

Unconventional research in a conventional practice, a case study

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ABSTRACT: The primary subject of this paper is a historically conventional architectural practice that has enjoyed success with clients and projects in the Midwest. Currently, the firm's demographics and practice are typical to the industry nationwide. New leadership have emphasized the necessity of research and invested in employee centered, professional, and academic programs. The board of directors has diligently developed and supported programs that foster productive partnerships with academia.

The research and professional development programs described below are not unique to this firm. I will explore the potential and realized value they bring to this mid-sized corporate architectural firm, their project work and their respective academic partners. The following programs will be subjected to analysis and critique: 1. Continuing Education: Programming supports traditional classroom learning as well as an in-house research fellowship offered to enable employees to engage in research as a project.; 2. University Endowment: The endowed position will offer studios and lectures that encourage collaborative learning between practicing and future designers interested in sustainable design in Cincinnati.; 3. Executive Education: the firm has hired Xavier University as a professional consultant. Xavier University offers professional services to private clients utilizing its academic resources in their School of Business.

Objective: This case study will measure the success of research and professional development programs in terms of firm recruitment, financial return, and improved professional culture. The case study will conclude with recommendations for improved and continued partnership between practice and the academy and how research can be comfortably situated within the confines of conventional practice.

Conference theme: Collaborative and interdisciplinary research, education, and design

Keywords: continuing education, research fellowship, endowment

INTRODUCTION

BHDP Architecture is a respected, financially successful, architecture firm, which would like very much to attract the best and brightest architects and interior designers and compete for challenging clients and projects, and improve profitability. The firm's demographics and practice are typical to the industry nationwide. Currently, BHDP's demographics are 29% architect and interior design interns, 41% Project Architects and Managers, 18% leadership, business development and management, 11% support, and 1% dedicated research. The 1% dedicated research finds himself more and more on project work and is dedicated to workplace market research. Only 50% firm's architectural staff are licensed and only 10% of the firm are LEED AP. Both low percentages of licensure and LEED credentials could prove problematic long term. Zweig White's 2009 AEC Industry Outlook reported in that nationwide firms

identified finding qualified staff and training staff as the most important business priority from 2005-2008. In 2009, the analysis reported that these priorities dropped to 3rd and 4th, falling behind the state of the economy. BHDP senior leadership acknowledge the necessity for research and employee training that benefits all markets and professional culture and have invested in employee centered, professional, and academic programs. Historically, BHDP Architecture has benefited from its proximity to the nationally recognized University of Cincinnati, School of Architecture and Interior Design but would like to also recruit nationally. In recent years, the Board of Directors have developed and supported programs that foster productive partnerships with academia; University of Cincinnati, Xavier University and Miami University. The research and professional development programs described in this paper are not unique to this firm, nationally, but are significant and unique compared to other firms in the region

1. FIRM HISTORY

1.1. Typical beginnings

BHDP Architecture was founded in 1937 as Woodward and Baxter. Future generations of owners renamed the firm as Baxter Hodell Donnelly Preston. Current firm markets grew out of early and long standing relationships with corporate and science and technology clients. BHDP Architecture has radically changed in the past ten years. In the late 90s, the long-standing practicing founders retired and an ownership transition occurred.

1.2 Planning for growth

Since 1996, the time of the recent ownership transition, BHDP experienced sustained growth in both revenue (from \$8M in 1996 to \$23M in 2007) and employees, expanding from 66 to 120 in three locations in 2007. In August of 2002, continued growth prompted a move to the Cincinnati downtown business district. The new office environment was intentionally designed to support collaborative work and includes support spaces for group learning activities and exhibit space. Since 2004, the new leadership's business planning and policies have focused on cultivating expertise to support project work in their markets as well as emphasize personal and professional development of employees.

1.3 Investing in Education and Research

In 2004, the board of directors formalized their commitment to professional development by establishing Baxter University; endorsing in-house continuing education with funding, resources, and dedicated time. Long term commitments include continued investments in an annual operating budget, human resources, continued direction and support for expanded programming, significant investments in technology that has improved communication, knowledge sharing and delivery of educational programs.

Secondly, the firm established the Carl Monzel Endowment in a partnership between University of Cincinnati, School of Architecture and Interior Design. The endowment has the potential to support research that benefits the Cincinnati architectural community at large and the firm. In a sense, the endowed professor could be a professional consultant to the profession. This endowment fund was established and developed in appreciation of, a deceased owner. BHDP established the endowment with a \$100,000 contribution and is working with the University to raise additional funds.

Thirdly, BHDP board of directors planned for and funded nine employees to participate in a leadership development program at Xavier University's School of Business. The \$110,000 investment included curriculum planning and classes throughout 2006 and 2007 for nine employees. The curriculum was designed to expose participants to a variety of business concepts that expand participant's business perspectives and leadership. The program is very

interactive with a variety of work assignments that challenge participants to apply concepts with their current work environment.

2. MODELS OF PRACTICE EDUCATION AND RESEARCH

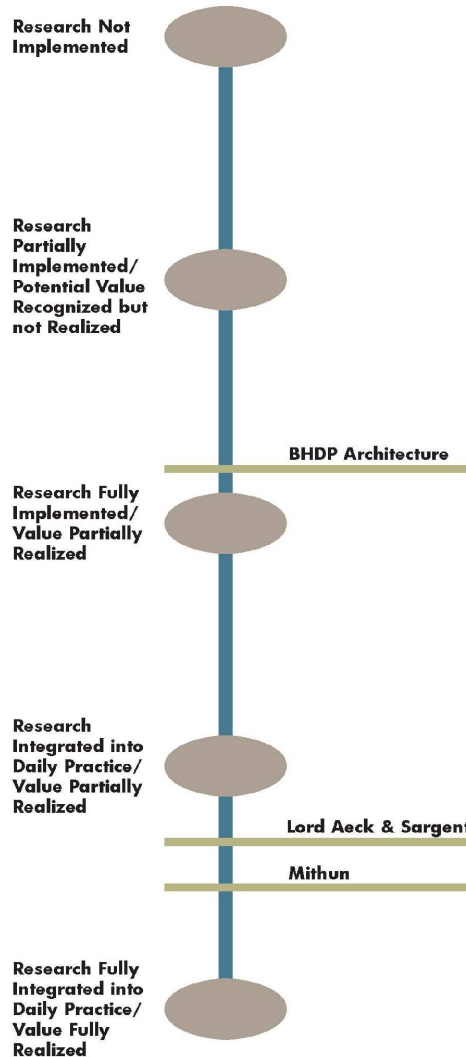


Figure 1: Research in architectural practice benchmarks

2.1. Value of Research

The value of research and educational investments can be measured by recruitment and retainment, financial return, and a dynamic and productive professional culture. BHDP, Mithun and Lord Aeck and Sargent all are working to distinguish themselves when competing for employees and projects and improve the long term

health of their business.

2.1. Mithun

"Mithun's mission is to inspire a sustainable world through leadership, innovation, and integrated design." (Mithun firm website) Mithun is a medium sized (<100 employees) practice with multiple offices, founded in 1949 by Omer Mithun. Mr. Mithun was actively engaged in practice and the academy throughout his career. They are a two time winner of the AIA/CES Award of Excellence, a national AIA award that recognizes their accomplishments as a teaching practice. Mithun uses their in-house continuing education programming to advance their understanding of building technology, energy and waste systems, and work processes.

Firm leadership, full time researchers, and project architects plan and direct all aspects of Mithuniversity. Mithun plans for \$400/per employee annually to support in-house educational programming. They also budget for employee time to support class development and in-house research. Programming includes lectures, project site visits, workshops, a visiting professor series, a distinguished speaker series, computer training, office design critiques, and webcasts.

Mithun also sponsors programs that go beyond the classroom and fund research and learning large and small. Their JDon Scholarships are small scholarships that nurture employee talents, not always specific to office markets. The Mithun Travel Research Trip is an annual tradition and is designed as architectural design research trips (international and domestic travel). The employees collectively deliver an in depth presentation or exhibit upon their return. Mithun also collaborates with public and private institutions outside the firm. Most recently, they collaborated with the Lady Bird Johnson Wildflower Center to develop and launch their Online Construction Carbon Calculator in 2007. The calculator is designed to assist designers, developers, owners and contractors to reduce the carbon footprint of their site engineering and development. Lastly, The Omer Mithun Foundation endowed a Professor in Sustainability at University of Washington for a three year term. Steve Kieren, James Timberlake, and KieranTimberlake employees have lead multi-disciplinary studios and seminars that have actively linked the College of Architecture and Urban Planning with the work of other University of Washington Colleges. There was also a public lecture.

Research and education are fundamental to Mithun's practice. Research, education, and project work all contribute to the firm's profitability and credibility.

2.2 Lord Aeck and Sargent

Our mission is to provide innovative, responsive design - coupled with cutting-edge technological expertise and exceptional service to our clients. (Lord Aeck and Sargent, firm website)

Lord Aeck & Sargent is a mid-sized firm with three

offices. All the design studios in the firm and leadership are fully engaged with their in-house continuing education program. Participation is mandatory and considered in employee evaluations, promotions, and compensation. In 2007, the firm won the AIA/CES Award of Excellence.

The firm's continuing education goal is to offer a solid continuing education program that benefits all employees and strengthens profitability by supporting design, technological expertise, and exceptional service. The firm established LASU in 1993 and have over time have built a program that now offers over 150 classes a year. This amounts to 12.5 classes a month across three offices. LASU is managed and directed by a six member board of advisors that includes the Manager of Professional Development, the Human Resources Manager, and four Principals, two of whom have been adjunct faculty at the college and university level.

The courses are presented to all three offices in a wide variety of formats including lectures, interactive roundtable discussions, user groups, project/construction site tours, and online as well as instructor-led interactive computer-based courses. Most classes are taught by internal staff experts, and all firm principals are required to develop and deliver classes annually. Classes are also taught by external experts, consultants, as well as Deans and Professors from major universities, fire marshals, engineers, code experts, and professionals from public agencies. The LASU curriculum consists of several topic categories, including: Core programs (mandatory for all employees); Design courses; Process oriented programs; Building Technology courses; Leadership classes; and Tools.

As a direct result of education investments, Lord Aeck and Sargent has reduced project errors and omissions to less than 1%, reported no project insurance claims in 2006 and 2007, and positioned themselves as an employee of choice at all three of their offices.

3. BHDP ARCHITECTURE PRACTICE EDUCATION AND RESEARCH

In 2002, BHDP took advantage of a necessary move to design their workplace as a means to redefine their workplace culture. The layout situates project work rooms at the center of the space with work stations grouped along the perimeter. The finished space displays many components of a work environment that in turn supports the demands of group presentations and exhibits. The office space is used to educate clients about bhdp project work, design, and work processes.

The workspace accommodates individual work, small and large group interaction and a customized intranet workspace that supports the exchange, archiving, and delivery of information across three separate offices. This virtual workspace has connected three offices, supported communication about educational programs, organized project and sales data and archived class/research materials.

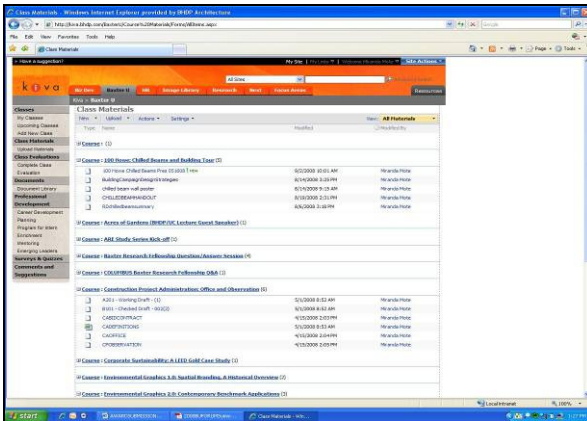


Figure 2: Flexible office environment, open project and lecture rooms, web based intranet archive and communication tool

3.1. Workplace Team Collaborative Research

BHDP's research initiatives help us to respond to the challenges faced by our clients, through understanding workplace trends and "the workplace of the future". We are a knowledge and innovation-driven company because of our desire to better understand and serve our clients, and we will continue to investigate best practices through ongoing research efforts and strategic research relationships. (BHDP, 2009)

The above quotation summarizes how BHDP markets its past and desired research efforts and exposes their underlying motivations; service to clients, sophisticated and meaningful solutions for clients, and improved

profitability. In 2003, BHDP Architecture funded a research grant with MIT's Department of Architecture and Planning to study the relationship between workplace culture, personal competencies and the design of the workplace. The study focused on one BHDP client and was based on observation, interviews and experimentation. The goal was to develop processes or tools that can be used in the design of the workplace based on the cultural assessment process.

These tools are used to improve and expand pre-design services to workplace clients. Since 2003 and this project, the workplace team has increased their net revenue by 50%.

3.2. Summary of Resource and Educational Investments

The BHDP intra-office intranet platform has been fully implemented at a cost of \$975/per employee. Most Baxter University classes and in-house lectures are delivered to all three offices via video conferencing. The Baxter University annual operating budget spends \$220/per employee. 2007 analysis revealed that participation totalled 1147 class time hours, with an average of 8.9 hours per employee; 86% of employees participated across three offices. 40% of BHDP employees were instructors or facilitated a guest speaker, some teaching multiple times. 50% of BHDP Senior Leadership taught or facilitated a Baxter University class.

Given the range of offerings, participation is weak. All BHDP leadership are not fully engaged as teachers or participants. At times some of the leadership questions the value of education and dialogue. The firm also does not promote or communicate information about in-house or public lectures in recruitment material, on the firm website, or in general marketing material.



Figure 3: Baxteru marketing of public lectures (BHDP, 2006)

3.3. Public Lectures

Baxter University plans for at least three public lectures a year. In the past, the lectures were primarily sponsored in Cincinnati, Ohio and catered to the Cincinnati professional community and University of

Cincinnati students and faculty. University of Cincinnati/BHDP Lectures have supported nationally recognized guest speakers, architects, and designers. In October 2007 the guest speaker, BHDP, and UC, SAID graduate students curated a public exhibit that complemented the Fall 2007 lecture. Beginning in 2009, the firm expanded its sponsorship to Miami University and AIA Cincinnati. Speakers and topics for all lectures are selected based on their practical and theoretical application and appeal to academia and practice. Most public lectures are offered at BHDP over lunch and again delivered to the public, students, and faculty the same afternoon. Most public lecture materials, presentations, handouts, and supplemental reading are archived for future reference on BHDP's office intranet, Kiva. After the first lecture bhdp saw a dramatic increase in employment inquiries from students and young professionals. Bhdp has been participating in University of Cincinnati's co-op program for 30 years. On average the firm would attract six students a year. In the Spring of 2007, bhdp interviewed and hired twelve highly qualified graduate students.

Past Lectures have been about built projects, speculative work, project delivery methods, innovative contractual relationships, building technology, advanced material technology, and design. Speakers are usually engaged in practice and the academy. The first of this series hosted the Director of Sustainability at Buro Happold in New York, New York. The lecture and seminar was intended to educate the office about key design and business strategies that support innovative and energy efficient design solutions. BHDP clients, consultants, employees, and University of Cincinnati graduate students attended. This lecture established a relationship with University of Cincinnati. After this lecture, BHDP and UC's Director of the Graduate Program worked together to select speakers and topics.

The February 2009 lecture hosted Marlon Blackwell and also successfully engaged University of Cincinnati, Miami University, and AIA Cincinnati. All three organizations participated in the lecture planning and enjoyed the benefits of direct contact with the guest speaker. Bhdp and University of Cincinnati are now planning their eighth lecture for October 2009.

3.4. Internal Educational Programs

The Baxter University curriculum is designed and led by key bhdp employees. These individuals are considered experts in the office. The core purpose of baxteru is to deliver resources that define quality and consistency and support a critical dialogue across project teams and offices. The basic curriculum addresses leadership development, research, professional outreach, sustainability, project delivery, the built environment, communications, BIM, strategic services, professional registration. All class materials, presentations, handouts, and supplemental reading are archived for future reference on BHDP's office intranet, Kiva.

In 2008, baxteru leadership analyzed professional registration at bhdp architecture. This analysis revealed that 50% of bhdp's architectural staff was not licensed. Less than 10% of this group was actively preparing for the ARE and reporting to IDP. Long term this could be detrimental to the employees and the firm. Lack of licensure directly effects project billing and profitability and the employees' long term earning potential. The 2009 baxteru budget planned for an ARE 4.0 study series, purchased ARE study materials, and established a schedule for all eligible employees to sit for all seven of the ARE 4.0 sections in fifteen months. Baxteru will track participation and success. Participating employees will be held accountable for their participation in 2009 when bonuses and compensation are considered by the bhdp board of directors.

Also in 2008, baxteru leadership analyzed employee LEED registration at bhdp. Analysis revealed that only 10% of the firm was LEED APs. Of this group only two owners were LEED APs and knowledgeable about the process and its impact on project processes and profitability. Baxteru leadership worked directly with the CEO and the office sustainability expert to develop a program that would support and encourage employees to prepare for and take the LEED NC and CI exams by May 2009. The 2009 baxteru budget planned for study material and four in-house educational programs that would support employees preparing for the exam. Forty-four employees agreed to participate and take the exam. Like with the ARE, Baxteru will track participation and success and participating employees will be held accountable for their participation in 2009 when bonuses and compensation are considered by the BHDP board of directors. If all forty-four are successful, 59% of the firm will be LEED APs. This dramatic jump and continued education could improve project and office profitability, credibility, and improve project quality.

The baxteru leadership team is focused on delivering education and resources that will improve project quality and define effective work processes across all teams and offices. It is clear that bhdp's rapid growth has contributed to a decline in project quality and consistency that in turn threatens firm profitability. Long term, baxteru wants to be the umbrella for all bhdp research, standards, and education that supports project work, employee development and unifies the office.

3.5. In-house Research Fellowship

Within the confines of conventional practice one way to facilitate architectural research is to treat it as a project, BHDP being the client that pays for the research and demands a deliverable within a timeframe. The research fellowship is funded through and managed by Baxter University, hence the name, the Baxter Research fellowship. Baxter University advertised a request for research proposals in August of 2008.



Baxter University requests creative proposals that investigate design, technology, and practice as they relate to architecture and interior design. (BHDP, 2008)

The program's primary objective is to support meaningful research by BHDP employees; enabling individuals to engage in a concentrated research effort and investigate its application to the profession, BHDP and the greater community. The award includes \$3500 and three weeks (120 hours) paid time to conduct research and prepare a deliverable. Any employee is eligible to submit a proposal. A total of 8 proposals were submitted for consideration in September 2008.



The firm thought it necessary to include an outside expert, the firm's CEO, and a member of the Baxter leadership on the selection committee. Baxter University also funds expenses and speaking fee for the guest member to lecture at the office following the selection of the winning proposal.



BHDP Architecture recently awarded the 2008 Baxter Research Fellowship to Amy Hood. Ms. Hood's proposal, "Lessons From the Sustainable Pacific Northwest" leverages existing infrastructure already in place at BHDP, couples a critical examination of the professional culture of a region with the development of a mechanism for information sharing within BHDP. The project will build a sustainable building toolkit; an online, user friendly, catalogue of information useful to BHDP architects, interior designers, and clients. Ms. Hood will travel to Seattle, Portland, and Chicago to investigate the Green Building Program, visit several cutting edge buildings, and interview users, engineers, and architects.

Staying abreast of current and relevant green technologies is a challenge. Each entry into the building toolkit will be assigned descriptive key words so that project managers and architects can search ideas and see multiple examples of solutions and images for project planning and design. (Hood, 2008)



The fellowship will be awarded on an annual basis to a BHDP associate who will use the fellowship to "thoughtfully and creatively investigate knowledge and solutions that would directly benefit BHDP and our clients," said Mike Habel, CEO of BHDP Architecture.

3.6. University Endowment

In 2004, BHDP established the Carl Monzel Endowment. The endowment will provide support for one quarter of teaching, lectures and workshops including a studio taught at DAAP, potentially multi-disciplinary. The studio may include participation from members of the Cincinnati architecture community who will be involved in workshops led by the endowed professor. The endowment recipient will also be the keynote speaker at an annual sustainable design symposium.

Figure 4: in-house lectures, in-house and public exhibits, student enrichment as a result of BHDP sponsorship, public lectures marketed to professionals and students (BHDP, 2004-2009)

Q & A Session
18 August, 2008, 12:30 pm

Proposals due
1 September, 2008, 5:00 pm
1 electronic and 3 hard copies to Miranda Mohr

Winner Announced
8 September, 2008

Baxter Research Fellowship 2008
Baxter University requests creative proposals that investigate design, technology, and practice as they relate to architecture and interior design. Fellowship projects may follow a variety of paths; from pure research reflecting on current professional issues and challenges, to practical research involving projects designed to have specific results. Examples of eligible activities include time to visit and study innovative design and practices that could be applied at BHDP; collaborations with other professionals to develop knowledge and skills specific to design and technology; or research and writing on a specified topic. The award will support time, travel, lodging, materials, and other relevant needs. The Fellowship is intended to promote dissemination and application of ideas at BHDP.

Objective
Support meaningful research by BHDP employees: enabling individuals to engage in a concentrated research effort and investigate its application to the profession, BHDP and the greater community.

Award
Time: Up to 3 weeks dedicated office time, depending on proposal.
Funds: \$3500 distributed as an expense reimbursement

Deliverables
•Baxter U class (delivered to Cincinnati, Columbus, and Raleigh)
•A book that documents in detail all aspects of research; book will be archived through Baxter U.

Application Process
4 Page maximum Proposal that clearly outlines the following: Nature of research, objectives and the project's impact on practice at BHDP and the profession as a whole; a workshop for the fellows; including a timetable and any necessary travel, plans for dissemination of the project results, a budget that describes how the funds will be used, and a letter of support from an BHDP colleague or mentor.

Selection Process
Selection Committee includes: 1) Habel Baxter U Committee member, and 2) Professionals from outside BHDP. Applicants may be asked to submit further information or to speak with the selection committee. The Baxter Research Fellowship selection committee reserves the right to approve the fellowship at its sole discretion.

Eligibility
Any BHDP employee: Employee must be able to demonstrate commitment to deliver research and any related materials by March 31, 2009. Baxter U Advisory Committee and Baxter Research Fellowship Selection Committee members are not eligible.

XAVIER
BHDP Architecture | Cincinnati | Columbus | Research Triangle Park

PROJECT IMPACT:
The main goal of this research would be to make an easier platform for BHDP to share information using the knowledge learned from two highly advanced green cities. I have been involved in numerous discussions where time and again the issue of making a single place for "green information" is addressed. Managers are constantly looking for a tool they can use to present sustainable design to their clients, team members continuously re-research technologies and materials already researched by someone just a few seats away. By fully embracing the tools we already have in place, example: Kiva, we could over time build an extremely in depth discussion and learning tool for sustainable design. Each entry into the toolkit would be equip with descriptive key words so that searching specific ideas would be easy and result in multiple examples, solutions and images. Information entry into the toolkit could be done by any employee by using the templates provided. Employees would be encouraged to share any information they have gathered from previous projects, current projects and their personal travels.

SCHEDULE:
A more detail schedule can be found on the following pages describing an initial week for preparation, final itinerary adjustments, Kiva internet template set-up, information gathering on sites to be visited, and confirmation of firm/special site visits (set up in the month prior). The second week is allotted as travel time (Saturday to Saturday) from Cincinnati to Seattle. Saturday to Tuesday is initially shown as time in Seattle with Wednesday through Saturday in Portland. The final week is reserved for information off-loading (uploading case studies / technical information to Kiva), image processing and uploading, Baxter U course preparation time, and consolidation of the documentation book. Due to the time frame in which this research is to be complete, I am proposing travel and time to be spent in late February / early March in an attempt to miss as much of the winter season as possible while still completing research on time. This is however variable.

This proposal is obviously not a complete package after the three week time period. Time will be spent prior to departure gathering information and contacting highly successful green firms such as Mirum, Malham, Callison, and Miller Hull just to name a few, in an attempt to set up personal interviews and/or site visits. These firms have made a name for themselves in terms of aesthetics, quality, and environmentally minded architecture and would offer a great wealth of knowledge to this endeavor. The time spent during the three weeks will be focused heavily on perfecting the templates and online interface through Kiva for the Sustainable Building Toolkit. To make this successful it must be clear, user friendly, and outlined well so that anyone in the office can use it.

SEASIDE-OR SEASIDE CITY HALL SEATTLE WA PIERRE HAVELIN SEATTLE WA SEASIDE BLOCKS PORTLAND OR FIRE ST PORTLAND OR

Figure 4: Baxter Research Fellowship program advertisement + guest speaker and selection committee member + employee generated research = measurable results to be determined (BHDP, 2008; Hood, 2008)

The "Monzel Scholar" will be a rotating, one-quarter teaching position that will include: Lectures and workshops for practitioners in Cincinnati, as well as students and faculty from the University of Cincinnati; collaborative learning between practicing and future designers interested in sustainable design; and an annual symposium on sustainable design issues.

Carl Monzel Endowment is an example of how firms can direct and support practical research in the

academy and attract sophisticated professionals to the Cincinnati region. The program has been partially funded by BHDP. University of Cincinnati and BHDP are raising additional funds to fund the position indefinitely. Given the endowment is not fully funded, value has not been realized. This is unfortunate for both bhdp and the financially strained School of Architecture and Interior Design. This endowment represents a source of revenue and resources that could directly benefit students and bhdp employees. It could also be used to attract and retain employees and students in Cincinnati.

3.7. Executive Leadership Education

In 2006, BHDP hired Xavier University's Leadership Center to design and deliver an educational curriculum for a select group of employees. Nine bhdp employees spent over 500 hours in a classroom with Xavier University, School of Business faculty. The basic curriculum addressed leadership, team building, emotional intelligence, communication, business strategies, process improvement, and business strategy implementation. Instruction included reading assignments, case studies, instructional presentations, assignments, discussion, and in class exercises. One such class, Designing and Delivering Powerful Presentations required the individuals to use information learned from their experience and the class material to deliver a sales presentation.

The Xavier University Leadership Center markets themselves regionally and has helped many companies with customized programs like emerging leader as well as programs that address business communications, process and product management. The executive director, Len Brzozowski, is a former business consultant, argues that Xavier's program strength is that they aren't selling a solution, but helping their clients find their own solutions.

4. CRITIQUE AND RECOMMENDATIONS

4.1. Critique

All the basic parts of a research based practice are in place: educational programs, a research fellowship, market based research initiatives, and sponsorship of academic teaching and research. Most of these programs and initiatives are young and not fully integrated across all offices and teams. In addition, 100% of the senior leadership are not actively engaged with Baxter University programming as instructors and attendees. Only 50% of leadership taught or facilitated an educational program.

Baxter University could in fact bind all research efforts together by offering an active venue to share knowledge and engage in debate. In the past, most programming tended to react to current project work and to those employees willing to take the time to prepare a presentation. Recently, Baxteru has reorganized its leadership and curriculum. Baxteru is striving to inform a proactive debate about design, project delivery, and building technology. Baxteru will continue to support and encourage research that

informs projects, client and consultant relationships. At this time bhdp is just beginning to leverage sponsored lectures, the Baxter Research Fellowship, workplace research to benefit the firm as a whole. Once the Baxter Research fellowship is established, the goal is to use the research to generate original material and knowledge that informs project quality and client relationships. This original research could be shared through public and internal presentations, exhibits, and through the office intranet.

4.2. A shift to proactive research and learning

The BHDP leadership and employees need to proactively engage internal and external opportunities with critical and decisive motivations. Only then will research define and improve project quality and content. Not far behind is a long term financial benefit. Lord Aeck and Sargent have been building their programs for over ten years, and Mithun for over fifty years. This shift will take time and requires the unified commitment of bhdp ownership and management.

Baxteru leadership and employees need to ensure that the research fellowship delivers research through a variety of means; exhibits, presentations. Management needs to advocate its continued application in daily practice. This process should continue year after year, building on the momentum and success of previous fellowships. Constructing the fellowship as a project allows young staff to engage with and interact with professionals outside the firm. This external engagement should be actively maintained and used to build relationships for potential future projects and consultants.

BHDP should be more aggressive and engage students in their studio at student reviews and exhibits. It is possible that the Carl Monzel Endowment, once fully implemented will activate this relationship.

The firm should also benchmark other models of research based practice. Other models like NCARB Prize winners, the AIA Latrobe Fellowship, product industry research programs, as well as client based research programs.

As an alternative to passive lectures, BHDP should also consider utilizing invited experts as project critics, and ask them to offer detailed seminars to a select group of employees. So the firm can extract more detailed knowledge from guests and most importantly, open themselves up to critique. Firm leadership should explore the possibility of collaborating with expert speakers for an exhibit that displays complementary ideas and projects. They should also consider designing lecture series to inform potential and past research fellowship proposals. Bhdp should continue to invite clients and consultants to attend public and internal lectures to build a long-standing relationship and continue to advertize the public programs to the Cincinnati community at large.

Value from these investments in education, research, and employee development can only be realized if all firm leadership support and engage in all aspects programming and planning, demanding a return on their investment. Without this collective authority and advocacy, returns will continue to be modest. Zero error and omissions on projects, low employee turnover, and choice projects are dollars in the firm's pockets.

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