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## Good for What Ails You: Medicinal Use at Five Points

### ABSTRACT

During the 19th century, residents of Five Points, Manhattan, lived in increasingly crowded, unsanitary conditions and often labored at dangerous and debilitating jobs. While wealthier city inhabitants could afford a healthy diet, a physician's care, or a seasonal change of residence, medicine was the solitary option for the less fortunate. This study utilizes a large assemblage of medicinal vessels and archaeobotanical remains to examine the reality of disease in the Sixth Ward, the available choices for treatment, and the preferences of the Five Points population. Comparisons are made with medicinal choices at other 19th-century New York sites and some tentative conclusions are drawn about working-class versus middle-class behavior regarding health.

### Introduction

In 1849, less than a year after sweeping through Europe, a cholera epidemic descended on Manhattan. Its first victims were James Gilligan, a laborer, and two of the four women who shared an oozing, doorless, basement room with him at 20 Orange Street in the Five Points (Rosenberg 1962:101-106). Diarist Philip Hone (Rosenberg 1962:107) noted soon after that the cases of cholera reported thus far had all been in Orange Street, "where water was never used internally or externally, and the pigs were contaminated by the contact of the children." Hone's opinion was shared by most New Yorkers: intemperate, debauched, and living amid filth, the poor were held responsible for the sicknesses and misery they wallowed in.

Over 140 years later, archaeological excavations on Block 160 at Foley Square in lower Manhattan provided an opportunity to evaluate how Five Points residents coped with the threat and reality of disease. Personal accounts and health care records of workers are rare while reformers' narratives are subjective, analysis of

cultural remains, with support from floral data, thus appear to have the greatest potential for an accurate interpretation of health care practice at Five Points. The archaeological features excavated on the Courthouse Block are used here to evaluate health and hygiene issues. The features chosen for discussion yielded the largest numbers of medicinal containers and some of the deposits could be tied to documented residents or commercial enterprises.

### Choices

In theory, at least, Five Points residents in need of medical care could choose from a doctor's care, a dispensary, neighborhood apothecaries, street hucksters, shops where proprietary medicine were sold, or home remedies made from plants that were grown in or around their homes. While it is not possible to determine how ethical medicine was obtained, most workers could not afford the care of a prescribing physician. Hence, dispensaries, charitable hospitals, or apothecary shops were most often the only affordable choices. The New York Dispensary, located at the corner of Centre and White Streets, was the only dispensary in the Sixth Ward in the 1860s. According to a report published in 1866, "nearly *fifty thousand sick poor* are annually treated in this noble institution, and, like the other dispensaries of the city, it furnishes the benefits of vaccination gratuitously to thousands of persons every year" (Sanitary Condition of the City 1866:81). There were also four charitable institutions devoted to the care of poor children in the Sixth Ward in the mid-1860s (Sanitary Condition of the City 1866:81-82). A children's hospital at the Five Points House of Industry operated in the mid-1880s. A total of 3,152 prescriptions was administered by this hospital in 1884 (Five Points House of Industry 1884:185). Although apothecaries may have supplied a significant amount of medication to Five Points residents, only one vessel from the assemblage is embossed with a druggist's address—421 Pearl Street.

## Archaeological Evidence from Medicinal Bottles

### *Ethical Medicine*

The ethical vial or bottle was the most commonly recovered medicinal vessel at Five Points. These usually unembossed containers held medication prescribed by a physician or administered by a dispensary or apothecary. The aqua or clear cylindrical vial with a flanged lip remained a popular form into the second half of the 19th century, exhibiting little change from 18th century forms. Originally, many of these vessels had paper labels (McKearin and Wilson 1978:280, Plate 77), none of which survived deposition on Block 160. The majority of the ethical medicinal vessels recovered, displayed a pontil mark, nearly always created with a blowpipe and less often with a glass-tipped pontil (Jones 1971:68-71).

In addition to the cylindrical form, which was identified in various sizes, other undecorated vessel types were noted including vials and bottles with square, rectangular, octagonal, and twelve-sided bodies. There were also square and rectangular bodied vessels with chamfered corners and a small number of ampoules. The aqua-colored ampoules had a capacity of less than a dram (McKearin and Wilson 1978:280, Plate 77, No. 1). Most other medicinal vessels in the Five Points assemblage were made of aqua glass or, less often, clear glass. Olive green, green, amber, or blue glass were only occasionally represented. The bore of a vessel, or the interior of the neck, was sometimes ground to prevent evaporation of costly medicine. Some of the vials and bottles may have contained something other than ethical medicine, but this is impossible to determine. Of approximately 376 medicinal vessels from 19th-century deposits within the Five Points features (Table 1), at least 266 (71%) appear to have contained ethical medicine. Although ethical vials and bottles often represent the majority of the medicinal vessels recovered at an archaeological site, corroborating evidence such as dispensary records, archaeobotanical evidence, or mortality records must be employed to interpret this evidence.

Glass fragments of five hypodermic syringes were recovered from three features. Remains of single syringes were identified in Features AI (Analytical Stratum, hereafter AS, II), and AL (AS I). Feature O (AS III) yielded three syringes.

### *Proprietary Medicine*

According to Fike (1987:3), "proprietary drugs are generally protected by secrecy, copyright, or patent against free competition by name, product, composition, or manufacturing process." Bold claims regarding miraculous cures (Young 1961, 1992; Armstrong and Armstrong 1991:89-97, 159-171), the ability to dose oneself at home, a lower price than physician prescribed drugs, and possibly, a high alcohol or narcotic content, enticed some New Yorkers to use proprietary medicine.

The proprietary medicinal vessels recovered on Block 160 include some of the most widely marketed preparations of the 19th century as well as concoctions which were only produced for a short time in New York City. These New York specific medicines have not been reported at other metropolitan sites. The advertisements for manufacturers of proprietary medicines usually made extravagant claims about afflictions that could be cured with their preparations. According to Young (1961), nearly all of these claims were false. This creates difficulty in determining which health problem was being targeted by the consumer. In an attempt to understand the types of illnesses and occupational stresses that Block 160 residents suffered from, a list of the embossed bottles and manufacturers' claims was created and the frequency of various illnesses was noted. This method is subjective, but provides evidence regarding the kinds of sickness that must have been serious enough to justify the relatively high cost of the drug. This compilation (Bonasera in Yamin 1998) indicates that rheumatism, strains, and soreness were the most frequently mentioned problems in the advertisements. Other health problems that appear to be nearly as prevalent (according to their frequency in the ads) are dyspepsia and other digestive tract complaints, problems specific

to females, colic, scrofula, burns, mouth pain, cholera, blood diseases, and venereal disease. Surprisingly, only one vessel containing patent medicine for treating worms was identified.

Relatively large numbers of embossed patent medicine bottles were recovered on a few lots. An analysis of these bottles and archaeobotanical remains from the Five Points features will create a foundation on which to interpret the illnesses and health concerns of Block 160 residents and the sanitary conditions that characterized this neighborhood. The authors contend that patent medicines and soda and mineral waters were usually consumed in an attempt to mitigate a health problem; not for other purposes, such as alcohol consumption. Specifically, the use of medicines as intoxicants is believed to be limited. If a poor worker possessing limited assets wished to conceal his or her alcohol consumption, it does not seem logical that they would buy a foul tasting medicine that cost more than either whiskey or wine. It is possible that temperance crusaders such as Father Matthew (Maguire 1864) affected drinking behavior at Five Points. Prevalence of disease, poor sanitary conditions, and financial limitations indicate that, however, in the main, medicines were purchased in an attempt to alleviate health problems.

Proprietary Medicinal Vessels from Block 160

Feature J, a large cesspool on Lot 6, and Feature O, a privy on Lot 7, contained the most embossed proprietary medicine bottles. Feature J was associated with a five-story tenement at 472 Pearl Street that was built to house refugees from the potato famines in Ireland. The feature contained two major trash deposits, the lower one with a *terminus post quem* (TPQ) date of 1850 and the upper with a TPQ of 1870. The deposits were separated by a sterile layer of fill. Of the glass bottles in the lower deposit, 33% were medicinal vessels; 37% were medicinal in the upper deposit. Thirty-eight percent of the vessels recovered in a related feature (Z) that contained vessels that crossmended with vessels from lower J were medicinal. Of the 48 proprietary medicine bottles recovered from these features, 16 are patent medicines and 32 are soda and mineral waters.

Aromatic schnapps is the most common patent medicine associated with the predominantly Irish-American families at 472 Pearl Street. Five case bottles bearing all or part of the inscription, UDOLPHO WOLFE'S// AROMATIC/SCHNAPPS//SCHIEDAM, were

TABLE 1  
MEDICINAL VESSELS IN SELECTED DEPOSITS

Provenience	Total Glass Water	Medicine Vessels	% of Assemblage	Ethical Medicine	Patent Medicine	Soda & Mineral
AM (AS II)	260	29	11.2	26	2	1
AN (AS I)	20	3	15.0	2	1	
AN (AS III)	67	9	13.4	4	2	3
H (AS III)	83	5	6.0		1	4
J (AS III)	181	66	36.5	35	6	25
J (AS V)	201	67	33.3	56	6	5
Z (AS II)	65	25	38.5	19	4	2
B (AS IV)	31	13	41.9	13		
D (AS V)	26	2	7.7	2		
N (AS I)	22	7	31.8	4		3
N (AS IV)	124	11	8.9	11		
O (AS III)	110	53	48.2	33	11	9
AF (AS II)	128	15	11.7	12	3	
AG (AS III)	300	39	13.0	31	8	
AH (AS II)	42	3	7.1		2	1
AL (AS II)	117	5	4.3		3	2
AK (AS II)	41	13	31.7	7	2	4
AK (AS IV)	27	11	40.7	11		
TOTALS	1845	376	20.4	266	51	59

recovered (Figure 1). According to Fike (1987:187), this medicinal gin tonic, diuretic, anti-dyspeptic, and invigorating cordial was introduced by Wolfe in 1848. The preparation was designated specifically as a restorative for women (Davoli 1995). An A. V. Oldners aromatic schnapps bottle was also excavated.

Three patent medicines were each represented by two bottles: Mexican Mustang Liniment, Hyatt's Balsam of Life, and proprietary drugs of Dr. S. S. Fitch. In an advertisement, Mexican Mustang Liniment is touted as a cure "for the outward ailments of man or beast." The diverse group of health problems that can be alleviated included burns, sprains, bruises, sore throat, and harness sores (Fike 1987:135). Hyatt's Infallible Life Balsam, manufactured in New York and sold in a large green or aqua paneled bottle, was supposedly effective against colds, coughs, and sore throats. The Doctor S. S. Fitch bottles may have contained a number of remedies including cherry pulmonic syrup, female restorative, or a cholera and colic specific (Fike 1987:162).

Feature J also contained one Radway's Ready Remedy bottle. This was an anodyne, nervine, and pain killer. Radway's ministering angel was known to generations of New Yorkers (Figure 2) (Rode 1853). A. J. R. Stafford's Olive Tar bottle represents a pharmacological preparation that was recovered solely at Five Points. Olive Tar was primarily marketed for the treatment of respiratory ailments (it could be inhaled or ingested), but was also purported to effectively treat cholera, worms, syphilis, and cancers (*New*



Figure 1. Case bottles embossed UDOLPHOWOLFE'S//AROMATIC//SCHNAPPS//SCIEDAM

Figure 2. Radway's Ministering Angel advertisement.

*York Evening Post* 1858). This proprietary medicine was manufactured from 1856 to 1863 (Wilson 1856-1863). Another preparation that appears to be represented exclusively at Five Points and not at other New York sites is Santal de Midy. This Parisian import contained capsules for the treatment of kidney and bladder troubles and venereal disease (Fike 1987:189).

Additional single vessels are Dr. W. Evans Teething Syrup, Hunts Sovereign Ointment, and Dr. Kiersted's Julep for Diarroea. Finally, identifiable embossed fragments came from Dr. J. Hostetters Stomach Bitters (dyspepsia, colic, dysenteric), Hegeman & Co (cod liver oil—preventative, constipation), and an unidentified sarsaparilla (blood diseases) bottles.

Due to its distinctive shape, one unembossed proprietary vessel was identified. Godfrey's Cordial—originally advertised in 1721—was one of eight of the most popular old British patent medicines, and was offered for teething children. Its principal ingredient was opium (Young 1992:127-128).

Feature O, situated on Lot 7 at 474 Pearl Street, served at least 51 Irish immigrants living in a tenement above the Lysaight Saloon. This feature contained the largest number of embossed proprietary medicine bottles of any Five Points feature. A fill deposit dating to the early 1860s (TPQ 1862) yielded 110 glass vessels, 48% of which were medicinal (N = 53). Eleven proprietary medicine bottles and nine mineral or soda water bottles were recovered. The 33 remaining medicinal vessels appear to have contained ethical medicines.

A few of the Feature O proprietary drugs were also recovered in other features; however, most embossed vessels recovered from this feature were unique to the Five Points assemblage. Medications for external, possibly work-related, stresses seemed to prevail in this assemblage, but a variety of health problems was represented. Liquid Opodeldoc was used to soothe bruises, sprains, burns, rheumatism, and stiffness of joints. This opium-based plaster was formulated around 1767. The vial recovered in Feature O was embossed LIQUID OPODELDOC, indicating a date of manufacture no earlier than the 1820s. The aqua color of this slender cylindrical bottle indicates it was an American copy of the original (McKearin and Wilson 1978:296). Two Radway's Ready Relief bottles were recovered. These paneled bottles are larger than the Feature J bottle and are embossed with the price of one dollar, which was a substantial sum for a mid-19th-century laborer who was doing well if he made \$600 a year (Groneman Pernicone 1973). Turlington's Balsam of Life, also found

in Feature O, is another proprietary medicine created in the 18th century. It claimed to be: "a friend of nature, which strengthens and corroborates when weak and declining, vivifies and enlivens the Spirits, mixes with the Juices and Fluids of the Body and gently infuses its kindly Influence into those Parts that are in Disorder" (McKearin and Wilson 1978:291). The single bottle recovered in Feature O is aqua, suggesting another American imitation.

An F. BROWN'S/AROMATIC ESS OF/ JAMAICA GINGER/PHILADA bottle purported to cure several ailments including rheumatism, dyspepsia, cholera, and even fever. Drawing upon the tradition of mesmerism, which became popular in America in 1837, this preparation promised a cure resulting from ingestion of what was supposed to be an electrically charged liquid (Armstrong and Armstrong 1991). Abel H. Christie, physician and purveyor of "galvano" and magnetic curatives, sold his concoctions from shops at 182 and 128 Broadway between 1846 and 1852 (Doggett 1846-1851; Doggett and Rode 1851-1852). A large rectangular aqua bottle bearing the inscription LAW & BOYD/N. YORK is also notable (Figure 3). This firm produced *botanic* medicines at 62 or 68 East Broadway from 1848 until the 1870s or later. The purchase of an herbal cure indicates a propensity toward the use of plants as medicine, possibly a significant practice at Five Points. Although its contents are unknown, one proprietary medicine bottle is the sole representative of an apothecary shop within Block 160. This vessel is embossed M. E. HALSEY & Co/DRUGGISTS/421 PEARL ST NY. The shop was at this location between 1851 and 1853 (Doggett and Rode 1851; Rode 1852-1853).

Feature AG yielded eight proprietary medicinal vessels from deposits that have been attributed to a brothel at 12 Orange Street (Lot 43). The brothel was closed down in 1843 and the lowest deposits in the privy on the property appear to represent a major cleaning out of the establishment. HENRY'S//CALCINED//MAGNESIA// MANCHESTER (Figure 4) was represented by three square bodied bottles. According to Fike (1987:141), "this product, for the cure of acute indigestion, acid stomach, heartburn, dispepsia, etc., was introduced by Thomas and William

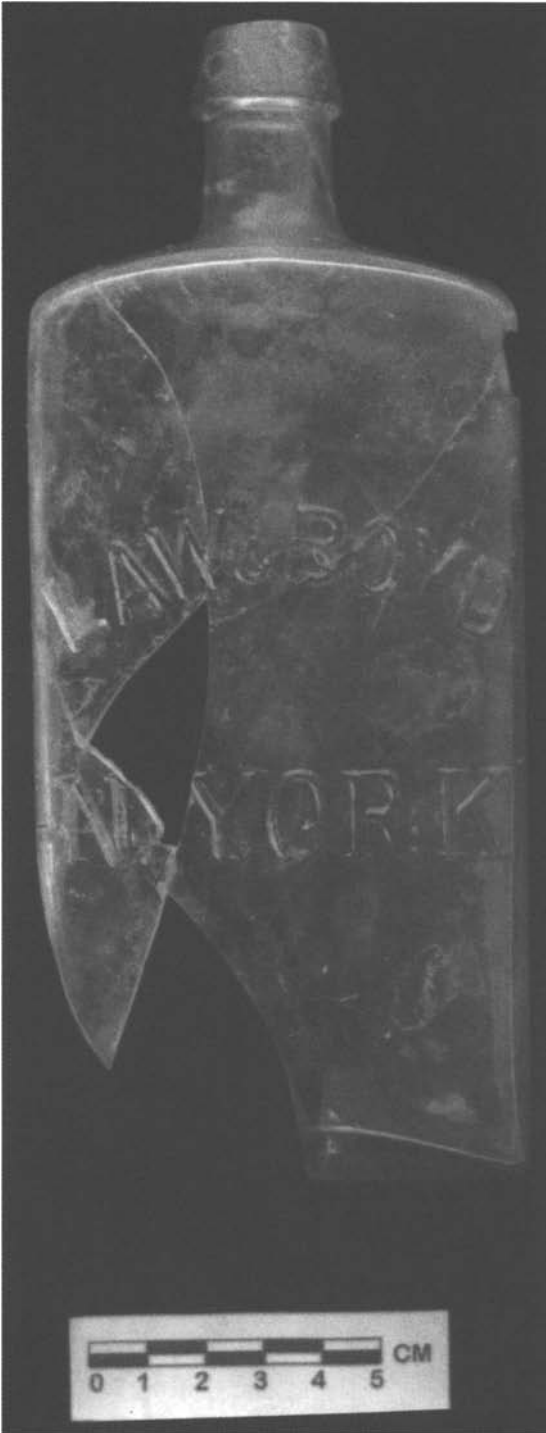


Figure 3. Bottle embossed "LAW & BOYD/N YORK"

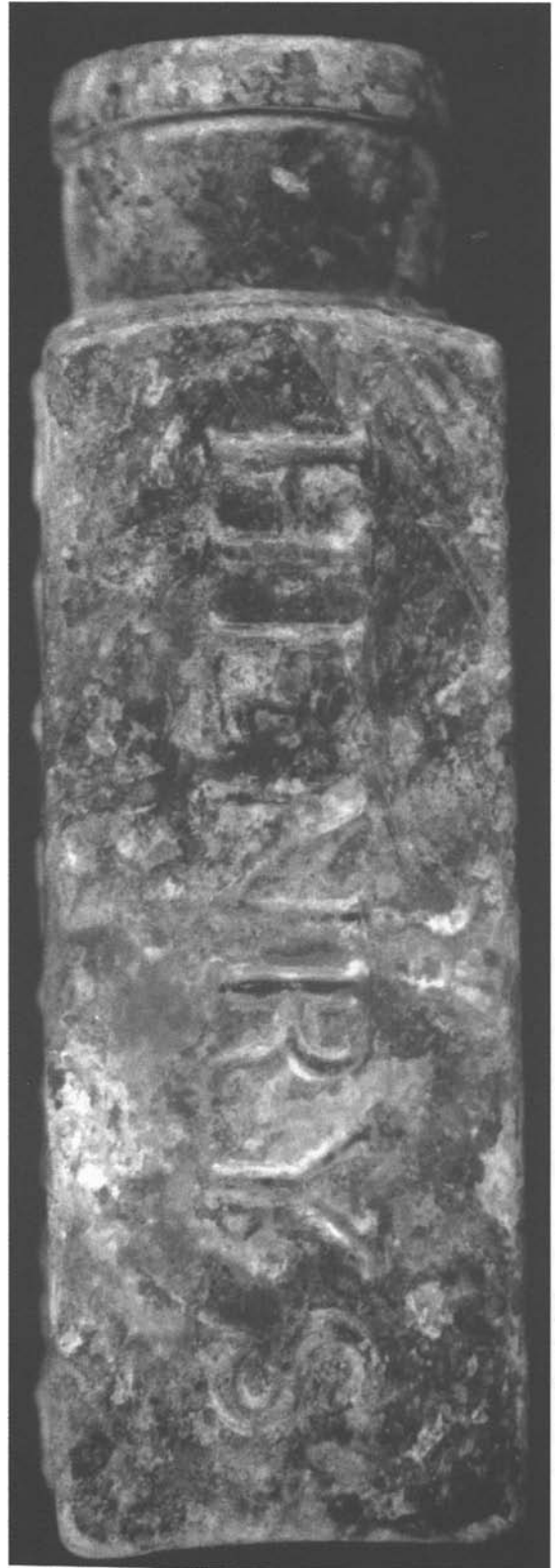


Figure 4. HENRY'S//CALCINED//MAGNESIA// MANCHESTER

Henry, St. Peters, Manchester, England, in 1772; the Jacob Scheffelin catalog shows its availability in the United States in 1804.”

A chestnut colored bottle bearing a shoulder seal with the embossment ELIXIR DE GUIL-LIE G, and an olive green cylindrical vial with an indecipherable foreign language embossment that spirals around the body, were also recovered from Feature AG. Two vessels, embossed BY THE/KINGS PATENT/ESSENCE OF/PEPPERMINT, held the popular early patent medicine formulated by John Juniper in 1762. It was used as an “aromatic stimulent to allay nausea, relieve spasmodic pains of the stomach and bowels, expel flatus, or cover the taste or qualify the nauseating or griping effects of other medicines” (Jones 1981:5). Seven of these vials were recovered from Five Points features, the most of any one patent medicine vessel recovered at the site.

The remaining features contained three or fewer proprietary medicine vessels. Feature AF, one of the earliest features on the block (TPQ 1800), yielded three Essence of Peppermint vials. Three Henry’s Calcined Magnesia bottles, virtually the same as those recovered from Feature AG, were also recovered from another primary deposit (Feature AL) that was associated with another possible brothel. Three patent medicine vessels came from Feature AM, originally an icehouse associated with an eating house at the corner of Pearl and Chatham streets. These bottles, which probably belonged to upstairs

tenants, were a clear Liquid Opodeldoc bottle, a fragment of an Essence of Peppermint vial, and a fragment of an aqua, cylindrical bottle with a partial embossment that was identified as NOWILL’S PECT/ORAL HONEY/OF LIVER-WORT. This product was manufactured in New York and recommended for consumption (Fike 1987:199).

#### Mineral and Soda Water Bottles from Block 160

A total of 32 vessels, which contained mineral or soda water, were recovered from the cesspool and associated features behind the 472 Pearl Street tenement (Lot 6). Mineral water bottles represented include: P. KNICKERBOCKER/1848, two CLARKE AND WHITE bottles (1852-1866) (Rode 1852-1855; Wilson 1855-1866), and BW & Co. In addition to these mineral waters from Manhattan companies, there was also a vessel embossed P. KELLETT// NEWARK/N.J. (Figure 5). There were five SEALY & BRO (1858-1866) (Wilson 1858-1866), three MORTON & BROS/NEWARK, and two T & W soda water bottles among the 472 Pearl Street vessels. Four soda water companies were represented by a single vessel: KORNAHRENS & FITSCHEN (1860-1863) (Wilson 1860-1863); TIETYEN & MENKEN/1860 (1860-1865, bottle embossed 1860) (Wilson 1860-1865); D. L. ORMSBY, New York; and J. B. & E. S. CRONK, TARRY-



Figure 5. Soda water bottles and fragments

TOWN AND PROT CHESTER, N. Y. Thirteen vessels were represented by basal or partially embossed fragments only.

As was the case with the patent medicine, the cesspool system and Feature O yielded the most soda and mineral waters. Nine of these vessels were recovered from Feature O, including two blue J. & A. DEARBORN bottles. John and Alexander Dearborn's partnership began in 1847 or 1848 and ended in 1855 with the death of Alexander (Doggett 1847-1851; Doggett and Rode 1851-1852; Rode 1852-1855). Other embossed mineral or soda water bottles were W. E. BROCKWAY/NEW YORK (1853-post 1870) (Rode 1853-1855; Wilson 1855-1870); HARROLD & JOHNSTON/NEW YORK//H. & J. (1860-1862) (Wilson 1860-1862); and two BOARDMAN bottles (1846-1858) (Doggett 1846-1851; Doggett and Rode 1851-1852; Rode 1852-1855; Wilson 1855-1858).

Two features each contained four mineral or soda water bottles. Four of the five medicinal vessels from Feature H, a privy associated with German and Italian residents, contained this allegedly healthful beverage. They include G. CASSIDY/NEW YORK//1861, WM EAGLE//NEW YORK//PREMIUM //SODA WATER (1845-post 1884) (Doggett 1845-1851; Doggett and Rode 1851-1852; Rode 1852-1855; Wilson 1855-1884) and J BOARDMAN//NEW YORK//MINERAL WATERS//\*THIS BOTTLE/THIS BOTTLE IS NEVER SOLD.

Soda or mineral water bottles embossed WALSH & O'NEILL/145/WEST 35th ST/NEW YORK and SEE THAT EACH CORK IS BRANDED/CANTRELL & COHRANE//DUBLIN & BELFAST, and two others were recovered in a late 19th-century deposit in Feature AK. Feature AK was associated with second-hand clothiers living on Baxter Street. The soda water embossed Belfast was the only embossed glass vessel from Ireland in the Five Points assemblage.

Three soda or mineral water bottles were found in each of the upper deposits of Feature N, another privy at 474 Pearl Street that was closed in the late 1830s and in Feature AN, a cistern associated with a German household. A blue TWEEDLES/ CELEBRATED/SODA & MINERAL / WATERS//38/CORTLAND STREET/NEW YORK (1844-1849) (Doggett 1844-1849) bottle also came from Feature AN. The remain-

ing features contained two, one, or no soda/mineral water bottles each.

#### Potential Herbal Medicinal Remedies

Of the 64 plant taxa identified during the Five Points archaeobotanical analysis, 34 were used in the 19th century by both professional medical practitioners and laymen as herbal remedies. While the use of many of the plants was rather limited, others such as mint, mustard, cherry, raspberry/blackberry, elderberry, strawberry, boneset, dock, pokeweed, jimsonweed, and wormseed were commonly used in the 19th century as home remedies and/or prescribed by medical professionals (Millspaugh 1884; Grieve 1931; Justice 1939; Massey 1942; Coon 1963; Krochmal et al. 1969; Krochmal and Krochmal 1973; Angier 1978; Cox 1985; Crellin and Philpott 1989; Foster and Duke 1990; Duke 1992; Phelps Brown 1993). With the exception of boneset, which was found in a single tenement privy, all of the commonly used medicinal plants were found in both features identified with artisan residents of the block in the early decades of the 19th century and with the tenement residents later in the century.

The medical usefulness of the macroplant remains found in the Five Points features was assessed through examination of botanical and historical references relating to the medicinal use of the recovered plant taxa. Just as the advertisements for proprietary medicines provided insights into the ailments afflicting the Five Points population, the purported use of plants provided further insights. Americans in the 19th century apparently suffered from frequent stomach ailments and intestinal complaints such as constipation, diarrhea, and dysentery. Of the plant species identified, 67% (29 of 43 taxa) were hailed as treatments for digestive ailments. Kidney disease was also commonly treated with herbs. Eighteen taxa including 7 fruits, 1 condiment, 3 vegetables, 2 ornamentals, and 4 naturally occurring herbs were described in the literature as treatments for kidney ailments. Intestinal worms must have been endemic in urban populations, as 13 plants are extolled as preventatives and treatments for worms. Archaeological examinations of fecal samples from 19th-century privies, including Karl Reinhard's parasitological study for the Five Points project



(Reinhard 1998), commonly find an abundance of intestinal parasites. One naturalized weedy taxon, wormseed (*Chenopodium ambrosoides*), which was omnipresent in the Five Points features, was so heavily used as a vermifuge (worm treatment) in the 19th century that it was cultivated for the commercial production of chenopodium oil (Crellin and Philpott 1989).

Of the plants identified, 12 were described as tonics, which implies that these plants were considered medical panaceas. Twenty-six of the plant taxa were purported to be effective topical treatments for a variety of skin conditions and/or external abrasions, bruises, wounds, and ulcers. Four fruits, four herbaceous plants, and a vegetable (lettuce) were used to prevent scurvy. Finally, various plants were touted as useful in the treatment of a whole host of illnesses, including respiratory conditions, rheumatism, nerves, fevers, sore throat, headache, and even cancer.

Some of these plants, particularly the naturally occurring herbaceous weeds, may have been collected by the inhabitants and prepared as home remedies. Staple foods such as the vegetables and fruits that were grown on the lots and/or purchased at market may have been secondarily used as home medicinal preparations. Many of the plants were also likely prepared and sold in the Five Points neighborhood by herbalists and doctors. Plants were commercially marketed in the late 19th century by drug companies, such as Parke-Davis.

### Medicinal Plant Uses

An exhaustive list and description of the plants recovered at Five Points and their uses is available in the site report (Raymer 1998). Just two of the potentially medicinal plants are described here: jimsonweed and wormseed. Although neither of these widely distributed herbaceous weeds is recorded as edible, both were relatively important medicinal herbs in the 19th century.

#### *Jimsonweed*

Jimsonweed, *Datura stramonium*, is a widely naturalized endemic weed that was imported from Europe and grows abundantly on garbage heaps (Millspaugh 1884). It is extremely poisonous, was planted in 19th-century gardens as an

ornamental flower, and is recorded as a narcotic, medicinal herb (Leighton 1987; Crellin and Philpott 1989). All parts of the plant are to some degree toxic, especially the seeds. The most common use of this herbaceous weed was as a treatment for the spasmodic coughing associated with asthma. The plant was burned and the smoke was inhaled by the asthma sufferer. The plant juices, flowers, leaves, and roots were also made into salves and poultices that were variously used as topical treatments for sores, boils, pimples, swellings, and skin ulcers (Krochmal and Krochmal 1973; Crellin and Philpott 1989). Crellin and Philpott (1989) reiterate the value of this plant as an inhalant for asthma patients and state that jimsonweed cigarettes are available today in some parts of the world.

Jimsonweed was the most abundant and widely distributed herbaceous weed found in the Five Points assemblage. It was found in every feature except Feature AL, a mid-19th-century tenement (possible brothel) privy. Although the plant may represent an ornamental or medicinal herb that was deliberately planted by the Five Points residents, it is just as likely that it represents a non-economic weed that grew in the yards. Jimsonweed is virtually ubiquitous in 19th-century archaeological deposits in the eastern United States (O'Steen and Raymer 1995).

#### *Wormseed*

Wormseed, or Jerusalem oak, was highly regarded in the 18th and 19th centuries as a medicinal herb, particularly as a worm preventative. Oil derived from the seeds of this plant was made into a tonic that was used to treat intestinal worms in humans as well as animals (Krochmal and Krochmal 1973). Cotton Mather avowed in 1724 that wormseed was an excellent worm killer. He also recommended it as a cure for stomach pains and a poor appetite (Coffey 1993). Other 18th-century medicinal references indicated *Chenopodium* for the treatment of coughs, asthma, as an antispasmodic, and for headaches (Crellin and Philpott 1989).

By the 19th century, wormseed's reputation as a treatment for intestinal worms, particularly roundworms, was firmly established. In the early 1800s, African-Americans commonly used

this plant for this purpose. F. P. Porcher, in an 1847 reference, reported that wormseed was routinely administered as a worm treatment on southern plantations (Crellin and Philpott 1989). Wormseed was cultivated in the United States until the 20th century for the production of chenopodium oil, which was commercially marketed as a worm remedy (Crellin and Philpott 1989; Coffey 1993). In addition to its reported efficacy against roundworms, wormseed was also widely used in the South in the early 20th century as a treatment for hookworms (Crellin and Philpott 1989).

The distribution of wormseed remains in the Five Points archaeological deposits provides interesting insights into the possible temporal changes in the medicinal use of this plant. Wormseed was identified in seven features (AF, AG, AN, B, E, J, N), all but one of them relating to the early 19th century artisan residents of the block. Wormseed was also identified in the privy (Feature AG) associated with a brothel at 12 Orange (Baxter) Street and in the filled cistern (Feature AN) associated with German, possibly Jewish, residents on Baxter Street. The distribution of wormseed in the sampled features indicates a decreasing presence with the passage of time, as both the overall abundance and ubiquity of this species is greater in early 19th-century artisan contexts than it was in mid-19th-century immigrant tenement features. The higher frequency of wormseed in the earlier features may indicate more extensive use of this important medicinal plant during the period when significant numbers of African-Americans resided at the Points, although not specifically on the lots investigated. Use of this plant as a vermifuge in the Northeast is not as well documented as in the South and mid-Atlantic regions (Weller 1909), but the recovery of only one proprietary medicine bottle (J. R. Stafford's Olive Tar, Feature J) that contained a preparation for treating worms and the lack of parasitological evidence for worm infestation on Block 160 suggests a reliance on the herbal remedy.

## The Patterning of the Data

### *In the Brothels*

The primary deposits from Feature AG, Lot 43, and Feature AL, Lot 47, were at least par-

tially composed of refuse from houses of prostitution. A brothel managed by John Donaho(e) was located in the cellar at 12 Orange Street from ca. 1830 to 1843, when it was shut down. The deposit associated with this operation (Feature AG, AS III) was quite distinctive, differing both qualitatively and quantitatively from other Five Points deposits. Relatively expensive vessels such as blown three-mold decorated, punch cups with handles and fancy scent bottles were recovered, as well as bird watering dishes—a novelty that was beyond the reach of nearly all Five Points residents. As noted for other brothel assemblages, there was a fairly large lighting component including a float lamp and a portable peg lamp that reflects the use of artificial light for night work (Seifert 1991:104).

The medicinal assemblage was also unusual. The 39 medicinal vessels recovered from Feature AG included a greater than average number of embossed vials and bottles for this period. It is notable that all of the identifiable patent medicine could have been used to soothe stomach distress and in the case of the ESSENCE OF PEPPERMINT vials, could improve the taste of foul-tasting medicines (Jones 1981). Although the French elixir bottle could not be identified, elixirs contained opium and were used as a depressant, to induce sleep, restore composure, or relieve pain (Fike 1987:114-116). A "wineglass" measure (Jackson 1981:19), used to insure an exact dose of medication, was recovered from AG, the only vessel of its type from the site. Its presence may indicate more intensive medicinal use, or use that was being regulated.

Three hygiene group vessels may also provide some insight into the health issues experienced by prostitutes at the time. Two glass upright female urinals (Jackson 1981:24) (Figure 6) and a nursing shield were recovered. The urinals were probably used by bedridden prostitutes suffering from one occupational related malady or another. Children were present in the brothel and the nursing shield was probably used by a mother trying to protect her good clothes.

In addition to a variety of fruits that may have been used medicinally, the floral assemblage from Feature AG included coffee beans, an exotic that was only present in one other Five Points feature. In the 18th and 19th centuries, coffee was valued primarily as a beverage; however, contemporary medical references extol its vir-

tues as a stimulant, digestive aid, diuretic, and cathartic (purgative). Traditional herbalists used green coffee as a kidney stimulant and to induce vomiting; black coffee was used as a topical treatment for poison ivy and other skin ailments (Crellin and Philpott 1989).

The Feature AL assemblage also appears to relate to a house of prostitution. Like the AG assemblage, the glass artifacts from Feature AL were more expensive suggesting a degree of refinement that was unusual for the neighborhood. Once again, matching punch cups were recovered, as well as a bird watering dish, and

a celery serving vessel. Twelve perfume or scent bottles were found in this deposit. The medicinal assemblage included three Henry's calcined magnesia bottles and two mineral water bottles. While a small medicinal assemblage in this context may seem odd, a brothel deposit might contain a moderately sized medicinal assemblage because serious illness would require an individual to leave the house. The number of medicine vessels (and frequency of almost every other glass vessel) from Feature AG may reflect a greater number of occupants at this establishment than the AL associated brothel, a longer period of operation, or both. Very few floral remains, none with specifically medicinal uses, were recovered from Feature AL.

#### *Irish-American Use*

Features J and Z on Lot 6 and Feature O on Lot 7, all associated with mid-century Irish tenements, contained much of the proprietary medicine from the site. Comparative research indicates that the alternative (proprietary drug and soda and mineral water) medicinal assemblage from these features included a smaller percentage of patent medicine than two contemporary middle-class sites in Manhattan. The Greenwich Mews site (Geismer 1989) and the Sullivan Street site (Salwen and Yamin 1990) yielded alternative medicinal vessels comprising 39% and 43% of their respective assemblages. Patent medicines made up only 28% of all medicinal vessels recovered from Features J and Z. The Feature O patent medicine assemblage was larger, constituting 38% of the assemblage. The tenement residents at 474 Pearl Street apparently chose, and were able, to spend a larger portion of their wages on their health. This may also reflect the severity of health problems and a search for relief after other cures had failed. The predominance of preparations for treatment of rheumatism, sprains, and other external ailments is not surprising for a group composed mainly of manual laborers (U.S. Census 1850; New York State Census 1855; Tax Assessments 1866). Since the most prevalent remedy represented in Features J and Z, aromatic schnapps, was not recovered in Feature O, it is possible that only a few residents at 472 Pearl Street, or a single individual, was particularly fond of the remedy.



Figure 6. Female urinals recovered from feature associated with an Orange (Baxter) Street brothel.

The J and Z alternative medicinal assemblage consisted of 67% soda and mineral water vessels as compared to 33% and 35% at Greenwich Mews and Sullivan Street. Of the alternative remedies from Feature O, 45% were soda and mineral water. This suggests that Irish-Americans at Five Points favored the least expensive alternative remedy. The consumption of mineral water was an alternative remedy that persisted through the 19th century. Mineral water was used in two ways: by soaking in it at exclusive spas or by ingestion. It was believed that the minerals in this water, absent from wells or public water, could cure a variety of ailments including constipation, diarrhea, asthma, bronchitis, diseases of the skin, dyspepsia, diabetes, kidney and urinary tract infections, paralysis, and nervous prostration from mental and physical excesses (Armstrong and Armstrong 1991:90). Mineral water was employed as a cure for different ailments at different times during the century. During the first half of the 19th century, it was used to treat gout and rheumatic ailments and just before the Civil War it was touted as a cure for neurasthenia, the stress of 19th-century civilization (Armstrong and Armstrong 1991:91).

The Feature J, Z, and O assemblages are significant because no other relatively large features contained a comparably high percentage of medicinal vessels, and no other assemblage exhibited such a pronounced preference for soda and mineral waters. There are two possible explanations: 1) Irish-Americans experienced more health problems than other Five Points residents due to living conditions, diet, dangerous work conditions, or other factors; or 2) Irish-Americans were spending more money for medicine than other ethnic groups because it was customary. Irish immigrants had been exposed to institutional health care before they reached America and they may have carried expectations for certain types of medical care and charity from the old country to the new (Quiroga 1984:61).

According to Hasia Diner (1983:109-110), Irish newcomers were generally unhealthy. They entered insane asylums more often than all other foreign born individuals in every place they lived. A physician at Blackwell's Island stated that Irish-American women constituted the largest

group there due to "the combined moral and physical influences of their leaving the homes of their childhood, their coming almost destitute to a strange land, and often after great suffering." During the early 20th century, Irish females between the ages of 25 and 44 died younger on average than all other women (Diner 1983:110). Hazardous working conditions were responsible for injuries and high mortality rates for Irish-American men (Stott 1990:127). Ernst (1949:53-56) notes that "among the immigrants, the Irish were the chief victims of disease . . . natives of Ireland comprised 53.9% of New York City's foreign-born inhabitants in 1855, but at Bellevue Hospital, 85% of all the foreign born admitted from 1849 to 1859 were born in Ireland." The number of Irish immigrants struggling with psychological problems suggests that their increased use of mineral and soda waters, purported to alleviate symptoms of the psychological disorder neurasthenia, not only reflects the relatively low cost of these remedies, but may also indicate an attempt to regulate mental health problems.

The possible herbal remedies present in the Feature J, Z, and O assemblages include jimsonweed and wormseed. The wormseed, in particular, is interesting because of its use in the prevention and treatment of roundworm (*Ascaris lumbricoides*). Karl Reinhard's comparative analysis of early and mid-19th century features found many fewer *Ascaris* eggs per millimeter of sediment from Feature J than from earlier features on the same and adjacent lots. Reinhard speculates that the Irish residents at 472 Pearl Street controlled roundworm with *Chenopodium ambrosioides anthelminticum* (Reinhard 1998:397), i.e. wormseed.

#### *German/Polish-American Medicinal Use*

The four features attributed to German and Polish immigrants, AN, N, AF, and B generally contained relatively fewer numbers of medicinal vessels. Feature AN, associated with Samuel Stone's household, yielded only 12 medicinal bottles comprising 13% (9 vessels) of the lower deposit, and 15% (3 vessels) of the upper deposit. The lower deposit of Feature N, attributed to Widow Hoffman, contained only 11 ethical medicine containers, just 9% of the deposit.

Feature AF, an earlier deposit relating to the Hoffman family, contained 15 medicinal vessels comprising just 12% of the deposit.

A lower deposit of Feature B is the only German/Polish-American deposit with a significant, albeit small, medicinal assemblage. Harris Goldberg, a Jewish tailor and then a leader of the Shaarey Zadek synagogue (Grinstein 1945), a Polish congregation, lived at 472 Pearl Street with six other adults: two men and four women. Thirteen ethical medicinal vessels were recovered from the deposit associated with the Goldberg household. According to Ernst, the comparatively good health of the Eastern European population is striking in contrast to the Irish. While 29.4% of the city's foreign-born population was German, only 6.25% of admissions to Bellevue were German-born (Ernst 1949:54). Ernst argues that the health differences between the two groups was likely due to the superior economic status of the Germans (and Poles) which enabled them to live in more comfortable surroundings. He also states that, in general, German immigrants were not as physically debilitated as the poorer Irish when they arrived in New York (Ernst 1949:54).

Jimsonweed and wormseed were present in Features AN, N, and AF. The only other notable possible medicinal was blackberry/raspberry, found in substantial quantities in Feature N. Blackberry/raspberry, as well as other fruits of the genus *Rubus*, were highly regarded as a virtual medicinal panacea throughout the 19th century, both by professional medical practitioners and in folk medicine. Griffith (1847), in his influential *Medical Botany*, extolled the value of blackberry root as an astringent medicine (diarrhea treatment). Teas made from dried blackberry/raspberry root bark were used to control diarrhea, as a blood purifier, and as a spring tonic. Dried blackberry roots were sold commercially in the 19th century. Decoctions of the roots were gargled for sore throats and to cure mouth ulcers. Berry juice, which was used as a diarrhea cure and to control upset stomachs, was stored in the form of blackberry brandy and a thick syrup (Coon 1963; Krochmal and Krochmal 1973; Angier 1978; Crellin and Philpott 1989).

Feature B contained jimsonweed, but not wormseed, which is interesting since the incidence of roundworm, as indicated by parasites

(Reinhard 1998) was relatively high in Feature B and wormseed, as noted above, can be used to control it.

## Discussion

Changes in medicinal use over time are difficult to identify in archaeological assemblages due to a number of confounding factors. The most significant of these is the scarcity of embossed vessels dating to the late 18th and early 19th centuries, the period when the earliest material was discarded on Block 160. A second factor is that medicines that came in embossed bottles were claimed to cure so many ailments that it is not easy to know which one the discarded item was being used for. About 31% of the medicine bottles recovered at Five Points were identified from embossments or distinctive shapes, but there is no way to tell which specific diseases were being treated. A much larger proportion were ethical medicines that had been obtained from a dispensary, purchased at an apothecary shop, or prescribed by a doctor and it is not possible to know what the ethical medicine bottles contained.

One pattern that emerged from the Five Points assemblage was the increase in medicinal use in the 1840s and 1850s, as indicated by the large number of embossed vessels that were recovered from that period. This probably reflects the increase in availability of various patent medicine brands during and after this period (Young 1992), but it may also reflect the relatively intensive patent medicine use by Irish immigrants, and the dramatic increase in the population at Five Points during this period. There also appears to be an association between the use of mineral and soda water and the Irish. The Irish-American reliance on mineral and soda waters is believed not only to reflect its relatively lower price. Mineral and soda water may have been used in an attempt to alleviate psychological distress and even the effects of alcohol. Irish immigrants probably brought intensive medicinal use with them from Ireland where they were used to institutional health care.

Deposits attributed to probable brothels on Block 160 were characterized by a heavier reliance on patent medicine than elsewhere on the block. All five vessels recovered in the primary deposit of AL were embossed patent,



Figure 7. A funeral at Five Points (Citizen's Association of New York 1866).

or soda/mineral water bottles. Even though it dates before the explosion in the number of patent medicines available at mid-century, eight proprietary vessels were recovered from the privy associated with the brothel at 12 Orange (Baxter) Street. Both brothel assemblages contained a significant number of medicines for intestinal or stomach distress.

The macroplant assemblage recovered from the Block 160 privies and other shaft features indicates that naturally occurring and/or purchased plants were utilized and discarded by the site inhabitants. Examination of the historical medicinal uses of the macroplant assemblage recovered from the features indicates the range of herbal remedies available to the artisans who initially occupied Block 160 and the immigrant tenants who replaced them in the second quarter of the 19th century. The mere presence of these plants in the archaeological deposits, however, provides no direct evidence of their use as medicines, or for that matter, of their economic importance to the inhabitants. Most of these seeds probably originated from food remains that were either directly deposited into the privies in feces or secondarily dumped into the features with other household refuse. Some of these seeds, however, may represent incidentally deposited naturally occurring seeds. Of the 43 plant taxa that were found to have recorded medicinal uses, the most pervasive were jimsonweed and wormseed. The presence of wormseed, and the low incidence of roundworm,

at least at mid-century, suggests that the Irish residents who lived on Pearl Street in the 1850s and 1870s knew how to use wormseed to prevent and treat roundworm.

In his report of the Sixth Sanitary District in 1866, Dr. William Thoms proposed a number of remedial measures. These included an improvement in the management of sewerage, an educational program about sanitation, regulations regarding tenant-house construction, the regulation of dram-shops and brothels, vaccination for small-pox, and implementation of sanitary measures to control typhus and other diseases (Sanitary Condition of the City 1866:82-84). These reforms were a long time coming and in the meantime, the residents of Block 160 and other tenement districts had to devise their own methods for controlling and dealing with disease (Figure 7).

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