"Public Participatory Graphic Communications"

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Abstract. Ball State University is a public university in the state of Indiana which has a College of Architecture and Planning; its Community Based Program (CBP) was developed and created in 1969, and is now one of the three oldest continuous community education and service programs in the US. The program’s main objectives are to provide an educational design service to the public sector, to immerse our students in a public participatory urban design environment, and to educate the public sector to become active in the design and planning process of their communities. After my Urban Design Graduate studies at Harvard, I published two urban design booklets (the Urban Design Primer and the Urban Design Dictionary) for public distribution, to be utilized prior to our small-town charrettes. These illustrated booklets were designed to bridge the language and design process gap between the design professional and the public citizen, and to create a more active immersive participatory urban design engagement. Since the introduction and public use of these booklets, I have been involved with over a hundred CBP charrettes. In this paper, I will introduce and present the urban design public booklets, and demonstrate how the urban design graphics and visual communications were utilized effectively through several small-town charrette case studies. The paper will also blend the transition between the analog graphics and the digital imagery.

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These Charrettes are community-based design exercises that are driven by interviews, conversations, and rapid design visualization. In these public engagements, quick graphic communications are critical in order to demonstrate the communities’ visions and future aspirations. This presentation draws on methods used historically, while illustrating present day approaches, and collectively, imagining the future of charrette graphics. The author compares the way designers have visually told stories, chronicling the charrette design process over the last four decades, through a selection of traditional and emerging graphic techniques. The author will demonstrate how different practices, which have been developed over time, are shaping the contemporary charrette process in unique ways. The presentation will illustrate how designers have evolved a series of unique traditional and emerging techniques to not only show people what their visions are, but also show them how designers are making those images. Charrettes are one of the only times where people actually see the process of making designs. As participants see designs created in real-time, they become part of the thinking and visioning process.

Fig. 1. Samples of illustrations in the Primer, historical character, overall downtown environment to façade composition

1 Introduction: Urban Design small town primer

Urban Design is a discipline, the goal of which is “to improve the quality of the physical environment of cities by understanding the interactions among the social, economic, political/legal, and aesthetic forces that shape cities”. Traditionally, in this country, urban design studies have focused on the problems of large cities. However, most of the ideas or approaches of urban design in large cities have also been found useful when applied to small towns. The last decade has seen numerous Indiana cities and towns involved in revitalization or renewal efforts. Over 30 of these towns have been substantially aided through the urban design studies conducted by the Community Based Projects Program of the College of Architecture and Planning at Ball State University at Muncie Indiana. A combined educational/public service activity, the program involves students and faculties from the college’s three departments: Architecture, Landscape Architecture, and Urban and Regional planning. These community-based projects have continually confirmed the vital role of community citizens in applying urban design to realizing the opportunities for improvement of small cities. Once these people have an understanding of the processes of urban design and the benefits that can result, they become the main force for positive change in their communities. The impact of average citizens upon the future of their own towns as a result
of urban design projects has promoted the following sharing of principles and experience in
the urban design of small cities.

1.1 Intent

This booklet is an urban design primer for people living and working in small towns who are
concerned about the physical improvement of their community. This is not intended to be a
“how to do it” book but rather the introduction to the concept of small towns. Although the
principal focus is on common action by citizens, it is hoped that an understanding of cities
and their shared environment will help individual members to be more effective contributors
to the quality of their city.

Fig. 2. Samples of the Dictionary illustrations, regional town environment to the façade historical
patterns and building elements

2 Urban Design Dictionary, Small Town Central District

Communication between citizens and the professionals is critical to the success of urban
design and communities. In the past decade, over 30 towns have been studied in a combined
educational/public service activity through the Community Based Projects Program of the
College of Architecture and Planning, Ball State University, Muncie, Indiana. These projects
have continually confirmed the vital importance of the role of community citizens in applying
urban design to improvement and development of small cities. In order to effectively help
these communities, citizens, public officials, and professionals must share a common
understanding of the community environment and a language which describes that
environment.

In this dictionary, terms are compiled that are most frequently used during typical urban
design activities in small cities. The terms are defined both verbally and visually in order to
clearly relate language and physical environment. The booklet is divided into several parts
that deal with the process of design and the physical components of the city.
Design process: a method or methods used to solve the physical/environmental issues.

Townscape: a system of similar or dissimilar parts that combine and connect to project an image often distinctive.

Central District: the city center, downtown, where the main core of the business and public functions are located.

Streetscape: the corridor of space bounded by the facades of the buildings on either side of the street.

Façade: face of the wall of a building, storefront.

Planning and Legal Terms: terms commonly used by the legal and planning professions that are relevant to urban design.

At the present time, 50% of all Americans live in small towns and cities, and have increased in population. These small communities are into a new stage of development in which a clear understanding of the physical assets and needs is required to guide future growth. It is the intent of this dictionary to:

1. Develop a citizen understanding of the physical parts and pieces of the city center.
2. Bridge the technical language gap between the professionals and the community.
3. Create a working urban design tool to aid the community and the professional.

Fig. 3. Elkhart Charrettes: 1 The Downtown, 2 The Civic Plaza, 3 The East Bank, and 4 The River Projects and Connections
3 Case Study: The Elkhart Urban Design Charrettes

The Elkhart case study is unique because the first charrette was followed by the development of the city’s adopted Phoenix Plan and three additional charrettes that resulted in major changes and had dramatic impact on the city’s physical and cultural environment. In one of the follow-up charrettes, we developed an experimental method, where we tested a more three-dimensional approach and encouraged the public to build physical models of their design ideas. Utilizing a provided Styrofoam site base, nine public teams worked several hours and presented their concepts to each other in a public form. The process created a diverse and creative pool of ideas and generated public awareness of issues and potential urban solutions.

Introduction of the Charrette Process:
“Let’s Talk about it” titled The Elkhart Truth editorial of April 10, 1985 after I presented the small-town charrette process at a 7:30 pm public participatory meeting in the City Council Chamber. The meeting outlined the Ball State Community Based Program design workshops, schedule events, and the public participatory planning process in aiding Indiana’s towns and cities. The process introduces a series of on-site pre-charrette investigative public organization meetings, physical site documentation through sketches and photography, historic research, newspaper as a communication design tool, community leaders’ organization, downtown studio location, local team housing…

“We like the idea of getting the citizens of Elkhart to plan their own destiny, participation in drawing up a plan for the future.”

Fig. 4. Series of graphics illustrating regional map, circulation diagram, downtown plan, river perspective, and plaza section
3.1 Charrette 1: The Downtown

“Dream what could be and make it reality” Joseph Rueff, president of the Elkhart Redevelopment Commission 5/21/1986

The Charrette concentrated on the downtown area and the immediate surrounding neighborhoods. Elkhart is a city of about 45,000 in population, located in the northern region of Indiana, at the junction of two major rivers (the St. Joseph and the Elkhart River), a potential linear green system that can link the neighborhoods together and a housing stock that was constructed during the rich entrepreneurial history of the community.

The two-day on-site public participatory charrette, located in an empty downtown department store, developed several urban design concepts including a civic plaza along Main Street, a pedestrian river walk following the Elkhart River, an amphitheater on the river banks, parking garages and a building façade restoration program. The conceptual ideas were presented to a well-attended public meeting and documented and assimilated through a special eight-page edition of the local newspaper of the Elkhart Truth. 8/7/1985

These sketches “talk pieces” are the result of the investigation of the analysis drawings, citizen’s input, and design opportunities.

Illustration Topics:
1 River edges
With the wealth of the river environment, section/perspective sketches promoted the idea of river housing integrated with a public river landscape and boardwalk.

2 Cityscape
A river belvedere was visualized through a public sculpture to celebrate “Speedy Alka Seltzer”, a local icon, a center piece along the Elkhart River with an enhanced river landscape and a historical urban building reuse.

3 River redevelopment
A before photograph and after sketch illustrated the reuse of the old river industrial complex into a living entertainment development.

4 Civic Plaza
An isometric and a section sketch of a future civic gathering plaza was proposed as an important urban component in the overall comprehensive plan, a public space, and an outdoor living room for the community.

The urban architecture
Preserving and revitalizing the rich historical urban storefront architecture was an important component of the future plan for the downtown fabric.

1 Parking system
With the elevation change between Main Street and the river, a section illustrated how the proposed parking garage takes advantage of the elevation change.

2 Opera House study
Three conceptual design proposals illustrated an attempt to save the historic Bucklin Opera House, which has been slowly deteriorating through neglect.
3 Façade Program
A before photograph and an after illustration showed the revitalization of the rich historic “Queen Ann Style” storefront architecture prevalent on Main Street and proposed an active urban streetscape.

4 Building Reuse
An urban historic storefront reuse proposal presented a mixed living/working building integrated with sustainable concepts, day-lighting and green roofs.

5 River Architecture
River living and activities were proposed in multiple sketches.

6 Historic Building Reuse
This conceptual elevation diagram proposes the reuse of the old post office and the linkage between two historic structures.

Civic Plaza
“A Public Plaza must be multifunctional and have the comfort able to accommodate the solitary person drinking a cup of coffee 7:30 in the morning to hear the birds sing, to the festive large groups in an active public function”.  

Fig. 5. 1) The on-site Plaza Concept, 2) Perspective of Concept, 3) The plaza fountain “the four season”, 4) The Clock Tower

3.2 Charrette 2: The Civic Plaza

The first charrette expressed the need for a city center, a public place, and a space to celebrate civic events.

The second Charrette was conducted in a two-day public marathon workshop in an old downtown drugstore and utilizing the public design discourse that resulted in a series of drawings and a three-dimensional model of the future plaza. Several concepts were developed featuring an interactive fountain, a shaded urban tree grid, and a geographical illustrated floor, surrounded with a “wall of fame”, and dominated by a clock tower. The design team also addressed the calendar of civic events that would activate and give color to
the urban culture. “The goal is a new opportunity to complete and give Elkhart a real city
center”, “a jewel”.

1 The clock tower
The Elkhart Tower illustration poster designed by Eggink was used for a public funding and
marketing program. The tower designed as an urban landmark, dominate the public plaza,
and provide a pavilion for season activities.

2 The fountain
The water fountain “the four seasons” designed by Professor Tony Costello shown here in a
model and the construction donated by the local Martin Foundation.

Conceptual studies
Three proposals:
Concept 1: based around and dominated by an interactive water fountain and flanked by an
urban amphitheater and green garden.
Concept 2: is dominated by a tower/pavilion, surrounded by a water feature, and a floor plane
geo/sculpture of the Elkhart Rivers and the urban grids.
Concept 3: a contemporary urban space graced by an urban pond and sculptured treescape
with a suspended public pavilion.

The Clock Tower
The clock tower became the new landmark of the downtown environment and the civic
celebration and festival space. The illustrations show an isometric onsite concept drawing, a
plaza perspective, the model of the proposed water feature and the tower and pavilion. The
plaza and the tower became both a public symbol as well as an environment of memory;
illustrated by a wedding on the plaza of a young couple that met at the public “New Year’s
Eve party” on the plaza, exchanging their vows later in the summer.

Fig. 6. Public Participatory Concepts, Master Plan A (by Eggink) Master Plan B (by Mounayar)
3.3 Charrette 3: Elkhart River “East Bank”

“We happen to believe that the people from the community are the experts...the people who live here and work here know our community best”, Mayor James Perron, June 1990 statement kick off Charrette 3.

The Charrette explored the potential and opportunity of activating the Elkhart River that parallels Main Street east by a block, revitalizing an abandoned industrial complex with a direct view and access to Main Street and creating a public plaza on the East Bank. The study was to use the public as the design team to explore new ideas for the east bank.

Nine large preliminary conceptual models were constructed as bases for the public to engage in and develop future proposals for the river edges. The process modeled nine concepts of the river, its edges, new infills, public spaces, and links to Main Street. These nine publicly developed physical models were interpreted later into two master plans and vision sketches for final public review.

The method used in Charrette 3 was to attempt to have the public build physical models of their design ideas. By providing a Styrofoam base model and a collection of objects and materials to represent the media components in creating the final model. Nine public teams were assembled, worked several hours, and presented their concepts to each other in a public format. The process created a diverse and creative pool of ideas as well as a public awareness of the issues and potential of urban solutions.

“Let’s make the river dance” let’s reinvent the historic raceway and power a carousel” quote from a participant.

East Bank Concepts
These are a series of conceptual diagrams that responded to the public participatory models of the river corridor.

Concept 1 showed the reuse and rehab of the existing industrial architecture on the river bank, creates a public plaza at the historic raceway entry to the river, develops a river canoe docking facility, and proposes a river walking/jogging path along the west bank.

Concept 2 created a public pedestrian bridge across the river from Main Street into a new amphitheater/public plaza celebrating the historic turbines of the raceway. The industrial architecture would be revitalized and activated by a mixed-use program.

Concept 3 expanded the public plaza east towards the river and through new architecture creates a public activated river edge.

Conceptual Diagram
Conceptual diagrams were developed to explain the complexity of the master plan. The concept diagram showed the new east river wall/edge, pedestrian bridge, public river plazas, series of river belvederes, and the link from the city plaza on Main Street to the river.

The activity diagram illustrated the newly discovered public uses along the river edge from a river walk, public spaces, river docks, and new building uses.

The circulation diagram highlighted the pedestrian movement patterns, locations of public places, and river walks and links to Main Street and future neighborhoods.
Studies

Master Plan A
1 An illustrative drawing by Eggink of the vision for the east bank of the Elkhart River and its connections to Main Street, this master plan links the existing Main Street with a pedestrian bridge that becomes an entry/gateway to the river plaza on the east bank. The east bank rehabilitates and brings life to the existing industrial architecture, proposes a river restaurant, new urban housing and reinforces the Main Street Plaza by a new urban facility.

2 An isometric of new proposed urban housing by reusing an old industrial facility and inserting contemporary architectural housing. A before photograph and an after sketch visualized the reuse of an old industrial artifact as a new entry sculpture to the proposed urban housing complex.

Master Plan B
Master Plan 2 executed by Prof. Mounayar creates a strong link from the existing Main Street Plaza through a pedestrian bridge to the east bank. The river is explored by carving out a series of water inlets and docks that are then lined with new river architecture. The mixed-use development is integrated with the proposed urban residential pattern with framework of public river walks and spaces along river.

Fig. 7. Bubble Diagram West Bank Site (by Eggink) Elco & Civic Plaza Site (by Mounayar)

3.4 Charrette 4: A series of River Projects and Connections

The fourth Charrette was to create a series of “connections and visions” for Elkhart. The urban design study would connect a decade of urban studies and link four critical urban sites together by allowing each site to dominate. The four sites needed to be analyzed, programed, and integrated in to an overall vision.

The first urban site, “Elco Theater”, was to connect the historic theater, an Elkhart Landmark, to its surrounding environment. The second site “Plaza Site” was to redesign, reform, and reinforce the urban architecture around the plaza and link it to the river.
The third site “West Bank” was to develop an active river edge through rehabilitation of the backs of the main street commercial buildings, new river architecture, and vital river pedestrian corridor.

The fourth site “East Bank” was to create contemporary urban river edge and architecture, and integrate a new river urban housing pattern into the context.

1 The bubble diagram shows the individual sites, Elco Theater Site, Plaza Site, West Bank Site, and the East Bank Site, within the overall context of the downtown commercial district of Elkhart.

2 These are a series of isometric diagrams that explain the urban space definers, movement patterns, and location within the Central Business District.

The Elco Site shows the Elco Theater linking with the Elkhart high-rise residential facility to the south and connecting to the Main Street Plaza to the north.

The Plaza Site plans to reinforce the Plaza as an urban space and link the development to the river and the east bank.

The West Bank Site creates an active edge of new community facilities and a landform bridge that crosses the river and connects to the east bank.

The East Bank Site envisions a new architecture that will activate the river edge and link to the proposed river residential neighborhood to the east.

The Elco Site
This plan, as the Elco Theater as a central historic icon, will rotate and create a new cultural center of the future. The vision is to link, across Main Street, and connect to a proposed new museum to celebrate the creative entrepreneurial history of Elkhart. To the south the Elco connects to the renovated senior housing facility and to the north a strong diagonal pedestrian walkway system is developed to link to the civic plaza, which is to be reinforced with new urban buildings. The plan also calls for a pedestrian civic boulevard to a sculptured belvedere on the river.

Beneath the master plan are a series of sketch diagrams that explain the urban concept, the vehicular/pedestrian circulation, and the building strategies.

Civic Plaza Site
This vision revisits the urban plaza by proposing a mix-use urban building with a new city hall embracing and surrounding the public plaza. A pedestrian mall would bisect the facility and terminate as a sky walk overlooking the Elkhart River. The proposal also connects the Elco development via a second level walk to the south and activates the river bank with cafes, restaurants, and small shops.

The West Bank Site
This proposal creates a community/convention center on the west bank of the Elkhart River and a large public plaza along the river edge. A land bridge would come out of the plaza, span over the river, and curve to form a land amphitheater on the east bank. The west bank is also edged with a canoe port, a plaza music pavilion, and a festival trellis frame structure for river activities and celebrations.
Beneath the master plan are a series of sketch diagrams that explain the urban concept, the urban plan, and the vehicular/pedestrian circulation.

4 Case Study 2: The Warsaw Urban Design Charrette

In this case study, I will present the comparison and bridging between the analog and the digital charrette graphics.

The computer and the digital language has been utilized and embedded into the charrette process for decades. First as a tool for mass distribution of the charrette findings and the engagement of public participatory online discourse complimenting their local newspaper taps.

Today, the digital visual design methods are partners in the onsite charrette visualization and communication environment. For decades, visualization has flattened design ideas into pictures through markers and color pencil drawings. Now designers and members of the community can quickly overlay photos and familiar entourage to create collaborative, lively and dynamic visualizations that are drawn directly from existing imagery. Around the tables in contemporary charrette environment, design thinking is increasingly more inclusive as technology becomes more intuitive, visceral, and collaborative. This accessibility and speed is making the process faster, sometimes bigger (in terms of scale and impact), and arguably more user friendly for everyone involved.

The Warsaw charrette was composed of a constellation of district community redevelopment projects spread throughout the already-beautiful downtown area. Two of the areas included in the site were the “Little Crow Market”, a once vibrant but shuttered food market at the east edge of the inner urban core, as well as the “Gatke” site, an old abandoned factory building in the city’s periphery on the old Pennsylvania rail line that once connected Washington, DC and Chicago.

At the Gatke site, a new high-speed rail station was imagined, complete with a large civic plaza and contemporary sculpture park using work from local artist. Because the old factory shells on the site were intact and for adaptive reuse, a host of new economic uses were projected to be housed within and in the surrounding areas of the new rail station. Programming included shared transportation strategies, mixed-use developments, in-fill neighborhood housing and a variety of business incubators. The designers visualized a contemporary rail station and clock tower with glass enclosures, an art pavilion, and galleries. The graphics express a blended conceptual image and graphic process.
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Fig. 8. Site Photograph    R/R  Station analog (by Eggink)    R/R Station Plaza digital (by Bussiere)

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Fig. 9. Little Crow Photo.   Market, analog sketch (by Eggink)   Market, digital sketch (by Bussiere)

At the Little Crow Market site, contemporary food systems were illustrated that would capitalize on the city’s newly forged relationships with local farms, restaurants, and other pop-up food vendors along with a future boutique hotel. Hearing from local business owners who wanted the designers visualized exterior scenes with food trucks, café seating, colorful murals, and gathering spaces at entryways. The graphics illustrate two conceptual ideas utilizing a fast sketch and a fast-digital overlays process using on-site photograph.

References

1. Lasuau, Paul and Crowe, Norman. Visual Notes for Architects and Designers, John Wiley sons, 2011
2. Mounayar, Michel. Design as a Social Act, Ball State University, Community Based Projects, 2013
3. Bussiere, Simon and Eggink Harry, Charrette Graphics: Old and New School of Visual Thinking, 2014