

The Planet is not our Ashtray

Megan Quirk

May 5th, 2004

EVS 300

Smith College

Abstract

They are small. Tossing one away does not seem like a big deal; yet they start to build up, complaints begin, and finally people start to wonder about the possible environmental effects. City officials recognize that cigarette litter is a detriment to communities based on clean-up costs, clogged sewage systems, degraded water quality, and risk of fire danger. What, then, is the attitude towards this problem at Smith College, from the perspective of student smokers, grounds keepers, and the administration? To address this question, I examined six main aspects in my project. My investigation began with background research on the extensiveness of cigarette litter around the globe, effects of cigarette waste on the environment, and national movements dealing with this issue. To examine the problem locally, I began to randomly sample butt waste at personally chosen high density sites. Next, questionnaires were distributed to randomly picked student smokers, with short interviews conducted about their cigarette disposal habits and ways in which negative discarding habits could be influenced. Along with these, time was spent observing behavior of smokers when discarding cigarettes in areas with clearly marked disposal units. Several interviews were also conducted with the director and supervisor at Physical Plant with regards to the college's policy on cigarette disposal, clean-up, and any current plans for the future. Through Smith's website for the College Council on Community Policy, it was also helpful to examine past college actions around the smoking issue. Based on my research, observations and dialogues, a clear demand exists for more disposal units to be situated strategically around campus. Furthermore, the majority of people expressed that while having awareness about the issue is beneficial it will not be guilt about the environment, as much as convenience of ashtrays, which motivates people to change their behavior.

Introduction

Not many people think much of it when carelessly throwing one small cigarette butt on the ground. Multiply this by the 48 million adults in America who smoke by the number of cigarette breaks a day. Then, combine these figures with polices such as the increasingly common indoor smoking bans. Thus, cigarette butts emerge as ubiquitous forms of trash. In fact, a study done by the U.S. government in 1998 showed that Americans smoked 470 billion cigarettes in one year, leaving an estimated 176 million pounds of cigarette butts behind (Arizona Republic, 2002). While many people have the mistaken belief that cigarettes are made of cotton and so are biodegradable, most cigarette filters are actually composed of cellulose acetate. This is a form of plastic that persists in the environment for anywhere from 18 months to 10 years (Novotny, 1999). But even if cigarette filters degraded rapidly, they are hazardous in that lit cigarette butts initiate fires, and the harmful toxins in them can harm infants and animals. The National Capital Poison Center found that the ingestion of more than three cigarette butts can lead to serious health symptoms in a child (Novotny, 1999). A second study of the toxicity of cigarette butts established that just one butt in two gallons of water is deadly to water fleas, which are crucial links in the aquatic food chain (Register, 2000).

I believe that when most people become empowered by awareness and provided with a convenient solution to a hazardous behavior, they would be inclined change their routine. Emphasis must be placed on the purpose of this project, which is not focused on the harms of smoking itself, but rather on the optimal solutions for dealing with waste from a common habit. It is common knowledge that littering is wrong, yet cigarette-butts are not often viewed in the same way. Perhaps because they are so much more visible, people tend to not absent mindedly pollute college campuses with coke bottles. Neither soda nor cigarette manufacturers have control over the final

disposal place of their products. As beverage manufacturers invest in litter prevention campaigns however, the tobacco industry should too. Various suggestions include anti-litter messages on packaging and advertisements, the distribution of small portable ashtrays, the placement and maintenance of outdoor receptacles (Novotny, 1999). While this is valuable information for future movements, the best place for me to start was the attitudes and behaviors of my local community, Smith College.

Evidence indicates that more cigarette butts are accumulating outside of buildings due to the popularity of indoor smoking bans (Register, 2000). Smith follows this trend with a policy shift towards cigarette smoking: as of August 2002 a total ban was implemented on smoking in all student residences. There is no smoking allowed within 20 feet of any academic, administrative, or residential building, and to promote these policies, ashtrays were removed from directly outside of buildings. In addition, the Northampton City Regulations prohibit smoking in all “public places” and “work places,” which means that regardless of whether student dorm rooms are considered to be “private residences” for purposes of the City Regulations, common areas of the residence halls (including living rooms, hallways, dining rooms, stairways, and restrooms) fall within the definition of public and/or work places (CCCP, 2001). This research, in addition to personal observations of cigarette butt waste, the disappearance of trash cans with attached ashtrays, and confusion over the benefits & success of the 20 foot rule, was the basis for an investigation of this. The research questions were: what had happened to the trash cans on campus, what was being done to replace the missing cigarette containers, how effective is the 20 foot rule, what are some campus attitudes and knowledge in the area of this problem, and finally what could then be done to alleviate this problem?

Methodology

The main aspects to my project were gathering of background information, random sampling, surveys, behavioral observations, interviews with college employees, and research on recent college policies. After searching for articles and websites on the internet that are devoted to problems of cigarette butt waste, I felt confident to proceed with the knowledge that this is an issue that is being fought globally.

To get a sense of the amount of butts that are disposed of daily, I choose to randomly sample four sites around campus that I had observed to be high density smoking areas. Those sites were: Emerson house arch, Wilder/Comstock house arch, Seelye steps (facing the Nielson), and Burton steps (facing McConnell). I designated a 10 feet by 10 feet area to be cleared, counted, and tallied daily at each site. None of these sites contained an official cigarette butt disposal unit in the immediate vicinity. The tallying began on April 16th and went until April 25th 2004.

In order to better understand student's attitudes to this problem I approached 25 students who were having cigarette breaks to ask various questions regarding cigarette disposal habits, knowledge of cigarette butt damage to the environment, and location preference for disposal containers (see Appendix 1). Questionnaires were usually followed by willing conversations, opinions about their cigarette disposal habits, suggestions for how the college could improve this problem, and why it is hard to influence people's behaviors with environmental damage information alone.

For the 26th of April till the 28th of April I spent three 20 minute time blocks discretely observing the behavior of smokers, when discarding cigarettes in areas with obvious available disposal units. I choose a site on the café side of the campus center because four cigarette disposal containers are located within 15 feet of each other.

I spoke with Bill Brandt (director of Campus Operations and Facilities) and Bob Dombkowski (supervisor of Physical Plant) about the grounds staff policy on cigarette clean-up and regulation of disposal containers; both interviewees were extremely helpful and suggestive with aspects to this project. Mr. Brandt also directed me to the College Council on Community Policy, where college guidelines around smoking issues can be found.

Results

The global tobacco consumption of cigarettes has more than doubled in the last 30 years; according to the US Department of Agriculture world cigarette production for the year 1998 was 5.608 trillion (Novotny, 1999). The World Health Organization estimates that currently 1.1 billion people in the world smoke, which is about one third of all people on earth over the age of 15. If one person smokes an average of 1 ½ packs a day, they will consume more than 10,000 cigarettes per year. This number of cigarette butts (filters only) will fill a volume of five liters. As noted in Figure 1, annual worldwide consumption of cigarettes creates enough cigarette butt waste to fill more than 2,800,000,000 liters (Register, 2000).

Table 1. Weight and Volume of Discarded Cigarette Filters. (Register, 2000)

Number of filters	ounces/pounds	milliliters/liters
20 (one pack)	.12 oz	10 ml
10,000 (one year's consumption for one smoker)	3.75 lbs	5 liters
465 Billion (# of cigarettes smoked in the US in 1998)	174,375,000 lbs	232,500,000 liters
5.608 Trillion (1998 world cigarette production)	2,103,000,000 lbs	2,804,000,000 liters

When comparing the sampling sites to see the extent of cigarette waste, Seelye contained the most cigarettes per day and Burton the least, possibly because of the difference in traffic levels. To gain a clear sense of the average daily amounts of butts, Chart 2 contains the daily tallies beginning on the second day since the first day was used to clear the area of preceding butts. The averages for the nine days were: Burton (12.8), Emerson (12.8), Comstock/Wilder (17.5), and Seelye (27.4). The standard deviations for each were: Burton (7.52), Emerson (5.67), Comstock (8.41), and Seeley (18.06).

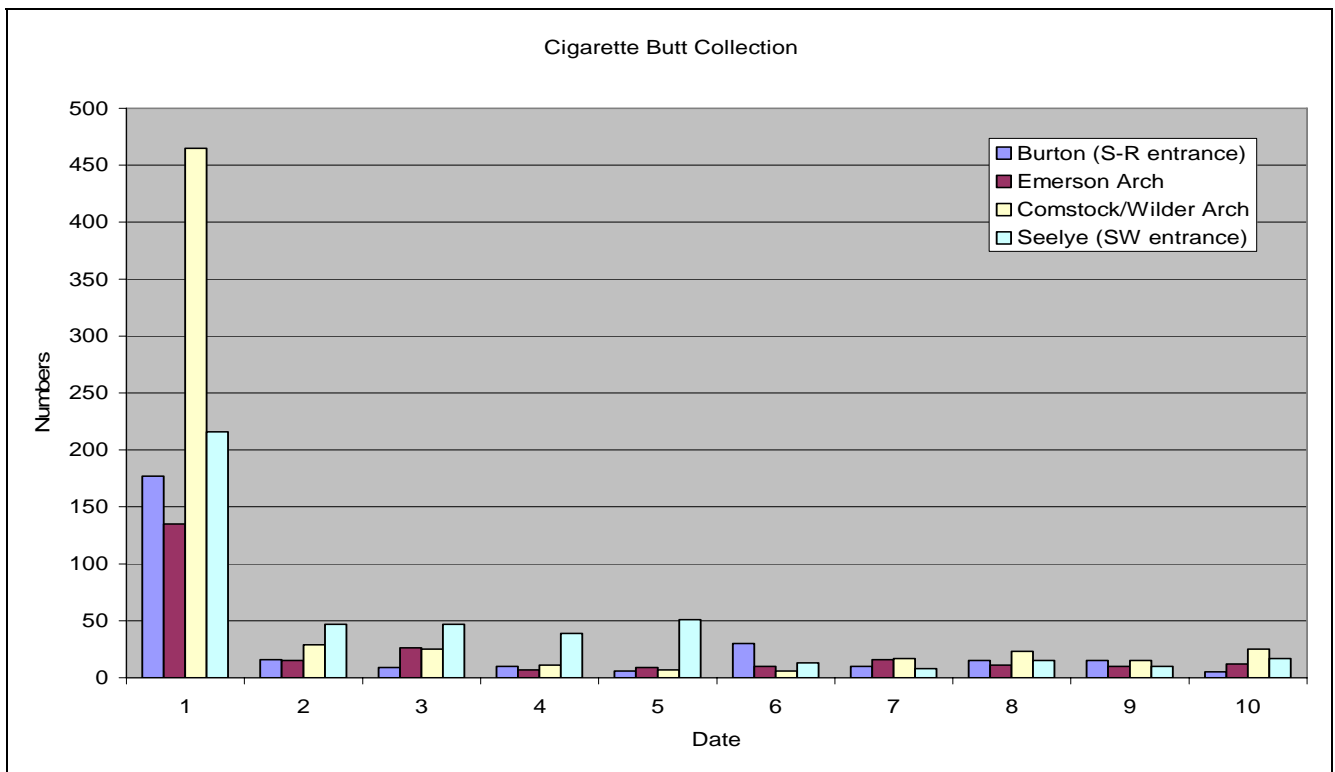


Figure 1. Numbers of cigarette butts collected over 10 days in April 2004 .

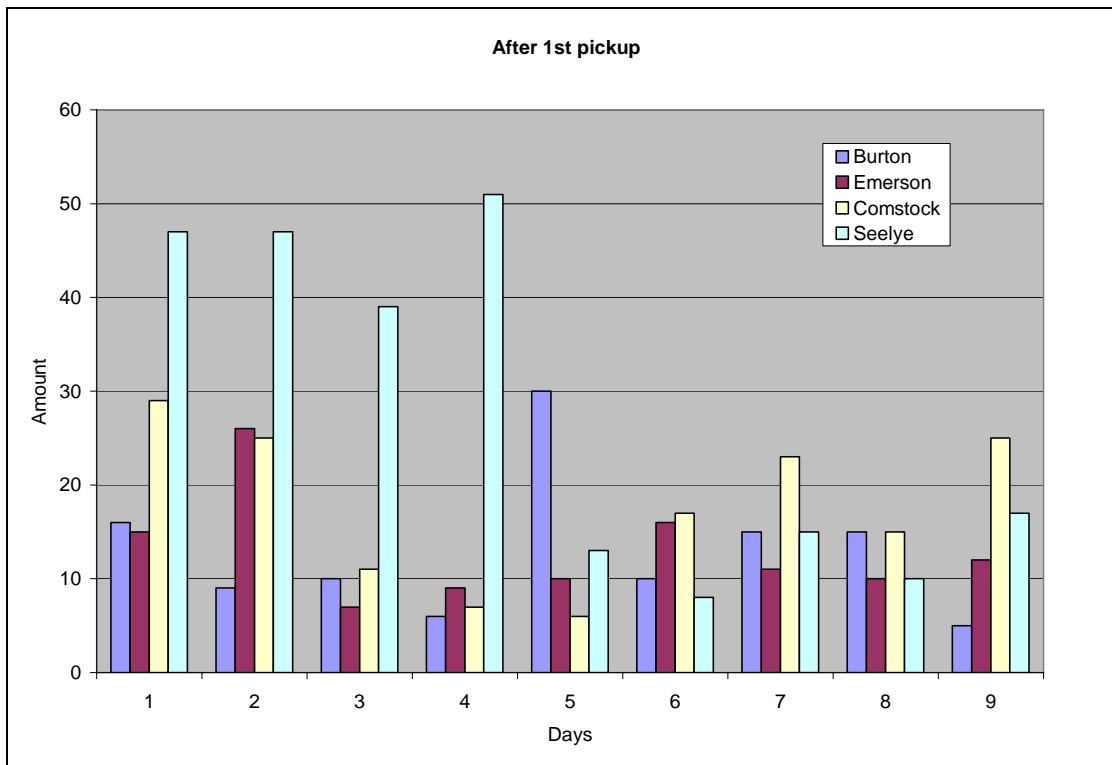


Figure 2: Number of cigarette butts collected over nine days in April 2004, beginning after first day of initial removal.

Distant observational findings were not as significant, based on the low traffic of smokers in a 20 minute period. On average, for every five people who put out their cigarettes in the containers two disposed of them on the ground or in the rocks by the tables. Of the students surveyed and interviewed, almost all confessed to at some point disposing of cigarettes on the ground when containers were not clearly available. Not surprisingly, 92% of the students preferred the containers to be placed near the doorway as oppose to 20 feet away. This way, one student explained: “you can smoke right up until the last minute before you go inside.” As anticipated, 60% of the students had no idea that cigarette butts were harmful to the environment and a few mentioned that they had assumed the filters were like cotton and would bio-degrade. Additionally, most students felt that while it depended on your community you were residing in, people would respond better to the convenience of more receptacles than to facts about environmental damage that cigarette butts do.

Discussion

From my sampling around campus it was clear that butts are an everyday occurrence and in areas with no other option, the ground is the ashtray. Through my interviews with Mr. Dombkowski and Mr. Brandt I have learned that while the grounds staff has maintained a relaxed attitude in the past towards choosing locations to place containers, there have been some recent shifts in strategy. Following the Connecticut State Parks & Outdoor Recreation methods, trash cans have begun to be removed around campus. Beginning with their experiment with the one outside of the admissions office, the bins have been taken away in order to force dispose of their trash inside, for aesthetic and practical reasons. This follows the theory that people are less likely to litter, but where does that leave cigarette butts? Both informants admitted that there has been a noticeable increase in butt liter since this plan began, but the old butt containers had several problems with design and maintenance. If they had open tops there was the possibility of flooding, yet with the previous smaller ones would try to squeeze trash into the cigarette holder. In this instance, no one else would attempt to put their butts in there for fear of igniting trash. Currently, there is no manual clean-up of butts. Though this remains confusing, jurisdiction mandates that if the container is 10 feet or closer to the building, trash falls under janitorial duty and otherwise it is the job of the grounds crews to empty the butt bins. While the good news is 25 new receptacles have been ordered, there is much debate over where to place them. It is mostly trial and error, but the debate revolves around whether to allow them to be next to the door (where clearly people linger while they finish their cigarette) or to place them the required 20 feet away (as official college policy requires). Both staff members suggested that the ideal but improbable solution would be a completely smoke-free campus.

On the College Council on Community Policy's (CCCP) webpage, a few solutions were considered, such as the construction of smoking kiosks. Both the CCCP and Mr. Brandt, however, were not partial to that option because of the intrusiveness to the landscape, the requirement of paved walkways for handicapped access, and the cost of construction and maintenance. A second issue of importance that was discussed in both interviews and on the website was enforcement. The CCCP clearly states that "enforcement of this policy relies on the thoughtfulness, consideration and cooperation of smokers and non-smokers for its success" (2001). This statement is followed by suggestions for security and self policing (outside of academic, administrative and residential buildings), residence life staff (Residence Coordinators, Head Residents, House Community Advisors and Area Coordinators), fines, and judicial board for students in houses. While both gentlemen agreed that the punishment for cigarette litter has no reason to be any different from any other litter, but this makes it difficult to move beyond rhetoric and force people to regulate others themselves. Sending people to Judicial Board for throwing away a cigarette butt does seem extreme, but perhaps stressing the problem and encouraging the Residential Life staff to inform people of their negative behavior would be reasonable and necessary.

Recommendations:

- 1) Continue to assess the ideal placement of cigarette receptacles. Look into establishing "smoker's spots" outside houses if 20 ft rule is to be regulated.
- 2) Include cigarette-butt disposal issues during Res-life training. Get house environmental representatives aware of issue.
- 3) Increased overall litter-prevention awareness across campus. Continue to stress that cigarette butts are litter too.

Bibliography

Brandt, Bill. Personal Interview. April 26th, 2004.

Dombkowski, Bob. Personal Interview. April 27th 2004

K.G. "Taking out the Trash". Environment. 1996, Vol. 38, Issue 7

Novotny, T.E, F. Zhoa. "Consumption and production waste: another externality of tobacco use."

Tobacco Control. 1999, Vol. 8, pg. 75-80.

Register, Kathleen, "Underwater Naturalist". Bulletin of the American Littoral Society. August

2000.

"176 million pounds of cigarette butts" The Arizona Republic, May 13, 2002.

College Council on Community Policy, <http://www.smith.edu/cccp/smokerec.php>

www.cigarettelitter.org

Appendix 1

How long have you been smoking?

Approximately how many cigarettes a day:

Have you ever disposed of a cigarette on the ground?

If there was a coffee can/cigarette-butt disposal device nearby would you be willing to use it

(HONESTLY)? (On scale from one to six, based on personal effort expected):

Would you be more likely to use one close to the door of the building/house you were entering? Or

one 20 feet away from the building as mandated?

Did you know beforehand that most cigarette filters are composed of cellulose acetate, a form of

plastic that can persist in the environment and can take 18 months to 10 years to degrade?

Do you think if people were more informed about the hazards to the environment that they would be

as consciousness of their cigarette-butt litter like they are with most other litter?