Preservation Planning Series **Approaches to Preserving a City's Past**

Written and Published by the Alexandria Urban Archaeology Program City of Alexandria, Virginia Pamela J. Cressey, Director

> City of Alexandria April 1983



U.S. Department of the Interior National Park Service

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On Cover

Alexandria, Virginia in 1864. Reproduced from a lithograph in the Alexandria Library, Lloyd House.

Preservation Planning Series

Approaches to Preserving a City's Past

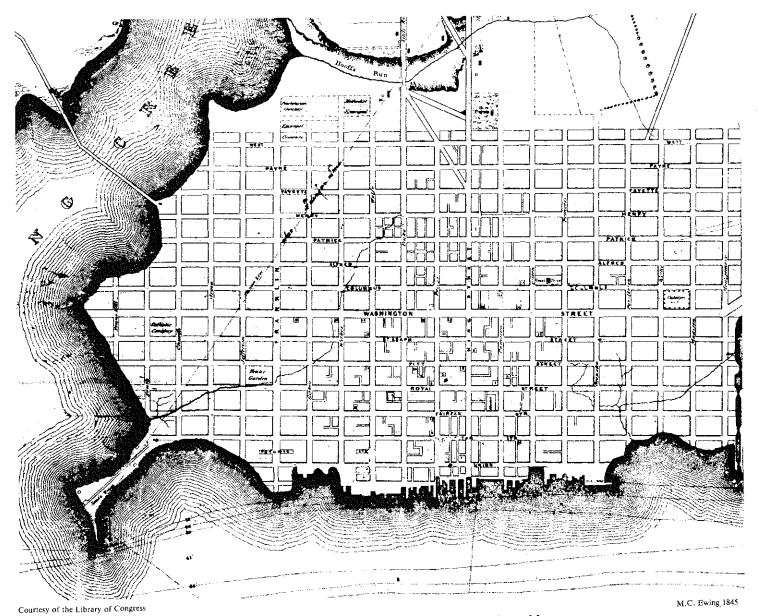
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Alexandria, incorporated in 1749, is a city where professional archeologists and the public form a partnership in investigating their community's past.

Sharing the Ivory Tower

Pamela J. Cressey

Increasing use of public funds to conduct archeological research and management has generated discussions within the profession concerning our relationship with, and our responsibility to, the public. Simultaneously, as research costs soar, student enrollments fluctuate, and as destruction to the resource base escalates, more professionals have explored relationships with the public as a potential solution to these problems.

In essence, involvement with the public has occurred for three reasons. First, the profession is ethically obligated to make research results available to the public (McGimsey 1972, 1979). Second, it is sensible managerially. Training the public in the archeological process provides professionals with free, volunteer labor for most research activities (Miller 1974; U.S. Government Printing Office 1978; McGimsey 1972). In addition, educating the public can increase the success of preservation planning by encouraging reasoned, public input at the early stages which ultimately can lead to plans with greater effectiveness and credibility (Peterson, Ross, and Spencer 1978; Aten 1980; McGimsey 1979). And third, sphere pragmatism dictates that by building relationships with the public (thus increasing archeology's constituency) the profession and its data base have a higher likelihood of being preserved at a time of uncertain economic support. As McGimsey has recently stated:

Communication with archeology's publics is a major area of administrative or pragmatic concern. Without adequate communication with the general public, we will not get and cannot expect adequate support from local, state, or federal sources (1979: 585).

So for reasons ranging from professional ethics, to practical matters of labor supply and planning success, to the realities of preserving our profession and its goals, archeologists are turning to the public.

Public archeology can take several forms. As originally defined by McGimsey (1972: 5), all archeology is public. He states at the outset of his book, "There is no such thing as 'private archeology'." In practice, however, public archeology has dealt primarily with:

- A. Applied work (as defined by Keel 1979), historic preservation and resource management in the general public interest (Schiffer and Gumerman 1978; King, Hickman and Berg 1978; King and Lyneis 1978).
- B. Interpretive formats at archeological sites; a few jargon-free books (Fagan 1975, 1977, 1978; Struever and Holton 1979; Nöel-Hume 1969, 1976; Deetz 1977), and public journals (such as, Smithsonian Institution, Museum of Natural History).

C. Educational programs developed through state archeological facilities aimed at paraprofessional training (such as Arkansas, Minnesota, New Hampshire).

Each of these areas gives something to the public protection of the country's heritage, enjoyment and recreation, knowledge, and even expertise. But do these mechanisms offer sufficient public communication to deal with the profession's current issues? Do they fulfill the ethical requirements of public accessability to research results? And, do they increase archeology's credibility and build a large public constituency to insure the continuation of the profession's goals?

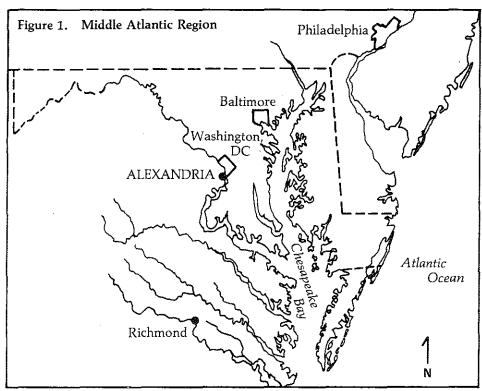
I think that as the only techniques (and practiced infrequently at that) they fall short, since each of the areas has been generally unidirectional in its communication and relationship with the public. Limited information flows from the profession to the public, and then stops. In order to facilitate the public's help in resolving our pressing concerns, an expansion of the professional-public relationship is required. By defining mutual rights and responsibilities, and by creating reciprocal respect and communication, a partnership for the past can be developed through integrating professional goals with the public interest.

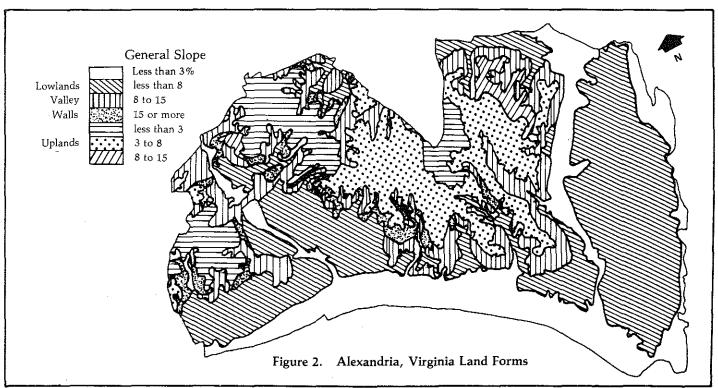
Yet, in attempting to create such a dual relationship, few guidelines exist. (Recently, the federal government did advocate the inclusion of public information in preparing preservation plans, but this data alters the ideal professional plan, rather than helps create that plan (Aten 1980)). For archeologists making the transition between the ivory tower's haven and the often perceived havoc of the public setting, questions come to mind more than solutions.

How can archeology be conducted in partnership with the public without sacrificing research goals and rigor (Wendorf 1979; King and Lyneis 1978)?

What administrative and financial structure is necessary to create a public program (McGimsey 1972)? Do these needs deplete personnel and funds which could better be devoted to pure research? For example, do volunteer requirements (education, supervision, administration) reduce research productivity; thus making the partnership lopsided?

How can archeology increase public communication, and therefore its constituency and credibility (McGimsey 1979)? That is, can increased public-professional dialogues occur best by including the public in the archeological process itself? Or, does more effective communication come through interpreting the results that professionals and students produce alone?





I think that these questions can be summarized into one: How can the ivory tower be shared to the mutual advantage of the profession and the public? Operationally this question asks: How can archeologists, while maintaining professional goals, develop programs that bring the ivory tower out of its often inaccessible location? In short, can an escalator be installed in the ivory tower to increase access for a handicapped public—a public that lacks jargon and readily available books, and has instead, media myths of crazed archeologists with knobby knees and pith helmets seeking buried treasure?

In Alexandria, Virginia, we have been faced with these questions and are finding realistic ways to create and maintain a public archeology program (funded through the city government), which also operates within the professional requirements set out by the ivory tower.

This session has been developed to accomplish four things:

First, it presents the research framework that is the central organizing vehicle for the Alexandria Urban Archeology Program—a conceptual and explanatory model for specific 18th- and 19th-century urban developmental processes. It also sets out methods for testing the model archivally and archeologically.

Second, it documents how a community program can be created (managerially and financially) within an integrated structure which maintains a public partnership (Public Interaction Design) while producing professional information (Research Framework) and preservation strategies (Preservation Format).

Third, it describes how there is a potential for the profession to operate far more effectively with the public than alone at each archeological phase: survey, excavation and analysis, professional interpretation, preservation planning, education, and public interpretation.

Fourth, it presents the program's results to date for each of these phases in light of the research and public interaction designs we have created.

This paper describes Alexandria's environmental, historical, and contemporary milieux which have been taken into account as the Alexandria program has been developed. It also presents the research framework, administrative structure, and public interaction design used in the program. Subsequent papers discuss the development, methods, and results of each program phase and address how professional-public partnerships have been created.

Environmentally, Alexandria is situated within the Middle Atlantic Region, and today the Washington, D.C. metropolitan area (figure 1). Its location across the Potomac River from the Capital has had an effect on the city's development, particularly in the 20th century. Yet, historically the predominate economic and demographic factors affecting Alexandria were more an outgrowth of the city's location on the interface between the upper South and the North, rather than its proximity to the seat of governmental power *per se*.

Much of the city's 15 square miles is relatively level alluvium adjoining the Potomac and its tributaries at the north, south, and east borders of the contemporary city (figure 2). The western and central sections, however, are situated on bluffs and terraces rising from the river valleys (figure 2). Quartz suitable for prehistoric tool manufacture is located along the tributaries, and much of the city's soil is a red-yellow, sandy clay easily exploited for pottery making.

Year	Political Affiliation	Free	% Pop.	% Blacks	% Growth	Slave	% Pop.	% Blacks	Total	%
1771	Virginia		Unknown				Unknown		39 1	22.0
1790	D.C.	52	1.89	8.7		543	19.8	91.3	595	21.7
1805		527	8.26	31.	256.3	1171	18.4	69.	1698	26.6
1810		868	12.	38.6	24.5	1383	19.2	61.4	2251	31.1
1820		1168	14.2	44.9	16.3	1435	17.5	55.1	2603	31.7
1830		1381	16.7	53.5	19.2	1201	14.5	46.6	2582	31.2
1840		1627	19.2	60.2	12.6	1074	12.7	39.8	2701	31.9
*1860	Virginia	1395	10.99	50.2	◀	1386	10.9	49.8	2781	21.9
1870	-	•		Emano	ripation				5337	39.3

*Data are unreliable, since figure comes from State Slave Schedule, not City Source: United States and City census schedules

Today Alexandria has approximately 110,000 people distributed in similar densities to the historic pattern, differentiating east from west. Only in the far western portion of the city are population densities as high as in the historic core (due to its proximity to an interstate highway connecting Alexandria with Washington, D.C. and Richmond, Virginia). The historic core (called "Old Town" by the residents) continues as the base of administrative and financial power, tourism, and exhibits exceedingly higher assessed real property value than the west.

Alterations to the land have occurred differentially in the east and west as well. In the west, the greatest damage to archeological resources has occurred from condominium construction on the bluffs and massive flood control projects on the two major tributaries. Historically, the core alterations have occurred through leveling and filling; in the last 15 years, urban renewal both leveled six blocks within the historic district and offered a climate for individual restorations.

Yet the historic core retains much of its heritage. Visitors are often reminded that this was a thriving colonial and federal seaport, and the home of George Washington and Robert E. Lee. It is in fact, largely due to Alexandria's relationship with these men that it is often used as a model of urban preservation (Weinberg 1979; it has also been the location of numerous federal workshops) and that an archeology program exists at all. Alexandrians are proud of their heritage (as demonstrated by over 25 groups devoted to the study and preservation of the city's history) and are used to rising to historic needs when the occasion demands it. Such was the case when the ar-

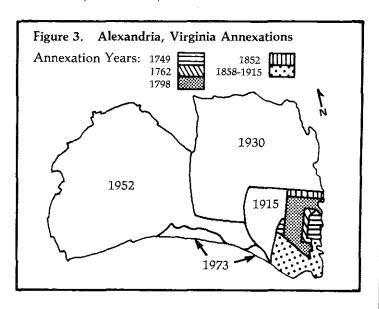
cheological resources in the six urban renewal blocks were threatened. Citizens first sought help from the Smithsonian, and later lobbied to include an archeology program and public commission within the city government.

In selecting the Alexandria programs direction an inventory of the city's positive and limiting factors was taken.

Positive Factors

- 1) City funds a permanent archeological facility and staff (even if it is in a World War II Torpedo Factory!).
- 2) City has undergone similar developmental processes as other urban areas, but its small size creates a microcosm of these changes and allows study of a total historic city as an internally complex, socially stratified site (historic core).
- 3) Major archival sources needed to identify spatial locations of land use and urban groups in the core are available locally. Sources necessary for ranking the core's population into socioeconomic groups and identifying major ethnic groups (Euro- and Afro-American) are also available.
- City's lack of very late-19th- and 20th-century industrial growth protected earlier resources; hence historic core is reasonably intact in its 19th-century form.
- 5) Great archeological potential exists for 18th-19thcentury diachronic study from water-logged, deeply stratified privy contexts in most residential properties delineated by historic walls in the core.
- 6) The last total block in core became available for archeological investigation, allowing intensive study of middle status residential behavior.

Although systematic surveys have not been completed for the Potomac River Valley, it is thought that there was a relatively large indigenous population from the Archiaic through the Late Woodland periods (Humphrey and Chambers 1977). Initial European settlement occurred in the eastern portion of the city when a Scottish, tobacco trading port was established in 1733, in an inlet of the Potomac. Expanding rapidly from its 1749 incorporation boundaries to its 1798 size (figure 3), Alexandria sat on an alluvial promontory jutting into the Potomac and functioned in an important economic core role for its western hinterland (Macoll 1977).



Historic population increased through this period into the 1820s due to the expanding commercial markets after the Revolution (figure 4). The city increased over 80 percent between 1790 and 1800, and made another 45 percent jump from 1800 to 1810. During this time Alexandria was an international port and a major commercial center for the Middle Atlantic Region (Sharrer 1977). However, economic prosperity and thus population increase. dropped markedly from the 1820s to the late 1840s (figure 4). When a new canal was built in 1843, Alexandria's competitive edge was restored, and the city was brought into the national, industrializing economy. Ethnically, one-third of Alexandria's population was Afro-American by 1810; as the century progressed, increasing frequencies of the black community had free rather than slave status (figure 5). In the mid-19th century, an influx of German lews occured.

Figure 4. Population Trend in Alexandria							
Year	Population	% Growth					
1790	2,748	80.89%					
1800	4,971	80.89%					
1810	7,227	45.38%					
1820	8,218	13.71%					
1830	8,263	.54%					
1840	8,459	2.37%					
1850	8,734	3.25%					
1860	12,652	44.85%					
1870	13,570	7.25%					
1880	13,659	.65%					
1890	14,339	4.97%					
1900	14,528	1.31%					
	·						
Source: Uni	ited States Dicennial Census						

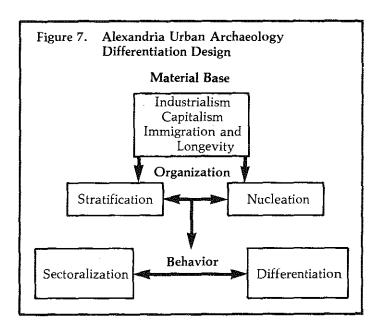
The Civil War had drastic effects on the city's economic base and Alexandria became a semi-periphery to the District of Columbia's regional core. Alexandria functioned in the late 19th century, as it does today, primarily in service, recreational, and bedroom roles for the Capital area.

Throughout the majority of Alexandria's history, then, the eastern aluvium (or, historic core), has had higher population density and more social, economic, and political power than the western periphery. The periphery was not annexed into the city until the 20th century (figure 3), and has continued to have a sparse population (until quite recently) oriented towards agriculture and the transportation networks connecting the Alexandria urban core with its western hinterland.

Specifically, the research in Alexandria centers upon residential behavior (locational and consumer patterns) of different socioeconomic/ethnic strata as the relationship between these groups changes with mid-19th-century industrialism, capitalism, and population increase (figure 7). Residential behavior has been selected for attention since 1) our city's resource base is most appropriate for this topic; and 2) archeological information recovered from households has the highest potential for studying changes in social stratification—an important topic for study in most disciplines dealing with urban behavior. Although the stratification system under study deals with what is often referred to as "class," we are operationally measuring individuals' statuses along socioeconomic (wealth, occupation, condition of land tenure), ethnic (Euro- and Afro-American), and legal (free, slave) continua. Realizing that class is a topic fraught with complications in the literature (Wallerstein 1979), the specific covariances between these statuses over time will be arrived at through emperical relationships. The complexity within the hierarchical social structure will thus be shown based upon actual differences in division of labor and allocation of resources, not preconceived notions of ethnicity (Mullings 1978) or requirements for class consciousness or solidarity (Warner, Meeker, and Eels 1949).

The research design is grounded within a materialist framework (Harris 1968, 1979) and employs a world-systems approach as derived from Wallerstein (1974, 1979) for a suprastructure. The use of this approach is beneficial, since the material base components that affect social organization can be studied with a universal perspective rather than a local one. This macrostructure allows the research design to incorporate world economic processes (that is, capitalism); thus, the general model as well as the results generated from this one site can be tested in other cities (Goldfrank 1979). And, the goals set out by South (1977a, 1977b) for historical archeology can be more fully met for urban studies through this approach.

A world-systems approach also allows lower level models, which can offer explanations for the relationships between specific changes in social organization and observable behavior, to be placed into a more powerful research framework. The Alexandria design tests a general conflict model (vs. consensus model) of sociopolitical organization and change (figure 8). The theory was originally laid out by Marx and Engels (see Engels 1972) and has been recently elaborated on by a series of other researchers (Dahrendorf 1959; Gluckman 1955; Coser 1956; Fried 1967; and Field 1970). While archival information (city ordinances and court records) can be used to demonstrate urban conflict,



the model can also be tested archeologically (settlement and artifact patterns).

There are a variety of benefits that can accrue from adopting models dealing with changing sociopolitical and economic organization. Just as prehistorians have conducted some of their most fruitful research into processes of state formation and urbanization (Adams 1966, 1972; Millon 1973; Sanders and Price 1968; Flannery 1972), historians can employ general models to provide a unifying structure and direction to research. In addition, the use of models that consider 1) the city as a single site with internal diversity and 2) urban development as part of a process operating within wider contexts (regional and universal) allows historic data on stratification and land use to be joined with prehistoric and contemporary anthropological studies along developmental continua. Thus, subdisciplines do not need to be arbitrarily divided, and general behavioral processes can be studied diachronically from early, preindustrial, industrial, and post-industrial states (Sjoberg 1960; Rathje 1977, 1978; Rathje and Mc-Carthy 1977; Fox 1977).

 Public support for the program is strong, since citizens developed it and view it as part of the community.

Limiting Factors

- 1) Extant staff cannot perform all phases of the archeological process without increased staff and specialized individuals (historian, museum educator).
- Historic urban processes are not well studied in archeological literature; no research designs are available from our subdiscipline. Interdisciplinary conceptual schemes must be used to structure research.
- 3) No complete history of city is available. Historical overview must be developed within the program.
- 4) Historic core's early development depleted the prehistoric resources; recent construction in western periphery severely altered these materials, but it has a higher potential than core for prehistoric sites (Archaic rather than Woodland since bluffs are less disturbed than floodplains) and testing extant settlement pattern models in the Middle Atlantic region.
- 5) Most of the core's archeological information is held in private properties, covered with asphalt or gardens, and buried 20–30 feet below the surface in brick shafts; thus, traditional field survey cannot provide an adequate assessment. The location of potential resource areas must be derived archivally, and then a second phase field survey tests these areas to confirm their potential. Also, good community relations are needed to insure access to private property.
- 6) Quantity of archival materials is great in a diachronic study, so a sampling strategy is necessary to locate historic activities and groups; large numbers of trained people are needed to record data.
- 7) Artifactual patterns relating to urban life and socioeconomic/ethnic groups in general are only beginning to emerge in the literature; 19th-century artifact forms, functions, and prices are not well documented either. Thus, hypotheses on material correlates of urban groups must be developed from other disciplines' models that describe and explain organizational changes, which should be reflected in consumer behavior. Our own 19th-century artifact typologies must also be developed which are sensitive to temporal change (to date the components) and to availability/cost/use-life (to prevent a normative view of urban consumption patterns).
- 8) So many archeological areas can be identified from a two-phase survey strategy in the core that sampling is necessary to select sites for excavation. Sampling is

- required to decrease the quantity of materials recovered, insure study into all pertinent groups' behavior, and provide statistically reliable statements regarding this city's behavior and urban processes in general.
- 9) Urban resources are so great in quantity and variety (and preservation so high in water-logged contexts) that large field and laboratory crews are needed.
- 10) Quantities of both archival and artifactual data necessitate computer assistance and formation of collection management policy.
- 11) Many eager volunteers are available for all phases of the program, but they require training and supervision.

By assessing all these factors, we believe that a realistic and profitable way to proceed has been selected. A diachronic research framework has been developed that structures a study of 18th- and 19th-century change in urban stratification and its behavioral manifestations as expressed by settlement and consumer patterns (Cressey 1978, 1979, 1981). The general research questions can be stated as follows (figure 6):

How do the concomitant processes in 19th century society's base material (technology = industrialization, economy = capitalism, and demography = immigration and longevity) affect urban spatial development (nucleation) and social organization (stratification)? How and why are these changes reflected in behavioral processes which can be studied through settlement patterns (sectorialization) and artifactual patterns (differentiation)?

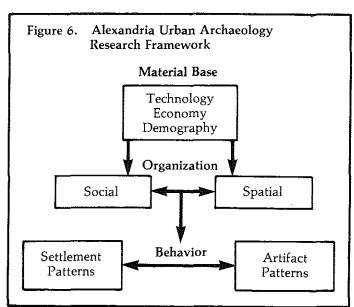


Figure 10. General Urban Development									
	1750	1770	1790	1810		1830	1850	1870	1890
	l Technology st Economy		Commer	cial Economy				al Technolo ist Econom	
Population		•	>	>	>	,	>	>	>
Nucleation		>		portational mscription)	▶	•	•	Stabilize	· ►
Stratification	Static		Free Bl	acks=New St	atus	Wealth	Difference	s >	
Conflict			Ethnic	if Free Blacks	•	Class a	nd New Et	hnics 🟲	
Core-Periphery- Semiperiphery	C=developed P=undevelope area		SP = free	st developed a ee blacks leveloped area		resi SP=bl	nmercial; v idential ack residen ade; industi	tial;	C=regional city SP=smaller city
Differentiation	Differences b (Variety					▶ ((Quantity, (Quality, Us	e-Life)

The sectoralization process can be described using a coreperiphery model (Wallerstein 1979) (figure 11) which identifies one area (core) within the historic city as gaining differential amounts of power and wealth from its surrounding area (semi-periphery) (Friedman and Alonso 1964: Paul 1967). The less well-developed area surrounding the historic city maintains its peripheral status. In essence, the city becomes increasingly sectoralized in terms of both activities and socioeconomic/ethnic group residency, and as such wealth and power (figure 12). Thus, separate areas are created within the historic city with higher internal homogeneity (Bowden 1975; Groves and Muller 1975; Goheen 1970; Pred 1966). As transportation improvements occur in the late 19th century, the periphery often is suburbanized by the wealthy, creating a new residential sector, but the core retains its higher power status since decisionmaking is still centered in it (Warner 1962, 1968).

The core-periphery model describes the changes that take place based upon differential power and wealth. And as such, it provides a good tool for viewing the sectoralization process, and it places groups in city areas based not merely on distance-from-center, but also on distance-from-power. This construct aids historical ar-

cheologists inhibited by the unavailability of much of their urban site. It allows artifact patterns from specific urban areas identified initially by ethnicity or occupation to be interpreted within a total system without surveying and excavating the whole city or region.

Figure 11.

Core-Periphery Schematic

Periphery

Core

Core

Although Alexandria is not an "industrial city" itself, it is definitely within a larger society undergoing industrialization with an emerging capitalist economy. By creating a general model with independent variables (economy, technology, and demography) affecting the interaction

between dependent variables (urban nucleation, stratification), residential behavior should be predicted (socioeconomic/ethnic group sectoralization and material differentiation).



Behavior

Differentiation

Sectorialization

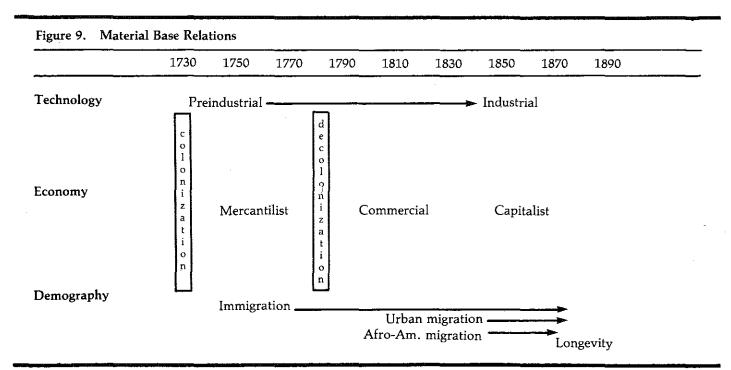
In a nutshell, the general model directing the Alexandria program's research states:

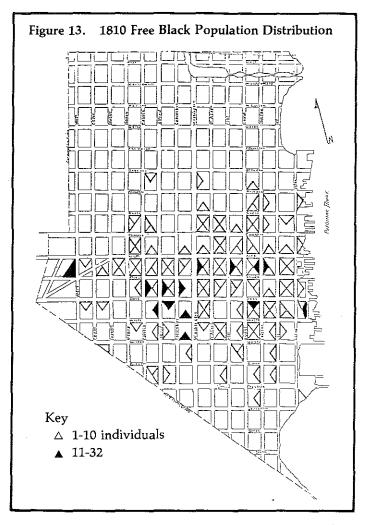
Increasing industrialization and capitalism leads to increasing stratification and differential access to capital and power (Bottomore and Rubel 1956; Adams 1975, 1977; Blau 1977) (figure 9).

This increasing difference in wealth and power between groups, coupled with increasing population densities in mid-19th century transportationally circumscribed cities (nucleation), leads to increasing group conflict (Coser 1956; Dahrendorf 1959).

The resultant residential patterns should reflect increasing sectoralization by socioeconomic/ethnic group. Sectoralization should reduce the amount of face-to-face contact between conflicting groups; thus, disarm the potentially disruptive situation (Coser 1956; Wade 1964; Blau 1977) (figure 10).

Consumer behavior should change in a manner that greater relative *differentiation* between socioeconomic strata occurs. This reflects the broadening gulf between strata due the capitalist economy (figure 10).





This nucleation expands through 1830 (figure 16) as Afro-Americans increase in their percent of the general population (figure 5), and conflict between groups increases (ordinances are created to limit black activities—at night congregating in groups, reading).

Yet, in 1850 when the general model predicts an increasing amount of ethnic segmentation, this small black area in the Dip begins to reduce (figure 17), and white households increase on its northern border as the commercial core expands from new economic activity (figure 18). This pattern is more understandable when the total black population figures for the city are examined (figure 5). Between 1840 and 1860, there was a 10 percent decrease in Afro-Americans. This occurs when Alexandria becomes a part of Virginia once again; many blacks flee to maximize their freedom.

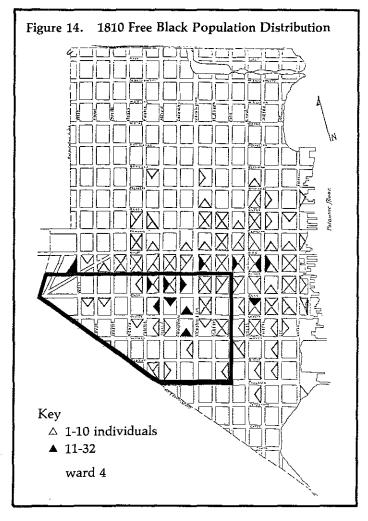
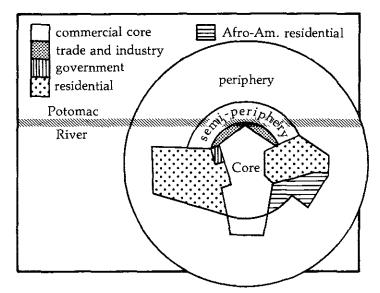


Figure 12. Sectoralization Schematic Mid-19th C. Alexandria



Yet, the general model presented above can be refined to be more predictive, and sensitive to individual locations. This refinement based upon local factors can actually fine tune the model and prevent a powerful, but generalized, model from being discarded because it does not predict the particulars of each site. (See Thomas 1973 for a good discussion of this refinement in archeology.)

There are a few micro-factors that influence Alexandria's development and as such should create a different timing and form for its sectoralization and differentiation processes. The first is a significant demographic difference from most other cities. Located in the upper South, and actually part of the District of Columbia from the 1790s to the 1840s, it should be expected that large numbers of newly freed blacks migrated to Alexandria in the early 19th century (figure 5) (Berlin 1976). Because of changes in the regional agricultural economy, (change from tobacco to wheat production, Sharrer 1977; Berlin 1976), slaves were freed in increasing numbers and moved to cities that offered jobs. Since this immigration should produce a disequilibrium in the relationships between blacks and whites in the cities, and probably produce conflict, ethnic sectoralization can be predicted to occur at an earlier time (early 19th century) in upper South cities.

Another difference might be expected in Alexandria in the 1820–1840 period. Although international trade was hurt all along the eastern seaboard at this time, Alexandria may well have been damaged more severely (Sharrer 1977); consequently, if labor supply decreased, population size and nucleation should stabilize, rather than continue to increase. Then if competition for the few remaining positions intensified, increased conflict should occur within lower status groups themselves and result in increased sectoralization.

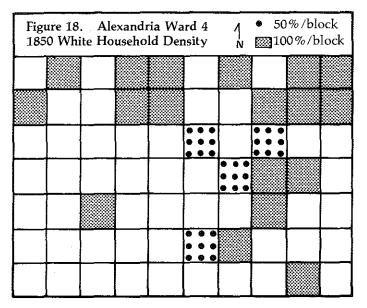
Alexandria returned politically to Virginia in 1846, and this shift sent many free blacks out of the city. Consequently in 1850, when sectoralization would usually increase, Alexandria should not conform to this pattern.

Finally, Alexandria did not retain its central economic role in the region after the Civil War, and its market role was subsumed by other cities with better transportation networks (that is, Washington, D.C., Richmond, Virginia, Baltimore, Maryland). Additionally, far removed from natural resources (such as coal) needed for large-scale industrial expansion, Alexandria did not become an industrial city; and therefore, did not require a large labor supply as other eastern cities. Fewer European immigrants, then, should enter the city in the last quarter of the 19th century. Thus, the complex sectoralization and differentiation seen in industrial northern cities should not occur.

Although this paper does not attempt to fully test the model in Alexandria, a brief discussion of the evidence we have collected to date should clarify the processes operative in 19th-century cities. In general the data support a refined model that accounts for the city's specific variations.

The earliest population density maps, which the staff created, are for 1810. They demonstrate that the highest density of people reside along two east-west corridors. This developed core area within the historic city formed because of Alexandria's intensive commercial activity with its western hinterland. A map detailing professional, white household location lends support to the position that no sectoralization occurs due to socioeconomic status at this time.

However, a map of free Afro-American household densities demonstrates that segmentation is occurring along ethnic and legal status (figure 13). Free blacks increase significantly at this time (figure 5), and a small nucleation occurs in the southwestern nondeveloped portion (semi-periphery) of the city known today as the "Dip" (figures 14 and 15).



Demonstrating increasing material differentiation is a more difficult task. Although Steven Shephard will be discussing the specific model used in Alexandria to test artifact assemblages later, I would like to briefly demonstrate the patterns we are arriving at. There is a much greater similarity between various socioeconomic and ethnic status assemblages prior to 1840. A poor, unskilled laboring black household in the Dip discarded tablewares with similar patterns, prices, and functions as an upper middle status household in the core. Yet, after c. 1840 the gulf between these free blacks in the semiperiphery and the core-located middle status, white households widens. The white household discards numerous matching sets with a variety of serving vessels, and the free blacks discard a few plain white-bodied earthenwares and stonewares. However, the artifact patterns are not delineated by ethnic affiliation. A slave woman's household in the core (one of the few remaining core blacks in mid-19th century) actually discarded far more tablewares (including many serving vessels and porcelain) than the free household. Her materials were not of the same quality, price, or quantity, however, as the tablewares of her owner. Additional research into ceramic prices and increasing samples from different groups should provide clearer information of artifact patterns in relationship to status (socioeconomic, ethnic, and legal) and consequently, to core-periphery residential location.

In order to fully test this model the Alexandria program requires the proper organizational and financial structure, and obviously a lot of help. An organization has been developed which can not only test the model, but also feed research information immediately into preservation planning and public interpretation.

The Alexandria Archeological Research Center (AARC) funded through the city of Alexandria was structured specifically to study behavior within and between the city's socioeconomic strata. However, in 1977 as Kathy Beidleman and I excavated our first site (500 block of King Street), we discovered the plethora of data and variety of artifact patterns derived from urban contexts (Beidleman 1979a, 1979b). In order to interpret the site's results, citywide information was needed.

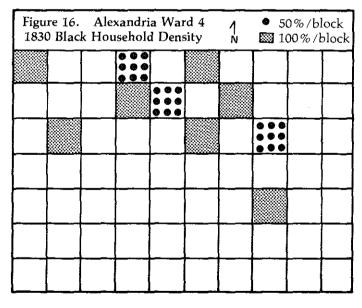
With survey and planning funds from the Heritage Conservation and Recreation Service (HCRS) awarded through the Virginia Historic Landmarks Commission, the city survey was initiated in 1978. Directed by Terry Klein with the aid of Susan Henry, the Alexandria Regional Preservation Office (ARPO) was established to conduct this survey and prepare a preservation plan (Klein 1979; Klein and Henry 1980).

Field reconnaissance alone is not sufficient for urban survey, so a historian was added to the staff this year. John Stephens has developed an archival sampling strategy that delineates scientifically significant areas on the basis of the research design (Stephens 1981). The data produced from this computerized survey create management units for preservation planning as well as provide settlement patterns used to test the sectoralization process predicted by the model. Furthermore, this survey data also pinpoint potential areas for archeological research. Sampling from these areas selects residences for excavation and leads to testing the other predicted behavioral process-differentiation (figure 11).

In order to convey this information to the public and provide a location for community interaction, the Alexandria Archeological Research Museum (AARM) was created from National Endowment for the Humanities, Virginia Commission for the Arts, and city funds, and volunteer help. Directed by Bruce Weindruch, the museum serves to interest the general visitor, communicate new information (seminars, exhibits, publications), demonstrate portions of the archeological process in a living format, and recruit volunteers. Mostly, it brings the public into contact with archeologists and trained volunteers. It increases the public's awareness of how archeology is conducted, its results, and the urban heritage's vulnerability to modern development.

Each organizational component has been created in order to meet the demands for research, preservation, and public interpretation. Without initial funding from the

Figure 1 1810 Bl	Figure 15. Alexandria Ward 4 1810 Black Household Density			• 50%/block 100%/block		
					0 0 0	



These settlement pattern data are being computerized so the full series of 19th-century maps will not be available until fall 1980. But the preliminary information from the sampling strategy indicates sectoralization occurring by ethnic status in the early 19th century. Subsequent analysis will document the socioeconomic sectoralization that should occur at a later date.

Figure 17. 1850 Blac	Alexan k Househ	dria Ward 4 old Density	1 _N)%/bl)0%/b	
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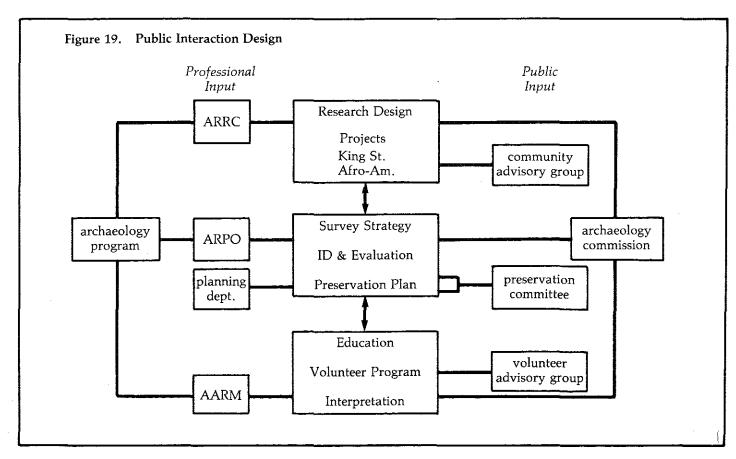
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city, which can be used to match federal and state grants, this organization would be impossible. Without volunteer services there would only be an organizational structure—no results. It is due to the tremendous support from the volunteers that federal grants can be matched to allow for the full development of each program component.

In order to take full advantage of this partnership with the volunteers, correct training and supervision (manuals for each archeological phase are in press) are necessary as well as administrative bookkeeping. But the volunteer program is only one portion of the interaction that has been created between the professional staff and the public. A structure which allows two-way relationships between each has been created (figure 19). A public commission works with the program staff to set direction and goals. Community advisory groups serve for selected purposes—preservation and Afro-American project. A volunteer advisory committee discusses with the staff their needs for training and supervision. Consequently, a dialogue is established with different segments of the community in order to input their needs into our research, preservation strategies, and educational projects.

It is important to stress that without the public involvement (from decisionmaking to digging) the research questions and thus the testing of the model would not have been feasible. Conversely, without strong professional direction much public money and time can be lost by not providing data, which have research applicability or proper interpretation. It is our belief that by developing a partnership between the profession and the public that archeology can blossom to increase both participants' knowledge and enjoyment.



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