



BENHA UNIVERSITY
FACULTY OF ENGINEERING
DEPARTMENT OF ARCHITECTURE

AE1342-URBAN DESIGN(1)-LECTURE 10

ANALYSIS TOOLS FOR STUDYING PUBLIC LIFE

DR. MONA SHEDID

ASSOCIATED PROFESSOR , FACULTY OF ENGINEERING, BENHA UNIVERSITY

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CONTENT

An aerial photograph showing a two-lane road curving through a forest with vibrant autumn foliage in shades of yellow, orange, and red. A white van and a red car are visible on the road. The top left corner of the slide features a dark green background with the word 'CONTENT' in white.

- TOOLS FOR STUDYING PUBLIC LIFE
- ANALYSIS TOOLS



TOOLS FOR STUDYING PUBLIC LIFE....

TOOLS FOR STUDING PUBLIC LIFE

Direct Observation....

- Users are observed, their activities and behavior mapped in order to better understand these needs and how city spaces are used.
- Help to understand why some spaces are used and others are not.
- Observations are often accompanied by photo documentation.

How is a bench used?

Jan Gehl, "People on Foot", Arkitekten no. 20/1968[®]
- Mark Von Vodtke



There's a bench.



A+B: "Great, let's sit..."



A+B: "...so I can puff on my pipe"
(The man in the background is still waiting.)



C: "Ah, an empty seat on the end: I'll grab that."



A+B: "Well, time to move on."



C: "This is a good place to sit."



C: "Here come two apprentices with paint all over their pants. I think I've been here long enough."



D+E: "Wow, did you get a look at her?"



There's an empty bench.



F: "Ah, an empty bench. I wonder if there are any red ones left?"



G: "This is a nice place. I'll sit at the opposite end. What on Earth is that white stuff? Fresh paint! - well, I'm not going to sit there."



F: "So he didn't really want to sit down. I guess I'll manage with my own company! - [The little guy is still waiting patiently in his stroller.]"

TOOLS FOR STUDING PUBLIC LIFE



COUNTING



Counting is a widely used tool in public life studies. In principle, everything can be counted, which provides numbers for making comparisons before and after, between different geographic areas or over time.

MAPPING



Activities, people, places for staying and much more can be plotted in, that is, drawn as symbols on a plan of an area being studied to mark the number and type of act

TRACING



In order to observe people's movements over a large area or for a longer time, observers can discreetly follow people without their knowing it or follow someone who knows and agrees to be followed and observed. This is also called shadowing.

TOOLS FOR STUDING PUBLIC LIFE



LOOKING FOR TRACES



Human activity often leaves traces such as litter in the streets, dirt patches on grass etc., which gives the observer information about the city life. These traces can be registered through counting, photographing or mapping.

PHOTOGRAPHING



Photographing is an essential part of public life studies to document situations where urban life and form either interact or fail to interact after initiatives have been taken.

TEST WALKS



Taking a walk while observing the surrounding life can be more or less systematic, but the aim is that the observer has a chance to notice problems and potentials for city life on a given route.

TOOLS FOR STUDING PUBLIC LIFE

Counting....

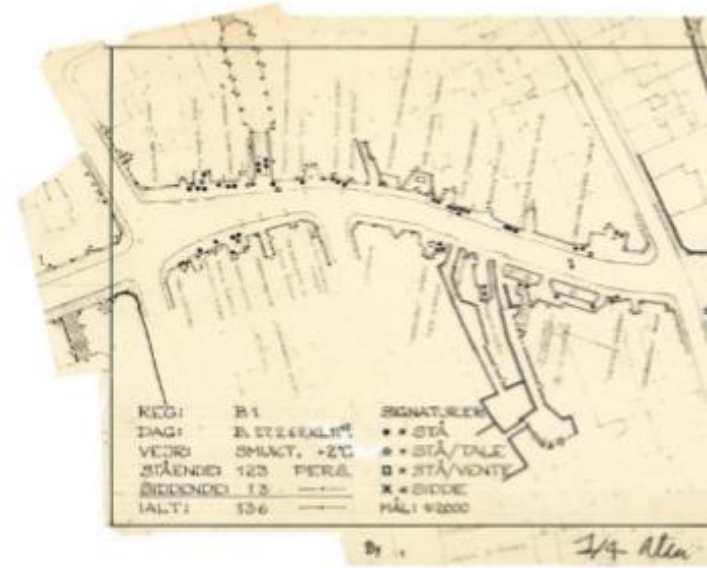
- Basic to public life studies.
- Everything can be counted: number of people, gender division, how many people are moving (pedestrian flow) and how many are staying in one place.
- Counting provides **quantitative data** that can be used to **qualify projects**.
- A number of counts have to be made in order to be able to compare different times of day, different days and different seasons.



TOOLS FOR STUDING PUBLIC LIFE

Mapping....

- Mapping behavior : what happens on a plan of the space or area being investigated.
- To investigate: Where people are standing and sitting, the locations different times of day. Provides a clearer picture of the general pattern of staying activities and movement.



TOOLS FOR STUDING PUBLIC LIFE

Tracing....

- Registering movement can provide basic knowledge about movement patterns.
- The goal can be to gather information **walking sequence, choice of direction, flow, which entrances are used most, which least,...**
- Means drawing lines of movement on a plan **during a specific time period.**



TOOLS FOR STUDING PUBLIC LIFE



Tracking....

- To stand in one place to register movement, observers can also follow selected people in order to register their movements
- Useful for measuring walking speed.
- Can be made with the naked eye and a stop watch by following the person whose speed you want to measure.

TOOLS FOR STUDING PUBLIC LIFE

Looking for Traces



TOOLS FOR STUDING PUBLIC LIFE

An aerial photograph showing a two-lane road winding through a forest with vibrant autumn foliage in shades of yellow, orange, and green. A white van and a red car are visible on the road. The top left corner of the slide features a dark green background with the title text.

Keeping a Diary....

Is a method of noting observations in real time and systematically, with more detail than in quantitative 'sample' studies. The observer can note everything of relevance.

TOOLS FOR STUDYING PUBLIC LIFE

Provide samples of the interaction of public life and public space.



To understanding of how life in public space develops as sequences and processes.

PHYSICAL INFORMATION

LOCATION PLAN

AREA PLAN

BLOCK PLAN

SECTION

PLAN OF STREET & FORECOURTS

Y. STREET PRAHRAN

HISTOGRAM

MAP A

MAP B

POPULATION INFORMATION

- APPLICABLE, ESTIMATED, PEOPLE: 1000
- 1000 PEOPLE IN 10 HOUSES (10 HOUSES), 1000 PEOPLE IN 10 HOUSES
- 1000 PEOPLE IN 10 HOUSES (10 HOUSES), 1000 PEOPLE IN 10 HOUSES
- 1000 PEOPLE IN 10 HOUSES (10 HOUSES), 1000 PEOPLE IN 10 HOUSES

ASPECTS OF STREET ACTIVITY NOT SHOWN ON MAPS

- BETWEEN 8 AM AND 5 PM ON SUNDAY THESE PEOPLE...
- 25 PERCENT OF THE PEOPLE...
- 75 PERCENT OF THE PEOPLE...
- 50 PERCENT OF THE PEOPLE...
- 25 PERCENT OF THE PEOPLE...

LIST OF ACTIVITIES

- WALKING
- STANDING
- SITTING
- ...

EXCERPTS FROM SUNDAY DIARY

1-10 PM ...

11-12 PM ...

1-2 PM ...

3-4 PM ...

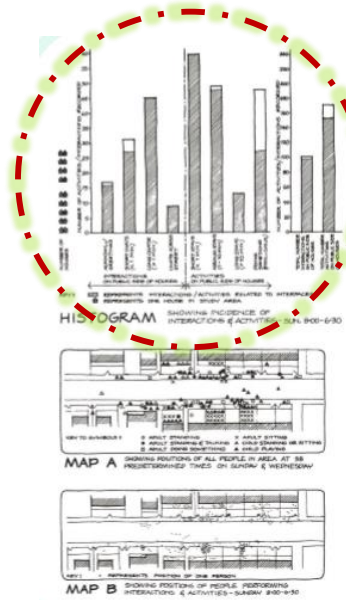
5-6 PM ...

7-8 PM ...

9-10 PM ...

11-12 PM ...

TOOLS FOR STUDYING PUBLIC LIFE



POPULATION INFORMATION

- APPROX. ESTIMATED HOUSES IN STUDY AREA
- NATIONAL AVENUE AREA (13 HOUSES)
- MOUNTAIN (13 HOUSES)
- PRESENTLY SOCIAL STRUCTURES FRAGMENTED WITH SMALL CHILDREN (GREENS) & SOME COUPLES (MOUNTAIN)

ASPECTS OF STREET ACTIVITY NOT SHOWN ON MAPS

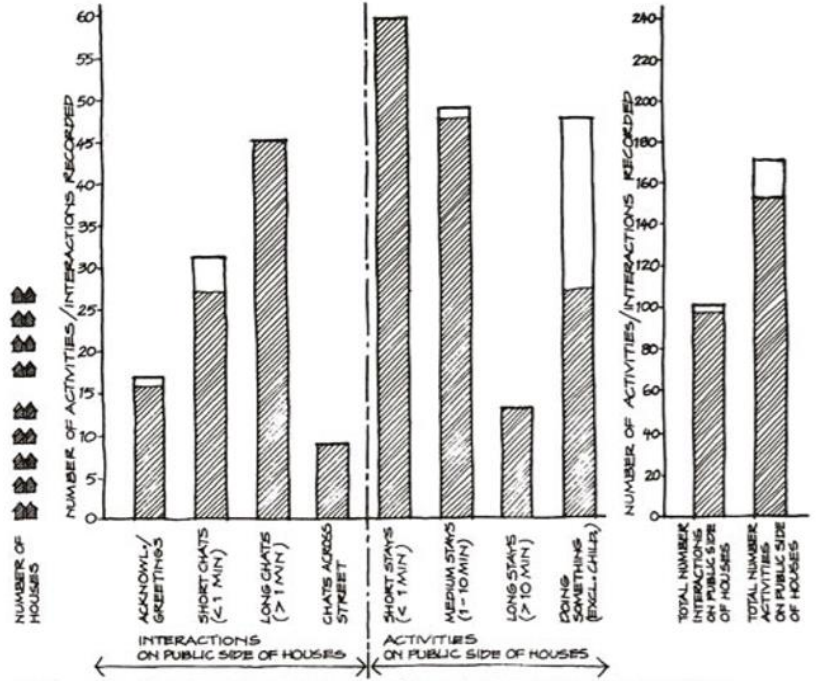
- BETWEEN 8:00 AND 6:30 PM WHEN THESE WERE 1
- 20 WALKING IN OR VISITING FROM THE OTHER AREA
- 20 INTER-AREA VISITS (ONE WAY) MADE BY ADULTS
- 70 ADULTS PASTORALING THROUGH STUDY AREA WITHOUT PERFORMING INTERACTIONS OR ACTIVITIES
- 70 MORE ADULTS OR MORE PASTORALING THROUGH STUDY AREA
- MANY CHILDREN PLAYING ON PUBLIC SIDE OF HOUSES

LIST OF ACTIVITIES ON SUNDAY

- SHAKING MAT
- GARDENING PLANTS
- RAINING FLOWERS
- RAINING FRONT BENCH
- WASHING WARE
- GARDENING
- SWEEPING FRONT PATH
- SWEEPING FOOTPATH
- SUPERVISING CHILDREN
- LAUNDRY THROUGH FENCE
- TALKING GRATED TO NEIGHBOUR
- WALKING DOGS
- SITTING ON VERANDAH SEAT
- SITTING ON GATEWAY
- SITTING ON FENCE
- LEAVING ON BENCH/WATE
- WASHING CAR
- WASHING JAR
- GARDENING LETTER BOX
- SHUTTING WIRE WATE
- PENDING IN & OUT OF FRONT
- WALKING THRU WARDEN AND BUTTER

EXCERPTS FROM SUNDAY DIARY

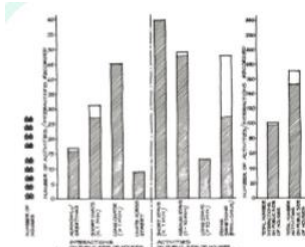
- 1:00 PRE-8:00 AM NOW SITTING IN FRONT, THERE IS A CHANGE LONGER ON THE VERANDAH, WIDE ON AND AROUND IT.
- 2:00 MEN IN GARDEN OUT, CHATS WITH KIDS, LOTS OF NOISE, HE IS, DRESS NOT KINDLE, WALKS STRAIGHT IN.
- 2:30 MEN IN GARDEN FOLLOWING FOR THE LAST WALK, HOUSE FROM THE VERANDAH, ADDRESS ROAD TO 2 LARIES IN (HIS) ALSO TO AND IN 2.
- 2:40 LADY BLUE GUMBLE WALKS THROUGH FROM NORTH & INTO IS, JONES OUT OF IS INTO IS, WALKS STRAIGHT IN, BRUSHING BELLS ON THE WALK.
- 12:45 9 MEN TALKING AT 12:15 IS IN GARDEN, 1 ON FOOTPATH, MAN ON FOOTPATH, BROWN MAN, WALKING A BIT (STILL STANDING IN GARDEN), MAN HALFWAY DOWN NEXT DOOR, BROWN - STILL STANDING.
- 12:15 MAN FINALLY WALKS OFF, ONE OF GARDEN MEN DOES NEXT DOOR, THE OTHER OTHER LEANING ON FENCE IS.
- 2:30 V. OLD LADY 77 SWEEPS FRONT VERANDAH, KIDS, BROWN OVER BATE, ONE SWEEPING, FOOTPATH A BIT (STILL STANDING IN GARDEN), LONDS UP DOWN STOPS SWEEPING & JUST STARES THERE (10 MIN).



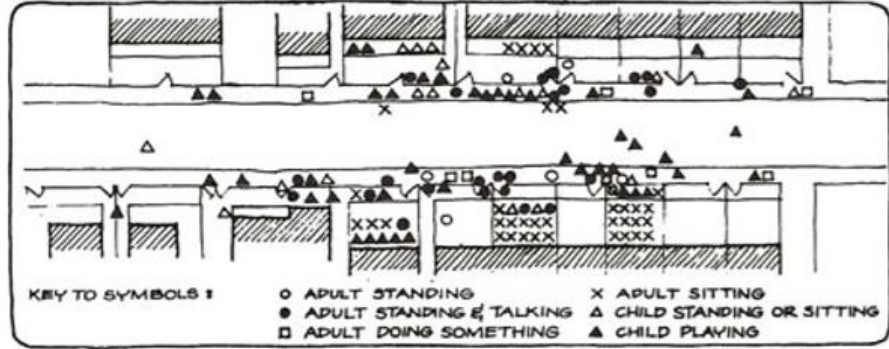
KEY: REPRESENTS INTERACTIONS/ACTIVITIES RELATED TO INTERFACES
 REPRESENTS ONE HOUSE IN STUDY AREA

HISTOGRAM SHOWING INCIDENCE OF INTERACTIONS & ACTIVITIES - SUN. 8:00-6:30

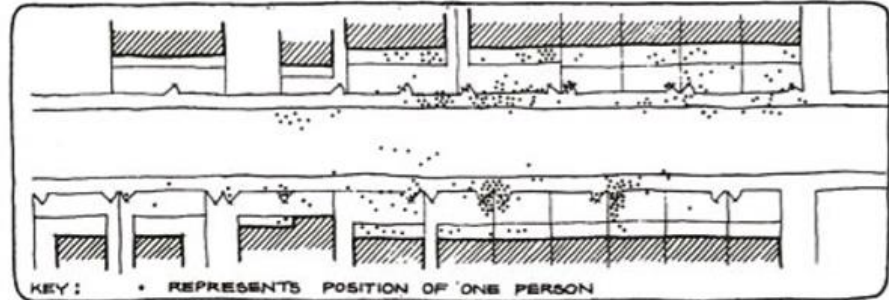
TOOLS FOR STUDYING PUBLIC LIFE



- LIST OF ACTIVITIES ON SUNDAY**
- SHAKING MAT
 - WALKING DOGS
 - SIPPING ON VERANDAH SEATS
 - SIPPING ON GARDENWAY
 - SIPPING ON FENCE
 - WASHING WASHEN
 - LEARNING ON FENCE/WATE
 - WASHING CAR
 - WASHING LAKE
 - WASHING FROST PATH
 - WASHING LITTLE BOX
 - SHUTTING WIRE WATE
 - WALKING THROUGH FENCE
 - PERSONS IN & OUT OF FROST IRON
 - TAKING GRATES TO NEIGHBOUR
 - PLACING THIN FROST IRON BUTTER WITH WALKING REFUG
- EXCERPTS FROM SUNDAY DIARY**
- 1:59 PINE WIDE AREA NOW SITTING IN HERE, THESE IS A CHANGE LONGER OF THE VERANDAH. WIDE ON AND AROUND IT.
- 2:00 MAN IN & OUT LONELY OUT, SHAKES WITH KIDS, GOES INTO HALL, DRESS NOT KID, WALKS STRAIGHT IN.
- 2:05 MAN IN & OUT BEING FOLLOWED FOR THE LAST WALK HOW FROM HERE VERANDAH ACCESS ROAD TO 2 LARIES IN HALL, ALSO TO SIDE IN 2.
- 2:06 3 MEN TALKING AT 11 B. 2 IN GARDEN, 1 ON FOOTPATH. MAN ON FOOTPATH BEING WALKING DOWN.
- 2:10 MAN STILL BEING WALKING MAN HALFWAY DOWN NEXT-DOOR FENCE - STILL SHAKING.
- 2:15 MAN FINALLY WALKS OFF. ONE OF GARDEN MEN DOES NEXT DOOR, THE OTHER STAYS LEANING ON FENCE. IS.
- 2:34 V. OLD LADY OF SWEDS FROM VERANDAH. PUTS BEARD OVER WATE AND SWEDS FOOTPATH A BIT (STILL STANDING IN GARDEN). LOOKS UP DOWN STOPS SWEDSING & JUST STARES THESE (20 MIN).



MAP A SHOWING POSITIONS OF ALL PEOPLE IN AREA AT 38 PREDETERMINED TIMES ON SUNDAY & WEDNESDAY



MAP B SHOWING POSITIONS OF PEOPLE PERFORMING INTERACTIONS & ACTIVITIES - SUNDAY 8:00-6:30

TOOLS FOR STUDYING PUBLIC LIFE

POPULATION INFORMATION

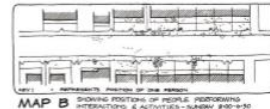
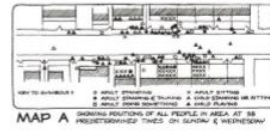
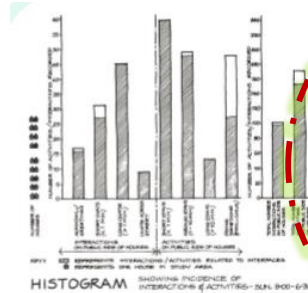
- APPROX. ESTIMATED INCOME: MEDIUM
- NATIONAL GROUPS: GREEK (9 HOUSES), AUSTRALIAN (9 HOUSES).
- PREDOMINANT SOCIAL STRUCTURES: FAMILIES WITH SMALL CHILDREN (GREEKS) & SOME COUPLES (AUSTRALIANS)

ASPECTS OF STREET ACTIVITY NOT SHOWN ON MAPS

- BETWEEN 8:30AM AND 6:30PM ON SUNDAY THERE WERE :
- 92 ARRIVALS IN OR DEPARTURES FROM THE STUDY AREA MADE BY ADULT PEDESTRIANS
 - 29 INTRA-AREA VISITS (ONE WAY) MADE BY ADULTS
 - 71 ADULT PEDESTRIANS PASSING THROUGH STUDY AREA WITHOUT PERFORMING INTERACTIONS OR ACTIVITIES
 - 191 MOTOR CARS OR BIKES PASSING THROUGH STUDY AREA
 - MANY CHILDREN PLAYING ON PUBLIC SIDE OF HOUSES

LIST OF ACTIVITIES ON SUNDAY

- SHAKING MAT
- CARRYING POTPLANTS
- PICKING FLOWERS
- RAKING FRONT GRASS
- WATERING GARDEN
- GARDENING
- SWEEPING FRONT PATH
- SWEEPING FOOTPATH
- SUPERVISING CHILDREN
- LOOKING THROUGH FENCE AT FLOWERS
- TAKING GRAPES TO NEIGHBOUR
- WALKING DOGS
- SITTING ON VERANDAH SEATS
- SITTING IN GATEWAY
- SITTING ON FENCE
- LEANING ON FENCE/GATE
- WASHING CAR
- MENDING CAR
- CHECKING LETTER BOX
- SHUTTING SIDE GATE
- POPPING IN & OUT OF FRONT DOOR
- FLICKING TINY PAPERS INTO GUTTER WITH WALKING STICK



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- POPPING IN & OUT OF FRONT DOOR
- FLICKING TINY PAPERS INTO GUTTER WITH WALKING STICK

EXCERPTS FROM SUNDAY DIARY

1:59 PERS. WIFE ARR. NOW SITTING IN HR 12. THESE IS A CHANGE LONGER OF THE VERANDAH. WIFE ON AND AROUND IT.
 2:00 MAN IN GARDEN OUT. STARTS WITH KIDS. GOES INTO HR 10. DRESS NOT KIDNEY. WALKS STRAIGHT IN.
 2:05 MAN IN HR 10. BEEN FOLLOWING FOR THE LAST HALF HOUR FROM HR VERANDAH ADDRESS ROAD TO 2 LARIES IN HR 10. ALSO TO AND FR 12.
 2:40 LADY BLUE SHIRT WALKS THROUGH FROM NORTH & INTO 12. COMES OUT OF 12 INTO 10. WALKS STRAIGHT IN. BANGING BELLS ON THE MAN.
 12:40 3 MEN TALKING AT HR 10. 2 IN GARDEN, 1 ON FOOTPATH. MAN ON FOOTPATH SEEMING NERVOUS. JUMPING.
 12:50 MAN STILL SEEMING ANXIOUS. MAN HALFWAY DOWN NEXT-DOOR FENCE - STILL SHAKING.
 12:55 MAN FINALLY WALKS OFF. ONE OF GARDEN MEN DOES NEXT DOOR, THE OTHER STAYS LEANING ON FENCE. IS.
 2:50 V. OLD LADY W/ SWEEPERS FRONT VERANDAH. KIDS. BEHIND OVER BATH. ONE SWEEPER. FOOTPATH A BIT (STILL STANDING IN GARDEN). LOOKS UP & DOWN. STOPS SWEEPING & JUST STARES THESE (20 MIN).

ANALYSIS TOOLS....

ANALYSIS TOOLS

Tissue Analysis

- A technique that overlays understood scale plan or aerial photographs.



Rapid generation of initial design options for sites that promote informed design discussion.



Aerial photographs or plans



ANALYSIS TOOLS

Building Age Profile

- Mapping the age of buildings to show the age distribution and concentration of building and periods of urban development



Identify the patterns of urban development through the age of the building stock.



Buildings of similar age are identified and their locations are plotted on a map or series of maps, each covering a defined time period



ANALYSIS TOOLS

Urban Morphology

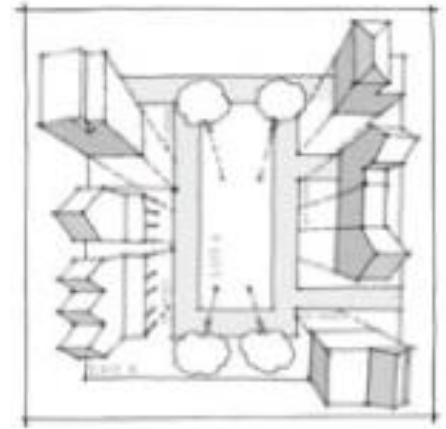
- Used to study the present and past historical patterns of urban structure form, land use and patterns. Provides an understanding of the existing physical form of the urban environment.



Defining urban patterns and characteristics that create a unique sense of place



Measured, mapped and analyzed using existing and/or historical information (figure ground mapping, typological analysis, materials and components analysis)



ANALYSIS TOOLS

Mapping

- A graphic technique for recording and analyzing the physical features and structural patterns of geographical area.



Assessment of spatial enclosures, street edge conditions, distribution of open space, street types,..(quantitative of physical features)



Mapping techniques: Overlay mapping, GIS mapping, Aerial photographs.



ANALYSIS TOOLS

Legibility Analysis

- Recording on map the mental images.



Provides information on how memorable positive features can be emphasized or negative design features can be mitigated.



Series of sketch maps drawn by users with interviews to build up a collective view of a neighborhood

ANALYSIS TOOLS

Behavior Observation

- Observations that track and record on maps and diagrams the movements, use and interaction of people with urban spaces and the built environment



Understanding how the physicality of the built environmental affects activities and social behavior



Recording of pattern of human behavior through notes, diagrams, mapping, photographs,...



ANALYSIS TOOLS

Ped-shed Analysis

- Calculates the population catchment within a 5 or 10 minute walk from an activity, transport stop or node.



Providing walkability analysis of important destinations. (Identify optimum locations for new



A fixed diameter circle is overlaid on a map with the center placed on the destination point.



REFERENCES

An aerial photograph showing a two-lane road curving through a landscape. A white van is driving in the upper lane, and a red car is in the lower lane. The road is bordered by a yellow curb on the left and a line of trees with autumn foliage on the right. The top left corner of the slide has a dark green background with the word 'REFERENCES' in white.

The references to multiple sources are text & figures
(sketches, drawings, pictures, photos,..etc.)

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AUTHORS**



ANY QUESTIONS???

THANK YOU...