

# COUPLING-IN LAND USES

This is the fourth article in our series about re-imagining the Garden City for today's issues, explaining ERE's complex systems approach through our competition-winning scheme for expanding the world's first Garden City at Letchworth in the UK. The series builds up the scheme through interactions between urban subsystems, starting with those that are longest-lived and progressively meshing-in faster-changing ones. We have now reached the stage of meshing land uses in the most positive relationships with the longer-lasting framework of plots we developed in the last article (Fig.1).

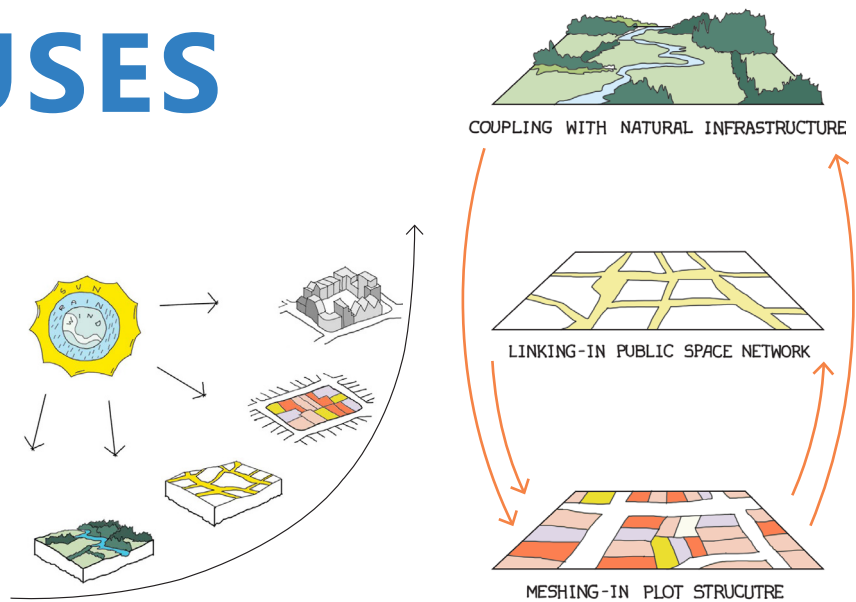


Fig.1 Article's focus: coupling-in land uses with the landscape and street networks

## RELATING LAND USES TO STREET CONNECTIVITY

The viability of particular land uses on particular plots depends on each plot's accessibility within the street system<sup>1</sup>. We assessed this accessibility using space syntax<sup>2</sup> to analyse the relative connectivity of the various streets; both

globally within the street system overall to evaluate vehicular flows, and locally, within 400 metres walking distance, to evaluate pedestrian flows. At both global and local scales, streets with maximum accessibility are indicated by the hottest colours, with cooler colours suggesting less accessible links (Fig.2,3).

## PLOTS FOR BUSINESSES AND COMMUNITY FACILITIES

To maximise their financial viability, community facilities and business spaces will be located as a 'village centre' where our space syntax analysis suggest that both footfall and vehicular accessibility will be highest<sup>3</sup> (Fig.4).



Fig.2 Local accessibility for pedestrians and cyclists



Fig.3 Global accessibility for cars

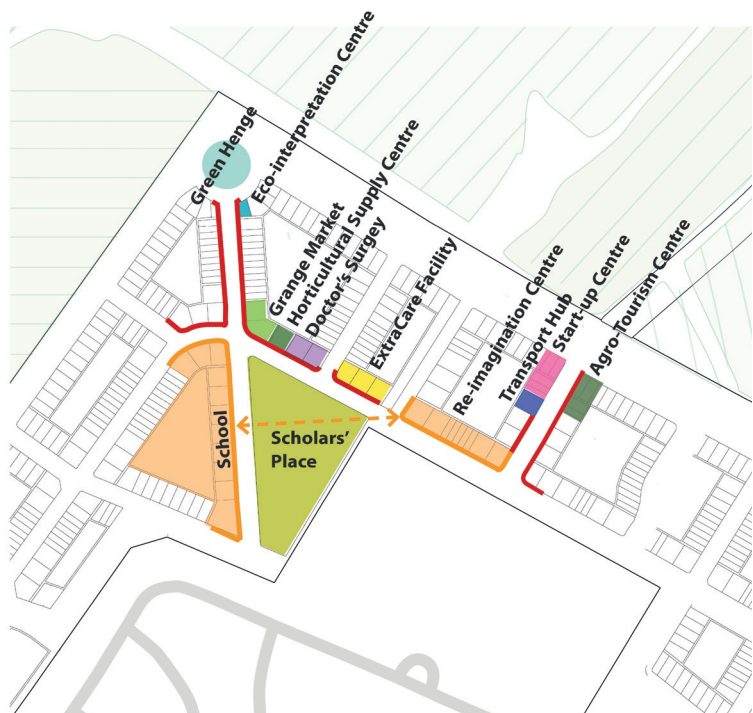


Fig.4 Local centre located where space syntax analysis suggests that both footfall and vehicular accessibility will be highest



**Fig.5 Sketch to illustrate local centre looking down Hedgers Boulevard past Scholars' Place, a green space overlooked by the primary school with its cafe and hall open for community use outside hours.**

Social facilities such as schools face increasing funding difficulties; so we propose cross-subsidising the school with value-capture from apartments above, designing the school hall and café for outside-hours community use: cooperative ideas that also capture educational value; with learning seen as integrated with the rest of everyday life

rather than something which is done in a separate box.

#### **PLOTS FOR HOUSING**

Low traffic flows maximise safety for larger families with children. Locations with medium flows are more suitable for smaller households, mostly adults and infants. The busiest streets maximise

accessibility, 'buzz' and passing trade: good for smaller houses, apartments and business opportunities. Within this overall strategy, tenancy-blind dwellings, including 40% 'affordable' social homes, will be mixed at the finest grain that can be negotiated in commercial and management terms.

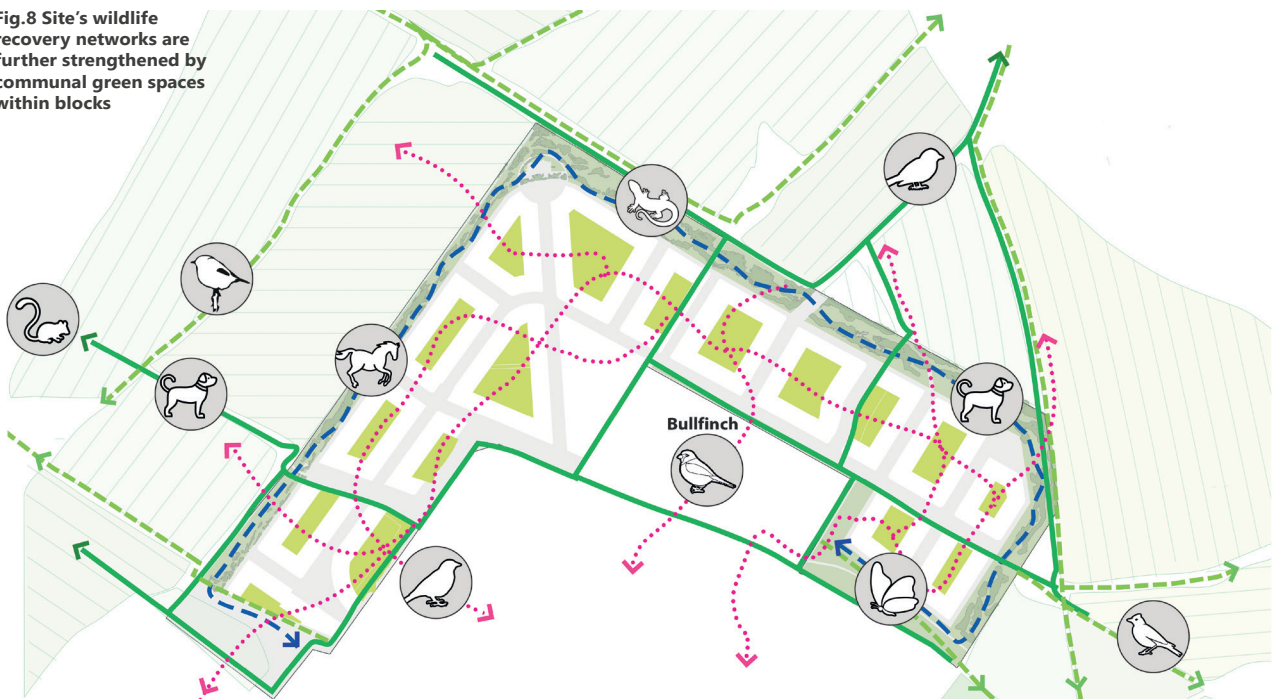


**Fig.6 Plots for housing distributed to capitalise on the site's value gradient**



**Fig.7** Site's existing landscape assets combined with sustainable urban drainage swales form the foundations of a wildlife recovery network into the site from the countryside and vice versa

**Fig.8** Site's wildlife recovery networks are further strengthened by communal green spaces within blocks



### COMMUNAL PLOTS AND BIODIVERSITY

As we explained in the first article of this series, the site's existing network of hedges, together with our new rainwater drainage swales, form the foundation of a network that provides wildlife access into the area from the wider countryside (Fig.7). The communal green spaces within the blocks strengthen this 'wildlife recovery network' at the local scale,

particularly for birds. The consequent support for biodiversity also offers 'natural health service' benefits to human wellbeing<sup>4</sup> (Fig.8).

By this stage we have meshed dwelling types and other land-uses into the framework of plots, streets and natural infrastructure that we developed through the earlier articles in this series. In our next article, we shall explain how we

organise the system of outdoor spaces to create the maximum potential for local food production.

#### References

- 1, 2, 3. Hillier, B. and Hanson, J., 2003. *The Social Logic Of Space*. Cambridge University Press.
4. Kirsten Henderson. 2022. *Feedbacks Between Biodiversity and Society, The Ecological and Societal Consequences of Biodiversity Loss*, 10.1002/9781119902911, (305-324).