Pennsylvania Boatbuilding: Charting a State Tradition

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John Watson must have been quite content by the summer of 1870. Though he never learned to read or write, Watson retired at the age of sixty with a wife, five children, and the satisfaction of being one of the wealthiest residents in his community. Thirty-eight years before, Watson and his new wife, Sybella, left Reading, Pennsylvania, to begin a new life in not-so-distant Middletown. Why the newlyweds chose Middletown as their destination is unknown, but the town's dramatic growth and economic success is one possible reason. Though the oldest town in Dauphin County, Pennsylvania, Middletown did not achieve its full potential until the mid-nineteenth century. First incorporated as a borough in 1828 and then merged with neighboring Portsmouth in 1857, one unique feature made Middletown especially fertile for growth: the junction of the Pennsylvania and Union Canals.

Even prior to the canals' construction Middletown proved a significant trade center. Built near the junction of the Swatara Creek and Susquehanna River, Middletown received southbound arks and canoes laden with grain from northern farmland intended for sale in Lancaster and Philadelphia. Middletown's grain trade flourished even before the arrival of canal travel. One hundred and fifty thousand bushels of wheat traveled through Middletown in 1790 en route to Philadelphia. This number jumped to 180,000 in 1795 and skyrocketed to 800,000 in 1824. Further internal development accompanied increased water traffic. By 1870, Middletown boasted nearly three thousand residents, eight churches, and a variety of business facilities "not surpassed by any other town in Dauphin County, or of like population in the State." It is, therefore, no wonder that John and Sybella foresaw potential economic opportunities awaiting them in the riverside town.

Their expectation was, indeed, correct. Middletown's thriving economy offered a variety of occupational choices by 1870. Its industries included "two furnaces, one car and manufacturing works, a foundry machine-shop, furniture manufactory, tube works, five steam saw-mills and general lumber-work manufactories; two sash, door, and blind factories" as well as a "paint and varnish works, a steam tannery, and an extensive cigar manufactory." Added to the list were a variety of stores, two breweries, a bakery, bank, and even a newspaper. John was undoubtedly faced with no shortage of work upon his arrival in Middletown. The new resident opted for a less conventional trade, however. Perhaps arriving with some carpentry experience and a sharp entrepreneurial eye, Watson foresaw the potential market for boats to travel...
along the course of the Pennsylvania and Union Canals. Setting up shop soon after his arrival in 1832, the boatbuilder amassed a small estate valued at two hundred and fifty dollars by 1837. By 1839, Watson's business boomed, increasing his estate value to nearly one thousand dollars. Within the course of only two years, John Watson tapped a new market that would bring him wealth and success rivaled by few local residents.

Though not commonplace, Watson's success as a Pennsylvania boatbuilder was not atypical either. In fact, his story is repeated throughout Pennsylvania history from colonial times to the present. Although boatbuilding has always served an integral role within state communities, its presence has rarely been recognized. In a recent interview, Pennsylvania model boat builder Steve Rogers explained the impetus for his work: "I was interested in boats because I grew up in Pennsylvania, where you don't have any." Rogers' explanation demonstrates a common misconception. Boats have played and continue to play an important role within Pennsylvania's sociocultural and economic environment. With what maritime historian K. Jack Bauer claims is one of "the best river systems of any of the coastal states," it is not surprising that boats have figured prominently in state history.

More importantly, boatbuilding is not a lost craft in Pennsylvania. Boatbuilders continue to ply their trade throughout the state. Though their numbers do not constitute a significant contribution to the current state economy, their work does suggest that modern builders participate within a historical tradition. This study strives to identify and link historical state boatbuilding trends with the work of contemporary builders. Through use of ethnographic findings involving modern builders and a consideration of historical state boatbuilding, a connection can be drawn between past and present builders. This link indicates that contemporary builders perpetuate an evolving tradition begun by their predecessors over three hundred years ago. Imbedded in this link is an understanding of Pennsylvania neglected by scholars.

**Pennsylvania Boatbuilding: A Brief History**

Those who do recognize Pennsylvania's status as a historically significant boat manufacturer often refer to the Philadelphia shipbuilding industry as their primary evidence. Undeniably, Philadelphia proved a major contributor to the shipping market from colonial times to World War II. By the beginning of the eighteenth century, only Boston, Newburyport, and Portsmouth could compete with Philadelphia's shipbuilding industry. Delaware River shipyards maintained their presence well into the nineteenth century, and in some cases, into the twentieth.

Pennsylvania boatbuilders were active long before the rise of Philadelphia's industry, however. Prior to William Penn's arrival in 1682, Native Americans
plied birch-bark and dugout canoes on what would later be state waters. Though impossible to date exactly, these vessels most likely appeared several hundred, if not a thousand, years prior to the arrival of Europeans in the New World. Evidence includes a dugout canoe found in Mud Pond, Pennsylvania dating from about 1250 and now displayed at the William Penn Memorial (State) Museum in Harrisburg. Pennsylvania native canoes, including those of the Iroquois, remained in use after European arrival and continued to traverse the waters into the eighteenth century.

Concentrated European boatbuilding efforts began soon after William Penn's arrival. Penn, realizing the potential of regional waters, encouraged the immigration of English artisans, many of whom were shipwrights. As early as 1700, Philadelphia boasted four operational shipyards. Boatbuilding spread quickly westward. In 1768, settlers occupying lands near Pittsburgh designed and built the first keelboat as an efficient alternative to the flatboat for moving goods along the Allegheny River. The keelboat's development represented early efforts to negotiate a new, and often geographically hostile, environment.

Boat production boomed throughout the eighteenth century. In 1769, Pennsylvania was the fourth largest producer of colonial sea craft. Though New Hampshire, Massachusetts, and Connecticut built the most sea-going vessels, Pennsylvania outranked Rhode Island, Maryland, and Virginia, three traditionally prominent boatbuilding regions. The state's reputation as a leading ship producer spread. In 1775, instead of buying foreign craft, Congress commissioned state builders to construct two Colonial Navy vessels. As the state's maritime reputation spread, so did its boat producing regions. The first American ship on the Great Lakes was built and launched at Erie, Pennsylvania, in 1797. By 1800, Pennsylvania was clearly a maritime manufacturing power.

The new century brought with it new boatbuilding innovations. The Western Engineer, constructed at the Allegheny Arsenal near Pittsburgh, first harnessed steam on the Allegheny River in 1819. Pennsylvania builders revolutionized commercial watercraft by combining both steam power and iron hull construction. In 1825, the nation's first iron-hulled steamer was launched from the small town of York Haven, just south of Harrisburg. Fifteen years later Pennsylvania once again stepped to the forefront of commercial maritime competition by producing the country's first large iron barge fleet (over one hundred) on the Lehigh River.

Though boatbuilding flourished throughout the state during the eighteenth and nineteenth centuries, several areas of specific concentration developed. Pittsburgh was one of the oldest and most important boatbuilding centers by
the mid-eighteen hundreds. Builders had produced vessels in the Pittsburgh area even prior to the Revolution. The city's industry began at Fort Pitt in 1764 on the Monongahela River and remained competitive throughout the following century by utilizing steam engine production. In fact, Pittsburgh was the first center of steam engine construction in the American West. The Steel City's influence spread south and quickly enveloped Brownsville. One of the oldest centers on the Monongahela, Brownsville produced some of the first steamers to travel western waters.

Farther north, smaller boatbuilding centers developed in response to the demands of merchants and producers transporting light cargoes. In Allegheny City, on the Allegheny River, and at various locations along the Clarion River, flatboat construction boomed from the early eighteen hundreds until shortly after the Civil War. Where sturdier freight craft were needed, keelboat production remained active. Montrose fulfilled the keelboat needs of northeastern Pennsylvania.

Increasingly complex innovations, however, stalled boat production in all but the largest centers during the late nineteenth and early twentieth centuries. Steel and iron hulls eliminated wooden construction shortly after the Civil War. By 1870, wooden boat production had all but ceased in Philadelphia. As small boatbuilding centers faded, Philadelphia's yards thrived. The city's Cramp Shipyards was only one of two previously wood-dominated American yards to switch to steel construction. Yards such as Cramp, including sites on Hog Island and in Bristol, Pennsylvania, remained active after the turn of the century. World War I offered new shipbuilding opportunities. The Hog Island site, as a result of a bloated war economy, grew into the largest functional shipyard in U.S. history. Philadelphia's success continued into the Second World War. At the height of World War II, Philadelphia shipyards led the industry in metal work advances and welding innovations.

Following the war, however, the story took a different turn. The end of World War II marked the end of large-scale industrial boat production in Pennsylvania. Only the Philadelphia Naval Base remained, now closed since 1995. Though production nearly ceased, use did not. Following the war, recreational boating grew dramatically in popularity. In 1961, Pennsylvania was home to about thirty-one thousand registered boats, ranking as twenty-sixth in the country. This number skyrocketed to nearly one hundred seven thousand in 1965, with 2.6 percent of the country's registered boats found in Pennsylvania ranking the state twelfth nationally. Of the eastern coastal states, only New York and Florida outranked Pennsylvania. Pennsylvania maintains eleventh place ranking today, though the number of in-state registered boats has nearly tripled to three hundred eleven thousand since the late sixties.

Despite these numbers, contemporary state boatbuilding has declined for several reasons. Perhaps foremost is the advent of Fiberglas, which entered the
market in the late nineteen fifties and virtually eliminated small-scale wooden boatbuilders. Built in large factories, Fiberglas craft are easier and faster to produce, and significantly outlast their wooden predecessors, limiting need for continual production. Secondly, boat use has changed dramatically from the transportation of people and goods on inland waters to private recreational use.

Boatbuilders, however, are not completely extinct. Lund Boatworks in Erie, Trojan Yachts in Lancaster, and Snark Boats in Newcastle represent recent efforts by mass producers to meet national boat demand within state borders. Both Lund and Trojan grew popular during the nineteen fifties and produced widely renowned boats into the late eighties. Snark, as well, built a very popular line of inexpensive sailboats beginning in the nineteen seventies. Though none of these plants continue to build in-state, their boats now ply world waters and, in so doing, perpetuate a Pennsylvania legacy. Moreover, there are at least nine small-scale builders in Pennsylvania who construct an array of craft ranging from New England style wooden boats to high-tech Fiberglas fishing vessels. There is also reason to believe that numerous other small builders are present. Many builders do not advertise and, hence, remain relatively invisible within their communities.

Contemporary Manifestations of a State Tradition

My pursuit of contemporary state boatbuilders led me throughout the state. I interviewed nine builders about their work, past, goals, and thoughts concerning contemporary building and the existence of a tradition. Though each builder provided valuable insights and information, I have selected three who well demonstrate the multi-faceted nature of Pennsylvania boatbuilding. Tom Snyder of Millersburg constructs aluminum jonboats for use on the Susquehanna River. His boats are specifically designed for the rugged Susquehanna and possess somewhat of a cult following among local anglers and water enthusiasts. In Willow Street, near Lancaster, Dave Mellinger builds pontoon boats, often referred to as “party boats.” Though also building with aluminum, Mellinger caters to an entirely different clientele than Snyder and understands his occupation in quite a different light. Finally, Tom Seuffert of Bensalem builds wooden fishing skiffs for Philadelphia area anglers and hunters. Though somewhat more tradition minded, Seuffert’s business has experienced little success over the years, though not necessarily to the regret of its owner. Each builder, in his own way, demonstrates a contemporary manifestation of Pennsylvania’s historic boatbuilding tradition.

Millersburg: Home of the Susquehanna River Boat

Not surprisingly, one need not venture far from John Watson’s Middletown to find an example of contemporary state boat craft. Tom Snyder builds
Figure 1. A complete Snyder-built boat.

Figure 2. Airboats docked along Millersburg's Susquehanna Riverbank.
aluminum jonboats in Millersburg, only a few miles north of Harrisburg. Snyder was originally an airboat builder, but technological innovations, customer demands, and environmental concerns have made Snyder's shop's name—Snyder's Welding & Airboats—more nostalgic than accurate. His ability to recognize that "everybody likes things a little different" marks Snyder as a true regional boatbuilder. He builds local boats for local customers that suit both the demands of the rocky, shallow Susquehanna and the needs of his clientele.

The region for which Snyder's boats are designed includes the stretch of Susquehanna forming Millersburg's western border. Millersburg is a small town positioned roughly thirty miles northwest of Harrisburg. The roads leading there are picturesque and birch-lined. Halifax, a nearby town, is similar in size and character to Millersburg and serves as somewhat of a sister community. Both possess a small-town charm and, given the great number of small, privately owned boats, they are closely linked with the nearby Susquehanna. It is Millersburg's scenic beauty and friendly atmosphere that earned the town its title as Pennsylvania's "Mayberry."

Millersburg's founders had more in mind than aesthetic appeal, however. The town is strategically located at the union of the Susquehanna River and Wiconisco Creek. Even before the arrival of the town's founders, Native Americans understood the location's potential as a transport hub and thoroughly populated the surrounding area. Millersburg's strategic position proved influential in the town's development. River traffic, combined with further inland creek commerce, created a significant transport and trade industry.

A variety of water craft dotted the shores of early nineteenth-century Millersburg. Most common were small ferries, rowboats, and poll-craft which well suited the Susquehanna's demanding waters. Though not documented, it can be assumed these small boats were built locally. Millersburg was most likely inundated with small boat builders. Customers in need of vessels suitable for fishing and bulk goods transport probably supplied Millersburg builders with a continual series of orders. Though Millersburg boatwrights remain invisible within historical accounts, their presence can be inferred through comparisons with neighboring Harrisburg. As late as 1850, Harrisburg supported seven boatbuilders. That builders remained active in the state capital even after the introduction of regional rail travel suggests that boatbuilding constituted a prominent commercial endeavor along Dauphin County's riverfront. Even more impressive, three boat shops continued to serve Harrisburg's water craft needs in 1887. Although these shops only employed six smiths and grossed a mere $2000 per year, they endured in the face of growing rail dependence. Even if Millersburg did not support its own builders, it undoubtedly partook in the Harrisburg industry.
Though Millersburg boatbuilding activity is not documented, evidence for its existence remains today in the form of ferries. As early as 1817, travelers needing to cross the Susquehanna from Millersburg to Crow's Landing or vice versa were accommodated by the town's wooden paddle steamers. Two side wheel steamers traveled between shores transporting people, trade goods, and vehicles. Now only occasionally used relics, the Millersburg Ferry boats continue to operate as the last wooden steam-paddle-wheel ferries in the country. When in use, each is able to transport four cars and sixty passengers between shores in roughly twenty minutes. These ferries alone mark Millersburg as a significant Pennsylvania maritime historical site. (See Figure 3)

The arrival of rail in 1834 and canal in 1848 transformed sleepy Millersburg into a bustling crossroads at the expense of river travel. Whatever boatbuilding activity existed necessarily faded along with the remainder of river commerce in the last quarter of the nineteenth century. Though boating and boatbuilding dramatically decreased during this period, the needs of those who continued to utilize the river did not. In fact, the very needs of nineteenth-century flatboat and paddleboat users persist in Millersburg today. Tom Snyder's jonboats closely approximate the craft that traveled Millersburg's waters over two hundred years ago. Jonboats, like flatboats and paddleboats, are flat-bottomed. Their blunt bows and sterns and fore and aft rake are designed specifically for shallow, inland waterways. The small, easily maneuverable jonboats well serve contemporary Susquehanna fishermen just as flatboats served the river-goers of years past.
It is no wonder, then, that Snyder, a life long Millersburg resident devotes his efforts to building jonboats. One must wonder, though, how Snyder’s Welding & Airboats, a small, one man operation, survives in the shadow of major boat manufacturers such as Grumman and Alumacraft? The answer is Snyder’s construction method. By relying upon a very traditional boatbuilding approach, he is able to produce what the large-scale companies cannot: regionally specific custom craft. Tom Snyder, like nearly all pre-industrial boatbuilders, relies upon local knowledge, personal experience, and customer feedback in order to shape and design his product. Unlike the large manufacturers, Snyder is able to create boats that are ideally suited for a specific stretch of a specific water body. Serious Susquehanna water-goers understand this difference and reward Snyder’s traditional approach with a steady flow of work orders.

Snyder’s boatbuilding approach is also reminiscent of traditional methods. His craft are individually tailored to the needs and desires of each customer. Snyder’s clientele decides upon size, number, and location of on-board storage compartments, color schemes, and even upholstery preferences. Moreover, Snyder uses no plans while constructing his boats. Traditionally, jonboat builders worked solely from memory without any form of blueprint or visual guide.37 The Millersburg builder continues this tradition. Though aided by a self-designed building jig, the boatwright relies only upon common sense and experience when shaping his craft.

The town’s readiness to support Snyder is not surprising. Eager, enthusiastic, and possessing a truly admirable work ethic, the small town builder has an almost magnetic personality. Completely content with his occupation and trade, Snyder’s only regret is that he “can’t build a boat for everyone that wants to buy one.” The community expresses more than mere interest in Snyder’s boats, however. Millersburg residents take great pride in owning his craft. A Snyder-built boat is locally recognized as a superior vessel. Customers are proud to ply the Susquehanna in a Snyder boat and extend that pride to include feelings of community solidarity and identity. Furthermore, customers express themselves by ordering custom color and decoration schemes. The boat simultaneously becomes part of the customer’s, town’s, and perhaps most importantly, the builder’s identity.

Tom Snyder represents a union of tradition and innovation. His building approach is historically common among past builders, but is executed with the most current materials available. His business is successful for exactly this reason. He merges concern for customer and environmental demands with an ever-growing awareness of modern technology. In so doing, Snyder is able to construct distinct, efficient, regional craft. He builds uniquely Pennsylvania boats for uniquely Pennsylvania waters.
Pennsylvania Boatbuilders

Lancaster: From Steam to Pontoon

Snyder is not the only state builder involved with shallow draft aluminum boats. About fifty miles east, Dale Mellinger’s Susquehanna Santee Boatworks may “build them too good,” but nobody at the shop is complaining. In a remote portion of Willow Street, Pennsylvania (approximately five miles south of Lancaster), where horse-drawn Amish buggies occasionally outnumber automobiles, Mellinger’s success as a boatbuilder seems almost accidental, if not a fluke. Though five miles from the nearest “navigable” water body, the Conestoga Creek, and even more distant from the Susquehanna River, the Susquehanna Santee Boatworks thrives where one would expect such an operation to fail.

Mellinger’s success seems even more odd in light of the variety of craft he constructs. Utilizing materials and techniques similar to those of Tom Snyder, Mellinger and his employees build aluminum pontoon boats. (See Figure 4) Relatively new to the American recreational boating scene, pontoon boats consist of two long hollow aluminum tubes placed horizontally side-by-side with some space between. A deck platform is secured to the buoyant pontoons creating a raft-like structure. Depending on the boat design, various seating and canopy configurations adorn the deck platform. The boats are light, draw little water, and are powered by outboard motors. Unlike displacement hull boats, the pontoon boat’s buoyancy allows it to remain above the water and, in doing so, provides for travel at relatively high speeds.
Best suited for use on lakes and wide, slow moving rivers, pontoon boats seem somewhat out of place in Lancaster County. Moreover, it is initially unclear why a Willow Street boatbuilder would opt for pontoon boats instead of small craft better tailored for the neighboring Pequea, Conestoga, and Susquehanna Rivers. Mellinger, however, is not the first Lancaster County resident to appreciate the utility of light, shallow-draft boats. Only ten miles southeast of Mellinger’s shop is the birthplace of Robert Fulton. Fulton’s design and construction of the Clermont in 1806, commonly considered the first practical steamboat, provided the germ that infected early nineteenth-century America with the riverboat craze. Both featuring light construction, shallow draft, and simplicity of design, pontoon boats and steamboats have a great deal in common.

Though steamboat innovation constitutes the most commonly recognized aspect of Lancaster County’s historical boatbuilding contributions, building activity of various sorts has been traditionally present throughout the region. Needless to say, this tradition began with Native craftsmen. Though less common than in northern and eastern regions of Pennsylvania, frequent Indian canoe construction was observed during early settlement at Port Allegheny and Cherry Tree. Resource-rich locations in these towns known as “canoe places” offered ideal spots for shaping of the Native elm-bark and dugout canoes.

Several county towns developed during the late eighteenth and early nineteenth centuries into significant boating and boatbuilding centers. Marietta, Bainbridge, and Collins Station all served as prominent inland water-commerce focal points. In addition to the general activities associated with serving canalboats, flatboats, and arks, these towns most likely supported multiple boatbuilders and boat mechanics. About twenty miles west of Lancaster, Elizabethtown existed during the mid-nineteenth century as a stronghold of canalboat building. The town’s strategic location along the Conewago Creek served the interests of boatbuilders and operators alike.

A fair share of building occurred along the Conestoga River as well. Though small and difficult to negotiate, the Conestoga attracted improvement efforts as early as 1771. By 1825, the Conestoga Navigation Company had initiated work on a canal route parallel to the river. Although not as heavily traveled as the Susquehanna, canal commerce proved profitable and relied greatly upon the shipping of whiskey, flour, boards, staves, shingles, and coal. Following its construction, the canal provided economic opportunities for local boatbuilders. The first canal packet to travel Pennsylvania waters was built in Lancaster in 1828. Unlike canalboats, canal packets offered travelers relatively plush accommodations within slightly modified canalboats. Locally, John Mitchell and Samuel C. Slaymaker built packets along the Conestoga during the mid-1800’s.
Mellingers were present in Lancaster County throughout the development of the region’s maritime commerce industry. In fact, the Mellinger family is one of the oldest in Lancaster County. Arriving from Germany in the 1740’s, the Mellinger family includes a long line of Mennonite farmers located in and around Lancaster. Dale Mellinger’s affiliation with this line is quite probable. The builder considers his “Pennsylvania Dutch craftsmanship” a source of pride and success.

Yet unlike the Mellingers of colonial Lancaster, Dale prefers working metals to working land. Mellinger is a second-generation metal worker. In 1945, his father established Mellinger Manufacturing, a metal fabrication shop. While working there, Mellinger learned of a local marina owner attempting to produce aluminum houseboats. The metal shop began constructing various pontoon parts for the marina and completely took over the operation in 1981 when financial crisis routed the aspiring houseboat builder. Mellinger brought in a friend from the Santee Lake region of South Carolina. The team combined regional identities and mechanical knowledge to form Susquehanna Santee Boatworks.

Though a man of tradition, Mellinger is not afraid to innovate. The first recreational pontoon boats, having their origins in the mid-1960’s, were awkward and heavy, utilizing steel as opposed to aluminum pontoons. By the time of Mellinger’s entry into the pontoon boat industry, manufactured craft featured many improvements over their predecessors, but remained crude by modern standards. Soon after beginning the Boatworks, Mellinger experimented with various pontoon shapes and configurations. Early experiments involved attempts at creating a planing pontoon. Though not successful, such attempts at innovation characterize Mellinger’s ambitious, energetic approach to his craft.

The gauge of the Boatworks’ success in adapting to new markets and incorporating modern innovations is their consistent output. Most Pennsylvania builders occupy obscure, neglected market niches, yet typically enjoy a steady flow of business. Mellinger is no exception. His clientele is both well recognized and well distributed. Recent projects have involved building a “floating classroom” for the University of Pittsburgh and a Baltimore Harbor shuttle fleet. Mellinger’s boats can be found in Atlantic City, the Delaware Beach, nearby in Harrisburg, and as far away as Florida.

Bensalem: Southeastern Pennsylvania’s Maritime Legacy

Philadelphia and surrounding regions are home to a host of modern state builders. Foremost among them is Tom Seuffert. Seuffert plies his craft in the bustling Philadelphia suburb of Bensalem. Baycraft Boats is located in the rear of a dingy, neglected industrial complex somewhat removed from the residential sprawl of Bensalem. Nonetheless, Seuffert’s geographic location is
one of great boatbuilding history. Only one mile from present-day Philadelphia and approximately six miles from Center City, Seuffert can be viewed as working in the shadow of the city’s great maritime past.

Seuffert is different than other state builders. Though he began his business as a builder singularly concerned with construction of semi-traditional fishing and work boats, his work is now primarily focused on repair. Where many modern builders avoid repair work, Seuffert finds this contemporary maritime industry far more lucrative than boatbuilding. In fact, it can be said that Seuffert’s building business is a failure. The reasons for this failure are intriguing. Seuffert cannot succeed as a builder for the simple reason that he builds too well. Though his extreme occupational pride and attempts to create quality boats are admirable, these traits also entail significant monetary expense and limit the aesthetic appeal of his boats. Potential customers, therefore, tend to prefer production craft that are less expensive and more aesthetically pleasing. All in all, Seuffert’s case is perhaps the most interesting of those encountered and does the most to reveal the changing character of Pennsylvania’s state building tradition.

Native American craftspeople began the southeast building tradition to which Seuffert is now heir. Upon William Penn’s arrival, the Lenni Lenape Indians populated the region encompassing Bucks County, home to Bensalem and nearby Philadelphia. Some argue that Lenape boatwrights were few due to the Delaware River’s brisk current and the small size of local streams. This argument seems unlikely, though. Considering the positioning of large settlements along the Delaware, combined with the presence of quality timber for dugout canoes and elm for bark craft, it seems likely that boat craft did occupy a strong niche in Lenape culture. It is most probable that at least some Native boatbuilding occurred within what is now Bucks County.

Large-scale boatbuilding, however, began with the arrival of Europeans in Pennsylvania. Philadelphia has significantly contributed to the state’s and country’s boatbuilding industry for nearly three hundred years. Only two years after its settlement in 1682, Philadelphia already boasted a number of waterside shipyards. By 1770, the city had established itself as the second largest colonial shipbuilding port. Philadelphia’s early shipbuilders provided the vessels in which wheat, flour, bread, corn, meat, butter, lumber, and iron were transported to Britain, the West Indies, and as far as Honduras.

Historically, Philadelphia’s geographic position has greatly benefited boatbuilders and has significantly fostered the city’s boatbuilding industry. Located at the confluence of the Delaware and Schuylkill Rivers, Philadelphia enjoyed a strong influx of supplies and resources during the days of early shipbuilding. The Schuylkill provided access to the granary and coalfields of central and north central Pennsylvania. Foodstuffs, timber, and coal entered Philadelphia from the north via the Delaware. Until the 1830’s, the flow of
northern lumber down the Delaware nearly single-handedly supported Philadelphia's shipbuilding business. Though the northern timber outlet was still tapped throughout the nineteenth century, iron almost completely dominated the shipbuilding industry in Philadelphia by the beginning of the Civil War.

Philadelphia's historic contributions to the national boatbuilding scene are unmistakable. Perhaps most notable has been military vessel production. The famous Philadelphia Navy Yard was established in 1801, fueling the nation's seaborne military machine until its closing only five years ago. The yard reached its peak of production and renown during World War II. During the course of the war, the Philadelphia yard produced 1,210 warships.

Bucks County sites outside of Philadelphia also offered boatbuilding services throughout the past two centuries. One of the many craft to be built and used along the county's riverbanks was the Durham boat. Sometime prior to 1750, Robert Durham (of Durham, a small town along the Delaware River immediately south of Bensalem) devised a quick and efficient way to transport the products of his iron forge to Philadelphia. The innovative iron producer designed a water-going vessel based on the form and shape of American Indian canoes. The "Durham Boat" exceeded its builder's expectations and dominated the Delaware and Lehigh Rivers by 1758. The boats are perhaps most famous for providing Washington's transportation across the Delaware in the winter of 1776.

Like many other Pennsylvania locals, Bucks County has also been home to canal boats and ferries. In 1827, work began on the Delaware Division of the Pennsylvania Canal intended to connect Easton with Bristol. The canal was completed in 1834 and, following a long period of extensive repair and financial distress, proved a valuable asset to southeastern Pennsylvania. Though the canal obviously introduced many boats to the region, construction was predominately located at more northern points. Ferries were also a common sight in Bucks County. Spanning the Delaware River and various inland streams and creeks, over twenty ferries traversed county waters during the late eighteenth century. These ferries were scow-shaped (square bow and stern) with flat bottoms and built to various sizes. Though many were of the rope variety, sail and/or oar powered several. Ferrying demands produced a small market for Bucks county builders, though their existence was brief and replacement was most likely rare given the durability of these craft.

Bucks County's boatbuilding history proved strong in a number of county locations. For example, the town of Bristol (culmination point of the canal) was once referred to as the "county's only seaport." Bristol's major shipyard, established in 1740, gained wide acclaim for the quality and speed of its schooners, sloops, and smaller craft. Though this operation faded by 1891, Bristol yards revived to meet naval demands during the World Wars. Nearby
Yardley also gained a reputation as a building center, one that persists today. The section of Yardley referred to as “the Boatyard” was named in recognition of a sizable yard that originated in the city during the early nineteenth century. Though boatbuilding grew increasingly less important following World War II, Bucks County has continued to maintain a maritime industry. This is especially true with regard to the hundreds of recreational craft moored at Philadelphia’s docks.

Tom Seuffert represents a microcosm of the remaining industry. He is no longer exclusively a boatbuilder and caters primarily to the repair needs of local marinas, which typically involve Fiberglas boats which are neither traditional nor unique. Seuffert finds that the repair business is more lucrative than the building business that he began in the early eighties and phased out only a few years ago. Nonetheless, his business card still advertises “15’, 16’, and 18’ fishing boats.” Even so, Seuffert is not displeased with his repair work. Most builders dislike repair work, claiming that it tends not to provide solid income and typically trivializes the skills of a good builder. Seuffert, however, realizes the moneymaking potential of repair within a region inundated with boaters and views the task as another form of boatbuilding.

Seuffert builds a variety of fishing skiffs and flat-bottomed utility boats in plywood and epoxy. (See Figure 5) His incorporation of traditional lines results from exposure to a traditional builder from Lunenberg, Nova Scotia. While working in Delaware, the Lunenberg builder allowed Seuffert to observe his
construction of traditional dories. The dory design attracted Seuffert and manifests itself in Baycraft Boats' designs. Traditionally, dories feature a double-ended design with high, sharp prows, high freeboard, and relatively narrow beam. Seuffert's boats retain the high, sharp prow, but include a square stern and widened beam. The result is an exceptionally seaworthy boat that exemplifies efficiency via simplicity.

The Bensalem boatwright is not interested in building boats that embody a sense of tradition. Instead, he strives to build strong, efficient boats that cater to contemporary aesthetic and practical needs. He does so by combining wood with contemporary composite materials in a way that well suits local waterscapes. Ironically, this is the key to Seuffert's failure at maintaining the building business. The majority of wooden-boat construction performed today caters to those who enjoy the traditional aspects of boating. Those who buy from "traditional" builders seek craft that look as if they came directly from the nineteenth century; hence the appeal of wood. Wooden boats that do not achieve this aesthetic ideal do not attract a large market. Seuffert describes his buyers as "diehards," those who want a solid craft and regularly use boats for work such as fishing or hunting. Though Seuffert's boats are of a higher quality than the mass-produced alternative, he does not offer any appeal to the masses who can buy a similar, less-well-built Fiberglas boat and still be satisfied. In other words, if Seuffert were to add varnished rub rails and teak trim to his boats, an increase in sales might follow.

Seuffert fits very nicely into the state building tradition. His boats are quite similar to the garveys and work skiffs that have lined the Delaware's banks for over a hundred years. This style of boat combined with its proximity to Philadelphia marks Seuffert as a Pennsylvania builder immersed within the state building tradition. Moreover, the demands of the Delaware River and its users have shaped the design of Seuffert's boats. This factor, more than any other, indicates the degree to which Seuffert's building efforts resemble those of past builders. Unfortunately, the impending success of his plans to rejuvenate the building is doubtful. "Diehards" are growing increasingly rare, especially in urban areas such as Philadelphia. Unless Seuffert modifies his designs to accommodate the needs of less pragmatic customers, a Baycraft Boats boom is unlikely.

**Recognizing a State Boatbuilding Tradition**

The continuous presence of state builders throughout the past three hundred years suggests the presence of a historic boatbuilding tradition. Though this tradition is tenuous in that variation is a characteristic of the tradition itself, two factors unite past and present state builders and mark Pennsylvania boatbuilding efforts as uniquely characteristic of the state. First, Pennsylvania's geographic location relative to surrounding states greatly influences boat
distribution patterns as well as obtaining building materials. Secondly, and most importantly, design commonalities between past and present state-built boats are a direct result of efforts to accommodate the demands of Pennsylvania waters. Pennsylvania boats are distinct in that they are commonly built for use on Pennsylvania waters.

Pennsylvania's geographic location is instrumental in shaping state craft. The state's nickname, "Keystone State," was granted for a variety of reasons, foremost its physical location. Pennsylvania, since colonial times, has formed a crucial hub between the northeastern, south and southeastern, and western states. Not until the widespread development of interstate highway systems could any state transport network claim superiority over that of the Keystone State. Where crude roads, canals, and railroads once networked this hub, it is now integrated by means of highway systems. Route 79 along the western border, 76 along the south, 80 across the mid-section, 81 on the east, and 95 along the Delaware provide direct highway access to points north, south, east, and west. Pennsylvania's highway system is especially well-developed relative to others throughout the country and is continually praised by state builders. These highways allow builders to export their products to customers throughout the United States cheaply and quickly. The result is an extended customer base and increased profits. Again, Pennsylvania's supremacy with regard to inter-state access aided past builders in distributing their boats as it does today. This unique state feature adds to the strictly Pennsylvania character of contemporary boatbuilding efforts.

Most importantly, however, is the manner in which state boat designs are environmentally determined. Boat designs are developed in response to the water conditions they are expected to encounter. The keelboat was built with strength, maximum size, and simplicity in mind because it was intended to carry large loads along shallow, rocky waters at low costs. Needless to say, such water conditions are common to Pennsylvania, perhaps more so than any other state. Therefore, the design consideration given to keelboats, Durham boats, and other historic state craft reappear in contemporary designs. Snyder's jonboats are built heavy with protective hull coverings for inevitable rock impacts, but require only minimum water depths to float. Mellinger's pontoon boats are likewise strong and durable, yet possess shallow draft. Like Fulton before him, Mellinger builds boats that, though found throughout the country, are particularly well suited for Pennsylvania's lakes and rivers. Tom Seuffert's designs differ from the other two builders in that he builds primarily for use along the Delaware River. Similarly, his boats are strong yet simple, but possess deeper draft for stability and usability in a larger, more unpredictable water body.

The features that characterize a Pennsylvania boat are the persistence of flat-bottoms and relatively wide width to length ratios. Boats designed and
built for state waters have invariably been flat and wide. Flatboats (the name itself quite revealing), steamboats, ferries, and Delaware River skiffs and garveys all possessed these characteristics. The reasons for this commonality lie in the Pennsylvania landscape. Wide shallow waters are common throughout the state. Boats must maximize capacity while maintaining stability in order to successfully transport goods and passengers under such conditions. Therefore, state builders have historically substituted width for depth and, in so doing, produced wide, flat boats.

Similar building strategies have appeared at other points throughout the country. For instance, flatboats are historically common to the Mississippi River and its tributaries. Flat-bottom craft are also characteristic of southeastern states where marshy waters wind through densely wooded regions. Even so, these examples typically lack the characteristic width of Pennsylvania craft. Tom Snyder, Dale Mellinger, and Tom Seuffert all build relatively wide, flat-bottom boats. They, as have state builders for nearly three hundred years, realize the necessity of such designs for negotiating Pennsylvania’s unique water network. Within these design commonalties reside traces of a historically significant persistent Pennsylvania boatbuilding tradition.

Figure 6. Pennsylvania boatbuilder Dale Mellinger’s mailbox.
Notes

2. Ibid., 39.
3. All information concerning John Watson taken from Dauphin County census reports for Middletown borough, Middletown, Pennsylvania.
6. All information concerning presently active builders was collected during an approximately six-month ethnographic examination of nine builders located throughout the state. The study involved on-site visits with each builder and resulted in roughly two hundred pages of fieldnotes, photographs, interview logs, and materials provided by the builders. My comparisons of past and present builders as well as my evaluations of the modern state of boatbuilding in Pennsylvania are largely based on observations and analysis of builders occurring during on-site interviews.
9. S. Kussart, 10.
13. Fasset, 76.
15. Sajna, 39.
16. Bauer, 121.
17. Bauer, 96.
22. Kussart, 53.
23. Kussart, 66.
24. Fasset, 34.
25. Fasset, 41.
27. Fasset, 59.
28. For information concerning recreational boating including accident and usage reports, refer to Recreational Boating Statistics, released annually by the U.S. Coast Guard.
29. Tom Snyder, interview by author, tape recording, Millersburg, Pennsylvania, 13 October 1995. Unless otherwise noted, all information regarding Tom Snyder is included in this interview and related fieldnotes.
31. Schneck, 4.
32. Schneck, 5-6.
34. Pennsylvania Board of Trade, *Industrial and Commercial Resources of the City of Harrisburg* (Harrisburg, 1887), 41.
36. Schneck, 6-7.
38. Dale Mellinger, interview by author, tape recording, Willow Street, Pennsylvania, 17 November 1995. Unless otherwise noted, all information regarding Dale Mellinger is included in this interview and related fieldnotes.
40. Gray, 22-23.
42. "Early Conestoga Navigation" in Papers
Pennsylvania Boatbuilders

Read Before the Lancaster County Historical Society, November 13, 1908 12 (1908), 315.
44. Ibid., 328-329.
45. Ibid.
47. Tom Seuffert, interview by author, tape recording, Bensalem, Pennsylvania, 21 November 1996. Unless otherwise noted, all information regarding Tom Seuffert is included in this interview and related fieldnotes.
50. Ibid.
52. Bauer, 119.
54. Ibid.
55. Uzal W. Condit, The History of Easton, Penn’a from the Earliest Times to the Present, 1779-1885 (George W. West, 1885), 36.
56. Condit, 37.
58. Fackenthal, 128-153. Fackenthal provides a nice account of each ferry functioning during the period.
59. Fackenthal, 125-126.
60. George MacReynolds, Place Names in Bucks County, Pennsylvania Alphabetically Arranged in a Historical Narrative (Doylestown: The Bucks County Historical Society, 1955), 32-33.
61. MacReynolds, 406.
62. Though Mellinger’s pontoon boats are not “true” flat-bottom boats, they achieve the same effect. The pontoons form the long sides of an imaginary rectangle on the water. Efficiency is achieved through the absence of the rectangle’s short sides and any significant surface contact with the water. Resistance is reduced and speed is increased. Most importantly, however, Mellinger’s designs achieve the same effect as those of Fulton and other flat-bottom precursors.