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Brownfield Greenfield Greenbelt & Self-build

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Greenbelt

- Urban outer limits:
- Greenbelt to limit gradual expansion
- Transport routes and nodes
- Agricultural land and villages
- Scattered brownfield sites
- Urban lungs?

Urban lungs?

- Potentially cleaning the atmosphere?
- Urban heat Island effect may draw replacement air inwards as urban plume rises in summer
- But urban canyons will push air above roof level
- Pollution likely to stay at street level in winter

Greenfield Site

- Previously undeveloped sites
- Flood plain that should not be developed
 - despite government letter to planners and
 - Despite engineers who think they can
- Agricultural land that may be full of chemistry
 - May need Bioremediation to clean up
 - Change of use to housing required ‘nutrient-neutrality’.
 - But Conservative Government decided to pollute the rivers again after voting for water companies to discharge sewage.
- Organically farmed land free of chemistry
- Development risks destroying or decanting any existing biodiversity, licenses permitting.

Brownfield Site

- **Previously developed site, might be:**
 - Occupied building humans or nature
 - Building to reoccupy, retrofit, refurbish, extend, adapt, reuse
 - Derelict building being consumed by nature
- **Building materials resource bank**
 - Deconstruct, reclaim and reuse
 - Demolition materials wasted and landfilled
 - Carbon burp or hiccup from wasted materials going to landfill and buying new to replace them

Self-build and brownfield

- **Aspire to find brownfield sites:**
 - Will they be cheaper? I have no idea
 - Very much depends on what is on the site
 - Developers will try to avoid them, looking after profit margins
- **Aspire to reuse existing buildings:**
 - That could save materials costs: Brexit Covid and Ukraine pushing prices ever higher
 - But retrofit is usually more expensive £/m²
 - Try to reuse as much materials as possible
 - Landfill is expensive too:
 - £1600 value of average 8m³ skip of materials
 - Let alone labour filling skip, skip hire, gate fee and landfill tax

Existing buildings

- You may need guidance on what to do with historic buildings:
 - Listed, Conservation areas and Ancient Monuments
 - Pre 1919 historic wall construction
 - Solid walls need special attention
 - Better choice of materials to be compatible
 - Breathing construction
 - Avoid plastics and cement
 - Using tree and biobased breathing materials

Self Build and Greenfield

- Restrictions are down to the Planning officers
- Probably no Conservation Officers
- Environment Agency (but no teeth)
 - Avoid flood plains or use stilts or floats
- Respect carbon campaigns
- Build environmentally:
 - Healthy Environmental Resourceful
Appropriate Competent Effective Yardstick
Construction

Biodiversity Net Gain

- Biodiversity (broad mix of nature supporting each other)
- Biodiversity related to development sites
- Gain: encourages more nature at end of project
- Net Gain is a bit of greenwash
 - There must be more after development than before
 - But need to protect, maintain, reinforce existing biodiversity, not move it on
- Planting saplings will not replace 40-year-old trees for another 40 years
- Wrong bats or bird boxes for the species won't help

What Biodiversity exists?

- Understand what you already have
- What enables it to be there?
- What is important to its persistence?
- Protect and do not destroy it
- Add to and reinforce it
 - but not to unbalance it

Existing Biodiversity

- **May be:**
 - Flight paths/navigation routes:
 - tree lines hedge rows
 - Forrage-ing grounds, ponds and woodland
 - Food sources: nectar flower beds, trees, supported insects
 - Existing roosts or nests
 - **Legally protected as an indicator species**
 - £5000/bat fines or imprisonment
- 14/10/2023 – For disturbance interference and entrapment

Topsoil

- Is a precious commodity
- It has taken centuries to create
- Its full of life: bacteria, insects, worms
- Don't scrape it and stockpile it too deep
- 1m maximum (weight, water, air)
- Keep it alive
- Reuse it on the same site or sell excess¹³

Turf and plants

- Wild-turf especially
- Plants: Dig out and pot up protect for reuse later
- Use turf to cover topsoil stockpile
 - Suppress weeds
 - Keep it alive
 - Relay it later on reused topsoil

Trees

- Indigenous species are very important
- English Oak can support up to 380 different species and many instances of each
- Lime trees support moth that support bats
- Many others support many others

Don't investigate yourself

- Get a survey done by biodiversity experts, yes it will cost you
- Don't use lights or sticks to find out what is inside dark cavities
- Determine quantities and which species
- Then support them with all year round appropriate and effective provisions and accommodation

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