

ERS 250

Greening the Campus and the Community

“SOCIAL DYNAMICS WITHIN A GREEN WORK ENVIRONMENT”



FALL 2004

BY

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ERS 250

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INTRODUCTION

Green building and sustainable building practices have increasingly gained global importance in recent years. According to the USGBC (2004) the built environment has a profound impact on our natural environment, economy, health and productivity. Furthermore building "green" is an opportunity to use our resources efficiently while creating healthier buildings that improve human health and interaction, build a better environment, and provide cost savings (Stanford University, 2004). This report focuses on the social aspect of green building and the role it plays in the work environment. It will look at general social theories and how people interact in the work place as well as internationally recognised green building theories and practices. This discussion and analysis will be done specifically to provide comment into how the proposed Environmental Studies Building 2 (ES2) at the University of Waterloo (UW) should be designed to encourage greater levels of social and informal interaction between staff and students.

PURPOSE

This project was developed under the general topic of “work environment” which encompasses almost all aspects of green building philosophy. Initial research into the topic revealed that work environment could include lighting, heating, cooling, building materials, water management and waste management. However this report attempted to address the social component of the work environment in order to explore an issue that that had not previously been discussed within the University of Waterloo’s WATgreen Program.

BACKGROUND

WATgreen is a University of Waterloo initiative designed to present “an opportunity for students, staff, and faculty to improve the quality of their environment, while decreasing the overall operating cost of the University.” (WATgreen, 2004) The program aims at “greening the campus” through providing students and staff opportunities to undertake studies that can have a direct impact on the way the university and its ideals develop in the future.

Social interaction between students and staff plays an important educational role within the university lifestyle. Facilities are provided in all faculties for students to interact with each other; however, there are few places for staff to interact with each other and with students in an informal manner outside the formal office environment. This project will research and analyze the appropriateness of a common area where students and staff of the Environmental Studies (ES) facility can meet and interact within a comfortable, friendly environment.

Furthermore, while the issue of social interaction in itself would provide a challenging topic, this report specifically focuses on “social dynamics within a green work environment.” As such, not only will we be encouraging a greater importance on social interaction between staff and students within the ES Faculty, it will attempt to establish a link between a green work environment and the ways in which social interaction occurs.

RESEARCH METHODS

In developing this report three primary methods of research were undertaken. These included a review of relevant literature, a series of social audits recording the current interaction between staff and students of the ES faculty and a series of informal interviews with professors, administration staff, maintenance staff and students. The literature discussed two central themes within the report. These themes are social theories on the interaction within the work place and what provides a good space for this to occur. As well as green building theories and previous green building initiatives. These were specifically outlined by world leading experts and organizations that specifically address the current phenomenon of green building.

A social audit was done to assess the amount of interaction between students and staff and to obtain insight into whether the “open doors” policy in the ES faculty was successful. Our conclusions would aid in determining the need for a space in ES2 for staff and students to interact outside of the formal office environment.

Finally informal interviews were conducted to obtain insight into the amount of support for such a space and to determine whether staff and students felt it would find it useful. The interviews further allowed an opportunity to question environmentally conscious staff and students on what they thought formed a green social space. Likewise, responses on what could be incorporated into such a space to encourage environmental thought and discussion would possibly be acquired

DISCUSSION

SOCIAL THEORY RESEARCH

Socializing begins at a very early stage of life, and occurs in all areas of daily life. As a child, socializing is initiated with interaction with parents, siblings and other children. Progressing through life, the types of socializing, depending on whom the person is relating with, differs. For example, a young person quickly realizes that the way they act towards a friend, varies from the way in which they would interact with parents, teacher, an employer, and elders. Furthermore, at the adult stage of life, socializing becomes increasingly important as it develops networks of friends, support, and connections to employment opportunities (Berkhan and others, 2000).

In today’s society, a greater emphasis is being placed on socializing within the workplace. A great deal of research is being focused on the reasons why this type of interaction is important, what it adds to the workplace, how to encourage it, and how it affects the employees. This interaction has the potential to become both a benefit and detriment to the working environment.

One of the earliest social theories came from Karl Marx, the notion that a step away from the fundamental and basic interactions within the workplace can lead to alienation (Ferguson and Lavalette, 2004). Marx suggested that once working became less about personal creativity and enjoyment, and became focused on productivity and performance, the employees would become alienated from their work, from their co-workers and employers (Ferguson and Lavalette, 2004). The employment would be focused solely on the end product, eventually this would result in workers being forced to compete for jobs

(Ferguson and Lavalette, 2004). This would, therefore, create rifts and classes within the working environment (Ferguson and Lavalette, 2004). Furthermore, these rifts are the exact conditions which lead to the development of “racism, sexism, and homophobia” (Ferguson and Lavalette, 2004) in the workplace, which disrupts the working environment.

Another social theory that pertains to the workplace is the social constructionism theory. It states that today’s modern social world is developed through social interaction (Houston, 2001). It emphasizes the great effect that socializing has on the development of our beliefs and actions (Houston, 2001). This theory also stresses that each social encounter is dependent upon the location where it occurs, and consequently, the actors in the encounter are subject to behavioral adjustments (Houston, 2001). Therefore, social interaction in the workplace would have a large effect on a person’s development as an employee, and their behavior and growth within a working environment.

A key term being used in the workforce today is ‘networking’. The social network theory is based upon the connections, or ties between the actors (Berkhan, and others, 2000). Social networking operates through four basic relationships; first, through social support, followed by social influence, then social engagement and attachment, and lastly, access to resources and material goods (Berkhan, and others, 2000). Support from fellow workers in a place of employment is essential for worker morale, it is important to feel a sense of camaraderie (Berkhan, and others, 2000). This could help a worker through a difficult day and prevent excess absenteeism. Influence in the workplace has the potential to aid or hinder worker productivity. If a place of employment has a set

standard of working diligently and being productive, it will influence new workers to do the same, and will keep workers focused while on the job. However, if a workplace has a reputation as being too relaxed or lenient, workers could slack and become easily distracted. The influence that employees have on each other should be focused to positively affect workplace productivity. As workers spend a great deal of time together, it is normal for them to form close friendships and attachments (Berkhan, and others, 2000). These relationships can positively affect worker morale and help develop the support systems within the workplace. Lastly, networking can lead to connections to certain resources (Berkhan, and others, 2000). By ‘networking’ a worker is able meet certain key people who could potentially open doors for their advancement within their workplace. Networking can aid an employee in many aspects of their career, and daily working life.

Socializing in the workplace can pose certain problems that must be dealt with. First, getting carried away with socializing can reduce productivity; workers will be more inclined to socialize than focus on their work (Bryant, 2004). Also, when workplace friendships turn sour, it can cause disagreements which leads to unprofessional behavior (Bryant, 2004). Furthermore, the broken friendship can cause one of the workers to start rumors about another which could negatively affect their career. Along with socializing and forming friendships within the workplace comes the forming of cliques (Bryant, 2004). Cliques can lead to favouritism and exclusivity, and makes certain employees feel left out, in addition, this creates negative feelings (Bryant, 2004). Lastly, socializing in the workplace can even cause workers to want to spend more time at work than at

home. Workers can become carried away because they feel more stimulated at work (Hodson, 2000).

For adults, work is a major stage where socializing occurs in their lives (Hodson, 2000). There are many benefits to socializing in the workplace. It provides a sense of cohesiveness and cooperation amongst the employees (Hodson, 2000). It can improve self-esteem, and furthermore create and affirm an identity and sense of meaning within the workplace (Hodson, 2000). Forming friendships in the workplace can actually improve mental health and overall personal satisfaction by reducing anxiety and uncertainty (Hodson, 2000). Having friends at work can also have a strong affect on one’s career (Bryant, 2004). They can give advice, act as a “sounding-board”, and even give comments on performance (Bryant, 2004). It has been shown time and time again, that forming friendships in the workplace can make the job more enjoyable and therefore, enhance creativity and productivity (Bryant, 2004).

Any reasonable amount of socializing in the workplace can improve the working environment and lead to heightened worker morale. Satisfied workers will be more willing to work productively and will be more enthusiastic about their job; and therefore socializing will enhance worker creativity and ingenuity. Such as most activities in the workplace, socializing should be monitored to ensure it remains a pleasant accompaniment of work, and that it does not begin to take over work.

In order to encourage socializing in the workplace, it is essential to create a space where the employees feel comfortable, and where discussions are promoted by the surroundings. It has been shown that fresh, open spaces are

the most capable of promoting creative thoughts (Nenonen, 2004). Furthermore, to create the comfort level necessary for sharing thoughts, beliefs, and new ideas, the space must be informal and relaxed (Nenonen, 2004). All the professors we interviewed concerning the ‘ingredients’ of an ideal social space touched upon a sense of ‘openness’, they also commented on the importance of natural lighting, and high air quality. These factors would give the space a fresh, open feeling, and promote relaxation.

GREEN BUILDING DESIGN THEORIES

Green or sustainable building is the practice of creating healthier and more resource-efficient models of construction, renovation, operation, maintenance, and demolition. (EPA, 2004) Sustainable buildings refer to buildings that use energy, water, and other natural resources efficiently and provide a safe and productive indoor environment. (Stanford, 2002) These criteria are what make up the LEED (Leadership in Energy and Environmental Design) Green Building Rating System. Each of these criteria must be designed with a goal of sustainability in mind. Energy efficiency is achieved by use of renewable sources of energy such as solar, wind, and biomass. Water reduction is obtained by designing and operating building’s to use water efficiently. Materials uses in green buildings, must in comparison to competing brands, have a reduced effect on the environment throughout their life cycle. Recycled content, low toxicity, energy efficiency, biodegradability, and durability are some of the criteria required in attaining the most sustainable materials possible. The reduction of waste in construction, remodelling, and demolition as well as recycling and re-use programs improve a building’s sustainability. Indoor

environmental factors must also be accounted for in providing a productive, healthy and comfortable environment for all occupants. This project focuses specifically on the latter of these criteria. The USGBC (United States Green Building Council) and the CaGBC (Canadian Green Building Council) are organizations which rate buildings according to their eco-resourcefulness. These organizations provide a voluntary, consensus-based, market-responsive set of criteria that evaluate project performance from a whole-building, whole-life perspective, providing a common understanding for what constitutes a “green building” in the Canadian context. This is achieved by awarding points, earned by meeting specific performance criteria, which outperform typical standard practice.

Improved building performance is certified with ratings - Certified, Silver, Gold or Platinum - based on the total number of points earned by a project. Building occupants, purchasers and lessors are assured of superior building performance by an independent review and audit of the projects' construction documents by experienced design professionals that follow a well-defined and transparent methodology. (CaGBC, 2004) Figure 1 provides an example of the CaGBC rating system used in assessing buildings.

Figure 1)

Indoor Environmental Quality		5 Possible Points
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Prereq 1 Minimum IAQ Performance	Required
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Prereq 2 Environmental Tobacco Smoke (ETS) Control	Required
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Credit 1 Carbon Dioxide (CO ₂) Monitoring	1
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Credit 2 Ventilation Effectiveness	1
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Credit 3.1 Construction IAQ Management Plan: During Construction	1
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Credit 3.2 Construction IAQ Management Plan: Testing Before Occupancy	1
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Credit 4.1 Low-Emitting Materials: Adhesives & Sealants	1
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Credit 4.2 Low-Emitting Materials: Paints and Coating	1
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Credit 4.3 Low-Emitting Materials: Carpet	1

Source: LEED Building Rating System, CaGBC.

The green building has become one of the fastest growing and most preferred architectural design methods in recent years. There are currently hundreds of projects underway throughout North America, which seek the designation of a green building. Many different kinds of institutions, being corporate, educational, civil or residential are beginning to discover the vast benefits of green building design and implementation. Successful examples such as Oberlin College in Ohio, The City of White Rock’s Operations Building in British Columbia, and the Herman Miller plant in Michigan have proven that green buildings are very feasible in today’s society. The past decades have been characterized by a sharp increase in environmental concerns. Issues such as global climate change caused by fossil fuel consumption, and a growing inefficiency of water use can be partially associated with poor building design. On an economic standpoint, green buildings greatly reduce energy and water consumption, which inherently reduces the cost of production and living. KPMB, one of Canada’s largest architectural firms accents the growing market for green

buildings. One of the main cornerstones of KPMB's framework is based on sound environmental design.

SOCIAL DYNAMICS WITHIN A GREEN WORK ENVIRONMENT

As previously outlined, this study is principally focused on discussing social dynamics within green work environment. In order to conduct the study we developed a research question that formed the basis for our discussion and the foundation of this report. In particular we asked the following: How does one create a “green work environment” that encourages staff and students to socialize together in an effective, informal and productive manner?

The previous sections have looked specifically at the social theories and how they relate to the work place and green building theories and practices and why it is important to be environmentally conscious when building and/ or redeveloping in the 21st Century. However, is there a link between the social theories and the green building practices and if so how can they be applied in the specific development of the ES2.

In a society where students are spending longer periods of time studying and professionals are spending longer hours at work each day, socializing within the workplace is becoming increasingly important. As discussed by Berkhan (2000) it is this form of socializing that creates friend and support networks in future life. However it is where this interaction occurs that has the greatest relevance to this report. According to Nenonen (2004) fresh, open spaces are the most capable of promoting creative thoughts. This was reiterated in our interviews conducted between staff, students, administration members and maintenance staff who all noted that socializing was “very important” and that

there needed to be a space that was “open”, “well lit with natural light” and “well ventilated with fresh air wherever possible.” (personal communications, 2004) However, these suggestions are not just practical; they also fit with “green” thinking.

Green thinking in its simplest form is about building sensibly to minimize resource use and the impacts on the natural environment. If a space is well lit with natural light, open, which allows good ventilation and has access to fresh air wherever possible it is clearly minimizing resource use and meeting at least the basic standards outlined by green building organizations such as the USGBC and the CaGBC. According to LEED (Leadership in Energy and Environmental Design), which is a USGBC initiative, the most important factor in “shell or base core redevelopments”, which essentially means redeveloping existing buildings to make them green, is to “optimize operational building energy use.” (LEED, 2004) In the particular example of the ES2 proposal, it is “shell or base core redevelopment” because the development is occurring within the existing ES2 building. Similarly, if the LEED standards require open, well lit and well ventilated spaces to encourage minimal resource use and environmental impacts, they are also essentially encouraging opportune spaces for social interaction.

In addition, it was clearly suggested in a number of our interviews that a social space had to be “comfortable” in order to encourage use by staff and students and to promote thought and learning. If the physical materials used within such a space were both “green” and comfortable this would further develop the idea of encouraging social dynamics within a green work environment. Physical green materials could include recycled furniture, plants,

wall and ceiling colours and waste initiatives. All of the factors where described in our interviews as “ingredients” for a green social space but they are also suggestions outlined by the USGBC and the CaGBC for green developments. Furthermore, our research also discovered that examples of existing green buildings such as Oberlin College in Ohio, The City of White Rock’s Operations Building in British Columbia, and the Herman Miller plant in Michigan all incorporated green physical materials into their design to encourage social interaction and improve work place relations, similar to the purpose of this discussion.

From a practical perspective the question must then be asked: given the physical space limitations of the ES2 building, how do provide all the requirements of a university faculty, including offices and seminar rooms, as well as finding space for a usable, green social space that meet the ideals outlined previously throughout this report? Figure 1 is a sketch of the existing ES2 redevelopment proposal.

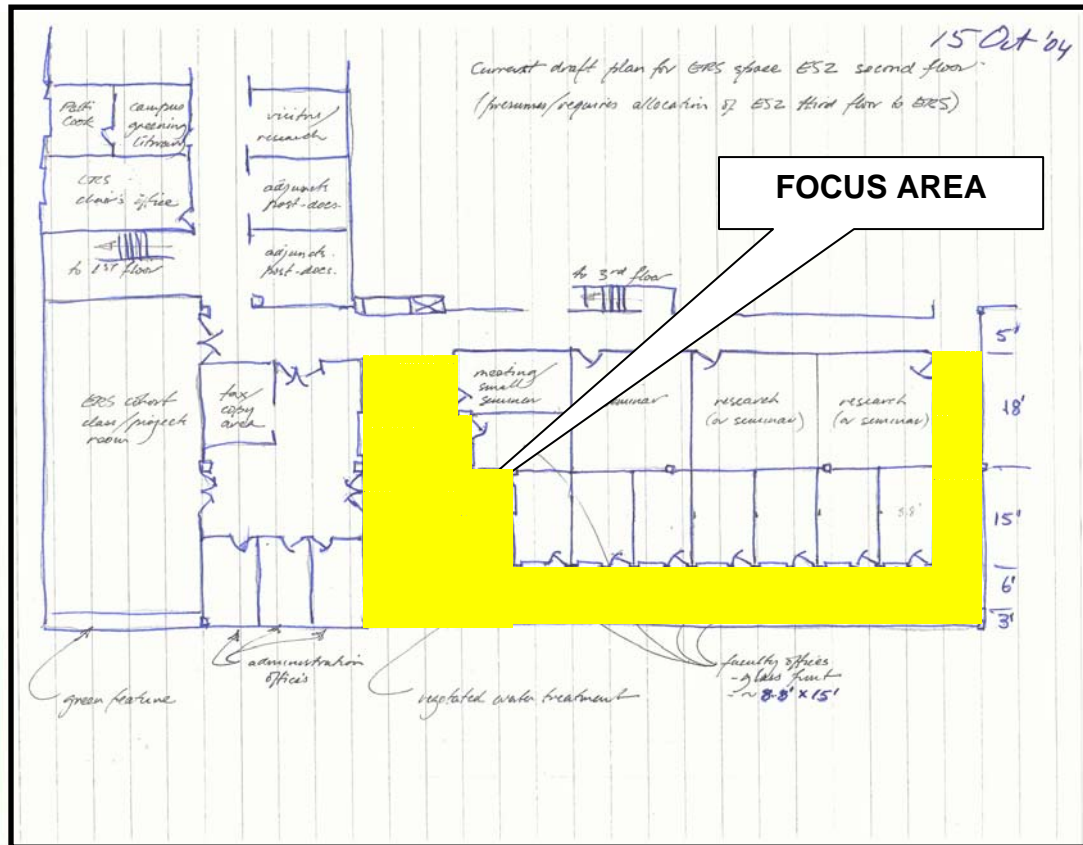


Figure 1 – Proposal for ES2 (15th Oct 2004)

Given the practical limitations of the ES2 redevelopment, our report came to the conclusion that the best way to provide a usable social space was to make the best use of the spaces that are otherwise used simply for transportation, such as the corridors and the foyer. Based on the proposed layout of the building outlined above in Figure 1 these conclusions were met for a number of reasons. Firstly, the location of the hallway and foyer along the windows allows for minimal use of natural resources because of natural light and access to fresh air. Secondly these spaces are not located along the main thoroughfare down the spine of the building ensuring that only ES faculty members and students that need to see faculty members are using these spaces. Thirdly, the physical elements included in these areas could include plants, and recycled furniture,

which are also important in terms of green building practices. Finally under the current proposal the hallway along the windows is large enough to allow room for comfortable benches or lounges outside each of the office to encourage students to and professors to socially interact, outside the formal office environment.

RESULTS AND ANALYSIS

Throughout the course of our research, many new ideas and thoughts sprung up as we further examined every aspect of our topic. We primarily began with the idea of the creation of “social spaces”. Our ideas were further strengthened through the use of a social audit, interviews with stakeholders, and literature pertaining to social theories and green building design methods.

We conducted several social audits to discover the amount of socializing currently occurring in the ERS wing of the ES1 building. We observed the amount of interaction that occurred between professors and students and where this interaction occurs. The majority of interaction occurred in the corridors as well as in professor’s offices. It was noted that there was a lack of a large open space where professors and student could converge to converse and socially interact with one another. The width of the current corridor also proved unbeneficial in the ease of movement throughout the wing. A lack of adequate waiting areas caused students to sit on the ground, which in turn impeded traffic throughout the corridor. The width of the corridor also increased noise associated with conversations taking place outside of offices.

The categories of subjects chosen in the interviews were Environment and Resource Studies professors and administration, Environment and Resource Studies students, and maintenance personnel. The selection of these individuals was based on the fact that they were all stakeholders in the future ES 2 development. They are essentially the ones who are going to benefit from this

proposal; therefore it was evident that their opinion be placed in high regard. The interviews were done in an informal manner. Questions were open-ended leaving much room for discussion. Specific concrete examples were emphasized to obtain the most in-depth results possible. This topic is one that would strongly affect individuals who use the building; therefore conducting the interviews in such a manner truly enhanced our findings. Personal input and opinions through discussion is often the best way to ensure that all stakeholders are being represented. Overall, our topic seemed to be of interest and rather appealing to all those interviewed. Many people felt that the current corridor which houses the professor’s offices, is dark and uninviting therefore reducing the effectiveness of the open-door policy.

The current space is cramped, cluttered and disorganized, which makes it hard to serve its purpose. One of the main areas of social interaction occurs within the corridors of the ERS wing. This interaction is important to the well being of not only the students and faculty members, but also to the creation and flow of new ideas between individuals. It became quite evident that both students and professors saw the importance of creating such space, which accented the need to create one. It was apparent that students and professors saw the limitations and disadvantages that were occurring, due to the design and placement their current establishment. Professors do not have sufficient space in their office to conduct a meeting with another individual, whether it is a student or other professors. They utilize the space between their door and the hallway, as a

meeting area. However the current the hallway is essentially not wide enough to offer a suitable space for interaction. Through the use of the interviews it became quite clear that many people had issues with the set up of the current space allotted for such interaction. Most individuals understood the importance of having such an area, which strengthened the notion that changes should be incorporated in the newly acquired ES 2 area.

When interviewing the students, we selected them based on the years in which they had been attending Waterloo. We interviewed a first year student, a third year student, and graduate student. While we were discussing how often they see their Profs for any questions or help, the first year student said once a month, the third year student said three times a month, and the graduate student said once a week. The graduate student also noted that it is academically important for her to visit her Profs, as questions can be answered and help can be provided. The first year student found that the current space was not inviting, and help, which could be offered by many of the Profs, was not evident. Not only is the open door policy a necessity to the social dynamics of such a place, but also reinforces encouragement and the idea that help is always there.

It was essential that both professors and students agreed that natural lighting was an important attribute to include in the future space. The proposal of having a large window outside of the offices seemed was endorsed among both parties. This would not only make the space feel alive and fresh, it would also allow natural lighting into the professor’s offices. This concept is rather important

as it is essentially a “green idea” as it would reduce the consumption of energy used by the professors to illuminate their offices. There would also be less of a demand in electricity by reducing the need to brighten the corridors. The idea of placing couches or small furniture in front of the windows was also accepted as an excellent idea. Social interaction outside of the formal office environment could be achieved by this installation. Couches would also offer a comfortable and relaxed area for reading while waiting for professors. The addition of couches was seen as an important addition to mitigate the possible intimidation of the surrounding environment. The peacefulness and relaxed atmosphere outside of offices would also have positive impact on professor productivity within their offices. Another idea that which promoted a green community was that of the addition of plant life. All of interview subjects agreed that plant life was beneficial in improving air quality, and environmental comfort. Concerns were however raised about limiting plants so as not to clutter corridors and lounge space. Plants should be placed in strategic locations as not to hinder movement throughout the corridors. Therefore too much of a good thing would be viewed as unbeneficial. The proposed idea of having student work posted on the walls was an idea that was both enthusiastically accepted and contested. Half of the interviewees found this to be an essential ingredient, while the other half felt that it was not necessary. Once again issues of clutter were brought up concerning improper placement, the major reason being that no one would stop to read them. Through discussion it became clear that the appropriate place for such

educational panels would be in the eastern corridor and the lounge. The eastern corridor was suggested due to the amount of wall space available and lack of furniture and plant life. The lounge was mentioned since these panels would promote discussion and environmental ingenuity. Both these locations reduced the risk of impacting movement throughout the corridors. An important observation by a graduate student was that the current ES 1 location was not very accessible to individual who are physically challenged. The dark narrow corridors make it difficult to maneuver a wheelchair. The current width also did not allow for adequate accessibility when the area was busy. This can be acknowledged as a safety concern. With the widening of corridors these problems would be mitigated. Accessibility is an important concern in today's society; future plans must acknowledge the needs of all individuals.

Other stakeholders that were interviewed included two maintenance personnel responsible for the upkeep of the ES buildings. We felt that these individuals were of importance as many of these plans, would be of related to their everyday work. Following our discussions, it became apparent that the addition of wider corridors would prove to increase work demands associated with cleaning floors. However the staff members agreed that it was very difficult and get all of their equipment in the current space allotted to ERS. Although the floor area would demand more time to clean, the interviewees demonstrated an understanding of the current needs that needed to be addressed. Overall, our proposal of wider corridors was viewed as a great idea and that any concerns

could easily be addressed.

While doing further research in the area, it became evident that socializing is of importance in a work environment. Many social theories have arisen to prove that improvements in the surrounding environment enhance morale, interaction and productivity. These social theories reiterated the notion, that creating this social space is vitally important in a growing department. The promotion of new ideas, delight, and satisfied workers were just some of the benefits associated with improved sustainable ergonomics. Social interaction makes a workplace more enjoyable, thus creating more camaraderie and cohesion within individuals. Consequently, it is not only essentially to the working environment to offers these social spaces, but also that all stakeholders are accounted for in the design process.

Our research concluded that the concept of creating social spaces within the future ES 2 location was strongly favoured among all subjects interviewed. Those interviewed showed much enthusiasm and provided helpful feedback on the proposed idea. It is therefore apparent that the proposed idea is praised and desired by all stakeholder of the future ES 2 location.

CONCLUSION

This report was focused on how to use social interaction to promote environmental thought. The main focus was on providing the ERS stakeholders with a social space in the new ES2 building. The notion was that this space would provide the staff, as well as students, with an arena for environmental discussions and the free flow of ideas. It was also hoped that this space would be useful to professors as a meeting area for informal conversations with students. Furthermore, this would be an area where students could gather together and exchange ideas, and learn from each other and professors in a relaxed and stimulating environment.

To begin, we first had to discover if there was a need for such a space. We conducted several social audits to discover the amount of socializing that occurs in the ERS wing of the ES1 building. We observed the amount of interaction that occurs between professors and students and where this interaction occurs. The majority of interaction occurred was in the formal environment of the professor’s offices, and there was a lack of a large open space where several professors could take their students to converse with at the same time. After interviewing several member of the staff, including professors, administration, and maintenance, and after discussing the issue with several students, it was in fact obvious that they all saw a need for a social space, and they were all in favor of creating one in the new ES2 building.

The research that was conducted for this report outlined the key ingredients of a space that would aid in promoting environmental thought and discussion. Mainly, it focused on the need for a fresh open space with natural

lighting and good air quality, a relaxed atmosphere, and a sense of comfort that would promote the sharing of ideas. Several professors agreed that such a space could inspire more environmental discussions, and promote greening the campus.

RECOMMENDATIONS

- **An expansion in the width of the main corridor. Corridor space in front of faculty member offices is currently used as an important social space. An expansion in the width of the corridor will aid in improving social interaction without hindering traffic throughout the corridor.**
- **The usage of small furniture in front of offices. The addition of small furniture will aid in providing a relaxed and informal environment, where students and faculty member interaction could take place. This addition should however be limited as not to impede traffic throughout the corridor.**
- **The addition of educational panels in the east corridor and lounge areas. Educational panels will aid in promoting environmental discussion, thus creating new ideas and ingenuity.**
- **The creation of an open concept lounge where students and faculty members can come together in an informal setting. Focus should be on the need for a fresh open space with natural lighting and good air quality, a relaxed atmosphere, and a sense of comfort that would promote the sharing of ideas.**

FURTHER RESEARCH

Research surrounding social interaction theories and social environments are complex in nature and alone present far too many complexities to be explored within a report such as this. While attempting an analysis of such theories and attempting to provide links between good social environments and green building practices and principles is noble in its intention, it is somewhat superficial unless explored far more thoroughly. As such this report hopes it provides a means for further research by the University of Waterloo’s WATgreen program and by future ERS 250 students.

While most WATgreen projects in the past have focused on the physical nature of greening the campus, this project will hopefully allow students in the future the further explore the social implications of WATgreen and the benefits it offers to the community as a whole.

Such projects could include a study into the success of any future social space in the redeveloped ES2 building. Such a study good evaluate the “greenness” of the space but also evaluate whether it was being used and if it could be improved.

Furthermore, future students could undertake a study of other faculties on campus where social interaction and the “open doors” policy is not as strongly encouraged as the ERS faculty. Such a study could look at how to develop an increase in green spaces that courage greater levels of interaction without reducing the productivity outputs of staff and students.

While it is acknowledged that our research was not very technical given the social nature of the subject it is hoped that it will provide a basis for future

projects that may be able to use our findings to explore the idea further and include a greater technical evidence to support the idea that green spaces can improve social dynamics and encourage greater levels of social interaction.

Once the ES2 redevelopment has occurred studies could look at how the space is being used, whether there is room for improvements and whether the desired social interaction is occurring between staff and students. Furthermore it could look at other opportunities to create friendly informal social spaces within other facilities which do not have a strong emphasis on the “open doors” policy noted by a number of the ES Facility staff members.

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APPENDIX

INTERVIEW RESULTS

Interview 1: Stephen Murphy (27/11/04)

How important is socializing in the workplace, is it more important because this is the ES faculty?

Very important
Provides a forum for informal discussions
Improves cohesiveness w/in the faculty and with students

What do you gain from socializing in the workplace?

Helps provide a vision for ES faculty
Promotes thought and interaction

How would you like to see socializing improved?

Need good areas to socialise
An informal consultation area is required in the new ES2 building
Such an area would need good lighting, natural lighting
Needs good architecture
Possibly a court yard feel. Large space

Do you feel you have sufficient space for socializing in the workplace?

No there is definitely a need for a better space in the new ES2 building

In the new ERS building, how important is it to have more space for socializing?

An informal space is definitely a requirement for the new area and it would definitely be used.

What are the ingredients/factors of a good social space, what would you like the space to entail?

Social spaces connected to greenery. Eg green wall, plants
Improved air quality
Better environment to think
R2000 windows, better ventilation

How could a social space be connected with 'greening the campus'?

Waste – What do you do with waste? A functional waste system is required.

Others requirements – Plants, windows, open area, ventilation, prompts for discussion (ie work on the walls)
visual expressions, organisation of space.
Better organisation of information on the walls

How many students do usually see in your office in one day?

Interaction occurs everyday between Prof and Profs and Profs and Students.

Interview 2: Paul Kay (27/11/04)

1. **How important is socializing in the workplace, is it more important because this is the ES faculty?**

Very important
The ES faculty values its “open doors” philosophy
“Creates community”

2. **What do you gain from socializing in the workplace?**

Stress Relief
Opportunity to get out of the office
“community”
makes it a good place to work
builds friendships

3. **How would you like to see socializing improved?**

A place needs to be provided where department members can gather and be comfortable
Warned of cliques

4. **Do you feel you have sufficient space for socializing in the workplace?**

No – need a Kitchen
Need a place where everybody can come together informally, students and staff alike
However, he was unsure if he wanted the space to be a place where students could gather on their own, he thought the space should be used at the discretion of the profs
Like a family lounge area
A comfortable community space – A green space.

5. **What are the ingredients/factors of a good social space, what would you like the space to entail?**

Good Air, Good Light
Comfortable
Easy to get in and out
Useable tables
As light and open as possible
A view
Did not really like the idea of information and student projects on the walls, wanted the space to be open and almost clutter free

6. **How could a social space be connected with ‘greening the campus’?**

green building materials
“feel better, work better” is greening in a broad sense
see Herman Millar example – The Street
provoke future research

7. **How many students do you usually see in your office in one day?**

A mix – some days lots of students, other days none.
Average 2 per day

8. Would you sacrifice personal space in an office in order to provide a better/ larger social space?

Willing to have a smaller office to encourage social interaction within the faculty, but only to an extent. Only if the social space was convenient and usable.

Interview 3: Greg Michelanko (27/11/04)

1. How important is socializing in the workplace, is it more important because this is the ES faculty?

Very important

The faculty is getting busier and busier and there it is required even more.
“learning community”

Evergreen State College – Washington

- Has a learning house for students and staff to hang out
- That is a “learning community” and this type of space is important

2. What do you gain from socializing in the workplace?

Morale

Informal meetings and discussions

“Open Office Policy”

Increasingly isolated - issue needs to be addressed

“creative loitering”

learning from each other

touched on the hierarchy that exists amongst the admin staff and profs

3. How would you like to see socializing improved?

A good central space

Comfortable and desirable furniture

Thought about encouraging far greater interaction

More emphasis on out of the class room learning

4. Do you feel you have sufficient space for socializing in the workplace?

Not currently – needs to be addressed

6. What are the ingredients/factors of a good social space, what would you like the space to entail?

Welcoming – Social – encouraging interaction

Must entice people to go there

Ensure flexibility

Characteristics of a good green space!

7. How could a social space be connected with ‘greening the campus’?

Natural light
Good air quality
View
Plants
Physical design as well as participatory issues

8. How many students do usually see in your office in one day?

A number students per day – Approx 6

Interview Results

Interviewed a series of three people, all of who were which students in the ERS program. We conducted all three interviews in the ES coffee shop, interviewing three students from various years. Instead of the conventional way of doing an interview, we had a discussion with our interviewees. In return we received great feedback and new ideas, and had not crossed our minds.

Interview 1- First year student (11/27/04)

- Very good idea
- Plants add to atmosphere
- The board with student work on it is a great idea- something to look at while you are waiting to be seen
- Currently the space is dark and cold
- Bigger space is definitely needed
- Promotes people to get involved
- Feels current space is uninviting- never visits her Profs- Once a month maybe
- Great idea!

Interview 2- Third Year Student

- Hallway is a good idea
- Currently the hallways are very small; the professors are always outside their office.
- The current offices are cluttered due to insufficient space for Profs
- Many Profs talk to students outside in doorway- Thus, creating less space in the hall for movement
- The hallway is extremely uninviting
- It is very dark and gloomy
- The use of having the windows on the Profs doors is a relatively bad idea, keep them the way they are
- Visit the Profs three times a month
- Don't make the new space too dark and cramped
- A good paint job is essential
- Couches in front of window great idea
- Plants are a good idea
- Another coffee shop wouldn't take away from the current one
- Great idea loved it- awesome to have an area that is easy to get to and it nice and open

Interview 3- Graduate Student

- Awesome I really like it
- Finds the idea of couches in front of the window to be an excellent idea. Thus, to facilitating a higher comfort level when talking or waiting for Profs
- More space would definitely promote socializing
- If using the window idea windows need to be double glaze energy efficient
- Light is very important- the walls should definitely be some colour, but it is important right now , it is very dark and gloomy
- The idea of the coffee shops good but might be too noisy for people and Profs trying to do work around the area.
- A quiet coffee shop would be nice
- Showcasing students work is an excellent idea
- Very important to our faculty and what it contains
- The window idea will definitely draw in some natural light
- The idea of having the window in the Profs door is an excellent idea
- Two things that make a good work environment is fresh air and natural sunlight
- Would like to see this implemented
- Less discrimination on the handicap, would make it more accessible.

Interview Results

Two maintenance crew responsible for maintaining the ES buildings

Interview 1

- Yes the current space is rather dark and gloomy
- small hard to manoeuvre equipment
- not spacious enough to have all of the cleaning materials necessary
- often very dirty
- would be a bigger area to clean, but I see your point

Interview 2

- Yes it is definitely not big enough for the amount of people
- very hard to clean
- I prefer not to clean it
- difficult to get supplies through the doors
- hard to use supplies in the small area
- A change would be good