

OVERVIEW & INTRODUCTION

Current Challenges for Patterns, Pattern Languages & Sustainability

by Hajo Neis

Associate Professor, Director of PUARL, University of Oregon Portland

Welcome to the Symposium

Ladies and Gentlemen, Pattern Language authors, honored guests, and friends,

Welcome to the Fall 2009 International PUARL Symposium in Portland. I am extremely happy that you all made it to Portland, Oregon to discuss “Current Challenges for Patterns, Pattern Language and Sustainability.” It is a particular pleasure for me to welcome participants who made it from abroad, from Europe, the Middle East, Far East and even Australia, as well as from many cities and universities in the U.S. My name is Hajo Neis and I am your host together with Professor Howard Davis. I am a professor of architecture here at the University of Oregon in Portland, and I am also the director of the Portland Urban Architecture Research Laboratory or PUARL. Before I come to the main event of the evening and introduce our guests of honor, I would like to make some preliminary remarks that will help us to better understand the symposium agenda, its main purpose and what we expect from the symposium.

PUARL: THE PORTLAND URBAN ARCHITECTURE RESEARCH LABORATORY

Let me first introduce PUARL or the Portland Urban Architecture Research Laboratory. We are hosting this event because in PUARL we have made it a goal to take an active role in research on the topic of patterns and pattern languages. We started PUARL as a research arm of the Portland Urban Architecture Program in 2007 while in our previous university home downtown. With the opening of the new and much larger facilities here at the White Stag in the Fall of 2008, we were able to extend the mission of PUARL with space allocated to PUARL activities that include teaching as well as research.

In the spring of this year we successfully completed our first symposium and introduced the new Portland Urban Architecture Research Laboratory PUARL, to the Portland and Oregon community as well as to selected audiences and advisors from universities along the West Coast States of

Washington, California and Oregon. Here is a short overview of what we do and research:

“The main purpose of PUARL is to conduct and promote activities in urban architecture research and urban design research: We attempt to integrate quality and sustainability into the architectural and urban design process by conducting basic and applied research throughout the Portland region (and also other parts of the nation and the world) in urban morphology, urban building typologies, and urban processes for civic groups, public agencies, professional firms, and development interests.” (puarl.uoregon.edu, 2009) We focus on and emphasize four to five major areas of research.

URBAN MORPHOLOGY & URBAN PATTERNS

We investigate urban morphological structures and urban patterns that enhance sustainability and environmental quality at the urban scale, including street networks, block and neighborhood layouts, transportation and land use systems, and urban landscapes. The Portland Urban Atlas Project can be referred to as an example in this category. (Portland Urban Architecture Atlas, see: puarl.uoregon.edu)



Figure 1: The White Stag Block, Portland, OR; Home of the University of Oregon's Portland Urban Facilities and the PUARL, the White Stag Block is a LEED Gold-rated project.

URBAN BUILDING TYPOLOGIES & BUILDING PATTERNS

We investigate building types and building patterns that contribute to greater densities and decreased vehicle use with a focus on urban housing, mixed-use buildings, and other typologies located in the central city, inner city neighborhoods, and at the urban/rural boundary. The City of Tigard Downtown Vision and Improvement Study can be mentioned here as an example. (Tigard Downtown Future Vision. PUARL-University of Oregon and City of Tigard, 2009)

URBAN DESIGN PROCESS & GENERATIVE PROCESSES

We investigate processes that enhance our understanding of the emerging structure of the city and help us create buildings and urban places in an incremental and participatory manner in support of urban sustainability. The University of Oregon Campus User and Pattern Language Design Process should be mentioned here as well as the design and building of these very new facilities here in Portland we are using for this symposium that were designed with the help of pattern development. (Hajo Neis, Christine Theodoropoulos and Rob Thallon, 2007; Campus Plan, University of Oregon, 2005)

URBAN ECOLOGY AND URBAN LANDSCAPES

We investigate landscape and ecological systems and processes, and ways in which these can inform and enhance urban structure, and function, at the building or site, neighborhood and city scales. Here I can refer to a current study of an urban corridor in the Portland Metropolitan area that we are working on with the City of Tigard and also I can refer to the design of the University of Oregon Portland buildings. (Tigard 99W Corridor – Pacific Highway to a Sustainable Future. PUARL - University of Oregon and City of Tigard (forthcoming 2010); pdx.uoregon.edu/leed/index.html)

QUALITY OF STRUCTURE AND PROCESS

Overall, we are very much paying attention to the quality of the urban structure: buildings, gardens, streets, and parks. And of course, we as designers are even more interested in the processes that shape these environmental elements and give them their quality.¹

These qualitative issues are important to all of us, and they lead us right to the topic of Patterns and Pattern Languages: their origin, purpose, meaning and applications; as well as current challenges, because patterns and pattern



Figure 2: Wurster Hall, Berkeley, CA; Home of the University of California's College for Environmental Design.

languages have been developed with a particular quality of life in mind. One version of this quality has extensively been described in a book by Chris Alexander called "The Timeless Way of Building." (Alexander, 1979).

The question of quality remains a central issue in the work and application of patterns and pattern languages that will be discussed here in this symposium.

What are current challenges for patterns, pattern languages and sustainability?

Why do we focus on this topic?

Let me shift to the key question and main topic of this conference.

What are current challenges for patterns, pattern language, and sustainability, and why are we focusing on this topic? While some interested colleagues and students who understand and believe in the significance of the issues involved, have supported this topic from the beginning, others have asked why to focus on this topic at this time, and some more critical voices have asked me why to focus on this topic at all. Here I will offer some initial answers to these questions:

First of all, work on patterns and pattern language is going on all the time world-wide and has been continuing unabated since their inception in the early 1970's. One of our current projects in PUARL is to develop and add to a pattern and pattern language repository for research since pattern languages have become a staple of design and development projects in most parts of the world. Many architects, planners, urban designers and community developers in the US and world-wide are using patterns and pattern languages for projects in architecture and urban planning but patterns are

also applied in many other fields and disciplines. With this conference, we will try to contribute to an understanding of what is going on in the practical world of pattern language application within our field of architecture, urban design and planning, and we will also try to begin to understand what is going on in other disciplines that work with patterns.

Second, it is worthwhile to note that the master plan for the Campus of the University of Oregon in Eugene is a perfect example of a pattern planning procedure and has been followed by this university for more than 35 years now, based on the original publication and plan called “The Oregon Experiment.” (Alexander et al, 1975) Chris Ramey, chief planner of the University of Oregon, as well as architects from professional architecture offices mostly in Portland, will report about their work in this area tomorrow morning. Also, a Pattern Language project is being worked on right now within the larger Portland Metropolitan area in the City of Milwaukie involving Christopher Alexander, one of the original authors of the Pattern Language. Kenny Asher, the Community Development Director of the City of Milwaukie, will report about this work tomorrow morning. Many of the contributions in this conference are focused on pattern practice and application.

Third, a considerable amount of research and development is being conducted internationally in this area of investigation and theory that is worthwhile to discuss and try to understand. For example, the German Journal Arch+ recently published an entire issue focusing on patterns. (Arch+189, Zeitschrift fuer Staedtebau und Architektur, October 2008) Also, a new edition of A Pattern Language published in Polish verifies the international growth of interest in the pattern theory.

Fourth, with the current emphasis and necessary focus on sustainability and ecology, qualitative standards

such as patterns and pattern languages have gained greater relevance once again. Since the beginning of the 21st century, the close intellectual and practical connections of these fields to pattern language theory are being newly explored. The field and discipline of patterns and pattern languages is being rejuvenated and has reemerged as an important element of architecture and urban design because of a very close and critical relationship with the notion of sustainability. Some people have argued that the original patterns had been developed as sustainable elements but without explicitly using the language of sustainability because it was not really used at the time. Stuart Cowan and others will report about patterns and sustainability and conservation economy tomorrow afternoon.²

Fifth, while we can observe and participate in a large number of design, planning, and research activities relating to patterns and pattern language, there is no longer an academic university center that focuses on this work, keeps record of new work that is going on in the world, and intellectually and practically helps to continue to study and evolve this theory. Chris Alexander with patternlanguage.com and with the Center for Environmental Structure, as well as private offices such as the office of Murray Silverstein and Max Jacobson continue the work, but since the demise of the Pattern Language approach at the University of California in Berkeley 10 years ago, there is no university home that carries on this work in a comprehensive and organized fashion with new ideas and research activities.

I might also add, in addition to finding pattern theory useful and exciting, we also focus on this topic because we have the intellectual heritage and manpower at the University of Oregon to actually pursue such investigation and research. We have a number of faculty members with connections to Berkeley and the Center for Environmental Structure. We also have faculty members that have independently included patterns as part of their approach to architecture and urbanism.

As I have shown, there are plenty of reasons why we want to focus on the topic of current challenges for patterns and pattern languages in this symposium, and there are obviously more reasons than only intellectual curiosity.

Participating Organizations

It is important to introduce the participating and key organizations in this field and in this symposium, such as the well-known Center for Environmental Structure or CES, and

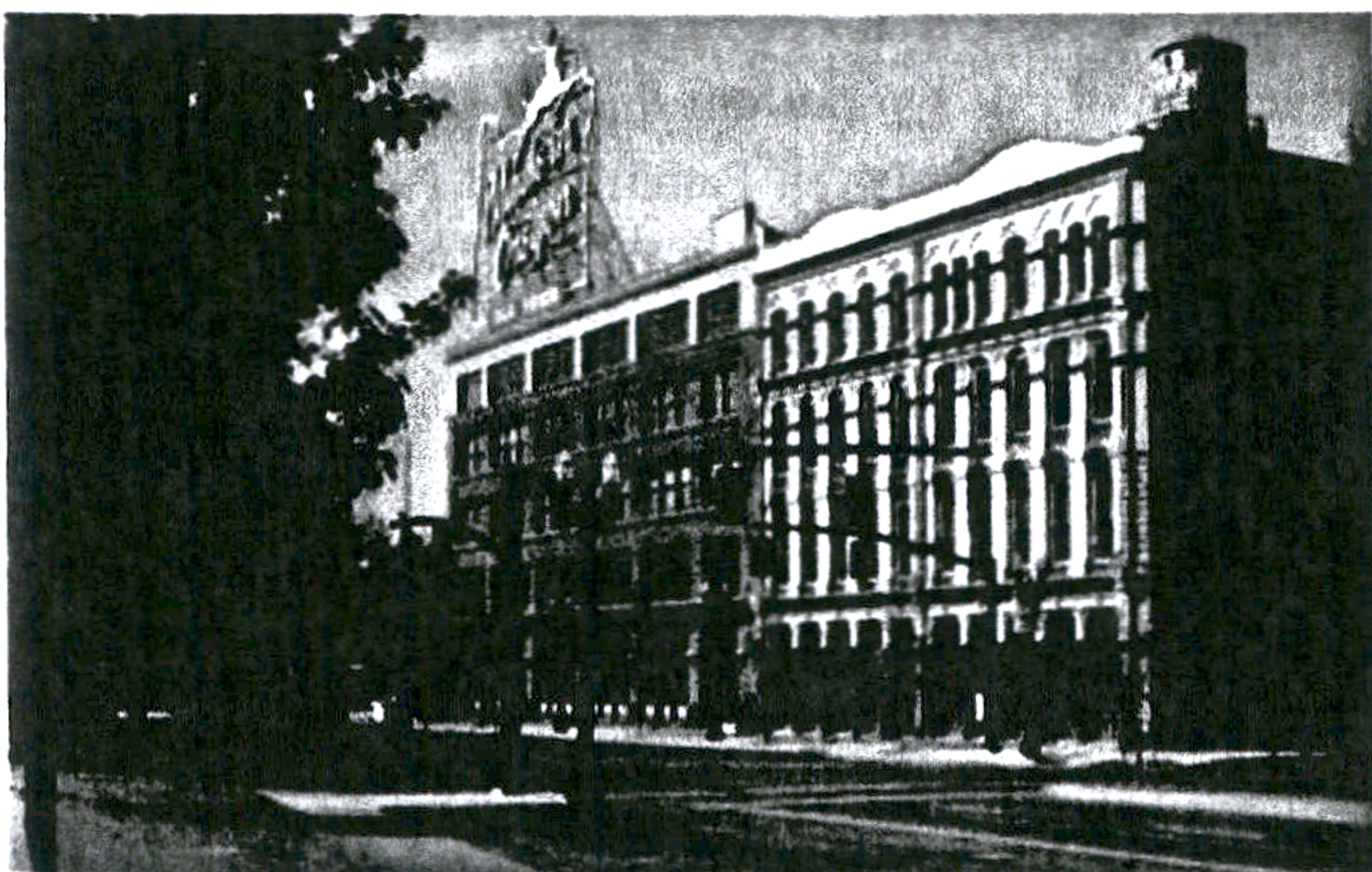


Figure 3: The White Stag Block, Portland, OR; Embodying the spirit of the pattern approach, the White Stag integrated a pattern approach while rehabbing an historic turn-of-the-century block.

the associated but more recently established <patternlanguage.com>.³ We also would like to introduce our cooperating partners, the Building Process Alliance, BPA, and the Environmental Structure Research Group, ESRG.

CENTER FOR ENVIRONMENTAL STRUCTURE

The Center for Environmental Structure is the oldest organization for pattern research, operating more than 40 years in this field, having been originally established in the spring of 1967 by Chris Alexander with the help of Sara Ishikawa and Murray Silverstein as a non-profit organization.⁴ Several of us here at the symposium are closely related to this organization, having worked in some function in CES on particular experimental research and/or building and planning projects. Associated with this organization is the newer patternlanguage.com that started at the beginning of this century as a professional arm of the Center for Environmental Structure, operating mostly from England and the U.S.

BUILDING PROCESS ALLIANCE

Another organization is the Building Process Alliance BPA that I started with some students in a rudimentary form as a support organization for the Pattern Language efforts and the Building Process Area of Emphasis while I was still teaching in Berkeley.⁵ This organization consists mostly of former Pattern Language students and faculty members who want to continue this work in some form. Over the past several years the organization has taken its own direction with a range of new members and a very lively list-serv with rather interesting exchanges on all kinds of intellectual and practical matters surrounding pattern language theory and practice and practical cooperation including a competition that recently was developed directly on the blog-site.

ENVIRONMENTAL STRUCTURE RESEARCH GROUP

The third organization is the Environmental Structure Research Group, ESRG, that includes a few original pattern language students and other distinguished researchers from other fields and is focusing on a wider but related range of issues.⁶

In this context it may be relevant to note how events between different organizations and different people can work synergistically and impact each other. When Robert Walsh visited me in June of this year to participate in final reviews of my students' thesis studio work in Portland, I also

informed him about the Symposium/Conference that I was planning for the fall. Soon after he returned to Michigan, he started a project by himself by creating a virtual roundtable discussion on pattern language issues and questions on the BPA blog-site. He asked several basic questions on patterns, and by doing so started a very lively exchange and discussion that is still going on today and that "feeds well into the symposium" as Susan Ingham points out, who is running the BPA website together with her husband, Fred. We took the liberty to edit the beginning of the discussion and publish it on our PUARL website as a synergetic contribution to this symposium (It is also published in this Symposium Journal). I must say that I am quite enjoying the discussion that Robert started. I am always days or weeks behind the actual on-line discussion, but when I get to it, I find most of it quite exciting and a great use of the BPA blog-site. What was quite interesting to observe in this initial web-discussion is that apparently the general interest of the participants shifted very quickly to larger issues than strictly patterns and pattern languages. Soon enough people started to become more interested in deeper issues speculating about the philosophy of structuralism that patterns and pattern languages are based on to a large degree. In response, and in order to provide for critical comments and even overall critiques of pattern language, we have set aside a special section that deals with the critique of patterns and the pattern language tomorrow afternoon with David Week from Australia as the main critic.

Patterns and Pattern Languages & The Pattern Language Approach

The subject of critique of patterns and the pattern language brings me to another very important point in this introduction and overview. It has become quite apparent during the preparation of this symposium that we need to try to make a clear distinction between Patterns and Pattern Languages on the one hand, and an overall Pattern Language Approach to architecture, buildings, cities and the environment, on the other hand. Patterns and pattern languages might be understood as singular elements or a singular system of environmental elements that can be used and applied in the design and building process of many different projects as one essential principle. What we call the pattern language approach encompasses a much larger set of principles that together create a system of principles which can be fully applied in projects from initial conception, programming and schematic design

to the construction phase and beyond in a complete design and building process. It is for that reason that the overall approach is also sometimes called the Building Process Approach, or the Living Architecture Approach.⁷ But I want to emphasize that because of the huge success of the book *A Pattern Language* the larger approach is still most widely known and acknowledged as the Pattern Language Approach, thanks to the original authors of this book. (Alexander et al, 1977)

I need to emphasize that in this symposium we try to focus primarily on the first area of pattern language understanding, that is patterns and pattern language as a singular system of environmental principles that can be used in design, planning and building projects as individual patterns or in a language or system like fashion. This means that we focus our investigation on patterns and pattern languages, their application in various projects and case studies, as well as research and new developments in this area. The issue of the larger pattern language approach will be taken up in a future symposium.

However, I also understand that many of us would like or even prefer to discuss the larger framework of the Pattern Language Approach itself in this symposium, and many developments that have taken place after the original pattern language work, such as the work on Urban Rule Systems, or the work on the Nature of Order. (Alexander et al, 1987; Alexander, 2002) We have therefore made provisions starting in the afternoon of the second day and also going into the Sunday morning session to include issues that are relevant for the overall pattern language approach, its challenges and its future. These include a critique of patterns and the Pattern Language (Approach) as well as current challenges and new horizons. More academically formulated we also can ask in this wider context: What are the open questions that need to be worked on? What are the critical issues that we have to focus on?

PATTERN LANGUAGE AND SUSTAINABILITY

Finally, I would like to emphasize that our symposium title includes the topic of sustainability. As organizers, one of our questions was how much the notion of sustainability is an underlying theme that is present all the time, and how much is it a topic that needs its own attention and discussion. It is of course both an underlying theme and a topic that needs explicit discussion. One very important question is how sustainability and patterns are connected, and how they exist as one family of an environmental language and

also how much they could be more connected. We know a lot about the challenges of sustainability, but maybe we do not know enough about the challenges for sustainable and ecological patterns and pattern languages. Two of our recent graduate students will take up this topic with their work on “EcoPattern Districts in Portland,” including an analysis of pattern based approaches and performance based approaches and their possible combination for particular projects.

OTHER KINDS OF PATTERN LANGUAGES

The field and discipline of patterns and pattern languages apparently has taken hold in many other academic fields and disciplines over the years, and has even developed to a degree that outnumbers the development in its original field of architecture and design. Here we want to explore connections and development to patterns and pattern languages in other fields and areas such as computer science, innovation management research, and environmental research, as well as conservation economies and many other developing disciplines. Here we can recognize the amazing and unusual fact that architecture can have a huge impact on many other disciplines and research areas, probably many more than its original authors could have intended or even thought of. Ward Cunningham, the inventor of the Pattern Wiki will help us here to understand the pattern impact on other fields, and Douglas Schuler will present his 12-year pattern communication project. (Ward Cunningham: www.aboutus.org; Schuler, 2008).

Final Comments

In this symposium, Besim Hakim will introduce a very important area of research that could be a primary topic in our next symposium, and that is the question of generative process(es) in architecture and urban development. Also, Michael Mehaffy will ask the question of what opportunities and issues we face in the development of pattern languages and what do they offer for the field of urban morphology. Are there applications for new generative codes? And finally, I hope, Don Corner will bring us back to earth with the question of current construction pattern elements that need to be part of a viable pattern language future.

What we expect then from this symposium is a lively discussion and exchange on the practice and theory of pattern language, a fertile and productive discussion on the future of patterns and pattern language development including its interdisciplinary potential, and we also hope for a

range of practical project proposals that can be pursued in professional, academic, and research efforts. We also wish you a pleasant event, meeting old friends and new friends. Let me conclude by saying that I am happy to host this international symposium in Portland by focusing on some of the core research issues that we started to embark on in PUARL.

Please enjoy the Symposium.

Three Days Overview:

OCTOBER 30, FRIDAY EVENING: ORIGINS OF PATTERNS AND PATTERN LANGUAGES

Tonight we want to welcome and honor the original pattern language authors. The topic for tonight can be described as origins of pattern theory and current activities and works by pattern language originators.

We will have a presentation by Murray Silverstein and Max Jacobson about their ongoing works and practice, and we will have Sara Ishikawa and Ingrid King together with Murray and Max participating in a panel discussion on our conference theme of “Current Challenges for Patterns and Pattern Languages.” At the end of the evening we will continue with our reception so that people who may not have seen each other in many years can spend some time catching up.

OCTOBER 31, SATURDAY: CURRENT WORKS, CHALLENGES, CRITICISM & CONNECTIONS TO SUSTAINABILITY FOR PATTERN LANGUAGES

On Saturday we are focusing on current works in the field of Patterns and Pattern Languages, in theory and practice. We are asking what is going on currently in the field of Patterns and Pattern Languages. And apparently quite a lot is going on in this field, so we have divided it up in to several subcategories. In the morning we will focus on current works and applications at different scales and in different contexts. In the first part of the afternoon we will try to better understand the connection of patterns to sustainability and we will have concurrent sessions on first, patterns and sustainability, and second, a session on theory and patterns.

Most importantly we will enjoy a big surprise in the mid-afternoon for pattern language authors, when they will get a big thank you from all of us. And after the big surprise

they are so kind and sit for a book signing session.

After that, we will entertain or endure a critique and critical voices of pattern language theory. At the end of the day we will try to resolve some of the day’s session issues in a general panel discussion, and I hope we will have some time to continue to talk during dinner. We will make a dinner reservation for all symposium members.

NOVEMBER 1, SUNDAY MORNING: CURRENT CHALLENGES AND FUTURE HORIZONS

In our Sunday session we will focus on current challenges and new horizons for Patterns and Pattern Languages, which means that we are going to ask questions like: Where are we going from here? What are the next challenges and steps to take?

We will conclude the Sunday session and the symposium with a final forum panel in which we will discuss the Sunday sessions as well as answer questions from the previous sessions. I will also ask for proposals for possible detailed projects that we can work on in our own offices and ateliers as well as in various forms of collaboration. We will conclude with prospects and an outlook to a possible next meeting in a year from now.

Endnotes

- [1] puarl.uoregon.edu, see: Living Architecture and Feeling and Wellness Study
- [2] www.apoiesis.com; www.conservationeconomy.net; www.ecotrust.org
- [3] www.patternlanguage.com
- [4] Center for Environmental Structure. Berkeley. Contact under: www.patternlanguage.com
- [5] www.buildingprocessalliance.com/index.htm
- [6] www.aboutus.org/ESRG
- [7] The Building Process Area of Emphasis existed at the University of California in Berkeley from 1989 – 2000 with Christopher Alexander and Hajo Neis as full time faculty members.

Bibliography

- Arch+189, Zeitschrift fuer Staedtebau und Architektur, October 2008.
- Alexander Chris, Sara Ishikawa, Murray Silverstein, Max Jacobson, Ingrid King, Shlomo Angel. *A Pattern Language*. New York, Oxford University Press, 1977.
- Alexander, Chris. *The Nature of Order 1: The Phenomenon of Life : An Essay on the Art of Building and the Nature of the Universe*. Berkeley Calif.: Center for Environmental Structure, 2002.
- Alexander, Chris, Hajo Neis, Artemis Anninou, Ingrid King. *A New Theory of Urban Design*. New York, Oxford University Press, 1987.
- Alexander, Chris. *The Timeless Way of Building*. New York, Oxford University Press, 1979.
- Alexander, Chris, Murray Silverstein, Shlomo Angel, Sara Ishikawa, Denny Abrams. *The Oregon Experiment*. New York, Oxford University Press, 1975.
- Campus Plan, University of Oregon, 2005.
- Neis, Hajo, Christine Theodoropoulos and Rob Thallon. "New Facilities and Expansion of the University of Oregon Department of Architecture." City Campus - Proceedings of the 2007 ACSA Central Fall Conference, pp. 1/22-1/33. Riverside Architectural Press, University of Waterloo, 2007.
- Schuler, Douglas. *Liberating Voices: A Pattern Language for Communication Revolution*. (MIT Press 2008).
- Tigard 99W Corridor – Pacific Highway to a Sustainable Future. PUARL - University of Oregon and City of Tigard (PI: Hajo Neis - forthcoming 2010).
- PUARL website: puarl.uoregon.edu.