HPH & Environment

Heal The World?

Dr Michael Wong

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Khoo Teck Puat Hospital

Alexandra Health

Hospital within a Garden
Garden within a Hospital

This is a view of Alexandra Hospital

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MAP OF SINGAPORE

KTPH

AH

NORTH REGION

NORTH-EAST REGION

WEST REGION

CENTRAL REGION

EAST REGION

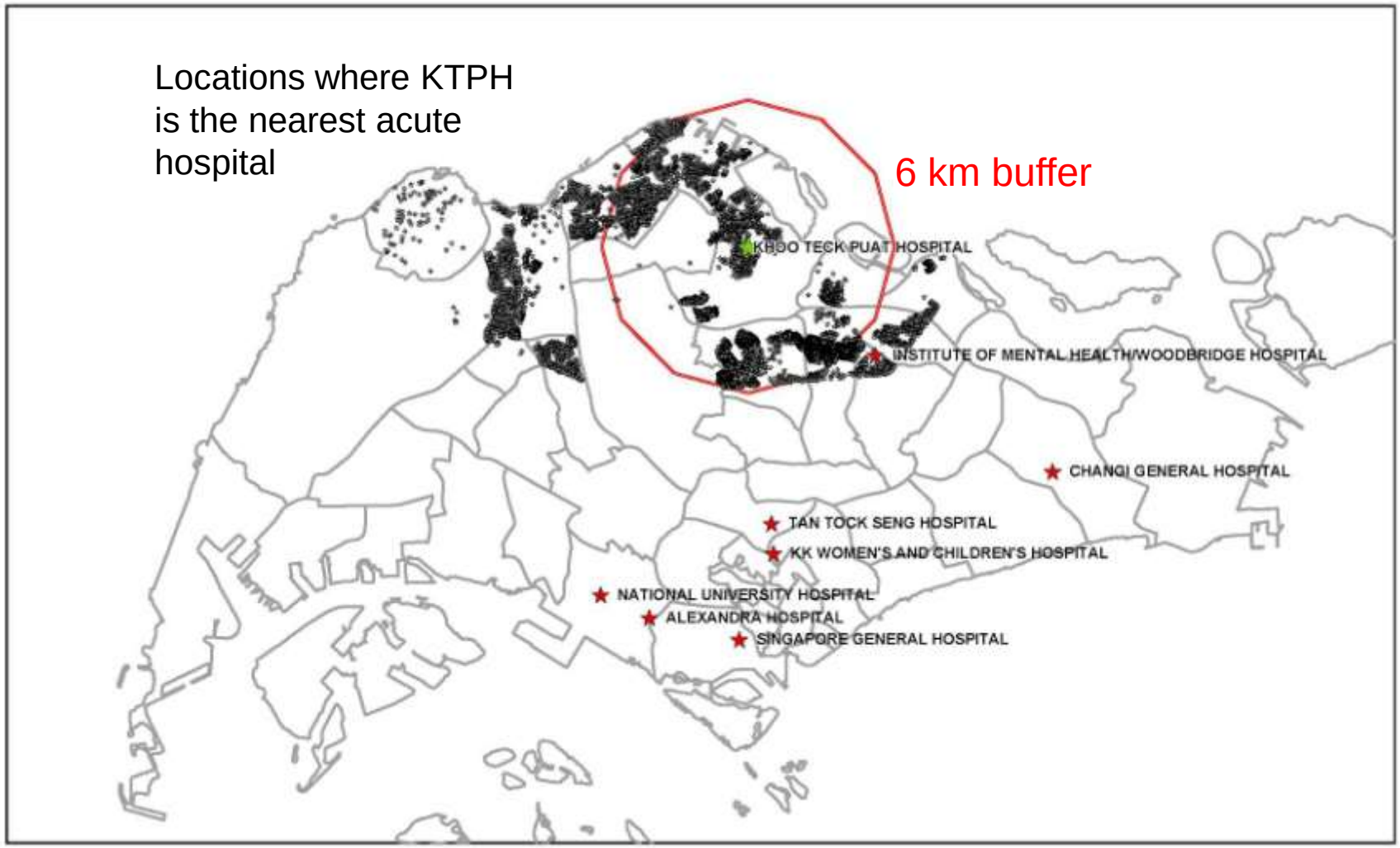
CENTRAL WATER CATCHMENT

WESTERN WATER CATCHMENT

SOUTHERN ISLANDS

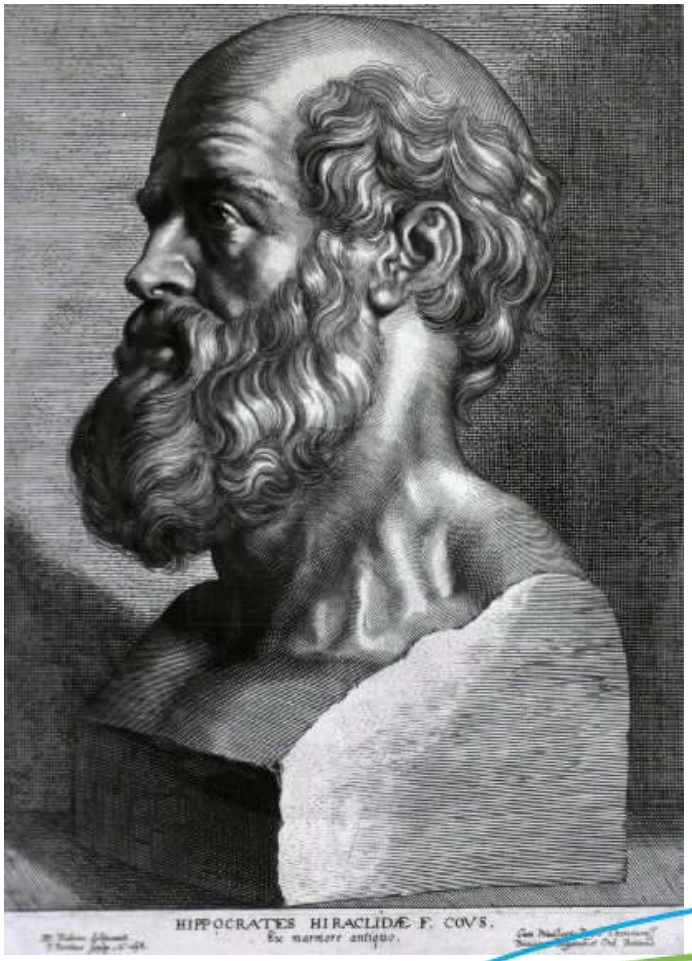
WESTERN ISLANDS

Population Catchment



“Primum non nocere”

- First, do no harm
- Hippocratic oath
  - To abstain from doing harm



Health Care Without Harm

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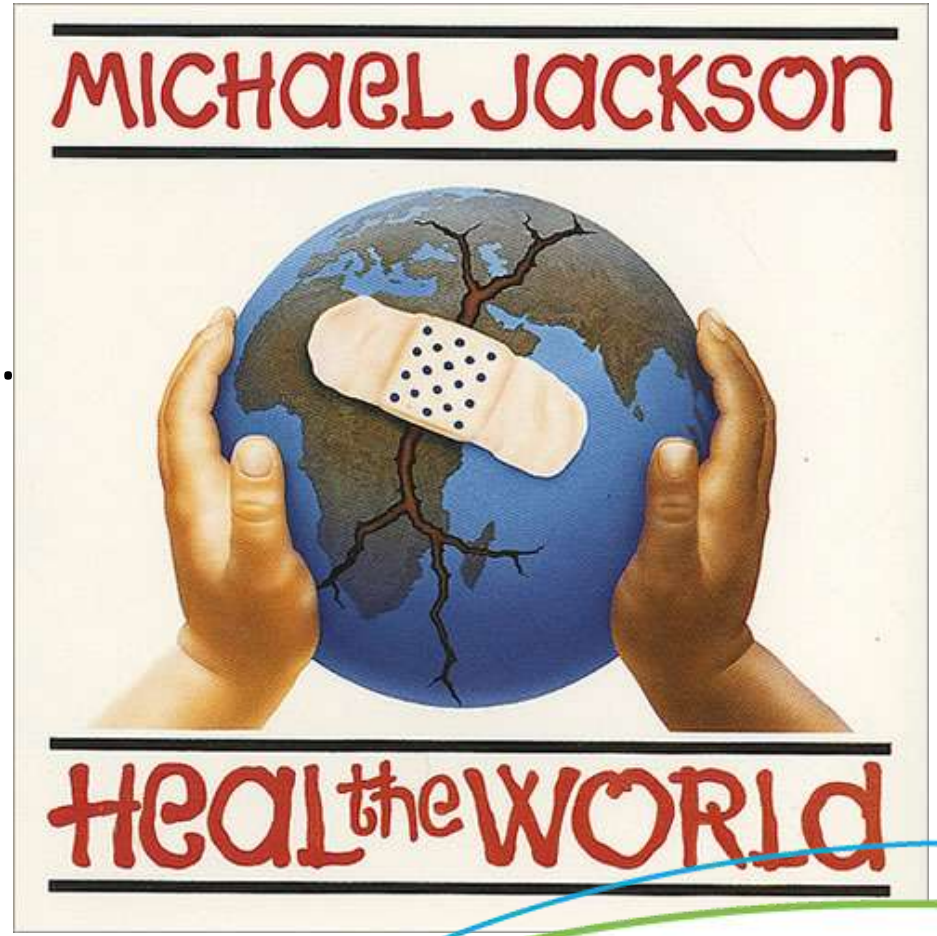
From the late MJ….

- Heal the world …Make it a better place …For you and for me… and the entire human race…



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First, do no Harm…..
But are our hospital/healthcare toxic?

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This is how a hospital is build…….

What we could have destroyed…

What we give back….

…..concrete……and

MORE!

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ONE for ONE: Area for Area

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Horizontal Greening

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Horizontal Greening

ECO Pond

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Vertical Greening

Planters

Urban Farming…..

ROOF TOP GARDEN

-Fruit Trees

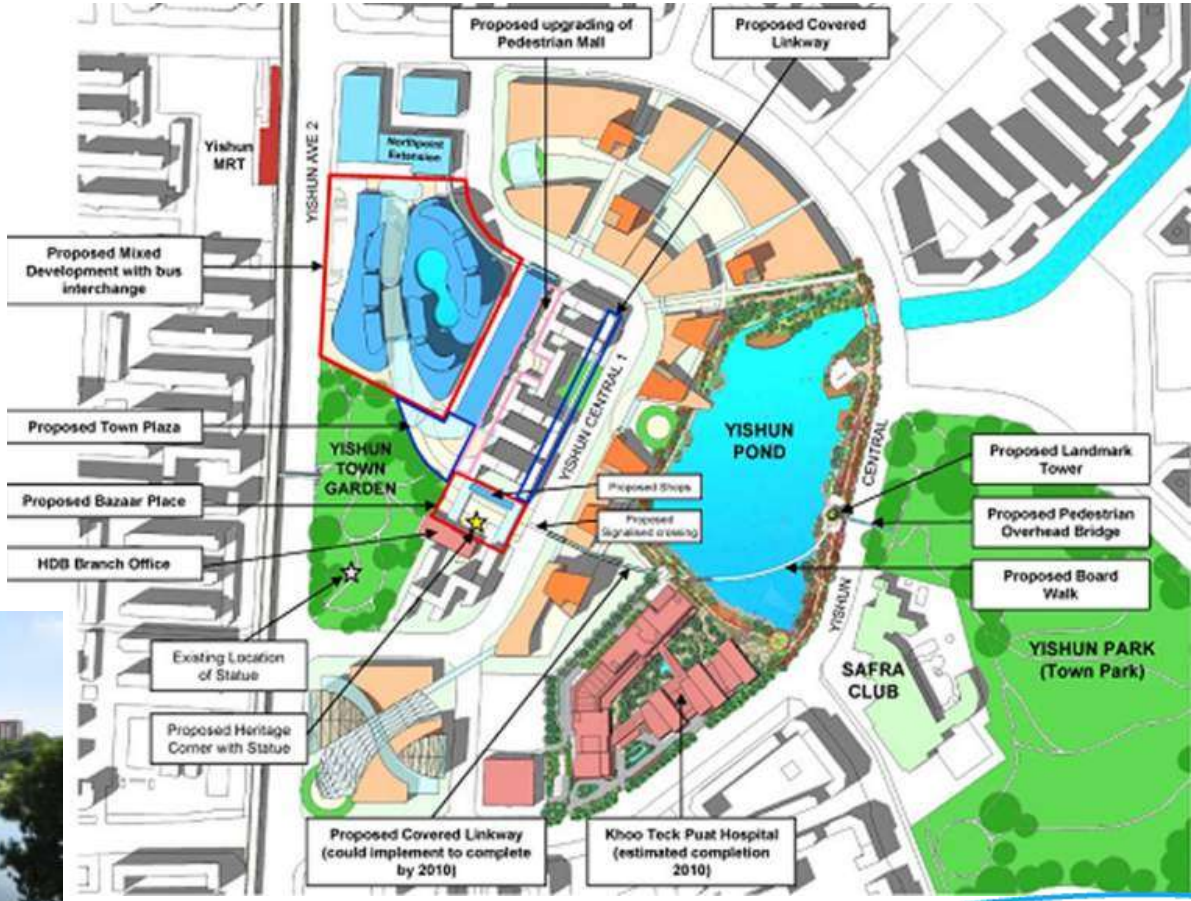
-Vegetables

By Staff & Community

Work in Progress….

We have the pond…

- Engage the communities & government organsiation
- Transform the pond….



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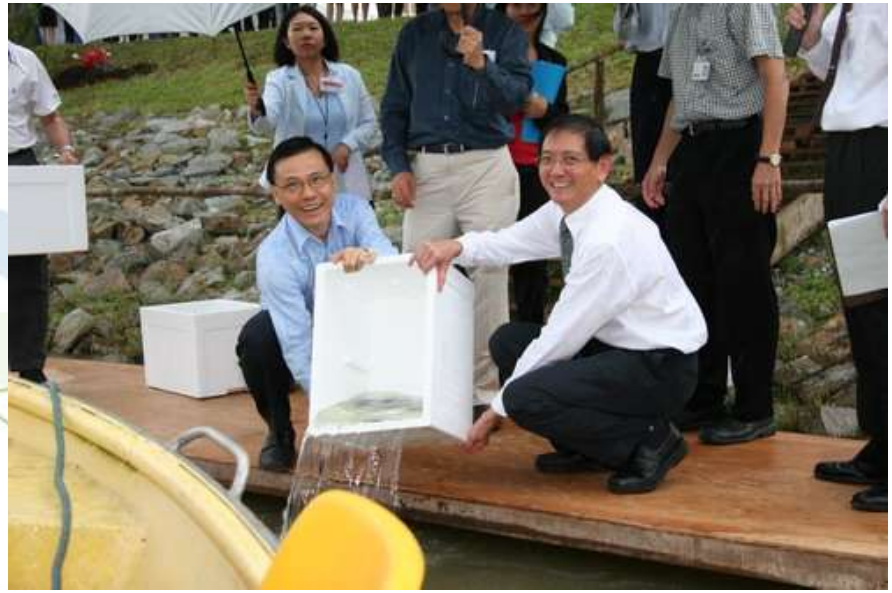
Adoption of Yishun Pond



Engaging

Urban Redevelopment Authority, Public Utilities Board, National Parks, Land Transport Authority and Sembawang Town Council

in **developing**

Yishun Pond and **integrating**

with Yishun Park

Enriching My Yishun

Transforming Yishun Pond into An Urban Oasis

A health-promoting inter-generational garden with lush natural greenery and ecological-friendly features

Expected Completion : 2010

Enriching My Yishun

Green Ideas for a Friendly Environment

Enriching My Yishun

Iconic Lookout Tower bridging the Pond with Yishun Park

Located at the flower trail, the Lookout Tower offers visitors a panoramic view of the Town Centre across Yishun Pond and will be seamlessly connected to the lush greenery of Yishun Park by an adjoining overhead bridge.

Completion : 2010

An experiential walk to be enjoyed by all

Enriching My Yishun

A New Landmark for a Rejuvenated Yishun Town Centre

Inspired by nature, the sculptural Tower with its winged roof takes the design idea from the metamorphosis in the butterfly's life-cycle.

Be a part of Yishun. Suggest an inspiring name for this exciting project now!

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Linking **Natural Environment** with **Built Environment.**

Place Making Concept

Design Thinking Concept

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Eco-Pond

Eco-pond

An ecologically self-sustaining pond that serves as an educational & aesthetical feature.

<u>Total Greening at Eco-pond :</u>

1. Trees: 497 Nos.
2. Palms: 71 Nos.
3. Shrubs: 5900m^2.
4. Grass: 2315m^2.

Energy Efficient Goal

Key Green Deliverables : Building Design

- Bright & Cheerful
- Environment

- Day Lighting
- Glare Control
- Soothing Pastel Colours
- Green Views

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Energy Efficient Operations

Solar Photovoltaic System: CERT Programme

137 kWp of photovoltaic cells installed on the roof top of KTPH.

Producing **150,000 kWh of power per year.**

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Energy Efficient Operations

Solar Thermal – Hot Water

Solar thermal system to provide for **100% of hot water requirements** in Khoo Teck Puat hospital.

The system **replaces 285,532 kWh of energy per year** compared to a conventional hot water boiler.

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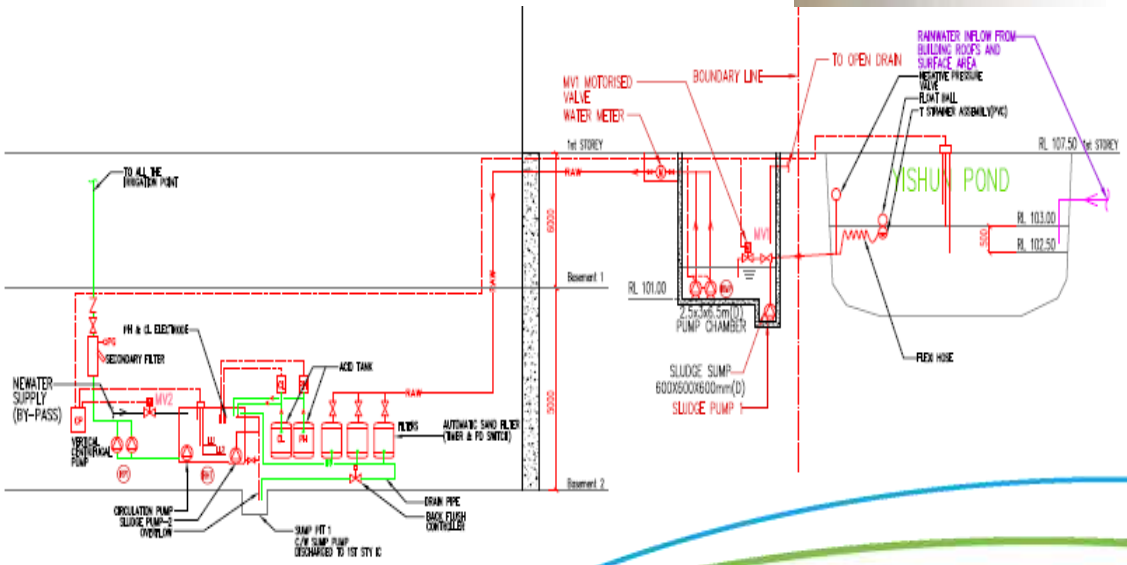
Water Efficient Operations

Water Efficient Landscaping Irrigation

Use of efficient drip irrigation system for landscaping and the **use of non-potable water from Yishun pond for irrigation purpose**.

Rain sensors are utilized to reduce irrigation requirements during rain



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Turning S**t into Fertilizers….

Composting Equipment

Composting equipment to process food wastes from the kitchen into useful fertilizers for the landscaping in KTPH.

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GOAL!
We are
35.9%
ENERGY
EFFICIENT

Green Mark Platinum Award 2009

BCA GREEN MARK

ENERGY EFFICIENT
RENEWABLE ENERGY

Can’t see eye to eye?

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Good Bedfellows?

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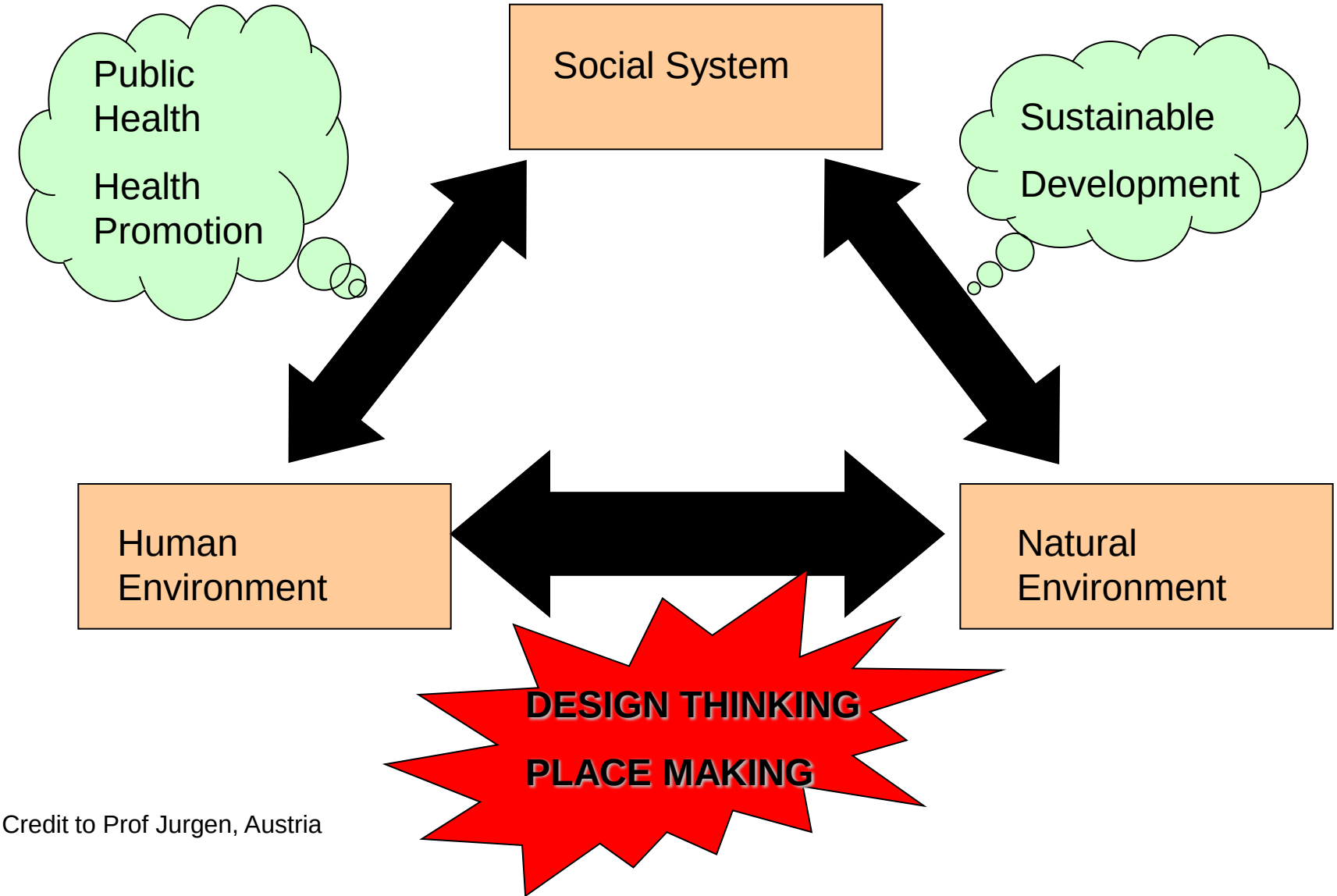

Credit to Prof Jurgen, Austria

Sustainable Placemaking Pri... | Welcome to the City of Pick... | City of Pickering - Seaton C...

http://sustainablepickering.com/sustainableplacemakingprinciplesc84.php

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Sustainable PICKERING

About Sustainability | City Initiatives | My Challenge | Programs and Awareness | Sustainable Placemaking | News

SEARCH

- Sustainable Placemaking
- Sustainable Placemaking Principles
- Sustainable Neighbourhoods
- Sustainable Development Guidelines

Pickering's Sustainable Placemaking Principles

1.**Draw on the expertise of the community**. It is essential to recognize the talents and assets within the community. Residents and business people know about the history of certain places, how they function from day to day, what is important to preserve, and what needs to change. Some of these knowledgeable people are not those who regularly participate in public consultation exercises, and the City needs to seek out their knowledge. All placemaking should begin in fact-finding conversations with those who use a place.

2.**Encourage collaboration at all levels**. The City cannot carry out placemaking on its own. Partners are needed at every stage to bring about change and contribute new ideas. Partners may include members of local organizations or community groups, those working in community institutions, builders, developers, landowners and business owners and many others. The earlier these partners are involved in the process, the better.

3.**Go beyond design codes; pay attention to function, appearance, and experience**. Placemaking is not a matter of simply following design guidelines.

Enviro Leadership Forum .jpg

Start | Alexandra Health PL - Ca... | Sustainable Placema... | Skype™ - mikewonghfl | Removable Disk (G:) | Microsoft PowerPo...

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Definition

- Placemaking is a **multi-faceted approach** to the planning, design and management of public spaces. Put simply, it involves looking at, listening to, and asking questions of the people who live, work and play in a particular space, to **discover needs and aspirations**. This information is then used to create a common vision for that place. The vision can evolve quickly into an implementation strategy, beginning with small-scale, do-able improvements that can immediately bring benefits to public spaces and the people who use them.

11 Principles of “Sustainable” Place Making

- **Draw on the expertise of the community.**
- **Encourage collaboration at all levels**
- **Go beyond design codes; pay attention to function, appearance, and experience.**
- **Aim for zero impact as the ideal, in carbon and other footprints.**
- **Design and plan for people**
- **Strive to make Pickering a unique and distinctive community**
- **Adapt to change**
- **Learn by doing: use pilot projects and experiments to test new ideas**
- **Keep moving in the right direction; the journey will never be finished**
- **We must always strive to achieve the greater public good.**

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Healing Hands to Our Patients & Our Environment

-

A Healed Environment is a Healing Environment

Hospital within a garden, garden within a hospital

Tranquil, restful, healing environment

Sight, scent and sound of nature

Surrounding patients with nature

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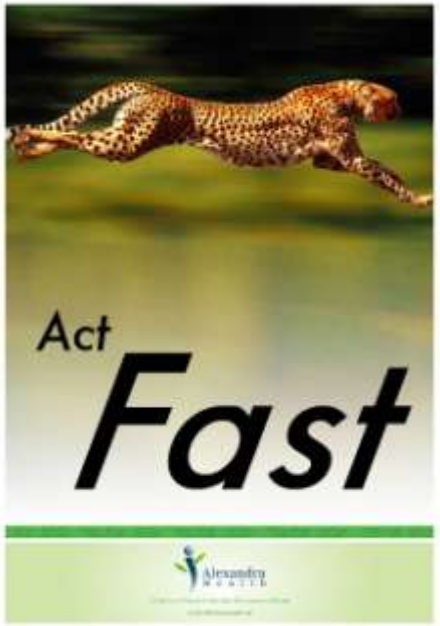
There are people dying…..
…..If you care enough for the living
…Make a little space, make a better place.
(Our Goal in Mind)…..
Make a better place for You
….and for me and
…..for OUR PATIENTS!



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前人种树.....
后人乘凉

“The present generation plants the trees

…..Those following will enjoy the breeze in the shade”

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Thank You
for Your Kind Attention!

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