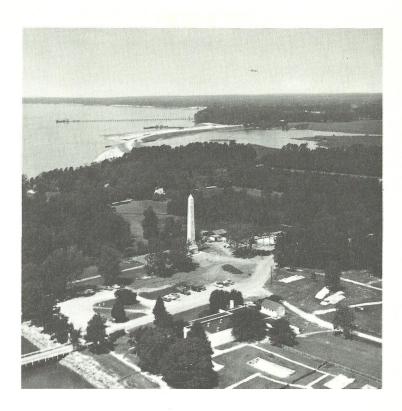
THE GLASSHOUSE

1608-1957



JAMESTOWN, VIRGINIA

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Jamestown Island, with the new causeway leading to the mainland and Glasshouse Point.

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JAMESTOWN, VIRGINIA

by Hector Bolitho

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INTRODUCTION

AND ACKNOWLEDGEMENTS

NTERNATIONAL arguments seem thin and remote when one stands on Jamestown Island, where the first English settlers landed, and stayed, 350 years ago. An example seems to come out of the dark arches of history and make us ashamed of our truculence. I am a New Zealander of the third generation; my great grandfather navigated his own ship to the Antipodes, in the 1840's. But my heart is English and will remain so; not in any insular or merely national sense, but because I recognize bonds of respect and wonder in this kinship, of mind, of scholarship, of regard for the law and for humanity, that has endured, against all war and conflict, through a century.

I feel these sensations of awe, with similar delight, when I walk on Jamestown Island, among the ghosts of the early colonists, whose miseries and valour were the beginning of Anglo-Saxon America. There are the footprints of sad and brave men, who were realists: they tilled the soil to produce the first harvest, and they founded the first industry in the new land—the making of glass.

I went to Jamestown Island and to Glasshouse Point many times in the winter of 1956-57, and felt, as an Englishman, that I wished to write my own thoughts and feelings

into an essay. It is now published in this little book, through the generosity of the Jamestown Glasshouse Foundation—an association of the leading manufacturers in America, who care enough for the early experiments in their trade to have made another glasshouse, on the site of the old one, built in 1608. There, in what was the cradle of American industry, glass is being made again.

Anyone who has read Mr. J. C. Harrington's Glassmaking at Jamestown will realize my debt to him. I am equally grateful to Mr. Charles E. Hatch of the National Park Service for his Preliminary Historical Study of Glass House Point, and to Mr. John Melville Jennings, Director of the Virginia Historical Society, for his corrections and help.

HECTOR BOLITHO

"Toddsbury" Gloucester, Virginia, February, 1957.

THE GLASSHOUSE

The First Colonists

VERY American boy should be led to Jamestown Island and left alone, to think and wonder over the power and prosperity of his country that grew from this little seed. The early seventeenth century houses have fallen back into the shadows of the earth; there are no sketches, or even descriptions in letters, to tell us what they were like. The rubble of their foundations is mixed in with the native soil and the island is tranquil again. In the gentle summer evenings the shades of the sad, exiled colonials might walk once more along the paths of their sacrifice and be amazed by the vast republic that has risen out of their fortitude.

Names survive on the land longer than buildings or any other sign of human habitation and, when we look at a map of this part of Virginia, we can trace the invasion of English names, mixed in with the Indian, to show where the early colonists penetrated the land and the rivers. Then we can imagine the three ships, the Susan Constant, the Godspeed and the Discovery, leaving London on 20 December, 1606, with the first handful of settlers, to make the journey of 3,000 miles across the mysterious Atlantic. It was a strange

and savage season to choose for such a perilous journey: the biggest ship, the Susan Constant, was 111 feet long and of only 100 tons.

On 26 April, 1607, "about foure a clocke in the morning," the colonists "descried the Land of Virginia" and they entered Chesapeake Bay "without any let or hindrance." They immediately scattered English names on the landscape; the northern promontory they called Cape Charles and the southern, Cape Henry, after the King's sons. They landed at Cape Henry and stayed there some days, "almost ravished at the first sight" of the "faire meddowes and goodly tall trees," and the "Fresh waters running through the woods."

On 29 April they "set up a Crosse" and knelt in prayer and thanksgiving for their safe voyage; next day, they sailed on to a new anchorage which they called "Cape Comfort"—a name that has become Old Point Comfort on the maps of today. Then they moved on to the island, which was named after King James and which was to be the capital of Virginia for 92 years.

The ships were able to "lie so neere the shoare" that they were "moored to the Trees in six fathom of water". Then the colonists had to labour, to defend themselves against the "Salvages" and by 15 June, the Fort was finished. It was "triangle wise, having three Bulwarkes, at every corner, like a halfe Moone, and foure or five pieces of Artillerie mounted in them." Having made themselves "sufficiently strong" against any possible enemy, the colonists began to till the land. Master George Percy wrote, "We had also sowne most of our Corne on two mountains. It sprang to a mans height from the ground."

It seemed that the emigrants were safe and that they might prosper, but the memory of England remained sadly

dear to them, especially when summer came and the "Aire" was "insalubritious and unhealthy," and the water in the wells "brackish, ill-scented, penurious, and not gratefull to the stomach. . ." They could not imagine that out of their scourging a nation would grow and dominate the world. They only longed for home and, remembering the last sight of England as they sailed down the Thames from London, they looked across the James River to the far shore and called it the "Surry side."

The First Industry

I WENT to Jamestown for the first time on a clear November day when there were so few people on the island that one could stand on the worn old path, where Rolfe and Princess Pocahontas may have walked, and let one's imagination roam back through the centuries. But, in 1607, there was no romance for the colonists: their task was realistic for they had to subdue the earth and make money out of it. The Virginia Company in London was formed at a time when the English were awake to the chance of exploiting far away countries and they had not sent the colonists across the Atlantic on the wings of a dream: the company was mercenary in its inception and the emigrants were required to learn trades and produce articles that were then being imported from Europe, such as pitch, tar, flax, masts, soap ashes—and glass.

The directors, as far back as 1606, were aware of a truth that influences business men in our own time: they knew that it was cheaper to develop an industry beside the raw materials rather than ship them across an ocean to the fac-

tories at home. While the Susan Constant, the Godspeed and the Discovery were "moored to the Trees in six fathom of water," waiting to return to London, Captain Christopher Newport explored the banks of the river and found, among other encouraging signs, that there was every raw material necessary for the making of glass; the oak trees would yield wood for the furnaces, and for providing potash; the river beach would provide the sand for silica, and not so far away were river boulders that could be cemented together to form the ovens. Only the equipment and the skilled men were needed.

Captain Newport may have crossed the narrow way connecting Jamestown with the mainland; to the point where the first glass factory in Ámerica was to be built; where one may still stand and listen to the rustle of the brackish waves of the river, washing against the once precious sand; where one more place-name was to be planted on the land, *Glasshouse Point*, three and a half centuries ago. The name has endured into our own time.

The Susan Constant and the Godspeed returned to London and anchored in the Thames. There was one man who might have watched the little ships, from his cell in the Tower of London, with strange and separate emotions; Sir Walter Raleigh had been imprisoned there since 1604 and some of the men who had crossed the ocean in 1584, when Virginia was discovered and named, might still have been in Blackwall, beside which the ships were anchored. The talk in the "many large and strong houses" and the "smaller for sailors," on the bank of the river, must have been lively, with two generations of adventurers to describe the wonders of the New World; the wonders that had inspired Shakespeare to write of Malvolio, "He does smile his face into more lines

than are in the new map with the augmentation of the Indies."

Some months passed before the next ships sailed from Blackwall for Jamestown and, in this time, the Virginia Company was able to act on Captain Newport's recommendations. Equipment and tools were obtained, and "glasse-house men and the rest" were brought from Poland and Germany, to be trained and sent to found the glass industry, as well as the making of pitch tar, soap ashes and clapboard, in Virginia.

* * * * *

One of the oldest illusions in the world is that men shed the evils of human nature by emigrating; but it is sadly true that they do not escape from themselves by crossing an ocean. This was proved by the little community of one hundred men, settled on the edge of Virginia. They soon showed that they had brought their discontent with them; they had even begun to quarrel when they were on the ships. The perils that they shared when they landed, from the "Salvages," from hunger and the unhealthy climate, did not reconcile them to neighbourliness. They even fell into the sin of local politics and the majority charged the President, Captain E. M. Wingfield, with being "very unworthy" and with having feasted "on the provisions belonging to the Colony" during a time of famine.

The discontented settlers needed the fearless leadership of a dictator: he emerged in the fabulous figure of Captain John Smith who had a dash of the "rugged individualist" that we now claim to be an American conception of character: he stepped out of the rut and took on the task of leading the colonists, harshly, but with imagination. While the ships were crossing the Atlantic, bringing Captain Newport and the "glasse-house men," with their tools and equipment, John Smith must have spied out the land and chosen the site for the glass-factory, "in the woods neare a myle from James Towne." It was on the mainland, then joined to the island by a slim isthmus. Soon after the ships arrived, the glass workers and their helpers were taken to the site where they built "a goodly howse . . . with all offices and furnaces thereto belonging."

* * * * * *

The American boy might be led now, from the calm thoughts of Jamestown, to the peninsula where American industry was born. He might read John Smith's report, written in April 1609, when prosperity had deigned to glance at the efforts of the settlers. He described the first three months of the year and began, "Now we so quietly followed our business." He recorded that the three sows had "increased 60 and od Piggs," and that "neere 500 chickings" had "brought up themselves without having any meat given them." But the shining achievement was on the peninsula: there, in the "goodly howse," the furnaces were working and there had been "a tryall of Glasse."

Some of the objects were finished in time for Captain Newport to take them back to England and induce the directors of the Virginia Company to hope that glass-making in the colony might prosper.

We do not know exactly what these first glass workers made. Three and a quarter centuries later, when the archaeologists came with their spades, they sifted the earth on the site and found the outline of the "goodly howse," and the ruins of the furnaces and ovens; but there were no

glass objects complete enough to help them to decide exactly what had been produced in the "Tryall." There were glass threads, thrown away when some article—a bottle or a tumb-ler—had been blown; and fragments, all of the "common" green glass, suggesting that the workers had made the ordinary green bottles of the time.

The scholars found little from which to build up an authentic, lively picture of this first experiment. There were some barrel staves, at the bottom of a well, to indicate where the glass workers drew their water, a few nails, a piece of Indian pottery to remind them of the "Salvages," and a cannon ball, of a later date, to remind them that Virginia was not colonised in peace.

The fragments of big melting pots gave the best evidence of the first "made in America" objects to be exported to England. When the clay of which these pots were formed had been examined, it was proved that some of them had been imported and some moulded out of native earth. The imported ones were the most used, with deposits of moulten glass still stuck to their sides. The newer pots, moulded from Virginian clay, were less worn, suggesting that they had been made locally when those brought from England were broken.

Imagination must tie these scraps of evidence together: the piece of pottery, in memory of the Indians looking on at the English magic; the ruins of the furnaces, marked by fire and smoke, the few fragments of green glass from broken phials or tumblers, and little pieces of paler glass that might be broken window panes. But we must not go too far with our imagining, as some dreamy writers have done. We have to accept a strange disappointment. We know that there was a great demand for glass beads, the coins of barter with the Indians. They were used by the colonists to buy

corn, supplies and canoes, and we wonder why there are no beads, broken or whole, among the debris at Glasshouse Point. The conclusion is that, during the brief "tryalls," the glass blowers did not go so far as to make beads and that they were still imported from Europe, by way of England. Many have since been found: they have been unearthed in Indian graves from so far as Rhode Island and Florida. Many more were dug up on Jamestown Island and some have been washed up on the river banks, by the high tides. These have often been reduced to half their size, by three centuries of erosion. But none has been found near Glasshouse Point and we must admit that beads were never made there: that all of them were imported, including the lovely turquoise-blue ones, so beloved by the "Salvages," because they were the colour of the sky.

* * * * * *

Whenever the English have emigrated they have taken their class distinctions with them, and this folly has been part of their success and power. The first colonists sailing for Virginia had boarded the ships in the Thames with their status clearly described: there were 46 "gentlemen," 10 labourers, 4 carpenters, 1 blacksmith, 1 barber, 1 tailor, 1 drummer, and two "chirurgeons," or surgeons. There were twenty-nine men whose position was not defined, and two boys. These distinctions had been respected, even on the little ships as they crossed the sea, and they directed the lives of the emigrants after they landed in Jamestown, despite the fear of poisoned arrows from the Indians, diseases that killed half of them, within a month, and hunger that obliged the survivors to subsist "chiefly on crabs and sturgeon."

At first, the "gentlemen" did not work with their hands; they were described as "dissolute reprobates of good families" and they no doubt began by idling their days away, while the hoi polloi husbanded the fields, pitched tents, and made fish nets.

There was a further complication in this fine pattern of social differences: when the Indian men were not at war, tribe against tribe, they spent their time in hunting, leaving their squaws to till the ground. To the "salvages," those white men who dug the earth were no better than the squaws and were despised accordingly.

The ships with the "glasse-house men and the rest" also brought the first two women to emigrate to Virginia. We do not know what happened to "Mistress Forrest," but "Anne Burras, her maide" was soon married off to John Laydon, one of the carpenters, and, as they are not mentioned again, one presumes that the presence of two women in this rugged colony of men, was not disturbing. But the "Dutchmen" and the Poles were a different problem; they were "foreign labour" and, as they spent most of their time at the glasshouse, a mile from the Fort, they were suspected of dalliance with the Indian women. Worse happened after the famous episode of Princess Pocahontas saving John Smith from being slain; when he wished to thank her father by building him "A house after the English fashion, having a chimney."

Visitors to Jamestown should pause on the way, some twenty miles north, where Timber Neck Creek runs into the York River on the Gloucester side. There, set on the lawn of a farm house, is a splendid and lofty chimney, believed by

^{1.} Although these men came from Germany, John Smith and other chroniclers of the time described them as "Dutchmen."

many to be the one that John Smith built for King Powhatan, almost three hundred and fifty years ago.

Since the Glasshouse was within Powhatan's kingdom, it is not irrelevant for us to conjure up a picture of him, as we stand before the chimney; all that remains as a memorial to this splendid old "Salvage" ruler. Powhatan knew the difference between being a mere Red Indian overlord, and an emperor. His "cousin" had been taken to Spain by Jesuit missionaries in the 1560's, and had returned to Virginia with stories of the court of Philip II and of the splendours of sixteenth century Europe.

Powhatan, like the monarchs of whom he had been told, believed in the divine right of kings and that when his Indian subjects died they would perish in the dust; all except himself. For him there would be a special paradise, beyond the Allegheny Mountains, where he would enjoy the company of a few select spirits like his own.

It was proper that Powhatan should be crowned with the crown brought from England as a gift from King James I; and proper that he should have a grand house, "after the English fashion." The Indians were used to the simple ventilation holes at the top of their wigwams; now they could marvel at the sight of the royal smoke, coming out of a tower, eighteen and one-half feet high and ten and a half feet wide at the base; all made from marle dug from the river bank. Sitting within the wide hearth, Powhatan could smoke his pipe and enjoy his imperial power, over 30 tribes and 8,000 subjects; and over the 2,400 fighting men he was able to summon to defend his lands.

The "Dutchmen" must have completed their work on the Glasshouse about this time; we know that John Smith sent them to build the house and chimney for Powhatan and that when they had finished, some of them decided to stay with the Indians. The abundance of good food may have been the first temptation; but they soon turned to treachery and planned to capture John Smith and kill him.

The story is told in the quaint language of contemporary records.² It is incredible to think over the miseries in which this first attempt at industry began. In the winter of 1609, the food in the stores at Jamestown was "so rotten with the last somer's rain, and eaten with rats and worms" that even the hogs would "scarcely eat it." Yet the "Dutchmen" chose this dark time to smuggle "powder shot, swords, and tooles" out of the Fort, to arm Powhatan. The chronicler wrote, "... though we could find the defect, we could not finde by whom, till it was too late."

The arms were conveyed to Powhatan who "kindly entertained" the thieves to "instruct the Salvages the use" of them. Glass-making must have been abandoned during this time for we read that there was a hitch in the foul plot and that, "to know the cause," the "Dutchmen" with Powhatan sent one of their companions, "a stout young fellow, disguised like a Salvage, to the Glass-house, a place in the woods neare a myle from James Towne; where was their Randezvous for all their unsuspected villainy."

It is no wonder that the story of the glass industry is so vague, when the men who should have been making phials and tumblers were would-be assassins; there were no less than 40 Indians waiting in ambush with the "Dutchmen," in case Smith might appear. When Smith learned of the "stout young fellow disguised like a Salvage" being at the Glasshouse, he set out to apprehend him, but too late. The

^{2.} Travels and Works of Captain John Smith. Edited by Edward Arber. (John Grant, Edinburgh, 1910) Vol. 1., pp. 466-470.

man was gone, so he sent his men to pursue him. Then Smith, walking alone, began the return journey to Jamestown.

He could not have been more than a few yards from the site when he encountered a lesser Indian ruler, King Wo-chincho-punck, "a most strong stout Salvage," who had failed to lure Smith into the ambush. Now he had him to himself, and armed only with a sword. The King tried to shoot, but Smith grappled with him and, wrestling thus, they moved down the beach where the Indian tried to force Smith into the river to drown him. "Long they struggled in the water" till Smith "got such a hold on his throat he had neare strangled the King."

Smith drew his sword to cut off the Indian's head but, "seeing how pitifully he begged his life, he led him prisoner to James Towne, and put him in chaynes."

The "stout young" Dutchman was also captured and taken to prison. The narrative, of lying, shooting and killing, goes on for several pages of John Smith's story and glassmaking is never mentioned again. Such peaceful enterprises must have taken second place while murder and plunder ruled the day. But the thought endures, that this first timid industry is, if vaguely, associated with John Smith's valour.

One episode, at the close of the skirmish between Powhatan's soldiers and the colonists, reveals John Smith in the romantic light that he no doubt enjoyed. When he arrived back at Jamestown, from the Glasshouse, he learned of "a Pistoll being stolne and the theefe fled." He apprehended "two proper young fellowes" who were brothers, and friends of the thief, put one of them in prison and sent the other out to "regaine this Pistoll." He was told that if he did not bring it back within 12 hours, his brother would be hanged.

Then, pitying the man in prison, Smith sent him "victuall and some Char-coale for a fire."

We read, "Ere midnight his brother returned with the Pistoll, but the poore Salvage in the dungeon was so smoothered with the smoake he had made, and so pittiously burnt" that he was given up for dead. The brother, "most lamentably beway[1]ed his death, and broke forth into such bitter agonies" that Smith tried to quiten him; he told him that if "hereafter they would not steale" he would bring the "Salvage" to life again.

The narrative continues:

"Yet we doing our best with Aqua Vitae and Vinegar, it pleased God to restore him againe to life; but so drunke and affrighted, that he seemed Lunaticke; the which as much tormented and grieved the other, as before to see him dead. Of which maladie upon promise of their good behaviour the President [Smith] promised to recover him; and so caused him to be layd by a fire to sleepe; who in the morning having well slept, had recovered his perfect senses, and then being dressed of his burning, and each a peece of Copper given them, they went away so well contented, that this was spread among all the Salvages for a miracle, that Captaine Smith could make a man alive that was dead."

Such "pretty Accidents so amazed and affrighted both Powhatan and all his people" that they brought presents to Jamestown, returned stolen objects, and sent thieves to the English to be punished. For a little time, peace reigned and the colonists were able to report, ". . . all the Country became absolute as free for us, as for themselves."

One is obliged to wander from the subject of glass-making, simply because there are so few records to make the story come alive. But visitors to Jamestown may allow their imagination to take a leap and, associating the few facts with the landscape they see, form some notion of the fortitude and terrible discouragement in which the industry began.

Mr. J. C. Harrington writes,3

Very likely the first glass-making venture came to a close about the time that John Smith returned to England in the fall of 1609. He had been the guiding force in the various enterprises initiated the previous year, and there seemed to be no one else capable, or willing, to push these new undertakings. In any event, glass-making most certainly would not have continued during the terrible period of starvation and sickness which followed Smith's departure—a period realistically labelled "The Starving Time," during which all but 60 of the 500 inhabitants at Jamestown died. Relief came to the colony in the spring of 1610, but there is no evidence that the glass factory was revived at that time.

This calm statement covers many tragedies, and every prosperous American should be humble when he reads of them. John Smith was a creative hero, born to peril and adventure. One day in the Fall of 1609, while he was sleeping in his boat, 100 miles away from Jamestown, one of his followers "accidentalli . . . fired his powder bag." The flesh was torn from Smith's "bodie and thighes . . . in a most pittifull manner." In an effort "to quench the tormenting fire, frying him in his cloathes, he leaped overboard into the deepe river where ere they could recover him, he was neere drowned." There was no surgeon to attend him and, thus

burned and in pain, he made the long journey back to Jamestown.

Smith still had his enemies among the colonists, and they were waiting for him. Seeing that he was "unable to stand, and neare bereft of his senses, by reason of his torment," they planned to murder him in his bed. But he was saved and soon sailed for England, never to return to Virginia.

The great book on this exciting adventurer is still to be written, not for scholars to criticise but for boys to read and enjoy. For John Smith is a boy's hero, with imagination, courage and humour nicely mixed in his character. The withdrawal of his influence and example left Jamestown in temporary ruin: soon after he sailed, the Starving Time came. The colonists died in acute misery and nature crept back and covered their little effort at achievement, on Glasshouse Point. The stillness of death came to the peninsula where the water, the sand and the trees, resumed their native quiet.

In his A Trew Relaycon, George Percy wrote of this time:

Now all of us att James Towne beginneinge to feele that sharp pricke of hunger which noe man trewly descrybe butt he which hath Tasted the bitternesse thereof. A worlde of miseries ensewed as the Sequell will expresse unto you in so mutche thatt some to satisfye their hunger have robbed the store for the which I caused them to be executed. Then haveinge fedd uponn horses and other beastes as long as they Lasted we weare gladd to make shifte with vermine as doggs Catts Ratts and myce All was fishe thatt came to Nett to satisfye Crewell hunger as to eate Bootes shoes or any other leather some colde [could] Come by And those being Spente and devoured some weare inforced to searche the woodes and to feede upon Serpents and snakes and to digge the earth for wylde and unknown

^{3.} Glassmaking at Jamestown, America's First Industry. J. C. Harrington, 1952. P. 9.

Rootes where many of our men weare Cutt off of and slayne by the Salvages.

And now famin beginneinge to Looke gastely and pale in every face thatt notheinge was spared to mainteyne Lyfe and to doe those things wch seame incredible . . . To eate many [of] our men this starveing Tyme did Runn Away unto the Salvages whome we never heard of after.

By June, 1610, when nine-tenths of the colonists had died or had been killed by the Indians, the pathetic remnant of men in Jamestown longed only to leave the island forever. They had been heartened by the arrival of the *Patience* and the *Deliverance*, whose names told their history; they had been built by an English crew, wrecked in Bermuda. But they brought only three weeks supplies and on 7 June, the hungry and disillusioned settlers—all except the "Dutchmen" who had abandoned the glasshouse to live with Powhatan—sailed down the James River, hoping that they would be able to return to England.

The story ends in punishment for the evil ones and triumph for the brave. Powhatan became weary and suspicious of the "Dutchmen" who had deserted to him, so he "bashed out their brains" to be rid of them.

The remnant of the colonists were still in the river, on 8 June, within sight of the island that must have stirred only horror in their minds. News came that Lord Delaware had arrived at Point Comfort, on the way to Jamestown, with 150 settlers and supplies that would save the colony. So the desolate men on the ship returned to the graveyard of their miseries and, out of the mystery of their unquenchable valour, they stayed and began to build again; to sow and reap and labour, and justify their sacrifices in the birth of a nation.

1610-1621

WHERE is an illusion, fostered even in some American schools, that the "Pilgrims" were the first colonists to settle permanently in America. The events I have described were all before the Mayflower arrived in Plymouth in 1620. The roots of Anglo-Saxon civilization, planted in Jamestown, were still to suffer much adversity, and the making of glass was to be temporarily abandoned. Tobacco and silk succeeded where glass had failed, and these two products saved Virginia. In 1604, King James I had written of the "vile use" of tobacco as "base, and yet hurtfull corruption." But John Rolfe's discovery of a way to cure the leaf overwhelmed the King's objection; the trade was founded, and it prospered. In 1614, "silke worms were sent thither from England" in seeds, and as the country had a great "store of Mulberry trees," the worms grew "to great bignesse" and spinning began. Within a few years the silk became famous and was so fine that, in 1660, the coronation robes for King Charles II were woven in Virginia, where the colonists had remained loyal to the Stuarts, during the Commonwealth.

But the merits of glass-making were not forgotten and there was another attempt to awaken the industry, by an English merchant. In June 1621, one Captain William Norton petitioned the London Company for a patent to "sett upp a Glasse ffurnace and make all manner of Beads & Glasse" at Jamestown. Norton sailed, in August of the same year, with his family and personal servants, and six Italian craftsmen, some of them with their wives. The London Company recommended Norton to the officials in the colony and asked them to "have a care to feat him neare fome well inhabited Place" so that his "Gange" would not be "fubject to surprise" and so that "the commodities of Glaffe and Beads" should not be "villified by too common a Sale to the Indians." In another letter, the Governor of Jamestown was told that as beads were the "money" used in trading with the "natives," care should be taken not to let them find out how they were made.

The glass-makers began in a gloom of discouragement: their glass-house was blown down during a tempest and then came the Indian massacre of 1622. Captain Norton died and soon after, the Italians were reported to "feel extremely sick." They did not begin making glass until the spring of 1623, and then only half-heartedly. George Sandys, the resident treasurer of the Company, reported;

The Fier hath now beene fix Weekes in ye Furnace, and yett nothing effected. They complaine that ye Sand will not run . . . but I conceave that they would gladly make the Worke appeare unfeafable, that they might by that Meanes be difmiffed for *England*. Much hath beene my Truble herein, and not a little my Patience.

Sandys made one more attempt to produce something from the furnace; he imported hogsheads of sand from England, but still without results and, in 1624, this experiment was also abandoned.

We do not know where the second glass-house was built, nor if the earlier building and furnaces were used. Nor do we know what happened to the temperamental Italian glass-blowers when their task ended. Perhaps they returned to England, to complete their contracts with the Company. But we do know that Sandys wrote of them, "a more damned crew, hell never vomited." One of them, Vicentio, smashed the furnace into a "thousand shivering pieces" during a fit of rage, and he beat his wife so often that Sandys had to send her back to England, to save her from being murdered.

So the "damned" crew departed and the luxurious vegetation no doubt spread and obliterated the furnaces and walls of the second glass-house. The time had not yet come for industry to prosper, in a country where crops grew so easily. But the rugged example remained and waited for its vindication. The tidewater encroached and changed the shape of the land, so that John Smith and King Wo-chin-cho-punck would not have recognized the shore on which they had struggled. In 1654, the site was absorbed into a plantation by Francis Moryson,⁴ who acquired the "Twenty four acres of Land commonly known as by the name of the Glass house." Thus it endured, no more than a name on the land, for almost three hundred years.

^{4.} Francis Moryson, Acting Governor of Virginia, 1661-62; Agent for Virginia in London, 1675-77. He impressed King Charles II, who sent him back to Virginia to enquire into the causes of the Bacon rebellion.

HE owner of Glasshouse Point and the surrounding plantation, in 1931, was Jesse Dimmick, and his house was pleasantly named, Amblers-on-the-James. Mr. Dimmick was something of a scholar and he had long been "attracted to a slope near the river," where he thought that he might find signs of the old glasshouse. One evening, in September 1931, he was treading through the underbrush, wondering over the changed shape of the land. In some places the river had eaten almost twenty feet of the bank away, since 1608, and, to guard the secret still further, a new surface of earth and leaf mould had covered the peninsula to a depth of twelve inches.

Mr. Dimmick suddenly kicked up a piece of slag that caught the light. He put it in his pocket, and went home. Next morning, accompanied by his wife, he returned to the peninsula, with spades, and the task of excavation began. Winter came before he had gone very far, so he covered what he had found and waited until the spring. Then he began digging again and unearthed "the remains of three crude furnaces" built, in part, of "large river boulders." He also found "crucible fragments, glazed rock and glass fragments" and then, becoming timid, as an amateur, he decided



Ruins of the furnaces in the early seventeenth century Glasshouse, unearthed in 1931. The site of the well is seen in the north right corner.

to call in the scholars. On March 1, 1932, Mr. Dimmick wrote to the late Dr. W. A. R. Goodwin, "I have recently found on my property, on that part known as the 'glasshouse' tract of 24 acres, the ruins of old glass kilns, and in the ruins are fragments of the containers in which the glass was melted. slag &c. We have opened this sufficiently to establish the above fact, but I feel that my small experience . . . is not adequate to 'read' absolutely correctly as a skilled archaeologist would do; and fear I might destroy evidence that would be of value, which I do not wish to do. The ruins of these kilns are of national interest from an historical standpoint as they are part of the Jamestown shrine. . . ."

Mr. Dimmick must have been disappointed for he wrote again, on March 14, 1932, to Mr. Horace Albright, then Director of the National Park Service, in Washington, "I have had considerable difficulty since I discovered the old glass plant last September, to restrain myself from going ahead and digging around, making an amateurish research. . . . Having appealed to a number of public departments, both Federal and State, and not being able to get immediate asistance, I had about decided that as soon as the weather was favourable I would continue this research on my own.

"I should be very glad to have your men come here at any time to inspect these ruins. . . ."

Mr. Dimmick died before the National Park Service sent their archaeologists to explore the site, in the Fall of 1948, "exactly 340 years after Captain John Smith put men to work building a glasshouse." Mr. Harrington⁵ has described the adventure. "An area roughly 50 feet square was . . . carefully excavated, layer by layer. The earth was wheeled away as it was trowled out, and then screened. . . . The digging



The Glasshouse, rebuilt in 1956, on the site of the Glasshouse of 1607.

was done very carefully and slowly, for we were quite confident of finding glass beads. Although not a single bead was found, fragments even smaller were recovered, as well as thin threads of glass, often as fine as a small needle."

Slowly, the grave of the old industry yielded its secrets; the four stone furnaces, "all built of rounded river boulders imbedded in clay," and what had "once been a small pile of waste glass lying on the floor": a "thick deposit of ashes and fine charcoal," and the well, 8 feet deep, which was "simply a hole dug a foot or two below the normal ground level, with a large wooden barrel set in the bottom of the hole." The barrel was still "in a good state of preservation . . . nearly 4 feet tall . . . made with oak staves held together with four iron hoops."

There were no remains to show what kind of shelter the glassmen enjoyed, against the harsh sun, and the rain; only the "hard-packed floor, into which had been tramped small bits of charcoal, glass and other debris . . . forming a rectangle 37 by 50 feet. . . . The original building, represented by this indirect evidence, was just large enough to cover the four furnaces and provide working and storage space around them."

When the archaeologists had completed their task, the site of the glasshouse might have remained a novelty, set among the pines and cedars beside the river. But the imagination of the first venture was not lost, in the mighty industry that it had inspired: when Virginia became aware that it was soon to celebrate the 350th anniversary of the landing at Jamestown, the glass manufacturers of all America decided to restore the site, and to build a glasshouse as much like the early one as possible. So the scholars and architects and builders came to work again; the old furnaces of 1607 were

guarded with fences, and, nearby, the new glasshouse rose in the shelter of the trees; a pleasant, thatched shelter that has already mellowed under a winter's rain, with the furnaces carefully reproduced, and glass workers brought to make the first "Tryall." They are the heirs in craftsmanship to the "glasshouse men and the rest" who arrived in Jamestown with Captain Newport. But they are able to work in tranquility the first bewildered colonists were denied.

So the visitors to the Festival, coming from the confident, prosperous spaces of America, are allowed to stand on what is almost sacred ground; to stand before the new "goodly howse" beside the water and watch glass being made, with craftsmanship unspoiled and almost unchanged by time. The visitors might even walk down to the shore where John Smith wrestled with King Wo-chin-cho-punck, three and a half centuries ago, and imagine the ghost of the exciting hero writing in his diary:

I have come heare again, where I tryed to make glasse, in the Spring of 1608, and where I had to draw my sword against the villaines who would have spoiled my task and would have destroyed me.

The shape of the land is so changed I scarce know it, but the glasse-men are working here, as was my hope. They have kept my example alive and I am not ashamed.

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Jamestown Glasshouse Foundation

INCORPORATED

P. O. Box 31
Port Haywood, Virginia

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In honor of our Nation's 350th birthday The Color Association of the United States, Incorporated, presented the "Jamestown Festival Colors," based on authentic research at Jamestown Island. Included in these six Festival Colors is Glasshouse Green, shown on the cover of this brochure.