Green Kashmir

Permaculture Design Course *November 2017*

In Collaboration with
Blue Mountains Permaculture Institute Australia.

In Association with The Green Hope Foundation UK

PDC COURSE OUTLINE

INTRODUCING PERMACULTURE & STARTING WELL

1. INTRODUCTION
Meeting and greeting. Why people have come. What they hope for. Course Outline. Timetable. Materials and references.

2. ECOLOGY
Permaculture is based on Ecology rather than the abstract sciences. Its methods are observation and deduction rather than prescription. It includes:- flow of energy, cycles of matter, succession, limiting factors and perpetuation of ecosystems through design.

3. CHARACTERISTICS, PRINCIPLES, ETHICS.
Permaculture is built on ideas and there are creative ways to use these ideas. It is concerned with clean air, water and soil, and conservation of landscapes and all species. It aims to build sustainable human societies. How to get there is suggested by characteristics, principles and ethics.

4. METHODS OF DESIGN
There are several ways to design a landscape. Some of these are:- observation, deduction, analysis, maps and, zones and sectors.

5. MAP READING
It is very useful to read maps. Map reading helps to understand ecosystems, soil types, water movement, and microclimates. It assists with water harvesting and human structures such as roads, houses and dams.

ECOLOGICAL THEMES

UNIT 6. WATER FOR HOME AND FARM

Water is the basis of life. It is a precious mineral. Water is harvested and saved in many ways until needed by plants animals and people. Water is the basis of rehabilitating soils.

UNIT 7. SOIL ANALYSIS AND REPAIR

Soils tell you many things about plants and animals. Most soils are very damaged. There are different types of damage and different types of repair. Most soils can be improved quickly. Traditional soil classifications integrate history, use and potential.

UNIT 8. ANALYSING AND MODIFYING CLIMATE

Climate variation is increasing, and we need to be able to design landscapes to both avoid and/or take advantages of different types of climate. We want to reduce risk, energy use and to select appropriate plants.

9. MICROCLIMATE REFINES DESIGN
This is where we work most closely on site. You can learn to design microclimates and, to read different microclimates. A large landscape is made up many different microclimates.

10. EARTHWORKS
Moving earth to change climate, make dams, build houses, and roads can be done to increase productivity. Many mistakes can be made in earthworks and it costs a lot of money. There are some guidelines for earthworks.

11. PLANTS IN PERMACULTURE
Plants are used for many functions in a permaculture design and are basic to every design. Propagation methods are outlined. Conservation of local and heirloom species is stressed.

12. FORESTS
Understanding forests and how they work is the basis of design. A forest is an airconditioner, soil binder, mulcher, windbreak. From knowing how forests work, landscapes are designed which are productive. Windbreaks are designed from knowledge of forests.

13. WINDBREAKS
Windbreaks are needed in almost every landscape. They filter the air of dust and disease. They slow down hot winds and cold winds. They protect plants, animals and buildings. Each windbreak design is site specific.

DESIGNING PRODUCTIVE LANDSCAPES

14. PATTERNS IN NATURE
Understanding the patterns of nature helps us to design highly productive, integrated landscapes. Patterns are linear, circles, spirals, streamlines, songs, and sayings. They all interpret landscape and improve designs.

15. ZONE O - SITING AND BUILDING HOMES
A low energy, non-polluting house can be comfortable and suit your lifestyle. A home should not be too hot or too cold and everyone can live well in it. There are principles to achieve this.

16. ZONE I - HOME FOOD GARDENS
Everyone, from people in the city with tiny gardens, to people with large land, can grow much of their own food. This care for the land keeps soil and water in good condition, uses household waste, reduces food transport and, chemical use.

17. ZONE II ORCHARDS or FOOD FORESTS

Good quality, chemically clean fruit is a security. An orchard is a food forest with many mixed species supplying fruit all year. Some non-food species are planted to provide protection and fertiliser - and later firewood.

18. ZONE 11A FOODFORESTS & SMALL ANIMALS

Poultry is best kept in an orchard to prune plants, eat pests, and provide fertiliser. They are used to `tractor' an area, or to maintain it. Ducks, turkeys, guinea fowl and pigs are good orchard friends.

19. ZONE III CROPPING & LARGE ANIMALS

There are two main methods of growing crops which conserve, build soil and reduce pests. These are alley cropping and Fukuoka. Many crops can be grown this way and large animals are also well fed.

20. ZONE IV RESTORATIVE FORESTS & NTPs

We all use much timber and other tree products in our lifetime. The structural forest is where we try to grow all our own forest needs for bark, firewood, furniture, dyes, mulches, oils and so on. It will eventually give a very good income and improve ecosystems.

21. ZONE V CONSERVATION - NATURAL FORESTS

These are the natural, indigenous forests of a region. They keep soil, water and animal species stable. They are usually threatened. There are sometimes remnant forests to preserve, and forests to link with wildlife corridors. There are some good ways to do this.

22. BROAD CLIMATIC BIOZONES

There are many climate zones in the world. Each one has special sustainable landscapes. Soils, water use, nutrients and traditional methods have evolved over a long time and are usually sustainable. When we try to make one landscape like another, it usually fails.

INCREASING RESILIENCE & PRODUCTIVITY

23. SITE ANALYSIS

Designers look carefully at a site to understand its good and bad points both of which can be used in a design. There is on-site, and, off-site information. A site analysis is an inventory of the land from which you start to develop a design.

24. DESIGN GRAPHICS & CREATIVE PROBLEM SOLVING

Design land and show clients how to make their land more sustainable and productive. When designing land there are always constraints which can be solved creatively to arrive at good solutions.

25. INCOMES FROM ACRES
Land must always give some sort of income and at least cover its costs. Every piece of land should pay for itself. It should make a surplus. This can be done without destroying the land's resources. There are many ways to do it.

26. DESIGN FOR DISASTER MITIGATION
From war to drought, there are many threats to human and agricultural systems. Good design strategies make landscapes strong and less likely to be damaged and more likely recover quickly.

27. INTEGRATED PEST MANAGEMENT
Pests are to be appreciated and managed, not eliminated. By knowing pest lifecycles, and how predators work, pest numbers can be reduced and kept at acceptable levels.

28. LIVING WITH WEEDS
Weeds are usually classified by farmers so, many useful plants are classified as weeds. Weed management means understanding the whole ecosystem. Weeds need to be managed for the benefits they bring.

29. AQUACULTURE
Water systems can be highly productive. They include fish, prawns, crabs, tortoise, plants and water plants. The whole water system is an integrated ecosystem.

30. WILD FRIENDS
People and wildlife are often in conflict. Wildlife is in great danger from people. In a well-designed landscape, people and wildlife can live together.

SOCIAL PERMACULTURE & SELF-SUFFICIENCY

31. BIOREGIONS
A person cannot be self-sufficient. A region can be self-sufficient. By enriching and empowering our bioregions we can make good and strong societies.

32. ETHICAL MONEY
We can use money well or badly. We can set up our financial systems to meet our own needs. We can reduce our dependence on mainstream banking.

33. THE ETHICAL WORKPLACE
Many people today work in shops, factories and offices and these can all lead to environmental and social problems unless there are policies and practices and principles for good stewardship.

34. LAND OWNERSHIP
Everyone has the right to use land for shelter and meet their needs. There are some ways of owning land which can protect it from future misuse.

35. LAND ACCESS AND ETHICS
How can poor, indigenous and dispossessed people get land? There are many ways. Land is a resource and not a commodity. It is there to be cared for and to meet our needs.

36. LEGAL STRUCTURES
How we can protect ourselves by having good organisations.

37. COMMUNITIES
Many people prefer to live in communities and these can work well. This section looks at reasons why they succeed or fail.

38. TRANSFORMING THE SUBURBS
Suburban areas produce almost nothing despite having good resources in people, land and time. Suburbs can become productive parklands and good places to live.

39. URBAN PERMACULTURE
There are some good permaculture models for towns. Towns are major consumers of resources and are major polluters. They can become good places to supply many of a city's needs.

40. THE LAST DAY OF THE PDC
There are specific activities and students work presentations.