

# SUSTAINABILITY

Local Food and Food Waste

Fine Arts Café Waste Audit

Global Sustainability, Fall 2011

Prof. Phoebe Crisman

Workshop Leader: Jack Cochran

Team members: Katherine Thorsey, Tim Gaylord, Benji Cook

Community Partners: John Burnette and Kendall Singleton



## THE IMPACT OF OUR FOOD SYSTEM

Discarded trash and waste impose detrimental externalities on our global environment. Currently, our food and production systems operate in a linear fashion. Agriculture products are grown, transported across country, and distributed to end sources such as industries, retail stores, and families. Unfortunately, large percentages of the products are discarded, making their way to incinerators and landfills. Producers and profiteers have developed this production system in order to be able to feed the growing population of the world on a large-scale farming basis with as few costs as possible. This system is flawed, outdated, highly energy-intensive and wasteful. Within the landfills, large piles of decomposing materials condense and generate quantities of methane gas. Methane contributes to roughly 14.3 percent of green house gas emissions and traps heat 20 times more readily than other gases like carbon dioxide. As today's society is becoming well aware of global warming and the greenhouse effect, and with 60% of the world's methane gas coming from human influence and our agriculture and production processes, it is essential to delineate from our current consumptive, highly wasteful production process to a more holistic natural cycle. William McDonough, the creator of the acclaimed Cradle-to-cradle design approach, offers an innovative model to re-think and re-evaluate human industry and our economic infrastructure. Interestingly, cradle-to-cradle design seeks to model human industry on nature's highly efficient processes in which materials are viewed as nutrients circulating in healthy, safe metabolisms. It is a holistic economic and industrial framework that ultimately seeks to create systems that are not just efficient enough to provide goods and services for seven billion people but a system that is essentially waste free.

Alternatives to sending waste to a landfill or incinerator include developing methods to efficiently recycle and reuse materials, generating new economic opportunities, less waste, and a healthier and more productive environment. Besides recycling and its many potential impacts, composting organic foods is another growing trend to combat the large quantities of waste we produce and discard every day. Composting has direct environmental benefits, including the regeneration of poor soils and the enrichment and even remediation of contaminated soil. Compost also helps trap potential runoff from contaminating streams, lakes, and other waterways.

Our project's aim is to address the impact of waste locally here on grounds at the University of Virginia. Our community is actively engaged in sustainability initiatives, ranging from dining, energy, housing, land use, transportation and water. By focusing on one ingredient in successful sustainability, waste and its impact, we hope to gain critical insight that could potentially lead to a much needed transition to large-scale adoption of sustainable production and individual lifestyle choices.



## OUR FLAWED SYSTEM: TRASH IS MONEY

The most sustainable business practices produce as little waste as possible while maintaining the development of a reputable and satisfactory good or service. Waste is not only terrible for the environment, but also highly detrimental to business from an economic standpoint because waste disposal is costly and time consuming. Businesses seek the cheapest solution to dispose their waste, and but many of the associated "costs" of waste are not reflected in the price. Externalities included human health degradation, habitat destruction, global warming implications, and the loss of key environmental finite resources. Furthermore many of our landfills are reaching their respected limits, leading to every-increasing amounts of destructed land to accommodate the influx of trash



Government has even resorted to unsustainable policies that exacerbate our waste issues, namely subsidizing incinerators. Policies that qualify incinerators for renewable energy credits, tax credits, subsidies and other incentives present a renewed threat to environmental and economic justice in the United States as well as the world. Incinerators are a toxic technology. Even the most technologically advanced incinerators release hundreds of distinct hazardous byproducts including dioxins, heavy metals, particulates and ash. We must address this flawed system of thinking and policymaking in order to achieve long-term economic growth alongside a sustainable environment for future generations.

In efforts to make UVa dining more sustainable, we chose to conduct a waste audit and use our results to make recommendations to key dining administrators about reducing waste, encourage the implementation recycling options across grounds, and offer new incentives to inspire students to make more environmentally-conscious choices.

Waste is defined as consuming, spending, or employing uselessly or without adequate return or use to no avail or profit.. When dealing with a small business, increasing equity and profits are among the chief concerns for top management. Keeping this in mind, we hope to engage with our community partners using our data from the waste audits to provide new insight to a small-scale food distribution facility here on grounds.

Another important aspect we needed to keep in mind was consumer demand. "Green thinking" is a growing trend right now. We will use this spiked interest in environmentally friendly practices to our advantage and educate those who are not up to speed on current environmental thought. These efforts will hopefully increase the influx of hungry Hoos in the Fine Arts Café, reduce waste and increase revenue.

## ZERO WASTE SYSTEM



## GENERAL PROCEDURAL OVERVIEW

October 26th, 2011 marked the culmination of many weeks of planning, meeting with mentors, and revising our timetable in preparation for a waste audit within the Fine Arts Café at the University of Virginia. Ironically, this day happened to be "Sustainability Day" within the UVA community, providing even more motivation to develop substantial and informative results. Over the course of the past two months, we have gained a better grasp of the potential waste impacts occurring within the Fine Arts Café as well as the aggregate amounts of waste produced from everyday customers. Our initial hopes primarily focused on achieving substantial results that could curb wasteful habits within the café as well as the University of Virginia community. To raise student and staff awareness of more sustainable food options and habits, we designed marketing posters, a presentation within the Architecture School, and worked in coordination with the Green Dining student advocates to use the Observatory Hill flat screen television monitors and table tents to publicize our results. Lastly, after confronting a few initial challenges following the first waste audit, we have reorganized our project aim to advocate the use of re-usable to-go containers within dining facilities on grounds. Most importantly, we have maintained focus on our ultimate goal throughout this process, which is to create a more sustainable, less wasteful and therefore more cost-effective environment within the Fine Arts Café. Secondary goals included analyzing the Fine Arts Café's inventory costs and operation system to pinpoint new potential for efficiency improvement and develop ways to reduce the everyday food and packaging waste produced. Our project definition has evolved to encompass new challenges and innovative ideas that our team has worked through alongside our mentors. Besides determining the amount of trash and waste produced from the café, we also hope to limit wasteful customer habits and encourage alternative solutions that are inherently "greener" and sustainable. We have developed ways to approach this issue, which can be found detailed later in the report.

## MENTORS

### John Burnette

Over the past few months our project has been progressing steadily. Our group has collaborated effectively to achieve success, all the while maintaining a clear focus on the implementation of this small-scale waste and trash audit. Our most important community partner was John Burnette, the Fine Arts Café manager. Through this initial meeting we acquired his notions of the potential for the project and expressed his objections to a few of our ideas. John hopes that our waste audit will provide valuable insight to the current menu and packaging within the Fine Arts Café. More specifically, John would like new ways to reduce proportion size, marginalize overall food leftovers, and possibly implement more environmentally friendly to go packaging options. A new aspect of our project includes developing methods to incentivize the use of reusable to go containers in spite of the cornhusk to go containers used by the majority of students on grounds. Further elaboration is detailed later in the report. After our primary meeting, John became more of a logistical mentor. We met periodically, after each audit and prior to the Local Food Show. We offered our results from each of the audit, our concerns, and then we cultivated new ideas and direction for our project. John has been more than hospitable, even with his hectic schedule, in mentoring our group.

### Kendall Singleton

After honing our project aim with John Burnett, we met numerous times with Kendall Singleton, the University of Virginia's Sustainability coordinator, to develop a waste audit model and coordinate the necessary materials to conduct the audit. After hearing about the dining hall waste audit she conducted within the UVA community during her undergraduate career, we determined that modeling her project would achieve the greatest success and most effective results.

We researched her audit thoroughly and worked together at multiple face-to-face meetings. This helped us grasp a better understanding of the process she took with her trash audit. The most intriguing aspect and impact from her results is that the University of Virginia dining facilities such as Observatory Hill and Newcomb have now gone "tray less." Kendall re-considered the traditional style of large-scale student dining, believing that there were costly inefficiencies in place that could be marginalized without comprising the productivity of the dining facility. Trays, as we found out, leads to students over-grazing and taking too much food that they could consume, leading to more waste, more dishes to be washed and cleaned, and more overall energy use on the dining hall. Going tray less conserves water, revolutionizes the individual dining experience and, most importantly, reduces the large amount of wasted food and trash produced from the dining halls. Her influence within the dining facilities is still felt to this day.

Kendall's input as well as advice from our other project mentor, John Burnett, created a clear initial framework to our audit for the Café.

Dick Smith-Architecture School Building Manager

Another key resource has been Dick Smith, the Architecture School building manager, who has facilitated the allocation of the necessary equipment and goods for each audit. With his help, we were able to obtain tables, gloves and industrial size trash bags. Kendall Singleton, meanwhile, provided the industrial food scale used to weigh and record the aggregate amount of food waste, recyclables, and trash collected. Lastly, the daily employees within the Café supplemented our audit by offering any help we may need, specifically with the disposal of our trash bags and audit materials. Each of their individual's efforts did not go unnoticed.

## NECESSARY MODIFICATIONS AND ADVERTISING

In our original project timeline, based off of Kendall's 2006 Green Dining waste audit, we planned to revise her strategy to cater to the differences between a massive dining hall such as Observatory Hill and a smaller, ready-to-order dining facility like the Fine Arts Café. Four employees run the café each day, making 2,000 meals (500 meals per each staff member) a week. In contrast, Observatory Hill and Newcomb Dining halls serve thousands of students each day.

## PRILIMINARY AUDIT

The next stage of our timeline included conducting the primary waste audit on Wednesday, the 26th of October.

### Advertising

We sent in our request for advertising on the Global Sustainability website which Kendall helped to post before we conducted our audit on the 26th. We also sent her an awareness blurb to be mentioned in the table tents within the large dining halls. Lastly, we advertised with flyers in and around the architecture school in hopes that it would foster student and faculty awareness of the audit and remind them to bring their trash and waste directly to us. Due to the solely explanatory nature of our advertisements, we assumed that raising awareness of our audit would not alter daily dining habits or routines but simply inform the costumer of their role in our project.

On the target date, large presentation posters were clearly visible at the entrance of the café, introducing our audit and ways students can contribute. We were located in the right corner immediately upon entering the café, and had another large sign directing people to bring their waste to the tables we had set up. We

moved the trash bins inside the café behind our table in the corner. Friendly fold-over signs were taped to the openings of all trashcans outside the café. These advertisements were strategically placed with hope that customers would work with us to develop the most accurate measure of the food waste and trashed produced.

### Separation of Waste and Documentation

Documentation occurred continually throughout the audit. First, a breakdown list of all of the foods on the café's menu was created and included one category labeled "unidentified." We then kept a tally of the type of food that we received so we could account for "left over" waste and attempt to find trends in possible overly generous portion sizes, or menu items that are regularly not being finished by students. If the food waste given to us was miniscule and therefore unidentifiable, we marked these items down in the "unidentified" category.

### Waste Measurement Procedure and Documentation

For the actual waste measure, we decided to break the waste down into three distinct categories based on the type of material the waste was. We put the waste from these categories into three separate compartments for collection and record the associated data on a spread-sheet entitled --1) compostable materials, 2) recyclable materials, and 3) "other" (this was a small amount of non-compostable or recyclable trash). We also made note of general patterns and trends regarding the leftovers from each individual menu item. Although we did not use more than one bag for any of the three categories, we had planned to take Kendall's cautionary advice and separate each category of waste into 25-35 pound trash bags, to make sure they would be easy to weight and would not break and consequentially skew our data. We weighed each bag, recorded the data on the spreadsheet in its proper category and finally we were assisted in putting our small bags in a giant garbage bin out back to be properly disposed of later. Trying to be conscious of John Burnette's desire to redefine the portion sizes of his menu items, the only common trend we noticed was leftover noodles from the noodle bowls. The metric unit used to measure the "success" of our project will be the amount, in pounds, of waste produced in relation to each person who dines there. Although we hope there will be waste so that our project will be productive and we can implement strategies to reduce this, from an environmental point of view, our project would also be successful if the Café produces extremely small amounts of waste. Nonetheless, the collected leftovers and trash will be weighed separately on the industrial food scale for each of the three individual categories previously mentioned: 1) compostable materials, 2) recyclable materials, and 3) "other" (this was a small amount of trash). We will subtract the small weight of the trash bag from our findings as to have an accurate measure of solely the Fine Arts Café waste. We will then re-weigh each bag for accuracy purposes and record the weights on our spreadsheet in their respectable categories. Hopefully the "other" category will be the smallest. If this is the case, we can focus on how to reduce the actual food waste, which would in turn save food resources and possibly save food ordering expenditures for Mr. Burnette.

### Easy "Next Day" Changes

By multiplying the amount of recyclable products collected during the lunch rush by three we could create an averaged breakfast, lunch and dinner product use number. We could then estimate an average volume of these products. Based on the volume of recyclable materials we collected, we could use this data to insure that there are adequate sized bins for recycling. Because the Fine Arts Café is cramped for space, this data is important, as it would insure the sustainable viability of the small facility, while also keeping full functionality. Our intentions are to use the small sample size of trash, recycled products, and left-over food waste to extrapolate long term patterns of accumulated waste.

## Result Summary

In our original timeline, we were hoping to use the data from this Audit to create an effective awareness campaign through a visually-stunning presentation that would leave an impact on future café diners. Unfortunately, our Audit we conducted on the 26th did not turn to produce very many results at all. The student and faculty traffic inside the café, during what are usually peak hours, was abnormally slow. We collected about 3 pounds of food waste, 2.2 pounds of recyclables, and 1.6 pounds of general trash during the hours of 11:00 a.m. and 2:00 pm. This was due to the fact that the vast majority of food and drink items ordered were all bought and then taken out of the café to be eaten elsewhere, such as in the Architecture studios.

## SECONDARY AUDIT

### Immediate Revisions and Key Data

Because the first audit was not an accurate reflection of waste produced, we decided to conduct another waste audit on Thursday, November 3<sup>rd</sup> from 11:00AM-2PM. This time, with greater diligence, we will monitor how many meals are leaving the café as opposed to how many are eaten in. During the three hours of our second audit, we collected 4.1 pounds of recyclables, 4.0 pounds of food waste, and seven pounds of trash. We also determined the average student traffic flow that amounted to approximately 28.25 students coming in and out per half hour between the hours of 11:00 am and 2:00 pm.

Using John Burnette's inventory excel numbers that he gave us during our meeting on November 8<sup>th</sup>, we calculated a few eye-opening statistics about the consumptive behavior within the Fine Arts Café. During an average two week period, the café sells approximately 500 quesadillas (in cornhusk to go boxes), 300 deli sandwiches, 300 grill items, and 150 noodle bowls. Based on our estimates, over 75% of the items sold are taken outside of the café to be consumed on the run, in studio, or elsewhere on grounds. In addition, John mentioned that approximately 600 cornhusk to-go containers are used each week. Although we did not receive enough trash during our audits to make dependable recommendations to John regarding portion sizes or composting viability, our data analysis can be used as a tool to measure the relative gains from students and consumers switching from the everyday cornhusk containers to the re-usable boxes. Currently, less than 5% of students participate in the re-usable program. 100% buy-in to the program is not reasonable, but we determined that a realistic goal is to achieve a 20% buy-in rate over the course of the next few semesters. This has the potential to reduce the inventory costs of purchasing the cornhusk boxes by almost 25% initially. We believe the most effective way to encourage students to use the more sustainable to go containers is to offer an incentive program. The current program is summarized in the diagram below, and we have included a sample "punch card" that could be implemented by dining administrators to encourage students to engage in the program.

 Reduce • Reuse • Recycle

### Reusable To-Go Containers

1. Register for the program\* and pay your refundable \$5 deposit.
2. Get 2 program key tags.
3. Exchange a key tag for a new reusable to go container.
4. Bring back your used container to any participating location\*, get a clean container or a new key card if you're not getting to-go immediately.

\* Participating locations:  
O'Hill, Newcomb, Runk, Crossroads, Castle, Pav XI, Fine Arts, West Range Café, Shea, Wildorf - drop off only.

Please note: you do not need to return your container to the same location where it was checked out.

★  
Fill your container at one of the three dining rooms' **Meat Free Monday** stations on Mondays!

**Local ☉ Sustainable ☉ U.Va. Dining**

 **Purchase 8 Meals at the FAC**  
**in your own reusable to-go box**  
**and receive 2 drip coffees, tea or sooa**  
**FREE at all U.Va. Dining retail locations.**

(Remember: you must bring your own mug.)  
Coupon expires 5/10/2013 • No cash back

1 2 3 4 5 6 7 8 FREE FREE

## Post-Audit Advertising

We are currently putting together a short film that will show the current student trends in buying and taking out food from the café, including short interviews with students in the café. These interviews will focus on Architecture students who are consistently coming and using the café on a regular basis. We believe this will be the most effective means of gaining student interest and stimulating more sustainable long-term lifestyle choices, such as increased participation in the re-usable to go box program. We will be posting the film on YouTube and on the TV's in the Dining Halls following the culmination of this report.

## THE COLLABORATIVE WORK BEHIND THE AUDIT

### Timetable

September 20 <sup>th</sup>	Contacting John and Kendall to coordinate initial meetings
September 22 <sup>nd</sup>	Met with Kendall to strategize and learn about her 2006 waste audit
September 23 <sup>rd</sup>	Met with John to learn about the FAC, potential areas of improvement, and logistics of the audit
September 26 <sup>th</sup>	Group meeting to draft our audit plan
October 18 <sup>th</sup>	Met with Kendall to organize the drop off of the scale and other materials
October 26 <sup>th</sup>	1st Waste Audit of the FAC
November 3 <sup>rd</sup>	2nd Waste Audit of the FAC
November 8 <sup>th</sup>	Met with John to discuss our two audits and re-evaluate our project aim to generate participation in the re-usable to go box program
November 9 <sup>th</sup>	Participated in the FAC Local Food Show to advocate and market re-usable-to-go boxes
November 15-20 <sup>th</sup>	Surveyed 50+ students regarding FAC food choices

### Playing Our Strengths

The workload has been divided evenly among all members. We of course will be trying to do everything in collaboration with each other; however, we will also play upon our individual strengths and employ our resources on grounds to conduct the best possible audit. Tim is the most involved in the architecture school, so he has utilized his connections to obtain tables and some supplies for building signs and advertising materials from the A-school. He would also be the person in our group to communicate with the building manager and make sure any recycling efforts we would like to implement is in compliance with building codes. Benji has been coordinating the mentor meetings with Kendall and John as well as the meetings within our individual project group. Katherine has become a logistical asset of our team, recording our results in a clear and presentable style. Most importantly, we have worked together to brainstorm new ideas and ways to overcome our initial obstacles regarding the small amount of waste collected from the first Café audit. After conducting a second audit and realizing the café does not generate large enough amounts of waste to critically consider restructuring the menu or business practices, we restricted our project aim to include gathering current student demand for re-usable to go containers and develop new ways to encourage students to transition from cornhusk to go boxes. In sum, we are thrilled with the amount of sustainable practice that is already occurring on grounds. We are excited to concentrate on reducing the



café's waste to almost nothing, by stressing the importance of using reusable to go containers, having enough recycling bins, and potentially starting to compost access food waste.

### Meeting with Our Mentors

In the days following our second trash audit, we synthesized the data and made decisions on the most important findings and how we should approach them. Based on our first audit, we were not expecting a large amount of waste. We all sat down to discuss the major decisions and ideas and focused less on the actual food waste and more on the wasted materials. We brainstormed advertising techniques such as discount incentives for re-usable to go containers. We also did research on the possibility of composting the small amount of food waste. We are in the process of finalizing the implementation of such ideas with John and Kendal who hold the ultimate authority in regards to alterations or modifications of the café and its production practices towards more sustainable options. We held a brief meeting with John Burnett, the on-grounds café manager, following our second audit, to talk about marketing options that encourage more sustainable dining choices by students. We updated John with our results, and then hashed out a new plan

### Financing the Project

Our budget and financing for this project does not need to be assessed. The only expenses accrued were the minute costs of printing the presentation posters. All of our supplies, including the scale, tables, gloves, and trash bags were given to us by either Kendall or Building Services within the Architecture School. There also will not be any post-audit awareness campaign expenses since our advertising will be a mix of digital presentations (through the TV screens at the large dining halls), printed on the table tents at these dining halls, and through word of mouth at the local Food Show on November 9th. If we decide it is necessary to put up additional flyers around the Architecture School, the printing costs will again be relatively insignificant.

### Example Surveys to Gage Student Interest in Re-Usable Container Program

Questions	Students	
How often do you buy food from the café?	every day	every day, sometimes twice a day (every now and then 3x a day)
When you buy food, do you eat-in, or take it out?	take it out	take it up to studio
Do you know about the re-usable to-go containers, if so, do you use them?	yes, but no I do not	recently learned about them, no.
If you don't use them, why not?	I wouldn't remember to clean it.	I wouldn't clean it, I don't want to have to run back + forth to drop it off again
Would incentives such as small discounts/specials help your decision to use these containers?	For sure	YES.
What do you typically order at the Café?	Quesadilla	coffee + banana bread
How do you perceive the menu prices? Expensive? Average?	expensive	expensive
What other options would encourage you to use reusable to-go boxes?	free stuff	pick up/drop off in studio?

Questions	Students	
How often do you buy food from the café?	every day	10-12 TIMES A WEEK
When you buy food, do you eat-in, or take it out?	mostly take out	BOTH
Do you know about the re-usable to-go containers, if so, do you use them?	yes, no	NOT REALLY, NO
If you don't use them, why not?	not really sure	DON'T KNOW ABOUT THEM
Would incentives such as small discounts/specials help your decision to use these containers?	of course	YES
What do you typically order at the Café?	quesadilla coffee	COFFEE QUESADILLA WRAPS
How do you perceive the menu prices? Expensive? Average?	a little over-priced	EXPENSIVE
What other options would encourage you to use reusable to-go boxes?	special deals with them	DISCOUNTS TREE DRINKS

Students	
<b>Questions</b>	
How often do you buy food from the café?	twice a week      3x a week
When you buy food, do you eat-in, or take it out?	out      out (in studio)
Do you know about the re-usable to-go containers, if so, do you use them?	i know but don't use them      i know but don't use them
If you don't use them, why not?	i wouldn't be able to remember to bring it      i forget about them
Would incentives such as small discounts/specials help your decision to use these containers?	yes      yes
What do you typically order at the Café?	huckle bowl, chicken sandwich      soup, quesadillas
How do you perceive the menu prices? Expensive? Average?	extremely expensive      expensive
What other options would encourage you to use reusable to-go boxes?	if they added new food to their limited menu      more variety of foods so i would eat there more

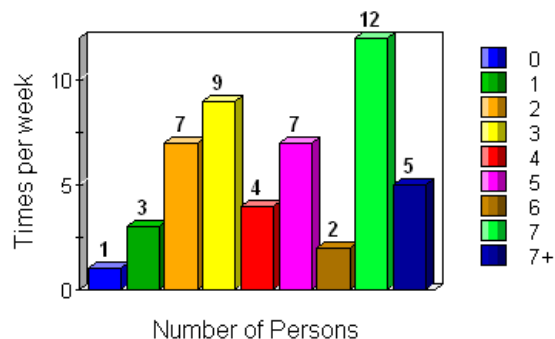
## HAND OUT SURVEY RESULTS

After collecting all of the answers from the hand-out surveys, we came up with the following data:

*Question 1) How often do you buy food from the café? (Per Week)*

- 1 Person – 0 Times
- 3 Persons – 1 Time
- 7 Persons – 2 Times
- 9 Persons – 3 Times
- 4 Persons – 4 Times
- 7 Persons – 5 Times
- 2 Persons – 6 Times
- 12 Persons – 7 Times
- 5 Persons – 7+ Times

**How often do you buy food from the Café?**



Question 2) When you buy food, do you eat-in, or take it out?

8 Persons – Eat-In

28 Persons – Take-Out

14 Persons - Both

**Eat-In, Take-Out, or Both?**



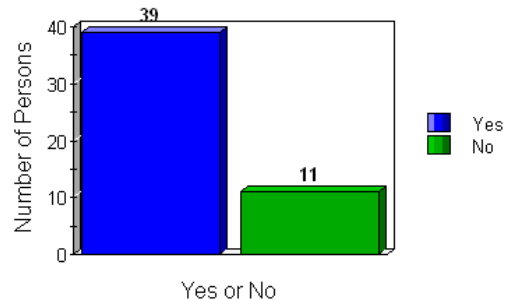
Question 3) Do you know about the reusable to-go containers, if so, do you use them?

39 Persons – Yes\*

11 Persons – No

\*(Only 3 persons who knew about them actually used them)

**Do you know about Re-Usable To-Go Container?**



Question 4) If you don't use them, why not?

\*For this question we had a space to write in answers so there were many different responses such as:

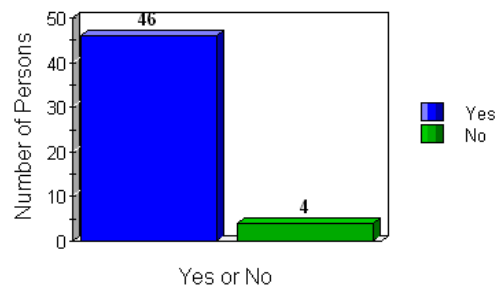
- Lazy
- Don't want to return the containers
- Don't buy whole meals
- Not sure
- Don't know about them
- Never learned about them
- Don't want to own one
- Don't need one
- Don't want to clean it

5) Would incentives such as small discounts/ specials help your decision to use these containers?

46 Persons – Yes

4 Persons – No

**Would incentives encourage you to sign up?**



6) *What do you typically order at the Café?* (People wrote down several food items and there were many different combinations of food items)

26 Persons – Quesadillas\*

11 Persons – Burger\*

22 Persons – Coffee

4 Persons - Salad

11 Persons – Bagel

5 Persons - Chips

12 Persons – Iced Tea

17 Persons - Drinks

8 Persons – Noodles\*

20 Persons – Sandwich\*

5 Persons – Rice\*

6 Persons – Sushi

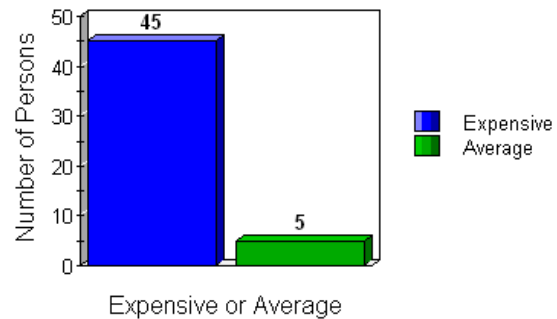
\* Items that could be served in a Re-Usable To-Go Container

7) *How do you perceive the menu prices? Expensive? Average?*

45 Persons – Above Average/Expensive

5 Persons – Average

**How are the Menu Prices?**



8) *What other options would encourage you to use reusable to-go boxes?*

\*For this question we had a space to write in answers so there were many different responses such as:

- More/ Better Advertising
- Flexibility
- Discounts/ Deals
- If they were free/ No deposit
- Lower Prices
- Frequent User Punch-card
- Free Stuff
- Pick-up/ Drop-off bin in the Architecture School
- If they had a handle like a lunch box

## SURVEY CONCLUSIONS

After analyzing the data we collected from the hand-out survey as well as the video interviews we confirmed the fact that a majority of students are buying food from the café and then leaving with it to consume it elsewhere. We found out that many students knew some-what about the re-usable to-go container option but hadn't looked more into it and didn't understand how it worked exactly. A handful of students also had misperceptions about the containers, such as that they thought they had to clean it themselves and that they didn't want to return the container elsewhere when in fact they could exchange it for another when they went back to the café for more food. We believe that the data shows how a lot of meals being purchased in the café could be put into the Re-Usable To-Go container and that if incentives or deals were put into place by the café there is great interest in signing up for them. Here is the video link of our surveys. We have published this on YouTube and hope to publicize the results across grounds through various media sources.

[http://www.youtube.com/watch?v=zQcQ5xxo1JQ&feature=youtube\\_gdata](http://www.youtube.com/watch?v=zQcQ5xxo1JQ&feature=youtube_gdata)

## FUTURE IMPLICATIONS AND EXTENSIONS: REDUCE, REUSE, RECYCLE

### Re-Usable To Go Containers

One of the newer aspects we chose to focus on within our project is the use of the re-usable to go containers instead of the current corn-husk, non-biodegradable containers. To go containers are used quite heavily throughout the day in the café, representing almost 75% of the total meals sold during our initial waste and trash audit. Obviously we were not able to include the leftover trash and waste leaving the Fine Arts Café within the to go boxes (although we did estimate). Nonetheless, we have revised our project aim to include ways to facilitate changing customer's wasteful habits and encouraging an increase in the use of reusable to go containers. If we can get a decent amount of students to utilize the re-usable containers, it would cut down on to go trash ending up in landfills and encourage students to consider portion control before they eat. Also, and most importantly, we believe there are clear incentives for Mr. Burnette to implement this idea. Primarily, if more students and staff switch from the cornhusk to go boxes to the reusable boxes, his inventory costs would reduce sizably. Sales have the potential to rise as well if students are attracted to the Fine Arts Café particularly to participate in the punch card system. This small-scale change has the possibly of making the Fine Arts Café more profitable. However, our chief concern is that Mr. Burnette obviously will not be willingly to alter his food and packaging orders without strong evidence and assurance about the success of reusable boxes for menu items. We hope our project will extend into the future, with more and more students voluntarily opting for re-usable containers, thereby naturally curbing the aggregate amounts of trash, reducing costs, and creating a more sustainable environment within the Fine Art Café.

We believed collaborating with the Food Show group would help spread and promote both of our individual goals. On November 9<sup>th</sup> we set up a small table with sample re-useable to go containers, program keys, and a sign-up sheet right next to the Food Shows poster. Once the people who slowed down to read their poster began to head over to the food, we would get their attention by asking them questions like; how often do you get to go from a UVa dining facility? Do you and your friends know about re-usable to go containers? The responses were varied. Some people said they rarely eat on grounds and if they do they do not get to go. But for the people who do eat on grounds a fair amount, we gave them a small flyer about the benefits and ease of reusable to-go containers and verbally explained these points. We then asked them to sign up. The purpose of the tabling was to spread awareness of the program and gauge student interest, and we unexpected were able to sign four or five individuals up that day.

## Informing Students on Re-Usable Products

Even though these re-usable containers are readily available to students within every dining facility on grounds, they are highly underutilized for a handful of reasons. We hope our upcoming video survey will elaborate on the primary reasons why so few students take advantage of this service. We predict that our market research will help to develop incentives for students to make the "switch." For instance, an early idea our team has developed is to offer a small discount on menu items within the café to customers who bring their reusable to go container. We plan to re-examine these ideas with Mr. Burnette during our upcoming meeting in order to gauge his interest and the potential viability of these changes within the Cafe. Hopefully John as well as the many everyday students who enter the café will be excited by a discount. In order to estimate and assess the implementation of more reusable boxes vs. the conventional boxes, we developed face-to-face surveys and video documentation of our audit, its successes, and responses students have to the issues our project is facing. The results are compiled into informative tables mentioned earlier in the report, while a survey video is available at the end of the report.

## Composting Options

At the beginning of our project, we were told that composting the waste was not possible because the off-site composting plant near the University could not handle the uptake of any more materials. This does not mean small-scale composting is not an option within the Fine Arts Cafe. With the small amount of food waste produced, it seems reasonable to approach this problem in two ways. The first way would be to use the statistics we found and explain the amount of waste and then request for this waste to be added to a dining-hall pick up. Another option would be to set up an on-site in-vessel composting bin in the back of the Fine Arts Cafe. Furthermore, instituting in-vessel composting bins control air flow and temperature in enclosed reactors like metal bins and compost the materials without polluting the environment or having to pay for a composting service to come take the food away.

## FINAL THOUGHTS

In retrospect, the Fine Arts Café waste audits should not be compared to the university-wide dining hall facility audits. Going into the project, the only model to base our assumptions off of was Kendall's 2006 audit. Although this information provided a solid foundation for the actual process of waste collection, we had no idea how the amount of waste would compare. Consequentially, our group developed a false belief about the amount of waste smaller café-style facilities produce. The Fine Arts Café not only produces small amounts of food waste, they also use mostly all recyclable products. They also buy local foods from local farmers, promoting environmental and social equity by reducing transportation costs and environmental detriment while maintain high quality and organic food sources.

On a side note, one of the many small successes of our project that we wish to address is the fact that the Fine Arts Café now has designated recycling bins for plastics and other paper products directly within the facility. Prior to our first meeting with John Burnette, there were no recycling options within the café. After mentioning this a few times over the course of the semester, the staff organized and implemented two large recycling bins that are continually being used throughout the day.

The Fine Arts Café's business space is extremely sustainable; it is small and efficient, utilizes large windows for natural light and is enclosed inside a high-traffic building (no special trips in cars to get the food). As mentioned earlier, the majority of the menu is locally-sourced, and there are readily available recycling options. Our project aim was to develop new data and trends that could add to the established sustainability of the Café, and target consumer interest for new food options. We believe our survey results, two waste audits, and the creation of new potential incentive programs make it clear there is room for

improvement within the Café. Our long-term goal is to witness a transition that could have ripple effects across the community. Tray less dining has become a reality here on grounds thanks to the initial waste audits in 2006, let's make the next sustainable reality be large-scale adoption of re-usable to go containers.

Advertising Posters and Flyers

