
Sash Frames, Sashes, and Shutters.
Straight and Circular Stairs.
Roofs and finding the Length and Backing of Hips, either square or bevel.
Ornamental Capitals, Mouldings, Friezes, Leaves, and Ceilings.
Chimney Pieces.
Frontispieces.
Urns, Banisters, Key Stones, &c.
Plans and Elevations of three Houses for Town, and two for Country.
Plans and Elevations for two Meetinghouses.
Plan and Elevation for a Summerhouse.
Plan and Elevation for a Courthouse.
Plan, Elevation, and Section of the Branch Bank of Boston.
With particular Directions for executing all the above Designs.

BY ASHER BENJAMIN, ARCHITECT AND CARPENTER,

AND

DANIEL RAYNERD, ARCHITECT AND STUCCO WORKER.

Boston:

PUBLISHED BY ETHERIDGE AND BLISS, PROPRIETORS OF THE WORK.

S. ETHERIDGE, PRINTER, CHARLESTOWN

1806.

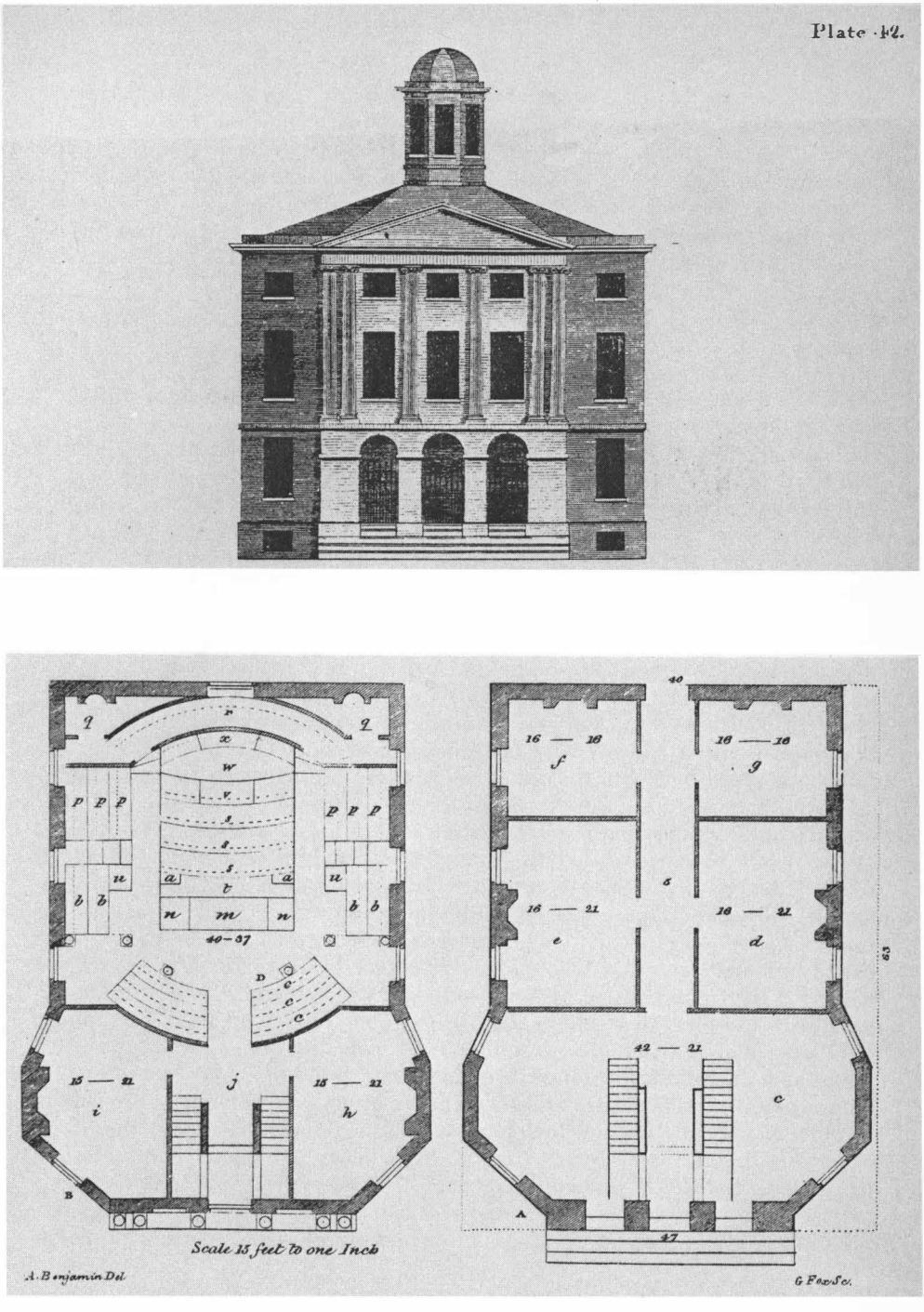

Figure 6. **Asher Benjamin, "Plan and Elevation for a Courthouse," Plate 42 from *The American Builder's Companion*, Boston, 1806 (courtesy, New York Historical Society).**

ed, was Asher Benjamin's *Country Builder's Assistant*, Greensfield, Massachusetts, 1797; the fold-out plate from this, showing a model meeting-house design, is reproduced in the *Concise History*, figure 57. In *The American Builder's Companion*, his second book, Benjamin emphasized the different economic conditions and building materials used in the United States which required now a new set of rules. One might look particularly at figure 6, which presents plans for a courthouse, hundreds of which were now needed in the developing western territories.

Preface

Books on Architecture are already so numerous that adding to their number may be thought to require some apology; but it is well known to any one in the least conversant with the principles of Architecture, that not more than one third of the contents of the European publications on this subject are of any use to the American artist in directing him in the practical part of his business.

The style of building in this country differs very considerably from that of Great Britain, and other countries in Europe, which is partly in consequence of the more liberal appropriations made for building in those countries, and of the difference of materials used, particularly in the external decorations. The American Mechanic is, therefore, in purchasing European publications, under the necessity of paying two thirds the value of his purchase for what is of no real use to him; and as the principal part of our designs have been executed by our own hands, we feel confident that this publication will be found to contain more useful information for the American workman that all the European works which have appeared in this country, and which, for the most part, are mere copies one from the other.

We are well aware that the magnificent temples of ancient times still retain a degree of romantic grandeur, which would do honour to the present age. It will, at the same time, be readily acknowledged, that an exact imitation of those noble productions of former times, on account of the present expense of materials and labour, would require no common degree of opulence for their completion: and, indeed, a strict conformity to the orders of Architecture seems to be demanded in the construction of public buildings only, and others of immense magnitude; in such situations they have a most noble and majestic appearance; but in private buildings, and others of less magnitude, their massy size and the expense attending them, are little suited to our convenience and means of appropriation. A principal part therefore of our design, in this work, is to lighten their heavy parts, and thereby lessen the expense both of labour and materials. This we expect to accomplish so as to effect a saving of one sixth, and, in many cases, one fourth part: the building shall occupy less ground, and, at the same time, be more commodious.

We do not conceive it essentially necessary to adhere exactly to any particular order, provided the proportion and harmony of the parts be carefully preserved. If, for instance, in any of the cornices an ovolo should be changed for an ogee, or for a hollow, so trifling an alteration could not destroy the effect of the whole, provided it were done with any degree of

judgment. Attempts which have sometimes been made to compose fancy orders, have only spoiled the work, and no reduction of the expense has been effected. It is, therefore, as necessary that these modern fancies should be reduced to a regular system, as it was in former ages, that the Grecian and Roman orders should assume a fixed character. One important object of improvement, is a method of preserving the apparent size of an object elevated above the eye, while, at the same time, the real size is considerably diminished. It is easy to conceive that the size and effect of a cornice for instance, does not so much depend on its height as it does on its projection; because cornices are always elevated a considerable distance above the eye, and, of course, the apparent size depends principally on the projection. . . . It will at once be perceived, that the diminution in the height of the cornice is not the most considerable advantage to be derived from this construction; but that the same is gained in the height of the wall that is taken from the height of the cornice.

We have ventured to make some alteration in the proportions of the different orders, by lengthening the shafts of the columns two diameters. Their entablatures and pedestals bear nearly the same proportion as formerly, except that the architrave has less height, the frieze more height (except in the Doric) and the cornice less height and more projection.

We have given a great variety of fancy cornices and capitals, both for external and internal finishing; and calculated both for wood and stucco.

Being the first who have for a great length of time, published any New System of Architecture, we do not expect to escape some degree of censure. Old fashioned workmen, who have for many years followed the footsteps of Palladio and Langley, will, no doubt, leave their old path with great reluctance. But impressed, as we are, with a conviction that a reform in some parts of the system of Architecture is loudly demanded, and feeling a confidence from our knowledge of the theory, and from having long been conversant in the practical part of that science, we have ventured, without the aid of subscription, to exhibit our work to public view.

12 B. H. Latrobe on the Responsibilities of an Architect* *1806*

Asher Benjamin's books were aimed at country "mechanics" and housewrights, far from the services of architects. The professional architect—meaning an individual who designs for others and derives his income solely from fees based on construction costs—had only recently appeared in the United States in the person of Benjamin Henry Latrobe, who arrived from England in 1796. Latrobe attempted to inculcate

*Manuscript, Maryland Historical Society; printed in *Annals of America* (Chicago, 1968), 4:204–07.

in his pupils, Robert Mills and William Strickland, high professional standards and responsibilities, although at first there were difficulties with the strongly entrenched conservative builders' companies.† Even his students sometimes regressed under pressure from clients, occasioning this strong but well-intended letter to Mills.

BENJAMIN HENRY LATROBE TO ROBERT MILLS, July 12, 1806

The profession of architecture has been hitherto in the hands of two sorts of men. The first, of those who from traveling or from books have acquired some knowledge of the theory of the art but know nothing of its practice; the second, of those who know nothing but the practice and, whose early life being spent in labor and in the habits of a laborious life, have had no opportunity of acquiring the theory. The complaisance of these two sets of men to each other renders it difficult for the architect to get in between them, for the building mechanic finds his account in the ignorance of the gentleman-architect, as the latter does in the submissive deportment which interest dictates to the former.

It is therefore with sincere regret that I have observed your talents and information thrown into a sort of scramble between the two parties, in the designs of the churches you have given to the congregations at Charleston. You remember the faults I pointed out to you at an early period of your studies in my office, especially in the round church. You corrected them. Your design had, besides, very great and intrinsic merits of its own. What has been the event? Of all those who have contributed their ideas to that church you have been considered as the most ignorant. You have not even been permitted to correct your own errors, and in other points you have been overruled so far as to have been obliged to admit into your plan absolute absurdities, such as, for instance, the gallery within the cupola, which may probably be the cause why, within an interior circle of a certain diameter in the center of the church, the preacher's voice is said to be not perfectly heard.

Such a situation is degrading and would not be submitted to by any other member of a liberal profession, and scarcely by a mechanic whose necessities were not greater than his pride. In our country, indeed, the profession of an architect is in a great measure new. The building artisans, especially the carpenters, have been sufficiently informed to get through the business and supply the orders of a young country. Out of this state of infancy we are now emerging; and it is necessary that those who have devoted their best years and a very considerable expenditure to the attainment of that variety of knowledge which an architect ought to possess should take their legitimate rank themselves or not venture into that ocean of contact with all above and all below them into which a mistaken complaisance will throw them, but adopt some other profession sanctioned by the habits and opinions of the country.

It will be answered, "If you are paid for your designs and directions, he

†See, for instance the difficulties in constructing the Baltimore Cathedral in Talbot Hamlin, *Benjamin Henry Latrobe* (New York, 1955), pp. 238–41.

that expends his money on the building has an undoubted right to build what he pleases." If you are paid! I ask in the first place, are you paid? *No!* The custom of all Europe has decided that 5 percent on the cost of a building, with all personal expenses incurred, shall be the pay of the architect. This is just as much as is charged by a merchant for the transaction of business, expedited often in a few minutes by the labor of a clerk; while the architect must watch the daily progress of the work perhaps for years, pay all his clerk hire, and repay to himself the expense of an education greatly more costly than that of a merchant. But it was not my intention to enter at present into the question of compensation, for in your case, I believe that you have neither asked nor received anything but have given your advice *pour l'amour de dieu.* The question is in how far you ought to permit yourself to be overruled in your opinion by your employers, and in order to answer it, I have neither leisure nor inclination to go into a methodical disquisition but shall in a desultory manner proceed to the end of my letter which, as it is dictated only by friendship, will not be received by you as a regular treatise of the ethics of our profession but as proof of my goodwill. . . .

An architect . . . should be first informed what it is that is wanted; what expense might be contemplated by his design; what are the particular views of the persons who have the management of the money devoted to the work.

There will be on the part of a sensible and good-tempered man no objection to any reasonable extent of revision or rerevision of a first design. Enlargement, contraction, alteration of arrangement, of construction and of decoration may be made by a man of talents in almost infinite variety, and suggestions from unprofessional men politely and kindly made are always acceptable. But no honest man will for a moment listen to the proposal that he shall lend his name to the contrivances of whim or of ignorance, or under the pretense of a cheap, give to the public a bad work. There is, as in most proverbs, a vast deal of good sense in the old Latin proverb . . . *in sua arte credendum* [he should believe in his own work]. We allow full faith to our plainest mechanics in their particular callings. No man thinks himself capable of instructing his shoemaker or his tailor. Indeed, we swallow what the physician orders with our eyes shut, and sign the deed the lawyer lays before us with very little inquiry. But every gentleman can build a house, a prison, or a city. This appears extraordinary, for when a gentleman sets about the work, he has the interests of all those he employs in array against his fortune, without any protection in his own knowledge. The mechanical arts employed in the erection of a capital building are more than twenty. Of these every architect has a competent knowledge, so as to judge of the quality as well as of the value and the amount of the work, but it is at least twenty to one against the gentleman who trusts only himself that he will lose 5 percent, at least.

Then as to the arrangement. Every architect who has been regularly educated knows what has been done before in the same line. This knowledge he necessarily acquires in the office in which he studies, not only from the books and designs which he finds there but in the instructions and actual practice of his principal, provided he be a man of intelligence, candor, and of business.

You are, on the subject of the difference between the professional and regular mode of conducting your works, as well as small buildings, and the desultory guessing manner in which they are otherwise managed, too well informed by experience to render it necessary for me to proceed further on this head. I will now give you with my accustomed frankness my opinion of the conduct you should pursue in respect to the proposed penitentiary house.

1. In the first place, do nothing gratuitously. The state of Carolina is infinitely better able to pay you well than you are to subscribe your time and your talents, which is your subsistence toward the annual revenue of the state—for this is the actual effect of gratuitous professional services. As far as you have hitherto promoted the very laudable design of the government by exhibiting the practicability of such a building as will be necessary, if the penitentiary law be enacted you have done well. For many people despair of the end unless they see the means. But further you ought not to go without a very clear understanding as to what is to be the reward of your labor. You know too well the course of my professional transactions to suppose that this advice is the result of a mercenary disposition. The gratuitous services on a very great scale which I have given to unendowed public institutions for the promotion of religious or literary objects are well known to you, for you have had your share of the labors. But when a rich state is about to execute a project from which great public benefit is expected to result, compensation to those who assist in effecting that object is a thing so much of course that all I have said would appear superfluous, if the example of the donation of time and talent and expense had not in many instances been set by yourself. . . .

You must take it for granted that no liberality, that is, voluntary reward, is ever to be expected from a public body. Individuals, responsible only to themselves in the expenditure of their money, are often generous and reward handsomely, independently of stipulation; but a number of the same individuals, meeting as guardians of the public money, feel in the first place the necessity of pleasing their constituents, and in the second that of involving themselves in no unnecessary responsibility. . . .

To balance this want of liberality in public boards, they have this advantage to offer over individual employment—that when a bargain is made for a salary or a commission, it is always rigidly adhered to, provided it be in writing and clearly expressed, for every ambiguity will always be interpreted for the public and against the individual.

In settling what shall be your compensation, on the presumption of your being employed, I would by all means advise you to prefer a salary to a commission. It will be both more certain to you and more satisfactory to your employers.

2. Take care that before the work begin, the plan is perfectly understood, and stipulate that no alteration but by mutual discussion and agreement shall be made.

3. Stipulate for the following points, all of which are most essential: no workman shall be employed to whom you object; no workman shall be allowed to apply to the board or individual to whom the state may delegate the management of the erection of the work but through you; no account shall be paid, unsanctioned by your signature. . . .

4. I fear you have already committed one blunder—that of leaving your drawings in the hands of the public. Of the honor and the gentlemanly feeling of the governor, far be it from me to suggest the slightest suspicion. But his very admiration of your design will produce its exhibition, and as the principles of the plan are the great merit of it, and these strike at one view, you have armed all those who see it or who hear it described with the weapons of competition against you. But this is not now to be remedied.

My time will not permit me to say more to you at present. In the conduct of the work should my experience be of any service to you, you will know how freely you may use it.

IV

THE LURE OF THE PAST, THE PROMISE OF THE FUTURE

13 R. Upjohn and Rural Gothic* *1852*

There had been sporadic appearances of "Gothick" during the eighteenth century, not very accurate in detail.† Somewhat more informed discussion of the use of Gothic for churches commenced in an article on "The Gothic Style" in a series on "Architecture in the United States," in the *American Journal of Science and Arts,* July 1830, and was continued by Henry Russell Cleveland in the *North American Review* in October 1836. The first American book to direct attention of Episcopal clergy to the appropriateness of Gothic was itself by a minister: Rev. John Henry Hopkins's *Essay on Gothic Architecture* (Burlington, Vermont, 1836), which the author admitted was not the work of a professional architect but was "intended to be of service, where better guides are not yet at hand . . . that it may induce our rising clergy to give attention to a subject which peculiarly concerns themselves."

The church which primarily affected the shift to Gothic was Richard Upjohn's Trinity Church, New York, 1839–46. Indeed, his rise to prominence among church architects was such that by the mid-1840s, he received many requests annually for designs for churches or chapels in regions far from his New York office. To satisfy this demand, he published a pattern book which popularized board-and-batten siding for churches, just as Downing's books would do for houses.

My purpose in publishing this book is simply to supply the want which is often felt, especially in the newly settled parts of our country, of designs for cheap but still substantial buildings for the use of parishes, schools, etc. In the examples given I have kept in view the uses of each building, and endeavored to give it the appropriate character; while, at the same time, care has been taken to make the drawings as plain and practical as possible. A perspective view is given of each design with general plans, and full working drawings and specifications. Bills of timber and lumber are also added for the Church and Chapel. With these, any intelligent mechanic will be able to carry out the design.

The cost of each of the buildings will of course vary with the price of materials and labor, but the following estimate will be found generally correct:

Cost of Church, including furniture,	=	$3,000.
Cost of Chapel including furniture,	=	$900.
Cost of School House,	=	$400 to $500.
Cost of Parsonage,	=	$2,500.

Richard Upjohn

[The twenty-two plates provided designs for: Wooden Church (pls. 1-11); Wooden Chapel (pls. 12-15); Schoolhouse (pls. 16-18); Parsonage (pls. 19-22).]

*Richard Upjohn, *Upjohn's Rural Architecture: Designs, Working Drawings and Specifications for a Wooden Church and other rural structures* (New York, 1852), pp. iii–viii.

†See Calder Loth and Julius T. Sadler, Jr., *The Only Proper Style: Gothic Architecture in America* (Boston, 1975).

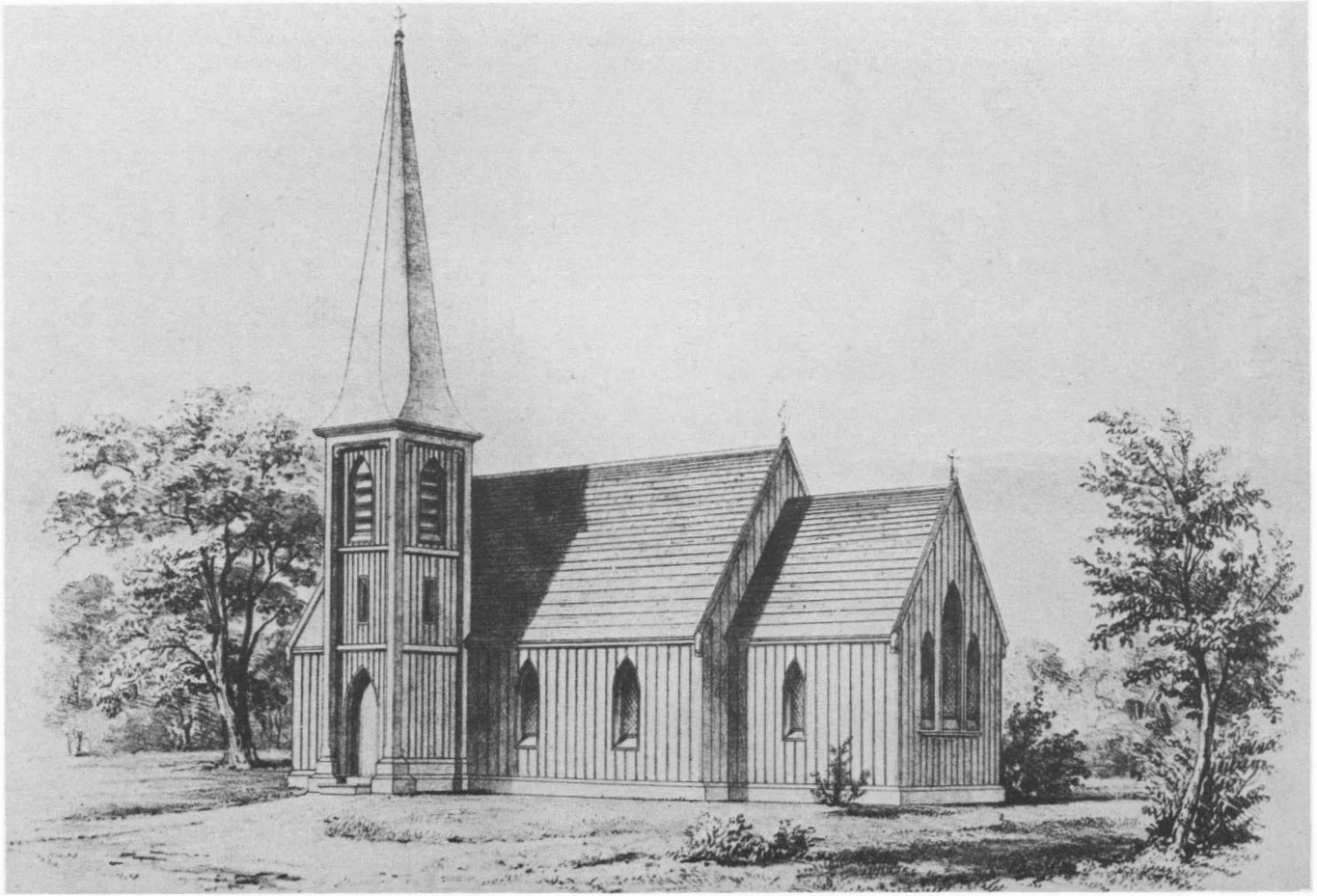

Figure 7. **Richard Upjohn, "Perspective View of Wooden Church," unnumbered plate from *Upjohn's Rural Architecture,* New York, 1852 (Avery Library, Columbia University).**

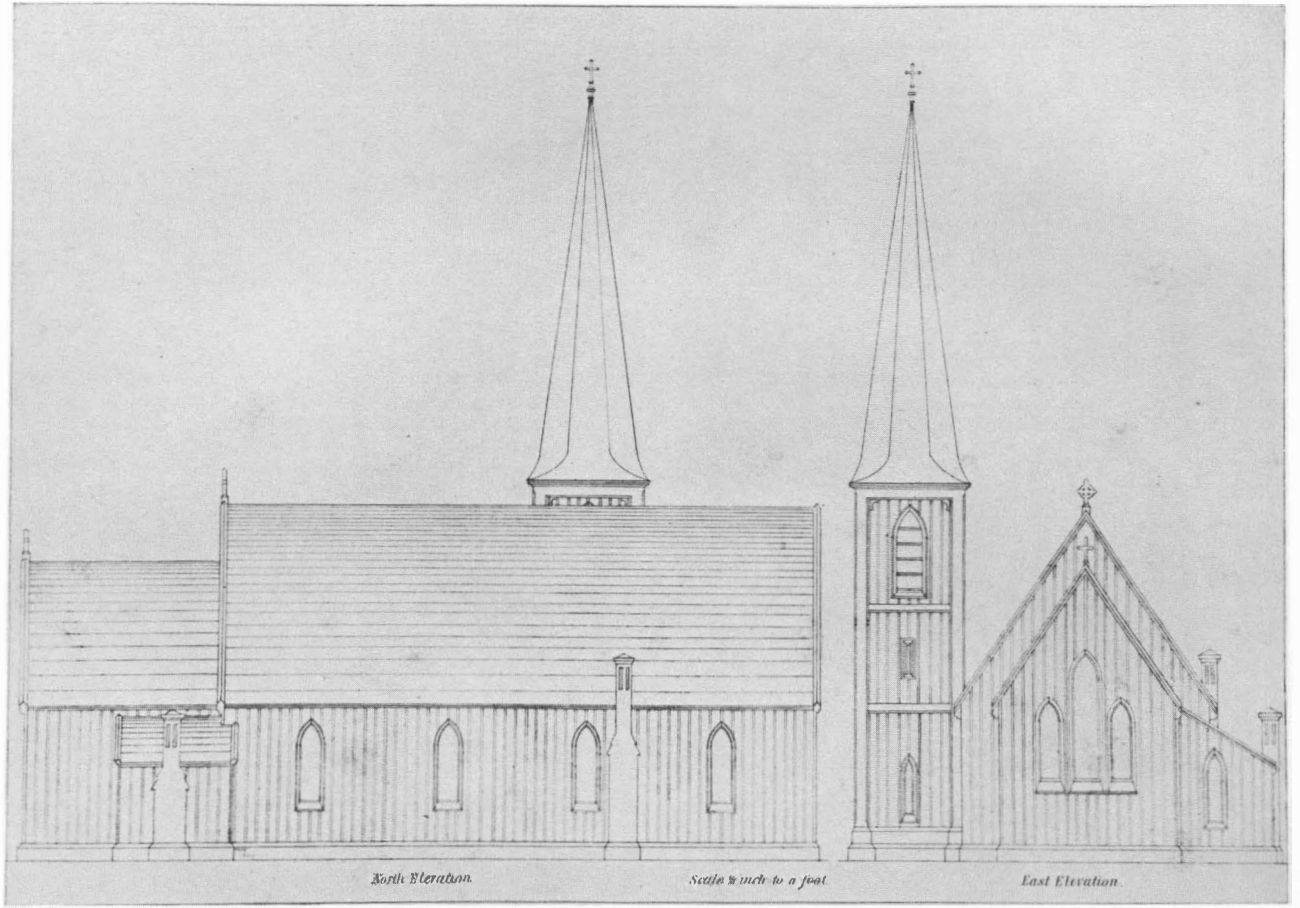

Figure 8. **Richard Upjohn, "Elevations of Wooden Church," Plate 2 from *Upjohn's Rural Architecture* (Avery Library, Columbia University).**

14 G. Wheeler, Cheap Wooden Dwellings* *1855*

It was inevitable, perhaps, that the explosive development of the mid-continent early in the nineteenth century would lead to the development of a quick and inexpensive system of wooden framing for houses and small warehouses, replacing the heavy hewn and joined frame. According to Sigfried Giedion, the first structure built (by Augustine D. Taylor in 1833) solely of "scantling and siding" was Saint Mary's Church, Chicago, although continuing research by Professor Paul E. Sprague now indicates that the critical steps in using small-dimension lumber assembled entirely with nails were taken by George W. Snow in the autumn of 1832 in putting up a warehouse near the mouth of the Chicago River.† Unavailability of skilled joiners and the pressing need for large numbers of inexpensive buildings were the critical factors in the invention of the balloon frame, so-called because such frames seemed to go up with the speed of balloons. The technique was exploited first in Chicago during its phenomenal growth in the 1830s, and then was exported to San Francisco during the California Gold Rush after 1849. At first it utilized mass-produced cut nails and whatever small-size soft wood lumber was at hand; by the end of the Civil War, the technique was perfected with the introduction of standardized lumber (2x4s, etc.) and machine-made iron wire nails. The novel technique, already revolutionizing home building, was first described in Wheeler's *Homes for the People*, quoted below, but clear construction diagrams and structural design tables then appeared in William E. Bell, *Carpentry Made Easy; or, the Science and Art of Framing on a New and Improved System with Specific Instructions for Building Balloon Frames* (Philadelphia, 1858); plate 6 from this is reproduced in the *Concise History*, figure 111. A native of Virginia, but from 1846 until his death around 1890 a resident of Ottawa, Illinois, Bell knew the technique of balloon framing well.

Wheeler's book, while more general in describing how to build a balloon frame, is a thorough investigation of the need for houses for the middle classes, and important for its recognition of the growth of suburbs around major cities. Having begun by discussing the various classes of home builders (the first selection following) and the effectiveness and usefulness of historic styles, Wheeler then examines each of the several house types, starting with small suburban villas costing from $1,800 to $7,000. He then discusses more expansive mansions costing up to $30,000 (a princely sum in 1855), but he also discusses in detail "the cheap home in the city, suburb and country" costing as little as $400. Subsequent chapters deal with farm buildings and "alteration of old buildings." He concludes with the second selection given here.

*Gervase Wheeler, *Homes for the People in Suburb and Country; the Villa, the Mansion, and the Cottage, adapted to American Climate and Wants* (New York, 1855), pp. 1–2, 408–14.

†Sigfried Giedion, *Space, Time and Architecture*, 5th ed. (Cambridge, Mass., 1967), 352–53; Walker Field, Jr., "A Re-examination into the Invention of the Balloon Frame," *Journal, Society of Architectural Historians* 2 (October 1942), 3–29; Paul E. Sprague, "The Origin of Balloon Framing," *Journal, Society of Architectural Historians* 40 (December 1981), 311–19.

The Villa

CHAPTER I

Division of homes sought by the people into three classes—History of architectural styles applicable to modern use.

Three classes of persons seek homes in the country: those who, doing business in the city, make their family home in the suburb, or adjacent rural neighborhood; those who, having retired from town pursuits entirely, or to so great an extent as to make such an arrangement convenient, consider their country retreat the family homestead; and those who select the country from motives of economy. A fourth class may be found in those whose business consists in country pursuits entirely; but the requirements this class would demand in a home, assimilate so closely, in many respects, to those that may be enumerated in describing the wants of the third class, that, for the sake of convenience, the former distribution seems preferable. Thus, we have a classification of houses to suit the wants of each home-seeker thus designated, in the Villa, the Mansion, and the Cottage. Though the peculiarities of each of these are really so distinct as justly to be enumerated under an individual head, they frequently trench so nearly one upon the other, as to render difficult at times, the exact definition of to what class a house in question may belong. The small villa nearly resembles the cottage; the large villa, the mansion; and the cottage, the farm-house, or the country-seat, as the pursuits of the occupants may cause it to assume either character. The villa, mansion, and cottage, however, have, in reality, very strongly marked points of difference, and the attempt to set the laws that regulate their just design at defiance, results in the many architectural incongruities constantly seen.

The object through the following pages will be to supply a popular want, as it appears in each department that has been named, and in classifying examples of homes under each head, to endeavor to explain their excellences and peculiarities. . . .

The *New York Tribune* of January 18th, 1855, reported a meeting of the American Institute Farmers' Club, and contained amongst other items some remarks from one of the members upon a novel mode of constructing cheap wooden dwellings, from which I offer the reader the following extracts. . . .

How to Build Balloon Frames

Mr. Robinson said: "At our last meeting I made some remarks, which were followed by others, upon the subject of 'Balloon Frames' of dwellings and other public buildings, a slight sketch of which I published in *The Tribune*, not deeming it important to enter into the minutiae of hours to make such buildings. I find that I did not appreciate the importance of the subject, for I have received a score of letters and personal inquiries from various parts of the country, showing that a great many farmers would like to know how to build a farm-house for half the present expense. I therefore ask the indulgence of the Club, while I start a balloon from the foundation, and finish it to the roof. I would saw all my timber for a frame-house, or ordinary frame

outbuilding, of the following dimensions: Two inches by eight; two by four; two by one. I have, however, built them, when I lived on the Grand Prairie of Indiana, many miles from saw-mills, nearly all of split and hewed stuff, making use of rails or round poles, reduced to straight lines and even thickness on two sides, for studs and rafters. But sawed stuff is much the easiest, though in a timber-country the other is far the cheapest. First, level your foundation, and lay down two of the two-by-eight pieces, flatwise, for side-walls. Upon these set the floor-sleeps, on edge, thirty-two inches apart. Fasten one at each end, and perhaps, one or two in the middle, if the building is large, with a wooden pin. These end-sleepers are the end-sills. Now lay the floor, unless you design to have one that would be likely to be injured by the weather before you get the roof on. It is a great saving, though, of labor, to begin at the bottom of a house and build up. In laying the floor first, you have no studs to cut and fit around, and can let your boards run out over the ends, just as it happens, and afterwards saw them off smooth by the sill. Now set up a corner-post, which is nothing but one of the two-by-four studs, fastening the bottom by four nails; make it plumb, and stay it each way. Set another at the other corner, and then mark off your door and window places, and set up the side-studs and put in the frames. Fill up with studs between, sixteen inches apart, supporting the top by a line or strip of board from corner to corner, or stayed studs between. Now cover that side with rough sheeting boards, unless you intend to side-up with clap-boards on the studs, which I never would do, except for a small, common building. Make no calculation about the top of your studs; wait till you get up that high. You may use them of any length, with broken or stub-shot ends, no matter. When you have got this side boarded as high as you can reach, proceed to set up another. In the meantime, other workmen can be lathing the first side. When you have got the sides all up, fix upon the height of your upper floor, and strike a line upon the studs for the under side of the joist. Cut out a joist four inches wide, half-inch deep, and nail on firmly one of the inch strips. Upon these strips rest the chamber floor joist. Cut out a joist one inch deep, in the lower edge, and lock it on the strip, and nail each joist to each stud. Now lay this floor, and go on to build the upper story, as you did the lower one; splicing on and lengthening out studs wherever needed, until you get high enough for the plate. Splice studs or joist by simply butting the ends together, and nailing strips on each side. Strike a line and saw off the top of the studs even upon each side—not the ends—and nail on one of the inch-strips. That is the plate. Cut the ends of the upper joist the bevel of the pitch of the roof, and nail them fast to the plate, placing the end ones inside the studs, which you will let run promiscuously, to be cut off by the rafter. Now lay the garret-floor by all means before you put on the roof, and you will find that you have saved fifty per cent of hard labor. The rafters, if supported so as not to be over ten feet long, will be strong enough of the two-by-four stuff. Bevel the ends and nail fast to the joist. Then there is no strain upon the sides by the weight of the roof, which may be covered with shingles or other materials—the cheapest being composition or cement roofs. To make one of this kind, take soft, spongy, thick paper, and tack it upon the boards in courses like shingles. Commence at the top with hot tar and saturate the paper, upon which sift evenly fine gravel, pressing it in while

hot—that is, while tar and gravel are both hot. One coat will make a tight roof; two coats will make it more durable. Put up your partitions of stuff one by four, unless where you want to support the upper joist—then use stuff two by four, with strips nailed on top, for the joist to rest upon, fastening altogether by nails, wherever timbers touch. Thus you will have a frame without a tenon or mortice, or brace, and yet it is far cheaper, and incalculably stronger when finished, than though it was composed of timbers ten inches square, with a thousand auger holes and a hundred days' work with the chisel and adze, making holes and pins to fill them.

"To lay out and frame a building so that all its parts will come together, requires the skill of a master mechanic, and a host of men and a deal of hard work to lift the great sticks of timber into position. To erect a balloon-building requires about as much mechanical skill as it does to build a board fence. Any farmer who is handy with the saw, iron square and hammer, with one of his boys or a common laborer to assist him, can go to work and put up a frame for an outbuilding, and finish it off with his own labor, just as well as to hire a carpenter to score and hew great oak sticks and fill them full of mortices, all by the science of the 'square rule.' It is a waste of labor that we should all lend our aid to put a stop to. Besides it will enable many a farmer to improve his place with new buildings, who, though he has long needed them, has shuddered at the thought of cutting down half of the best trees in his wood-lot, and then giving half a year's work to hauling it home and paying for what I do know is the wholly useless labor of framing. If it had not been for the knowledge of balloon-frames, Chicago and San Francisco could never have arisen, as they did, from little villages to great cities in a single year. It is not alone city buildings, which are supported by one another, that may be thus erected, but those upon the open prairie, where the wind has a sweep from Mackinaw to the Mississippi, for there they are built, and stand as firm as any of the old frames of New England, with posts and beams sixteen inches square."

These remarks were confirmed by the testimony of other members present, who testified to having adopted the mode of framing referred to with entire success.