

# **NEIGHBOURHOOD COMPLEXITY**

An inquiry into the built environment of West  
Alexander, Winnipeg, Manitoba, Canada.

By

Pedro Antonio Heleno Chagas

A thesis submitted to the Faculty of Graduate  
Studies in partial fulfillment of the requirements  
for the degree of

Master of Architecture

Department of Architecture  
University of Manitoba  
Winnipeg, Manitoba

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Mathematics ..... 0280  
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Religious ..... 0527  
Sciences ..... 0714  
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Sociology of ..... 0340  
Special ..... 0529  
Teacher Training ..... 0530  
Technology ..... 0710  
Tests and Measurements ..... 0288  
Vocational ..... 0747

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Language  
General ..... 0679  
Ancient ..... 0289  
Linguistics ..... 0290  
Modern ..... 0291  
Literature  
General ..... 0401  
Classical ..... 0294  
Comparative ..... 0295  
Medieval ..... 0297  
Modern ..... 0298  
African ..... 0316  
American ..... 0591  
Asian ..... 0305  
Canadian (English) ..... 0352  
Canadian (French) ..... 0355  
English ..... 0593  
Germanic ..... 0311  
Latin American ..... 0312  
Middle Eastern ..... 0315  
Romance ..... 0313  
Slavic and East European ..... 0314

#### PHILOSOPHY, RELIGION AND THEOLOGY

Philosophy ..... 0422  
Religion  
General ..... 0318  
Biblical Studies ..... 0321  
Clergy ..... 0319  
History of ..... 0320  
Philosophy of ..... 0322  
Theology ..... 0469

#### SOCIAL SCIENCES

American Studies ..... 0323  
Anthropology  
Archaeology ..... 0324  
Cultural ..... 0326  
Physical ..... 0327  
Business Administration  
General ..... 0310  
Accounting ..... 0272  
Banking ..... 0770  
Management ..... 0454  
Marketing ..... 0338  
Canadian Studies ..... 0385  
Economics  
General ..... 0501  
Agricultural ..... 0503  
Commerce-Business ..... 0505  
Finance ..... 0508  
History ..... 0509  
Labor ..... 0510  
Theory ..... 0511  
Folklore ..... 0358  
Geography ..... 0366  
Gerontology ..... 0351  
History  
General ..... 0578

Ancient ..... 0579  
Medieval ..... 0581  
Modern ..... 0582  
Black ..... 0328  
African ..... 0331  
Asia, Australia and Oceania ..... 0332  
Canadian ..... 0334  
European ..... 0335  
Latin American ..... 0336  
Middle Eastern ..... 0333  
United States ..... 0337  
History of Science ..... 0585  
Law ..... 0398  
Political Science  
General ..... 0615  
International Law and Relations ..... 0616  
Public Administration ..... 0617  
Recreation ..... 0814  
Social Work ..... 0452  
Sociology  
General ..... 0626  
Criminology and Penology ..... 0627  
Demography ..... 0938  
Ethnic and Racial Studies ..... 0631  
Individual and Family Studies ..... 0628  
Industrial and Labor Relations ..... 0629  
Public and Social Welfare ..... 0630  
Social Structure and Development ..... 0700  
Theory and Methods ..... 0344  
Transportation ..... 0709  
Urban and Regional Planning ..... 0999  
Women's Studies ..... 0453

### THE SCIENCES AND ENGINEERING

#### BIOLOGICAL SCIENCES

Agriculture  
General ..... 0473  
Agronomy ..... 0285  
Animal Culture and Nutrition ..... 0475  
Animal Pathology ..... 0476  
Food Science and Technology ..... 0359  
Forestry and Wildlife ..... 0478  
Plant Culture ..... 0479  
Plant Pathology ..... 0480  
Plant Physiology ..... 0817  
Range Management ..... 0777  
Wood Technology ..... 0746

Biology  
General ..... 0306  
Anatomy ..... 0287  
Biostatistics ..... 0308  
Botany ..... 0309  
Cell ..... 0379  
Ecology ..... 0329  
Entomology ..... 0353  
Genetics ..... 0369  
Limnology ..... 0793  
Microbiology ..... 0410  
Molecular ..... 0307  
Neuroscience ..... 0317  
Oceanography ..... 0416  
Physiology ..... 0433  
Radiation ..... 0821  
Veterinary Science ..... 0778  
Zoology ..... 0472

Biophysics  
General ..... 0786  
Medical ..... 0760

#### EARTH SCIENCES

Biogeochemistry ..... 0425  
Geochemistry ..... 0996

Geodesy ..... 0370  
Geology ..... 0372  
Geophysics ..... 0373  
Hydrology ..... 0388  
Mineralogy ..... 0411  
Paleobotany ..... 0345  
Paleoecology ..... 0426  
Paleontology ..... 0418  
Paleozoology ..... 0985  
Palynology ..... 0427  
Physical Geography ..... 0368  
Physical Oceanography ..... 0415

#### HEALTH AND ENVIRONMENTAL SCIENCES

Environmental Sciences ..... 0768  
Health Sciences  
General ..... 0566  
Audiology ..... 0300  
Chemotherapy ..... 0992  
Dentistry ..... 0567  
Education ..... 0350  
Hospital Management ..... 0769  
Human Development ..... 0758  
Immunology ..... 0982  
Medicine and Surgery ..... 0564  
Mental Health ..... 0347  
Nursing ..... 0569  
Nutrition ..... 0570  
Obstetrics and Gynecology ..... 0380  
Occupational Health and Therapy ..... 0354  
Ophthalmology ..... 0381  
Pathology ..... 0571  
Pharmacology ..... 0419  
Pharmacy ..... 0572  
Physical Therapy ..... 0382  
Public Health ..... 0573  
Radiology ..... 0574  
Recreation ..... 0575

Speech Pathology ..... 0460  
Toxicology ..... 0383  
Home Economics ..... 0386

#### PHYSICAL SCIENCES

Pure Sciences  
Chemistry  
General ..... 0485  
Agricultural ..... 0749  
Analytical ..... 0486  
Biochemistry ..... 0487  
Inorganic ..... 0488  
Nuclear ..... 0738  
Organic ..... 0490  
Pharmaceutical ..... 0491  
Physical ..... 0494  
Polymer ..... 0495  
Radiation ..... 0754  
Mathematics ..... 0405  
Physics  
General ..... 0605  
Acoustics ..... 0986  
Astronomy and Astrophysics ..... 0606  
Atmospheric Science ..... 0608  
Atomic ..... 0748  
Electronics and Electricity ..... 0607  
Elementary Particles and High Energy ..... 0798  
Fluid and Plasma ..... 0759  
Molecular ..... 0609  
Nuclear ..... 0610  
Optics ..... 0752  
Radiation ..... 0756  
Solid State ..... 0611  
Statistics ..... 0463

#### Applied Sciences

Applied Mechanics ..... 0346  
Computer Science ..... 0984

Engineering  
General ..... 0537  
Aerospace ..... 0538  
Agricultural ..... 0539  
Automotive ..... 0540  
Biomedical ..... 0541  
Chemical ..... 0542  
Civil ..... 0543  
Electronics and Electrical ..... 0544  
Heat and Thermodynamics ..... 0348  
Hydraulic ..... 0545  
Industrial ..... 0546  
Marine ..... 0547  
Materials Science ..... 0794  
Mechanical ..... 0548  
Metallurgy ..... 0743  
Mining ..... 0551  
Nuclear ..... 0552  
Packaging ..... 0549  
Petroleum ..... 0765  
Sanitary and Municipal ..... 0554  
System Science ..... 0790  
Geotechnology ..... 0428  
Operations Research ..... 0796  
Plastics Technology ..... 0795  
Textile Technology ..... 0994

#### PSYCHOLOGY

General ..... 0621  
Behavioral ..... 0384  
Clinical ..... 0622  
Developmental ..... 0620  
Experimental ..... 0623  
Industrial ..... 0624  
Personality ..... 0625  
Physiological ..... 0989  
Psychobiology ..... 0349  
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Histoire de l'art	0377
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#### ÉDUCATION

Généralités	515
Administration	0514
Art	0273
Collèges communautaires	0275
Commerce	0688
Économie domestique	0278
Éducation permanente	0516
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Enseignement agricole	0517
Enseignement bilingue et multiculturel	0282
Enseignement industriel	0521
Enseignement primaire	0524
Enseignement professionnel	0747
Enseignement religieux	0527
Enseignement secondaire	0533
Enseignement spécial	0529
Enseignement supérieur	0745
Évaluation	0288
Finances	0277
Formation des enseignants	0530
Histoire de l'éducation	0520
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Lecture	0535
Mathématiques	0280
Musique	0522
Orientation et consultation	0519
Philosophie de l'éducation	0998
Physique	0523
Programmes d'études et enseignement	0727
Psychologie	0525
Sciences	0714
Sciences sociales	0534
Sociologie de l'éducation	0340
Technologie	0710

#### LANGUE, LITTÉRATURE ET LINGUISTIQUE

Langues	
Généralités	0679
Anciennes	0289
Linguistique	0290
Modernes	0291
Littérature	
Généralités	0401
Anciennes	0294
Comparée	0295
Médiévale	0297
Moderne	0298
Africaine	0316
Américaine	0591
Anglaise	0593
Asiatique	0305
Canadienne (Anglaise)	0352
Canadienne (Française)	0355
Germanique	0311
Latino-américaine	0312
Moyen-orientale	0315
Romane	0313
Slave et est-européenne	0314

#### PHILOSOPHIE, RELIGION ET THÉOLOGIE

Philosophie	0422
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Études bibliques	0321
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Philosophie de la religion	0322
Théologie	0469

#### SCIENCES SOCIALES

Anthropologie	
Archéologie	0324
Culturelle	0326
Physique	0327
Droit	0398
Économie	
Généralités	0501
Commerce-Affaires	0505
Économie agricole	0503
Économie du travail	0510
Finances	0508
Histoire	0509
Théorie	0511
Études américaines	0323
Études canadiennes	0385
Études féministes	0453
Folklore	0358
Géographie	0366
Gérontologie	0351
Gestion des affaires	
Généralités	0310
Administration	0454
Banques	0770
Comptabilité	0272
Marketing	0338
Histoire	
Histoire générale	0578

Ancienne	0579
Médiévale	0581
Moderne	0582
Histoire des noirs	0328
Africaine	0331
Canadienne	0334
États-Unis	0337
Européenne	0335
Moyen-orientale	0333
Latino-américaine	0336
Asie, Australie et Océanie	0332
Histoire des sciences	0585
Loisirs	0814
Planification urbaine et régionale	0999
Science politique	
Généralités	0615
Administration publique	0617
Droit et relations internationales	0616
Sociologie	
Généralités	0626
Aide et bien-être social	0630
Criminologie et établissements pénitentiaires	0627
Démographie	0938
Études de l'individu et de la famille	0628
Études des relations interethniques et des relations raciales	0631
Structure et développement social	0700
Théorie et méthodes	0344
Travail et relations industrielles	0629
Transports	0709
Travail social	0452

### SCIENCES ET INGÉNIERIE

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Agriculture	
Généralités	0473
Agronomie	0285
Alimentation et technologie alimentaire	0359
Culture	0479
Élevage et alimentation	0475
Exploitation des pâturages	0777
Pathologie animale	0476
Pathologie végétale	0480
Physiologie végétale	0817
Sylviculture et taune	0478
Technologie du bois	0746
Biologie	
Généralités	0306
Anatomie	0287
Biologie (Statistiques)	0308
Biologie moléculaire	0307
Botanique	0309
Cellule	0379
Écologie	0329
Entomologie	0353
Génétique	0369
Limnologie	0793
Microbiologie	0410
Neurologie	0317
Océanographie	0416
Physiologie	0433
Radiation	0821
Science vétérinaire	0778
Zoologie	0472
Biophysique	
Généralités	0786
Médicale	0760

#### SCIENCES DE LA TERRE

Biogéochimie	0425
Géochimie	0996
Géodésie	0370
Géographie physique	0368

Géologie	0372
Géophysique	0373
Hydrologie	0388
Minéralogie	0411
Océanographie physique	0415
Paléobotanique	0345
Paléocéologie	0426
Paléontologie	0418
Paléozoologie	0985
Palynologie	0427

#### SCIENCES DE LA SANTÉ ET DE L'ENVIRONNEMENT

Économie domestique	0386
Sciences de l'environnement	0768
Sciences de la santé	
Généralités	0566
Administration des hôpitaux	0769
Alimentation et nutrition	0570
Audiologie	0300
Chimiothérapie	0992
Dentisterie	0567
Développement humain	0758
Enseignement	0350
Immunologie	0982
Loisirs	0575
Médecine du travail et thérapie	0354
Médecine et chirurgie	0564
Obstétrique et gynécologie	0380
Ophtalmologie	0381
Orthophonie	0460
Pathologie	0571
Pharmacie	0572
Pharmacologie	0419
Physiothérapie	0382
Radiologie	0574
Santé mentale	0347
Santé publique	0573
Soins infirmiers	0569
Toxicologie	0383

#### SCIENCES PHYSIQUES

##### Sciences Pures

Chimie	
Généralités	0485
Biochimie	487
Chimie agricole	0749
Chimie analytique	0486
Chimie minérale	0488
Chimie nucléaire	0738
Chimie organique	0490
Chimie pharmaceutique	0491
Physique	0494
Polymères	0495
Radiation	0754
Mathématiques	0405
Physique	
Généralités	0605
Acoustique	0986
Astronomie et astrophysique	0606
Électronique et électricité	0607
Fluides et plasma	0759
Météorologie	0608
Optique	0752
Particules (Physique nucléaire)	0798
Physique atomique	0748
Physique de l'état solide	0611
Physique moléculaire	0609
Physique nucléaire	0610
Radiation	0756
Statistiques	0463

##### Sciences Appliquées Et Technologie

Informatique	0984
Ingénierie	
Généralités	0537
Agricole	0539
Automobile	0540

Biomédicale	0541
Chaleur et thermodynamique	0348
Conditionnement (Emballage)	0549
Génie aérospatial	0538
Génie chimique	0542
Génie civil	0543
Génie électronique et électrique	0544
Génie industriel	0546
Génie mécanique	0548
Génie nucléaire	0552
Ingénierie des systèmes	0790
Mécanique navale	0547
Métallurgie	0743
Science des matériaux	0794
Technique du pétrole	0765
Technique minière	0551
Techniques sanitaires et municipales	0554
Technologie hydraulique	0545
Mécanique appliquée	0346
Géotechnologie	0428
Matériaux plastiques (Technologie)	0795
Recherche opérationnelle	0796
Textiles et tissus (Technologie)	0794

#### PSYCHOLOGIE

Généralités	0621
Personnalité	0625
Psychobiologie	0349
Psychologie clinique	0622
Psychologie du comportement	0384
Psychologie du développement	0620
Psychologie expérimentale	0623
Psychologie industrielle	0624
Psychologie physiologique	0989
Psychologie sociale	0451
Psychométrie	0632





**NEIGHBOURHOOD COMPLEXITY**

**AN INQUIRY INTO THE BUILT ENVIRONMENT OF WEST ALEXANDER,  
WINNIPEG, MANITOBA, CANADA**

**BY**

**PEDRO ANTONIO HELENO CHAGAS**

**A Thesis submitted to the Faculty of Graduate Studies of the University of Manitoba  
in partial fulfillment of the requirements of the degree of**

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## **Acknowledgements**

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## **Abstract**

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The focus of the thesis is to reveal how the built environment of West Alexander has emerged and fostered a neighbourhood complexity, characterized by diversity and vitality. In turn, how can design strategies in architecture and planning recognize and support this neighbourhood complexity?

The thesis examines:

- 1) the vitality and diversity inherent in the traditional urban neighbourhood using the case study of West Alexander.
- 2) the limitations of modern orthodox planning and architecture in recognizing the complexity of traditional urban neighbourhoods.
- 3) design methodologies which identify the diversity and rich vitality of the traditional neighbourhood.

West Alexander is a traditional neighbourhood with a rich urban fabric characterized by a diversity of coexisting residential, commercial, and industrial activity. The thesis maintains that the loss of the inherent richness in the built environment of West Alexander, was partially due to the rational comprehensive planning imposed upon the city of separating residential, commercial, and industrial activity into homogeneous areas. In turn, these plans were limited in recognizing the complexity of coexisting residential, commercial, and industrial activity in the neighbourhood of West Alexander.

This argument is developed by contrasting the proposals of Urban Renewal for West Alexander during the 1950's, which dismissed the diversity of West Alexander as a neighbourhood in decline. In contrast the thesis recognizes diversity as a vital part of a neighbourhood's complex rich urban fabric. Furthermore, in light of this contrast, this thesis illustrates that in order for the built environment of West Alexander to continue and foster this complexity, precedents of modern orthodox architecture and planning can not continue to be used. Instead, a view that recognizes and places emphasis on the interwoven relationships between the built environment and inhabitants is needed to foster neighbourhood complexity.

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As a result of this discourse, the thesis develops a methodology that reveals the neighbourhood of West Alexander as shaped by historical events and the ingenious adaptations of inhabitants to the built environment. In turn, this documentation can be applied to future architectural and planning interventions.



# **Contents**

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<b>List of Illustrations</b>	<b>i</b>
<b>Glossary</b>	<b>vii</b>
<b>Introduction</b>	<b>1</b>
Thesis Statement	11
Thesis Form.	12
<b>Part One</b>	<b>15</b>
Chapter One: West Alexander a Chaotic Neighbourhood	15
Urban Renewal in West Alexander	16
Summary	21
Chapter Two: West Alexander a Vital Neighbourhood	23
Diversity and Vitality	25
Interaction and Interdependence of diversity	29
Summary	32
Chapter Three: A New Paradigm	33
Natural and Planned Development	33
Reductionist and Deterministic Views	37
Holistic View	39
Summary	45

---

<b>Part Two</b>	<b>47</b>
Chapter Four: Alternative Methodologies	47
Genealogy of Design Methodology	49
Alternative Processes	51
Summary	61
Chapter Five: Methodology for an Inquiry into West Alexander	62
Conceptual Framework of Inquiry	62
Summary	65
<b>Part Three</b>	<b>66</b>
Chapter Six: Inhabitants no Control	66
Land Subdivision	67
Blocks and Streets	72
Summary	76
Chapter Seven: Inhabitants some Control	77
Land use	77
Land Use Pattern	78
Streets and land use	79
Historical Events Surrounding Land use	83
Economic Forces on Land Use	84
Social Context of Land Use	85
Dynamics of Land Uses	86
Summary	87

---

<b>Chapter Eight:</b>	
<b>Inhabitants in Control</b>	<b>89</b>
Buildings	90
Lots	100
Blocks	104
Summary	107
 <b>Conclusions: Adaptation of Form</b>	 <b>108</b>
A Block	111
Lots	112
Elements	115
Strategy for Implementation	118
 <b>Bibliography</b>	 <b>122</b>
Books	122
Articles	127

---



## **List of Illustrations**

---

- Figure 1 Downtown map of Winnipeg, with the darker blocks indicating West Alexander. Source: Developed from 1917 and 1947. Fire insurance maps, courtesy of Provincial Archives of Manitoba, and 1988 city maps, courtesy of Winnipeg Department of City Planning. Found on page 1.
- Figure 2 Streets and blocks map of West Alexander. Source: Developed from 1917 and 1947. Fire insurance maps, courtesy of Provincial Archives of Manitoba, and 1988 city maps, courtesy of Winnipeg Department of City Planning. Found on page 2.
- Figure 3. Illustration of ; Ebenzer Howard, Garden City. Source: Reprinted from Edward Relph (1987). Found on page 5.
- Figure 4. Illustration of ; Frank Lloyd Wright, Broadacre City Source: Reprinted from Edward Relph (1987). Found on page 6.
- Figure 5. Illustration of ; Le Corbusier, Radiant City. Source: Reprinted from Edward Relph (1987). Found on page 7.
- Figure 6 Minimum standard housing in Lord Selkirk Park. Source: Photo, Pedro Chagas. Found on page 18.
- Figure 7 Equal access to amenities, picture illustrating parking, garbage refuse and green spaces. Source: Photo, Pedro Chagas. Found on page 18.
- Figure 8 Illustration demonstrating the Urban Renewal proposals (on the left) and Lord Selkirk Park (on the right). Source: Left, reprinted from W. Gerson (1957). Right, photo Pedro Chagas. Found on page 21.
- Figure 9 Diagram illustrating land use relationships to the objectives of segregation, efficiency, order, homogeneity and functionality. Drawn by, Pedro Chagas. Found on page 22.
- Figure 10 Illustration of the interrelationship between the three aspects of diversity as fostering vitality in the built environment of West Alexander. Source: Adapted from F. Capra (1982), Skolimowski (1981). Found on page 26.

- Figure 11 Photographs of residential building having either commercial or industrial use combined. Source: Photo, Pedro Chagas. Found on page 28.
- Figure 12 Photograph of Mr. Chambers junk yard. Source: Photo, Pedro Chagas. Found on page 29.
- Figure 13 Norm & Nates Delicatessen provides lunch hour delivery service, to HSC. employees. Source: Photo, Pedro Chagas. Found on page 30.
- Figure 14 Photographs of personal expression of inhabitants in home renovations. Source: Photo, Pedro Chagas. Found on page 31.
- Figure 15 Comparison between the Unplanned process and Planned process. Source: Adapted from C. Alexander (1964). Found on page 36.
- Figure 16 Linear view (reductionist view) compared to the system view (holistic view). Source: Adapted from Strickland & Hammer (1988). Found on page 41.
- Figure 17 Diagram of the interrelationship of normative and positive theory in the Positive Environmental Design Theory. Source: Reprinted from J. Lang (1987). Found on page 42.
- Figure 18 Diagram of ensemble and its over lapping and nested boundaries. Source: Reprinted from C. Alexander (1964). Found on page 44.
- Figure 19 Genealogy. Source: Drawn by Pedro Chagas. Found on page 49.
- Figure 20 Diagram of a Support and Detachable unit. Dark grey (beta) depicts group control, the support. Light grey (Alpha) depicts individual control, detachable unit. Source: Reprinted from J. Habraken (1976). Found on page 52.
- Figure 21 Diagrams showing the concept of Zones and Margins. In area where either alpha or beta occurs as a single entity, we have a zone. In area where we have both an alpha and a beta, we have a margin. Where Light grey or (Alpha) is private in individual control and where dark grey, or (Beta) is public in group control. Source: Reprinted from J. Habraken (1976). Found on page 54.

- Figure 22 Alamo Square, 1931 lots and buildings. Source: Reprinted from Anne Vernez(1989). Found on page 58.
- Figure 23 Alamo Square, Typology of house forms and lots in the nineteenth century.. Source: Reprinted from Anne Vernez(1989). Found on page 58.
- Figure 24 Alamo Square, physical structure of urban space illustrating the scale of information about a neighbourhood. Source: Reprinted from Anne Vernez(1989). Found on page 60.
- Figure 25 Conceptual framework of inquiry. Source: Drawn by Pedro Chagas. Found on page 62.
- Figure 26 'Analytical Methodology Diagram'. Source: Drawn by Pedro Chagas. Found on page 63.
- Figure 27 Inquiry Diagram. Source: Drawn by Pedro Chagas. Found on page 64.
- Figure 28 A Streets and blocks map of West Alexander. Source: Developed from 1917 and 1947. Fire insurance maps, courtesy of Provincial Archives of Manitoba, and 1988 city maps, courtesy of Winnipeg Department of City Planning. Found on page 67.
- Figure 29 Downtown map of Winnipeg, with the darker blocks indicating West Alexander. Source: Developed from 1917 and 1947. Fire insurance maps, courtesy of Provincial Archives of Manitoba, and 1988 city maps, courtesy of Winnipeg Department of City Planning. Found on page 68.
- Figure 30 Plan of the Settlement on the Red River, 1816. Source: Reprinted: Courtesy of Provincial Archives of Manitoba. Found on page 69.
- Figure 31 A map of Winnipeg in 1874, entitled "Dominion Lands Survey Winnipeg, April 1874". Source: Reprinted: Courtesy of Provincial Archives of Manitoba. Found on page 70.
- Figure 32 "Plan of the City of Winnipeg and its Vicinity in 1874". Source: Reprinted: Courtesy of Provincial Archives of Manitoba. Found on page 71.

- Figure 33 Block Development Matrix. This diagram shows the progression of block subdivision into lots, from 1880 to present. Source: Developed from 1917 and 1947. Fire insurance maps, courtesy of Provincial Archives of Manitoba, and 1988 city maps, courtesy of Winnipeg Department of City Planning. Found on page 73.
- Figure 34 Map comparing property lines for the years 1947 and 1988. Source: Developed from 1917 and 1947. Fire insurance maps, courtesy of Provincial Archives of Manitoba, and 1988 city maps, courtesy of Winnipeg Department of City Planning. Found on page 74.
- Figure 35 Layering effect of different lot subdivision over a 100 years. Source: Developed from 1917 and 1947. Fire insurance maps, courtesy of Provincial Archives of Manitoba, and 1988 city maps, courtesy of Winnipeg Department of City Planning. Found on page 76.
- Figure 36 Land use pattern overlay with property lines 1988. Source: Developed from 1917 and 1947. Fire insurance maps, courtesy of Provincial Archives of Manitoba, and 1988 city maps, courtesy of Winnipeg Department of City Planning. Found on page 79.
- Figure 37 Maps comparing the building outline with land use for the year 1988. Source: Developed from 1917 and 1947. Fire insurance maps, courtesy of Provincial Archives of Manitoba, and 1988 city maps, courtesy of Winnipeg Department of City Planning. Found on page 80.
- Figure 38 Maps comparing the figure ground overlaid with property lines for the years 1947 to 1988. Source: Developed from 1917 and 1947. Fire insurance maps, courtesy of Provincial Archives of Manitoba, and 1988 city maps, courtesy of Winnipeg Department of City Planning. Found on page 81.
- Figure 39 Matrix of building typologies relative to use and lot size for the period of 1880-1920. Source: Developed from 1917 and 1947. Fire insurance maps, courtesy of Provincial Archives of Manitoba, and 1988 city maps, courtesy of Winnipeg Department of City Planning. Found on page 92.

- Figure 40 Matrix of building typologies relative to use and lot size for the period 1920 - 1950. Source: Developed from 1917 and 1947. Fire insurance maps, courtesy of Provincial Archives of Manitoba, and 1988 city maps, courtesy of Winnipeg Department of City Planning. Found on page 94.
- Figure 41 Matrix of building typologies relative to use and lot size for the period of 1950-Present. Source: Developed from 1917 and 1947. Fire insurance maps, courtesy of Provincial Archives of Manitoba, and 1988 city maps, courtesy of Winnipeg Department of City Planning. Found on page 98.
- Figure 42 Matrix of building typologies relative to use and lot size for the period of 1950-Present. Source: Developed from 1917 and 1947. Fire insurance maps, courtesy of Provincial Archives of Manitoba, and 1988 city maps, courtesy of Winnipeg Department of City Planning. Found on page 99.
- Figure 43 Floor plan of original detached homes on 66 foot lot. Source: Developed from Precedents of Habraken, (1976), Moudon (1989). Found on page 100.
- Figure 44 Drawing showing the private and public relationship at the lot and building level. Source: Developed from Precedents of Habraken, (1976), Moudon (1989). Found on page 101.
- Figure 45 Illustration of the different conditions of public margin. Source: Developed from Precedents of Habraken, (1976), Moudon (1989). Found on page 102.
- Figure 46 Illustrates the transformation of the block. Source: Developed from Precedents of Habraken, (1976), Moudon (1989). Found on page 105.
- Figure 47 An illustration of the block with the development of the back lane. Source: Developed from Precedents of Habraken, (1976), Moudon (1989). Found on page 106.
- Figure 48 Block Plan and Elevations of Block. Source: Developed from photos by Pedro Chagas, and Fire insurance maps, courtesy of Provincial Archives of Manitoba. Found on page 111.

- Figure 49 Residential land use. Source: Developed from Precedents of Habraken, (1976), Moudon (1989). Found on page 112.
- Figure 50 Multiple Residential land use. Source: Developed from Precedents of Habraken, (1976), Moudon (1989). Found on page 113.
- Figure 51 Residential / Commercial land use. Source: Developed from Precedents of Habraken, (1976), Moudon (1989). Found on page 114.
- Figure 52 Residential / Industrial land use. Source: Developed from Precedents of Habraken, (1976), Moudon (1989). Found on page 114.
- Figure 53 Photograph of zones and margins. Source: Photos, Pedro Chagas. Found on page 116.
- Figure 54 Chart of elements as per zones and margins. Source: Chart adapted from Habraken, (1976). Found on page 117.

## **Glossary**

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CNR	Canadian National Railway.
CPR	Canadian Pacific Railway.
HSC	Health Science Center.
NIP	Neighbourhood Improvement Program.
RRAP	Residential Rehabilitation Assistance Program.
SAR	Stitching Architects' Research.

## Introduction

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West Alexander is a Winnipeg inner city neighbourhood with a population of 7000 people. It is located in a area of inner city Winnipeg bounded by Arlington Street to the west, Isabel Street to the east, Logan Avenue to the north and Notre Dame Avenue to the south, as illustrated in Figure 1. West Alexander contains numerous commercial and industrial establishments that serve the local residents as well as the regional population of the City of Winnipeg and the Province of Manitoba. West Alexander has a significantly higher population density to that of the City of Winnipeg which averages of 25 persons per acre. West Alexander averages 47 persons per acre. This higher density illustrates that West Alexander's building stock is multi-level. Conditions of buildings in West Alexander, considering that 50% of building were built prior to 1920 and 75% of the remaining building were built before 1945, are in fair condition, only requiring electrical and mechanical upgrading. Generally buildings in West Alexander have been occupied and maintained.

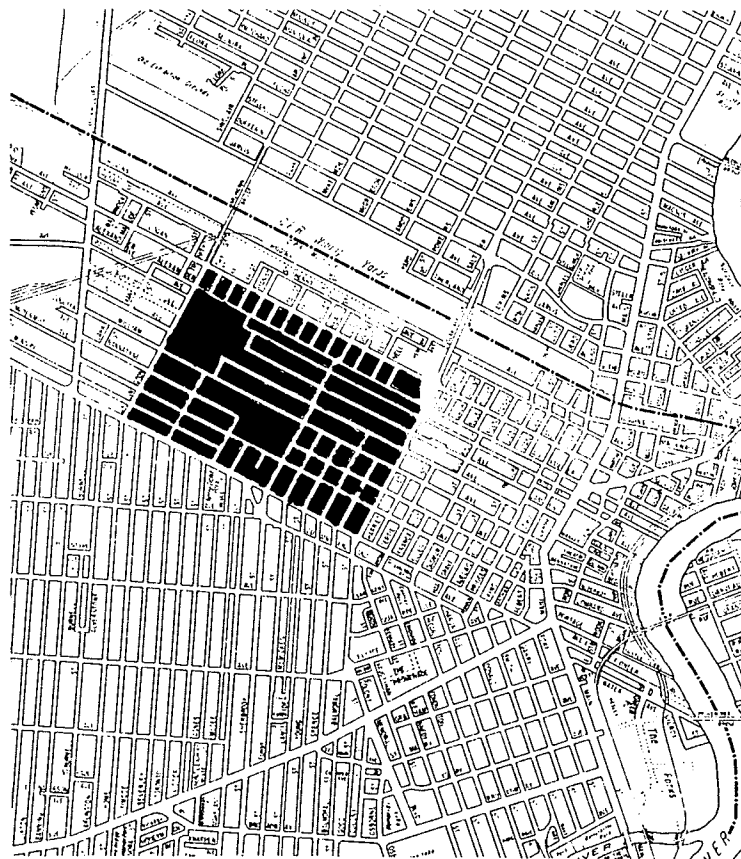


Fig. 1 Downtown map of Winnipeg , darker blocks indicate West Alexander.



There are six distinct commercial corridors in West Alexander: Notre Dame, William, Logan Avenue, Isabel, Sherbrook, and Arlington Street, as illustrated in Figure 2. Some commercial development is interspersed with other uses within the primarily residential areas but only serves the immediate neighbourhood. Industrial uses are scattered among commercial corridors. The two major concentrations of industrial development are in the southeast and northwest corners of the neighbourhood, anchored with the City of Winnipeg Works Yards and the Health Sciences Center (HSC).

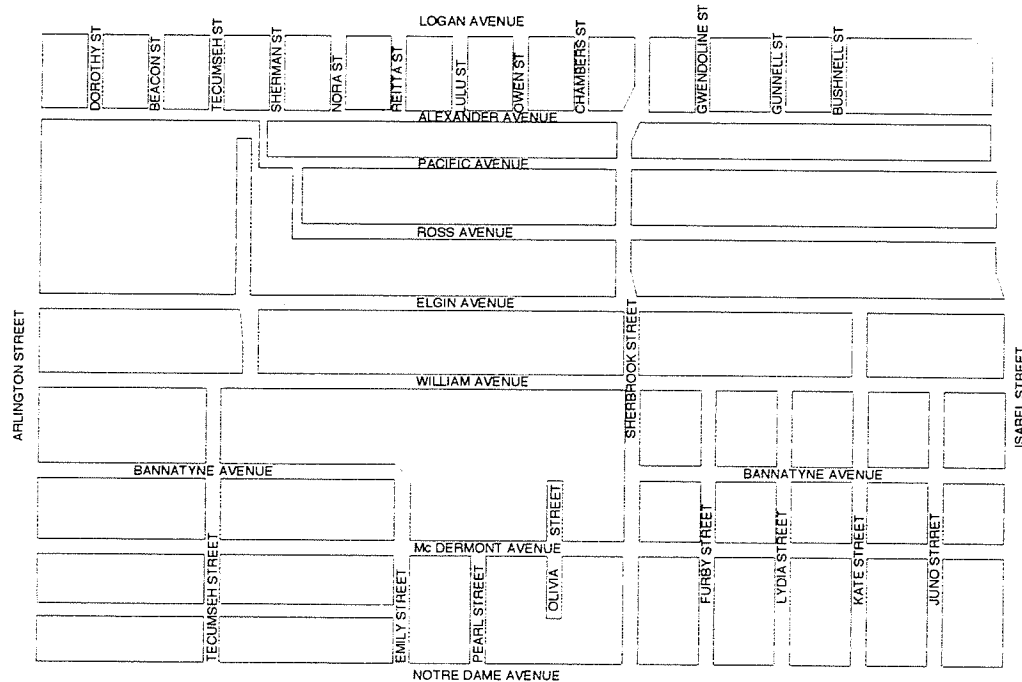


Fig 2 Streets and blocks map of West Alexander

West Alexander residents have the opportunity to work within the neighbourhood; the city works yards, the Health Sciences Center, the Weston Bakery and a host of other small commercial and industrial establishments. Also within the neighbourhood residents can walk to 'Norm and Nates' for a coffee, to Nelson's hardware store to pick up a rubber washer for a leaky faucet, to the Royal Bank to resolve financial matters, to Wally's or Carlos's for a litre of milk, to Independent Fisheries for some salted halibut, or drive to Westrock Battery to check out the electrical system in their car and to the Health Sciences Center for an appointment with a specialist. This diversity provides the neighbourhood with vitality throughout the day.

West Alexander is a place where people live and work. The vitality that has emerged from this interrelationship has created a built environment that has physical and social diversity. Its history demonstrates a neighbourhood that has endured many years of growth and decline. To this day, the neighborhood continues to demonstrate the vitality that emerges from its diversity. However, over the past 40 years, West Alexander has been the host to many planning initiatives, as well as the subject of planning reports with the objective of improving the neighbourhood. In these initiatives and reports West Alexander is described generally as a deteriorated social and built environment. However, even in these reports, the vitality of the neighbourhood has been recognized.

"It is most important to recognize that there is considerable vitality in the area, even though it is suppressed and potential, rather than overt and active. The fact that it has been able to survive for more than fifty years without complete deterioration and demise is proof of that viability.<sup>1</sup>

It is the purpose of this thesis, to determine and understand the neighbourhood complexity of West Alexander. In turn, understand why such planning reports and initiatives have been limited in recognizing the viability of the neighbourhood's built environment. Recently, however, built environments such as West Alexander with diverse social and physical characteristics have been recognized. As a result, this thesis will present these views as an alternative to the past orthodox architecture and planning concepts of neighbourhoods.

Although the disciplines of architecture and planning have turned to re-examine the basic concepts of orthodox city planning and architecture, these concepts still continue to dominate the basic views of architects and city planners today. Within these modern orthodox concepts, are principles of functionality, efficiency, segregation, homogeneity and order. The objective of these orthodox concepts, are to create better environments for living by separating different residential, recreational, commercial and industrial activities into ordered arrangements. This is believed to allow separate activities to interact without

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<sup>1</sup> City of Winnipeg, 'Department of Housing and Urban Renewal'. Interim Report, Urban Renewal Scheme, Urban Renewal Area 2. p.5

conflicting with each other. However, to understand the meaning of these principles and concepts of orthodox planning and architecture a brief background of the context which fostered these ideas needs to be described.

Nineteenth century cities witnessed the climax of the industrial revolution and with it the process of urbanization. The uncontrollable influx of rural population flooding the cities in search of employment resulted in deplorable overcrowded living conditions. Industrialization had fostered great inequalities by exploiting for profit whatever did not have to be paid for, such as housing, roads, air, water and workers' health. In essence the industrial city was unregulated with the exception of fire and safety building practices which had been in effect for several centuries. With the exception of minimum standards established by Fire and Safety by-laws for window sizes, doorway heights, street widths, yard sizes and building heights, no other regulations existed to regulate housing, population density and health and safety.

With these conditions came reactions from Governments, historians and social reformers and a variety of political, social, and philosophical ideas emerged. A common reaction to the blight of the industrial city was the need to regulate and control the built environment of the city. Governments sought regulative mechanisms of legislation to correct the urban ills. For instance the development of zoning, building codes, land use regulation, Public Health and sanitation acts.

Historians romanticized the return to the past. Neo-classicism movement of order, efficiency, aesthetics and functionality was set out in grand splendor by the examples of Haussmann's reorganization of Paris and Chicago's Colombian World's Fair of 1893. The design of the grounds and buildings in these examples stimulated a surge of interest in the beautification of cities. Since these were a product of a single comprehensive plan, the conclusion was drawn that if this is what can be achieved with comprehensive planning, then it clearly was the answer to make all cities beautiful.

Social reformers sought to change society through creating ideal communities. The resolution of congestion of cities and the isolation of rural life was resolved in autonomous new communities as proposed by Ebenezer Howard which he called the Garden City.

Accompanying the social change was the increase use of the automobile, both by industry and the public. With this came a great pressure to establish safe and efficient road ways which would enable vehicular traffic to move quickly between cities and their industries. With the coming of these roadways came the opportunity to get away faster and further from the city.

Planning concepts that promoted the idea of creating satellite communities in contact with nature, gained social acceptance. The automobile allowed people to establish new residences outside of the city. However, along these new roadways new residences were often built haphazardly.<sup>2</sup> Ebenezer Howard, in his book 'A Peaceful Path to Social Reform', published in 1898, set out a satellite town which he called a 'Garden City'. (Figure 3).

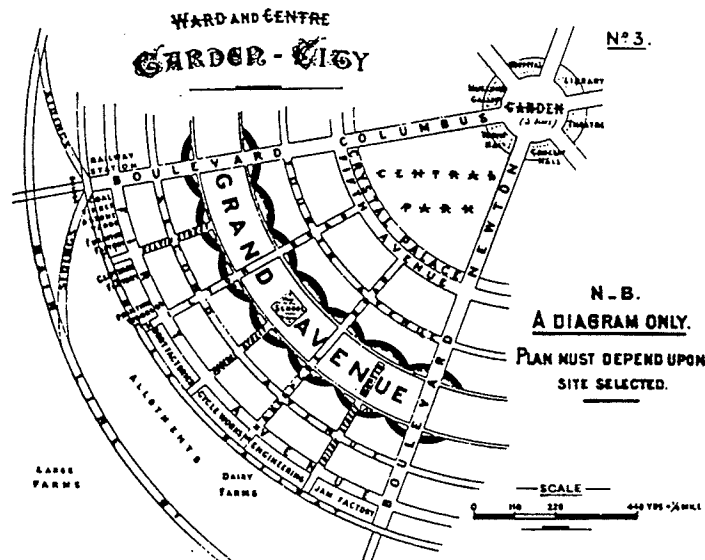


Fig.3 Ebenezer Howard, Garden City.

The Garden City concept comprised 6000 acres, 32,000 inhabitants in a low density, radial pattern of six boulevards that formed six wards to provide the basis of local

<sup>2</sup> Paul and Percival Goodman. 'Communitas'. pp 25-56

government and community services. Howard professed, that one Garden City would be self-sufficient in terms of employment, industry, commerce and agricultural production. As a reaction to these road side settlements, the first Garden City concept was put into practice, known as Letchworth in Hertfordshire near London . However, Letchworth differed from the original Garden City plans where residences were to be near the factories and planned in conjunction with them. In reality, Letchworth became a residential settlement isolated from industries, hence, the phenomena of suburbanism was perpetuated.

Another ideas surfaced based on decentralization of urban functions such as developed by American Architect Frank Lloyd Wright's concept of Broadacre City in 1932. Broadacre City advocated a return to the land with urban functions decentralized with no recognizable center, really no city at all. (Figure 4)

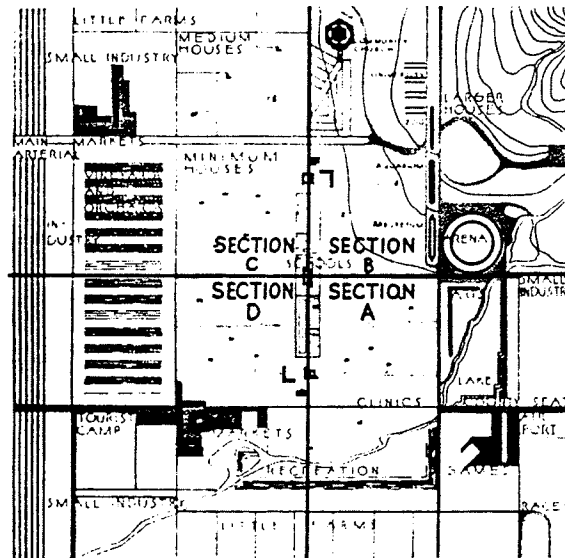


Fig.4 Frank Lloyd Wright, Broadacre City

Its central feature was a wide, democratic landscape which would come to replace all existing towns and cities across America. Broadacre was democratic because it was decentralized allowing for individual property ownership. Wright had written; the machine was to make life free, happier, more joyous. Broadacre was he hoped, the means by which this could be achieved. The automobile expressway became the means of connecting the different functions of city, government, industry, recreation and residents. Wright's idea is believed to be an influence on the concept of low-density American suburban developments with sprawling ranch houses on quarter acre lots, however isolated from the organic and democratic ideals that he intended.

In 1933 Le Corbusier, a Swiss architect & planner, proposed the Radiant City. Based on the linear system, seeking to ease congestion, he freed the ground to be used as parks by the use of 60 storey skyscrapers and elevated wide highways. Le Corbusier ideas are sometimes held as a source of the modern landscape arrangements of apartments buildings in ordered regular rows.(Figure 5)

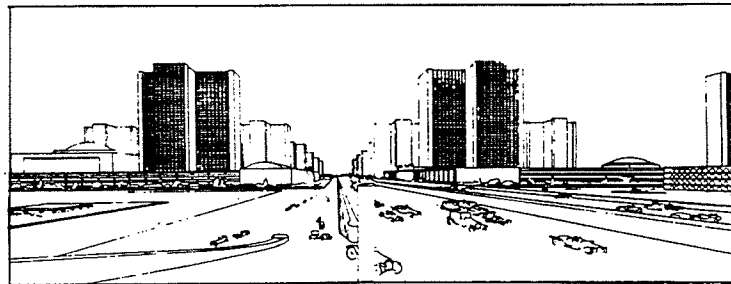
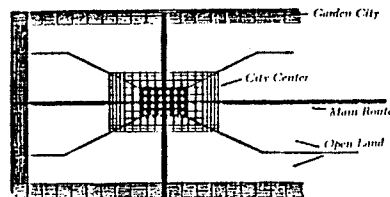


Fig.5 Le Corbusier, Radiant City.

Within all three of these modern orthodox concepts, are principles of functionality, efficiency, segregation, homogeneity and order. Their objectives were to create better environments for living by separating different functions of the city into ordered arrangements. It was believed these separate functions would interact without interfering with each other, as opposed to the congestion and blight of the industrial city. In addition, these plans gave way to studies of minimum living standards, optimum density, right orientation for sunlight, space for parks and traffic planning. At the same time, these plans commented on the physical conditions of the city, as well as, the process and amenity of working conditions. These concepts became an influence on the physical representation of a social movement.

The influence of these concepts on modern city planning and architecture is observed in the objective that society should produce the greatest good for the greatest number. This utilitarian outlook provided a rationalization for the professions of City Planning and Architecture to clear industrial cities and to restore and ensure the development of comprehensive master plans. This also provided the logical underpinning of promoting functionality, efficiency, segregation, homogeneity and order in implementing these comprehensive plans. These plans set out the vision of the city for determined periods of time, such as a period of 5 years. In these plans, municipal governments articulate policies for many departments, such as: health and safety, housing, highways, public transportation, urban and rural development, building fire safety, public works and parks and recreation. All these departments have policies that regulate how a modern city will develop. With this development the need for control is attained by land use regulations and zoning.

The practice of sorting out land use, has become the city planning tool of Land Use Zoning<sup>3</sup>. Most cities across North America illustrate the separation of residential, commercial and industrial activities into homogeneous land use zones of cities. For instance, neighbourhoods are planned as homogeneous residential zones, separate from

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<sup>3</sup> Zoning, is the practice of allocating different areas of cities for different uses, each of which only specified uses are permitted. Edward Relph. 'The Modern Landscape'. pp. 67-69

commercial and industrial land use. This ability to control land use has immediate effects in regulating building activity and organizes a city into a coherent system of land use districts.

North America then entered a stage of reflex from not fleeing from the center of the city, but opening out to relieve its congestion, and bring the 'Garden City' to the center. This movement became known as 'Urban Renewal'. With Urban Renewal, also came the concepts of zoning and traffic planning. As a result, mixed use inner city neighbourhoods with their diversity of activities, were at odds with the municipal intents for the city as a whole. Neighbourhoods such as West Alexander, were viewed as inefficient for the modern requirements of cities. Thus large vehicular freeway exchanges were built through and over these inner city neighbourhoods to meet the demand of moving people and goods from specialized zone to specialized zone, in a efficient and ordered manner. Consequently, these neighbourhoods were zoned into commercial and industrial uses as an attempt to attract these activities and to discourage residential development.

Because mixed use inner city neighbourhoods such as West Alexander approximated the Industrial City characterization, these neighbourhoods have quickly become undesirable neighbourhoods as seen by planners, architects, lawyers, city counselors, and land developers. As a result, these older neighbourhoods have continually felt the influence of planned interventions that are driven by orthodox architecture and planning concepts.

Orthodox architecture and planning concepts never did completely manifest themselves in the neighbourhood of West Alexander. However, many of the attitudes are entrenched in municipal government, and to this day continue to influence the views of many professionals and the public population at large. A view commonly held by planners and architects, is the desire for single use neighbourhoods and buildings. Yet time after time, these planned processes which continue to foster these views, face strong opposition by inner city residents fighting against such proposals and forces in their neighbourhoods.

Most recently, the Canadian Tire Corporation planned to expand their inner city store which entailed the demolition of existing homes. Yet, residents did not react to the co-existence of commercial, industrial and residential uses. In fact, residents, in their opposition to the Canadian Tire expansion, voiced their desire for the mixed use, but



expressed their opposition of commercial and industrial expansion that does not try to co-exist and recognize the residential characteristics of the neighbourhood.<sup>4</sup> In essence, the concerns of the residents demonstrate the desire for the coexistence of mixed use activities and people.

Yet, in reflecting these concepts of orthodox architecture and planning on a neighbourhood such as West Alexander, there appears to be something missing. A neighbourhood is not only about creating built environments that are based on principles of functionality, efficiency, segregation, homogeneity and order, but also in providing an interwoven variety of experiences for its inhabitants. This involves a diversity of mixed land uses, building forms and activities as experienced in West Alexander.

Orthodox views remain limited in recognizing diversity as part of a vital neighbourhood. 'Neighbourhood Complexity', the title of this thesis, refers to the interrelationships between inhabitant and their neighbourhood built environment. Within this description, we have words such as 'interrelationships', 'inhabitant', and 'built environment' which also must be described in order to understand 'Neighbourhood Complexity'. Built environment refers to the human constructed context of a neighbourhood, its streets, its sidewalks, its yards and its buildings. Interrelationships refers to the interconnection of peoples' activities within their built environment, where the form of the built environment reflects the activities of the inhabitants. Inhabitants refers to the people using the built environment. By bringing these three words together in a description, 'Neighbourhood Complexity' emerges as a dynamic state of the built environment fostered by the vitality of inhabitants activities.

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<sup>4</sup> Refer to The city of Winnipeg , City Centre-Fort Rouge Community Committee, File No. Daz 252/91, for detail account of issues and events

## Thesis Statement

This thesis emerged as a result of the experience of growing up in the neighbourhood of West Alexander. This experience, coupled with recent methodologies in architecture on the subject of the interrelationships between inhabitants and their built environment, has allowed the thesis to draw three observations that reflect the belief system in this thesis.

The first is that the spatial form of West Alexander's built environment reflects a complex interrelationship between the inhabitants and the built environment. The complexity that has evolved from this interrelationship has fostered the diversity and vitality of West Alexander.

The second is that design theories of orthodox modern architecture and planning are limited in recognizing complexity and have simplified the complex interrelationships that exist between inhabitant and their built environment, as demonstrated by Urban renewal and revitalization programs in West Alexander.

The third West Alexander's built environment cannot be understood by the precedents of modern orthodox architecture and planning. This neighbourhood must be understood by a view that places emphasizes on the interrelationships between the form of the built environment and the inhabitants social, cultural and historical context in that environment.

The question of whether or not a neighbourhood serves the purpose of the inhabitants cannot be answered without first understanding interrelationships between the inhabitants and their built environment . Only from gaining this understanding, can architects and planners intervene into the built environment of a neighbourhood. This thesis will demonstrate an approach that architects, as well as planners, can use in recognizing and fostering built environments that exhibit diversity. In addition, it will also illustrate that the interrelationships between inhabitant and built environment, as found in the neighbourhood of West Alexander, fosters diversity and vitality. Its complexity is not chaotic. Rather it is complex, reflecting the interwoven nature that evolves between the inhabitants and their built environment.

## Thesis Form.

The thesis takes the form of an inquiry which has three parts: First, to establish the dialectical arguments between an orthodox view and a view that recognizes complexity in the neighbourhood of West Alexander. Second, to present alternative views to the deterministic and reductionist methodologies of modern orthodox architecture and planning. Third, to apply these alternative views and methodologies in understanding the neighbourhood complexity of West Alexander's built environment. The scope of the inquiry is divided into eight chapters and a concluding chapter:

### PART ONE

Chapter 1, Titled 'West Alexander, a Chaotic Neighbourhood' illustrates the views of Urban Renewal in West Alexander. This will demonstrate that West Alexander, in the view of this program, is a neighbourhood in decline. The perceptual and land use diversity are all seen as causes for a neighbourhood to decline.

Chapter 2 Titled, 'West Alexander, a Vital Neighbourhood', illustrates a view of the neighbourhood which sees the diversity of the built environment as part of a vital neighbourhood. In recognizing this diversity, this view illustrates vitality as emerging from the interrelationships between inhabitant and the built environment.

Chapter 3 Titled, 'A New Paradigm' develops a contrast between the two views described in the previous chapters to illustrate the limitation of modern orthodox planning and architecture. In illustrating these limitations, emerging views that address these limitations are described to demonstrate the emergence of a more sensitive view towards complexity in the built environment.

## PART TWO

Chapter 4 Titled, 'Alternative Methodologies' presents two alternative methodologies in architecture of Stitching Architects' Research (SAR) and Anne Vernez Moudon which have recognized the complexity of the built environment. The objective of this review is to present precedent for viewing the complexity of the built environment, in order to establish the methodology for the inquiry into the interrelationships between inhabitant and built environment of West Alexander.

Chapter 5 Titled, ' Methodology for an Inquiry into West Alexander' describes the methodology of inquiry into the built environment of West Alexander based on the alternative methodologies presented in the previous chapter.

## PART THREE

Chapter 6 Titled, 'Inhabitants Have No Control' illustrates the aspects of the built environment of West Alexander that are predominantly a result of planned public action. The purpose of the chapter, is to establish the elements of the built environment that are not in the control of the individual inhabitant.

Chapter 7 Titled, 'Inhabitants Have Some Control' illustrates the aspects of the built environment of West Alexander, which have been the result of the interaction between planned public action and the individual inhabitant. The purpose of this chapter is to establish the elements of the built environment that are shared by both the planned public and individual inhabitant.

Chapter 8 Titled, 'Inhabitants in Control' illustrates the aspects of the built environment of West Alexander which have been in the control of the individual inhabitant. The purpose of this chapter is to establish the elements of the built environment that have resulted from the action of the individual inhabitants.

Conclusions: Adaptation of Form illustrates a process of documentation, which provides both a method for analyzing and for the development of design guidelines of future developments in the built environment of West Alexander. In addition, the conclusion provides an example of how this methodology can be integrated into City of Winnipeg's Planning Policies.

## **Part One**

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### **Chapter One:**

#### **West Alexander a Chaotic Neighbourhood**

This chapter illustrates the City of Winnipeg's Urban Renewal Program<sup>5</sup> for West Alexander. It will demonstrate that West Alexander in the view of Urban Renewal, was a neighbourhood in decline. Its diversity of land uses, perceptual diversity and diversity of decision processes, were all viewed as reasons for the neighbourhood's deterioration.

According to the views documented by 'Urban Renewal' in 1957, the inner city neighbourhoods of West Alexander and Lord Selkirk Park were in need of mass redevelopment. As described in the following quote, the neighbourhood of West Alexander no longer met the requirements of a modern city.

Both areas suffer from the same problems: they are old and not designed for modern traffic conditions, but being situated at the edge of the present Centre they are areas through which is an increasingly heavy traffic flow. Mixture of land uses is here seen at its worst - - buildings are run down, and housing conditions substandard.<sup>6</sup>

The objectives of Urban Renewal, were to reorganize the neighbourhood of West Alexander into separate land uses, high density housing and efficient road systems. At the foundation of this objective, were planning policies such as 'Zoning By-laws', 'The National Housing Act' and 'Streets and Traffic By-laws' which rationalized to Planners and Architects that inner city neighbourhoods such as West Alexander did not conform with the new standards and needed to be renewed to meet these by-laws.

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<sup>5</sup> W.Gerson, 'An Urban Renewal Study for the City of Winnipeg'. Gerson provides description of Urban Renewal intentions for the neighbourhood of West Alexander in this document.

<sup>6</sup> W.Gerson, 'An Urban Renewal Study for the City of Winnipeg'. p.5

## Urban Renewal in West Alexander

The introduction of Urban Renewal programs to Winnipeg's inner city neighbourhoods began during the early 50's, well after land use zoning practices had been entrenched into city planning policies. Zoning by-laws, which gave life to these policies, had already separated commercial, industrial and residential land uses, into appropriate areas of the city. Neighbourhoods, such as West Alexander with a mixed land use, were viewed as places of conflict between commercial, industrial and residential activities. Residents had to tolerate the noise and pollution of industrial activities in close contact to their homes. Industrial and commercial uses could not expand their operations without buying out neighbouring properties, which often created conflict between residential property owners and commercial and industrial property owners.

No longer was it necessary for these activities to be mixed together in dense compact city blocks, since now the speed of the automobile had effectively shortened the distances between destinations. As a result, the gridiron street pattern with its many street corners, did not allow the growing vehicular traffic to move efficiently. The mixed use neighbourhood could not provide the order necessary to meet the modern needs of moving products and people.

The development of suburbs planned into segregated residential, industrial and commercial zones with modern conveniences, such as, efficient freeways could whisk an individual in their automobile from a modern industrial factory to their spacious bungalow set on a large landscaped lot. All heavy truck traffic for industrial and commercial use was constrained to freeways that were often ordered around industrial zones. No longer did children walking to school need to negotiate heavy traffic. Industrial and commercial uses could easily expand their building to accommodate growth. All these characteristics could be found in the emerging suburban areas of Winnipeg and across North American cities.

Once mixed use neighbourhoods gave way to suburban residential zones, industrial parks and commercial strip malls, planners concluded that inner city neighbourhoods had to be restructured from their mixed land use to single use zones. City planners with the power of 'Zoning By-laws', carved up the mixed use neighbourhoods of the inner city into residential, commercial and industrial tracts of land. This was an attempt to create, out of the inner city, an industrial and commercial zone. In existing residential enclaves, medium to high density housing was planned to take the place of the low density housing that existed. Suddenly, residential property was recognized as commercial property, and as a result, residential property was worth considerably more. Many individuals then began to participate in land speculation in an attempt to make a handsome profit. With the public anticipation of Urban Renewal plans, speculation of commercial and industrial development fostered a period of deterioration in the neighbourhood of West Alexander.

The first community to feel the rebuilding dollars of urban renewal was the neighbourhood of Lord Selkirk Park in Winnipeg. With the introduction of Urban Renewal, came the bulldozing of the old buildings and infrastructure and the design of new infrastructure to meet the new needs of residents. In essence, the old mixed use Lord Selkirk Park neighbourhood was replaced by minimum standard housing complex. Today, Lord Selkirk Park is a residential development that emerged from the efficiency of geometry, with three storey row houses with tot lots, grass, and meandering paths through park-like grounds.

In Lord Selkirk Park, the socio-economic makeup of the community was determined to be lower income families. The minimum standard housing floor plans were designed to meet the user's specific daily living routines. The community was designed entirely as residential. There are no longer conflicts between residential, commercial and industrial activities. The neighbourhood outdoor spaces provide the inhabitants equal opportunities for amenities; all housing has a front yard, their own private entrance, a collective place to park their automobile, and their own place for refuse. In addition, the entire community is planned without vehicular traffic to avoid pedestrian and vehicular conflicts. What Lord Selkirk Park represents is a planned neighbourhood where everything from the type of door knobs on entrance doors to who would live there. Sociologists, architects, city



planners, politicians, engineers and so forth strived to create the ideal environment for living by comprehensive planning.



Fig.6 Minimum standard housing in Lord Selkirk Park

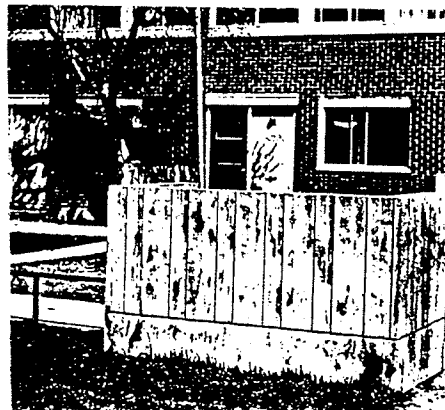
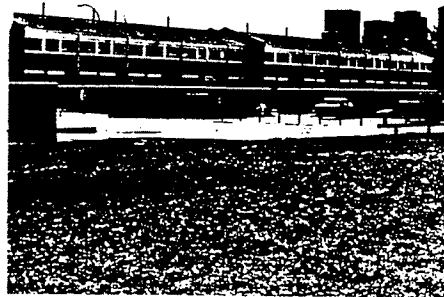


Fig.7 Equal access to amenities, picture illustrating parking, garbage refuse and green spaces

Once the project was completed, the next neighbourhood to receive renewal was West Alexander. In fact, West Alexander became known as the 'Urban Renewal Area Number 2'<sup>7</sup>. The proposal did not just reflect Lord Selkirk Park, but seemed to be verbatim. Proposals called for efficient vehicular traffic routes, the creation of geometric super blocks safe from traffic, the design of three storey row houses with tot lots, grass, and meandering paths through park-like grounds. The proposal also called for residential, commercial and industrial activity to be zoned into neat land use zones to avoid interference with residential zones. In essence, a statement concerning the basic framework for redevelopment stated the following:

In the area under consideration the three basic functions of the city, the city as a place to live; the city as a place to work, an industrial and commercial concentration; and the city as a transportation center, clash violently. Therefore the area must be reorganized so that these functions can work together and separately without, interfering with each other.<sup>8</sup>

Here, the opinion was that the existing neighbourhoods land use pattern was bad, since what was being proposed were super blocks made up exclusively of residential buildings( Figure 8)<sup>9</sup>. Throughout the literature regarding the Urban Renewal Area No. 2, the notions of functionality, efficiency, and order re-surface constantly as quoted below:

"...area is predominantly residential, the pattern of land use throughout it is greatly varied and disorganized."<sup>10</sup>

"The present street system in the area is entirely inadequate in terms of modern conditions of traffic..."<sup>11</sup>

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7 W.Gerson, 'An Urban Renewal Study for the City of Winnipeg'. p.5

8 Ibid p. 34

9 Ibid pp42-45

10 Ibid p.14

11 Ibid p. 17

" The general impression of the area is one of untidiness, spottiness, and haphazard growth."<sup>12</sup>

All three quotes above demonstrate observations that justify Urban Renewal objectives. In the first quote, the reference to land use being varied and disorganized substantiates the need for the use of the zoning to segregate and order land uses. In the second quote, referring to the street system being entirely inadequate substantiates the need for traffic planning to create functional and efficient street systems. The third quote, referring to the general impressions of the area being haphazard substantiates the need for visual order and conformity.

Similarities between West Alexander and Lord Selkirk Park Urban Renewal proposals, reveals a common attitude that surrounded them. The belief that the neighbourhood needed renewal was a reflection of biases of these proposals, believing a good neighbourhood had to reflect the concepts of modern planning and architecture. Since mixed land use did not reflect the ideals of a good neighbourhood, West Alexander obviously reflected a bad neighbourhood. Therefore, the introduction of Urban Renewal appears to be a reaction towards the neighbourhood's diversity.

Yet, most interesting, the objectives of the Urban Renewal Program in the 1950's and well into the 70's was to " ...restore the area to a condition of healthy growth and normal self-regeneration,..."<sup>13</sup> This objective would suggest two things. One, that the neighbourhood of West Alexander needed renewal and second, their intentions were to establish a healthy community. However, the objective of renewal seems to reflect the need to change the existing pattern of land use. As a result, the establishment of a orderly community could only be achieved by reorganizing the community's residential, industrial, and commercial uses into zones of segregated land uses.

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<sup>12</sup> Ibid p.30

<sup>13</sup> City of Winnipeg, Dept.of Housing and Urban Renewal. 'Urban Renewal Progress and Evaluation'. p.29

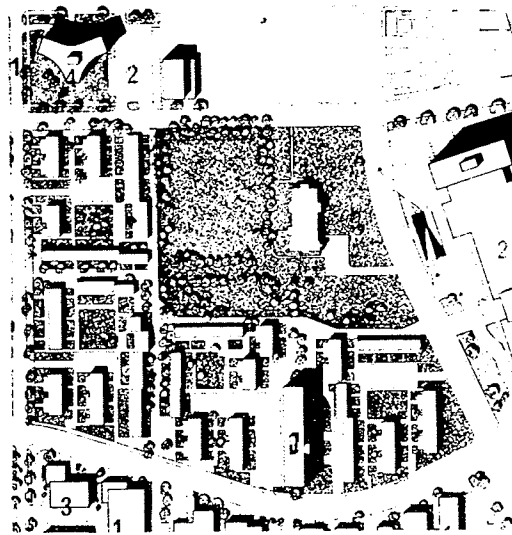
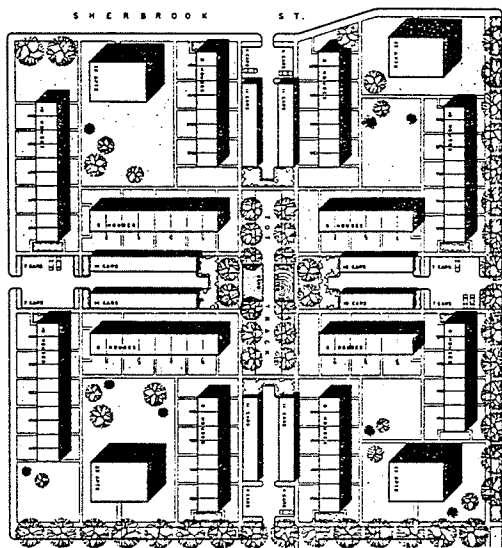
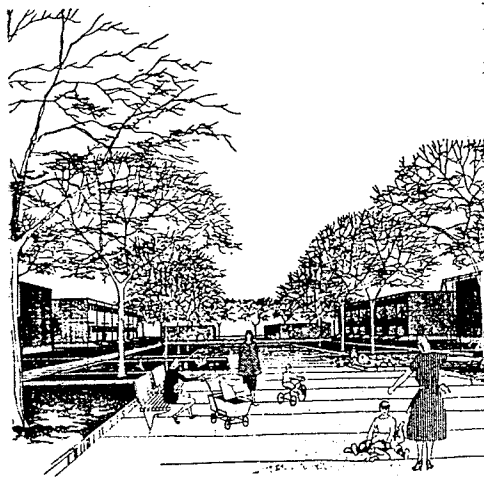


Fig.8 Illustration demonstrating the Urban Renewal Programs proposals(on the left) and Lord Selkirk Park(on the right)

## Summary

In this chapter, a brief description of Urban Renewal proposals for the neighbourhood of West Alexander was illustrated. In order to understand the objectives of Urban Renewal as they pertained to the actual built environment of West Alexander, it was compared to the Urban Renewal redevelopment of Lord Selkirk Park in Winnipeg. Lord Selkirk Park provides an actual built example of an Urban Renewal neighbourhood. It also paralleled the intentions that Urban Renewal had for the neighbourhood of West Alexander. By providing this comparison, three main points have been highlighted:

First, from the perspective of Urban renewal, the neighbourhood of West Alexander was viewed as in need of redevelopment. This assessment was based on the belief that the neighbourhood's existing infrastructure was not adequate for the modern needs of cities and their residents.

Second, the new Urban Renewal proposals were going to provide and solve the problems that had been outlined as causes of decline in the existing neighbourhood and in turn, improve the living conditions of the residents.

Third, by planning and designing zones serving only residential use, separate from commercial and industrial uses, it would ensure that the quality of the built environment would be improved, free of noise, traffic, density and the unsightliness of the industrial and commercial activities and buildings.

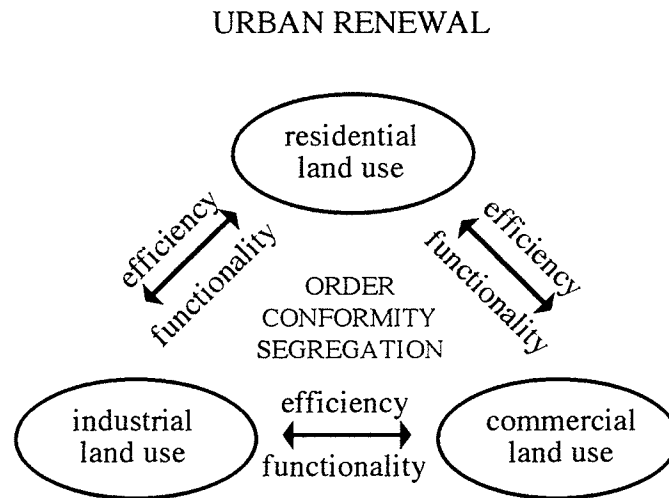


Fig.9 Diagram illustrating land use relationships to the objectives of order, conformity, segregation, efficiency and functionality.

As illustrated in Figure 9 the practice of Urban renewal was to create three segregated land use zones, residential, commercial and industrial. Each planned with the notion of order, conformity and segregation of activity. Connections between the three land uses would be achieved by functional and efficient road systems to move people and goods.

## Chapter Two:

### West Alexander a Vital Neighbourhood

In this chapter, diversity in the built environment of West Alexander is seen as part of a vital neighbourhood. In recognizing this vitality, this view illustrates diversity as emerging from the interrelationships between inhabitant and the built environment. As such, the diversity is seen as an interwoven aspect of the vitality of the neighbourhood. In developing this perspective on West Alexander it will demonstrate a contrast to the Urban Renewal view described in Chapter One. This contrast, in turn, will allow Chapter Three to provide a philosophical explanation of the differences and limitations of orthodox architecture and planning perspective.

At first the intents and views of Urban Renewal proposals are acceptable. However, in attempt to reflect these views in the everyday environment of West Alexander, it appears that such characteristics do not recognize the complexities of a mixed use neighbourhood, but rather view the neighbourhood as disordered, untidy and haphazard. These proposals assumed that the existing built environment was corrupt, chaotic and inappropriate for the modern life style of mobility. As a result, it had to be redesigned to meet the modern standards<sup>14</sup>. However, what Urban Renewal failed to recognize was the vitality of the interrelationships between land uses, pattern of streets and blocks, buildings, and yards. According to Roger Trancik, Professor of Landscape Architecture at Cornell University, Urban Renewal across North American cities did not in anyway relate the existing spatial form and context of the neighbourhood to the social and cultural milieu.

"the renewal of inner city neighbourhoods substituted spatial order with functional order and failed to recognize the importance of spatial order to social function". <sup>15</sup>

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<sup>14</sup> W. Gerson, 'An Urban Renewal Study for the City Of Winnipeg', pp27-28

<sup>15</sup> Roger Trancik. 'Finding Lost Space'. p.12

The belief that a single use residential zone would be a safe and healthy way for all people to live demonstrates a simplification of what a neighbourhood appears to be. A neighbourhood such as West Alexander, represents a vitality that emerges from the diversity of inhabitants activities as it relates to diversity in land uses. Each land use has characteristic networks of activity within the neighbourhood, which form a complex web. What these orthodox modern notions have failed to recognize, is that the interrelationships among the diversity of land uses and activities has an inherent subtle order. The order reflects a diversity of small decisions, that are related economically, culturally, and climatically. This order has evolved as a continuous process of decisions that are interwoven. As a result, the built environment of West Alexander has developed as an incremental process of related changes. The order that has evolved from this process has vitality making the built environment an ever changing system able to adapt to new uses<sup>16</sup>.

Consequently, these individual considerations over a period of time transform individual buildings. It is not surprising, then, to realize that the accumulation of these diverse decisions lead to a diversity in the built environment. Yet, it is this inherent character that is simplified by adhering to modern notions of planning.

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<sup>16</sup> Christopher Alexander. 'Notes on the Synthesis of Form'. p.38. Alexander suggests, that a built environment that has the presence of adaptation in its built environment has a structure to its form, that makes it, self organizing, and that it therefore consistently produces well fitting forms, even in the face of change.

## Diversity and Vitality

In contrast to the opinion of Urban renewal, the so-called 'unorganized', 'inadequate', 'untidiness', and 'haphazard growth' as characterized by Urban Renewal, is part of the vitality of the neighbourhood, rather than its blight. These characterizations of West Alexander by the Urban Renewal Program are negative reactions towards the diversity of land use, diversity of building forms, and diversity that results from the self expression of inhabitant's decisions. However, if we begin to view the neighbourhood of West Alexander from a view that relates the built environment to it's social and cultural context, as Roger Trancik suggests, we can begin to recognize the virtues of the neighbourhood. For instance, unorganized, as it relates to mixed land use begins to be understood as part of the working class social context of the neighbourhood, whereas, the industrial and commercial uses are part of the inhabitant's employment opportunities and commercial needs. The untidiness of the neighbourhood results from both the diversity of building forms, and the diversity of self expression of the inhabitants that result in yards being used for storage, and gardens, as well as building renovations creating a mosaic of colors and shapes. The haphazard growth reflects mixed use characteristics of West Alexander, streets used as play grounds for playing street hockey or dodge ball. Residential driveways rented monthly by residents to working individuals in the neighbourhood that can not find parking elsewhere. Viewed from this perspective we begin to see that the neighbourhoods built environment is complex serving an interwoven part of the inhabitant's lives.

The co-existence of the Health Sciences Center (HSC), Winnipeg City Works yards, Canadian National Railway (CNR) yards, Weston Bakery and, at one time, the Midland Railway, all demonstrate the diversity of functions present in the neighbourhood. The presence of uses in the neighbourhood has promoted an array of interaction and interdependence between these uses and the inhabitants. These relationships, in turn, have transformed some residential uses into multi-use functions such as workshops, grocery stores, hardware stores, and diners. For instance, it is here that we find commercial workshops attached to residences, and we find, commercial, industrial and residential activity side by side (Figure 10).



All these juxtapositions illustrate a built environment that has evolved a balance between all this diversity. In turn, the built environments spatial form and context reflects all this stuff<sup>17</sup> as a vital inner city neighbourhood<sup>18</sup>.

West Alexander demonstrates that diversity can be attributed to at least three aspects: perceptual diversity, land use diversity and diversity of decision processes. Perceptual diversity refers to the diversity of physical form. Land uses refers to the diversity of land uses, and decision process referring to the different levels of decisions that result in both buildings and activities.

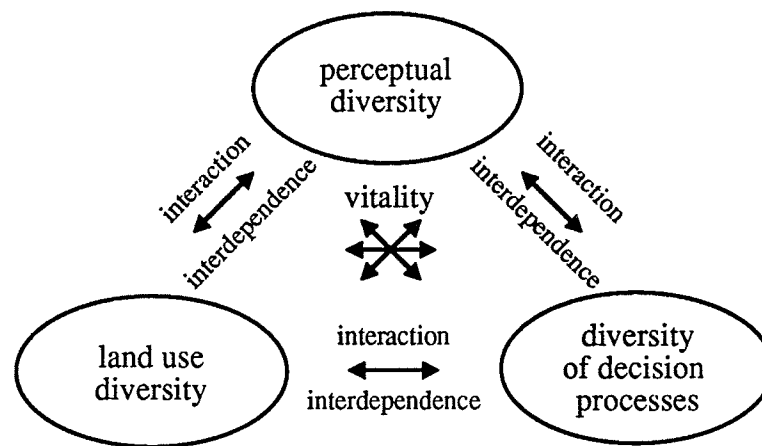


Fig. 10 Illustration of the interrelationship between the three aspects of diversity as fostering vitality in the built environment of West Alexander.

<sup>17</sup> Pierre Teilhard de Chardin. 'The Phenomenon of Man'. pp45. Chardin, uses the term stuff extensively to describe the interwoven complex nature of the universe. " the stuff of the universe, woven in a single piece according to one and the same system.

<sup>18</sup> Jane Jacobs. 'The Death and life of Great American cities'. pp. 154-177. Jacobs argues, that the need for mixed uses in neighbourhoods is necessary to prompt diversity and vitality both in the built form and in the lives of the inhabitants.

These three aspects of diversity can be seen by examining individual situations, as illustrated in the following description:

'Mr. Chambers an elderly man, lives at 673 Elgin avenue in a green two storey house with a large work shop- garage in the back yard. He spends most of his time in that garage attending to his work - stripping parts off machinery. His helper John has shown up for work, and is giving Mr.Chambers a hand hauling an old washing machine off his 1950's truck parked in the middle of the back lane. John rolls the washer into the junk yard located directly across the lane from Mr. Chambers garage, on a residential lot that he purchased years ago. The junk yard is surrounded by an eight foot plywood green painted fence and flanked by residences on each side'.

Perceptual diversity, in the case of Mr. Chambers' junk yard, is the form of the eight foot fence contrasted against the residential homes. Land use diversity reflects the industrial nature of the property in contrast to the residential use found on both sides of the junk yard. Diversity of decision processes reflects who has allowed the junk yard to exist. In this case, Mr. Chambers made the decision to use the property as a junk yard, but the neighbourhood must also decide to allow the junk yard to exist .

Mr. Chambers' small junk yard illustrates a juxtaposition of residential and light industrial functions that has disappeared in most neighbourhoods. Yet, it still exists in West Alexander. The presence of Mr.Chambers' small junk yard and the green eight foot fence is not necessarily a negative situation as Urban Renewal would describe. In fact, kids bounce tennis balls off the fence, or even shoot pucks at it. The green fence that surrounds the property in a way, makes people forget the junk yard exists there, since you cannot see through to the junk.(figure 12). However, since this junk yard adds to the diversity of the neighbourhood, it therefore, must be viewed as an interrelated part of the neighbourhood. Viewed from this perspective, we can begin to understand that diversity in order to gain acceptance on the part of the residents, has to be an interrelated part of the neighbourhood. For instance, in order for Mr. Chambers junk yard to exist it must also serve the residents. In this case, the green eight foot plywood fence is used by children as a place for recreation and the junk yard serves as a place were residents can purchase odds and ends. Therefore, the vitality that emerges from these interrelationships between Mr. Chambers junk yard and the residents of the neighbourhood seems to be related to the general acceptance of that activity.

Therefore vitality results from all three aspects of diversity: land use, building form and decisions being interrelated. Perceptual diversity alone cannot have vitality. In order for a neighbourhood to have vitality it appears that perceptual diversity, land use diversity, and diversity of decision processes have to be interrelated.

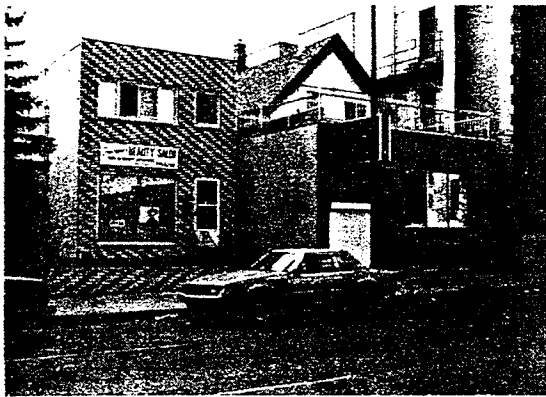
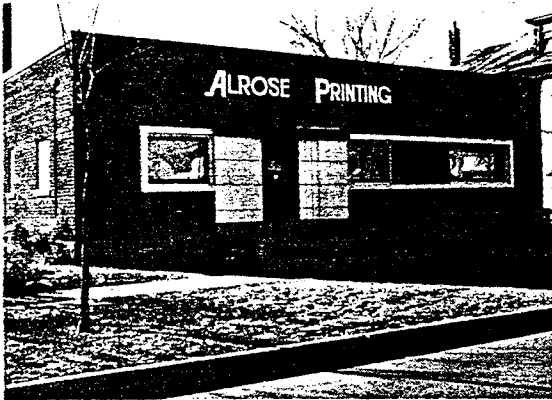


Fig.11 Photographs of residential building having either commercial or industrial use combined

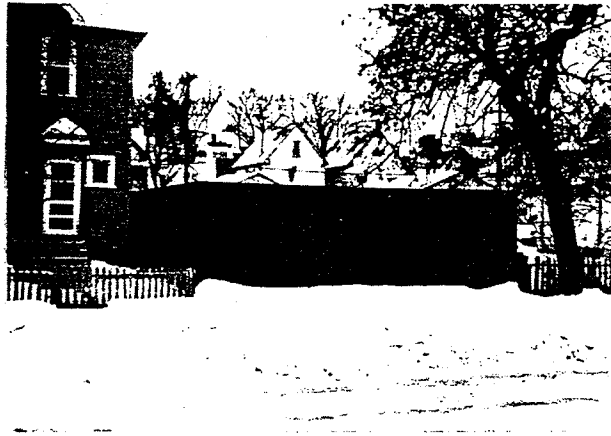


Fig 12 Photograph of Mr. Chambers junk yard

### Interaction and Interdependence of diversity

Interrelationships are not obvious at a first glance. This is true if the built environment is viewed in isolation from its social milieu. However, these interrelationships become clearer once the built environment is viewed as a reflection of the social and cultural values which have surrounded its development. Interrelationships can be subdivided into interrelationships that are of an interactive nature and interdependent nature. These can be defined within the context of West Alexander's built environment. Interaction refers to when two or more parts of the neighbourhood are acting on each other. For instance, neighbourhood cafes in West Alexander offer lunch hour delivery to the Health Sciences Center employees.(Figure 13) Another example of this is the presence of a small hardware store supplying odds and ends to small home based workshops on informal credit. Both these examples describe the notion of interaction where both the inhabitants and building uses form a network of interactive activities.

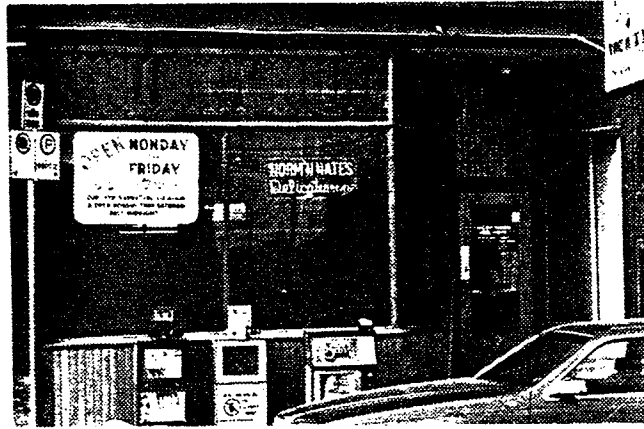


Fig.13 Norm & Nates Delicatessen provides lunch hour delivery service, to HSC. employees.

Interdependence occurs when two or more parts of the neighbourhood are dependent on each other. For instance, the cafes in the neighbourhood are dependent on the presence of the Health Science Center and its four thousand plus employees to maintain their business. Similarly, the small hardware store provides neighbourhood workshops with a convenient outlet for odds and ends. Both these instances demonstrate the interdependence of one component on another. For instance, if cafes were not present in the neighbourhood, the HSC would have to ensure that there would be sufficient internal facilities to meet the diet demand of employees. The small hardware store is dependent on local clients of the neighbourhood. If these small workshops did not exist, it would be difficult for this hardware store to continue as a viable business.

Further examples of interaction and interdependence that are more subtle, also exist. For instance, during week days there are a variety of activities that exist which would be disruptive to people in their homes: people working in the area that use the neighbourhood streets as parking and noise from industrial uses. However, because the majority of residential inhabitants are also working outside of their neighbourhood these activities do not necessarily disrupt the remaining residents. In fact, residents in the neighbourhood have made the decision to take advantage of the shortage of parking for HSC employees by

renting out their drive-ways to the employees as parking stalls. Also from the perspective of the HSC, they have also made a decision not to facilitate all parking requirements on site. Both these decisions have created a dependent and interactive relationship. In addition, the added population that comes in for the day to work at the HSC is essential for sustaining commercial activity in the neighbourhood. Eventually, in the evening, the cars return to their origins. Industrial uses shut down for the day and the residential inhabitants return for a relaxing evening in the front yard, while the streets have given way to children playing who have now returned home from school.

The neighbourhood has also been the home of many ethnic groups, which have added to the physical and social diversity of the neighbourhood. These individuals have expressed their presence in the neighbourhood through home renovations, which are usually self expressions of culture or simply their personal taste. For instance, it is here that we find a rich diversity of brightly colored houses of different shapes and forms and front yards of lawn grass giving way to floral and vegetable gardens. In addition, we also find a variety of intricate fences, ornaments and religious icons, all expressing a social and physical diversity. It seems that all the diversity that already exists in the neighbourhood perpetuates itself. Residents have no apprehension of expressing their favorite color on their home, displaying religious icons, hanging under-garments to dry on the outdoor clothesline, or even having their front yards turned into a vegetable garden. They seem to perpetuate the diversity of the neighbourhood (Figure 14)

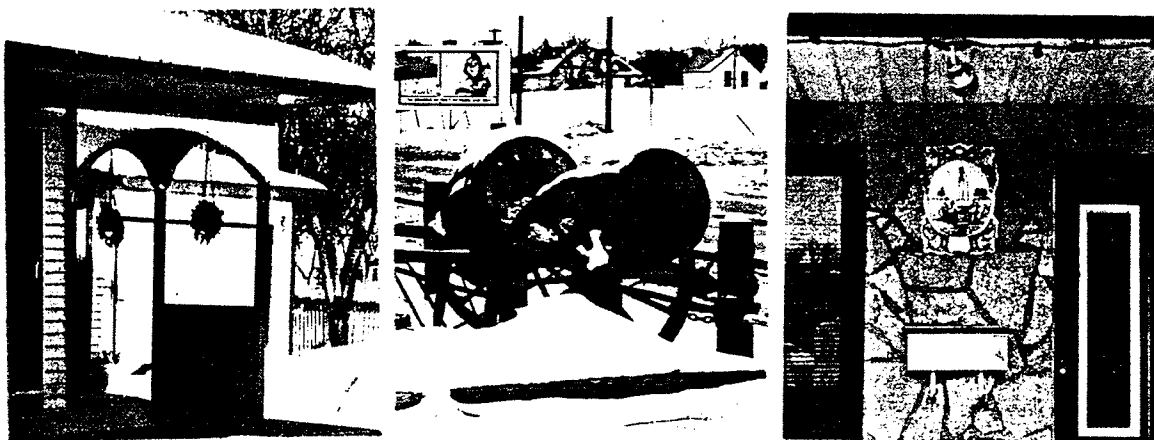


Fig.14 Photographs of personal expression of inhabitants in home renovations

## Summary

In this chapter, the neighbourhood of West Alexander was viewed as a vital neighbourhood. In turn, diversity of West Alexander's built environment was viewed as fostering this vitality. This was possible by understanding two notions:

First, diversity as found in West Alexander must be understood as three interwoven aspects: perceptual diversity, diversity of land use, and diversity of decision processes. By viewing diversity as these three interwoven aspects, interrelationships can be seen between them.

Second, the illustration of these three aspects of diversity as interwoven, demonstrates the concept of interrelationships being either interactive or interdependent. Interrelationships in turn foster the vitality of the neighbourhoods diversity.

## **Chapter Three:**

### **A New Paradigm**

In this chapter, an argument will be developed which illustrates the limitations of Urban Renewal planning in recognizing neighbourhood complexity. This chapter will reveal that the limitations of Urban Renewal stem from inherent reductionist and deterministic tendencies. These limitations will be revealed by contrasting the objectives of Urban Renewal for West Alexander as presented in Chapter 1, "West Alexander a Chaotic Neighbourhood" against the view illustrated in Chapter 2, "West Alexander a Vital Neighbourhood". In developing this dichotomy, emerging views which address these limitations are presented, illustrating a body of references with a understanding towards complexities in the built environment.

#### **Natural and Planned Development**

West Alexander, reveals in its diversity of interrelationships between inhabitant and the built environment an underlying fact that it has developed from both unplanned and planned processes. West Alexander illustrates many characteristics in its built environment which are the product of both processes. Yet, unplanned processes have prevailed as the guiding force of the neighbourhood growth and has fostered its diversity. Most importantly, this process has fostered a co-existence between mixed uses.

Reasons why a natural process fosters such diversity, is explained by Christopher Alexander in his book 'Notes on the Synthesis of Form'. He develops a clear concept that delineates the difference between a planned built environment, the artificial city and an unplanned built environment, the natural city. According to Alexander, natural cities have emerged due to the spontaneous activities of their inhabitants over many years, which he calls the 'The Unselfconscious Process'. In this process built form reflects the cultural and social values of the inhabitants forming a clear intrinsic relationship with the whole of a built environment. The result of such a process is a diversity of well fitting built forms.



Artificial cities, on the other hand, are cities that have been the product of designers and planners, which Alexander calls 'The Self-Conscious Process'. This process is based on concepts and categories that are a result of formal studies on a cities. Concepts in turn, control the perception of the designer toward what is a good design and what is not. The results are not good fitting forms in their context, but the self-perpetuating dogma of concepts.<sup>19</sup>. Because designers have the tendency to define the context of cities, neighbourhoods, and buildings, in order to design form, their definitions can not escape the biases of conceptual dogma. Alexander believes this definition selects which interrelationships the designer feels are valid to the conceptual position, rather than understanding the various interrelationships between the form of the built environment and the context of the inhabitants social and cultural milieu.

West Alexander in the year of 1951, felt the inception of zoning by laws in Winnipeg and with it, the forces of the planned process. Beginning in 1951, the prevailing views of the Urban Renewal proposals envisioned Winnipeg's inner city as a place of work and freeway exchanges. Architectural and planning interventions were based on planned processes in order to achieve comprehensive plans. Where as, prior to 1951, the built environment of West Alexander and the rest of the inner city, were the product of natural processes. Zoning by laws, carved up the inner city neighbourhoods of Winnipeg into large commercial and industrial zones. No longer was West Alexander a neighbourhood of diversity but transformed from an area of mixed land use to a series of segregated zones of commercial and industrial uses.

As mentioned previously, the diversity of West Alexander can be attributed to unplanned processes and the spontaneous activities of its inhabitants. Such activities include the establishment of commercial and industrial uses. Yet the decision to locate a specific land use in any given area of the neighbourhood, involves a decision from the owner to locate there, a decision from governing body to allow that use to exist there, and the will of the neighbours to accommodate that use adjacent to theirs. All these forces acting on each other create interrelationships between the different aspects of the

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<sup>19</sup> Christopher Alexander. 'Notes on the Synthesis of Form'. pp. 46-60

neighborhood's built environment . The result is a diversity characterized by the co-existence of "well fitting forms".

In contrast to natural processes, Urban Renewal planned processes did not demonstrate the same degree of diversity. For instance, in Lord Selkirk Park buildings serve a single use, namely residential. For this reason, interrelationships between diverse land uses do not exist . Ultimately, the vitality that emerges from such interrelationships is not apparent. What is apparent, is a unified perception of the neighbourhood enforced by strict design guidelines dictating the aesthetics of buildings. Inhabitants decisions with respect to building activity, have to be approved by city officials, and agree with the initial design guidelines of the neighbourhood, as set out by these plans.

As illustrated in Figure 15, the planned process represents efficiency, functionality, and homogeneity. The unplanned process represents diversity, vitality and complexity. In the paradigm of orthodox modern architecture and planning, the built environment of West Alexander was understood by reductionist and deterministic views. These are linear views, based on rational relationships, resulting in limited understanding of interrelationships in a neighbourhood. In the case of an unplanned process which is based on systematic relationships, the whole of the built environment is viewed as a oneness made of many interrelationships, some obvious some less obvious. Because West Alexander is an amalgamation of both paradigms, its built environment can not exclusively be understood by reductionist and deterministic views. Rather, a view that recognizes the planned and unplanned nature of the neighbourhood is needed. In order to understand the neighbourhood complexity of West Alexander a shift in paradigm is necessary to foster the neighbourhood complexity in planning and architectural interventions.

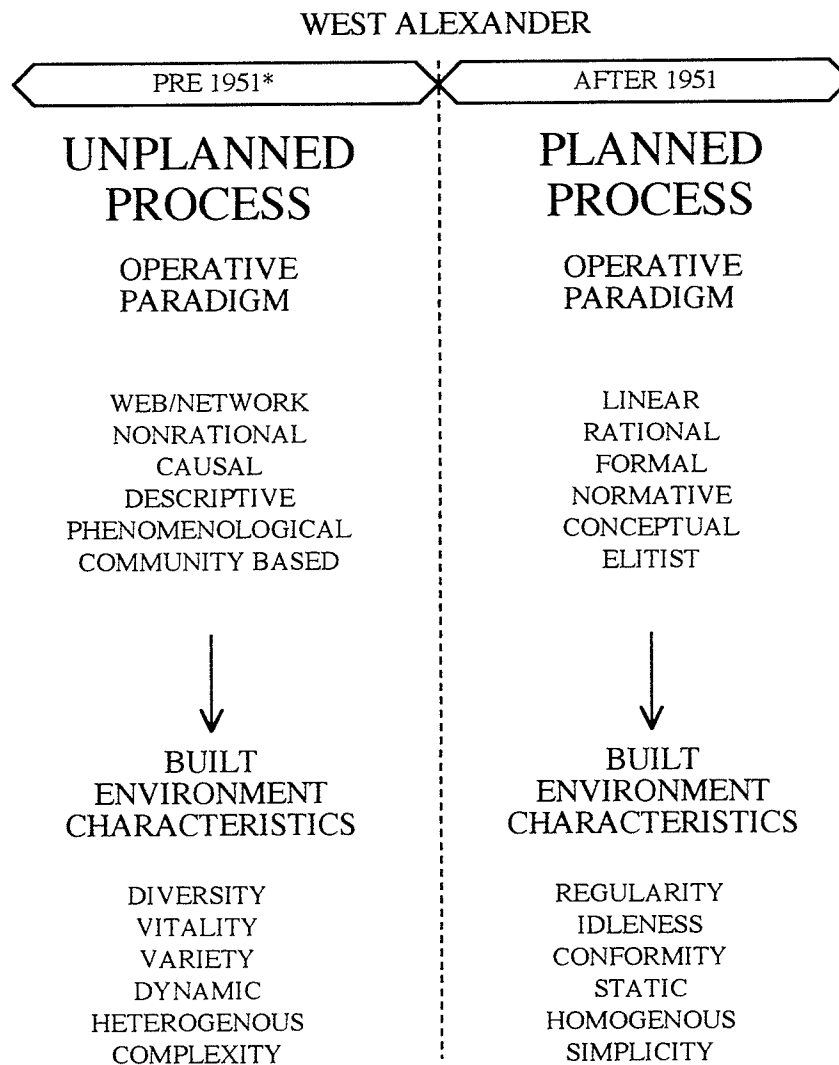


Fig 15 Comparison between the Unplanned process and Planned process. \* West Alexander built environment prior to 1951 was the combination of unplanned and planned processes.

In reaction to the natural process of growth, Urban Renewal Programs identified the perceptual diversity, land use diversity and diversity of decision processes as causes of blight in the neighbourhood of West Alexander. They did not try to understand the true causes of this diversity. City planning and architectural interventions after 1951, began to simplify the neighbourhood complexity of West Alexander by segregating land uses into specific areas. Because of this view, these programs attempted to sort out the different land uses, unify the perceptual image of the neighbourhood and ensure that building activities were approved by city regulated planned processes.

## Reductionist and Deterministic Views

Urban Renewal did not recognize the positive characteristics of diversity in West Alexander, but rather as negative, based on the belief that safe and vibrant neighbourhoods required to be planned on the basis of land use segregation, homogeneity, functionality, and order. This belief of creating a planned community was influenced by reductionist and deterministic views of orthodox Planners and Architects.

Reductionist, being the view that natural phenomena can be understood by dissecting it into the smallest constituent parts and looking for the mechanisms through which these interact<sup>20</sup>. The determinist view is the belief that "human action is not free, but determined by motives regarded as external forces acting on the will".<sup>21</sup> Both these views reflect a controlled built environment, that can be planned and designed to meet the needs of the inhabitants. Therefore, concepts of land use segregation, homogeneity, functionality, and order, were recognized as the mechanisms for creating model communities. Urban Renewal shared this view and as a result identified the neighbourhood of West Alexander as in need of renewal and revitalization.

Much of our present built environment is segregated into single use land zones, as a reflection of reductionist and deterministic views of Modern orthodox, planning and architecture. In their attempt to understand the complexity of nineteenth century urban centers, reductionist methods were utilized to simplify what was seen as a chaotic urban structure into parts, rearranged to create healthy communities characterized as being functional, ordered, safe, and efficient. This objective of creating a healthy community was based on the deterministic view that a planned community would solve all urban ills. The deterministic attitude of architecture and planning of cities and neighbourhoods were further simplified by graphic simplification of those objectives. In the process, the complexity of neighbourhood interrelationships among its various activities and inhabitants

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<sup>20</sup> Fritjof Capra. 'The Turning Point'. p.47

<sup>21</sup> The Oxford Dictionary, of Current English. p199

where 'sorted out' into harmonious ordered and efficient zones of a city, at the expense of diversity and vitality.<sup>22</sup> In addition to this, Roger Trancik states that:

Zoning legislation had the effect of separating functions that had often been integrated. Discrete districts segregated living space from working space....Abstract notions of compatible uses created urban areas that could no longer accommodate physical or social diversity,...<sup>23</sup>

This simplification reduces the built environment to quantifiable and predictable abstractions. In addition, the belief that this would lead to an ideal built environment was based on the notion that a planned environment can solely create an ideal environment. This latter view was entirely deterministic. The result was the separation of the interrelationships between built environment and the social and cultural values of the individual inhabitants.<sup>24</sup> In essence, this view diminished the importance of these interrelationships by a design process involving a philosophical explanation of the built environment. By separating aspects into its constituent parts, social and cultural values were separated from the built environment.

It should be noted that these reductionist and deterministic views of orthodox, city planning and architecture did bring a closer examination of the built environment. One cannot deny that such views did improve the human condition. However, the objective of this thesis is to present the limitations of this view in providing architectural and planning interventions into a built environment. However, an important point must be made to distinguish between planning process and the views of reductionism and determinism, which is commonly associated with orthodox architecture and planning. That is, planning is a tool, whereas, reductionism and determinism is a view or attitude that influences the use of the tool. Very often critics do not make this distinction, and as a result zoning is associated with reductionism and determinism. In fact, this thesis does not dismiss the

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<sup>22</sup> Jane Jacobs. 'The Death and Life of Great American Cities'. pp.152-177

<sup>23</sup> Roger Trancik. 'Finding Lost Space.' p.12

<sup>24</sup> Fritjof Capra. 'The Turning Point'. pp.53-74

notion of planning but the views of reductionism and determinism of orthodox planning and architecture

## Holistic View

Italo Calvino in his 'Invisible Cities' provides a eloquent description of what an analytical process achieves. Marco Polo in describing Venice to the Kublai Khan disclaims his own description, since he believes his words can only represent a small part of what Venice really is.

I could tell you how many steps make up the streets rising like stairways, and the degree of the arcades' curves, and what kind of zinc scales cover the roofs; but I already know this would be the same as telling you nothing. The city does not consist of this, but of relationships between the measurements of its space and the events of its past : ... The city, however, does not tell its past, but contains it like the lines of a hand, written in the corners of the streets, the grating of the windows, the banisters of the steps, the antennae of the lightning rods, the poles of the flags every segment marked in with scratches, indentations, scrolls.<sup>25</sup>

Presently, many developments in architecture, city planning, anthropology, sociology, and psychology suggest that the built environment of neighbourhoods should become more diverse, both in activity and people<sup>26</sup>,. With the advent of critiques of orthodox modern city planning, alternative views are continually emerging forging new methodologies and views that are more in tuned with the neighbourhood complexities of inner city communities. Accompanying these views are criticism not only of architectural and planning interventions, but the limitations of the philosophical foundation of the these views in recognizing complexity in the built environment of neighbourhoods and cities. Scholars argue that this view has lead to the segregation of urban and rural as stated by Lewis Mumford; it has lead to simplification of the urban fabric at the expense of diversity and vitality as stated by Jane Jacobs;

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<sup>25</sup> Italo Calvino, 'Invisible Cities'. pp.10

<sup>26</sup> Jane Jacobs. 'The Death and Life of Great American Cities' pp25. Jacobs refers, to these regulations as the process of "sorting out" the relationships of the city into functions and sorting out them into land use maps that reflect efficiency, order and conformity.

and it has lead to the sterility of modern architecture as stated by Robert Venturi.

This shift in thought is referred to as a paradigm shift<sup>27</sup>, that constitutes a 'holistic view'<sup>28</sup> of the world we live in. This view sees cities as a whole made up interwoven systems of uses and people rather than a collection of zoned land uses.<sup>29</sup> This view which gives attention to wholes or systems of interrelated components is in contrast to the modern orthodox view of architecture and planning, which studies a particular part of the whole, in an attempt to understand the whole. A holistic view, realizes that an understanding of the whole is not achieved through the understanding of each part, but must focus on understanding the interrelationships making up the whole.<sup>30</sup> The following discussion, will begin to expose those criticisms and provide a brief description of what is sometimes being called a paradigm shift.

The school of thought that surrounds this holistic view cannot be categorized into any specific philosophical position. These views recognize that the built environment of neighbourhoods, communities, and cities in general must have planned direction, and there ought to be room for the individual inhabitant to express him or herself. This belief is founded in the recognition that the built environment is complex and made up of an endless array of interactions and interdependencies which in themselves pose inherent checks and balances. Inherent in this belief is that these are not causal or linear relationships, but systematic where one aspect may not be directly related. Therefore, an understanding of

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27 Paradigm shift is a profound change in the thought, perceptions, and values that form a particular view of reality. For detail discussion of this paradigm shift see Alvin Toffler, 'The Thrid Wave'; Marilyn Ferguson, 'The Aquarian Conspiracy'; and Fritof Capra, 'The Turning Point'.

28 Fritjof Capra. 'The Turning Point', 'The Systems View of Life'. pp.265-304. An holistic view also known as a systems view in science. Capra suggests this view of the world is based on awareness of the essential interrelatedness and interdependence of all phenomena, physical, biological, psychological, social, and cultural..

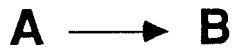
29 Jane Jacobs. 'The Death and Life of Great American Cities'. p.154

30 Ophuls Williams . 'Ecology and the Politics of Scarcity'. pp231

the interactions and interdependencies of the aspects is essential to understanding the whole itself. This is sometimes referred to as a holistic view or approach.

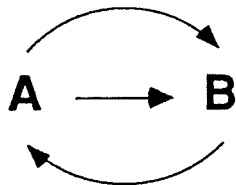
The concept of 'wholeness', known as a 'Holistic View', recognizes the world as a whole based on the "awareness of the essential interrelatedness and interdependence of all phenomena - physical, biological, psychological, social and cultural"<sup>31</sup>. A holistic concept is a view, a perspective, a philosophy, and a way of thinking about the world we live in. This view emphasizes the interwoven nature of the world, where all its aspects are interrelated into a whole or system. An holistic view becomes a vision for seeing more clearly a complex, sophisticated and integrated whole as in a systems approach. This is in contrast to the reductionist position of viewing, the same relationships in a more simplistic linear way of cause and effect. (Figure 16) The emphasis of a holistic view is on the systematic interrelationships of the parts of the system whereas a reductionist method is to understand the system by looking at the parts<sup>32</sup>.

#### **Linear**



Parts are related in straight line manner.  
The whole is viewed as the sum of the parts.  
Focus is upon the parts to the neglect of the relationships between the parts and the whole itself.

#### **Systems**



Parts are related in a circular fashion.  
Through interaction between the parts.  
Understanding the interrelations and interactions of the parts is essential to understanding the whole itself.

Fig. 16 Linear view(reductionist view) compared to the system view(holistic view)

The work of both Jon Lang in his book 'Creating Architectural Theory', and Christopher Alexander in his book 'Notes on the Synthesis of Form' are two works in architecture that demonstrate the discourse on the limitations of planned and unplanned communities.

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<sup>31</sup> Fritjof Capra. 'The Turning Point'. p.265

<sup>32</sup> Henryk Skolimowski. 'Eco-Philosophy'. pp 22-52



Jon Lang's belief is that planning is important. However, what has been unfortunate is the view behind planning, such as reductionism and determinism. Lang describes, such views are based on 'Normative Theory' which is fostered by the prescription for action based on ideological assumptions or positions of a discipline. On the other hand, if planning followed a 'Positive Theory', which is the description and explanation of phenomena in the built environment, a better understanding of how the built environment is experienced by inhabitants can be attained.<sup>33</sup> Presently, architectural and planning design theory are based on definitions and explanations of the built environment which are then based on a Normative process. The purpose of determining definitions and explanations in the context of 'Positive Theory', is to ensure that the complexities of the interactions and interdependence of inhabitant in their built environment are not simplified. In establishing this process of inquiry it becomes a means to substantiating ideas and findings. As illustrated by Figure 17, Positive Environmental Design Theory establishes a procedural and substantive architectural design theory that consists of a body of knowledge based on practical building performance, building design and context which in turn is interrelated with design and behavioral science theory and models.

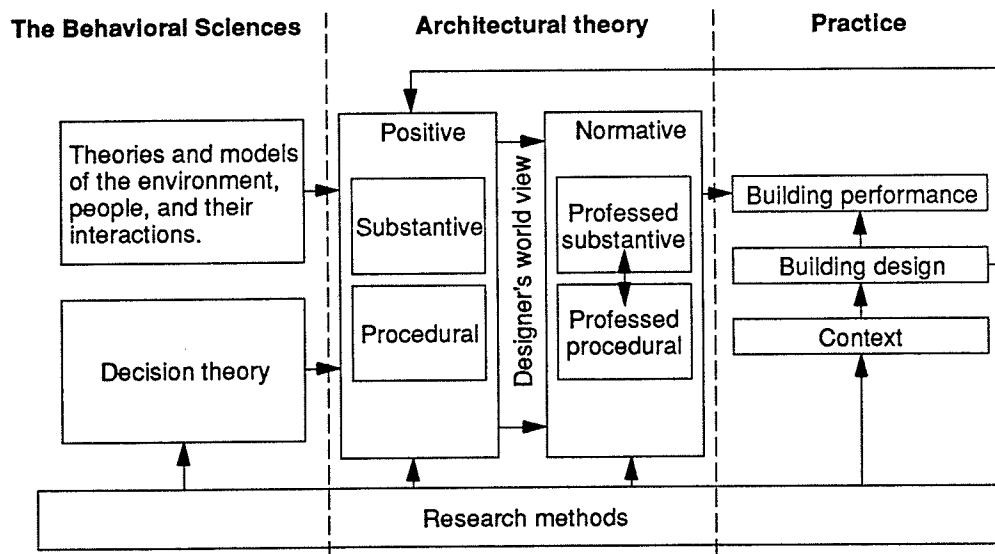


Fig.17 Diagram of the interrelationship of normative and positive theory in the Positive Environmental Design Theory.

<sup>33</sup> Jon Lang. 'Creating Architectural Theory'. p. 31

Fig.17 Diagram of the interrelationship of normative and positive theory in the Positive Environmental Design Theory.

Positive Environmental Design Theory reflects an abandonment of traditional normative theories in architecture, as well as an abandonment of normative theories in behavioral sciences. Positive Environmental Design Theory strives towards a holistic multi-disciplinary view, that in turn, forces absolutist positions such as reductionist and deterministic views to become relativist positions<sup>34</sup>. This position, is also supported by William Ophuls when he states that, "embracing holism will tend to make thinkers generalists first and specialists second, instead of vice versa as present."<sup>35</sup>

Amos Rapoport, who has written extensively on the interrelationships of the built environment explains:

...form is not simply the result of physical forces or any single causal factor, but is the consequence of a whole range of social cultural factors seen in their broadest terms. Form is in turn modified by climate conditions and by methods of construction, materials available, and the technology... settlements are the visible expression of the relative importance attached to different aspects of life and the ways of perceiving reality. The house, the village and the town express the fact that societies share certain generally accepted goals and life values.<sup>36</sup>

Christopher Alexander develops this point further, by suggesting that interrelationships between 'Form' and 'Context' define the design problem. This he believes emerges from the will of the designer to create a "Good Fit", which is to create form that has a good fit with its context. Therefore, design is not only concerned with form alone, but with the complementary interrelationships of form and context, which he calls an 'Ensemble'. An ensemble simply put, is a oneness that includes form and context as an interwoven aspect.

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34 Ibid. p.viii

35 Ophuls Williams . 'Ecology and the Politics of Scarcity'. pp231

36 Amos Rapoport. 'House Form and Culture'. p.47.

As a result, 'good fit' depicts good design. If a good fit does not exist, then there is no 'ensemble' and no 'form and context'. For example, the ensemble of West Alexander consists of the 'context' of its inhabitants and the 'form' of building. Here the inhabitants define the 'context' as the need for a physical environment. In turn the 'form' reflects the social and cultural values of its inhabitants in the form of building. The good fit of the form depends on the degree to which it fits the rest of the 'ensemble'. In the case of the neighbourhood, how does the 'form' fit the inhabitants needs? If the form does not, it simply fails to address its 'context'. It has separated itself from the 'context'. As a result, the form-context relationship is destroyed.

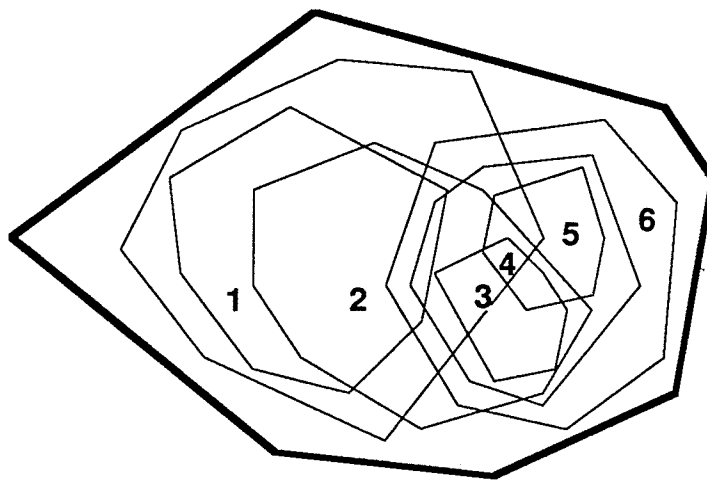


Fig. 18 Diagram of ensemble and its overlapping and nested boundaries. The dark surrounding line depicts the ensemble encompassing the different boundaries numbered 1 through 6.

In order to achieve a good fitting form, the design process must perceive the built environment as a whole, which is made up of many 'Boundaries'. Boundaries are the different levels of cultural and social needs of inhabitants. For instance, inhabitants needs can involve: the need for sun with windows in building; the need for privacy with doors to rooms, and the need for cooking food, therefore with kitchens in homes. All these needs reflect interwoven context-form relationships which are called boundaries. However, they are all interrelated within the ensemble of a neighbourhood. As illustrated in Figure 18, the dark surrounding line depicts the ensemble encompassing the different boundaries

numbered 1 through 6. As illustrated the boundaries are all interrelated and form the ensemble.

## Summary

In this chapter, it was demonstrated that the deterministic and reductionist design theories of orthodox modern architecture and planning are limited in recognizing complexity, and in fact, have simplified the complex interrelationships that exist between inhabitant and their built environment. From realizing these limitations, it was revealed that the operative paradigms of unplanned process and planned process as found in West Alexander, provide insight towards a paradigm that recognizes the importance of both processes. In keeping with this dichotomy between both processes, the views of Lang and Alexander provide insight into how these two processes can be married. Both believe, that in order to ensure that architectural and planning interventions do not follow the reductionist and deterministic tendencies of modern orthodox architecture and planning, an alternative design process must be developed to recognize the limitations and virtues of both processes.

A holistic view, because of its focus on interactions and interdependencies in the human environment, allows for a view that is in tune with complexity, by trying to understand complexity rather than trying to solve it like an equation.<sup>37</sup> The complexity of

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37 Jane Jacobs 'The Death and Life of Great American'. pp428-448. Jacobs discusses that the simplification of the built environment, is the result of planners and architects viewing the built environment as a problem of disorganized complexity. Here a discussion of three types of problems are illustrated. The first type of problem is the problem of simplicity, which involves two related variables. The second type of problem is disorganized complexity, which involves a endless amount of variables. This type of problem is assumed to be a collection of variables that are related by a certain orderly and analysable properties. Hence the development of mathematical techniques of probability and statistics that correlate relationships. The third type of problem is of organized complexity. These types of problems involve dealing simultaneously with a sizable number of factors which are interrelated into a whole, varying simultaneously in interconnected ways. The built environment is a problem in organized complexity. However twentieth century professionals have viewed the built environment as a problem of disorganized complexity. The built environment does not exhibit one problem in disorganized complexity, which if understood explains all. The built environment, however can be analyzed into many such problems of disorganized complexity, but are collectively related with one another, hence organized complexity. The variables are many, but they are not independent, they are interrelated into a whole.

a neighbourhood can not be reduced to parts, that in turn add up to form an understanding of the neighbourhood. It is not a problem of 'disorganized complexity'.

A neighbourhood has no parts. It is an interwoven whole, a problem of 'organized complexity'.

The systems approach, or holistic view, as described in this chapter, provides a basis for understanding the complexity of West Alexander. This view demonstrates the relationship between the built form and the social and cultural context of the neighbourhood. The notion that design even for organized complexity is possible is challenged by some critics of modern planning. Paul and Percival Goodman state that:

For a community is not a construction, a bold Utopian model; its chief part is always people, busy or idle, en masse or a few at a time. And the problem of community planning is not like arranging people for a play or a ballet, for there are no outside spectators, there are only actors; nor are they actors of a scenario but agents of their own needs...<sup>38</sup>

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38 Paul and Percival Goodman. 'Communitas'. pp.19-20

## **Part Two**

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### **Chapter Four: Alternative Methodologies**

As explained in Chapter 3, orthodox modern architectural theory concerning the built environment of communities is limited in understanding the neighbourhood complexities presented by West Alexander. As was revealed, such views are limited in understanding complexity. For this reason, this chapter reviews perspectives which react to reductionist and deterministic views. These views present a conceptual point of departure, as well as a point of reference to expand an understanding of the complexity presented by the built environment of West Alexander. Within these views, architecture is no longer the sole art of monuments, and formal spatial aesthetics of form and structure, but must be realized in a language that illustrates the built environment, as a interdependent and interactive part of the whole human environment.<sup>39</sup> It is in this light that the methodologies of both Stitching Architects' Research (SAR) and Anne Vernez Moudon have been chosen.

The intent of this chapter, is to present alternative perspectives and methodologies in architecture which have recognized the complexity of the built environment. The objective is to present precedent for viewing the complexity of the built environment in order to establish the foundation for the inquiry into the interrelationships between inhabitant and built environment of West Alexander. The first part of this chapter, will establish a genealogy that provides the foundation and substantiation of these two primary references, SAR and Anne Vernez Moudon. The second part, will describe these methodologies.

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<sup>39</sup> Christopher Alexander. 'Notes on the Synthesis of Form.' pp.1-8

The first methodology, called 'Tissues', was developed by John Habraken, head researcher of the SAR. This methodology developed from several studies of different Dutch neighbourhoods. The purpose of the studies were to develop systematic ways to document adaptations and changes in those built environments. The methodology involved in 'Tissues' was intended to reveal reoccurring patterns in the uses of space, as a means to understanding the underlying order for their re-occurrences. This documentation leads to a glossary of working terms that was developed to describe such occurrences in the built environment.

The Second methodology, by Anne Vernez Moudon, Professor at the College of Architecture and Urban Planning and Director of the Urban Design Program at the University of Washington, developed a study into the change and continuity in the architecture of San Francisco's inner city neighbourhood of Alamo Square. The primary intent of the methodology was to study the adaptability of residential architecture. By reconstructing the historical development of building activity in the neighbourhood, the inquiry revealed how people had transformed their built environment.

Both these methodologies developed from looking at existing neighbourhoods that have had an extensive history of individual inhabitants changing and adapting the built environment they live in. Both authors' primary intent was to understand the built environment they were looking at. As a result, both methodologies arrive at a general observation that built environments which reveal diversity and vitality are a result of inhabitants being able to adapt their built environment. Yet, both also demonstrate that there is an order that ties this diversity together. In the case of Habraken he calls it 'Tissues', Moudon calls it the 'Structure of Space'.

These two methodologies have been chosen because an inquiry into West Alexander reveals many of the issues covered in these methodologies. They can also serve as a point of reference for an inquiry into West Alexander's built environment.

## Genealogy of Design Methodology

A genealogy of the two main references will be presented. The purpose of a genealogy in this thesis is to substantiate and provide a foundation of references that supports the two primary references. Illustrated by the genealogy diagram in Figure 19, the primary references of John Habraken and Anne Vernez Moudon are annotated by the bold type, which are Moudon at the top and Habraken as a direct influence on Moudon. The genealogy diagram collects a comprehensive body of contributions in architecture, planning and social sciences commencing with architect Hendriks Berlage in the 1900's.

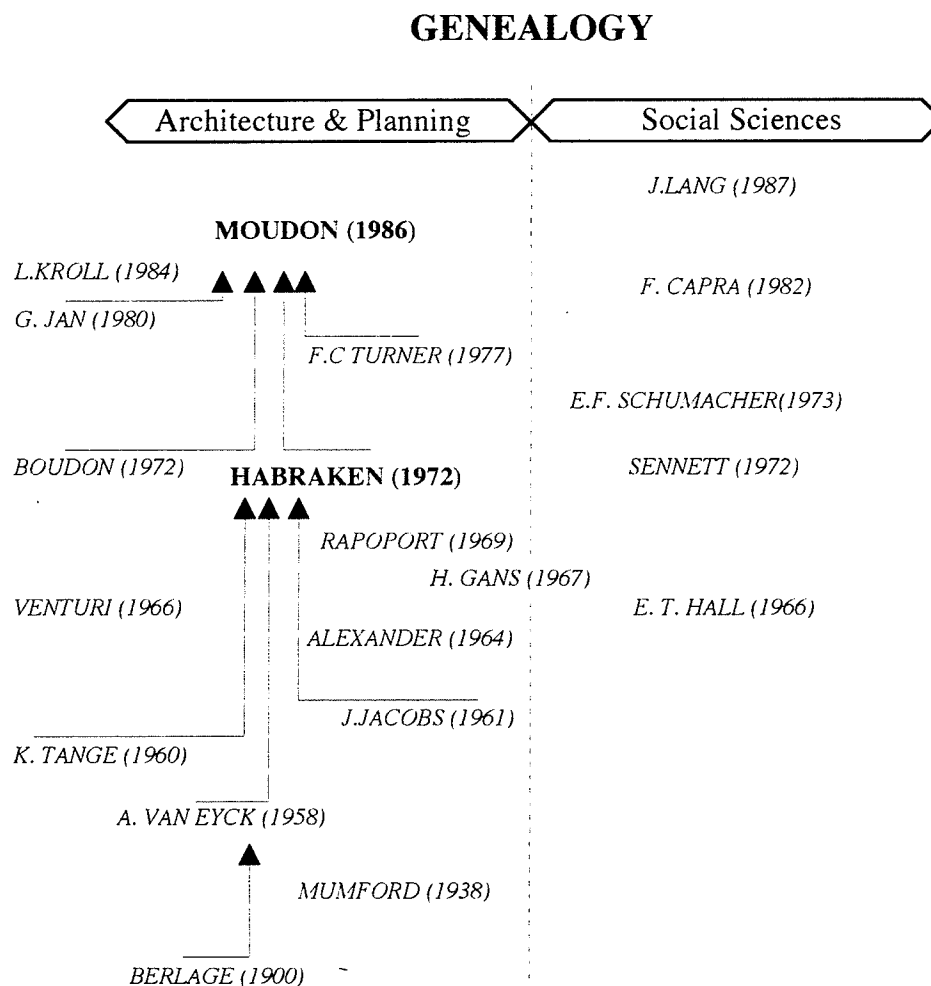


Fig.19 Genealogy of Design Methodology



When work began on the research for this thesis the initial intent began with a search for studies in architecture concerning the built environment of neighbourhoods, using key words like diversity and mixed-use. These words described the prevalent characteristic of the neighbourhood. Also at this time, familiarity with neighbourhood revitalization and urban renewal programs in West Alexander lead to critiques of such programs. At the helm of this branch of research was the work of Jane Jacobs, and her book "The Death and Life of Great American Cities" written in the early 1960's. Another book written by Richard Sennett "Uses of Disorder" also provided an articulate criticism on modern orthodox planning and architecture

From these books, the entire reactionary movement against Modern orthodox architecture was realized, and the research began to focus on the broader issue of the reductionist and deterministic views of orthodox planning and architecture. This lead to the early 1960's, where the role of architecture and city planning was in a phase of re-evaluation, of fundamental theories of the 1920's and 30's. Individuals such as Jane Jacobs, supported municipal diversity, which reacted against the homogeneity that land use zoning had fostered. Sharing her view was also, Aldo Van Eyck in Europe. Both these individuals were concerned for the individual, in a growing formless society. The formlessness emerging from the universal repetition of the same building and streets.

John Habraken from the early 70's was influenced by these views. In his book, "Supports" he develops the argument for the participation of the inhabitant in the housing process. His purpose was to develop a methodology in housing design that brought the individual inhabitant into the process. During this period, we also see the writing of Venturi, Alexander, Sennett and Schumacher calling for a more humanitarian approach to our built environment.

In search of understanding the physical importance of diversity and individuality in the built environment , people such as: Amos Rapoport, John Habraken, Phillippe Boudon, Lucien Kroll, Jan Gehl and John F.C. Turner embarked on developing methodologies for both analyzing and designing built environments. Moudon expands upon theses ideas in her book, and has developed a methodology of inquiry to determine the adaptability of

residential architecture. She has endeavored to develop an argument for inhabitants changing and adapting their built environment.

## Alternative Processes

### Tissues

Stitching Architects' Research (SAR).<sup>40</sup>, was developed as an alternative to the mass housing design process in Holland. It specifically reacted to the elimination of the inhabitant, from the process. According to John Habraken, the design process in housing had divorced it self from the inhabitant, experts such as architects, city planners, developers, and sociologists, were believed could objectively predict and determine the needs of its future inhabitants. For this reason, there was no need to have the user as a component of the process. According to Habraken, this view had denied the most important component of the built environment, 'the inhabitant'. In its place, were statistical and probability figures that predicted human needs for a housing project or residential subdivision. This argument was based on Habrakens view, that inhabitants are the dynamic force in a community which gives a built environment vitality. As a result, this was not a quantifiable or predictable aspect of the built environment, which could be reduced to statistical correlation's. According to Habraken, this point has been the main oversight of modern city planning, architecture, economics, and politics. This simplification has proven helpful with complex problems of technical nature in housing, but has over simplified human, social, and psychological needs

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<sup>40</sup> John Habraken 'Supports' pp 7-17 The SAR method or approach is a methodology that was developed in the Netherlands by Stichting Architecten Research(SAR). John Habraken was the appointed director of research. In December of 1965 a proposal was presented by SAR to the Dutch Architects Association outlining a method for the design of adaptable dwellings by the means of "Supports". The idea of supports was based on the principle of user participation or user control. It was assumed that the missing element in housing was the inhabitant who was no longer an active participant in the housing process.

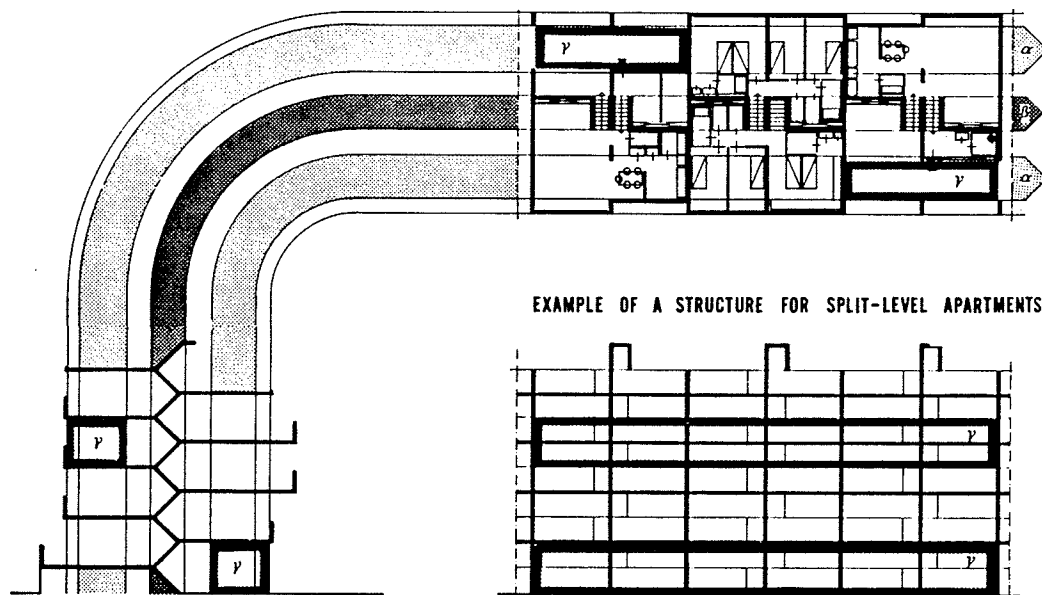


Fig.20. Diagram of a Support and Detachable unit. Dark gray(beta)('y') depicts group control, of the support. Light gray(Alpha) depicts individual control, detachable unit.

#### Definition of SAR<sup>41</sup>

##### *Supports and Detachable Units*

The SAR methodology or system, has been developed to carry out an alternative approach to the design of housing. The objective of the methodology was to involve the inhabitant as an active part of the design process. The methodology is made up of two concepts: Supports and Detachable Units, and Zones and Margins. These in combination form the SAR method. In the following paragraphs, these two concepts will be discussed briefly to explain the SAR. method.

The concept of supports and detachable units, has been developed to express the differentiation of the building over which the individual has control and over which the community collectively decides.(Figure 20) "A support involves those decisions over which the community has control and over which the resident has no individual control". According to SAR, the determination of where a community has control and an individual

<sup>41</sup> John Habraken. 'Supports'. See for a complete discussion on philosophical position.

has control is dependent on the individual situation. But generally speaking, a support element is structural in character such as legal descriptions of property, and physical structural supports of a dwelling. "A detachable unit is that area over which the individual decides" they tend to be the movable components over which the resident has individual control, such as, arrangement of dwellings on property and internal spatial organizations of dwelling."<sup>42</sup>

Therefore, Supports are technical, social and political frameworks that are determined by a group of multi-disciplinary experts. The "detachable unit" on the other hand, are the components of the support that are determined by the individual rather than a group. The parameters of the support structure only provide a framework to coordinate individual decisions. Since the SAR's aim is to restore the user to the housing process, the support structure has been determined to accommodate variation and to meet the diversity of individual self expression. The concept of support is in fact, a set of rules that are determined by all parties involved in the community planning process. As a result, the support is a manifestation of rules that determine the spatial order of the support structure and the flexibility of the support to accept the variation of Detachable Units.

#### *Zones and Margins*

Support as a design tool, is a matter of establishing what is in essence private and public space. Or in other words, what is in the control of the individual, and what is in the control of the community. However, the degree of private and public cannot be described in absolute terms. Within this relationship, there are zones and margins that illustrate different degrees of private and public (Figure 21). These zones and margins are of great importance, because it is within these areas that the inhabitant has the flexibility to adapt their dwelling.

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<sup>42</sup> John Habraken. 'Variations'. p.21

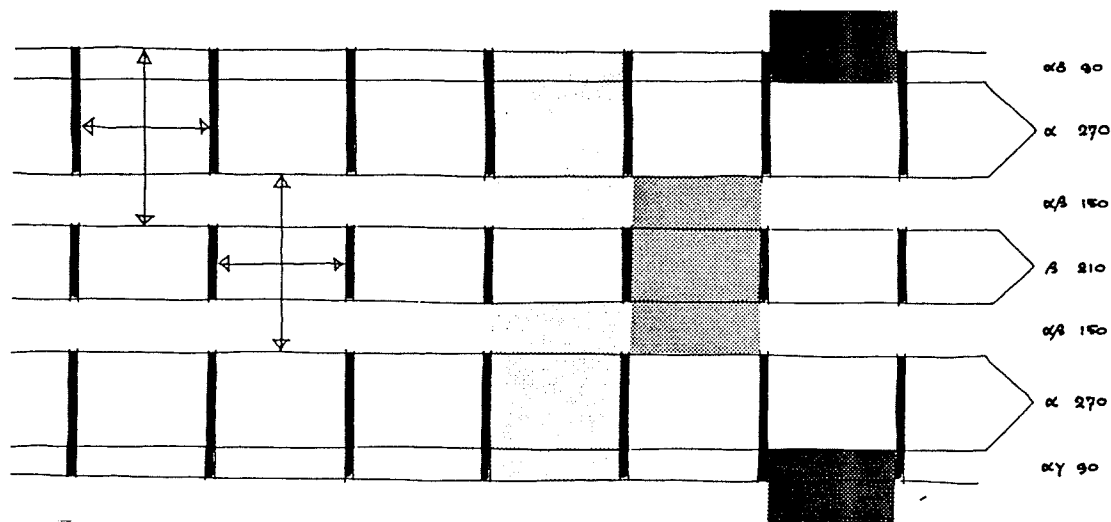


Fig.21 Diagrams showing the concept of Zones and Margins. In area where either a alpha or beta occurs as a single entity, we have a zone. In area where we have both a alpha and a beta we have a margin. Where Light gray or (Alpha) is private in individual control and where dark gray, or (Beta) is public in group control

A Zone is an area of a support that has absolute qualities. For instance, a bedroom may be considered private, on the other hand, a kitchen and washroom are considered single functional zones. A Margin is an area of overlap, where two or more areas may interact. For instance, a eating area and a living room can overlap in functional use, or a verandah and a front yard may overlap private and public zones.

Zones and Margins serve two purposes. The first purpose is to analyze existing situations. For instance, by examining the private and public interaction in an existing built environment insight can be gained into the uses and adaptation. Such an examination can reveal the natural interaction and interdependencies that occur between inhabitants and their built environment. The second purpose, is to design housing and neighbourhoods that are capable of change and variation. Hence, the design of supports takes into consideration the process of adaptation to accommodate changes in the inhabitants lifestyles. For instance, a

couple requires an extra room for a newborn baby, or an individual has decided to practice their trade at home and constructs a workshop.

### Tissues<sup>43</sup>

The concept of 'Tissues', has evolved as an extension of the SAR method to cover the larger context of the built environment. Tissues, in turn developed as an extension of the Supports methodology. However, the difference in Tissues is its main objective is with the immediate context which is larger than the single building and smaller than the urban structure. The concept of 'Tissues' was developed specifically to view the built environment as a whole. Therefore, when a built environment shows patterns that can be recognized and to which buildings and the spaces around them are ordered, they are viewed as one in the same. This interrelationship in the built environment is what is referred to as a 'Tissue'. Tissues look at the interrelationships between that which is smaller than the urban structure and larger than the single building. The SAR method definition of the 'Tissue' "is that scale where a large number of discrete architectural interventions come together into a larger whole and are integrated with streets and public spaces".<sup>44</sup> The purpose of the Tissue concept is to ensure that the SAR methodology does not end at the walls of a building. In fact, the entire premise of the methodology is to view the built environment as a whole. Therefore, the same concepts apply to the immediate surrounding of a building. However, there are a few additional concepts that are introduced to specifically deal with this scale of the built environment. These are Tissue agreements, and Elements.

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<sup>43</sup> John Habraken. 'Sar 73' See for a detailed look at the concept of 'Tissues'

<sup>44</sup> John Habraken. 'Grunsfeld Variations'. p.2

### *Tissue Agreements*

Tissue agreements are descriptions of the interrelationships between socio-cultural and the built environment, or specifically the overlapping of these two. Because the built environment is interrelated with the social and cultural context, we must be able to point out the manifestations of these forces in the built environment. Therefore, Tissue agreements are documentation of built form that reflects socio-cultural context.

### *Elements*

Elements are the parts of the built environment which include streets, sidewalks, buildings, fences, etc. However, there are two distinctions of elements. The first is elements are either Space or Building. The second is that elements are either thematic or Non-thematic.

### *Space or Building*

'Spaces' are gardens, parks, yards, streets or any part of the built environment that is open to the extremes of climate. 'Building' are houses, churches, schools, factories, stores, or, any part of the built environment that is covered, not open to the climate.

### *Thematic and Non-Thematic.*

A thematic element is one that re-occurs. These are typical and can be either Space or Building. For instance, a detached home is typical in West Alexander. A Non- thematic element often gives an accent. They are not typical. These can also be Space or Building. For instance, the Midland railway in West Alexander was not typical of the neighbourhood.

## Historical Change and Continuity

Moudons methodology, evolves from reconstructing the historical development of building activity in the Alamo Square neighbourhood in San Francisco. The inquiry's intent was to understand how people had transformed their built environment over time. The hypothesis was that through the study of past historical events surrounding the built environment, an understanding about change could be revealed. The study in essence looks at the process that has lead to the incremental changes of the built environment. In turn, the study views the built environment as part of its social and cultural context both presently, and in the past

### Methodology

The methodology of the study, follows a chronological sequence tracing the neighbourhoods development. In other words, the inquiry is historical in its focus. The reason the inquiry follows a chronological sequence is to reveal all the layers of development. The structure of the study is divided into two parts.

Part one is primarily concerned with documentation and observation from the perspective of understanding the built environment as a manifestation of its socio-cultural context. With the use of a series of maps that date from the beginnings to the present neighbourhood, a comparison of growth is made of the neighbourhood's form and structure. The first step involves a walking tour of the existing neighbourhood with these maps to identify typical and atypical land uses, building, details etc. This can also help identify when buildings were built to identify shifts in building traditions. The second part of this section, involves the use of these maps to document the land subdivision, the outline of buildings at ground level, the footprint of the buildings, the principal land use, and the breakdown of uses for each property. In Alamo square, this was done for three eras, 1899, 1931, and 1976. From these maps, correlation's are made to signal change in the form and structure of the neighbourhood, related to historical events and building design traditions.(Figure 22)



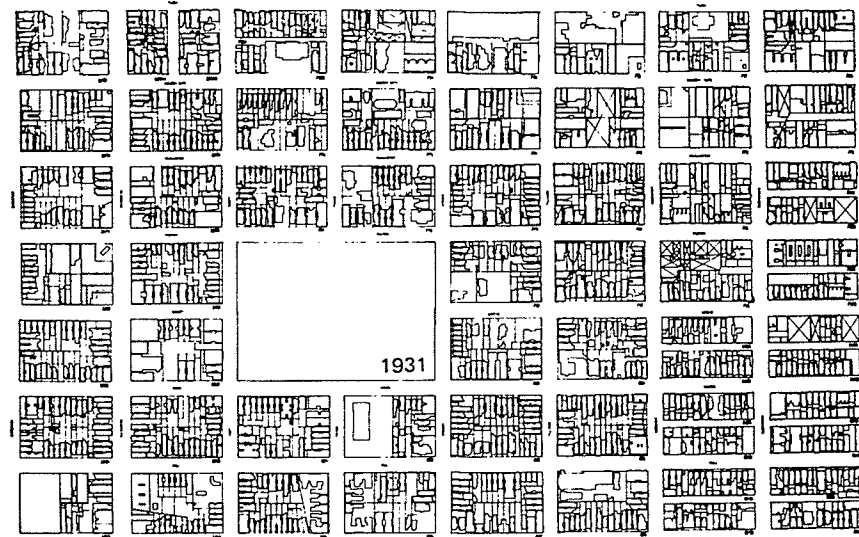
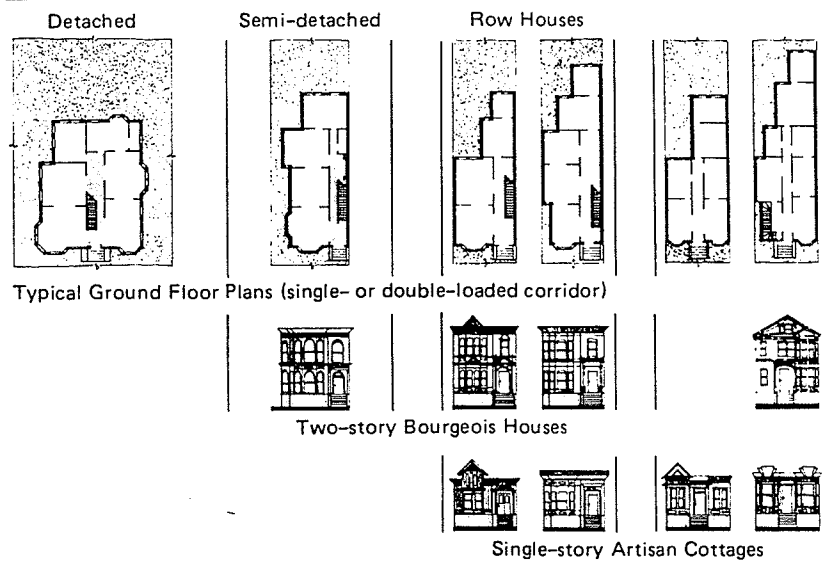


Fig.22 Alamo Square, 1931 lots and buildings

#### Wide and Narrow Single Lots



#### Single and Double Lots

Fig.23 Alamo Square, Typology of house forms and lots in the nineteenth century

Part two involves three sections. The first section, is to identify the elements of the built environment which were developed without the participation of the inhabitants. Such elements include streets and block sizes. The next part is to identify those elements in which the inhabitants had some control, such as lot sizes and housing forms.(Figure 23)

For these elements, drawing of building typologies illustrate the variation and option available to the inhabitants, and outlines the limits to the order and variation in that environment. The final stage of the study includes the identification of those elements, of the environment in which the inhabitant had unlimited choices, or at least such a broad range of available solutions that no typology, could be determined to explain the pattern. These consist of additions to buildings, uses of spaces, and personal expression.

#### Documentation

The documentation of the inquiry is illustrated in various ways. Existing situations, are illustrated with annotated photographs that are keyed specifically to a map of the neighbourhood. This collection of photographs are collected by the simple method of observation while walking<sup>45</sup>. Drawings are extensively used to illustrate building typologies, patterns in the built form and structure, and relationship of elements. The drawing convention used includes plans, elevations, sections and three dimensional drawings. In all these cases, illustrations are extensively annotated providing a clear purpose for each drawing. Text is used in documenting historical events, explanation of finding, and also to substantiate findings. The methodology follows two criteria of organizing information. The first criteria is by chronology. The purpose is to demonstrate the progression of development identifying major events and building traditions. The second criteria is by scale in the built environment. Commencing with the relationship of neighbourhood roads and streets to the broader urban structure of a city. Progressing towards city blocks, to buildings, and to rooms within buildings.(figure 24) By illustrating

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<sup>45</sup> Allan Jacobs. 'Looking at Cities' Jacobs, believes the method of observation is an easily accessible way to inform our selves about the process of change in the built environment. In addition by walking the intangibles of noise,smells, even the feel of things can be appreciated. Much to often a neighbourhood may be physically unsightly to some standards but the intangible , non physical provide use with an entirely different impression. Jane Jacobs also refers to the this notion when she refers to he North End of Boston.

the built environment physical elements from the macro to the micro also corresponds with the macro being in the control of the public and the micro in the control of the private. By combining these two criteria for organizing information, the result is an inquiry that illustrates the relationship between historical social and cultural traditions and urban form. Ultimately Moudon concludes that inhabitants when adapting their buildings and homes are actually affecting the neighbourhood and eventually the city as a whole.

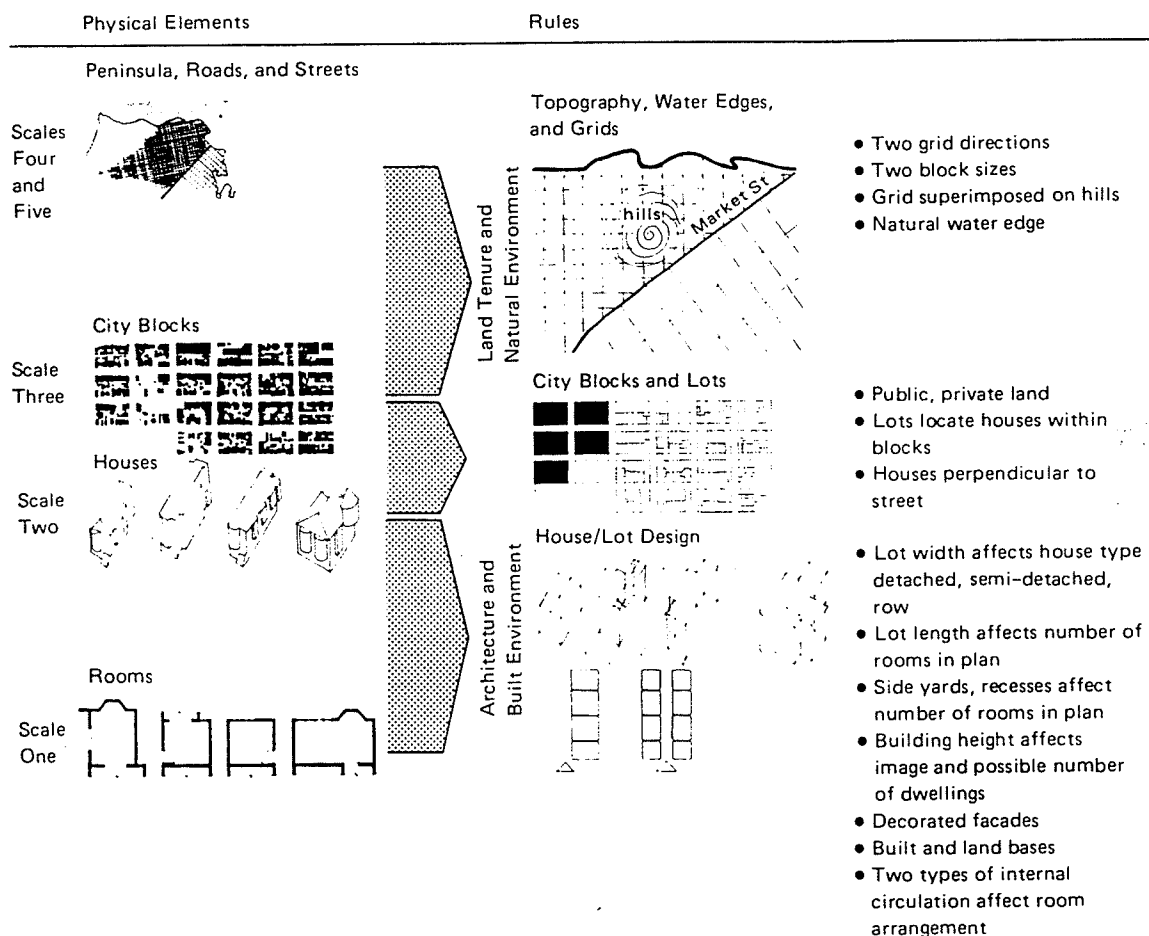


Fig.24 Alamo Square, physical structure of urban space - illustrating the scale of information about a neighbourhood

## Summary

In this chapter, a genealogy was presented for the two primary references of Habraken and Moudon. From this genealogy, the two references are placed within an established body of knowledge.

Stitching Architects' Research (SAR) development of the concept of 'Tissues' coupled with the concept of 'Supports', illustrates a methodology that is systematic in its approach to looking at the interrelationships between built environment and its inhabitants. As a result, the methodology has developed a terminology that can be used to describe such interrelationships.

These two methodologies are similar in their objective, only differing in their scope. Habraken tends to focus on the present situation of a built environment, whereas Moudon places emphasis on the historical events and attitudes that surround a built environment. What is common to the two methodologies is their belief that built form is interwoven with the socio-cultural context of the built environment. Accordingly, these methodologies recognize that the inhabitants' interaction and interdependence with the built environment is an essential aspect of understanding their complexity. In the presentation of the two methodologies of Moudon and Habraken, it was established that there are three common aspects to both the methodologies:

First, both methodologies recognize the inhabitant as the dynamic force within the built environment.

Second, both methodologies demonstrate the intent to identify and promote diversity in the built environment.

Third, both methodologies identify the elements of the built environment as either public or private, and as either in the control of the group or in the control of the individual inhabitant.

## Chapter Five:

### Methodology for an Inquiry into West Alexander

The premise of this inquiry agrees with the view of Christopher Alexander that built 'form', and its social and cultural 'context' are interwoven, creating the built environment. The inquiry's purpose is to understand the built environment in West Alexander, explore the interrelationships of form and context, and to reveal the processes that have lead to the present built environment of the neighbourhood, in order to reveal possible design guide-lines for future development in the neighbourhood.

#### Conceptual Framework of Inquiry

The conceptual framework that is derived from Jon Lang and Christopher Alexander indicates that the built environment reflects the technological, cultural, physiological and psychological values of a society. In Chapter five, two methodologies have demonstrated that the built environment is a sequence of events from generation to generation, which reveal changes in the built environment with respect to social and cultural values. These views serve as the conceptual precedent for an inquiry into the built environment of West Alexander.

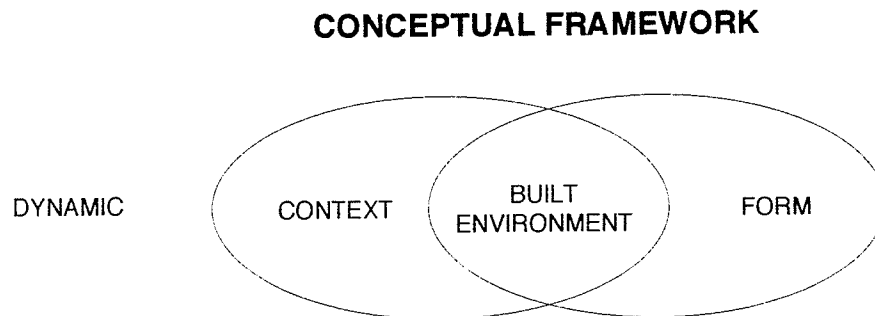


Fig. 25 Conceptual framework of inquiry

According to Christopher Alexander, the built environment is an interwoven whole of context and form. Context, -according to Alexander is the socio-cultural values of inhabitants, and form is the built aspects that meet those socio-cultural values. This view forms the conceptual framework of this inquiry (Figure 25). Within this framework, the built environment is not static, but dynamic, continually changing its form to meet the context.

## Methodology

The methodology used in this inquiry is derived from Habrakens SAR concept of 'Supports and Detachable units', and Moudons concept of 'degree of inhabitant control'. Both these concepts establish a distinction between what is in the control of the community, and what is in the control of the individual. In addition to these concepts, the inquiry will also follow the chronological sequence of historical events and the neighbourhood scale, that Moudon illustrates in her study. Therefore, it will explore the built environment of West Alexander from its beginning to the present. With both these concepts in mind, the methodology is divided into three sections (Figure 26)

### ANALYTICAL METHODOLOGY

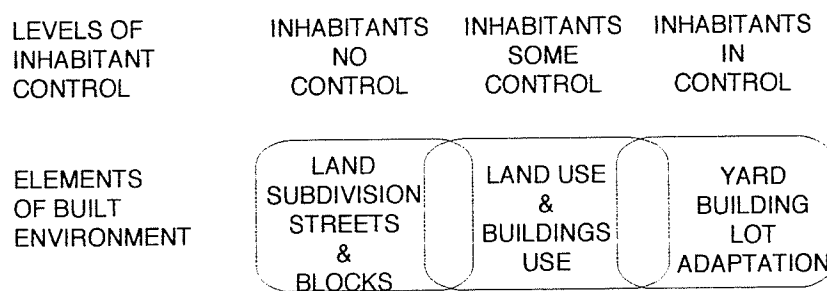


Fig. 26 'Analytical Methodology Diagram'

- 1) The first part, is to identify the elements of the built environment about which the inhabitants had no choice, such as land subdivision of streets and block. For these elements, drawing of the land subdivision practices will illustrate the different phases of land subdivision, based on the attitudes of the groups or individuals involved.
- 2) The next part, is to identify those elements in which the inhabitants had some control, such as, land uses of lots and buildings. For these elements, maps of land use, lot lines, and building foot print illustrate the variation and option available to the inhabitants.

3) Finally, the identification of those elements of the environment in which the inhabitant had unlimited choices, or at least a broad range of available solutions. These elements consist of adaptation of buildings, lots, and blocks.

The primary reason for using the methodologies of Habraken and Moudon, lies in the fact that these approaches do not isolate the built form from its social and cultural context. The secondary reason for using these methodologies, is that it enables to differentiate the levels of the built environment according to the built form elements of the environment. These reflect either an inhabitant's private choice or a group's public choice. This proves to be useful in understanding the dynamic between these two bodies of decision making, and also in the development of the built environment.

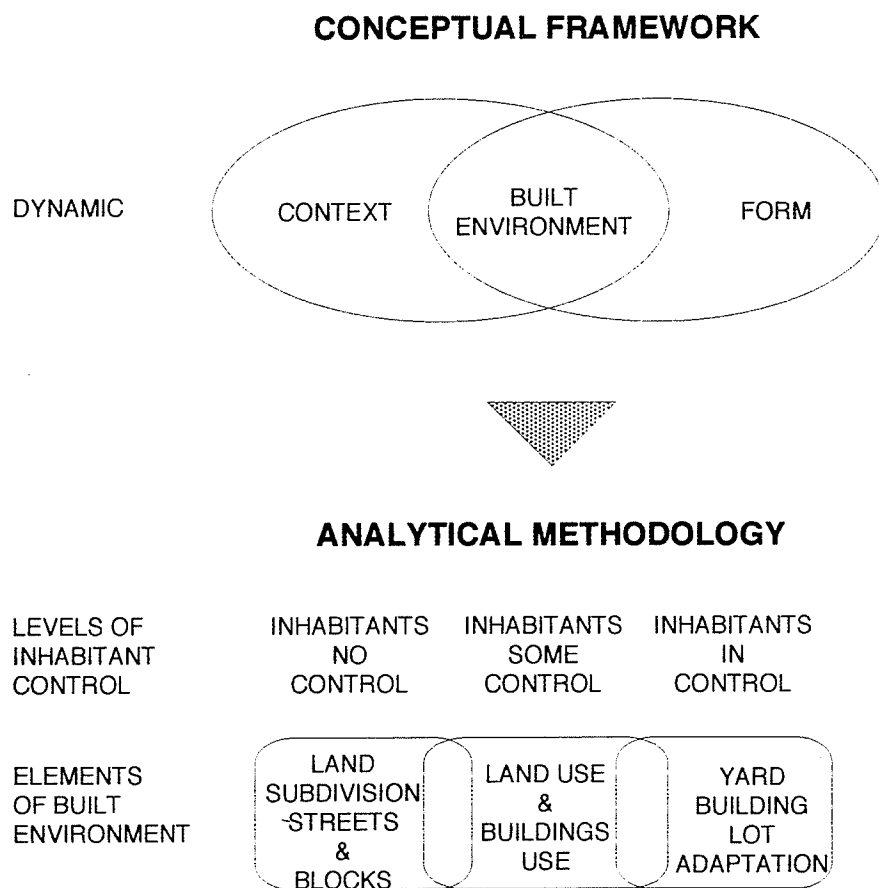


Fig. 27 Inquiry Diagram

Up until now, we have discussed the parts of the inquiry. However, this explanation would not be complete without ensuring that the inquiry is viewed as a whole. In order to do this, we must view the conceptual framework as interwoven with the analytical methodology. The purpose of viewing the inquiry in this manner, is that the entire premise of the conceptual framework is to view the built environment as a system of undivided parts. All documentation must be viewed as interwoven, in order to ensure that the complexity of the neighbourhood is not simplified. For this reason, there is only a practical distinction between the Conceptual Framework and the Analytical Methodology. They are in essence, interwoven as illustrated by Figure 27. In the process, the inquiry begins to reveal the interrelationship that occurs between inhabitant and built form. This provides lessons or guide-lines that may help in creating future developments, which are sensitive to this neighbourhood's built environment.

## S u m m a r y

By bringing these two methodologies together, we formulate a single methodology that combines the systematic terminology of Tissues and SAR, with the methodology of historical inquiry of Moudon. What this provides, is a methodology that can systematically trace a built environment's interrelationships through its history. Since the methodology of SAR tends to focus on the present situation of a built environment, introducing the historical methodology of Moudon, can create a dynamic methodology, that begins to relate the present situation of a built environment to its historical events. The result, is not a static picture, but one that begins to reveal a historical picture of a dynamic ever-changing, built environment interwoven with its social and cultural milieu. Christopher Alexander describes this as an ensemble, where form and context are inseparable.



## **Part Three**

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### **Chapter Six: Inhabitants no Control**

The title of this chapter 'Inhabitants no Control', refers to the elements of the built environment that are predominantly a result of planned public action. For instance, the activities of land developers, land surveyors, and government officials with respect to the development of infrastructure and land subdivision, which includes the layout of streets and blocks. These elements, in turn, become the field of reference for future development of blocks into lots, and eventually to the building placement on those lots. Within the neighbourhood of West Alexander, these elements have traditionally been in the control of the public, rather than in the hands of the individual inhabitant. For this reason, these elements are considered not in the control of the inhabitants.

The distinction of 'Inhabitants no Control', is in keeping with the methodology of both Habraken and Moudon, described in chapter 4. Both methodologies demonstrated that a built environment has elements within it that are primarily public in nature. Habraken referred to them as the 'Support' and Moudon as land subdivision. The study of past land subdivision of West Alexander, as Moudon has illustrated, provides an understanding of changes and influences that different land subdivision practices have had on the neighbourhood's public elements.

The intent of this chapter is to reveal the historical practices of land subdivision that have contributed to the present form of West Alexander'. The purpose of revealing these attitudes, historical events, and conventions of land subdivision is to show their influence on the development of the neighbourhood's block and street pattern. The purpose of this is to understand the structure of land subdivision that ultimately dictates the form of the built environment. Furthermore, this chapter will also begin to illustrate the different land subdivision practices that have occurred in the neighbourhood since the first acts of land subdivision in Winnipeg. This will provide a comparative analysis of all the practices up until the present day. This comparison will demonstrate that the original land subdivision has been the point of reference of all land subdivision to the present day.

## Land Subdivision

While walking the streets of West Alexander, one can not help but realize the variety of street and block types that exist, Alexander, Pacific, Ross, and Elgin Avenues have a long stretched appearance reinforced by the line of homes along both sides. These streets are only broken at lengthy intervals by streets such as Arlington, Sherbrook and Isabel, which are primary streets of traffic in the neighbourhood. On the other hand streets such as McDermont and Bannatyne Avenues are crossed by streets at regular intervals creating an array of street corners. This character is also similar to the north side of Alexander and to the south side of William Avenues as illustrated by Figure 28.

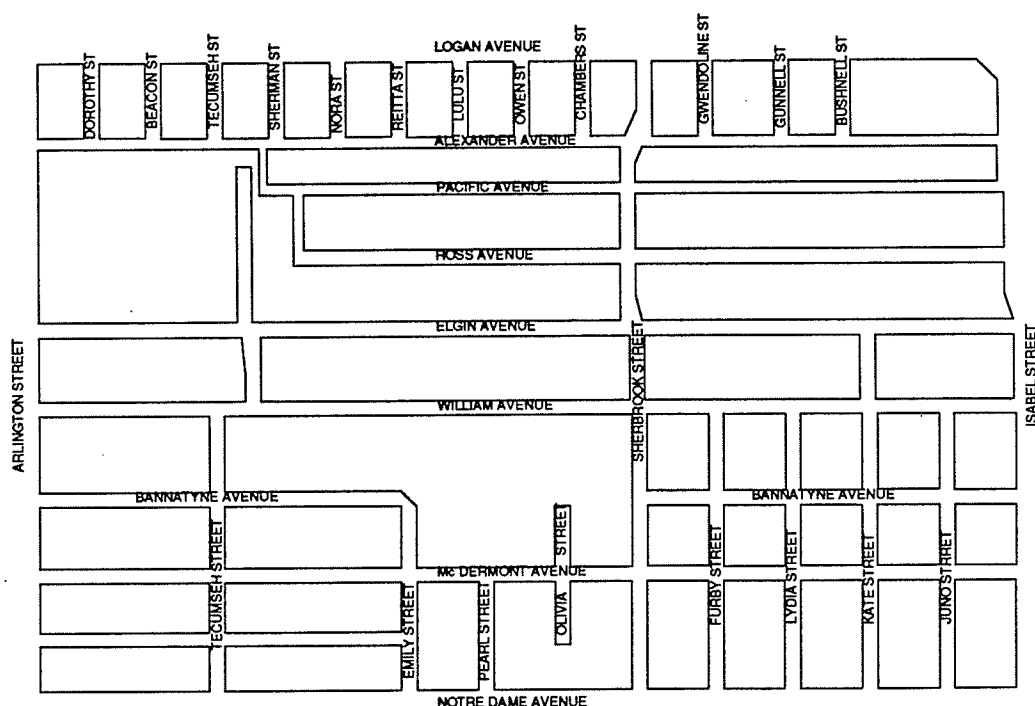


Fig 28 A Streets and blocks map of West Alexander

This diversity of street and block patterns found in West Alexander, raises the question: "How has this happened?" This question is interesting especially if one has walked around other neighbourhoods in Winnipeg and observed that these neighbourhoods have a clear pattern of streets and avenues. The situation in West Alexander seems to be

unique. A downtown city map illustrated in Figure 29 shows that West Alexander's street and block patterns have considerable diversity within a relatively small area, as compared to the neighbourhoods to the north and south of West Alexander. These neighbourhoods portray a regular and ordered checker board pattern of streets and blocks. West Alexander is also checker board like, yet the shape and size of blocks are different from street to street.

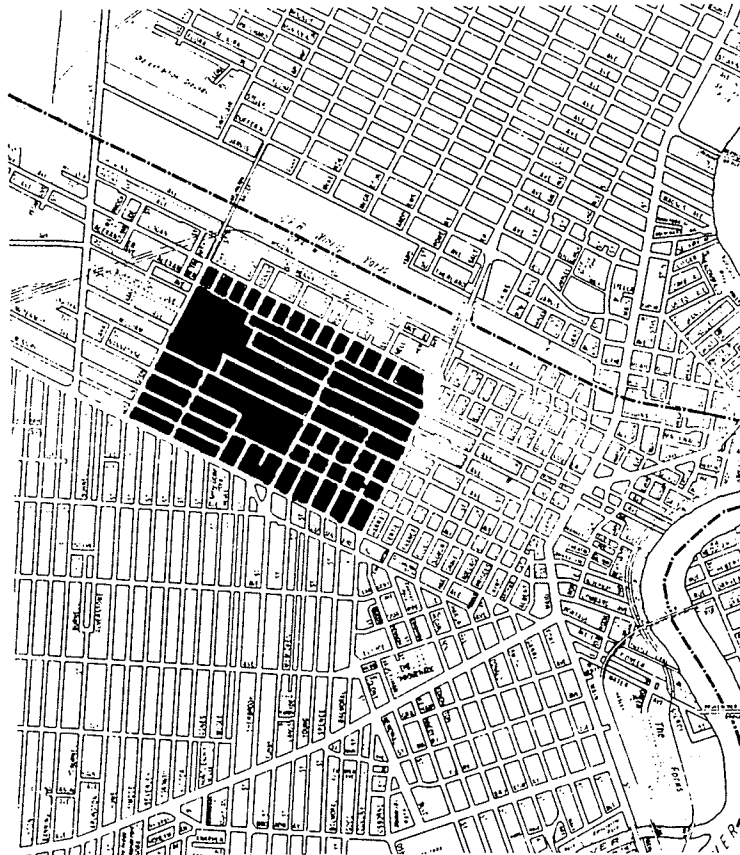


Fig. 29 Downtown map of Winnipeg ,the dark blocks indicate West Alexander.

### **Historical Events in Land Subdivision**

To begin to answer this question, we start with a historical survey of the development of land subdivision of streets and blocks in West Alexander. One need not go back further than the "Plan of the settlement on the Red River", as it was in June of 1816, illustrated in



outlined by Macdonell ultimately governed the street plan of Winnipeg, since many of the building structures and land claims had been established through the conventions of the river lots prior to this event. These lots were then grouped into Parishes and the first plan of Winnipeg's area was dated "Dominion Lands Survey Office Winnipeg April 1874", as illustrated in Figure 31.

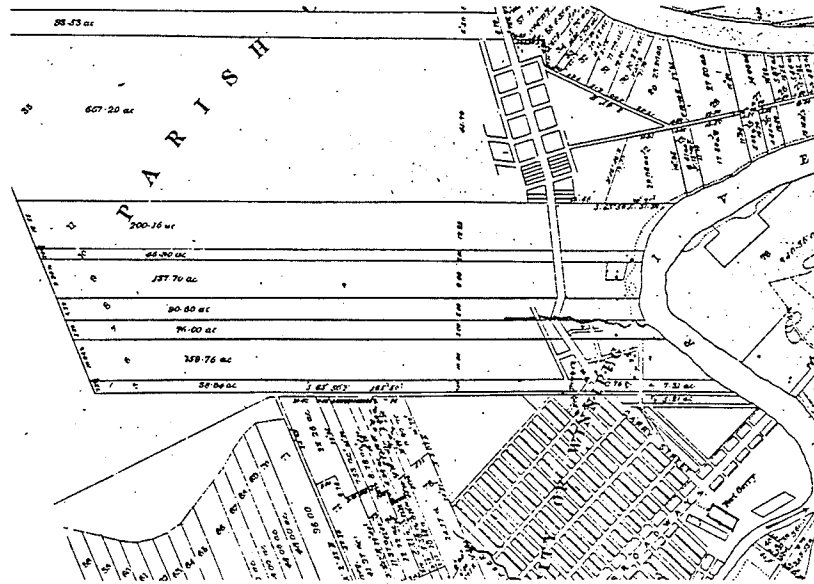


Fig. 31 A map of Winnipeg in 1874, entitled "Dominion Lands Survey Winnipeg, April 1874"

The area of present day West Alexander consisted of river lots owned by pensioners of the Hudson Bay Company or allocated to Selkirk settlers. Because these lots were owned prior to the land subdivision acts of the 1880's, (for example; the Real Estate Act of 1885 and the Special Survey Act of 1890), the river lot dimensions were determined by land title in which possession established prescriptive title. Since these lands were claimed prior to these acts, the area of West Alexander had no formal land subdivision which clearly defined blocks and streets as was the case with land subdivision done after 1885<sup>47</sup>.

47 R.H. Avent. 'History and Development Land Subdivision, Winnipeg District'. pp1-5

The area bordered by Notre Dame Avenue to the south, Henry Ave to the North, Main street to the east, and Arlington to the west represents land subdivision prior to the real estate boom of 1881, in Winnipeg.

With the real estate boom of 1881, interest in Winnipeg real estate grew and with it came the development of the river lots in the area of present day West Alexander. These river lots were ultimately subdivided into lots with a street established up the middle of the river lot. Cross streets and dimensions of blocks subdivision were done according to the whim or generosity of the Landowner with little or no regard for crossing streets and lot relationship to one another. The overriding influence in this ad hoc land subdivision was the fact river lots being shaped as long narrow strips of land stretching west perpendicular to the banks of the Red River forced subdivision west of the red river. For this reason, present streets that run east west, either mark the center or property line of the original river lot. The map titled "Plan of the City of Winnipeg and its Vicinity in 1874" (Figure 32) illustrates these land subdividing activities.

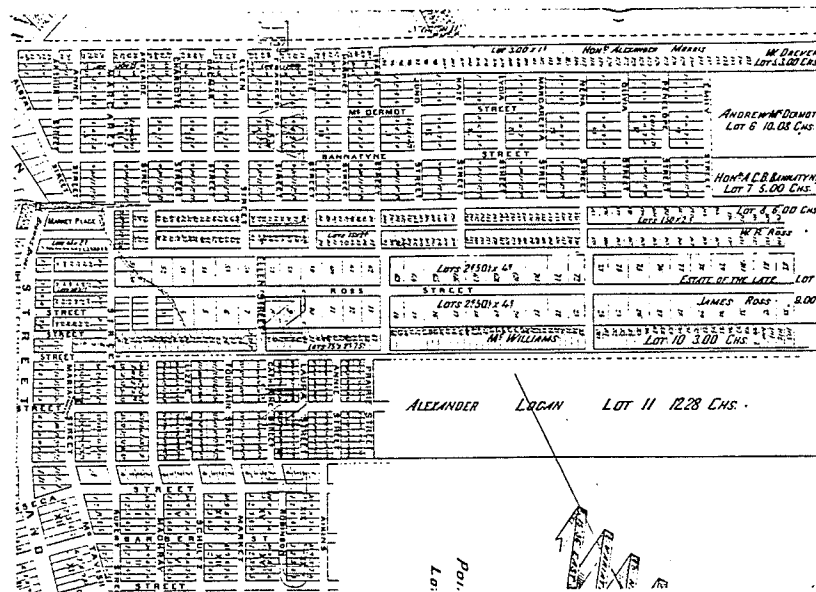


Fig. 32 "Plan of the City of Winnipeg and its Vicinity in 1874"

The individuals involved in the early land subdivision were far more interested in short term financial success than with the social and physical environment they were creating. This attitude was not only common among these individuals, but also among the major figures in the development of the city of Winnipeg at that time.<sup>48</sup>

The importance of early land subdivision to Winnipeg's street and block pattern is obvious. However, it also demonstrates that the early pioneer spirit has played a major role in the form of the neighbourhoods land subdivision. As was mentioned, the land subdivision was carried out at the whim of the land owner. We find present day street and block patterns revealing a variety of block types that corresponds to these individual land owners. These attitudes fostered the diversity that exists in the neighbourhoods street and block patterns of present day. However, to further understand the ramification of this process and its effect on the neighbourhood, we must focus on the neighbourhood's block and street pattern to ultimately determine how this attitude manifested at the level of the block.

## Blocks and Streets

Due to the early land subdivision practices being carried out at the whim of the individual owner, the block pattern is unique for each stretch of the river lot. For this reason, the dimension and orientation of each block is different from one to the next. As revealed by the Plan of the City of Winnipeg map of 1874, eight block types can be determined which correspond to the seven river lots that encompass the neighbourhood of West Alexander.( See Figure 33 )

From these eight block configurations, evolved present day West Alexander street and block patterns. For the ease of documentation, the names of the owners of the river lots as shown on the map of 1874, will be used to distinguish both location and block type.

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<sup>48</sup> Alan F.J.Artibise. 'Winnipeg a Social History of Urban Growth 1874-1914'. pp 224-245. This section of the book is entitled "Public Health verse the Private City, provides a good impression of the attitude of the business elite and city council towards the cities social issues.

From the most northerly river lot were: Alexander Logan, McWilliams, James Ross, W.R Ross, Bannatyne, Andrew McDermont, and W. Drever.

### Block Development Matrix

Time of Block Development	CIRCA 1880		CIRCA 1900		1960 to Present
Alexander Logan					
McWilliams					
James Ross					
W.R Ross					
Bannatyne					
McDermont (A)					
McDermont (B)					
W. Drever					

Fig.33 Block Development Matrix. This diagram illustrates land subdivision from 1880 to present



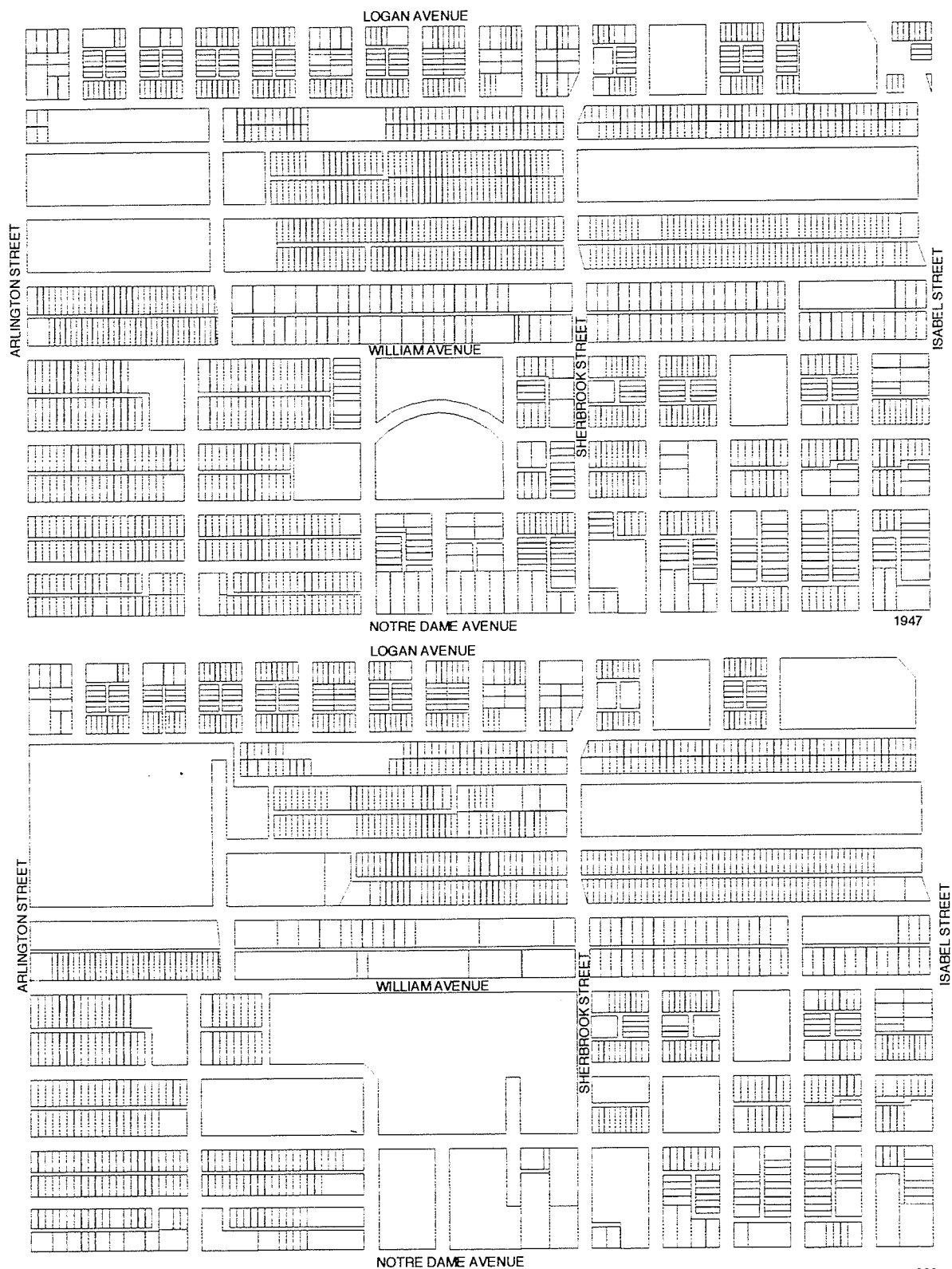


Fig. 34 Map comparing property lines for the years 1947 and 1988

Figure 33, shows eight block types which illustrate the diversity of block patterns found in West Alexander. Also shown is the progression of block subdivisions from 1880 to the present day, complete with back lanes and orientation toward circulation patterns of street traffic. Interesting aspects are revealed about the subdivision of blocks in the matrix. In the case of the original block patterns, it is important to note the generous sizes of lots in the 1880's, as compared to the block subdivision of 1900's. This indicates a shift in building practices, as will be discussed in the following chapter. Also interesting to note, is the mass land parceling practices of the 1960's to the present, which also indicates a shift in building practices. A general observation that can be made of all the block patterns, is that the transformations of block types have occurred within the original subdivisions of the individual river lots. For this reason, the original land subdivisions over time, have influenced how the neighbourhoods land subdivision has ultimately been developed. This relationship becomes an important aspect when trying to understand how shifts in building practices and land subdivision have either tried to work within this existing pattern, or tried to restructure the subdivision as illustrated by the Urban Renewal proposals of the 1950's.

By studying the different block types as illustrated in Figure 33 and comparing the property line maps of 1947 with 1988 as shown in Figure 34, a clear progression of block development practices becomes evident. It is clear, land parceling for large building projects is indicated by the large properties found in the map of 1988. This indicates the Urban Renewal block developments of the 1960's.

These maps also reveal that the block subdivision of the early 1900's seems to be the predominant block subdivision type in the neighbourhood. This again demonstrates the influence and impact these early subdivisions have had on the neighbourhood. Also the presence of different eras of block development layered on a single block as illustrated in Figure 35, demonstrates the mixed land use that is prevalent in the neighbourhood of West Alexander, which will be discussed in the next chapter. This also reveals how original lot subdivisions within blocks have been either enlarged or decreased in size. This point will ultimately show that the increase or decrease in lot size had an important effect on how these lots were to be used.

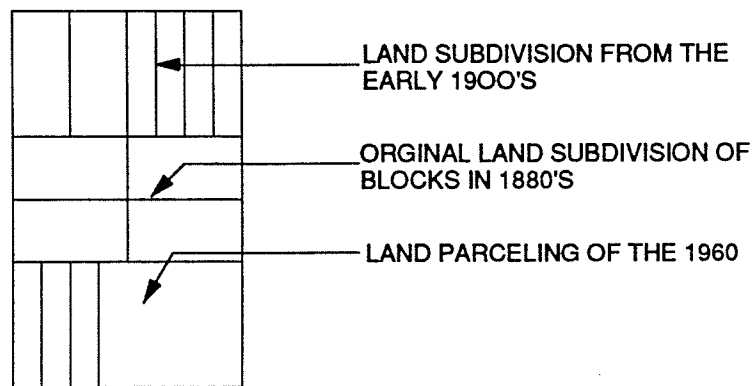


Fig.35 Layering effect of different lot subdivision over a 100 years

## Summary

In this chapter we have explored the aspects of land subdivision in West Alexander were discussed with respect to the public attitudes and historical events that surrounded land subdivision. The chapter also demonstrated, that the diversity of streets and block subdivision found in West Alexander, could be attributed to the fact that early land subdivision was a product of the whim of seven individual river lot owners as stated on Figure 33. As a result, it was revealed that the variations of block types did not follow any set rule, except those set up by the land owner's surveyors. As a result, the neighbourhood demonstrates seven types of blocks and streets, which correspond to the original seven river lots. The main purpose of this exercise was to reveal some of the historical issues which have lead to the pattern of streets and blocks in the neighbourhood.

This chapter also concentrated on the aspects of the neighbourhood where the inhabitant had relatively no control , for example, subdivision of the land into streets and blocks. Therefore, it is intentional that a discussion regarding the inhabitant was not included here. Since this discussion fits into the next chapter, where the findings from this chapter will become clearer as to what these findings mean to the built environment of West Alexander. For this reason the observations in this chapter will be left without conclusions. However, in the following chapters these findings will be recalled and their role in the built environment of West Alexander will be clarified.

## Chapter Seven:

### Inhabitants some Control

The aspects of the built environment which have been the result of the interaction between community(supports)<sup>49</sup> and individual(detachable unit) decisions, is referred to as 'Inhabitants some control'. The elements<sup>50</sup> of the built environment that the previous chapter began to reveal, were those of inhabitants having no control over land subdivision became a structure for the individual or group to create their dwellings. The intent of this chapter is to show the elements of the built environment where the individual or group has some influence. This will reveal the dichotomy between community and individual forces as it manifests itself in the neighbourhood of West Alexander. These elements consist of land use and buildings. At this scale of the built environment the inhabitant has a certain degree of influence, even though community influences clearly dominant. There is, in any case, a subtle level of influence which is essential in the interrelationship that occurs between the inhabitant and their built environment.

In this chapter the issue of land use becomes predominant since the neighbourhood of West Alexander has an overwhelming characteristic of mixed land use. Land use is a pivotal issue to further understanding the development of lot subdivision and the eventual positioning of building on those lots. The importance of land use in West Alexander will become clearer in this chapter.

#### Land use

Throughout West Alexander, one can experience a diversity of building uses. This diversity ranges from industrial uses to the individuality of the residents. From the smell of baking bread at the main plant of Weston Bakery, to the rumble of the trucks from the Winnipeg city yards. Side streets are filled with cars belonging to employees of the Health Science Centre. The occasional bang of box cars hooking up on the CNR Yards can be

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49 Habraken uses these terms to refer to the parts of the built environment which are in the control of community or individual control. See p52-53 of this thesis.

50 Habraken uses this term to refer to the parts of the built environment. See p56 of this thesis.

heard. The old midland railway yards, now a soccer field and park, gives way to the annual powwow. This brings the noises, smells and color of a week long outdoor festival complete with buffalo burgers, amusement rides and aboriginal music and dance. You get artisan activity, in places where residential homes have a workshop attached. In essence, West Alexander gives the impression of a neighbourhood that has a diversity of uses.

## Land Use Pattern

The diversity in land use found in West Alexander promotes the question; What does this mean to the built environment? This question is interesting especially if one has walked around other neighbourhoods in Winnipeg and observed that these neighbourhoods have a separation of land uses. Specifically, they have separated residential, commercial, and industrial areas. West Alexander's mixed land use, seems to be unique. The co-existence of commercial, industrial, and residential is a typical occurrence. In some cases we have the co-existence of light industrial with residential, and commercial with residential under the same roof.

By studying the land use pattern of 1988, as illustrated in Figure 36, we see that the co-existence of residential, commercial, and industrial uses is a major characteristic of the neighbourhood. Throughout the neighbourhood, the presence of different land uses is evident. Even in areas of the neighbourhood with a strong residential use, it is not unusual to see commercial and industrial uses co-existing with the residential.

As illustrated in Figure 35, in the last chapter block subdivision in West Alexander reveals a layering effect of different lot subdivision practices over a period of hundred years. This has created a variety of lot sizes to appear on a single block. As shown in the last chapter larger lots signal a shift in land subdivision practices that have generally enlarged the lot dimensions in the neighbourhood. This observation is further articulated by viewing the 1988 land use map in Figure 36. In this map, it is revealed that the larger lots in the neighbourhood are generally commercial or industrial land uses. As a result, commercial and industrial uses generally are found on these larger lots. Figure 36 also illustrates that even though larger lots generally indicate industrial and commercial smaller lots do in fact accommodate public, parking, light industrial, and small commercial and industrial uses. This observation suggests that the mix land use found in West Alexander

may not be related to lot dimension. In areas of predominantly residential land use with small lots, we find occasionally these lots also serving as industrial and commercial uses.

## Streets and land use

Walking through the streets of West Alexander, one observes a number of major traffic streets in the area. Commercial and industrial activity is generally found where residential streets cross these major thoroughfares. As a result, it is rare not to see some sort of commercial or industrial activity on a block. Because most blocks are adjacent to major thoroughfares, activity is present on these street corners. One can find bakeries, restaurants, grocery stores, banks, drugstores, bars, florists, car garage, funeral home, hospital and even a few schools. All these commercial and industrial activities generate traffic and in turn, create active streets.

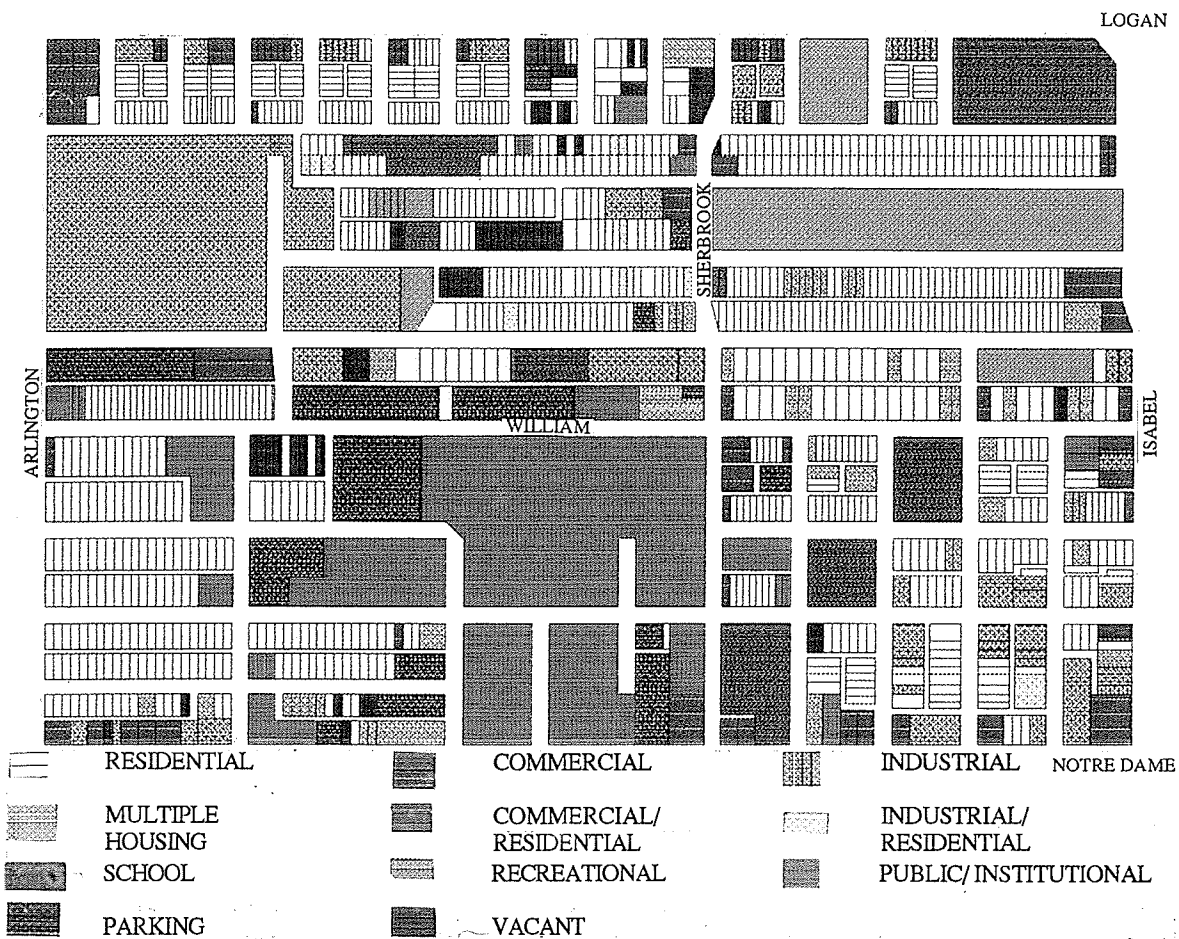


Fig.36 Land use pattern overlay with property lines 1988

In areas where residential land use is predominant, we have commercial, industrial and public use sharing a similar lot dimension. Conversely in areas predominantly commercial and industrial, we see that residential and public uses tend to have larger lots. These observations are substantiated by Figure 38 which is a map of buildings (figure ground) overlaid with property lines. This map demonstrates that larger buildings in the neighbourhood are in fact occupying the large lots. Figure 37, a map which correlates building outlines and land use illustrates that industrial, public and commercial land use is intrinsic with larger buildings as illustrated in Figure 38. However, here again it is evident that in areas that are predominantly residential, industrial, commercial and public uses tend to conform in lot dimensions and building figure ground. The importance of this characteristic to the issue of the mixed land uses is that it may reveal interrelations that both commercial and industrial uses have developed to adapt their building forms and operations to the property sizes, as well as to the adjacent neighbouring properties. From these examples, insight into design guidelines can be gained in order to foster these mixed use interrelationships.

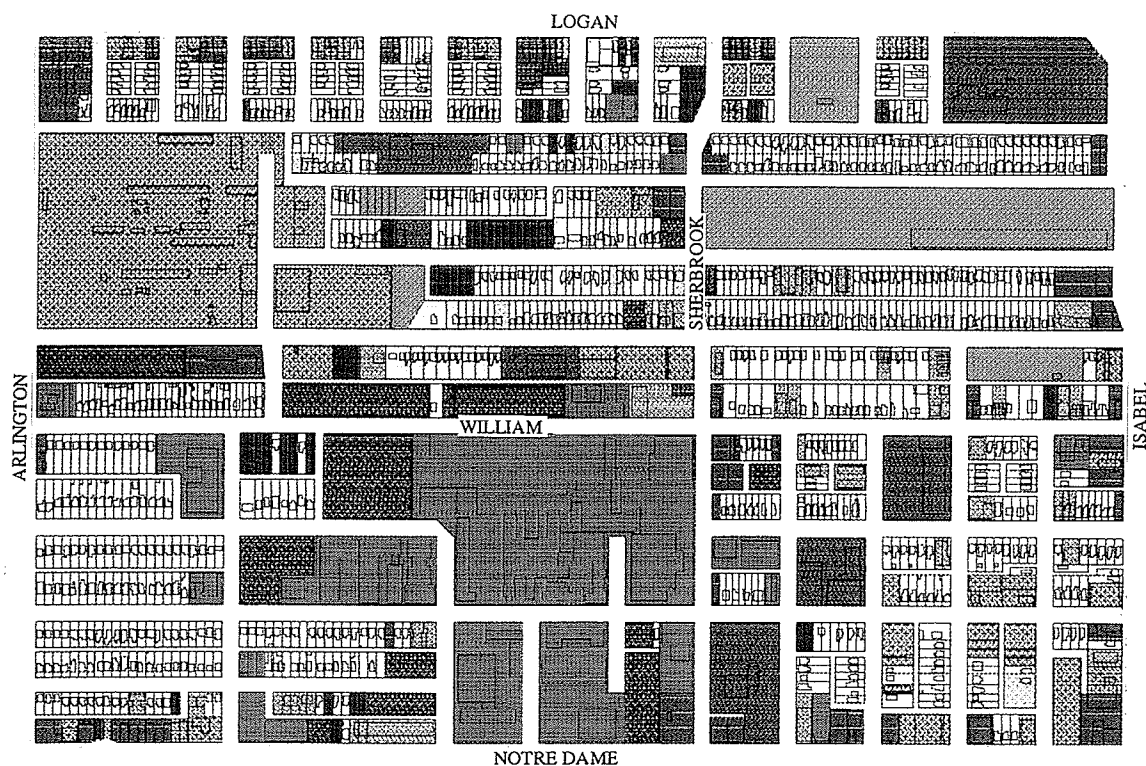
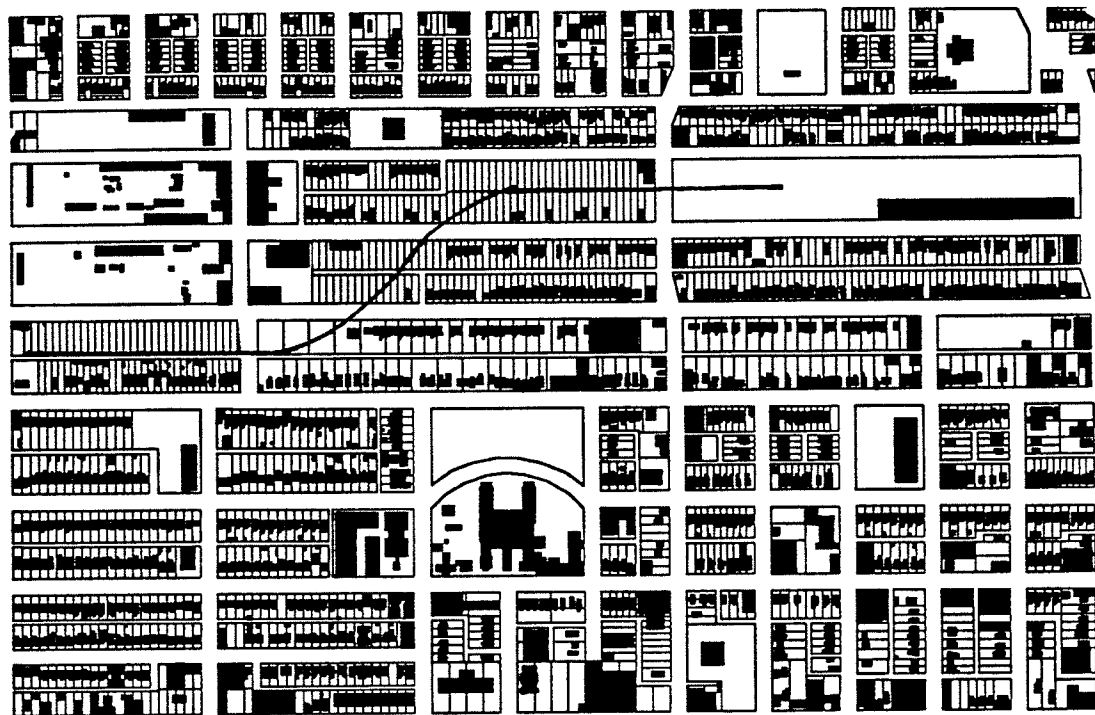


Fig.37 Maps comparing the building outline with land use for the year 1988



1947

1988

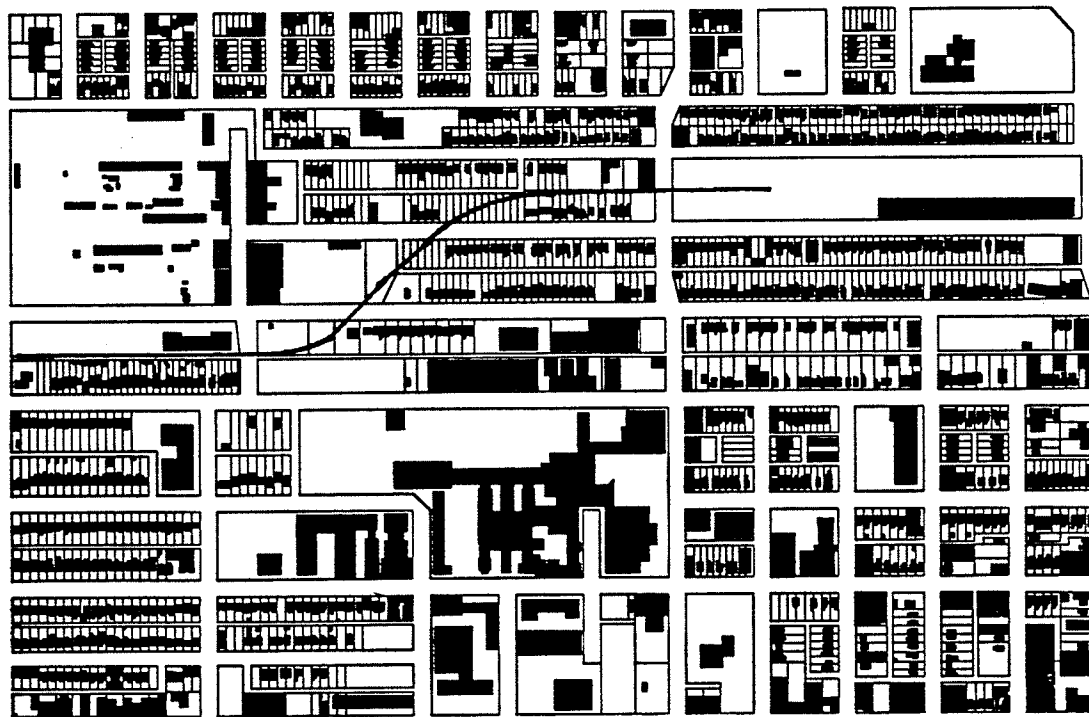


Fig. 38 Maps comparing the figure ground overlaid with property lines for the years 1947 to 1988



By looking at the land use map (Figure 36) of West Alexander, mixed land use is quite evident on thoroughfares. However, what is interesting to note is the displacement of land use areas relative to streets and traffic routes. Because of the major traffic routes such as Notre Dame and Logan Avenues for east to west traffic and Isabel and Arlington Streets for north to south vehicular traffic, commercial and industrial uses are attracted to these four streets. In addition, the neighbourhood has also primary streets such as William Avenue and Sherbrook street. With the presence of all these vehicular traffic routes, industrial and commercial uses gravitate to these thoroughfares. As a result, residential enclaves tend to be bordered by large industrial land uses such as the CNR yards, City Works yards, Health Sciences Center, old garment industry, or even just by a commercial strip along one side of the street. This added aspect of traffic routes has obviously added to the entire notion of a mixed land use pattern in West Alexander. This illustrates how traffic can introduce a diversity of mixed land use. As a result, these thoroughfares can be viewed as a important aspect in fostering and maintaining West Alexander neighbourhoods mixed land use

### **Back lane**

The role of the back lane in the land use pattern of the neighbourhood stems from the notion that since mixed land use did occur on blocks prior to increased densities, the need to access commercial and industrial uses was necessary. This, coupled with the increase in density initiated the introduction of the back lane. The effect on land use was the ability of the blocks to further establish the mixed use character they had. This eventually lead to back yard workshops and the use of the back yard for non-residential uses, some formally structured, some informally established.

Back lanes were first introduced into the street block to meet the need for access into yards brought about by smaller block subdivision in the early 1900's. With regards to the residential land uses, the increase in density narrowed the frontage of lots and provided minimal or no access to back yards. The use of vehicles also promoted the need for parking space. These were all accommodated by creating access to back yards via the back lane. Back lanes also allowed the inhabitant to move in equipment, park their car in garages, and store their larger outdoor type possessions. Furthermore, both commercial and industrial uses required access to shop and storage areas which were generally located

at the back of the lot. Here again, the increased density did not allow for frontal access, and the back lane became the means for receiving and moving goods.

To walk through the back lanes of West Alexander's blocks is to step into the personalities of the inhabitants that share them. The back lane is in essence, the backstage of the neighbourhood block which reveals old abandoned cars, garbage bins with personal items, cloths lines with hanging undergarments, windows looking directly into bedrooms, and the odd sun tanner showing more of their bodies than they might want to reveal. All these personal aspects of the inhabitants are shared among others, who live on that block. There seems to be a tolerance of differences. This may have something to do with the sense of privacy of a back lane. Even though a back lane is not private property there is a social norm that suggests to someone who is not an inhabitant of the block to keep out. In fact, walking through neighbourhood back lanes, one can sense a feeling they are intruding.

### Historical Events Surrounding Land use<sup>51</sup>

Within historical events in Winnipeg, lies many of the reasons for a mixed land use in the neighbourhood. Original land subdivision was not structured as a whole for the neighbourhood. Therefore, it is not surprising to realize that land subdivision did not necessarily discriminate for a specific land use in the neighbourhood.

The original land owner, as well as many city officials, had a laissez-faire attitude towards land subdivision and land use. This laissez-faire attitude stemmed from the land owners and city politicians whose main concern was to promote economic growth at any expense. This attitude was certainly at work with the introduction of the Canadian Pacific Railway (CPR) through Winnipeg in 1881. The CPR brought the railway yards adjacent to the business district of Winnipeg. With CPR development came instantaneous increases in land value and a great influx of immigrants into the city. The attitude of most land owners and city politicians, was to capitalize on the demand for land in 1881. At this point, lot

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<sup>51</sup> Allan Artibise. 'Winnipeg a social history of urban growth 1874-1914'. 149-172.

development was generic and did not discriminate between land uses. In fact, many warehouse and regional railways ultimately located depots and yards near the main CPR yards, infringing on existing commercial and residential properties. This attitude fostered a mixed land use that represents present day land use in West Alexander.

The city's only concern during this time was the expansion of Winnipeg as a transportation center and not for how land was going to be used. Since this period in Winnipeg's development did not discriminate against what buyers were going to use the properties for, a mixed land use between residential, commercial and industrial uses was inevitable. Since the neighbourhood was close to the business center of Winnipeg, it became very easy for small industrial and commercial businesses to locate in West Alexander. The forces of growth of these activities bleeding into the residential neighbourhood, with the expansion of Winnipeg in the 1880's through to the 1990', added to West Alexander's mixed land use. These historical attitudes and events indicate that West Alexander's mixed land use has evolved as a reflection of these laissez-faire attitudes on the part of the business elite and civic counsellors.

### Economic Forces on Land Use

With the demand for residential, commercial and industrial land during the 1880's, many blocks were subdivided into small lots to facilitate housing. Fortunately, the 25 ft frontage that became the developer standard with north and south development in Winnipeg, never affected block subdivision of West Alexander greatly. Since West Alexander had been subdivided into larger lots of 66 feet previous to this housing demand, lots could only be divided into 33 ft lots which were too big for mass housing. As a result, West Alexander escaped the mass housing boom of the 1900's. Houses that were built during this period were either homes that were built with a lot not much smaller than 33 feet or not larger than 66 feet.

Coupled with the housing boom was the industrial and commercial boom that required land for their operations. The land uses that ended up locating in the West Alexander neighbourhood were a mixture of industrial developments, retail and wholesale. However, the primary use was the wholesale industry. This was further initiated by the building of the Midland Railway, that crossed the whole of West Alexander from east to

west. Since the mass housing boom did not effect the neighbourhood, many of the vacant lands and larger lots of 66 feet became ideal for smaller support services and light industrial uses. The result was a mixed land use that is present in today's land use pattern in West Alexander.

The economic viability of West Alexander's appropriate land subdivision and close proximity to the central business district in Winnipeg made West Alexander an ideal location economically for the placement of light industrial and commercial use. As a result, many situations are found throughout the neighbourhood that have industrial or commercial side by side with residential uses. However, since the commercial and industrial uses were relatively small scale, the result was a certain compatibility that could be tolerated between different land uses. Obviously, this was not the case in every situation. In the case of the location of the Midland Railway, even though it existed for more than 50 years in the neighbourhood, it was agreed by many reports that the scale of the operation had a negative effect on the neighbourhood.

## Social Context of Land Use

Up until the 1920's, West Alexander remained a working and middle class neighbourhood. Since most of the original homes in the neighbourhood were built by "well-to-do" persons, these homes remained as useful structures which continued to command substantial rents and prices. Because many of the original inhabitants of the early 1880's began to move to the affluent upper class neighbourhoods of the south side of Winnipeg these homes in turn could only be afforded by the upper middle class. Because of the working class nature of the neighbourhood, small industrial and commercial activities began to evolve as extensions to these residential buildings. Thus, this building activity over the years has reflected the working class aspect of the neighbourhood and has ultimately influenced the pattern of land use.

Because the middle class of Winnipeg is generally ethnically heterogeneous, the ethnic makeup of the neighbourhood consists of all the ethnic groups represented in the city. This was and is still a characteristic of West Alexander. This characteristic has been evident in the self expressions of inhabitants in their home renovations, which tend to collectively reflect a diverse ethnic character. The effects of this on land use, is expressed

in how yards are used, in turn, influencing land uses. For instance, many immigrants raise rabbits, chickens and pigeons to supplement their ethnic diets. Some individuals use their yards as extensive storage areas, such as, for car parts they collect from weekend jobs. Some individuals appreciate a vegetable garden in the front yard, where others appreciate a cemented front yard with chairs and tables for a level area for congregating in the evening. Some individuals do not care how their front yards look and let the weeds grow. Others have perfect manicured lawns. All these contrasts add to the neighbourhood diversity.

These historical events have led to the mixed land use of West Alexander. Coupled with this mixed land use, has been the tolerance of inhabitants to the conflict's that arise in such conditions. Many adaptations and changes have occurred to the housing stock. It has become a collection of individual expressions. One could argue that the individual inhabitants have developed a tolerance for different goals and values that must come from living in such a diverse neighbourhood of integrated land uses and ethnic groups. In the next chapter, this notion of tolerance will be further discussed. For now the important aspect to realize is that the social context of West Alexander has had an influence on the form of mixed land use found in West Alexander.

## Dynamics of Land Uses

At a certain scale, the adaptation of form occurs and reveals where individual or groups of inhabitants have had an opportunity to create or change dwellings. One could suggest that the block and street structure of a neighbourhood are relatively fixed elements. The inhabitants cannot change this form. However, at the lot's we have a dichotomy. On one hand we have the form of block subdivision into lots indicating general rules governing the placement of buildings on lots, as structured by surveyors, owner and governments. On the other hand, is the adaptation and change of lot sizes as illustrated by Figure 35. For this reason, certain relationships occur in land use that evolve as a result of the inhabitants in a neighbourhood. In the following chapter, we will begin to reveal this relationship in order to understand the mixed land use of West Alexander at the lot and building level.

## Summary

All these observations reveal that the different lot sizes, adjacency to thoroughfares and land use, have a direct relationship on the land use pattern of the neighbourhood. The unique aspect of West Alexander is that, within residential enclaves we still find industrial and commercial land use, and in industrial and commercial we have residential use. However, an important aspect to realize is the scale of lots and building differs from a predominantly residential area to a predominantly commercial and industrial area. Both the building and lot sizes are smaller in the predominantly residential enclaves, and respectively larger in the commercial and industrial enclaves. This is most evident in residential enclaves where the role of the back lane is to establish a common service access for all uses within a block. Obviously this type of characteristic is more predominant in residential areas of the neighbourhood, and is much less an aspect of larger industrial and commercial areas that have service provisions that are not an integral part of the neighbourhood form. However, with smaller establishments, their presence in the residential enclaves conform to the residential scale. As a result, these building operations rely on the back lane access. As a result, these buildings tend to fit into the residential lot dimensions.

The chapter's main purpose, was to demonstrate the aspects of the built environment, which have been the result of the interaction between public and private forces. Since mixed land use became a predominant issue in West Alexander, the chapter demonstrates that the land use pattern is related to the interaction of public and private. This chapter illustrates that the land use pattern that exists in West Alexander is as much an influence of public land subdivision of lots, block and streets, as it is the influence of private choices to locate businesses and establish residences.

In this chapter, it was revealed that mixed land use has played a major part in the form of the neighbourhood. In the previous chapter, it was found that many of the findings were left hanging with respect to their influence on the form of the built environment. However, in this section, it was found that the social attitudes that surrounded the development of streets and blocks began to emerge as a key aspects to the development of the land use patterns found in West Alexander. It was discovered that the laissez-faire attitude that surround the original land subdivisions continued well into the evolution of the land use found in West Alexander. As a result , we begin to see a direct relationship between the social and cultural attitudes and the form of the built environment. This was illustrated by the diversity in building uses, the ethnic diversity, and mixed land use in the neighbourhood. All of these heterogeneous qualities begin to reflect the original land subdivision.

## **Chapter Eight:**

### **Inhabitants in Control**

Inhabitants in control refers to the elements of the built environment which have been influenced by the inhabitant. These elements are observed as the changes that inhabitants have made on original use and form of buildings.

Back yards, side yards, front yards, streets and back lanes seem to be the spaces that show the influence of the inhabitants on the built environment of West Alexander. Within these spaces, we discover a diversity of built forms that reflect the individuality of the inhabitants. The lots and building take on a personality. These spaces repeat themselves over and over, but they also reveal a diversity that stems from the personalities of each of the inhabitants. In cases where we see blocks consisting of industrial, commercial, and residential side by side, we find yards becoming the transition area between one use and another. Side yards, back yards and front yards become the space for additions to buildings, an extra room, a porch for an entry, a small garden, and in many cases we find additions to residential homes that consist of industrial or commercial activity.

The relationships between blocks, lots, and buildings in West Alexander seem at first glance to reflect the whim of individual inhabitants actions. However, there appears to be certain relationships concerning private and public space that are shared among the inhabitants. The presence of back lanes, front yards, side yards, and back yards are part of the overall pattern of the neighbourhood as established by zoning by-laws and development practices. These have influenced the placement of buildings on lots and what is part of the back yard, front yard, and side yards. All the diversity of uses and shapes of building have accommodated this pattern.

In this chapter, a closer examination of lots and buildings will begin to reveal the relationships between neighbours, buildings, lots, blocks and land uses and how these elements have manifested themselves in the built environment of West Alexander. We begin to see the forces of inhabitant control in the development of building traditions as well as the adaptations to buildings. The study of these adaptations will reveal that even as



chaotic as they seem, we still have the presence of a pattern that influences the development of these forms. This examination will consist of three interrelated aspects:

- 1)The first part, will deal with the development of building typologies that have influenced the development of lot subdivision and block subdivision.
- 2)The second part, deals with the development of the lots and their structure of private and public space.
- 3)The third part, will deal with the structure of the block and how the development of buildings and land use influenced the structure of private - public relationships in the block .

## Buildings

An examination of different land subdivision practices and land use begins to reveal that there is a relationship between land uses, block and lot subdivision with the actual form of buildings. This interrelationship between building typologies, land use, and land subdivision practices illustrates the influence of these activities have on each other.

West Alexander's history of buildings will be divided into three eras: 1874-1910, 1910-1950, and 1950 to present. At the end of each examination a matrix will illustrate the building typologies of that period. The matrix is subdivided into residential, industrial, commercial, industrial/residential, and commercial/residential building uses. In addition, each period's building typologies are subdivided into 66 foot and 33 foot lot category. The purpose of this is to reveal the adaptations to the original land subdivision of 66 and 33 foot lots. as they pertain to building typology and land use.

## **Building During the Period from 1874 To 1910**

With the development of the generic blocks in West Alexander came the traditional detached home of the "Queen Anne" style with it the conventions of siting. These conventions generally speaking, consisted of a 2-3 storey building with yards on all four sides. Another common feature of this style was the verandah attached to the front and sometimes another attached to the back of the home. These homes also required rather large residential lots. The standard lot size in Winnipeg at this time was 66 feet by 100 feet. The original subdivision of blocks and lots in West Alexander reflect these dimensions.

However, with the short lived boom of 1881 many of these lots of 66 feet were not sold. Not until the steady growth after 1885 did these lots begin to sell. However, during this time, a housing shortage coupled with good land values prompted by the economic development brought about by the railway caused land developers to subdivide these 66 foot lots into 33 foot lots for housing. Many of these lots attracted the middle class. The housing form that resulted was a hybrid form that had all the trimmings of a "Queen Anne" home, but were much more narrower than their original counterparts. House builders provided buyers with a selection of house designs of detached homes illustrated in design manuals. Local carpenters would then follow the patterns as indicated and local mills and building supply stores would provide the necessary materials.

Also accompanying the CPR was an injection of industrial and commercial activity into Winnipeg. As a result of this activity, these same lots were also attractive to many smaller industrial and commercial uses. Since these activities tended to be small in their operations, these smaller lots located on the major thoroughfares became an ideal location for such business. The importance of traffic and easy access to the business district made the neighbourhood of West Alexander an attractive place to establish such small scale business activity. The introduction of commercial and industrial uses conformed to the lot dimensions and became part of the neighbourhoods' residential makeup.

Also, as a result of the housing shortage, many of the larger lots that remained were quickly picked up for row housing. These residential buildings enabled builders to build a higher density and get a good return on their investment in these larger lots.

On the smaller lots, many builders built three storey flats which were also designed to meet the demand for housing. Also during this period, buildings of three to five stories were built that housed commercial activity on the main level and had two to four stories of residential apartments above. These buildings tend to occur along major thoroughfares such as William Avenue and Sherbrook Street.

During this period, the development of artisan workshops as additions to residential homes also occurred. These additions were usually to homes on larger lots. They would occur either on the side of a home or in the back with a driveway leading to the addition. However, with the blocks consisting mostly of 33 foot lots, the back yard became a place extensively used for such developments. Since the back lane provided easy access to the back yard, such activities were easily introduced in garages and additions to the back of residential buildings.

This period marks the foundation of West Alexander's neighbourhood structure that exists today. The development of the 66 by 100 foot lot has structured the lot increments of latter subdivision such as the 33 foot frontage. However, the most important aspect of this period is the adherence of building form to the increment of the lots as illustrated in the matrix in Figure 39 . The characteristic to note is that buildings, regardless of use, conform to suit the lot dimensions.



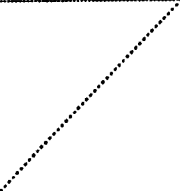


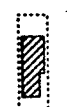
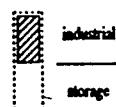
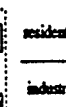

		Residential	Industrial / Public	Commercial	Industrial / Residential	Commercial / Residential
1880 - 1920	Wide Lots 66'	 detached no back lane	 additional lot - stor., playground		 residential   industrial	 5 storey commercial main level, residential upper levels
	Narrow Lots 33' or less	 33' multi-level	 industrial storage		 residential industrial	 commercial residential

Fig. 39 Matrix of building typologies relative to use and lot size for the period of 1880-1910

## **Building During the Period from 1910 To 1950**

During this period, greater Winnipeg did not grow in the grand way the previous era had grown. This stabilization in the economic climate coupled with the development of suburbs in Winnipeg, caused the existing population to sprawl. As a result, a decrease in the population of West Alexander occurred with middle class and upper class residents moving to the new expanding suburbs. Hence, West Alexander became a predominantly working class neighbourhood.

The forces behind suburban movement were much the same as in other cities that had developed planning policies adapted from the Garden City and City Beautiful movements of the late 1890 and early 1900's. Their premise was to create a built environment which established healthy, beauty, efficiency, functionality, and order as its objectives. The means to achieving these objectives was to develop a city comprised of single land use zones, of recreation, work, and living. These zones would be accessible by convenient street design with proper widths and direction to facilitate the movements of people between work and their homes as well as the places of recreation.

The advertisement of suburban neighbourhoods became popular and the large spacious lots in the suburbs became cheaper. Since many of the middle class and upper class had cars, the issue of transportation was not important. As a result, the advertisements for suburban neighbourhoods became a main stay in newspapers and land developers' literature. It was just a matter of time before the notion of living in the neighbourhood with mixed use became unattractive to inhabitants. This was promoted by comparisons between the noisy, chaotic and ugly central neighbourhood of West Alexander to the beautiful park like suburban development of Tuxedo and the Crescent. Soon many people agreed suburbs were the ideal living environment. As a result, West Alexander entered a state of decline.

As building activity focused on suburban development and the creation of parks along Winnipeg's rivers such as the Assiniboine Park and St. Vital Park, building activity in West Alexander became stagnant. However, what little building did occur reflected the suburban ideals. Large front yards became characteristic of new construction. However, because of the stigma attached to urban living, building activity during this period was very

slow and much deterioration occurred. Building activity that did exist consisted of additions to existing buildings. Many of the building typologies of the previous period continued into these years.

This period is characterized as stagnant and as a time of deterioration of much of the building stock found in West Alexander. The pressures of suburban development and the attitudes toward the urban neighbourhood made West Alexander an undesirable place to live for most people in Winnipeg. As a result, the building typology of this period reflects either the suburban ideals or the continuation of building practices of the previous period as illustrated in Figure 40.

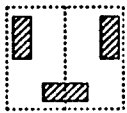
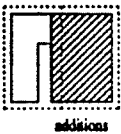
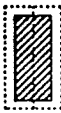
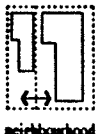
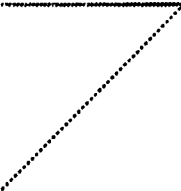

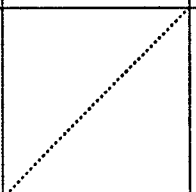

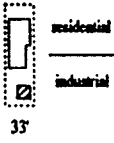
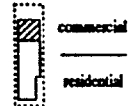
		Residential	Industrial / Public	Commercial	Industrial / Residential	Commercial / Residential
1920 - 1950	Wide Lots 66'		 additions	 33' 33'	 33' 66' neighbourhood	
	Narrow Lots 33' or less	 front			 33' residential industrial	 commercial residential

Fig. 40 Matrix of building typologies relative to use and lot size for the period of 1910-1950

#### Building During the Period from 1950 To Present.

As a result of the forces of suburbanization, West Alexander's built environment began to see the effect of a transient population. New immigrants generally settled in the area for a number of years before saving enough resources to move to more permanent residences in the suburbs. This was not the case for all immigrants in the neighbourhood. Many also remained and became part of the present neighbourhood. However, the general attitude towards the inner city neighbourhoods by many Winnipeggers was and still is, that the neighbourhoods are simply not a good place to live. This attitude seems to reflect to some extent the deterioration of the built environment during the 50's and 60's.

The introduction of Urban Renewal programs in the neighbourhood during the 50's occurred at a time when the opinion of many individuals reflected the values of suburban life. The notion of living in single use residential neighbourhoods connected with efficient vehicular thoroughfares to large recreational venues such as the Assiniboine Park was ideal. The isolation of industrial and commercial activities into industrial parks such as the Inkster Industrial park and the development of commercial concentration such as Polo Park became the ideal working and shopping environments in Winnipeg. The mixed land use of West Alexander which was dirty, ugly, old, inefficient, chaotic, and simply unorganized, in contrast to the environment of suburban life style, was most unattractive. However, this is not to suggest that the neighbourhood had no vitality and was simply rotten. The fact is that, the aesthetic characteristics of the neighbourhood did not fit the ideals of the time or those of a healthy environment. Yet, inhabitants in the neighbourhood continued to run their lives as part of a working class community. This is not to suggest that there was no truth in the observations of the suburbanites. Aspects such as the Midland Railway were indeed a problem for the attractiveness of the neighbourhood. Eventually the railway was removed. It is important to note, the influence that suburban ideals had on the perception of the neighbourhood of West Alexander.

This entire period saw many programs for the redevelopment and revitalization of the neighbourhood. The most prominent programs developed during this period were the Urban Renewal Program in the 1950's and 60's and the Neighbourhood Improvement Program of the 1970's and 80's. The importance of these programs to neighbourhoods during this period was their affect on revitalization of the form and structure of buildings produced. In fact, the shift from one program to the other marked an important shift in the attitudes of city planners toward such programs.

Programs and proposals initiated under Urban Renewal emphasized the area of West Alexander as a commercial, retail and cultural area of Winnipeg. In the early years of Urban Renewal, development consisted of simple bulldozing of the area. Shortly after these proposals were made public, many individuals argued that this approach to urban renewal was severe and involved the displacement of many people. It was precisely this type of urban renewal which the federal government of 1968 reacted to negatively as a result of pressures by individuals of inner city neighbourhoods across Canada.

The objectives of these programs were essentially akin to suburban efforts since the objective was to create in West Alexander a cultural and commercial zone. This notion is further substantiated by the development and proposals geared towards creating a downtown expressway, which would provide efficient access from suburbs to the downtown commercial and cultural area.<sup>52</sup> This idea of creating a downtown expressway further emphasized the commitment of the city towards these suburban developments. Fortunately, the intent to create a downtown expressway were ended by a shift in federal policy in 1968. A freeze was placed on all urban renewal plans in Canadian cities. The urban renewal proposals were realized only by the building of the Museum of Man and Nature, the Centennial hall and the Planetarium on Main street. The proposals of the downtown expressway, ran into major organized protest from resident committees which eventually ended these proposals.

However, the attitudes of urban renewal continued to exist. The Health Science Center expansion involved land parceling which included closing of streets and destroying houses. This approach is evident by analyzing the property lines maps of 1947 to 1988 as illustrated previously in figure 34. The development of the city yards had also closed off blocks creating dead ends.

The result of this shift in attitudes towards urban renewal on the part of the federal government resulted in the development of the rehabilitation approach. This was based on a high degree of community involvement in the revitalization of neighbourhoods. The result of these initiatives was the introduction of the Neighbourhood Improvement Program (N.I.P.) in Winnipeg. The new approach was embodied into the city's committee on Urban Renewal and Redevelopment. The new approach embodied two major principles.

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52 City of Winnipeg, Dept.of Housing and Urban Renewal. 'Urban Renewal Area no.2, Phase 1 Midland Railway'. Plate 4.

a)First, it proposed a policy oriented towards neighbourhood improvement programs whereby preservation and rehabilitation measures would be emphasized and whereby redevelopment measures would be employed on a more selective basis.

b)Second, it encouraged citizens participation throughout its planning and implementation stages.

The approach used by N.I.P. required resident committees to identify neighbourhood concerns before stepping into revitalization initiatives. As a result, infill housing program, Residential Rehabilitation Assistance Program (RRAP), and overall improvements of streets, sidewalks, and parks were used to improve the appearance and vitality of the neighbourhood. Through the RRAP, homes were renovated, new fences were put up, houses were painted, and additions were built. Even retail and commercial buildings, were built onto residential buildings on major thoroughfares.

The N.I.P. initiative was much more sensitive to the neighbourhood through the residents committees than the Urban Renewal Program. However, the program here again had a one sided approach that emphasized the residential component objective of revitalization, much like the Urban Renewal which emphasized the industrial and commercial aspects of the neighbourhood. On the other hand, the objective of N.I.P was biased in favor of residential development with many of the commercial and industrial uses made non-conforming. Again, we see that this program also reflects the notion of a single use area. In fact the N.I.P. policy many times identifies "admixture" of land uses as a major problem in the revitalization in the neighbourhood.

The ultimate effect of N.I.P. was the creation of community involvement. The program provided an identifiable entity that inhabitants could approach to express their needs for home renovations. As a result, many additions and renovations occurred in the neighbourhood. These had a very positive effect on attitudes, not so much of people in greater Winnipeg, but of the inhabitants of the neighbourhood itself.



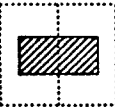


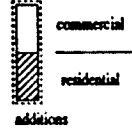
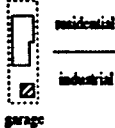
	Residential	Industrial / Public	Commercial	Industrial / Residential	Commercial / Residential
1950 - Present Wide Lots 66'	 multi-level	 66' 66' 66' land parcel	no use		
Narrow Lots 33' or less	 mass infill		 commercial residential additions	 residential garage	with the residential home - basement

Fig. 41 Matrix of building typologies relative to use and lot size for the period of 1950 - Present.

During this period, two extreme building typologies emerged. On one hand, we have the development of pavilion type, self contained buildings that were built on a collection of lots parceled together to form one lot. These buildings tend to be associated with the Health Science Center, hospital buildings and large industrial and residential buildings. On the other hand, we have the activities of infill and renovation that were built on the original lots of 33 feet, as illustrated in Figure 41.

By bringing the matrices of the three periods (as illustrated in Figure 42) together we can show the relationships between the periods. An overall observation is that over the years, the neighbourhood has witnessed an increase in construction by land parceling. As a result, the building typologies begin to form a larger foot print of building on the map. These larger buildings tend to be associated with the Health Sciences Center hospital building. However, in most recent decades we have also seen the renewal of interest in the development of the smaller building foot print that reflects the land subdivision of the neighbourhood. Over the years the tendency of building typology has been towards large lots Yet the original land subdivision of 33 and 66 feet seems to be adhered to on a regular basis in the building typologies of smaller commercial, industrial, industrial/residential, commercial /residential and residential uses. With the building typologies that have been continuously adhering to 33 and 66 feet dimension, we begin to see a similarity not only in

terms of their building typology but also in the way they are organized on the lots as well. In the next section, this notion will be further investigated to reveal the relationships of this observation.


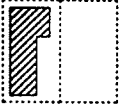
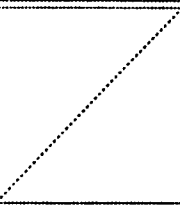

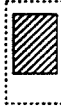


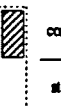

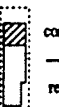
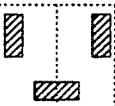
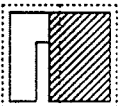

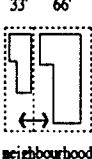
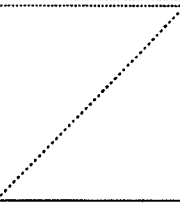

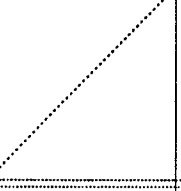
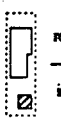
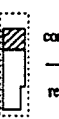
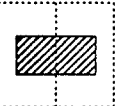
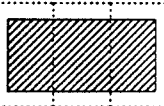
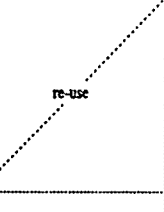
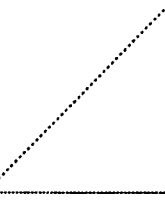
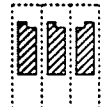
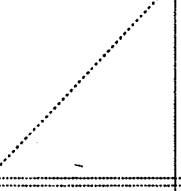
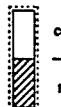

		Residential	Industrial / Public	Commercial	Industrial / Residential	Commercial / Residential	
1880 - 1920	Wide Lots 66'	 detached no backlane	 additional lot - stor., playground			 residential   industrial	 5 storey commercial main level, residential upper levels
	Narrow Lots 33' or less	 33' multi-level	 industrial storage	 commercial storage	 residential industrial	 commercial residential	
1920 - 1950	Wide Lots 66'	 additions	 additions	 33' 33'	 33' 66' neighbourhood		
	Narrow Lots 33' or less	 front			 residential industrial 33'	 commercial residential	
1950 - Present	Wide Lots 66'	 multi-level	 66' 66' 66' land parcel	 re-use			
	Narrow Lots 33' or less	 mass infill			 commercial residential additions	 residential industrial garage	with the residential home - basement

Fig. 42 Matrix of building typologies relative to use and lot size for the period of 1880 - Present.

# Lots

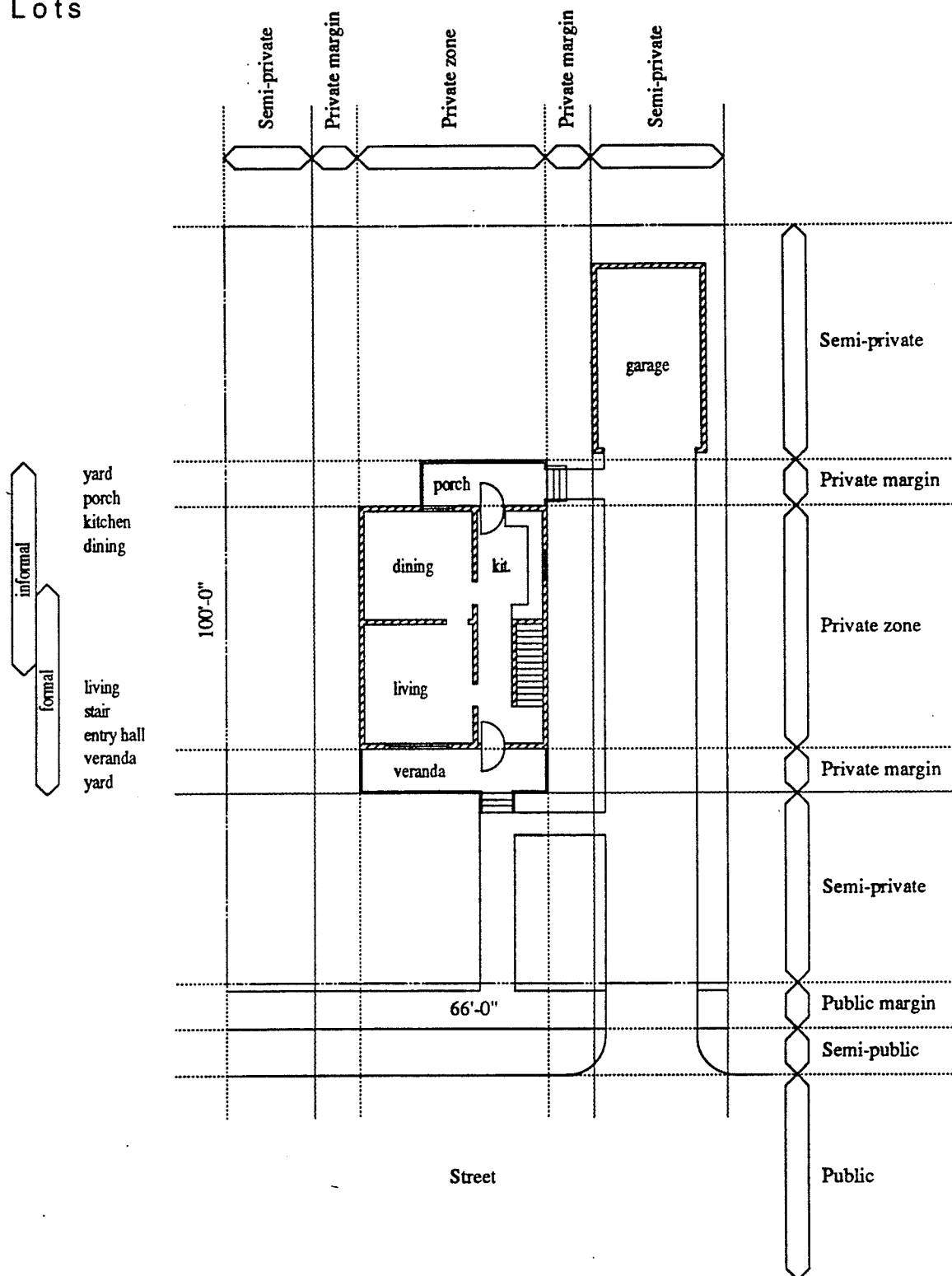


Fig. 43 Floor plan of original detached homes on 66 foot lot.

As was explained in the previous section on buildings, the influence of building practices on original land subdivision in West Alexander can be traced to the detached building conventions of the "Queen Anne" residential style. In this section, it will be illustrated that not only did the development of lot dimensions reflect building tradition, but in fact, the layout of the rooms of those residential buildings also affected the underlying framework of private and public space within the lot itself. This relationship also influenced the development of the block with respect to the introduction of the back lane.

As illustrated by the floor plan in Figure 43, the general layout of the two storey residences reflected land subdivision. Their layout was simple, and it consisted of a formal front zone which included the verandah, front entrance, living room, dining room, and a informal zone which consisted of a kitchen storage room and back porch. The second floor level, usually had three bedrooms. The influence of this structure on the lot established the relationship to the street and sidewalk. The result was a clear structure of private and public outdoor space. As illustrated in Figure 44, the levels of public to private space begin with the public street, semi-public sidewalk and the first foot of the front yard becomes the public margin. This public margin is the area in which the public and private relationship can become either an abrupt boundary of the private margin or the threshold to a semi private zone.

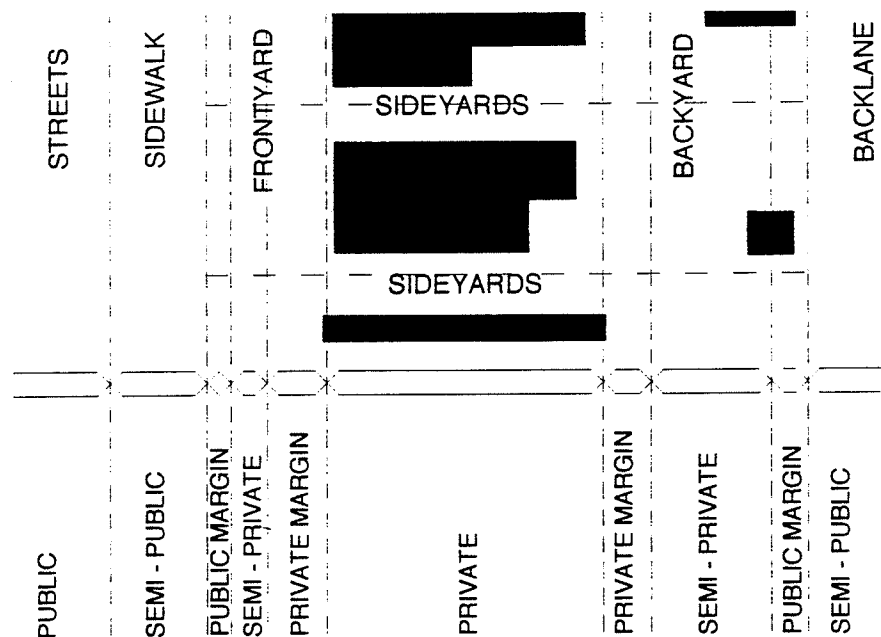


Fig. 44 Drawing showing the private and public relationship at the lot and building level.

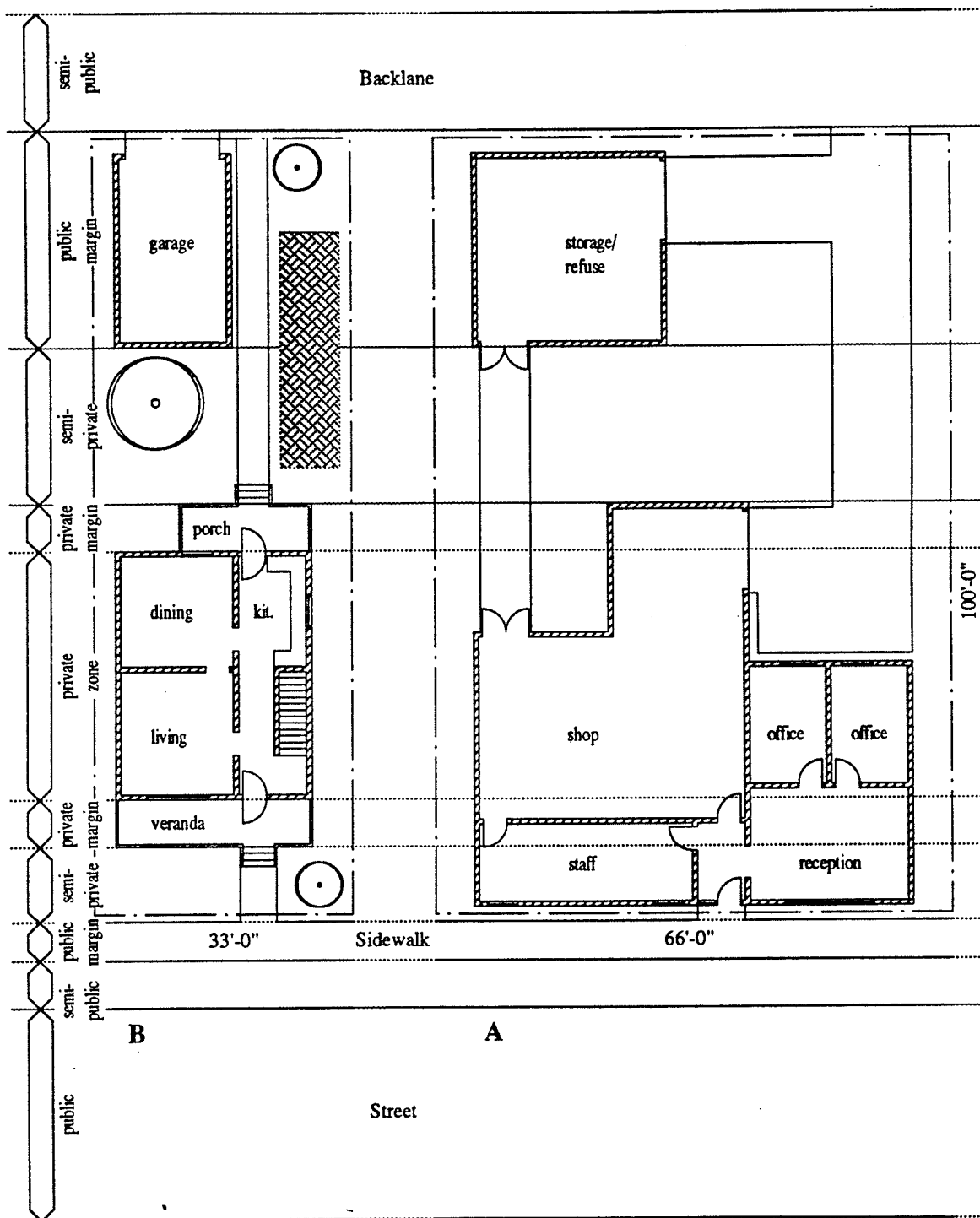


Fig 45 Illustration of the different conditions of public margin.

For instance, in a situation where a staircase or door into a building occurs directly from the sidewalk, we have the relationship of the public margin to the private margin which forms a boundary between one zone and the other, as illustrated in Figure 45a. The boundary becomes a limiting line that mediates between the two zones.

On the other hand, in a situation where a front yard separates the sidewalk from the front door, we have space between these two zones called a semi public zone. This in essence is a threshold from the public to the private, as illustrated in Figure 45b. The threshold condition becomes the marriage of the two conditions.

The private margin zone is the area in which the actual building exists. The formal side of the building occurs at the front of the property. As a result, the space for a verandah usually occurs in the private margin. However, since this is a margin the same rules of boundary and threshold exist. For instance, a verandah is an example of a threshold in which this space unites the semi private with the private margin. A boundary on the other hand, would be a door directly from the private margin into the private. This becomes an abrupt transition between the semi private to the private.

Progressing to the back of the property, we have the back yard as a semi private zone and a public margin. However, the reason for the semi private zone in the back yard is the presence of a semi public back lane running in the back of the lot. In some blocks that never received a back lane, access to the back yard was through a side entrance. In this case, the back yard was a private margin since there was always visual access to these areas from neighbouring homes. The difference between these two situations was the means of public entrance. One was purely frontal the other had both a back and front entrance.

The interaction between private and public margins described above becomes a dynamic condition throughout the neighbourhood of West Alexander. This is the reason for the concepts of threshold and boundary. These concepts coupled with the concept of the margin, provide a framework from which allows the diversity of form to be comprehended as related to the overall structure of private and public space.

The concept of a threshold, refers to elements of the lot that marry either the public margin to the private margin or the private margin to the private zone. This element can be a front yard, back yard, side yard, verandah, steps and fence. In essence, any element that is semi-private that invites and does not stop the individual from proceeding to the semi-private zone is a threshold.

On the other hand, the concept of a boundary refers to elements of the lot that create a limiting line between the public margin and the private margin or the private margin to the private zone. These elements can be a fence that has to be physically opened, a door into a building right on the front property line, or a hedge that is so dense that it blocks visual access to the house. In essence, any element that purposely hinders the progress into the semi private zone is a boundary.

There is an underlying organization structured and interwoven with the placement of rooms from the original residents of the 1880's. In situations where different land uses exist, the form of buildings conform to this structure. For instance, we see situations of industrial, commercial, and residential buildings conforming to lot dimensions of the original land subdivision. We find the floor plans reflecting the formal to informal progression of space as well as the placement of building on the lots reflecting the private and public structure of the lots as described.

The importance of this structure is that it provides a sense of order to the diversity that occurs from mixed land uses and the vitality that results from the individual expression. The result is not a chaotic, unorganized and inefficient neighbourhood. On the contrary it is complex. It is a reflection of the diversity and vitality that a neighbourhood can have in fostering individual inhabitants expressions.

## **B l o c k s**

At the block level of the neighbourhood, we find the structure of private and public to be the basis for the diversity of form found in West Alexander. The structure emerges as a dynamic system that creates order within the diversity. We find additions to buildings, uses of yards, and the placement of buildings on lots reflecting this structure. Yet the diversity of expression by the inhabitants within the structure is not subdued.

Relationships between mixed uses, between buildings, and of inhabitants to one another begins to reveal a common structure that emerges amongst all the diversity. In this section, the objective is to understand this structure as an underlying framework of the block and how this structure is adapted and adhered to from the original subdivisions to the present situations.

The transformation of the original structure of the block subdivision including the back lane reveals that the original structure had a internal semi private zone. However, with subdivision of the 66 foot lots into lots of 33 feet, the need for access to the back yard was required for industrial and commercial service access and storage of cars. As a result, the inner semi private zone was penetrated creating a public back lane, as illustrated in Figure 46.

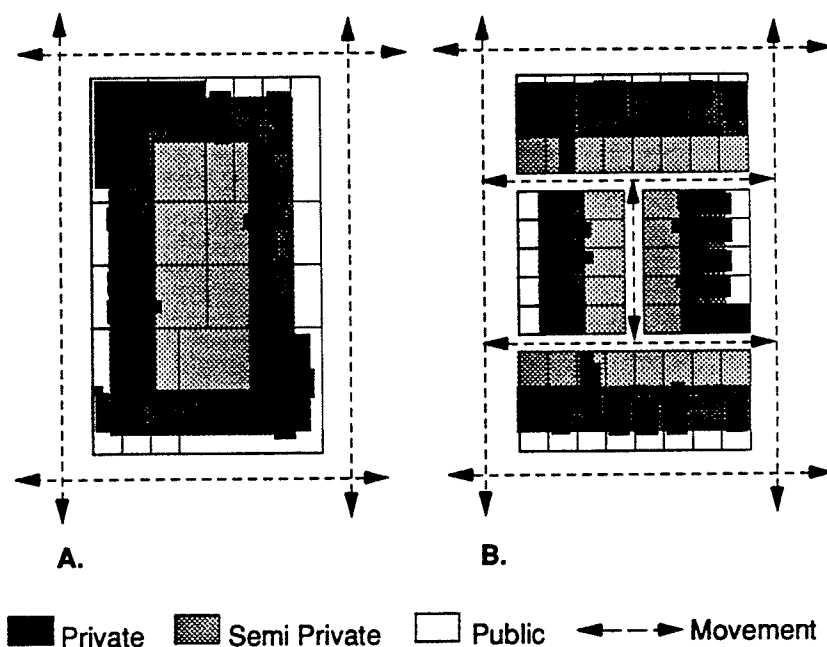


Fig. 46 Illustrates the transformation of the block



The structure of the block that evolved from the original subdivision dictating the location of activities and the placement of buildings. As a result, the inhabitants expression of how land is used is also interwoven with the underlying structure of private and public space. For instance, in the case of building additions we find an array of porches, verandahs, and extra rooms conforming to the area of private margin or semi private zone. We also find the inhabitants' use of yards also reflecting the nature of the public and private relationships. For instance, we find more personal uses such as hobbies, and clothes lines, having closer proximity to the private margin rather than to the public margin on the lot. One begins to understand that the diversity that we find in the built environment of West Alexander, with respect to built form, conforms to the public and private structure that is interwoven with all these variations.

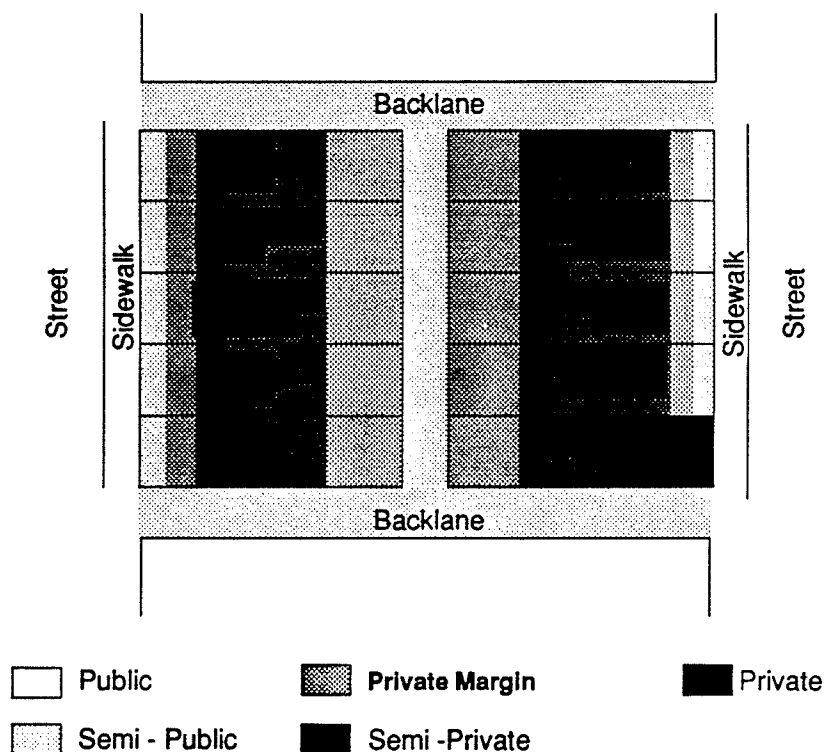


Fig 47 An illustration of the block with the development of the back lane.

As illustrated in Figure 47, the introduction of the back lane into the block transformed the original semi-private zone from a predominantly residential activity into an area that was penetrated by semi public back lanes that brought about a diversity of activities. These activities ranged from the storage of garbage to the development of ethnic

gardens. However, because the back yard continued to be a semi-private zone, we find that since the back lane is a semi-public zone, it is accessible to all inhabitants on that block. The inhabitants, in turn, are exposed to the semi private behaviors that occur in this zone. It can be argued that this helped the inhabitants become tolerant of each others different values and in turn tolerant to the mixed use found on their blocks. As a result, we find this tolerance on the part of the inhabitants also leading to the suppression of their own inhibitions towards self-expression.

Without the back lane in the block, we find the situation where individuals do not have to deal with their neighbours. Usually the entrance to their yards is through the front yard. As result, these inhabitants never cross paths in a tight back lane, or have to deal with the sight of their neighbours garbage bin that has fallen over, or get by the service truck that is delivering parts to the hardware store. The inhabitant in this situation builds a tall fence which helps them to isolate themselves even more. Yet in the back lanes the back yards generally have a chain link fence that allows visual access to their semi private zone. Here again, the level of tolerance seems to emerge as a manifestation, or better yet, as a phenomena of the back lane.

## S u m m a r y

In this chapter, we have explored a re-occurring order to the diversity of form. It was found that original land subdivision of 33 and 66 foot lots were being adhered to on a regular basis by building typologies of commercial, industrial, industrial/residential, commercial /residential and residential uses. As a result , it demonstrated that the similarity is not only in the built typologies, but also in the way these uses organized buildings on the lots. As was illustrated, the introduction of the back lane proved to be a major part of this occurrence. From this it was found that a private - public structure provides a sense of order to the diversity of land use, additions to building, and to inhabitants expressing their individuality. The result is not a chaotic, unorganized and inefficient neighbourhood, but a neighbourhood complexity, that is a reflection of the diversity and vitality that a structure can have in allowing for the freedom of expression by individual inhabitants.

## **Conclusions: Adaptation of Form**

Adaptations of form refers to how individual inhabitants have manipulated the structure of the block, as illustrated by figure 46. The relationships between blocks, lots and buildings in the neighbourhood of West Alexander seems at first glance to reflect the whims of the individual inhabitants. However, there are certain relationships concerning the private and public realm of this space that occur. As has been demonstrated, West Alexander's built environment reflects social and cultural values. Yet, the presence of back lanes, front yards, side yards, and back yards are part of the overall structure of the neighbourhood as established by public decisions of Land Surveyors and Land Developers. This structure has influenced the placement of buildings on the lots and what is part of the back yard, front yard, and side yards. As subtle as this structure may seem amongst the variety of uses and shapes of buildings, this structure is interwoven with the diversity in the way inhabitants use their yards and with how they adapt their buildings to accommodate their needs. However, this is not to suggest that inhabitants did not have the freedom to build. On the contrary, the built environment of West Alexander contradicts this by revealing an enormous diversity in building forms, land uses and use of open spaces. The dichotomy of a two sided built environment that differentiates between community, planned action and individual choice is not the case here. We have, in fact, both these aspects serving an indivisible and interwoven purpose that has evolved into the complexity of the neighbourhood built environment of West Alexander

This chapter, will develop a twofold conclusion. The first part will be to offer a method of describing and documenting the built environment of a specific block of a neighbourhood. The purpose of this documentation is to provide both a method for analyzing and developing design guidelines for future developments in the neighbourhood. This documentation is broken down into three levels as follows:

- 1)The first level called, 'A Block' illustrates in detail a block plan and elevations. This will serve to illustrate the character of the block, i.e. height of buildings, lot dimensions, building adjacencies and yards. This illustration will also be used to key photographs. This method of illustrating the block is based on Moudon methodology of documentation. The block chosen to demonstrate this methodology, is bound by Logan Avenue to the north, Alexander Avenue to the south , Gunnel Street to the east and Bushnell Street to the west as illustrated in Figure 48.
- 2)The second level called, 'Lots' will illustrate the structure of private - public space relationships for specific lots having different land uses. This will be done for four specific land uses. Figure 49 deals with residential land use . Figure 50, will deal with multiple residential land use. Figure 51 deals with the mixed use of commercial/residential land use. Figure 52 deals with the mixed use of industrial/residential land use Each lot will be illustrated according to the distinction of private and public space as described in chapter eight. The purpose of illustrating these spaces is to correlate the elements of the block to the private -public structure. This documentation also reveals how different uses conform to public and private space.
- 3)The third part called, 'Elements' will illustrate the types of elements that occur in public and private zones. This will reveal the types of elements that occur in the specific zones of public and private space. This will follow SAR distinction of 'Building' and 'Spaces'. With the use of photographs as illustrated in Figure 53, keyed back to Figure 48, elements have been recorded to provide an example of variations. A chart is also developed to provide an example of how to record these elements as illustrated in Figure 54.

This method for analyzing and developing design guide-lines from the existing built environment of a neighbourhood allows new interventions to be created which relate to that neighbourhood. Jon Lang argued that if architecture and planning follows a process of description and explanation of phenomena in the built environment, a better understanding of how the built environment is experienced and lived in by its inhabitants can be attained. Therefore, the solutions that result will have a better possibility of becoming successful interventions.

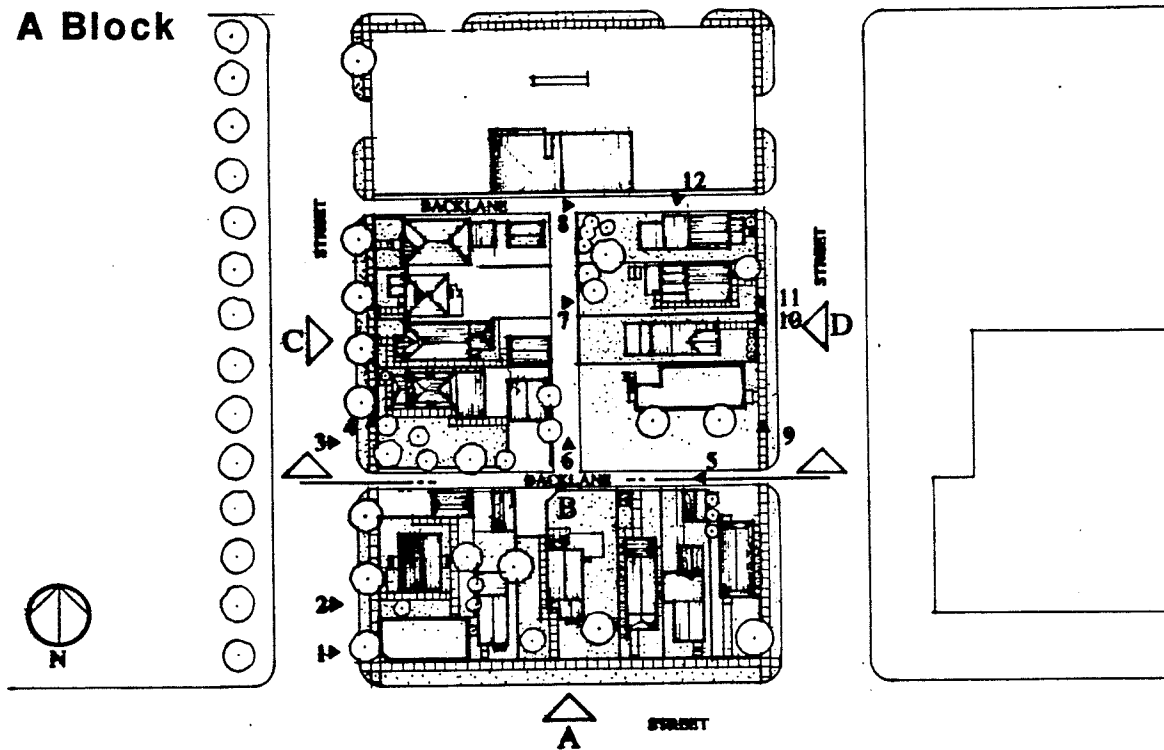
The second part of the conclusion presents a possible strategy as to how this documentation process can be integrated into the existing City of Winnipeg's Planning Policies of "Neighbourhood Management and District Planning".<sup>53</sup> Within the existing planning policies of the City of Winnipeg, there are already concepts such as 'Neighbourhood Management' and 'Zoning Rationalization' endorsed that enable such a strategy to become implemented. However, at the moment, it is still at the discretion of the individual planner as to how that is viewed. As a result, such concepts, if not recognized by the planner in charge, will not be recognized at all. Therefore, it is important that not only are these policies incorporated into existing planning policies but to ensure that the planner, architect and urban designer are aware of the issues facing these mixed use neighbourhoods, such as West Alexander.

This twofold conclusion, will illustrate the potential for implementing these methodologies. At the same time, it demonstrates that the validity of the thesis is substantiated by demonstrating how such a methodology can be used in West Alexander. Ultimately, if such a strategy were to be implemented, further refinements would continue to develop into an actual practicing process.

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<sup>53</sup> City of Winnipeg, Department of Environmental Planning, Neighbourhood Management and District Planning

## A Block



## BLOCK



## BLOCK ELEVATION A



## BLOCK SECTION B



## BLOCK ELEVATION C



## BLOCK ELEVATION D

Fig. 48 Block Plan and Elevations of Block.

## Lots

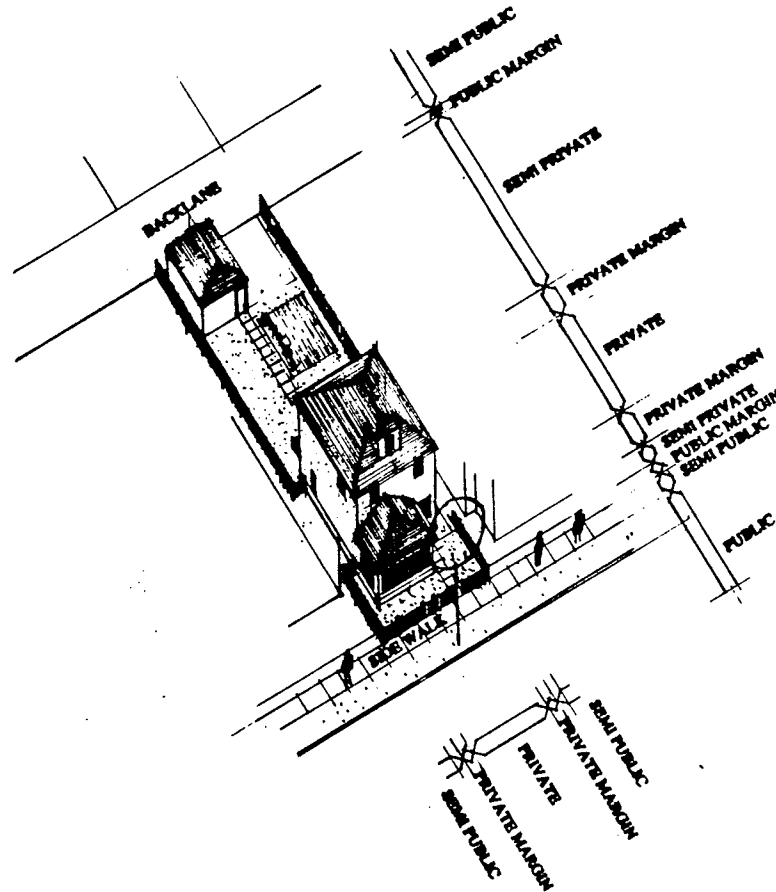


Fig.49 Residential Land use.

Figure 49 reveals the typical public-private space structure for West Alexander. At the front of the property we have a typical 15 foot front yard with a front entry verandah which occurs in the private margin. A fence is typical at the public margin, hedges are also common. The semi-private zone at the back of the property, typically consists of a garden and a car garage. By revealing the typical structure of private-public space for West Alexander, the remaining three illustrations will demonstrate variations on this structure. This, in turn, will demonstrate how this structure has been adapted to suit different land uses.

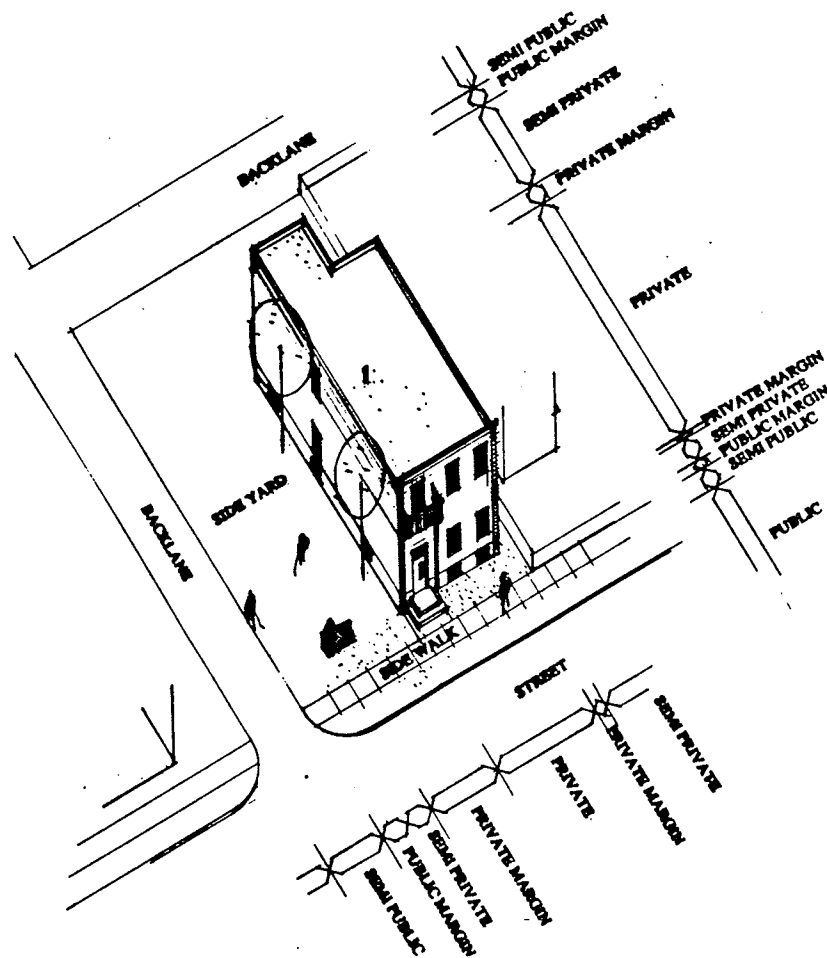


Fig.50 Multiple Residential Land use.

Figure 50, illustrates multiple residential land use has adapted the 15 foot front yard to a 8 foot front yard. By doing this, the transition between private and public is shortened. Yet all the semi zones and margins are present. This has been achieved by the use of a stair landing extending from the private margin towards the front sidewalk but falling short to allow a public margin to occur. These types of details, help to maintain the continuity of the structure of the public - private space. This demonstrates that a common setback is not necessary to maintain order. In fact, the differences that occur between different setbacks on streets adds to the perceptual diversity of the block.



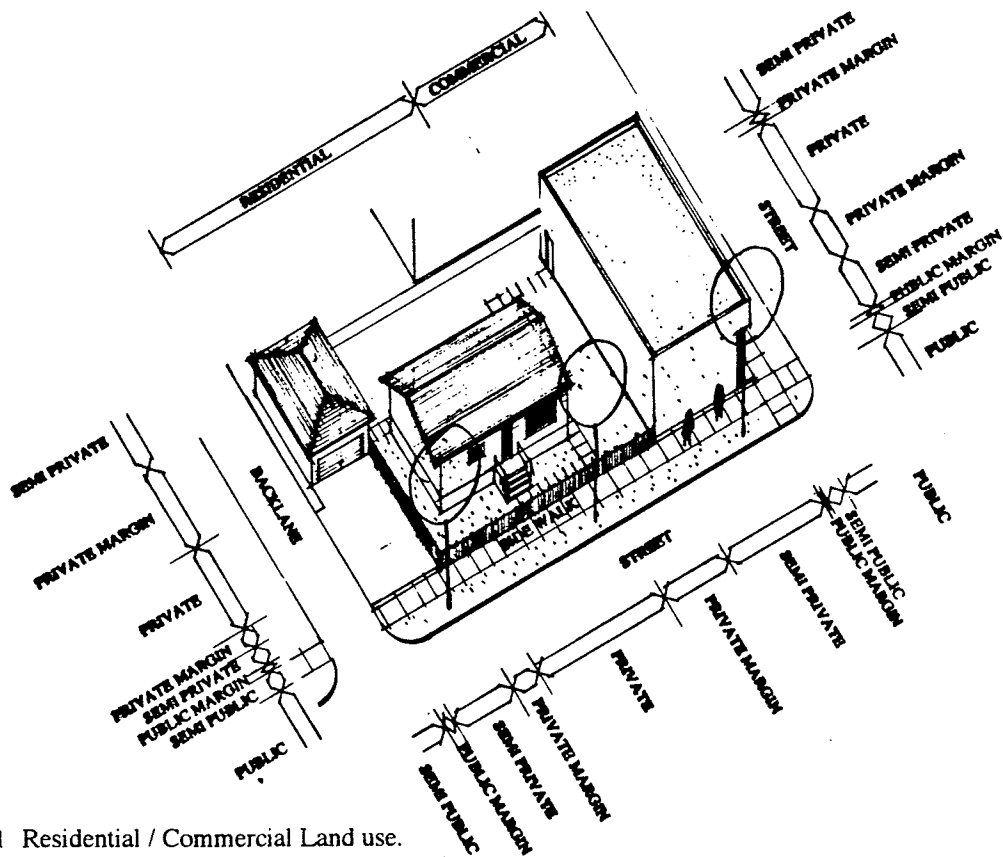


Fig. 51 Residential / Commercial Land use.

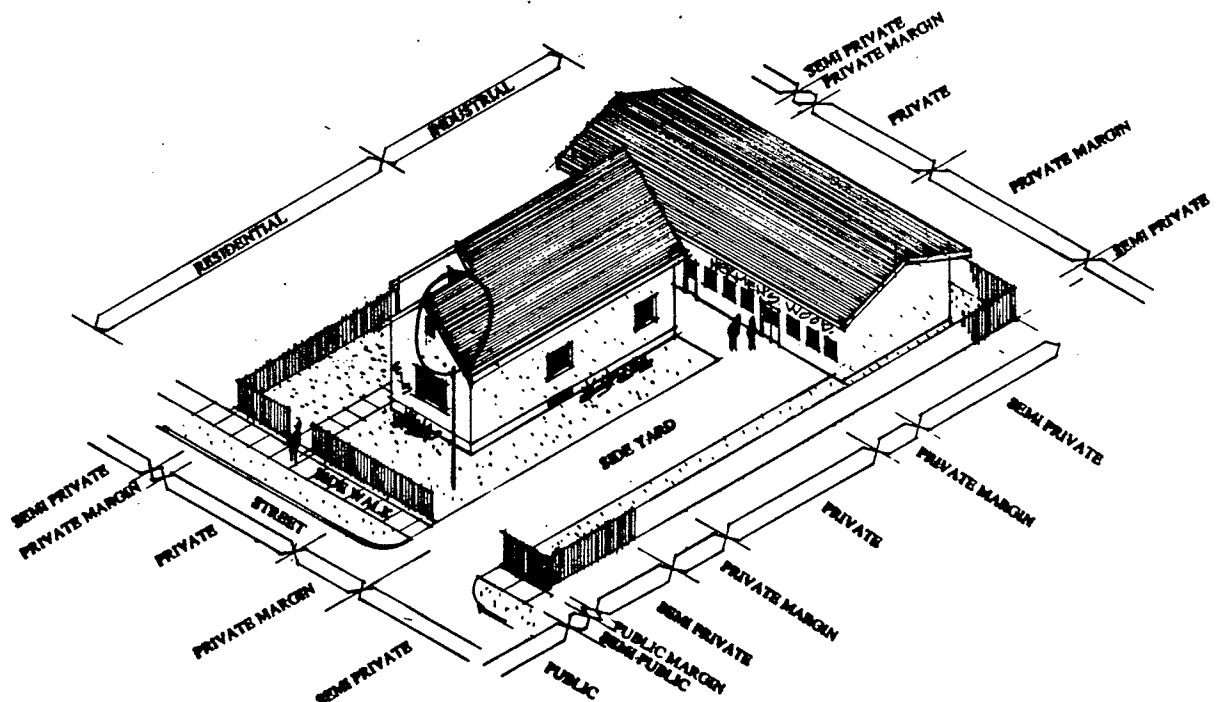


Fig.52 Residential / Industrial Land use.

In the illustrations of Figure 51 and 52, mixed use residential, demonstrates variations to the typical structure of private -public space. In both situations, owners built an addition to the existing residences within the semi private zone. As was described in Figure 54 this zone is typically used for the elements of a garage or garden. It appears that the owner has enlarged the garage for either industrial or commercial activity. Both of these examples illustrate that the scale of the addition is in keeping with the existing residential buildings.

In all these illustrations of different land uses, the structure of private - public space is adapted to meet the needs of those specific uses. This demonstrates that this structure is flexible enough to allow a diversity of building setbacks, land uses and building forms. As a result, the inhabitants have fostered this diversity by responding to their individual needs. However, this is not necessarily a structure but a dynamic relationship between the inhabitants and their built environment. For this reason, architecture and planning interventions must first understand this system as potential design guidelines. Once this understanding is developed, interventions become agents that foster the complexity of this interrelationship.

## Elements

By systematically looking at the built environment of West Alexander according to elements of built form, it is possible to understand the tendencies or patterns of uses as re-occurring. This concept is what Christopher Alexander calls 'Pattern'. This, in turn, can lead to design guidelines which can help architects and planners at least have an understanding of the range of diversity this structure possesses.

In Figure 53, twelve photographs are assembled that try to convey the diversity of elements found in this block. Each photograph is keyed to Figure 48. The elements depicted are fences, gardens, steps, door entries, garages, yards, signs, etc. From these photographs' a chart is developed (as illustrated in Figure 54), that places these elements within the structure of private - public space. By listing these elements in this manner, a variety of options are realized. A designer recognizes the diversity of choice that is available in establishing the design of an intervention.



Fig. 53 Photographs of Zones and Margins.

## PUBLIC SPACE

	PUBLIC ZONE	SEMI PUBLIC ZONE	PUBLIC MARGIN
BUILDING	BUS DEPOT		
SPACE	-STREET -CURBS -BOULEVARDS -TREES -STREET LAMPS	-SIDEWALK	-FENCE -STAIR LANDING -EXTENSION OF PRIVATE WALK

## PRIVATE SPACE

	PRIVATE ZONE	SEMI PRIVATE ZONE	PRIVATE MARGIN
BUILDING	-ROOMS IN A BUILDING	-GARAGE -STORAGE -GAZEBO -SUMMER KIT.	-VERANDAH -PORCH -SIDE ENTRY
SPACE	-INTERNAL COURT YARD -STORAGE	-STAIR -GARDEN -STORAGE -GRASS -TREES	-SIDEWALK -STORAGE -DRIVE WAY

Fig. 54 Chart of Elements as per Zones and Margins.

This process of documentation is meant to be used as a tool in the planning and design of interventions to the built environment of West Alexander. As such, it is not meant to be used as a tool to predict the built environment. As was described by Jane Jacobs, the complexity of the built environment can not be determined or planned, it is part of an interwoven whole that makes community.



## Strategy for Implementation

Chapter 8 described the result of the shift in attitudes from urban renewal on the part of the federal government. This resulted in the development of the rehabilitation approach to inner city neighbourhoods. This was based on a high degree of community involvement in the revitalization of neighbourhoods. The result of these initiatives was the introduction of the Neighbourhood Improvement Program (N.I.P.) in Winnipeg. The new approach was embodied in the city's committee on urban renewal and redevelopment. The new approach embodied two major principles:

- a) First, it proposed a policy oriented towards neighbourhood improvement programs whereby, preservation and rehabilitation measures would be emphasized and employed on a more selective basis.
- b) Second, it encouraged citizens participation throughout its planning and implementation stages.

This shift to revitalization of inner city neighbourhoods led to the City of Winnipeg Act of 1971 which, in essence, led to the decentralization of decision making on local neighbourhood issues. Prior to this Act, city planning was responsible to develop and implement city-wide master plans. Whereas in 1972, the city planning emphasis turned to district planning of existing neighbourhoods through community involvement.

By 1982, the City of Winnipeg Planning Department was no longer the planner of the city, but planners of districts within the city. As a result, city planning was referred to as 'District Planning' and planning policy had developed a municipal committee to hear local issues pertaining to the built environment of neighbourhoods, known as 'Community Committees'. Community Committees' mandate was based on the concept of 'Neighbourhood Management'. In general, neighbourhood management recognizes that neighbourhoods are the physical, social, and economic blocks of a city and the issues of local concern are best dealt by that community. By 1982, District planning policy was turning towards community involvement where local responsibility for local decision making was becoming much more prevalent.

Yet in 1982, the City of Winnipeg Department of Environmental Planning noted in their policy report<sup>54</sup> it needed to clarify its commitment to 'District Planning' and the concept of 'Neighbourhood Management', particularly in older inner city neighbourhoods. This revelation shows that the entire department of planning was not entirely clear or committed to this position. As a result, the same report outlined existing tools and roles the planners could use to work towards this direction.

Among the tools listed was Zoning Rationalization<sup>55</sup>. The concept of Zoning Rationalization is a reaction against zoning which does not reflect the existing land use. In many cases in inner city neighbourhoods, zoning reflects the zoning plans of Urban Renewal proposals. Many portions of these neighbourhoods are zoned for uses and densities beyond what exists on the ground today. For this reason, existing property owners and residents develop uncertainty and are reluctant to maintain properties and make a long term commitment. For this reason, the Zoning Rationalization process is an important tool to be used to change existing zoning to reflect the actual land uses.

As indicated by Chris Knoll<sup>56</sup>, Planner for West Alexander, Zoning Rationalization allows neighbourhood mixed uses to be made official in the zoning maps of the city this, in turn, allows the residential, commercial and industrial uses to have their legal rights protected as to how that property is used. It is at the level of the block that this thesis proposes to implement the process of documentation. At this level, the importance of adjacency of blocks, buildings and lots plays an important role in how these properties can be used.

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54 City of Winnipeg, Department of Environmental Planning, Neighbourhood Management and District Planning. P.3.

55 City of Winnipeg, Department of Environmental Planning, Neighbourhood Management and District Planning. P.7.

56 Chris Knoll was the attending planner for this file - refer to The city of Winnipeg , City Centre-Fort Rouge Community Committee, File No. Daz 252/91, or detail account of issues and events

As illustrated in 'Elements' in this chapter, there are definite patterns of uses for public and private zones. Since Zoning Rationalization is particularly concerned with the mixed use inner city neighbourhoods such as West Alexander , it appears that such a process of documentation could begin to provide for district planners and community groups the information to illustrate their arguments in future conflicts. As such, a Chart of Elements could be developed, (as illustrated in Figure 54), that could be used to determine what is and is not acceptable by the community in these specified zones. In addition, planners and architects would be responsible for documenting streets, blocks, lots and elements of these mixed use neighbourhoods, to ensure that all situations would be documented to reflect the particular circumstances in the zoning maps.

The objective of this strategy would be to provide a documentation, or if you will, mapping of mixed-use neighbourhoods that could be used to convey the interrelationships that exist. At the same time, these maps would become the basis for planning new interventions.

The documentation of an entire neighbourhood such as West Alexander could be developed by the use of computer aided drafting linked with a computer data base to record 'Elements' within the particular zones. The process of documentation would be as illustrated previously. At the present time, many of the City of Winnipeg maps do provide physical documentation of these inner city neighbourhoods, and therefore, a portion of the information gathering is done. However, with respect to Elements in the neighbourhoods, this information would have to be gathered.

According to Chris Knoll, when a portion of a neighbourhood goes through the process of Zoning Rationalization, maps are quite often produced by the community members . These maps then serve as actual working models to produce the documentation for the Zoning Rationalization. Therefore, such maps would be of an valuable asset to record these zoning changes and provide further detailed information to the community and inform them of their property rights.

By viewing this underlying structure as part of the form and context of West Alexander's built environment, one begins to realize the dynamic quality of the structure as

interwoven with the social and cultural context of the neighbourhood. Built form throughout chapters 6, 7 and 8 is represented as manifestations of its social and cultural context. Yet, even this process has its reductionist tendencies. For this reason, this inquiry ought to be viewed only as a single perspective of the built environment. One should be aware that this is an interpretation of the built environment. For this reason, these conclusions become a representation of the present situation of the neighbourhood. This representation, again, can only be an interpretation of the complexity. It is hoped the reader will reflect on all the observations of this thesis in viewing the neighbourhood. Further to this, the reader should walk the streets, talk to the people and eat in the restaurants of the neighbourhood to truly have an understanding of the neighbourhood. This, in my opinion, is the only way to truly understand the neighbourhood complexity that has been conveyed in this documentation of West Alexander. In the words of Italo Calvino:

I could tell you how many steps make up the streets rising like stairways, and the degree of the arcades' curves, and what kind of zinc scales cover the roofs; but I already know this would be the same as telling you nothing. The city does not consist of this, but of relationships between the measurements of its space and the events of its past.<sup>57</sup>

Both the methodologies of Habraken and Moudon demonstrate their value as methodologies which architecture and planning can use in determining interventions to a built environment like West Alexander. Unfortunately, modern orthodox architecture and planning views still regulate city building activities. As a result, West Alexander inhabitants still have to continue to form resident associations and protect their choice to live in their neighbourhoods. However, this is changing in San Francisco. Moudon's methodology has played an important role in the drafting of new planning codes for residential areas. Residents of West Alexander can only hope that Winnipeg's planning commission and architectural associations jump so easily on the band wagon of fostering diversity in the built environments of our neighbourhoods, as they did when the band wagon came around with the views of modern orthodox architecture and planning

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<sup>57</sup> Italo Calvino, 'Invisible Cities'. pp.10



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