Your Future **me** Design Thinking Problem Brief

Department:
Manchester School of Architecture

Opening question:

"How can architecture evolve to address the climate and biodiversity emergency?"

Context:

Architecture, Landscape Architecture, and Urbanism need to adapt at a faster and more considered rate to address the issues of the climate and biodiversity emergency.
In order for you to drive this change and influence your future industries, it is imperative that you develop a critical view of what the problems are, how we need to adapt to address them, and how that might affect our future working lives in industry.

Be critical of standard norms of practice!
We would like you to use this opportunity to define your own critical stance on the question and use it to critique how industry is contributing to the problem currently; and influence how you feel it must change to remain relevant to future generations.

Please provide at least 3 'statements of change' within your final 2x poster outputs. These should be bitesize statements that clearly articulate what ACTION is required to facilitate the change you believe to be important. You will be provided with a workbook to record your progress along this process, and during your Future Me PDPs you will be asked to reflect on the process and any further investigation you have identified as being required.

Starting points/ prompts:

Some areas that you may wish to investigate in your exploration:
- Analysing good [or bad] precedents;
- Ecological awareness, design, and the natural environment;
- Water management;
- Food production and food security;
- Fuel poverty;
- Transport;
- Material first design and integrating natural materials;
- Reuse of existing resources;
- Retrofit first;
- Regenerative design;
- Insulation, heating, cooling, ventilation;
- Solar power, wind power, water power;
- Passivhaus standards;
- Design processes;
- Self-build approaches, high-tech vs. low tech practices;

- Initial investment costs vs. long-term investment and payback;
- Current legislation, guidance, policies, and aspirations;
- Access to skills, knowledge, and employment;
- Wider societal attitudes and paradigm shifts.

Problem Brief:

"How can architecture evolve to address the climate and biodiversity emergency?"

You have been placed in mixed groups of BA1, BA2, MAAR, and MAAU students.

In your groups you will attempt to address the question above by focusing it through one of the following themes that has been assigned to your group:

1.Embodied carbon: (1) should we be building new structures at all?
2.Embodied carbon: (2) Man-made versus natural materials – what is best in environmental, economic, and social terms?
3.Operational carbon: (1) What is the 'performance gap' in operational energy use and how might we reduce it?
4.Operational carbon: (2) To what extent should we be using passive energy reduction strategies over active energy strategies?
5.Sustainable Water Cycles: What is the balance between supply and demand in terms of the water cycle – what are the most efficient strategies?
6.Sustainable connectivity and transport: How can we effectively decarbonise our transport systems?
7.Sustainable land use and biodiversity: how best can we organise our food production systems to ensure sustainable land use and increase biodiversity?
8.Good health and well-being: In what ways can architecture/urban design address the climate emergency and human health and well-being?
9.Sustainable Communities and Social Value: What are the best strategies for creating inclusive, safe, and vibrant communities?
10. Sustainable life cycle (costs): What are the key issues raised by adopting 'Cradle-to-Grave' approaches versus 'Cradle-to-Cradle'? How can we address these barriers going forward?

Working as a group is essential to define the problem, research its parameters, and suggest potential solutions or additional measures.

Your groupwork will be self-directed, but we would like you to undertake the following steps to navigate the project:

A. **Empathise** – *What does the question and theme mean to the group? What is the extent of the climate and biodiversity emergency, and how does it affect you, your practice as a designer, and the industry you hope to work within?*
B. **Define** – *Research your theme. What does it currently mean for the climate and biodiversity emergency? How big is the problem that it is trying to solve?*
C. **Evaluate** – *Explore current practices to address this question/theme. How effective are they? Do current strategies go far enough to address the climate and biodiversity emergency? What are the main barriers that designers currently face in trying to address the climate and biodiversity emergency within this theme. Critically examine it.*

D. **Ideate** – *How can the lens be improved in any way to allow your view and the industry to evolve? Suggest some changes to develop or optimise the lens. What are the next steps needed?*
E. **Communicate** – *Collate, organise, and document your research findings and ideas. This should be refined and condensed succinctly to create a design for 2x posters.*

Future Me Week runs from 23rd to 27th January, and it is expected that you meet as a group on each of the days to progress through the tasks.
Working as a team, we suggest that you:

- complete steps A. to C. on 23rd-24th January,
- review your mid-week progress on 25th January,
- complete steps D-E on 25th-27th January.

Deliver –

- Document and regularly post your work in progress to the Instagram handle #MSAFutureMe.
- Ensure that your graphical and text communication is clear and impactful in your posters.
- Your work will be presented and celebrated at the end of year degree show!