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Rising States (Providence) transported prisoners of war and other foreign nationals under flag of truce to British territory during the War of 1812.



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R H O D E I S L A N D H I S T O R Y

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British Immigrants in Rhode Island during the War of 1812

President James Madison's proclamation of June 19, 1812 — declaring that war existed between the United States and Great Britain — produced heady euphoria throughout much of the old South as well as in back country stretching from western New England, upstate New York, western Pennsylvania, and the old Northwest through Virginia into Appalachian regions of the Carolinas and Georgia. "Mr. Madison's War" had the opposite effect in the Northeast, especially in commercial and maritime sections of New England where fear of invasion and likelihood of depression and unemployment made the war so unpopular that it would eventually threaten the Union itself.

Ouickly the declaration brought realization that something had to be done about potential threat from within posed by the presence of British subjects. Though the number of immigrants who had entered the United States since the end of the Revolution was not large - an average of about five thousand annually - most were from the British Isles and many had not become naturalized citizens. Most of these resident aliens would be either indifferent to the ensuing struggle or feel a stronger allegiance to their adopted country than to the land of their birth, but it was possible that a few would side with the enemy and engage in subversion. Just what form such activities might take no one could predict. The likeliest possibility was that some might assist British naval squadrons operating off the American coast.1

Accordingly, the first step was to assess the magni-

by Peter J. Coleman and Penelope K. Majeske*

tude of the danger. Within a month of the declaration the department of state ordered all male enemy aliens fourteen years of age and older to report to the nearest United States marshal. He then compiled a census showing the alien's name, age, occupation, length and places of residence in the United States, number of people in the family unit, and whether or not the individual had declared his intention to become an American citizen. The marshal also supplied information about the alien's potentiality for causing trouble and forwarded the census to Washington. Many of these records found their way into files of the Navy department, a clear indication of fear that some might collaborate with the Royal Navy.²

Surviving records show that some ten thousand British males reported to marshals and reveal the magnitude of potential danger. In March 1813 the department of state took the next logical step by ordering internment of certain categories of enemy aliens. Its authority came from the Alien Enemies Act of July 6, 1798 — one of the notorious Alien and Sedition Acts — which in time of war permitted the president to arrest, imprison, or banish residents who owed allegiance to an enemy power.³

The internment order included all those engaged in maritime trade or who had come to the United States since the outbreak of hostilities; they were to be moved to designated interior locations at least forty miles from the coast. All other categories of British subjects were permitted to remain in their usual places of residence, but their status was subject to monthly review and they had to obtain the marshal's permission to remain near the coast. Those who refused to be relocated faced arrest.⁴

No evidence has been found to indicate that any British subject in Rhode Island suffered internment it would have meant removal to the interior of either Connecticut or Massachusetts — or that the marshal had to issue any arrest warrants. Elsewhere the situation was very different. In Charleston, South Carolina and New York City, marshals had to enlist

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Defiarament of State, July 7. NOTICE.

All British subjects within the U. States are requested forthwith to report to the Marshals (or to the persons to be appointed by them) of the respective States or territories within which they may reside, their names, their age, the time they have been in the U. States, the persons composing their families, the places of their residence, and their occupations or pursuits ; and whether, and at what time, they have made the applications to the courts required by law, as preparatory to their naturalization ;' and the Marshals, respectively, are to make to the Department of State returns of all such British subjects, with the above circumstances annexed to their names.

Providence Gazette and Country Journal July 18, 1812

help from magistrates, constables, and other civil officers in apprehending enemy aliens, and Hezekiah Niles — editor of the influential Baltimore weekly complained that "these folks have so long been accustomed to interfere in our elections . . . that nothing but force will reach their *modesty*, or learn them to respect the law."⁵

Despite these problems, the department of state recognized that there would be exceptional cases in which literal application of rules could cause unnecessary hardship. In such instances marshals applied to Washington for a waiver of regulations. Singled out for special consideration were those who had declared their intention to become naturalized citizens at least six months before the outbreak of war and who were either married to American citizens or owners of real property. Even merchants and traders could receive an indulgence if they dealt exclusively in domestic commerce. Even these waivers did not permit enemy aliens to live near navigable waters or military facilities, and dispensations could be revoked if the course of war made that necessary or if an enemy alien misbehaved himself.*

The secretary of state also restricted freedom of movement. British subjects could leave a customs district by water only if they had a passport from its marshal, could prove they had registered as required Ebenezer Knight Dexter—marshal for the district of Rhode Island—compiled the census of British immigrants and administered provisions of the Alien Enemies Act,



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by regulations, and satisfied the collector of customs of their "reputation for probity" and "good intentions toward the United States."⁷

That authorities in Washington took regulations seriously and granted dispensations only in exceptional circumstances can be seen from the way in which requests of several enemy aliens in Rhode Island were dealt with. In fall 1814 Charles Baring of Newport - a cousin to Alexander Baring of the famous London banking house - sought a passport to visit South Carolina where his wife owned a plantation. Although he requested permission to travel via Baltimore where he had friends, John Mason, commissary general of prisoners, insisted that Baring follow an interior route. He was allowed to visit Charleston but only to conduct business and only if the local marshal had "no objections on account of the state of things in that city."8 Even John B. Gilpin, British vice consul and later agent for prisoners at Providence, repeatedly tried but failed to obtain permission to live with his family in Newport. His requests - supported by senators William Hunter and Jeremiah B. Howell, by merchant Christopher G. Champlin, and buttressed by the fact that his wife was a Newporter - proved unavailing.*

Enemy aliens also suffered from legal disabilities — they could not bring suit in Rhode Island courts to

recover debts unless a freeholder guaranteed legal costs, and in wartime federal courts were also closed to them. At the November 1812 term, circuit court threw out Joseph Mumford's bill in equity against Henry Mumford, declaring that he had no legal standing and could not "prosecute any suit in the courts of this country."10 Even a naturalized citizen who had failed to return immediately to the United States on the outbreak of war found that his property was subject to confiscation. That happened to Colin Gillespie - emigrant from Scotland in 1793, citizen five years later - who formed a transatlantic mercantile partnership with John Graham of New York in 1805. Graham would consign cargoes to Gillespie in Glasgow and Gillespie would forward British goods to Graham for sale in the American market. A month after declaration of war but a day or so before its news reached the British Isles, Gillespie consigned a cargo to New York on the ship Francis (Joseph Bover, master). In August she was captured off Nova Scotia by Bristol privateer Yankee and her cargo valued at \$200,000 - condemned as enemy property. Gillespie's protestation that he was a naturalized citizen proved unavailing. The Supreme Court upheld the lower ruling that goods took the domicile of their owner and because Gillespie was living in Glasgow the shipment was by definition enemy property.11

Between July 1812 and April 1813, Rhode Island's marshal sent eleven lists of enemy aliens to Washington. A total of 130 males were listed, but the census is probably far from complete since names were drawn from only eleven of the thirty-one towns in the state. They ranged in age from 18 to 76, the median between 28 and 29, and in length of residence in the United States from as little as one month to as long as seventeen years, the median two years. About half of them (66) reported having no family at all, but the other 64 reported 355 family members. Eight husbands had left their families in the British Isles, and only five of the 130 males had taken any steps toward naturalization. Twelve reported having lived elsewhere in the United States (Massachusetts, Connecticut, New York, and Maryland), and five reported having lived previously in other Rhode Island towns.

Even if allowance is made for the possibility that some of the men were widowed and that the common age of marriage was in the mid-twenties, the high proportion of single men is remarkable. More than 42 per cent (36 out of 85) of those who were 26 or more years of age were single. Another 7 per cent (6 out of 85) had left their families in England. The proportion of single men in the 18 to 25 age category is only somewhat less remarkable. An extraordinary 38 out of 45 were single. Indeed, although the youngest husband was only twenty and had already fathered two children, the next youngest father was twenty-two, and the third youngest, twenty-four.

There are also lessons to be learned about family structure. Though the sample is small, it tends to confirm the traditional view of large families and to challenge the one on early marriage. Fathers between 29 and 54 typically had four children, but those between 40 and 54 typically had six children. If usual views about high rate of infant mortality and limited life expectancy are accepted, these medians are high. Families of ten or even seven children were exceptional. At the opposite end of the age scale, fathers between 18 and 28 typically had only one child, providing further confirmation that in the first decades of the nineteenth century early marriage was unusual. Seven of the twenty husbands in this younger age category, or more than a third, had no children.

Although the textile industry was still in its infancy, a high proportion of these British subjects at least seven out of ten — were attracted by opportunities in cotton and woolen manufacturing. More than half (70) were hand weavers, seven were machine makers, and another six were textile manufacturers. Just how significant this was can be judged from the fact that nationally only 14 per cent of enemy aliens worked in the textile industry compared with 21 per cent farmers, planters, or gardeners; 11 per cent merchants or employees in commercial firms; 10 per cent laborers; and 9 per cent in construction trades or woodworking.

It is clear that these immigrants played an important role in development of a skilled labor force in Rhode Island. The data also confirm the view that British restrictions on emigration of skilled artisans simply did not work.

Most of the others reported were also either craftsmen of one kind or another or highly experienced workers — five coal miners, four itinerant comedians, three cabinetmakers, gilders, and carpenters, two winemakers and distillers, two tailors, two button makers, two cordwainers, two tobacconists, a hatter, a saddler, a rigger, a mariner, a hone cutter, a mendicant, and a mule skinner (driver). Three described themselves simply as "gentlemen."12

While cumulatively these enemy aliens — together with those who had migrated from the British Isles and were naturalized citizens by 1812 — made important contributions to the industrialization of Rhode Island, few became either rich or powerful and — the wartime census aside — less than one in four left any other footprint on the Rhode Island historical record. Most lived simple, obscure and, in the larger scheme of things, uneventful lives —

Thomas Allen, Providence cotton manufacturer, died shortly after the war was a year old.13 Joseph Atkinson, weaver and Quaker, returned to his wife and children in England and died there in February 1818.14 Joseph Hood, North Providence weaver, died in Taunton, Massachusetts in 1823 at thirty-three.15 Giles Mardenborough, a "gentleman" who had come from St. Christopher in the West Indies to Newport for his education, died in 1820 at the age of thirty.16 John Tyson, North Providence dyer, died in Oxford, Massachusetts in August 1821, having barely celebrated his thirty-third birthday.17 Francis Henderson, a Scottish-born "gentleman" who arrived in Newport a few months before war, later married, raised a family, and in 1850 was reported to have \$4,000 worth of real estate, at 71 years of age.18 A few others - Patrick Dunlap, Smithfield weaver - Thomas Ford, Providence weaver - Samuel Kanady [Kennedy]. Providence hatter - and John Miller, North Providence weaver - married Rhode Island girls, usually during the war and from the same town, and disappeared into historical obscurity.19

Some enemy aliens were either upwardly mobile or left a more substantial mark on their times. John Chapman, Cumberland shoemaker, by 1822 had acquired five acres of land valued at \$130.20 David Dee, Portsmouth collier during the war, moved to Providence to work first as a laborer and later (1841) in a steam mill.21 John Ferguson, Scottish-born tobacconist in Newport, lived out his life there, dying at 85 in 1820, leaving an estate in land and buildings valued at \$600.22 By 1822 several Providence and Smithfield weavers — Joseph France — Noah Macksen [Markson] - and James Miller - had acquired sufficient property to qualify as voters.23 James Payton and Christopher Smith, weavers or dyers during the war, eventually became merchant tailors in Providence. John Payton, weaver in Warwick in 1813, described himself as woolen manufacturer in 1850, though he reported no property and may have

been no more than an employee in one of two Providence mills (John Giles and Sons and Elm Street Manufacturing Company) in operation at that time.²⁴

Only two became truly distinguished. Joseph Cunliff - hand weaver trained in Bolton, England who migrated to Rhode Island in 1812 in his midtwenties - immediately went into cotton manufacturing, employing hand weavers and later shifting into power weaving using horse-driven looms. Still later, he turned to steam power and at one time or another operated mills in Providence. North Providence, and Burrillville. He was also associated with John Gorham and Benjamin Holbrook in a Providence firm manufacturing machine pickers. Between 1838 and 1851 — when the mill was destroyed by fire and he chose to retire from business — he owned a cotton mill in Centredale in North Providence. According to the census of 1850, Cunliff had a sixtyacre farm valued at \$2,000 and a total of \$40,000 in real property, including presumably the cotton factory, probably the Center Mill which had a capital of \$30,000 and employed twenty-eight men and twenty-seven women in manufacture of print cloths.25

John Slater, Samuel's brother - the only other enemy alien to leave a significant mark on Rhode Island and New England history - was born in 1776. became a wheelwright, a trade which included construction and installation of machinery, emigrated in 1803 with knowledge of Samuel Crompton's spinning mule, and so helped to introduce the latest English technology to American cotton manufacturing. In 1806 he joined the partnership of William Almy, Obadiah Brown, and Samuel Slater, and in 1807 became superintendent of the new mill which the firm opened at Slatersville in Smithfield. The Slaters bought out Almy and Brown in 1833. John Slater also owned mills in Jewett City and Hopeville, Connecticut, and before his death in 1843 he served as president of the village bank in Slatersville. He was one of the handful who had applied for American citizenship before the war.26

The list which follows summarizes information gathered by the United States marshal for Rhode Island and sent to the department of state in Washington. The material is arranged in much the same tabular format specified in instructions to the marshal. His eleven separate lists have been consolidated into one and names arranged alphabeti-

cally. In some instances, modern spellings are suggested. Supplementary information is in footnotes. It should be stressed that the list is undoubtedly far from complete and may contain as few as only a third or even a quarter of male enemy aliens in Rhode Island.

Though the data should be interpreted cautiously, particular note should be taken of three possible inferences. First, migrants from the British Isles were highly self-selective. Proportionately, more than four times as many textile workers came to Rhode Island as to the nation at large. Most came directly to the state. They must have known that here was a flourishing hand-weaving industry and that work prospects were good. Second, immigrants from the British Isles may have provided as many as a fifth of the early Rhode Island textile labor force. This would have been ten times as many workers as their proportionate share of population. Finally, that so many were unmarried is also noteworthy, suggesting a pattern more commonly associated with "new immigration" later in the nineteenth century. However, in 1812 single men were too few in number, probably less than three hundred, to have had a significant impact on overall social structure or living patterns of Rhode Island.



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John Slater applied for citizenship before the war but found his name still listed as an "enemy alien."

Name	Age	Occupation	Residence	Family	Time Years	in U. S. Months
Ainsworth, John27	23	Weaver	Providence	None	1	3
Allen, Thomas	64	Cotton				
		Manufacturer	Providence	None	9	0
Atkinson, Joseph ²⁸	37	Weaver	Providence	Wife & 4		
				Children		11
Bain, William	22	Carpenter	Providence	None		9
Bakeon, Miles (Bacon?)	54	Machine Maker	Smithfield	Wife & 4		
				Children	8	0
Bakeon, William ²⁹	22	Machine Maker	Smithfield	Wife	8	0
Ball, William	18	Weaver	Providence	None		3
Bankan, John	24	Weaver	Johnston	None	3	0
Banson, Samuel	32	Mariner	Newport	None	12	0
Barker, William ³⁰	29	Winemaker	Smithfield	None	3	0
Bennan, John	25	Weaver	Providence	None	2	6
Bingham, Robert ³¹	2.2	Weaver	Smithfield	None	2	0
Boake, Richard	25	Saddler	Newport	Wife & 3		
			11 O 1214 1	Children	7	0
Brady, John	35	Weaver	Cranston	Wife & 1		
And a local of the second second				Child	5	0
Bridgeford, Joseph ³²	37	Cotton	Smithfield	Wife & 4	17	0
na e construire a rener construir a construir e rener 🐔 2012 de 2018 🖦 2019		Manufacturer		Children		

ENEMY ALIENS REPORTED BY UNITED STATES MARSHAL 1812-1813

Bromly, Miles	49	Weaver	Providence	None		0
Callant, Thomas	24	Weaver	Providence	Wife & I		10
			1. Ornaciae	Child		10
Caral Anen	51	Collier	Portemouth	Mono	1.0	
Carcidy Quintilloan	31	Distiller	Namouth	None	15	0
Classicy, Quintiliean	21	Distiller	Newport	None	6	0
Chapman, John	31	Cordwainer	Cumberland	None	10	0
Cliver (Oliver (), Joseph	32	Husbandman	North	Wite & 3	8	9
the state of the state		1997	Providence	Children		
Cockett, John	35	Cotton	Cranston	Wife & 5		10
		Manufacturer		Children		
Conbeim, William	46	Weaver	Providence	None		11
Conden, Mathew	31	Collier	Portsmouth	None	8	0
(Nathan7)						
Crampton, John	28	Weaver	Smithfield	None	3	0
Cupliff Jaconh	74	TAlegaron	Marth	TATEL	5	10
Curunt, Joseph	40	vveaver	North	vvite		10
[3] 142/11-		1.1	Providence	100 C		20
Davis, William	22	Weaver	Smithfield	None	2	0
Deady, David	50	Collier	Portsmouth	None	11	0
Dee, David	28	Collier	Portsmouth	Wife & 1	7	0
and the second se				Child		
Delahunt, Charles	39	Velvet Cutter	Smithfield	Wife & 3	3	0
		& Dyer		Children		
Devline, Arthur ³⁴	20	Weaver	Providence	Wife & 4		9
				Children		
Dobbin, Leonard35	34	Weaver	Smithfield	Wife & 4	1	8
				Children		
Dunlap, Patrick	25	Weaver	Smithfield	None	1	3
Duxbury David	43	Weaver	Smithfield	None	5	10
Ferguson John	76	Tobacconist	Newport	1 daughter	2	10
Ferguson Peter	22	Tobacconist	Newport	Manginer	0	0
Finch Milliam	22	Muladiana	Control	None	0	0
Flataburg Jaba	22	Muleskinner	Smithfield	None	1	0
riatoburg, John	33	Machine Maker	North	Wite & 3	6	0
F 1 75			Providence	Children		
Ford, Thomas	24	Weaver	Providence	None		5
France, Joseph	20	Weaver	Smithfield	None	2	0
French, William	28	Machine Maker	Coventry	Wife & 2	1	8
141 F 101 F 101				Children		
Gerrard, Samuel ¹	35	Weaver	North	Wife & 5	1	0
			Providence	Children		
Gill, Francis M.	25	Weaver	Johnston	Wife	5	0
Goran, Thomas ²⁸	45	Weaver	Providence	Wife & 6		10
				Children		
Green, John	29	Weaver	North	None	1	8
			Providence			
Greenhalgh, Samuel	29	Weaver	Warwick	Wife & 5	7	8
				Children		
Grevson George	18	Weaver	Providence	None	7	198
Handly Thomas	20	Weaver	Warmich	None	1	0
Harrison Paul	40	Hope Cutter	Noumant	None	1	9
Hanvard (Hanvard?)	40	Cotton Mill	Castilicald	INONE INC. C. C.	3	0
Matillian	44	Cotton Ivilli	Smithheid	Wire & o	4	3
D 1 12	24	VVOrker	and the second second second	Children		
riarvey, Kobert"	26	Weaver	Providence	Wife & 1	1	8
				Child		
Heare, Henry ¹⁸	33	Machine Maker	Coventry	None	11	0
Henard, Samuel	28	Collier	Portsmouth	None	2	0
Henderson, Francis	38	Gentleman	Newport	None		3
Heron, Thomas	32	Gentleman	Newport	None		3
Hierson, William39	28	Weaver	Providence	None	1	3
Higgins, Luke40	27	Weaver	Providence	Wife	6	6
Contraction of the second of the			Carl Contract Contract	130302330		

Name	Age	Occupation	Residence	Family	Time Years	in U.S. Months
Hilton, John ⁴¹	45	Tailor	North Providence	Wife & 6 Children	11	6
Hissin, Hugh	20	Weaver	Smithfield	None		10
Hood, Joseph	21	Weaver	North Providence	None	2	0
Hunt, Robert	25	Weaver	Cranston	None	2	0
Jankinson, F. Richard ⁴²	26	Chairmaker — Gilder	Providence	None	15	0
Jones, John	33	Weaver & Maltster	Warwick	Wife & 3 Children	6	0
Jones, John	27	Cordwainer	Newport	Wife & 1 Child	3	0
Jones, Karl ⁴³	20	Not reported	Providence	None		9
Kaine, Mikel	25	Dyer	Smithfield	Wife & 1 Child	4	0
Kanady, Samuel ⁴⁴	25	Hatter	Providence	None	14	0
Kennedy, Archibald	22	Weaver	North Providence	None	1	8
Kennedy, John	29	Weaver	North Providence	Wife & 1 Child	1	6
Kerr, William	23	Weaver	Providence	Wife	3	0
Lees, Randall	22	Weaver	Providence	Wife & 1 Child	2	6
Logan, Thomas	37	Mendicant	None	None	1	6
Londen, John	27	Weaver	North	Wife & 1	6	0
			Providence	Child		
Long, John	40	Weaver	North Providence	Wife & 4 Children		9
Lonsdale, James	24	Dyer	Cranston	None	2	0
Love, James	22	Weaver	North Providence	Wife	1	8
Loyd, William	52	Cotton Skinner	Smithfield	None	1	3
McCann, William	21	Weaver	Coventry	None		8
McComb, Robert	20	Weaver	Providence	None	1	0
McDonnell, John	25	Husbandman	Smithfield	None	1	7
McGinis, Thomas45	38	Weaver	Providence	None	4	0
McGough, Patrick	28	Collier	Portsmouth	Wife & 2 Children	.6	0
Macksen, Noah ²⁸	41	Weaver	Smithfield	Wife & 4 Children		9
McLean, Daniel	25	Weaver	Smithfield	None	1	3
McMurray, Alexander	27	Weaver	Warwick	None	1	8
Major, James	45	Weaver	Providence	Wife & 5 Children		4
Molcom (Malcomb?), Peter	32	Weaver	Warwick	Wife & 2 Children	3	0
Mardenborough, Giles	23	Gentleman	Newport	None	5	0
Mekey (McKey?), John ⁴⁶	52	Weaver	Providence	Wife & 4 Children	6	0
Mexander (Alexander?) Robert	25	Weaver	Smithfield	None		10
Middleton, James M.	27	Cotton Manufacturer	Smithfield	None		5
Miller, James ²⁸	23	Weaver	Providence	Wife	1	0
Miller, John	48	Weaver	Providence	Wife & 7 Children	1	0
Miller, John	34	Weaver	North Providence	None	2	0

Mitchell, John	58	Weaver	Providence	Son		1
Monks, James	68	Weaver	North	Wife & 1		3
			Providence	Child		
Montgomery, James	27	Weaver	Providence	None	1	8
Moorhead, John	25	Weaver	North	Wife & 3	1	0
			Providence	Children		
Nentley (Bentley?),	32	Weaver	Providence	None	1	6
William						
Ntwisle (Entwistle7)						
lames	27	Comedian	Boston, Mass.	None	2	0
Ogden, Samuel ⁴⁷	43	Machine Maker	Providence	Wife & 6	7	0
0				Children		
Parkin, James	31	Button Maker	Providence	Wife & 3	12	0
				Children		
Payton, James	22	Weaver	Cranston	None	1	0
Payton, John	31	Weaver	Warwick	Wife & 3	2	0
and a second second	4.4			Children	-	
Pearce James	20	Weaver	Warwick	Wife	3	0
Rantington, Richard	40	Shuttle Maker	Providence	None	1	6
Sands William	27	Weaver	Warwick	None	2	0
Seach (Leach?) John	40	Weaver	Smithfield	Mile & TO	2	10
Seach (Leach)), John	40	vicavei	Simulatera	Children	.44	10
Sanuar John	36	Monie	Month	Wife & F		3
Seaver, John	30	VVEdVEI	Desuideres	Children	1	2
CL_1(:,14)(CL_1(CL142))	6.3	DI I	Providence	Children		0
Joseph	53	Bleacher	Warwick	None	1	8
Slater, John**	35	Textile	Smithfield	Wife & 3	9	0
		Manufacturer		Children		
Smith, Christopher	29	Dyer	North	None	3	0
			Providence			
Son, John	29	Weaver	Providence	None		9
Sutcliffe, John**	31	Sley Maker	North	Wife & 4		8
			Providence	Children		
Suttall, Thomas	45	Weaver	North	None	1	0
			Providence			
Thain, Charles10	21	Weaver	Smithfield	None	6	0
Thomly James2*	32	Weaver	Providence	Wife & 2		9
				Children		10
Thompson James	30	Cabinetmaker	Newport	Wife & 3	3	0
Thompson, Junes	00	Cuonicinario	remport	Children	2	
Thompson John D	31	Rigger	Newport	Wife & 5	11	0
monipson, join D.	5.4	101860	racarport	Children	11	0
Townly John	27	Weaver	Warwick	None	1	2
Tyson John	23	Dver	North	None	1	0
ryson, john	40	Cyci	Providence	taone	+	0
Waring Loigh	25	Comodian	Providence	UAT:En		2
Wating, Leigh	20	Womenan	Smithfield	Mile & A	1	3 4
watson, James	39	vveaver	Smithheld	Children	1	3
MALLE THOMAS	24	Cult	Destauration	Nimmen		
Welek, I nomas	24	Collier	Portsmouth	INONE INCOME	1.0	-
werring (warring(),	44	Dutton Maker	Providence	VVire & Z	4	0
Joseph	-	D	147	Children		
Whitehead, John	30	Dyer	Warwick	Wite & 1	3	0
			-	Child		
Whites, John	28	Tailor	Charlestown	None	2	0
William, Robert	26	Comedian	None	Wife, 3 children,	2	0
		-	1	& Sister-in-law		
Wood, Hartley	49	Weaver	North	Wife & 5		9
		141	Providence	Children		
Young, Charles	32	Comedian	Charleston, S.C	Wife	7	0

- 1 The late Prof. Herbert Heaton was the first scholar to examine this topic and to use archival material on which this article is based. His "Industrial Immigrant in the United States 1783-1812" is in *Proceedings of the American Philosophical Society* 95:519-527 (October 1951). Estimate of number of immigrants is computed from analysis and tables in J. Potter, "Growth of Population in America 1700-1860," in *Population in History: Essays in Historical Demography*, ed. D. V. Glass and D. E. C. Eversley (Chicago: Aldine, 1965) 666-667. At best, no more than a crude guess.
- 2 Providence Gazette and Country Journal July 18, 1812. Rhode Island reports are in Record Group 45, Naval Records Collection, Office of Naval Records and Library, National Archives, Washington, D.C. The file also contains correspondence relating to enemy and neutral aliens, 1812-1815.
- 3 Heaton, 519. It is impossible to say either how many should have reported or even how many actually did. Some records have been lost, others are defective, and those for Rhode Island probably incomplete. Though evidence is only inferential, it is difficult to believe there were no enemy aliens in Bristol County, in any town in Washington County save Charlestown, in either East or West Greenwich in Kent County, or in five of the seven towns in Newport County. It seems likely that not all reported even in those towns where a census has survived. In June 1814 John Leach - a weaver employed by Almy & Brown in Smithfield - requested but was denied permission to sail from Boston on a Russian ship to rejoin his wife and ten children in England. Apparently he had tried but failed before the outbreak of war to bring his family to Rhode Island. He was not recorded on the list of enemy aliens in Smithfield.

For the act of July 1798, see U. S. Statutes at Large 1: 570-572, 577-578, 781. For Leach, see application of June 10 and reply of June 20, 1814, frames 350, 692, 693, in microcopy no. 588, "War of 1812 Papers" of department of state, roll 1, National Archives.

- 4 Providence Gazette March 13, 1813. Niles' Weekly Register 3: 408 (February 27, 1813).
- 5 Niles' 4: 28-29, 65, 81, 115 (March 13, April 3, 17, 1813). 29 aliens had been relocated in Virginia (presumably from Norfolk) and licensed for a month to remain where they were. Further confirmation that marshals took their responsibilities seriously can be seen in the case of Charles Lockington, who challenged the government's power to detain him. In March 1813 he agreed to move from Philadelphia to Lancaster. Later he received permission to live in

Reading, Because he could not support himself there he returned to Philadelphia where the marshal arrested him for disobeying the relocation order and had him held in debtor's prison until he agreed to return to Reading. The courts denied Lockington's application for a writ of *habeas corpus*, thereby upholding the legality of relocation policy. *Niles*' 5:141-146.

- 6 Niles 4: 65, 323 (March 13, July 17, 1813). The naturalization question can be followed in U.S., Statutes at Large 1: 103-104 (March 26, 1790), 414-415 (January 29, 1795), 566-569 (June 18, 1798); 2: 153-155 (April 14, 1802), 292-293 (March 26, 1804); 3:53 (July 30, 1813). Annals of Congress, 12 Congress, 1 session, 1561, 1563, 1567, 1571, 1574, 1582; 2 session, 17, 152-153, 211-212, 1075-1076; 13 Congress, 1 session, 147, 391, 433, 465-468, Niles' 5: 46-47 (September 18, 1813). Providence Gazette July 31, 1813. The naturalization law of July 1813 allowed enemy aliens to become citizens of the United States, but the law of April 1802 applied to almost all British subjects in Rhode Island and required five years of residence after the immigrant had filed a declaration of intention to apply for citizenship. The law of July 1813 applied only to those who had filed before the outbreak of war. As we shall see, only 5 out of 130 had done so.
- 7 Niles' 3: 408 (February 27, 1813): 4: 28-29, 323 (March 13, July 17, 1813). For cancellation of restrictions following the president's peace proclamation, see Niles' 7: 409 (February 25, 1815).
- 8 Letters of July 27, 1812, October 18, November 3, 1814, Record Group 45.
- 9 Letters of June 20, November 19, 1813, January 9, December 5, December 15, 1814, Record Group 45. One of Gilpin's functions was to work with local authorities in embarkation of prisoners of war and other foreign nationals being sent to British territory under flags of truce. So-called cartel vessels involved in these transfers from Rhode Island included the brig Ancloston and the three-masted, 169-ton ship Rising States (Abraham Hayward, master). The latter's voyage to Bartholomew in the West Indies by way of Barbados and Guadeloupe was organized by Sir Nathaniel Brewer and included almost fifty passengers drawn from as far away as Massachusetts, Connecticut, New York, New Jersey, Pennsylvania, and Virginia. Prominent on its passenger list were families from the French West Indies. Seven servants, including a black and a mulatto, also received passports to sail from Rhode Island. Five West Indians - A. H., J. D. A., and M. C. Rhoduis, Sara Thurston, and a servant named J. Williams - had been living in Providence; their destinations were Demerara and

New Providence. After a number of delays the *Rising* States was ready to sail from Providence on December 30, 1813. Letters and documents October 6, 13, 20, 30, December 15, 30, 1813, Record Group 45. Works Projects Administration, *Ship Registers and Enrollments of Providence, Rhode Island,* 1773-1939, 2v. (Providence, 1941) 1: entries 2937-2939.

- Coleman, Transformation of Rhode Island, 1790-1860 (Providence: Brown University Press, 1963) 268. Mumford v Mumford, 17 Federal Cases 982: 9, 918 (November 1812). For a legal brief on the status of enemy aliens prepared for General Mason by someone with initials R. R., see document October 27, 1813, Record Group 45.
- 11 Compare the Francis, 9 Federal Cases 670-677: 5032-5036 (November 1813); 12 United States Reports 363-371 (February 1814). The Yankee was owned by James De Wolf of Bristol. An excellent account of its privateering voyages is in George Howe, Mount Hope: A New England Chronicle (New York: Viking, 1959) 165-197. Coleman, 42-44, 54-61, discusses DeWolfs in Rhode Island history.
- 12 Record Group 45. There were 37 in Providence, 26 in Smithfield, 21 in North Providence, 12 in Newport, 11 in Warwick, 7 in Portsmouth, 5 in Cranston, 3 in Coventry, 2 in Johnston, and 1 each in Charlestown and Cumberland.
- 13 James N. Arnold, Vital Record of Rhode Island, 1636-1850, 20v, (Providence, 1891-1912) 13: 113.
- 14 Arnold, 20:541.
- 15 Arnold, 12:530.
- 16 Arnold, 564. His father Christopher, formerly from Newport, had died in 1806. Arnold, 14: 80.
- 17 Arnold, 13:63.
- 18 MS. Census of United States, 1850, Rhode Island volume 10, schedule 1, page 112, RIHS Library. His household included wife Elizabeth, 53, two children Jannet C. and Robert 26 and 25, and a Jane Armstrong, 20.
- 19 Arnold, 15:44, 72, 179, 17:447. In 1816 a Samuel Kennedy was listed on the Providence Tax Roll (RIHS Library) as owing \$1.47 in taxes on \$300 in personal property.
- 20 Cumberland tax estimate and state tax bill for Cumberland, 1822 (RIHS Library).
- 21 Providence Directory 1828, 1830, 1841.
- 22 Arnold, 13: 382; 21: 157; Newport Tax Valuation 1823 (RIHS Library).
- 23 Smithfield tax estimate and state tax bill for Smithfield 1822, Providence Tax Roll 1822 (RIHS Library).
- 24 Providence Directory 1826, 1830, 1832, 1838-1839, 1850 Census, 2:553.

- 25 Providence Directory 1826, 1830, 1832. North Providence Tax Rolls 1830, 1851, Providence Tax Roll 1830 (RIHS Library). 1850 Census, 3: 132 and schedule IV (Agriculture) 3: 35. Transactions Rhode-Island Society for Encouragement of Domestic Industry, 1871 (Providence, 1872) 70. In 1850 Cunliff's household comprised his Scottish-born wife Mary, 65, and three children born in Rhode Island — William, 24-year-old manufacturer; Ellen, 35; and Elizabeth 18. The household also included a 19-year-old Betsey, probably a servant.
- 26 Smithfield tax estimate 1822. Biographical Cyclopedia of Representative Men of Rhode Island (Providence, 1881) 40.
- 27 Previously resided for 13 months in Dighton, Mass.
- 28 Family remained in England.
- 29 Wife was American born.
- 30 Previously resided for 32 months in Leicester, Mass. Had applied for naturalization on April 13, 1810.
- 31 Previously resided for a year in Baltimore, Md.
- 32 Previously resided for 7 years in New York and 3 years in Conn.
- 33 Previously resided for 3 years in Lynn, Mass.
- 34 Previously resided in Warwick.
- 35 Previously resided for 9 months in Newport.
- 36 Wife and children "daily expected" from England.
- 37 Previously resided in Warwick.
- 38 Previously resided for 6 years in Boston.
- 39 Had filed preliminary naturalization papers in September, 1812.
- 40 Previously resided for 3 years in Beverly, Mass. and for 3 1/2 years in Warwick.
- 41 Previously resided for 7 years in Boston.
- 42 Previously resided for 12 years in New York where he had served an apprenticeship with Joseph Resly.
- 43 Previously resided for 6 months in Dighton, Mass.
- 44 Previously resided for 12 years in Penna.
- 45 Previously resided for 3 1/2 years in Boston, for 6 months in North Providence, and also claimed to have lived for 6 months in Providence.

4

- 46 Previously resided in Coventry.
- 47 Had applied for naturalization on November 16, 1810.
- 48 Had applied for naturalization on March 26, 1812.
- 49 A sley was a weaver's reed or the movable frame in the loom that carried the reed. Family "daily expected" from England.
- 50 Previously resided for two years in Nantucket, Mass.
- 51 Had applied for naturalization in March 1810.



United States frigate Constitution at anchor off Fort Adams. Newport, Rhode Island. Lithograph by J. P. Newell, 1861.



Courtesy Redwood Library

Fort Adams — American Example of French Military Architecture

Throughout history various form determinants, both subjective and objective, have produced informative and beautiful structures. Of those works responding to logic and physical requirements, American seacoast forts are remarkable examples of functionalism which responded beautifully to peculiarities of terrain, to determinants of functional geometry, and to exigencies created by systematic attack. In previous centuries fortifications were considered among the most important types of architecture — national defense that today relies upon missiles and aircraft to intercept an enemy, in former times relied upon architecture.

To protect key cities and harbors along coastlines of the United States in the nineteenth century, an extensive system of military architecture was conceived according to principles of a well developed art of fortification. Individual forts forming links in a long chain were designed in conformance to principles and formulas of French fortification. Among the finest examples is Fort Adams, Rhode Island, a vast work which today remains very much as it was when completed near mid-nineteenth century.

Events stimulating development of a national system of defense occurred early in the century as a result of the dispute with England. British attacks on Washington and New Orleans during the War of 1812 had been facilitated by approaches undefended by any noteworthy fortifications. Following the conflict, President Monroe, noting the expense of the by Willard B. Robinson*

war in lives and property lost and destroyed, pleaded for national seacoast defenses $-\!\!-$

The vast body of men which it was found necessary to call into the field, through the whole extent of our maritime frontier, and the number who perished by exposure, with the immense expenditure of money and waste of property which followed, were to be traced in an eminent degree to the defenseless condition of the coast. It was to mitigate these evils in future wars . . . that the decision was formed to make the coast, as far as might be practicable, impregnable.

In response, Congress authorized a comprehensive system of defense to be developed with the objective not only of serving the country in time of war but also with the "higher purpose of preventing war itself."¹ However, America had no highly skilled engineers to plan the required defenses. The United States Military Academy had only been founded shortly after 1800 and had not yet developed an expert staff to train officers with expertise in military service that was essential to undertake the defense of an entire nation. Consequently to obtain the best possible leadership, the country turned to France traditional friend in military matters — to obtain an expert on the art of fortification.

French officers had previously assisted Americans in need for military engineers who played key roles in the war for independence. Following the Revolution, French talents assisted in improvement of American harbor defenses, serving at numerous locations along the North Atlantic Coast. At the end of the century Louis de Tousard — strengthening defenses of Newport, Rhode Island — directed reconstruction of fortifications on Narragansett Bay including those on Brenton's Point, later named Fort Adams at his request. Earlier, Bechet de Rochefontaine had been directed to fortify ports which included New London, Connecticut and Marblehead, Massachusetts. Shortly after the turn of the century, Pierre Charles L'Enfant designed formidable Fort Washing-

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ton, Maryland. With the exception of Washington, these works were incapable of strong resistance to attack and they had no mutual relationship. Needed was a large, unified, permanent system and an expert engineer to design it.²

To assist in projection of such a system, President Madison enlisted the services of brilliant French military engineer Simon Bernard, graduate of *L'Ecole polytechnique* and former aide-de-camp to Napoleon Bonaparte. In 1816 — upon recommendation of Marquis de Lafayette and by virtue of a resolution of Congress — Bernard was appointed "assistant" in the corps of engineers with rank of brigadier general by brevet, an executive action which created much animosity among American officers.

Bernard was placed at the head of a board of engineers charged with fortifying maritime frontiers of the entire nation. Also appointed to the board were lieutenant colonels Joseph G. Totten and William McCree. Although McCree resigned after a short time, Totten — except for a two-year period 1817-1819— served until 1838, when he became chief of the corps of engineers.³

With broad vision, the board developed a national unit of defense comprised of several large interrelated components. In toto it consisted of an interior system of communication, a militia, the navy, and permanent forts strategically situated to control navigable bays and rivers. According to the board, the strength of the system was the manner in which all components were interdependent —

... withdraw the navy and defense becomes merely passive; withdraw interior communications from the system and the navy must cease, in a measure, to be active, for want of supplies, and the fortifications can offer but a feeble resistance for want of timely reinforcements; withdraw fortifications, and there remains only a scattered and naked navy.

In an analytical manner, the maritime frontier was organized at first into four sub-systems — Gulf of Mexico, extending from Sabine to Pardido rivers southern Atlantic from capes Hatteras to Sable middle, from capes Cod to Hatteras — northeastern, from Nova Scotia to Cape Cod. After 1819, when Florida was ceded to the United States, her shores were included. The earliest sub-system to be developed were works comprising regional systems for Mobile and New Orleans. In 1817 Bernard was ordered to the Gulf Coast to survey existing fortifications and to project new forts, which included Fort Morgan, Alabama and Fort Jackson, Louisiana. After completing this task, he surveyed other parts of the Atlantic Coast and with the assistance of his draftsman — Guillaume Tell Poussin, appointed to the service as a topographical engineer — he finally developed plans for Narragansett Bay.⁴

Defense of the Narragansett was considered one of the most important objectives of the national system. Tousard had earlier reported that it is "the best Harbour on the Coast of the United States." When he was instructed to strengthen defenses of Newport with construction of several batteries on Brenton's Point, his judgment on the importance of the Bay had motivated him to "request permission for building a small closed Fort and render the works permanent by erecting a wall inside and outside." Tousard had also proposed construction of barracks with casemates bombproof, powder magazine, and furnace for heating shot.⁵

Likewise recognizing the significance of the Bay in their first official report on fortification of Narragansett Roads written in 1820, the board later noted multiple advantages contributing to its importance in the northeastern coastal system. It was the only harbor accessible in a northwest wind — direction of the most violent winter storms. Since Boston and New York could be entered in winds blowing from most other directions, safe refuge could be found at one of these three places under most conditions. Other advantages of the Bay included protection of navigation between Long Island Sound and Martha's Vinevard, and command — from this station by the navy - of the coast from Hampton Roads, Virginia past the curving coastline between Cape Cod and Cape Hatteras. Since it was a connecting link to coasts north and south, it was important to deny Rhode Island to an enemy as a base of occupation from which he could direct attacks on adjacent areas. Finally, Narragansett Bay and Hampton Roads were the only harbors from Cape Cod to Cape Hatteras which the board considered proper for naval rendezvous. Totten later reemphasized this importance when he warned that "the same properties that make Narragansett Roads so precious to us, would recommend them to the enemy also The defenses adopted for the Narragansett must be formidable . . . because they will be exposed to powerful expeditions."6

To fulfill the Bay's role in the national system, the

board considered that several local conditions should be satisfied. First — similar to those at other seacoast points — fortifications should ensure a safe refuge for American vessels by denying access to enemy ships. Second, these defensive works should protect the settlements of the Bay from sea attack. Third, they should deprive an enemy of a position from where he might establish a base. Finally, they should prevent blockade at the entrance to the Bay by forcing enemy ships to remain at sea exposed to the havoc of boisterous storms.

Of the three channels entering the Narragansett only the East Passage required fortifications since the other two were theoretically too shallow to admit ships of deep draft. The first projections called for three forts — a strong work on Brenton's Point, another behind Dumplings Rock, and a smaller on Rose Island. Only the first was finally realized.⁷

Previous fortifications around these sites could play only an insignificant role in the national system. An 1809 report had described Tousard's Fort Adams as "an enclosed indented work of masonry, calculated for twelve guns, six mounted, with a brick magazine, and barracks for one company, including officers." (Fig. 1). By 1820 it was in ruins and much too small. According to the board it could neither resist four days against an attack by land nor contain the formidable armament demanded by the position. A tower on Dumplings and a fort on Rose Island were inconsiderable and unfinished. Two other forts, Wolcott and Green, were to be retained only temporarily."

The importance of the Bay to the nation was reflected in the magnitude of the fort designed for Brenton's Point. Commenced in 1824 with an initial appropriation from Congress of \$50,000 and not completed until mid-century, Fort Adams was one of the largest in the national cordon (Fig. 2). To defend against attacks supported by small smooth-bore artillery pieces it was designed to mount 468 cannons and it had a perimeter measured at the cordons of 1,739 yards. Defense in time of war would have required 2400 men, although it was planned for a peacetime garrison of only 200. Fortifications were built with scarp, parade walls and supports with granite from Maine, vaults with brick from kilns nearby, structural walls with shale from the immediate vicinity and lime obtained north of Providence but manufactured on the site.9

Fulfillment of objectives the board of engineers

projected for Fort Adams involved two basic types of military architecture — one to destroy ships entering the Bay, the other to defend against siege by an army. The former required a concentration of cannons mounted en barbette and en casemate overlooking the water, the latter a complex system of earth and masonry works to resist attacks by storm and by artillery from entrenched positions. Types of defense against each kind of attack and configuration of the land were primary form determinants.

Fortifications were not developed until shorelines were surveyed to select a location with natural advantages to complement architecture for defense of the inlet to the Bay. In selection of the site engineers demonstrated characteristic ability in fortifying with nature. East Passage into Narragansett Bay was formed by Conanicut Island on the west and Aquidneck Island on the east (Fig. 2). At the south end of the latter, the land terminates in a hook, with a narrow neck of land projecting northward into the bay forming Brenton's Cove. Capitalizing on this site surrounded by water on three sides, the northern tip of the projection was selected as the location for the fort. From only one direction - the south - would it be possible for an enemy to conduct a regular siege, the most difficult and expensive form of attack to defend with architecture. High regard for this advantageous position is revealed by geography of the passage: farther south the inlet was actually more restricted, a condition which would have reduced the required range of cannons firing at ships, but land defense recommended the isolated tip. In addition to the narrow land form, the position on the neck was elevated only a small distance above waterline, a desirable condition for defense against ships since grazing fire across water was considered superior to plunging fire from elevated positions; other possible locations along the passage were more elevated.

This land configuration created problems for art by requiring an unconventional arrangement of architectural forms (Figs. 3, 4). Engineers universally considered *irregular* fortification inferior to *regular* works derived from Euclidian geometry. According to Vauban — brilliant engineer of Louis XIII and Louis XIV — regular works were considered superior because all sections of the fortifications possessed uniform strength. Obviously an enemy would always attack the weakest points, difficult to eliminate in irregular works. The land seldom accommodated uniform works without some modifications and Vauban himself was well known for his ability to adapt works to uneven sites. Although forms of various works used in fortification — considered by many the most difficult of the arts — were ideally determined by fixed rules, application of the theories was not merely a process of descriptive geometry.¹⁰

Form development of the trace of any fortification began with a polygon, the configuration and number of sides generally adjusted to the character of the land. The polygon on which fortifications for Fort Adams were developed was five-sided, evolved in response to both sea and land defense (Fig. 5). The side to contain cannons for sea defense was established parallel to the shoreline, thus providing a long line of fire in the direction of the channel of navigation — the number of cannons considered necessary to defend the passage determined the length. In the original concept. Bernard developed a zigzag trace for the west curtail to provide direct fire from several angles at vessels as they would approach and pass the area commanded by the fort, but this was eliminated by Totten, later assigned to supervise construction in 1825. Two other sides of the polygon, north and east, were designed also for sea defense, although length of the former was much reduced and the latter - where officers' quarters and principal powder magazines were located - had a passive function. On southeast and southwest sides were developed bastions, curtains, and outworks to resist land attack and isolate the fort on the neck (Fig. 6).

In any system of fortification it was essential that every point exterior to the defenses be fully swept by musketry or cannon fire. There should be absolutely no ground around fortifications which could not be seen and grazed with fire from within (Fig. 7). Alberti had observed early, "The greatest Defence to the Walls . . . is to be so provided that the Enemy cannot approach you on any side without being exposed to imminent danger." According to Vauban, "All parts which are to enclose a space of Ground, ought to be flanked . . . that there be no shelter about the place where the Enemy may lodge himself." In the bastioned system, while fire was brought upon the covered way and glacis from curtains and faces of the bastions, the flanks were the key to defending the area adjacent to their exterior. At Fort Adams two land fronts were necessary to develop defenses within range of muskets then in use by soldiers stationed in the flanks of the bastions. The capital of the south bastion was centered on a ridge extending along the

neck — a conventional practice of military engineers — thus creating sides of unequal length.¹¹

In principle of design Fort Adams conformed to the French system of fortification developed by the eminent Vauban, modified and improved by his successors, tested under generations of European warfare, and finally taught at the Ecole polytechnique and the French School of Application. Bernard, an excellent student at the Ecole, brought to the United States the systems of French engineers, which he himself had had opportunity to apply in the service of Napoleon Bonaparte. Forms were creatively modified to adapt to the land and to compensate for variations in scale between works in France and in the United States. French engineers had developed form concepts based upon surrounding entire cities with fortifications. Since small forts rather than large fortresses were basic components of defense in the United States, the extent of many of the elements of fortification was much reduced, requiring compensation in form development.12

The method of tracing bastions with satisfactory proportions for both strong exterior defense and free interior movement had been formulized by Vauban and had changed little during successive generations. The trace was developed on the polygon of fortification established with respect to the terrain. To develop the configuration of each front (a curtain with adjacent flanks and faces of the bastions) a perpendicular was extended inward from midpoint of each side of the polygon (Fig. 8). A measurement on this perpendicular established the line of defense and then the curtains. The lines of defense - which determined the position of the faces of the bastions were drawn from the salient angles of the polygon through this point. Later, after flanks were established, the curtain was placed on a line drawn parallel to the polygon from the flanked angles.¹³

The length of the perpendicular was proportional to the side of the polygon on which it was established and also varied according to the interior angles: for a square, the system specified a length of 1/8 of the side; for a pentagon, 1/7; for a hexagon and all other polygons, 1/6. According to Vauban the mean length of the side of a polygon should be 180 fathoms (360 yards) — in his day the maximum dimension which would enable troops to enfilade effectively all the ground near the enceinte with accurate musket fire.¹⁴

Although there are variations due to irregularity and size of the work, geometrical configurations of

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Fort Adams conform essentially to Vauban's first system (Fig. 9). With 300 yards as the maximum, lengths of all sides of the polygon at Fort Adams were well within range of musketry. The various interior angles of the polygon of fortification approximated regular polygons of square, pentagon, and hexagon. Interior angles on the northeast and southwest were close to 90°; on southeast 108°; and on northwest and south 120° (Fig. 5). With exception of the main sea front on the west, perpendiculars were established close to Vauban's formulas for regular polygons :

Table 1. Comparison of fort adams geometry with vauban's first system.

Fronts	Fort Adams length of side*	length perper	of idicular	Vauban's polygon	Fort Adams interior angles			
		required Fort by Adams Vauban						
West	300	31	37	square	97° (127°)			
North	158	20	20	square	90° (128°)			
East	300	37	37	square	90° (105°)			
Southeast	228	28	32	pentagon	105° (120°)			
Southwest	176	30	29	hexagon	120° (97°)			

*all figures in yards

On the west front the perpendicular is less than required by Vauban's system, thus producing narrow flanks. Since this side was relatively safe from closein attack, considerable flanking defense was not essential for enfilading curtains and opposite flanks and faces of bastions, hence Bernard reduced the length of the flanks. On the southwest front where bastions with wide flanks were required, length of the perpendicular was increased slightly over that required by formula. After lines of defense were established, faces of the bastions were set. On a mean front of 360 yards Vauban specified a length for faces of about 2/7 of the corresponding side of the polygon with a minimum length no less than half the length of the curtain (about 1/4 the side of the polygon). This ratio produced wide gorges essential to easy movement within. At Fort Adams, where all fronts were less than Vauban's mean, Bernard used the ratio, in most instances, of about 1/4.¹⁵

Table 2. Analysis of proportions of faces of bastions at fort adams.

bastion	face	actual length* of face	Theoretical length of face based upon ratio of 1/4 of side of polygon	Theoretical length of face based upon other ratio of side of polygon		
	left	73	75			
northwest						
	right	38	39.5			
	left	38	39.5			
northeast						
	right	112		99	1/3	
	left	112		99	1/3	
southeast						
	right	54	55			
	left	57	55			
south		27/03				
	right	47	43			
	left	47	10	47	2/7	
southwest		1.		47	-	
SCHINEST	right	77	75			

Exceptions to the 1/4 ratio were made on left face of the southeast bastion, and right face of the northeast bastion again where wide flanks were not required by defense — all this consistent with the philosophy of the French School which stressed adjustment to peculiar circumstances of site and anticipated attack.

Design of other components of fortification reflects innovations of disciples of Vauban. An influential military architect whose memoirs on fortification formed the base for instruction at *L'Ecole du genie* (founded 1750) at Mezieres, Cormontaingne utilized the basic geometry of Vauban's first system but modified many components during his service in France in the eighteenth century. Forts designed by Bernard for the United States incorporated some of Cormontaingne's concepts as well as modifications of them by successors, which formulated design was known as the "modern system." Among those in the design of Fort Adam was the method of establishing the flanks of the bastions. In the modern system these were drawn perpendicular to the lines of defense, as contrasted with Vauban's system of establishing them by swinging an arc from the salient of the collateral bastion through the shoulder of the bastion and forming them on a line connecting the points of intersection of the arc with the lines of defense and the curtain. Then, the reentering places of arms reflect the modern system as modified by Dufour, a French officer who also served Switzerland. Dufour replaced the salient projection used by his predecessors with a parapet wall of a circular trace. Sallyports - curved to prevent enfilade - extended from these places of arms through the parapet and glacis to the country. Bernard employed this geometry in his designs for forts in the United States (Fig. 3), but at Fort Adams this form was replaced later by salient projections similar to those used by Vauban.16

With the trace of bastions and curtains set, other fortifications of land fronts on southwest and southeast were developed. The counterscarp - important in defending against escalade - was established on the exterior side of the ditch. According to Vauban, as well as his successors, the extremity near the salient place of arms was set by swinging an arc with the salient of the bastion as a center and the desired width of the ditch at that point as a radius (Fig. 10). Then a line was drawn from the point of tangency on this arc to the shoulder of the collateral bastion. To give the flanks full scope, it was recommended that the radius of the arc be thirty yards, with twenty as a minimum. At Fort Adams the lower limit was used but was compensated by a ditch slightly deeper than French engineers ordinarily used in Europe narrow, deep ditches were preferred to those wide and shallow. Width may have been reduced because of economy and/or the limitations of balancing deblais (ditch excavation) with remblais (mass of earth forming ramparts and other earthworks), which was critical in developing any fortification. At the southeast bastion of the exterior front, the center

of the arc was shifted slightly west of the salient — a departure from Vauban's formula.¹⁷

Continuing outward from exterior fronts, the covered way was established beyond the counterscarp. Defined at its outer extremity by a banquette and breast-height wall which would enable defenders to graze the glacis with musket fire, the covered way provided a protected area where sentinels could make the rounds and an advanced position for musketry. With a width of thirty feet, and a terreplein situated about seven feet below the crest of the glacis, the covered way at Fort Adams conformed also to French theory. Salient and reentering places of arms projecting from the covered way formed other protected areas where sorties could be organized - at these points cavalry could be assembled, infantry organized, and field artillery collected for sallies exiting through sallyports.¹⁸

Refinements in design of the covered way evolved by French engineers were also incorporated. To counter the practice of enemy enfilade of the covered way with ricochet cannon fire, traverses were thrown up crosswise to arrest cannon balls skipping along the ground. In use since Vauban's time and consisting of parapets of earth, these were situated at the places of arms and at intermediate points. Form and details of these works at Fort Adams also conform to the practice of Cormontaingne. Erected on lines of the extension of the faces of the bastions - to expose both sides to view from the interior - traverses at the salient place of arms had a superior slope of about six yards, while intermediate traverses, erected perpendicular to the covered way, had a superior slope of three yards. To avoid creating "dead areas" which could not be seen from the terreplein of bastions or curtains, the trace of breast-height walls forming the crotchets was formed en cremaillere. Again, consistent with French practice, crotchets were nine feet wide.19

Other components of fortification were also included to resist bombardment of siege cannons. For protection of flanks and curtains as well as posterns of southwest and southeast fronts, tenailles with earth slopes to absorb shot were placed in front of scarps but separated from them by a narrow ditch. While works designed by Vauban had been simple earthworks (Fig. 8), other French engineers developed tenailles into sophisticated forms. With casemated flank artillery and masonry revetments, those at Fort Adams reflect concepts of French



Fig. 1. Plan of 1798 work, ca. 1819.

National Archives



Fig. 2. Aerial view.

Rhode Island Department of Natural Resources



Fig. 3. Plan and sections. Drawing attributed to G. T. Poussin, ca. 1819.



Fig. 4. Horizontal section of masonry. Drawing attributed to G. T. Poussin, ca. 1819.

National Archives



Fig. 5. Polygon of fortification.

Fig. 6. Nomenclature of forms.



Fig. 7. View of southeast demibastions from fight flank of northeast bastion.

Photograph by author



Fig. 8. First system of Vauban.



Fig. 9. Nomenclature of geometry.

Essai general de fortification by Henri Jean Baptiste Bousmard (Berlin, 1797; Paris, 1814)



Fig. 10. Geometry of outworks.

Drawing by K. Carrington



Fig. 11. Southeast postern.

Photograph by author



Fig. 12. Nomenclature of forms in section.

Drawing hy K. Carrington.



Fig. 13. Second tier of casemates on west front.

Photograph by author



Fig. 14. View of casemate arches and embrasures.

Photograph by author



Fig. 15. Officers' quarters viewed from parade.

National Archives



Fig. 16. Quarters in southeast front viewed from parade.

National Archives

engineer Bousmard. Characteristics of his work in Fort Adams were tenailles lower than the curtain of the main work and which had earth slopes but masonry flanks and faces. A low relief on this earthwork was utilized so as not to mask flank barbette cannon fire of defenders. Flank casemates covered with masses of earth — along with parapet, narrow terreplein and banquette extending the length of the earth curtain of the tenaille — provided for active defensive function. Bousmard's ideas were also employed in France by deLaubat, a contemporary of Simon Bernard's who also had served under Napoleon.²⁰

In a well engineered fort, design and arrangement ensemble of all these components augmented strength. Various parts were planned to flank and aid each other. They created the opportunity to cover with crossfire many sections of ground to be defended.

In addition to the enceinte and exterior fronts, various adjunct works were included to strengthen Fort Adams against attack. Among the most interesting and essential adjuncts forming part of the defenses to resist land siege were countermines. In the original concept, these were extended under bastions and in the realized work they were also placed under outworks for detecting and intercepting enemy attempts to tunnel, plant explosives, and breach a section of the works. In addition to providing opportunities for defenders to thwart enemy attempts at tunneling, they were a psychological determent, since besiegers evidently dreaded attacking fortifications known to be countermined, fearing defenders might blow up approaches passing over the galleries. French engineers considered countermines an important adjunct of defense and Vauban advised Louis XIV to construct them in all his fortresses.²¹

Scarp countermining galleries, accessible from counterscarp galleries, were installed along faces and flanks of bastions of exterior fronts, and listening galleries from which sounds of mining tools could be detected were extended toward the country on the southeast, where soil structure would readily accommodate mining. Other sections under the glacis were not countermined since rock was evidently encountered at short depth, precluding both mining and countermining. Evenly spaced openings usually twenty feet apart — closed with removable masonry panels — were provided along walls of the galleries to enable counterminers to extend new tunnels where required to intercept an enemy. Then at strategic locations service magazines provided tools and powder. With listening tunnels two and a half feet wide, four and a half feet high, and counterscarp galleries six feet wide and eight feet high, the tunnels conformed closely to recommended dimensions. Bernard also employed countermines at Fort Pickens, Florida, designed at about the same time as Fort Adams.

To further resistance to siege were works on the south bastion along the capital, generally the line along which attack could be expected. Rising above the crest of the parapet and slightly to the rear was a cavalier, an elevated earth work designed to give cannons command over outworks. Oriented perpendicular to the capital, the terreplein and parapet of this cavalier allowed mounting cannons which could fire directly on approaches rather than from oblique positions created by parapets parallel to the scarp.

Essential to efficient interrelation and functioning of all above parts were efficient communication. facilitated within Fort Adams by numerous well placed posterns, tunnels, stairs, and ramps, all part of Vauban's first system and of the systems of most of his successors (Fig. 11). From within posterns of interior fronts, tunnels — now filled with water were constructed under the interior ditch to a reverse fire gallery (crenated gallery), from which position enemy attackers could be fired upon from behind if they gained access to the interior ditch. From the interior ditch, posterns extended also under curtains and tenailles of exterior fronts, while caponiers across the exterior ditch provided protection for communication to the covered way via ramps or stairs. These caponiers were provided with breastheight walls so the ditch could be grazed with musket fire and they, in turn, were flanked by covered galleries with loopholes. All posterns could be closed with heavy wooden doors and posterns under the exterior front were flanked by loopholed galleries.

While above theories applied to development of fortifications strong against attack, provision of a strong profile for the various works increased resistance to both surprise and siege (Fig. 12). From the terreplein behind the earth parapets of curtains and bastions it was mandatory that all outer components be defended with artillery as well as

musketry. At the same time, the profile should incorporate a glacis and earth parapets which would mask the masonry revetments of the fort against bombardment from the outlying country - massive earth ramparts were the most effective defense against shots from siege cannons. Then, heights of counterscarp and scarps should be adequate to prevent escalade - surprise attack where ladders were used to scale walls. Generally, the French recommended thirty feet for the height of the scarp and fourteen feet for the counterscarp. At Fort Adams the height of the scarp on exterior fronts is about twenty feet but its height on the main work generally exceeds this recommendation, partially because greater heights were required by multiple tiers of casemates on the west.22

To further increase resistance to land attack, fronts designed to defend against siege were detached from the main body of work by an interior ditch — a concept which may have been inspired ultimately by detached bastions of Vauban's third system, employed at several other American forts, including reconstructed Fort Delaware. Taking the fort would require breaching one of the exterior fronts, then crossing the interior ditch, where besiegers would be exposed to reverse fire from cannons and muskets in counterscarp galleries and casemates.

These ditches were important to communication as well as to siege defense. Although several American forts had ditches filled with water — because communication with the outworks for defense was more secure — many engineers preferred dry ditches like those at Fort Adams. With ditches filled, loss of a drawbridge cut succour to the important covered way, and inhibited sallies on besieger's works. Regardless of preference, the decision to use a dry ditch at Adams was made in deference to its hilly terrain.²³

While defense against escalade required steep scarps, resistance to the impact of cannon shots and to pressure of earth ramparts required inclined walls. To fulfill both requirements, Vauban designed masonry scarps with a prominent inward slope of one to five. Since this incline exposed the walls, resulting in deterioration of mortar from weather and plant growth, other engineers subsequently reduced the batter until it approached one to twenty. Verticality is even bolder at Fort Adams with only about a six-inch inward deviation from the vertical in some twenty-five to thirty feet of height. The cordon then projected boldly outward to protect the wall from water draining from parapet slopes.²⁴

Vertical scarp which engineers so boldly approached was possible by using massive walls, by sloping interior faces, and by reinforcing masonry with counterforts (buttresses) erected on the interior. At Fort Adams, engineers' drawings indicate wall thickness at the top of the scarp of exterior fronts at five feet — the same as that used by Vauban. Thickness was increased at the footing to fourteen feet by a series of offsets, intended to break the consistency of the pressure of earth. Evenly spaced, counterforts then projected five feet into earth masses of the ramparts.²⁵

While many concepts of permanent fortification were well formulated, considerable judgment was required for application of theory, particularly on hilly terrain. Among principles requiring skill for application was defilade (defilement), the orderly arrangement of works to parry effects of enemy cannons which might be positioned on commanding ground — an arrangement should be such that missiles fired at the works should have the same effect as they would if fortifications were erected on flat terrain. Commanded by an eminence to the south, Fort Adams was defiladed (defiled) by depressing the works northward, to avoid effects of plunging and reverse fire from the commanding height to the parade side of the north front. Thus, west and east fronts slope downward to the north to allow shielding of the north parade face - with a defilade (defile) on the east of about one foot in one hundred while the west front drops about nine inches in one hundred feet.26

While Vauban and Cormontaingne were much involved with development of fortifications for defense of land frontiers, Montalembert developed principles extensively applied in the United States based upon use of casemated cannons. Montalembert described and illustrated numerous works in which casemates arranged in multiple tiers were basic to systematic defense.²⁷

Since casemates created masonry exposed to enemy projectiles, Bernard used them in the United States only on fronts not susceptible to land attack preferring for siege defense cannons mounted en barbette on terrepleins behind parapets of earth. Key to use of enclosed cannons was venting. Many And and the first of the second of the secon

System of fortification of Louis de Cormontaigne, French military architect whose modifications of Vauban's system were incorporated into the plan of Fort Adams.

Memorial pour la fortification permanente et passagere by Louis de Cormontaingne (Paris, 1809)

Plan of fortification of French engineer Henri Jean Baptiste Bousmard whose further improvements on Vauban's system are reflected in the plan of Fort Adams.

Essai general de fortification by Henri Jean Baptiste Bousmard (Berlin, 1797; Paris, 1814)

engineers objected to casemates because they filled with smoke of the black gunpowder then in use each time a cannon was fired. Cross ventilation through embrasures and rear openings cleared some smoke, but greater efficiency was realized with vertical venting. Consequently, in casemates at Fort Adams can be seen several varieties of vents upward through scarps, terrepleins and ramparts, all provided to exhaust smoke by draft.

Along the west front of the enceinte, then, were casemates for cannons which were the raison d'etre of Fort Adams (Fig. 13). Defense of the East Passage required a high concentration of artillery, two tiers en casemate and one tier en barbette. Although the full component of armament was never installed, for water defense there were provisions for mounting some one hundred cannons in the west curtain and the left face of the northwest bastion, and for self defense another dozen cannons in the flanks. Since it was not thought that cannons aboard ships could create devastating fire, scarps along this front were unprotected by earth works. Five-foot-thick shale and brick walls revetted with granite were considered adequate to resist the fire of small smooth bore naval cannons. Along the north front was one tier of casemates, which as on the west were closed on the parade side with removable sashes, making these areas habitable. Although the fort was originally designed for twenty-four and thirty-two pound smoothbores, much heavier guns were mounted around mid-nineteenth century.

Openings for cannons also reflected consideration of attack. Embrasures in these granite-revetted shale walls were formed with brick (Fig.14), soft material that did not splinter like granite when struck by cannon balls. This consideration would have reduced execution done by flying particles of masonry caused by impact of projectiles on cheeks of embrasures.

Elsewhere within the enceinte, casemates also formed a principal part of the works. Covered by earth ramparts and terrepleins with brick and concrete paving, vaulted bombproof enclosures although incessantly criticized for their dampness provided secure quarters on the east front for officers (Fig. 15). Nearby in the northeast bastion — safest from cannon fire — were located in large casemates three principal powder magazines, from which the service magazines located in tenailles and counterscarp galleries were supplied. Along south interior fronts, large casemates, eighteen by fifty-two feet, contained soldiers' barracks, hospital, quartermaster stores, bank, and chapel (Fig. 16), while the beautiful and rather complex casemates of the southeast demibastion of the interior front contained bakery, kitchen, cisterns, and latrines for enlisted men.

Since probability of attacks from north or east was low — although there were provisions for cannons both in casemates and on terrepleins overhead casemated fronts on these sides were planned for a rather passive defensive function. Coverfaces of earth were thrown up before north and east fronts for protection of scarps from cannon shot if an enemy established across the cove in Newport. Use of coverfaces was also much favored by another of Bernard's contemporaries in France — Carnot, general and author of a treatise written at the request of Napoleon.²⁸

So at Fort Adams appeared elements of fortification considered essential by the French at the time the work was designed - "1st, The covering masses, consisting of revetements, parapets and traverses: 2nd, Casemates, crenated galleries to obtain covered fires: 3d. Galleries of defensive mines: 4th, Bombproof buildings, including magazines of all kinds."29 Design of all these embodied concepts on military architecture developed by several generations of French engineers but modified to adapt to peculiarities of terrain. The fort incorporates geometry employed by Vauban in his first system but also reflects changes in theory by succeeding French engineers. The fort is also noteworthy for the manner in which fronts for both land and sea defense were integrated - a development which distinguished American from much European military architecture.

In days when natural defense still depended upon smoothbore cannons, Fort Adams was much admired by contemporary engineers for its complexity and uniqueness in America. Eulogizing Joseph G. Totten, John Barnard observed that Fort Adams had "called for the application of most of the rules of the art and many of those special arrangements which form the themes or treatises upon 'fortification.' " His conclusion — "in these respects, it has no parallel with us" — testified to the considered importance and uniqueness of the architecture.³⁰



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View looking northeast showing the interior of Fort Adams, especially the parade.



RIHS Library

Fort Adams in 1857 offered a scenic view to pleasure boaters.



City and Scenery of Newport, Rhode Island by John Collins (Philadelphia, 1857)

Ballads published during War of 1812, one decrying "Mr. Madison's War," the other a prayer for peace.

