

A Study on the Configuration of Detail Design Language of the Idiosyncrasy of Community Facilities with the Qualitative Method

- in Cases of Concord, Lexington and Arlington, Massachusetts -

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정성적 접근방법에 따른 도시 커뮤니티 시설 특성의 상세설계 언어 형상에 관한 연구

- 콩코드(Concord), 렉싱턴(Lexington), 알링톤(Arlington) 타운을 사례로 -

권상준

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국문초록

본 연구는 커뮤니티 시설 상세 설계의 대상물에 대한 질적 특성을 파악하기 위하여 그 대상물의 이미지를 상징화하는 단계적 발전 과정을 거쳐 그 시설의 상세 설계적 언어를 형상화하는 방법을 제시하였다. 사례로 역사적, 문화적, 전이적 특성을 지닌 세 커뮤니티를 조사하여 디자인 언어와 상징화되는 이미지를 구명해 보면서 디자인 언어의 구성과 설계요소와의 관계 커뮤니티의 목표 등과 연관시켜 커뮤니티의 본질성을 추구하는 수단을 평가 분석하는 방법을 강구하고 커뮤니티 시설의 상세 설계 언어의 형상을 검토하는 방법을 통섭적으로 제시하였다.

설계 언어의 형상 분석의 수단을 구체화 하는 데는 시각적 형태, 설계 주제의 상황, 설계요소의 관계성, 설계요소의 위치와 구성 등과 연관된 문제이다. 본 연구는 상세설계 언어의 형상을 개발하는 시도로 네 가지 기본 전제를 세우고 그를 설명해 보았다.

본 연구는 커뮤니티 시설 특성의 상징화를 위한 설계언어연구 대상의 사례로 미국의 전통성이 강한 메사추세츠주에서 역사적, 문화적, 전이적 특성을 각기 다르게 지니고 있는 콩코드(Concord), 렉싱턴(Lexington), 알링톤(Arlington) 등의 세 커뮤니티를 택하였다.

사례 커뮤니티 시설 특성의 상세 설계 언어의 형상을 도출하는 과정을 설명하고 시각적 노트와 디자인 의미와 그 상징성을 바탕으로 상징과 시각적 언어를 찾으려면서 상세 요소의 디자인 언어를 비교하였다. 그를 바탕으로 디자인 언어와 의미 및 그에 대한 평가를 위하여 편익을 기초로 사회, 건강, 환경, 경제 등 네 가지로 세부 분류된 커뮤니티 시설을 검토하였다. 커뮤니티 시설 특성을 파악하는 기법 발굴 과정에서 시작된 시각적 형상으로부터 상징과 그 의미 등을 구명하면서 그를 정성화하기 위한 기준으로서 설계 언어, 상징적 언어, 커뮤니티, 자연적 심미성 등의 네 가지로 대표되는 평가 요소에 의하여 분석 평가 검토에 이르기까지 일련의 과정이 그 상세설계언어의 형상에 관하여 통섭적 접근이 이루어졌다.

Key Words: Visual Forms, Visual Note, Symbolic Language, Consilience

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I. Purpose

The primary research purpose of this paper is to find the configuration of a detail design language for community facilities. The developing the configuration of the detail design language implies how to categorize design concerns, to define meaning and treating design language, to find means for the design language and to apply symbols to the pattern of tools of Microsoft Office Word. The method is a kind of consilience to develop graphically symbols into visualizing design language. To do that, the research should solve the matters of 1) what design elements of the community are composed of detail design languages for the symbolizing image, 2) how to develop the design language, 3) how to involve the meaning of the detail design language, 4) how to treat the detail design language as applied to get the symbols, and 5) how to reinterpret designing aesthetical promotion and enhancement.

The secondary research purpose is to find a way to define the idiosyncrasy of community facilities, which are abstract. To do that, the research scrutinizes the detail design language and develops visual notes and design meaning, as researchers find what and how people recognize the community facilities into symbolizing with design meanings. That research could represent from design factors, of which might be composed of shape, volume, color, pattern and texture. The final results could conclude the detail design language, involving the idiosyncrasy of the communities shown as visual forms, essential unity, relative relationship of design elements and location. The purpose of the research is to get a consilience approach in order to develop symbols for the detail design language of the idiosyncrasy of community. Because, consilience has been used to unite the sciences and might be able to unite the sciences with the humanities and art endeavor(Wilson, 1998). The research can find a way to configure representatively the symbols, reinterpreting the meaning and visualizing notes of the language. The research could find a qualitative method to know the configuration of the detail design language for community facilities by comparing three historical towns: Concord, Lexington and Arlington in Massachusetts.

II. Research Method

1. How to develop Design Language

Design language is a matter concerning symbols. Symbols are the art of words(Prak, 1968). Especially, detail design language has been used to unite symbol and art for rural looking landscapes and systematic appreciation.

There are two kinds of approach to solve the development of detail design language: quantitative or qualitative. Both can have the following steps, but, most research can use a qualitative method, in order to prove some premises creating the symbols of design language.

1) Quantitative Method

- (1) a: Taking photos
- (2) b: Defining physical quantity(background, designing objects; facilities & design language objects)
- (3) c: Measuring physical quantity(dividing classifications into percentages of physical factors)
- (4) d: Analysis(comparing the propositions, proportions, composition ratio of physical quantity with goal criteria to enhancing natural beauty and contextual locality)

2) Qualitative Method

- (1) a: Taking photos, descriptions, realistic situations(representation)
- (2) b: Defining abstraction(structures, composition from the sketches of background, design objects; facilities & design language objects)
- (3) c: Visualizing physical quality(visual notes of physical factors)
- (4) d: Symbolizing image(developing visual messages of detail design language)

The qualitative method of scrutinizing the coincidence of images has proved to match the characteristics of the design objects to abstract the notion of symbols, as the research queries about the survey of asking to whether the persons who have spatial recognition can find the matching symbols or not.

After finishing the qualitative 4 steps for developing design language, the research has five configuration steps for developing visual messages of detail design language.

- (1) a: dialogic presentation step for detail design language (having surrogate or substitute image presentation and meaning dialogic presentation between thought and vision)
- (2) b: symbolic imagery step for visual language(having

sequence, position and symbolic abstraction for visual notes)

- (3) c: identification step for configuration of detail design language(identifying design factors to shape, volume, color/value, pattern and texture)
- (4) d: grouping and classification of symbols for visual language(encoding detail design language and configuring design pattern) applied to the pattern of tools of Microsoft Office Word
- (5) e: analyzing the symbols and finding a synthesis for aesthetic meaning

2. Process of Creating Design Language for Applying to Case Studies

The five configuration steps(Table 1) for developing visual messages of detail design language could be a process to create design language for applying to case studies. The process could start from reviewing background photos of communities in the three towns. That kind of reviewing could compare the symbols for configuring visual language involved with visual notes and design meaning(Crawe and Laseau, 1984). The idiosyncrasy of the towns can be considered in finding symbols of the community, because the symbols can transform the places of production of the community(Fossa *et al.*, 2002). The configuration could develop the detail design language for community facilities by comparing the idiosyncratic towns, confirmed shape, texture, color, grain, and presented design synthesis. The compared photos could develop sketches and symbols, having visual messages of design language. That design language could represent design symbols and presentation.

The design language of community facilities of the three

Table 1. The five configuration steps of visual messages of design language

Step	Means
1	Reviewing background of photos of community of the 3 towns.
2	Developing detail design language for community facilities: confirmed shape, texture, color, grain.
3	Developing sketches and symbols.
4	Being classified with 4 kinds of benefits.
5	Being compared with design factors: shape, volume, color, pattern, texture.

towns could be classified with four kinds of benefits (social, health, environment, economy; Wooley, 2003), having three (idiosyncrasy of background, ordinary shape, unique or vernacular composition) kinds of characteristic form. The design language could be compared with design factors divided into shape, volume, color, pattern and texture. Because of the special shape of examples of the three towns, community facilities have idiosyncratic emblems on the doors or vernacular patterns of the ornamentals of detailed design elements.

3. Generalizing the Development of Design Language

The pictures pertaining to the background of the research community objects are composed of idiosyncratic buildings which are characteristic of that period. Those are divided into 5 periodic times from the 1600's to the 2000's, including churches, shops and houses. The pictures can be sketched by representing design abstraction and should be able to symbolize the objects. The objects can match the symbolizing abstracts: fifteen volunteer students of GSD of Harvard University could identify the symbols to represent the sketching objects in order to prove whether the symbols represent the real objects or pictures of the objects.

A design language can visualize physical quality, which represents visual notes of physical factors. For example, Gothic, Corinth and modern buildings are represented by having the symbols of axis or symmetry, such design terminology can show the meaning of building patterns and forms, especially having idiosyncratic emblems on the doors or ornamentals of detailed design elements(refer to Table 2).

4. Research Flow

The development of design language can start to comprehensively configure the design language, establishing basic premises and reviewing the background of building symbols. The next step for the research can compare the symbols of community facilities of the three historical towns in Massachusetts. Visual notes is a means for developing design concept and useful to get motives of design meaning. The process develops symbol of images. Symbols are tools for understanding the idiosyncrasy of the community, visualized notes and languages of symbols(Crawe and Laseau, 1984). After analyzing visual notes and design meaning, the research can find design language and meaning of the symbols of

Table 2. Background of building symbols for design language

		1600	1700	1800	1900	2000
Sk	Ch					
	H					
	S					
Sy	Ch					
	H					
	S					
Remarks		Sk: Sketch, Sy: Symbols, Ch: Church, H: House, S: Shop				

community facilities of the towns. And then, the research can create design symbols and presentations of community facilities of the towns, developed design language of detailed elements and meaning of design language elements of three communities. After all, the research can take a holistic approach to reviewing from the development of detail design language to the assessment criteria of detail design language.

That is a kind of consilience to study on the configuration of design language(refer to Figure 1).

III. Tool, Premise and Explanation for the Development of Design Language

1. A Tool for Understanding the Development of Design Language

Sitescape is related to landscape and images of the community(Stilgoe, 2005). Sitescape has its own characters of design. Sitescape is to be composed of physical factors(streets, buildings, structures etc.), natural environment and historical assets. The character of sitescape public built environments, especially where the community facilities effect sitescape(Pierceall, 1990). The research can consider reviewing the built environments of the community facilities.

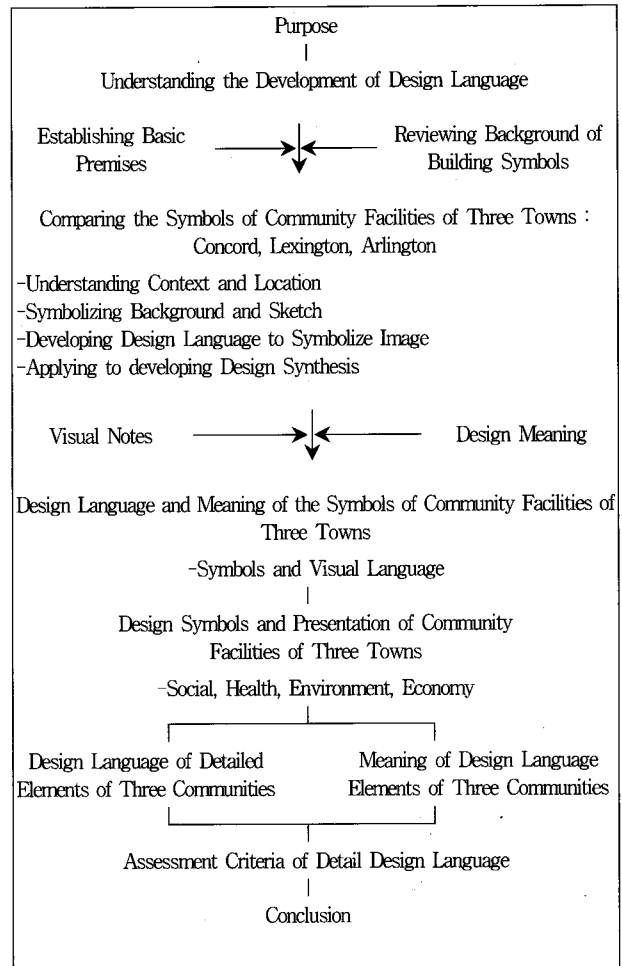


Figure 1. Research flow

As finding and understanding the symbols of design objects to abstract forms for recognizing the visual notes and symbolic patterns, people can review the tool of a useful program like Microsoft Office Word. The configuration of physically designing forms needs to require basically visualization of design objects by having aesthetic purpose and granting image-ability to people. The aim of design language can be especially a developed by the qualitative method. The method requires a reasonable way to find the configuring process of design language to enhance visualizing design forms and patterns, That creates connoted linguistic meaning and treats of the community identity, reviewed community facilities such as church, library, shop, sign, community center, park, cemetery, school, town hall and etc.

The idealistic goals of design language can have aesthetic representation, concerned with visualizing the physical quality which represents visual notes of physical factors. What can be

represented by design language, can propose an aesthetic recognition by people and can be divided into four categories of designing tools, which people can understand easily(refer to Table 3).

That should promote the development for enhancing and acquiring the reachable means in order to get information on design language development applicable to symbolizing. The tool for understanding the development of design language could fall into one of four categories: 1) directly visual forms, involving axis, symmetry and unity of shapes, 2) the solution of design theme, representing simplicity or diversity for forming design objects, 3) the relation of design elements, including parallel, balance and harmony for making a total design characteristic, 4) the location and composition of design elements, including strength, focus, proportion and dominance for the arrangement of design objects.

The following examples of symbol are abstractly represented in the configuration of using associatively the pattern of tools of Microsoft Office Word. The usage of the symbols is not solely, because those are not accurately implied by matching all of the means which are developed by the category of tool for understanding design language, but representatively connoted by the meaning and the transformation. Those are developed examples to configure following means as axis, simplicity, parallel, strength etc. The symbols are developed for

Table 3. The category of tool for understanding the development of design language

Category	Meaning and transforming	Means	Symbol(Exp.)
1 Visual forms	-Visual forms including shape, pattern and grain -Visualizing the reforming and identifying design character of making shape	Axis	
		Symmetry	
		Unity	
2 Solution of design theme	-Solution of design theme maintaining unity -Matter of design choice	Simplicity	
		Diversity	
3 Relation of design elements	-Relation of design elements considering subjective or objective matter -Matter of independence and accumulation	Parallel	
		Balance	
		Harmony	
4 Location and composition of design elements	-Location and composition of design elements arranging layout -Matter of space and void	Strength	
		Focus	
		Proportion	
		Dominance	

creating design language and for applying to case studies.

2. Premises and Explanation for Understanding the Development of Design Language

- Premise 1. The design language can be represented by symbols and can be composed of different design forms.
- Premise 2. The design language can be represented by the meaning of design terminologies.
- Premise 3. The design language can be divided into separate factors of different shapes, which can represent the design terminologies.
- Premise 4. The design language can be developed into detailed design factors, which can represent the idiosyncratic symbols of an externally built environment of detailed design elements.

1) Explanation of Premise 1

The design language represented by symbols was found by the results that the 15 investigators could get the correct answers, recognizing the same objects to match the symbols of the buildings. And, the symbols can be composed of different elements that compose the design forms.

For example, the symbols of the church in the 1800's (refer to Table 2) shows idiosyncrasies as sketched below. It can be composed of different design shapes and can be recomposed as symbols.

2) Explanation of Premise 2

The design language can be derived by an inductive method.

Case 1. The symbol of a house in the 1600's can mean aesthetic terminologies, including simplicity and unity.

$$\text{House Symbol} = \text{Simplicity} + \text{Unity}$$

Case 2. The symbol of typical fences can mean aesthetic terminologies, including axis and diversity.

$$\text{Fence Symbol} = \text{Axis} + \text{Diversity}$$

Case 3. The symbol of relationship of design elements can mean aesthetic terminologies, including simplicity and balance.

$$\text{Relationship Symbol} = \text{Simplicity} + \text{Balance}$$

Case 4. The symbol of relative location of design elements can mean aesthetic terminologies, including simplicity, parallel and focus.

□□□□(simplicity) + ≡(parallel) = □□□□ and □□□□ = 〰️〰️(focus) = 〰️〰️〰️〰️

3) Explanation of Premise 3

The symbol of a shop in the 1900's can be inductively deconstructed into separate factors with the different shapes that mean aesthetic terminologies, including unity of parallel and forming simplicity or diversity as well as requisite design elements.

For example,

〰️ = ㄱ + △△ + ≡ + □□□□
 (parallel + unity + simplicity or diversity)

4) Explanation of Premise 4

Case 1. Having a special characteristic emblem, the doors of the shop in the 1700's can mean aesthetic terminologies to design diversified detail designing with diversity of shape.

〰️ = ≡ + ⊕ + ⊕ + ⊕ + ⊕ + □

Case 2. Having artificial or natural forms of detail design, the frame of the doors of the shop can mean aesthetic terminologies with implying the harmonization between the shapes of the doors and the design elements of the emblems.



and present environment for acquiring relatively different characters of the knowledge of the configuration of detail design language in community facilities.

The three towns are familiar to Americans and with the historical sites of Minute Man National historical park in Massachusetts. Especially, Concord county has conservative features to reflect upon what people have learned and experienced. Lexington county has not only preserved historical sites, but also conceived sites of a modern development area with a rehabilitated downtown and redesigned community facilities. Arlington county is a residential urban area and more developed than the other counties, having mixed land use for commuting and commerce(refer to Table 4).

The three counties are located in the Boston metropolitan area. Concord county is in a suburb of the city and inclined to be an ideal garden city. Lexington county is permitting development gradually and is inclined to be an ideal bed-town for an innovated residential area. Arlington county is a typical bed-town, close to Boston metropolitan area and inclined to redeveloping its residential and downtown area.

The community facilities of the three counties are represented by their own identity, having separate design features from the visual forms, solution of design theme, relation of design elements and location, and composition of design elements and patterns. Those facilities are concerned about the idiosyncratic visual character of symbolizing momentum, categorized representatively by church, library, shop, public sign, community

IV. Comparison of the Symbols of Community Facilities of Three Towns

1. Background and Location of Three Towns

The three idiosyncratic towns compared are Concord, Lexington and Arlington in Massachusetts. The towns have their own identity derived from their historical background

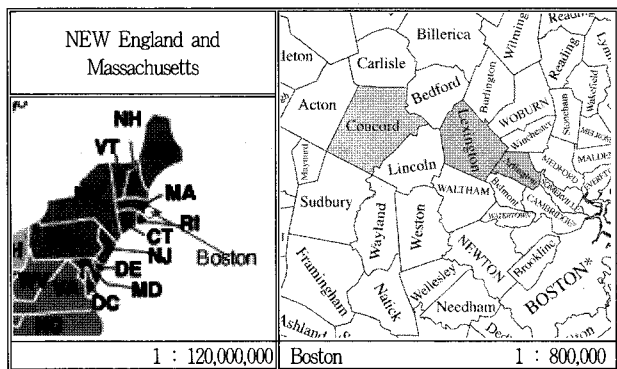


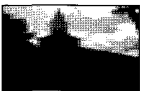


























Figure 2. Location of three towns; Concord, Lexington and Arlington

Table 4. Background of three towns; Concord, Lexington and Arlington

Facility	Concord	Lexington	Arlington
Foundation year	1635	1642	1635
Location	Middlesex County Closed Lincoln-Sudbury-Acton	Middlesex County Closed Lincoln-Waltham-Bedford	Middlesex County Closed Boston-Cambridge-Quincy
Population (2000)	15,576	30,355	42,389
Acreage (sq miles)	25.8	16.40	5.18
History	Battle of Concord, North Bridge	Battle of Lexington, Buckman Tavern	Battle of Menotomy, Prince Hall
Character	Traditional & Garden Town	Traditional & Cultural Town	Urban & Closed Downtown

Table 5. Photos of community facilities






















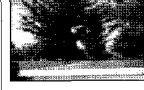








Facility	Concord	Lexington	Arlington
Church			
Library			
Shop			
Sign (public)			
Community			
Park			
Cemetery			
School			
Town hall			

center, park, cemetery, school and town hall(refer to Table 5).

The design background of the built environment of the three towns(Concord, Lexington and Arlington) can be divided into two categories: architectural basic factors of design, and non-architectural basic ones. The architectural basic factors of design are composed of house types, downtown types, residential road types and a community center. Those buildings can be shown to have separate characters of the three counties and represent their own idiosyncrasy, having separate design features from the visual forms, solution of design theme, relation of design elements and location and composition of design elements and patterns(refer to Table 6).

The non-architectural basic factors of design are composed of playground, recreational site and facility, public sign, cultural site, natural scene, unique material, economic activity, vernacular production, tourism site and community court. These factors are taken when designing from considering locality into

Table 6. Photos of architectural basic factors

Facility	Concord	Lexington	Arlington
House I			
House II			
House III			
Downtown I			
Downtown II			
Downtown III			
Residential road I			
Residential road II			
Residential road III			
Community Cnt. (Representative)			

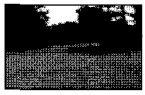


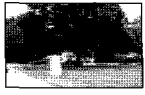
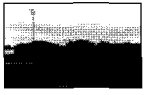
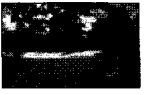














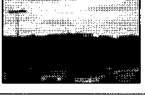








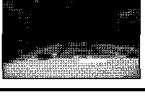
separate identity of the three counties, having separate trends in designing a characteristically visual shape, volume, color, pattern, texture and design tool and meaning(refer to Table 7).

2. Symbolizing Background and Sketch

The urban design background of the built environment of the three towns can be divided into two categories: design factors oriented to the tradition of the community for visualizing the community identity by using cultural or vernacular materials, and street furniture oriented to redesigning by using modernized materials. The built environments are affected and designed with the community identity(Collier, 1995).

The former factors are related in order to find a kind of

Table 7. Photos of non-architectural basic factors

Facility	Concord	Lexington	Arlington
Playground			
Recreational site & facility			
Public sign			
Cultural site			
Natural scene			
Unique landscape			
Economic activity1			
Vernacular production			
Tourism			
Community Crt. (Representative)			

designing motive applied to their traditional shape or pattern, which can be developed to symbolize the meaning of their own cultural characters or vernacular types. The later factors are related to scrutinize a kind of individuality applied to their unique types or grain, which can be represented to connote the symbol and design meaning of the three towns matched to a typical shape of the redesigned street furniture.

Those traditional design factors affect visual characters in street furniture. The traditional design factors are composed of fences, cornices(deck and skylight), doors and entrances, windows, gates, roofs, rear yards, masonry, signs, plantings(trees, shrubs & planter boxes), ironworks and utility equipment. The street furniture concerned about design language can involve benches, traffic light boxes, vending machines, news-

paper boxes, telephone panel booths, trash receptacles, mail boxes, poles, meters and street lightings, for considering street-scape.

The results of investigating the traditional design factors could show most of symbols to be recognized by ordinary forms. The symbols are not recognized with unique or idiosyncratic forms except fences, skylights, doors and entrances, widows, masonry and signs of Concord and Lexington as well as ironworks of Concord. The results of the traditional design factors are shown in Table 8.

The results of the investigation can define, as following, three intentional characters of forms:

- 1) The unique or vernacular forms of community facilities resemble visual forms derived from the traditional shape of their background from the context of built environments.
- 2) The idiosyncratic forms of community facilities not only resemble visual forms of the shape of their background, but also represent individually the character of the original shape.
- 3) The ordinary forms of community facilities resemble general forms of the manufactured type in those items.

The results of investigation of the street furniture could show most symbols to be recognized with ordinary forms. The symbols are not recognized with unique or idiosyncratic forms except poles and street lightings of Concord and Lexington and benches, traffic light boxes and telephone panel booths of Lexington as well as trash receptacles of Lexington and Arlington. The results of the street furniture are shown in Table 9.

3. Developing Design Language of Qualitative Approach Method to Symbolizing Image

Symbol is the art of words, which can promote the development for understanding visual notes and languages(Prak, 1968). Design language can be derived from symbol, developed design language of the qualitative can be derived from the image of the symbol.

The design language of community facilities is developed into 4 steps for the qualitative method.

- 1) Step a: for representation

The three towns have not only their own characters of houses, residential roads and community facilities, but also

Table 8. Background(traditional design factors) of three towns and photos of community facilities

Facility	Concord			Lexington			Arlington		
	Sketch	Characteristic	Photo	Sketch	Characteristic	Photo	Sketch	Characteristic	Photo
Fence		Unique			Unique			Ordinary	
Cornice (skylight)		Unique			Unique			Ordinary	
Door and Entrance		Unique			Unique			Ordinary	
Window		Unique			Unique			Ordinary	
Gate		Ordinary			Ordinary			Ordinary	
Roof		Ordinary			Ordinary			Ordinary	
Rear yard		Ordinary			Ordinary			Ordinary	
Masonry		Idiosyncratic			Unique			Ordinary	
Sign		Idiosyncratic			Idiosyncratic			Ordinary	
Landscaping (Planter box)		Ordinary			Ordinary			Ordinary	
Ironwork		Unique			Ordinary			Ordinary	
Utility equipment (Drainage)		Ordinary			Ordinary			Ordinary	

design motives and visual forms. For example, the three towns have had their facilities divided in unique situations from the taken photos(refer to Table 6, 7). The unique situations are represented to have their own visual design factors, involving design form and shape, pattern, color, grain and texture.

2) Step b: for defining abstraction

Traditional design factors could be derived from the community facilities of the three towns, depicted as unique, ordinary or idiosyncratic, represented by the associated sketches of the design objects. For example, the facilities of Concord could be traditional, having more ancient design types. The facilities of Arlington could be mixed with modernized ones, but the facilities of Lexington are depicted as transitional design types.

3) Step c: for visualizing physical quality

The visual notes of physical factors such as shape, pattern, color, texture, color, grain and design synthesis could be derived from the sketches before symbolizing. For example, the bench of Concord has its visual notes as visual notes in a case of bench of Concord(refer to Table 10).

4) Step d: for symbolizing image

The visual notes could be not only depicted as the symbol of design elements, but also composed of symbolic notes. Those could be developed to detail design languages, which have meaning of the symbols.

4. Application to Developing Design Synthesis

Table 9. The symbol and design meaning of three towns(street furniture) and photos of street furniture

Facility	Concord			Lexington			Arlington		
	Sketch	Characteristic	Photo	Sketch	Characteristic	Photo	Sketch	Characteristic	Photo
Bench		Axis unity			Axis unity unique			Axis unity unique	
Traffic light box		Detail design			Unique			Ordinary	
Vending machine		Ordinary			Ordinary			Ordinary	
Newspaper box		Ordinary			Ordinary			Ordinary	
Telephone panel booth		Ordinary			Unique			Ordinary	
Trash receptacle		Ordinary			Unique			Unique	
Mail box		Ordinary			Ordinary			Ordinary	
Pole		Unique			Unique			Ordinary	
Meters		Ordinary			Ordinary			Ordinary	
Street lighting		Unique			Unique			Ordinary	

Table 10. Visual notes & design meaning in concord

	Visual notes	Design meaning
Shape texture color	 ex) White	Axis, Unity Soft and hard Harmonized with the meaning of color
Grain		Proportional units
Design synthesis		Unity+Axis=Symmetry Proportion+Module=Harmonization

The tool of design language could fall into one of four categories: 1) directly visual forms, 2) the solution of design theme, 3) the relation of design elements, 4) the location and composition of design elements.

The following examples of symbol are represented into the 4 steps for the qualitative method, applied to cases of the benches of the three towns. That proceeded steps are developed from reviewing the results taken the categories of the four groups: visual forms, solution of design theme, dominant

relation of design elements, location and composition of design elements. The example explains the visual notes and design meaning of the benches of the three towns. The example is considered in the basic premises, visual notes and meaning. Those visual notes are abstractly represented into many kinds of symbolized language, which can be developed for the configuration of using associatively the pattern of tools of Microsoft Office Word. In the case of the visual forms in Concord, the shape of the bench is rectangular, the texture is soft and hard, the color is white and the grain is moderate. The design theme concerns about solving strongly the matter of proportion and design elements are dominantly related with the matter of parallel. The matter of the composition of design elements are strongly affected in proportion. The design language is concerned about the matter of axis, unity, symmetry and harmony.

5. Comparing the Symbols of Community Facilities

Table 11. The visual notes and design meaning of benches of 3 towns

Category	Basic premise	Concord		Lexington		Arlington		
		Visual notes (symbol)	Meaning	Visual notes (symbol)	Meaning	Visual notes (symbol)	Meaning	
Visual Forms	Shape	1, 2, 4		Rectangular		Rectangular		Rectangular
	Texture	1, 4		Soft and Hard		Soft		Soft
	Color	1	White	Tradition	Grey	Tradition	Brown	Tradition
	Grain	1		Moderate		Moderate		Large
Solution of design theme	Theme	2, 4		Strong proportion		Moderate proportion		Proportion
Dominant relation of design element		2, 3		Parallel		Parallel		Moderate parallel
Location and composition of design element	Proportion	2, 4		Proportion		Proportion		Proportion
Design synthesis	1, 2, 3, 4		Axis		Axis		Axis	
			Unity		Unity		Unity	
			Symmetry		Symmetry		Symmetry	
			Harmony		Harmony		Harmony	

The community facilities are composed of church, library, shop, signs, community layout, park, cemetery, school and town hall, which represent the characteristic design factors (form, color, pattern etc.). Most of the community facilities can represent common visualization by design language such as axis, symmetry and unity. But, the signs can represent their own vernacular or idiosyncratic forms and detailed design factors.

The characters that those community facilities can represented by visual notes is affected in the development of symbols. The symbols of those facilities are sketched as shown in Table 12, 13, 14.

The community facilities can be divided into four catego-




























Table 12. Concord's visual notes and language

Facility	Sketch	Visual notes	Visual language	
Church				Axis symmetry unity
Library				Axis symmetry variation
Shop				Symmetry unity
Sign				Idiosyncrasy detail emblem
Community				Sequence gradualness
Park				Naturalness
Cemetery				Idiosyncrasy
School				Symmetry variation
Town Hall				Axis symmetry

Table 13. Lexington's visual notes and language

Facility	Sketch	Visual notes	Visual language	
Church				Axis symmetry
Library				Axis diversity
Shop				Symmetry unity
Sign				Idiosyncrasy detail design
Community				Gradualness diversity
Park				Naturalness
Cemetery				Idiosyncrasy
School				Symmetry variation
Town hall				Axis symmetry variation

Table 14. Arlington's visual notes and language

Facility	Sketch	Visual notes	Visual language	
Church				Axis symmetry
Library				Axis diversity
Shop				Diversity
Sign				Diversity
Community				Unique
Park				Naturalness
Cemetery				Naturalness artificial
School				Variation
Town hall				Axis symmetry

ries: 1) social benefits(playgrounds, recreational sites, town hall, community and public signs), 2) health benefits(cultural center, park, library and cemetery), 3) environmental benefits (house, shop, natural geography and church) and 4) economic benefits(economic activities, vernacular production and tourism).

The design symbol of the community facilities of the three towns has developed from configuring the shape of visual forms and represented into being derived from the process of symbol. The symbol is developed to visualize design languages. Those design languages are concerned about the characters of their own identity. The characters are categorized into three groups: ordinary type, unique and idiosyncratic(refer to Table 15).

The presentation of those are involved and diversified to the design characters as axis, artificial, balance, diversity, dominance, focus, harmony, naturalness, parallel, proportion, strength and symmetry.

The symbols of community facilities of Concord and Lexington have idiosyncratic or unique design languages, representing aesthetic terminologies by being recognized with essential factors. But, the symbols of most community facilities except for the town hall and library of Arlington have

an ordinary design language, representing aesthetic terminologies by being recognized with essential factors.

V. Design Language and Meaning of the Symbols of Community Facilities

1. Design Language from the Symbols of Community Facilities of the Three Towns

A design language of detailed elements of the three communities can be represented by condensed forms and shapes from the deconstruction of detailed design factors, which are composed of shape, volume, color, pattern and texture as shown by their own characters as having common and popular coincidence with the dispersed idiosyncrasy in their county. The architectural basic factors of design are considered in symbolizing representative shape, by reviewing the facade of the buildings of the community facility.

The non-architectural basic factors of design are considered in symbolizing the abstract type of visual forms, by reviewing the configuring typical pattern or characteristic feature.

Concord has the shape of detailed design elements that separated symbols that were both common and popular as well as idiosyncratic forms of design objects, presenting the volume of designing mass represented as lower rise structures and buildings that were both common and popular and especially lower and smaller than others in their idiosyncrasy. In addition, Concord has its own color and individualizes its pattern and texture in the idiosyncrasy of each factor.

Lexington also has the shape of detailed design elements that separated symbols in common and popular as well as idiosyncratic forms of design objects, presenting the volume of designing mass represented as more moderate structures and buildings in common and popular and especially more moderate than others in their idiosyncrasy. In addition, Lexington has its own color and individualizes its pattern and texture in the idiosyncrasy of each factor.

Arlington has the shape of detailed design elements that separated symbols that were both common and popular as well as idiosyncratic forms of design objects, presenting the volume of designing mass represented as higher rise struc-

Table 15. Design symbols and presentation of community facilities of three towns

Benefits	Facility	Concord			Lexington			Arlington		
		Design language	Presentation*	Symbol	Design language	Presentation	Symbol	Design language	Presentation	Symbol
Social	Playground	O	N, Di, H		O	N, H, Di		O	N, H	
	Recreational	O	U, H		O	U, H		O	U, H	
	Town hall	U	A, Sy, U, P, St		U	A, Sy, U		U	U, Sy, Di	
	Community	U	N, U		U	N, U		O	N, U	
	Public sign	I	Di		I	Di		O	Di	
Health	Cultural	U	A, Sy, U		U	A, Sy, U		O	U, H	
	Park	O	N, St, H		O	N, St, H		O	N, H	
	Library	U	A, P, St, Di, H		U	A, Pr, St, Di, H		U	A, U	
	Cemetery	O	Ar, B, N		O	Ar, B, N		O	N, Ar	
Envnt	House	I	Sy, Pa, Di		I	A, Pa, Di		O	Pa, Di	
	Shop	I	Sy, St, Di, P		I	A, Sy, St, Di, Pr		O	H, Di	
	Geography	O	N, H, B		O	N, H, B		O	N, H	
	Church	I	A, Sy, U		I	A, Sy, U		O	A, U	
Econ	Activities	O	Ar, B		O	R, H, B		O	Ar, H	
	Vernaculars	U	Di, F, H, Do		U	Di, F, H		O	Di, H	
	Tourism	U	Di, St, B		U	Di, St, B		O	Di	
Remarks		A: Axis, Ar: Artificial, B: Balance, Di: Diversity, Do: Dominance, F: Focus, H: Harmony, I: Idiosyncrasy, N: Naturalness, O: Ordinary, Pa: Parallel, Pr: Proportion, St: Strength, Sy: Symmetry, U: Unique								

*: Presentation is derived from the process of symbol following visual language(refer to Table 12, 13, 14).

tures and buildings in common and popular and especially higher and larger than others in their idiosyncrasy. Arlington also has its own color and individualizes its pattern and texture in the idiosyncrasy of each factor(refer to Table 17).

2. Meaning of the Symbols of Community Facilities of the Three Towns

The meaning of a design language of the detailed elements of the three communities can be abstracted into four parts: visual forms, requisite unity, element relation and relative location.

The design language of the detailed elements of the three

communities are rearranged into the matter of shape, volume, color, pattern and texture and considered in synthesizing the suitable symbol of the essential features to redefine design the meaning and visual notes of them. The design factors can be divided into two kinds of matter: concerns of general or popular design, idiosyncratic design. The configuration of the design language of the detailed elements are developed from simplifying those associated by the tool of the pattern of Microsoft Office Word usage and representing the means of connoted figures or shapes.

Concord has visual forms represented by traditional factors with conservative shape, accompanied by the requisite unity applied to antiquated and time-honored elements. Concord also has elements of relation of design language configured

Table 16. Design language of detailed elements of three communities

Design factor		Concord	Lexington	Arlington
Shape	C&P			
	I			
Volume	C&P			
	I			
Color	Color	W & Gr	Gn, W, B	Gn, W, Gr
	I	Gn	Y, Pu	Pi, Y
Pattern	C&P	O	O	O
	I			
Texture	C&P	O	O	O
	I			
Remark	C&P: Common and Popular, I: Idiosyncrasy, O: Ordinary, B: Beige, Gn: Green, Gr: Grey, Pi: Pink, Pu: Purple, W: White, Y: Yellow			

Table 17. Meaning of design language of detailed elements of three communities

Facility	Concord	Lexington	Arlington
Visual forms	Traditional factor conservative shape	Moderate factor traditional shape	Modern factor mixing shape
Requisite unity	Antiquated time-honored	Time-endowed old-fashioned	Sophisticated mixed using
Element relation	Classical composition pastoral scenery	Classic & modern composition, refined scenery	Modern-oriented composition, urban scenery
Relative location	Rural suburban relaxed sporadicness	Moderate suburban mutual alliance	Residential suburban condensed compactness

on classical composition with a concomitance of having pastoral scenery, taking the character of relative location with rural suburban and relaxing to allow sporadicness.

Lexington has visual forms represented as moderate factors such as traditional shape, accompanied by the requisite unity applied to time-endowed and old-fashioned elements. In addition, Concord has elements of relation of design language configured on classic & modern composition with concomitance of having refined scenery, taking the character of relative location with moderate suburban and relaxing to allow mutual alliance.

Arlington has visual forms represented by modern factors with mixed shapes, accompanied by the requisite unity applied to modern-oriented elements. Arlington also has elements of relation of design language configured on modern-oriented composition with concomitance of having urban scenery, taking the character of relative location with residential suburban and relaxing to allow condensed compactness.

3. Assessment of Design Language and Meaning the Symbols of Community Facilities

Landscape and images of the community depend on looking rural, having characteristic boundaries and built environments(Stilgoe, 2005). Those have their own value to the diversified benefits of special fields, being useful for art appreciation of the community. Those are related to both the assessment of design and the symbols of the community.

The assessment of design language and the meaning of the symbols of community facilities of the towns are analyzed according to their benefits, which can be divided into social, health, environmental and economic factors. These factors should be scrutinized into four assessment factors, of which criteria for idealistic goals like substantiality are composed of design language, symbolic language, community and natural beauty.

The assessment criteria of detail design language itself can firstly scrutinize visual form oriented to the contextual locality for social benefits. Secondly, that can scrutinize essential naturalness and a conservative aesthetic approach for health benefits. Thirdly, that can scrutinize non-artificial and balance & harmonization for environment benefits. Fourthly, that can scrutinize stimulated mass & forms, impressive built environment and active and progressive patterns for economic benefits.

The assessment criteria of symbolic language could have a trend to be oriented to simplicity, balance and dominance of visual form for social benefits. That could have a trend to represent diversity, harmony and focus for health benefits. That could have a trend to represent unity, parallel and strength for environmental benefits. That could have a trend to represent diversity, balance and proportion for economic benefits.

The assessment criteria of community could have positive elements, attractiveness and tradition for social benefits.

Table 18. Assessment criteria of detail design language

Facility	Design language itself	Symbolic language	Community	Natural beauty
Social benefits (Children's play, passive recreation, community)	Visual form oriented, formal shape honored	Simplicity balance dominance	Positive elements attractiveness tradition	Moderate
Health benefits (Cultural focus, open spaces and educational resources, aesthetics)	Essential naturalness conservative aesthetic approach	Diversity harmony focus	Participation equilibrium security	Moderate
Environmental benefits (Urban climate, wildlife, habitats)	Non-artificial balance & harmonization	Unity parallel strength	Concomitance necessities coexistence	Needed
Economic benefits (Impact on property values, employ opportunities, crop production, tourism)	Stimulated mass & forms impressive built environment active & progressive pattern	Diversity balance proportion	Quality of life development foundation	Needed

That could have participation (mediating power: Dovey, 1999), equilibrium and security for health benefits. That could have concomitance, necessities and coexistence for environmental benefits. The facilities could have a trend to represent a quality of life and development foundation for economic benefits.

Assessment criteria of natural beauty could need to be moderate for both the social and health benefits and could be essential for both environmental and economic benefits.

VI. Conclusion

The research found the following:

- 1) The configuration of detail design language implies the way condensed symbols can represent and categorize.
- 2) The configuration has means for the design language, developed to represent visual notes and design meaning.
- 3) The configuration has the design language and meaning of the symbols of community facilities, applied to the pattern of tools of Microsoft Office Word.
- 4) The configuration is useful to solve the matters of what design elements of the community facilities can be composed of detail design language.

The research could formulate the process of developing the assessment criteria to the detail design language for the promotion of which consilience describes the synthesis of knowledge from different specialized fields of human endeavor. The development of the configuration of the detail design language can be an issue of a holistic concept for the synthesis of knowledge from a kind of consilience of design.

But the research needs to find methods suitable to the consilience of the new approach, applied to architecture, landscape architecture, road engineering and urban design. Those accepting the configuration have to be thrown over visual language barriers. And the research needs to represent the intensity of the effective factors of the assessment criteria of the detail design language, compared with the three towns and counties.

The configuration of the design language could be re-presented to unite symbols and might be able to unite visual notes with meaning of the design language, as consilience could be applied to the synthesis of knowledge from design theories. After all, the research should be a kind of consilience, which represents the synthesis of knowledge from the design language of visualizing symbols to the assessment criteria of detail design language.

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