# JAMES LOGAN A Canterbury Pilgrim

..............................

L.H

by

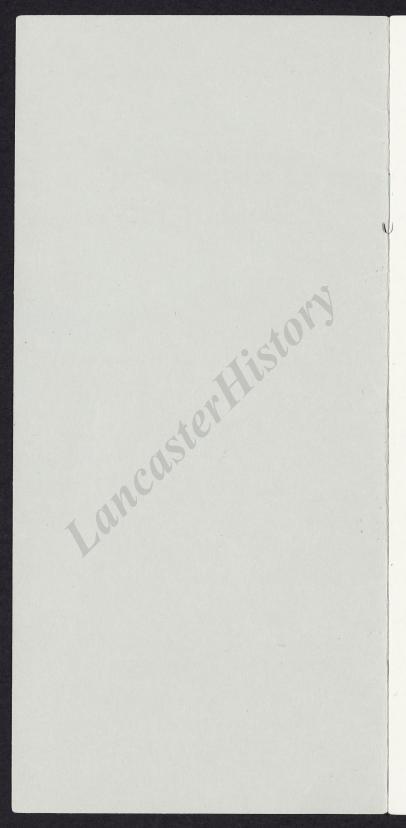
# FREDERICK B. TOLLES

Howard M. Jenkins Professor of Quaker History and Research and Director of the Friends Historical Library, Swarthmore College



Address delivered before The Welcome Society of Pennsylvania on November 19, 1955, at The General Wayne Inn.

..........................



# JAMES LOGAN A Canterbury Pilgrim

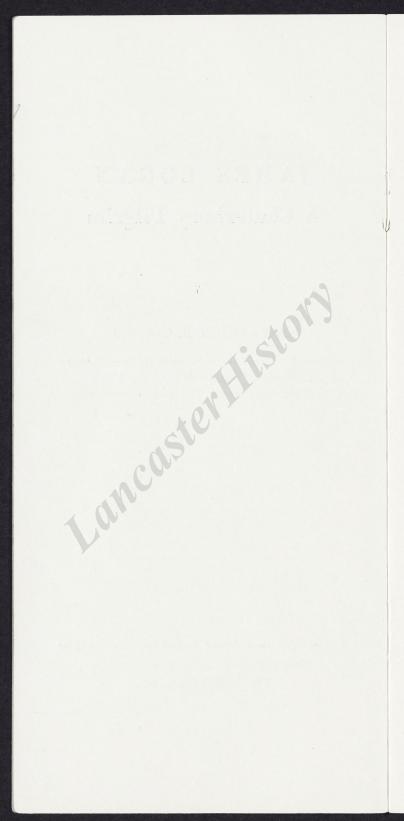
1

# by

# FREDERICK B. TOLLES

Howard M. Jenkins Professor of Quaker History and Research and Director of the Friends Historical Library, Swarthmore College

Address delivered before The Welcome Society of Pennsylvania on November 19, 1955, at The General Wayne Inn.



# JAMES LOGAN: A Canterbury Pilgrim

It was, I confess, a piece of calculated impertinence that led me to describe James Logan in my title as a "Canterbury Pilgrim." I hope I shall be forgiven for calling attention to another ship that is, or ought to be, celebrated in the history of this Commonwealth alongside the Welcome. For it was the Canterbury which in 1699 brought William Penn, with his second wife, Hannah Callowhill, and his daughter Letitia, back to Pennsylvania, where he hoped to live out his years in peace in his own province. Along with him he brought a young man of twenty-five, a Scotch-Irish Quaker named James Logan, whom he had met in Bristol. The young man had agreed to come to America for a few years as his secretary. As matters turned out, Penn was to go back to England within two years and Logan was to stay in Pennsylvania for more than half a century, until he died there in 1751. He was, in fact, to become the dominant figure in almost every phase of Pennsylvania life between the time of William Penn and that of Benjamin Franklin.

# PENN, FRANKLIN, AND LOGAN

It is curious and unfortunate that everyone knows Penn and Franklin, but hardly anyone knows Logan — except vaguely as a name applied to a square in Philadelphia, or as the founder of a vast library of unread books now in the care of the Library Company, or as the builder of a lovely but too-little-known mansion in northern Philadelphia. Yet his life was closely intertwined with both of theirs and in fact linked them together. As a young man, he was Penn's special protégé and trusted agent in America; as an old man he was Franklin's greatly respected counselor and patron. The lives of these three men, so intimately linked, span the whole first century of Pennsylvania's history. And of the three it could be argued that Logan, who spent more years in the colony than both the others together, had more actual influence on the course of Pennsylvania life than either.

Not that he was, either as a person or in his total impact upon history, so great a man as either Penn or Franklin. Nor is he as attractive, as engaging a personality. He had not Penn's idealism or Franklin's humorous and earthy common sense. But he had his own kind of greatness, his own peculiar fascination and crotchety charm. And in its broad outlines his character was not essentially different in kind from either Penn's or Franklin's. He was the same type of universal, many-faceted man, with the same type of universal, many-faceted man, with the same wide-ranging intellectual curiosity, the same capacity to be at once a deep thinker and a man of affairs, the same ability to hold his own, to feel at home with statesmen and rulers, scholars and scientists, primitive Indians and crude frontiersmen, simple country folk and sophisticated aristocrats, anywhere in Europe or America. And he had some qualities that Penn and Franklin lacked—a hardheaded business sense, a shrewd grasp of practical details that was disastrously wanting in Penn's makeup, a breadth of humanistic culture that might have added a whole new dimension to Franklin's many-sided genius.

<sup>1</sup> But this is enough of generalities. Let me particularize, and try to make the man come alive for you with a series of snapshots, glimpses of James Logan at one stage or another of his long and influential career in colonial Pennsylvania.

## LOYALTY TO WILLIAM PENN

First, Logan the public servant, the administrator, the statesman. We do him less than justice when we call him simply Penn's secretary, his agent. To be sure, he was always a Penn man, unshakably loyal not so much to Penn's ideal of a "holy experiment" as to the Penn family itself—to William Penn, to Hannah Penn (upon whom the burden of the Proprietorship fell during her husband's incapacity and her children's minority), to the sons of William Penn (who for years could not be persuaded to accept their responsibility as Proprietors). Loyalty to the Penn family was a keynote of Logan's career. And he got precious little recognition for it, either in terms of titles and offices or of salary.

In his earliest American years, when Penn himself was here, Logan was, to be sure, little more than a private secretary. We should probably call him an administrative assistant, a "leg man" for the Proprietor, collecting his quitrents, supervising his land surveys, fetching and carrying for the household at Pennsbury. He was living alone in the "Slate-roof House" in town, while the Penns rusticated comfortably in their manorhouse up the Delaware. "Must desire thee," Hannah Penn would write, "to send the two pair of pewter candlesticks, some great candles . . . and a dozen pounds smaller ditto . . . Call Betty Webb to thy assistance: let her send two mops to wash house with, four silver salts, and the twohandled porringer that is in my closet, the looking glass that is in the hall, if it can be carefully put up, the piece of dried beef; and if any ship with provisions come from Rhode Island, I would have thee buy a firkin, two or three, as price and worth are, of good butter, also cheese and candles, etc., for winter's store . . ". He had a good deal of menial service to perform those first years in America.

And it was not always easy to please the Proprietor. Penn was nursing a swollen leg at Pennsbury all through the summer of 1700. That made him a little petulant, short-tempered, unreasonably demanding. Down from Pennsbury one day came a peremptory command: "Prepare a nervous proclamation against vice." (Nervous in the seventeenthcentury lexicon didn't carry the connotations it does for us: it meant strong, sinewy, vigorous.) Logan went to work, glad to have something important to do. He composed a solemn warning to all who maintained or patronized grogshops or disorderly houses in the little Quaker town—some of them, no doubt, in the old crumbling caves in the banks of the Delaware, where the first settlers, the passengers in the Welcome among them, had spent their first winter. Having polished it off in his best formal language, he copied it out fair and sent it up the river for his master to sign. Back came a sharp rebuke; the secretary had presumed too much. He was only expected to draft a proclamation for the Proprietor to correct and promulgate.

But Penn found Logan a capable and effective administrator and when he came to leave Pennsylvania in 1701, he made him Clerk of the Council, Secretary of the Province, Commissioner of Prop-erty (with Edward Shippen, Dr. Griffith Owen, and Thomas Story), and Receiver-General of quitrents and other moneys. Within a few years he was made a full-fledged member of the Council. Except for one term as Mayor of Philadelphia, those are the only term as Mayor of Philadelphia, those are the only political offices he ever held in Pennsylvania—and as soon as he could, he devolved the more menial and arduous duties of these posts on others. Yet within a very few years of Penn's departure Logan had become the most influential political figure in the province and he remained so almost to the day of his death. He never actually held the title or the full powers of Deputy-Governor, but during most of his life he was more powerful than any man who did hold that office. It is obvious that the Penns trusted him more than anyone whom they invested with the title. Some have wondered why he never was made Governor. Hannah Penn did try to persuade him to accept the office, but he knew that the authorities at Whitehall would never approve a Quaker as Governor, and anyway he had no need for the trappings of power when he already had the substance in his hands.

#### LOGAN VERSUS GOVERNOR KEITH

The great test of his strength came early in the 1720's, when the province was in the grip of a depression. The farmers and the town artisans were restless and turbulent, and Governor Keith, an able man but unquestionably a demagogue, took sides with the discontented people against the Proprietors. In the course of the struggle, Keith stripped him of whatever powers he had as Clerk, as Secretary, as Commissioner of Property, and did his best to discredit him with the populace by attacking him as a kind of "economic royalist," a "malefactor of great wealth," an enemy of the people. But Logan stood up to him. Finally, he made a hurried trip to England and came back with a set of instructions from Hannah Penn that tied the Governor's hands. When Keith refused to abide by them, Logan was able to humble him, break him, drive him out of office and ultimately out of the province. After that, nobody seriously questioned Logan's paramount authority in Pennsylvania, and even after he retired to Stenton in 1730, people who wanted anything done politically learned to beat a path to his door. He had come a long way since the days when he was buying butter and sending mops up to Pennsbury.

#### **CONSERVATIVE AND PATRIOT**

At the peak of the struggle with Keith — the greatest political battle of his life—he took advantage of his position on the bench as Presiding Judge of the Court of Quarter Sessions—a position where Keith could not touch him—to make a somewhat unjudicial speech to the people of Pennsylvania. Ostensibly this was a charge to the Grand Jury. It is one of three charges that he published, and people today who are looking in the American past for a usable philosophy of conservatism would do well to study Logan's charges.

In his speech of 1723 he took pains to answer Keith's demagogic attack on the great, the rich, and the learned by declaring roundly that it was good for a state "to abound in wealth and wealthy persons" and that wisdom and knowledge were the most useful qualifications for public office. Patriotism and public spirit were needful, too, he said, and then he gave utterance to one of the earliest statements I know in American writing of what might be called—(if the term had not been so debased and prostituted)—Americanism: love of the American soil as distinct from loyalty to the British empire. Perhaps, he said, "the lateness of this our settlement will scarcely allow men to account it their country, because they can remember that they were born and bred up in another"—as he himself had been. Nevertheless, "while our estates and families are here, while our children are born and must subsist here, it becomes truly ours and our children's country, and it is our duty to love it, to study and promote its advantages." There are distinctly anti-democratic overtones in the remainder of the speech—but of course Logan never pretended to be a democrat with a small d any more than he was a republican with a small d. T. Still the speech is definitely worth reading, especially by those advocates of the "new conservatism" who are seeking historical roots for their doctrines.

#### SENIOR STATESMAN

I shall not take time to discuss in any detail the one occasion when, for a brief period, Logan had the reins of office, the executive authority of Pennsylvania, in his hands. That was in 1736, when Governor Patrick Gordon died and Logan as senior member of the Council came out of retirement to serve for two years as chief executive of the province (though without the Governor's power to sign legislative bills into law). All I will say about it is that it was one of the most tense and difficult periods in provincial history: there was a shooting war on with Maryland out on the banks of the Susquehanna and it was the time of the famous or notorious "Walking Purchase" from the Indians in Bucks County. What I want to point out is simply that when he was called upon for this arduous service, Logan was nearly sixty-five (in an era when men sometimes withdrew from active life at forty and few lived past sixty), and that moreover he was a cripple, forced to hobble about on crutches as a result of a serious injury to his hip almost ten years before. And ten years later, when he was over seventy and Benjamin Franklin was preparing the defenses of Philadelphia in King George's War, Logan came to his support with advice and money. Few Americans in his period or since have been so steadfastly and effectively devoted to the public service for so long a time.

#### PENNSYLVANIA'S LEADING FUR MERCHANT

But Logan was only a part-time public servant. From his early years in Philadelphia he engaged in commerce, owned shares in ships trading out of the Delaware to the West Indies, to England, and the continent of Europe. After about 1712 he turned his attention to the fur trade and within a few years became Philadelphia's largest single operator in that peculiarly difficult business—difficult because the entrepreneur had to deal with fur traders who, as on every American frontier, were a crude, violent, harddrinking, raffish lot—"a parcel of brutish fellows," Logan called them. He was forever having to sober them up when they got drunk in town, pay their gambling debts, bail them out of jail; and finally, when they died, hopelessly in his debt, he was often forced to attach their paltry possessions to recover a little of what he had advanced them over the years. But this business, distasteful as it was, was lucrative, and Logan built up a sizable fortune, which he later invested in lands—he died seized of nearly 18,000 acres in Pennsylvania and New Jersey —and in his iron "plantation" at Durham on the upper Delaware.

# LOGAN AND THE CONESTOGA WAGON

The picture I want to leave with you, however, is of James Logan as the owner of the earliest recorded Conestoga wagon. He bought a vehicle in 1717 to transport goods to his store on Conestoga Creek and to bring furs back to Philadelphia. He calls it a "Conestoga Wagon" in his account book, now at the Historical Society of Pennsylvania, and it has recently been pointed out in *Papers* of the Lancaster County Historical Society that this is the first known use of that familiar term. Sometimes Logan saw three and four such wagons, loaded with furs, rumbling down the street in Philadelphia towards his warehouses on Second Street and on Fishbourne's Wharf. And, of course, for two centuries thereafter Conestoga wagons, hooded with canvas against the weather, would go creaking and swaying through the dark forests, over the endless prairies, up the steep mountain passes, carrying generations of Americans westward to new frontiers.

# DIPLOMACY OF THE FOREST

Logan knew a great deal about the frontier of his own day—the fur trader's frontier, the Indian frontier, the vast interior of the American continent. Even before he entered the fur trade, he was in intimate contact with the Indians. Just before William Penn left Pennsylvania in 1701, he called a great Indian council at Pennsbury to say goodby to his red-skinned friends, and at that council fire he pointed Logan out to them as "the person particularly entrusted to take care of them in his behalf." Logan was faithful to the trust. Hardly a single important Indian treaty was held in Pennsylvania in the next half century at which he was not present as the principal negotiator. No one in the British colonies was more skillful, more respected as an Indian diplomat. He was the real executor of Pennsylvania's remarkably successful Indian policy. He understood Indian relations both from the point of view of the Quaker and of the imperialist. For him friendship with the Iroquois Nations of New York was both a cardinal Quaker principle and the cornerstone of a somewhat un-Quakerly defense system against the French. As early as 1702 he saw how important it was to "preserve the Iroquois" as a buffer between the British colonies and Canada, and all his Indian diplomacy was directed towards that one end.

# BEYOND THE MOUNTAINS

Two pictures will serve to underline his contribution in this field. In 1718 the Lords of Trade in England asked all the colonial governors for information about the activities of the French among the Indians. Governor Keith turned the request over to Logan, who obviously was better equipped to answer it than anyone else in the province. Logan questioned his traders, including several old Frenchspeaking coureurs de bois, who had roamed all over the Ohio and Mississippi valleys in quest of furs. From them he learned all about the French forts, the routes from Montreal to the Mississippi, the location of the portages, the distances from trading post to trading post, the numbers of effective warriors in each Indian tribe, the efforts the French were making to win their support. To all this topographical and military information he added some shrewd, far-seeing suggestions for British policy. Characteristically, Governor Keith forwarded the memorandum to Whitehall as his own and later published it as if he had written it himself. The Lords of Trade recommended it to King George II as "the most perfect account" they had ever seen of the interior of America. It was, in fact, England's first accurate glimpse of the vast American continent west of the Appalachians—and Logan never got an iota of credit for it.

But Logan was not looking for personal glory. He understood as few men did how critical was the allegiance of the Iroquois in the delicate international balance of power on which the security of the British colonies depended, and he labored faithfully for half a century to preserve it, sitting for hours at the tedious council fires, listening to the endless speeches, becoming letter-perfect in the elaborate protocol of forest diplomacy, handing out the gifts of blankets, guns, and gewgaws that were the essential stuff of successful Indian relations.

## THE LAST COUNCIL FIRE

He attended his last treaty in 1742, when he was nearly seventy. The Indians came first to Stenton, where they found him "hid in the bushes," as they put it, retired and withdrawn from active political life. He entertained them at his own expense, all hundred and eighty-eight of them, while they rested from their long overland journey. Then at their insistence—for they had never within the memory of their oldest men conducted an important treaty without him—he jolted in his coach over the deeply rutted Germantown Road to the Great Meetinghouse at Market and Second Streets. There he saw the Indians paid for their lands beyond the Susquehanna; he heard them promise to be faithful to the British if the threatened war with France broke out; he heard the savage philippic with which Canasatego, the Onondaga orator, denounced the Delawares as women and banished them from the Walking Purchase lands. And finally, he heard Canasatego tell Governor Thomas and his Council of the love and trust they felt for James Logan. "He is a wise man and a fast friend to the Indians," said the tall Onondaga sachem, "and we desire, when his soul goes to God, you may choose in his room just such another person of the same prudence and ability in counselling, and of the same tender disposition and affection for the Indians." It was a touching farewell, a fitting climax to Logan's last Indian treaty. He had able successors—Charles Thomson, Conrad Weiser, George Croghan—but there was never anyone else for whom the Indians felt so much respect, in whom they reposed so much confidence. For had not Logan been the personal representative of Onas, the trusted friend of William Penn himself?

## A QUAKER LOVE LETTER

For a more intimate picture of Logan in private hife, I pass over his two unsuccessful love affairs one with the lovely Anne Shippen whom he lost to Thomas Story, the other with Judith Crowley of the English Quaker family of ironmasters—and choose to pause briefly over his less romantic but successful courtship of Sarah Read. In 1713, when he was approaching the age of forty and growing desperate lest he be doomed to perpetual bachelorhood, he tells us, "I cast my eye on a young woman of whom, though born and bred in this little town, I had never taken the least notice before, yet believed that none in these parts could contribute more to my happiness." The girl was not half his age, and she had little education, but she was a good girl and a pious Quakeress.

Laboriously, he composed a declaration of love. "My dearest love," he commenced, "To tell thee how much I admire, value, and love thee and thy excellent virtues is needless, for thou canst not be insensible of it. I look on thee as one capable to bring a man the greatest blessing in thy person that he is capable of receiving in the world . . . and how eager one in my circumstances, who rates thee at the highest, would be to possess such a blessing may easily be judged."

easily be judged." Sarah, he knew, was a religious girl, so he sought to mask his impatience with a show of devout submission. "I... resign thee up to ... God ... to whom thy innocent life and virtuous inclinations have certainly rendered thee very dear, that He may dispose of thee according to His divine pleasure ... humbly imploring at the same time ... that I may be made worthy to receive thee as a holy gift from His hands." This was unaccustomed language for Logan; he was not a notably religious man. But he plodded doggedly on. If the gracious Lord should condescend to bestow her on him in spite of all his offences—"which in the course of so active a life as mine has been have doubtless been many"—he would accept her as a sure pledge of God's continued love to him, and he hoped that, "linked together in a strong unspotted affection both of body and mind," they might be "further cemented together in the divine love that affords the most solid comfort to the soul here and the most lasting pleasure both here and hereafter." How could any Quaker girl refuse so touching, so contrite, so pious a proposal? They were married in December, 1714 in the Great Meetinghouse. His friends told him he had "never shown more judgment in any choice." Sarah made him an affectionate and obedient wife—the word *obedient* crops up with rather revealing frequency in his references to her —and bore him seven children, of whom three died young.

# PHILADELPHIA'S FIRST SCIENTIST

Love letters came hard for James Logan, but letters in Latin to the scholars and scientists of Europe came easily. Only lately have we begun to grasp Logan's real relationship to the world of learning and science in the early eighteenth century. He was no mere onlooker, not just a provincial dilettante, reading and writing in obscurity on the edge of the American wilderness, but a full-fledged participant in the Atlantic Community of scholarship in his time. Two glimpses of Logan the scholar at work will bear this out.

One of the problems that perplexed scientists in the early eighteenth century was how plants reproduced themselves. There had been some speculation and some experiments which suggested that the process was a sexual one, that there were male and female elements in plants as there were male and female animals. In the summer of 1727 Logan decided to find out for himself. He planted some hills of corn in the garden of his house on Second Street. When they approached maturity, he snipped the tassels from one group of plants, cut the silks away from another, wrapped the ears of a third with muslin to keep the pollen away from the unmatured kernels, and left the fourth group intact as controls. The results proved conclusively that the mechanism of reproduction was sexual.

matured kernels, and left the fourth group intact as controls. The results proved conclusively that the mechanism of reproduction was sexual. Five years later, after he had checked and rechecked his findings, he sent them off to the Royal Society in London. They were published in the Society's *Philosophical Transactions*, which were read by scientists all over the western world. Later, they were published separately in both Latin and English. A copy reached the great botanist Linnaeus at Upsala in Sweden. Linnaeus was just then working out his great system for classifying the vegetable kingdom, a system whose basis was to be the sexual character of plants. He wrote a warm and fulsome letter of congratulation to Logan in Latin, the universal language of scholarship. The letter is lost, but we have some idea of what he said from Logan's Latin reply, which is in the Royal Linnaean Society in London. He called Logan one of the heroes, one of the supermen of botanical studies. Logan replied modestly that he was only an amateur, a dabbler. Then, with characteristic generosity of spirit, he commended to Linnaeus a certain simple countryman of his acquaintance, John Bartram (quidam rusticus Joannes Bertram). This was the beginning of Bartram's fruitful career as an internationally known botanist. But it was not the end of Logan's influence. Linnaeus referred to his work on Indian corn in several of his treatises, including a lecture before the Imperial Academy at St. Petersburg in Russia, and Logan's findings continued to be cited in botanical works well into the nineteenth century.

#### A BUFFALO SKIN FOR DOCTOR FABRICIUS

He had another notable international correspondence in quite another field. If Linnaeus was the greatest botanist of the day, Johann Albertus Fabricius of Hamburg was the greatest classical scholar, one of the most encyclopedically learned Humanists of any period, the author of more than a hundred books on the Greek and Roman writers. Logan entered into a correspondence with him (again in Latin, of course) about the Greek scientific writers, Ptolemy, Euclid, Pythagoras. The points they discussed were highly technical—bibliographical and textual problems in the main—but Logan held his own with the erudite professor from Hamburg. Two of Logan's letters seemed important enough as contributions to classical studies to be published in Europe, one in Hamburg, the other in Amsterdam. There is no question in my mind but that Logan, along with all his other accomplishments, was the most learned student of the classics in all colonial America—and I am not excepting the Harvard-bred Puritan ministers of New England or the cultivated planter-aristocrats of Virginia.

One tiny incident in Logan's relations with Fabricius stands out as especially striking and revealing. Logan was sure there was a Latin edition of a certain astronomical work of Ptolemy that was earlier than any Dr. Fabricius had mentioned in his studies. He knew because he had once owned a copy, but had had to sell it before he came to America. Now he didn't even have and couldn't obtain the earliest edition that Fabricius had referred to—a Greek text published in Basel, Switzerland in 1538. Fabricius wrote him that this book was exceedingly scarce, couldn't be had for love or money. Then one day on one of the ships that came up the Delaware a copy arrived, addressed to James Logan. It was Fabricius' own copy of the 1538 Basel edition—a gift to his American friend who studied the Greeks in the little Quaker town across the sea. As a feeble acknowledgment—the most acceptable present he could think of that was within his power to give—he sent the German scholar an "Indian dressed buffalo skin with the wool on." Incidentally, the 1538 Ptolemy with Fabricius' signature in it is still in the Loganian Library. So, too, is a copy of the 1515 Venice edition—for Logan, convinced that the book existed, even though Dr. Fabricius doubted it, persevered in his search until he located the very copy he himself had sold in Dublin many years before.

#### THE FINEST COLONIAL LIBRARY

Our last glimpse must be of Logan in his library. It will be through the eyes of a gentleman from Virginia who visited him at Stenton in 1744. The Virginian, William Black by name, had tea with the old gentleman and his lovely daughter, Hannah. It must be confessed that young Black had eyes mostly for the daughter and he burned his lips on the tea more than once, he admits, as he gazed on Hannah's beauties. "I was really very much surprised," he wrote in his journal, "at the appearance of so charming a woman in a place where the seeming moroseness and goutified father's appearance promised no such beauty." But he did notice that James Logan "seemed to have some remains of a handsome enough person, and a complexion beyond his years, for he was turned of 70." (Gustavus Hesselius' portrait of Logan, incidentally, bears out this remark about his complexion.)

this remark about his complexion.) When the tea things were taken away, the visitors were shown the library, and Logan's old eyes surely lighted up as he displayed the shelves and shelves of books which were the pride and joy of his life. The Virginian was willing to allow that it was "really a very fine collection of books, both ancient and modern." But this was a gross understatement, for I am perfectly convinced, after studying the catalogues of all the major colonial American libraries ,that there was no collection in all America —not at Harvard, not at Yale, not in the possession of any Puritan minister or Virginia gentleman—that could compare with it in balance, in catholicity, in variety, in numbers of rare works and fine editions, especially in the classics and in science.

Sadly Logan told Black that his sons did not inherit his own bookish inclinations. He had resolved therefore, to turn his library over to Trustees for the use of the public. He did not actually execute an operative deed of trust before he died, but his intentions were carried out after his death by his sons, and the Loganian Library is now, of course, in the Library Company, where it is in the process of being completely rehabilitated and recatalogued as befits the greatest of all American colonial libraries. The Loganian is unquestionably one of Philadelphia's greatest cultural treasures. One can only hope that in the years to come it will be cherished and used by scholars, as Logan intended it to be.

## THE GREATNESS OF JAMES LOGAN

I have not by any means touched on all the aspects of James Logan's career that deserve notice. Nor have I done justice to those I have mentioned. But I hope I have persuaded you that I was not far wrong when I suggested at the outset that he was a man cut from the same broad cloth as William Penn and Benjamin Franklin, that he was as "universal" a man, in the Renaissance tradition, as they, and that he deserves a place alongside them in our colonial history.

One measure of greatness in history is certainly the extent to which a man relates himself to the main currents of life in his time and place and decisively affects their course. As a masterful politician in the conservative tradition, as a statesman and Indian diplomat of imperial vision and vast skill, as a successful businessman who was a significant pioneer and innovator in at least two fields (the fur trade and the iron business), as a selftaught scholar and scientist who met the savants of the Old World on their own ground, as the builder of one of the great American libraries, the young man who came to Pennsylvania in 1699 on the *Canterbury* meets the test.

