L-Università ta' Malta
Faculty for the Built Environment

B.Sc. in Built Environment Studies
Year One - Semester 2 (2025/2026)
DESIGN WORKSHOP 2 (BEN 1102)

Introduction to Building Typology: Design of a House

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Design Workshop Description

This Design Workshop aims to build on the design knowledge, representation skills, and presentation techniques learned in the previous semester. Students will be assigned a **site** and a **client type**. After conducting a site analysis, drafting a client brief, and developing a concept, students will need to design a single-unit residence for the client on the given site.

The emphasis of *Design Workshop 2* remains on guiding you to:

- Understand the **design process** as a sustained and rigorous approach, grounded in research and reasoning, where no decision is coincidental; from formulating the initial concept up to establishing a clear, well-drafted, and well-presented proposal.
- Develop **graphical representation and presentation** techniques. Students will be encouraged to discover the origin and constitution of shapes, to analyse existing values in the field, and to express and communicate through design.
- Understand the **principles of spatial organisation** and develop relationships between a building, its components, and its urban setting. The design process is to be based on three-dimensional volumetric studies that allow for individual components to be effectively synthesised into a compact plan.
- Acquire and strengthen understanding of **layout design**, tailored to client needs, human ergonomics, and minimal space requirements.

Study-Unit Aims:

Design Workshop 2 aims to enable you to develop:

- Skills in **architectural representation**, primarily the two-dimensional representation of three-dimensional forms, and the use of architectural drawings and models (both physical and digital) in communicating design intent.
- The ability to analyse and critically assess **space, form**, and **environment**.
- The **design process** as an approach based on the notions of concept, context, and ergonomics as driving parameters of a well-thought-out design project.
- **Research** techniques and informed decision-making based on site analysis, case studies, and project brief development.
- An **awareness of the environment** and the architecture's interaction with it.

The Workshop also allows you to:

- Explore group work and collaborative practice.
- Develop a relationship with a client that is translated into a user-specific proposal.

Learning Outcomes:

On completion of *Design Workshop 2*, you are expected to have the ability to:

- Think creatively about architectural design and its implications for contemporary urban contexts and their users.
- Curate the inclusion of different disciplines into a rich architectural design.
- Develop and experiment with a wider range of architectural representation tools and techniques in the search for the most appropriate form of expression, communication and presentation of individual design thinking and proposed design intent.
- Express their design thinking as a sustained and rigorous process of thought that is grounded in research and reasoning by applying skills in research, design, discussion, and presentation (both verbal and visual).

Methodology

You will be assigned a project site and a client profile. A rigorous site analysis and the development of a client brief shall be carried out by each group as a team exercise. The design concept and the design development phases will then be carried out individually.

As part of a continuous design development process, you are expected to:

- Keep a log of your work and progress in a sketchbook that includes text, sketches and images to act as a narrative of the creative process through the studio experience.

- Think in three dimensions from the start and make use of all the tools at their disposal, most importantly and not exclusively, **physical models of the site and working models of the design proposal,** which are to form an integral part of the workshop discussions.

- Be open to the idea of receiving and offering constructive criticism by both tutors and your peers, as well as take full ownership of the proposals you put forward.

Assessment Criteria

The main aspects that the assessment focuses on are:

- **Concept and Design Development 25%:**

The level of proficiency at which the design concept is developed, based on an understanding of the context and client needs.
The use of the concept to drive design decisions.
The strength of reasoning within architectural thinking when developing the design proposal through the concept.
The correctness of spatial organisations proposed, in terms of comfort (ergonomics), functionality (ease of use and maintenance), passive environmental aspects (natural light, ventilation, solar gain) and aesthetics (massing and proportion).

- **Technical Drawings 45%:**

Level of proficiency and clarity in drafting precise, scaled drawings that communicate how a building is designed and constructed.
Technical drawings convert design concepts into detailed instructions for construction. They specify precise dimensions, materials, and methods, acting as legal and contractual documents. These drawings also facilitate permits, approvals, and on-site construction.
Research and thoroughly understand the components selected for the design proposal, including materials, structure, and details.

- **Visual Presentation 15%:**
The quality of your final visual presentation, in terms of clarity and appearance of the boards' layout and physical models, colour scheme and style, conciseness in presenting the concept and design progress, and cleanliness and technical proficiency in presenting drawings, such as plans, elevations, sections and details.

- **Progress 15%:**
Your progress in the Workshop is evidence of consistent development throughout the semester through weekly tasks. Your participation in all stages is crucial for the development of the design. You should pay attention to feedback from your peers during the session and consider applying relevant suggestions to your own design process.

All the deliverables are to clearly reflect the learning outcomes.
Below is a link to the University of Malta's grading system:
https://www.um.edu.mt/media/um/docs/services/administrativesupport/apqru/Undergraduate_Assessment_Regulations.pdf

The Design Studio sessions:

- Introduce the full scope of the brief systematically and guide students in achieving learning outcomes through weekly milestones.

- Present the theory required by the Design Workshop task not covered in study-units.

- Combine lectures, class discussions, student presentations (pin-ups), and feedback sessions.

You must carry out all given tasks within the given timeframes. The weekly Design Studio reviews are as valuable as the final one as they offer an opportunity to present work and gain timely feedback. For this reason, attendance is mandatory for the entire duration of the Design Studio sessions. Poor attendance will impact your progress, results, and ability to develop expected deliverables at the set level.

Design Workshop Components

A. **Site Analysis** (Group Work) duration: 2 weeks; deadline: week of 23rd February

The design proposal of the house must relate to its urban setting; therefore, a thorough site analysis is required. Site analysis is the process of studying the contextual aspects that influence how the design proposal is situated, shaped, and oriented, and what relationship it establishes with its surroundings. A good site analysis allows for the identification and understanding of the strengths, weaknesses, opportunities, and threats (SWOT) of the site.

Students will be assigned one of the four (4) sites. It may be assumed that: any buildings currently present within the sites may be demolished; and vegetation may be removed or relocated. It is, however, advisable to integrate some of the existing vegetation within the proposal. **Sites are non-interchangeable.**

You will be assigned a different site for which you need to develop the site analysis. You must work in groups for this exercise. Site analysis should include the following, if deemed necessary for the specific site:

- Site model
- Site streetscape as a CAD drawing
- Site plan of the site (as clear) as a CAD drawing

- Access to the site and nature of the street, indicating the width of the paving, on-street parking and carriageway, surfaces and materials, and locations of open spaces, bus stops, cycle routes, and other pedestrian walkways;
- Circulation paths of pedestrian and vehicular traffic;
- Vegetation existing on and around the site, including hard and soft landscaping (greenery, shrubs and trees);
- Desirable and objectionable views to and from the site, including identifying possible issues with privacy due to overlooking;
- Building context and the nature of the surrounding buildings, their location, height, and state of repair; possibly historical/heritage/conservation values due to their style or period;
- Activities of immediate surroundings and surrounding buildings, including major landmarks in the vicinity;
- Climatic conditions and environmental parameters such as the sun path, areas of shade or glare, areas exposed or sheltered from the prevailing winds, areas of excessive rainwater runoff or flooding;
- Possible sources of noise, odour, and pollution;
- Any elements that should be respected;
- SWOT analysis.
- Any other relevant topic, you are encouraged to expand upon the topics listed above.

Presentation of the task: Work in progress to be presented during weekly tutorials. Final presentation will be on the week of 23rd February, following digital submission on VLE.
This task will be graded.

B. Client Brief (Group Work) duration: 2 weeks; deadline: week of 9th March

After completing the site analysis, you will be assigned one of the four client types listed below. Your task is to describe the client(s) based on age, lifestyle, and any special requirements. This information should be gathered through an interview with the chosen client (excluding your own parents, grandparents, or very close family members). Focus on understanding how these individuals spend their days and evenings, their workdays and weekends, summers and winters, as well as their current needs and how these may evolve over the next 5-10 years.

Having completed this exercise, you are to draft a client brief to serve as the basis for your design.

Good design is based on providing an adequate solution to a problem and therefore begins by understanding the client/s' needs.

Client types as described below:

A. A single person
B. An elderly couple
C. Siblings (brother and sister)
D. A single parent or a couple with two young adult (20s) children

Presentation of the task: Work in progress to be presented during weekly tutorials. Final presentation will be on the week of 9th March, following digital submission on VLE.
This task will be graded.

C. Design of a House

The task of the exercise is to develop a design proposal for a single-unit residence (a house) that responds to the site requirements and the client brief. The design proposal must holistically tackle all spaces, both internal and external.

The scope of the exercise is to design individual spaces, and the house as a whole, that are:

- Not too small, and not unnecessarily large, resolved in an optimal and economic way.
- Comfortable for use in terms of size and ergonomic considerations.
- Functional by addressing the requirements established in the client's brief and by supporting assigned activities while facilitating maintenance.
- Consider primary environmental aspects, allowing for the right amount of natural light for the activity assigned while avoiding glare and excess solar gain. Similarly, all habitable spaces need to be provided with proper natural ventilation.
- Of good aesthetic appearance primarily through well-studied massing and proportions, which complement the context of the site.

The design process should focus on the following aspects:

1. **Concept and Preliminary Design:** (Individual Work) duration: 4 weeks; deadline: week of 20th April

The concept refers to the driving idea that defines the main intention of the design proposal by combining all relevant characteristics and particulars that emerged from the initial research, primarily residential module studies, case studies, site analysis, and client brief. Based on the initial research, a concept should be formulated that is suited both to the clients and the site.

If the design process offers a solution to a problem, then the concept is a strategy for resolving that problem. In short, the concept is the pivot of the design process.

If the concept is clearly defined from an early stage, it will greatly support you in making informed design decisions and can be followed through the entire design process to detailing. Still, the inception of the concept is very personal and can be acquired from various motivations, like context, functional constraints, or an entirely abstract perception. You are encouraged to share their initial ideas with their peers and tutors regularly to attain healthy and creative design discussions.

Local and international case studies of similar projects should be considered.

Expected deliverables in this phase include, but are not limited to:

- Concept design using appropriate communication methods.
- Initial ideas and sketches
- Case studies research
- Initial materials research
- Bubble diagrams illustrating layout studies
- Preliminary working models

Presentation of the task: Work in progress to be presented during weekly tutorials. Final presentation will be on the week of 20th April, following digital submission on VLE.
This task will be graded.

2. **Design Development:** (Individual Work) duration: 3 weeks; deadline: week of 11th May

The client brief should be translated into areas and spaces of the house (not necessarily dedicated rooms) that address different functions and activities, like relaxing, eating, sleeping, working, storage, etc. The focus is on understanding how these spaces support the lives of the occupants. Are the spaces close to each other or in different parts/levels of the house? Is the kitchen the 'heart' of the house or is it hidden from the 'public' areas? Students are encouraged to **question** established norms and traditions in the way a house works (spatial solutions that are taken for granted) and establish design thinking driven by clients' needs and site requirements.

The design proposal should be a clear and well-documented process throughout; **no decision is coincidental but supported by research and grounded in reasoning**. In the design development, particular attention should be given to the nature of various elements and how they relate to each other to create a visually pleasing and comfortable composition.

You are strongly urged to make physical models of the site and use working models to test their proposal through the design process.

Expected deliverables in this phase include, but are not limited to:

• More detailed bubble diagrams illustrating layout studies
• Complete sets of technical drawings, including plans for all levels, elevations, and sections
• Exterior and interior views in sketch or hybrid style
• Scaled sketches or technical drawings of the selected detail
• Research documentation on materials used, including relevant drawings, images, or documentation
• Developed working models at various scales

Presentation of the task: Work in progress to be presented during weekly tutorials. There will be no structured final presentation for this task, but you are highly encouraged to keep to this deadline in order to have time for the final task. Treat the weekly tutorials as mini-deadlines to help you keep a good pace.

3. **Presentation Development:** (Individual Work) duration: 2 weeks; deadline: week of 25th May

The project presentation must be self-explanatory.

Developing with a clear and concise presentation that allows for the concept and design to be easily understood takes effort, time, and several attempts. **For this reason, you will be asked to present mock-ups of your presentation leading up to the project submission.**

Case study analysis, texts, photographs (historic and/or iconographic), diagrams, sketches, working models and scale drawings, illustrating individual design processes, are to be presented throughout the semester and in the final review.

Both internal and external perspective views/sketches should be continuously evaluated in your design procedure. A three-dimensional approach in this development is paramount. Architecture is not produced by first concluding a plan, then a section and finally adding a façade. All these three have to be tackled simultaneously to achieve a coherent whole.

Computer-aided design (CAD) software should be primarily used as a tool that helps spatial analysis and representation, **not** to pursue realistic renderings that are time-consuming and do not communicate the design intent well. For example, you may use CAD software to export wireframes images of 3d models as a base for sketching and when developing perspective, axonometric views and paste-ups, but these images need to be cleaned up and

modified accordingly.

Please avoid a checklist-style presentation. Do not use title blocks. Deliverables are to be presented on a maximum of x3 A1 boards (boards may be connected).

Expected deliverables for the final boards include, but are not limited to:

- Concept and Design Development**:** The presentation should start by introducing the main conclusions derived from the initial research that informed the design thinking and formulation of the concept. The design development, including the translation of the concept into the design proposal and different spatial studies pursued, should be presented using diagrams, sketches, working models, and photos organised in a professional manner.

- Technical drawings (all to scale, scales are to be discussed with tutors):

    - Block/site plan;
    - Layout plans of each level;
    - Two sections;
    - Elevations.

- Perspective or axonometric to present internal, external and contextual views.

- Detail: choose a detail to study, relevant to the project, and represent in scale 1:5 or lower; this will be discussed on an individual basis.

- Physical Models: one final model to fit in the site model, and if deemed necessary, more models to showcase the project better, including the detail.

You are expected to adopt an analogue / hybrid approach (hand-drawn sketches or model images manipulated using computer software etc.) as opposed to a fully computer-automated one (computer renders). Innovation will also be preferred when reviewing project presentations.

Presentation of the Task: To be presented in person to the examination panel on dates still to be finalised. Details will be communicated closer to the date.

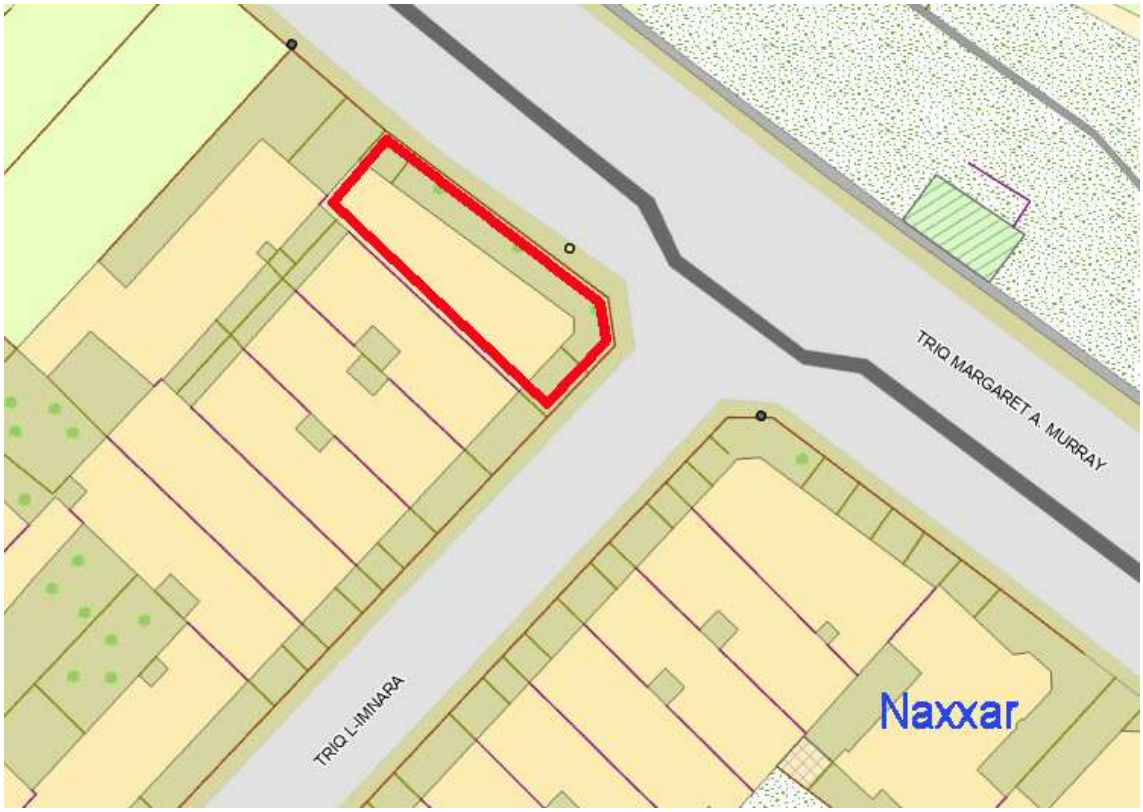
B. Presentations/Lectures

Prof. Antonio Mollicone will be giving weekly lectures on Mondays.

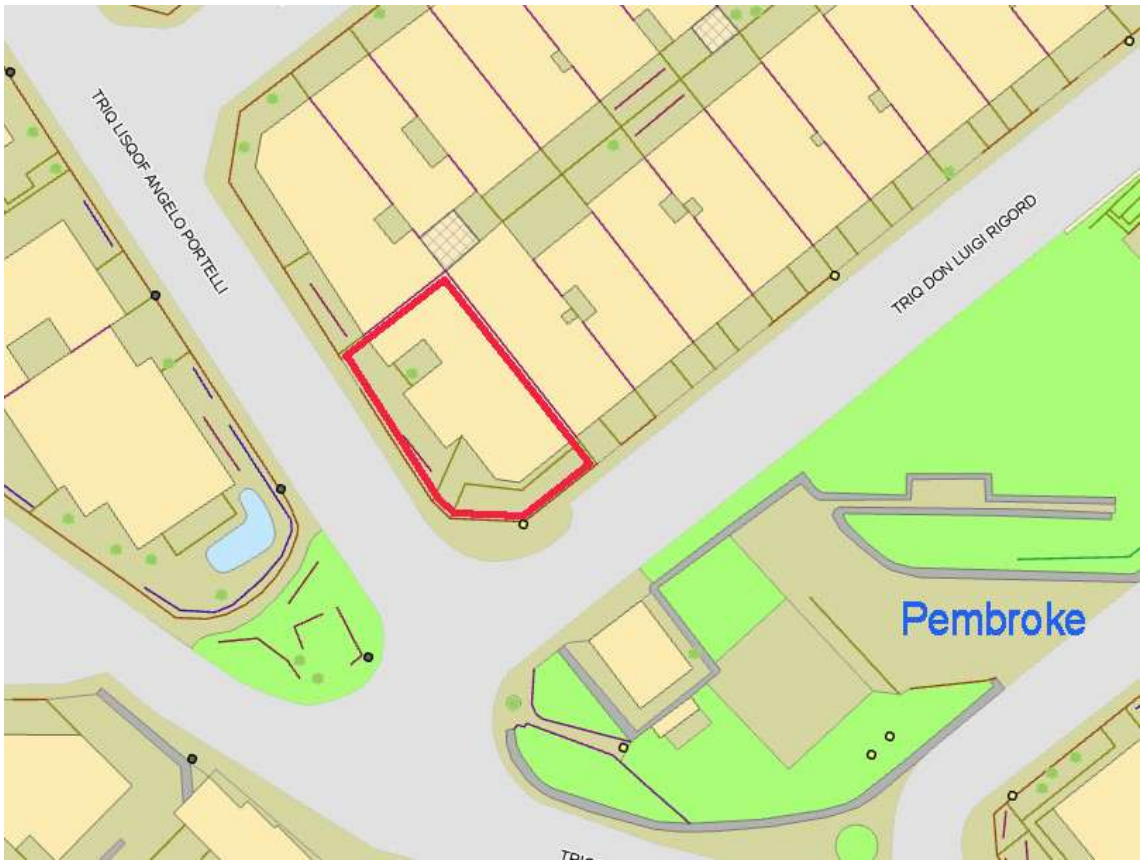
These are compulsory for all students and form an integral part of the course.

Appendix A - Sites

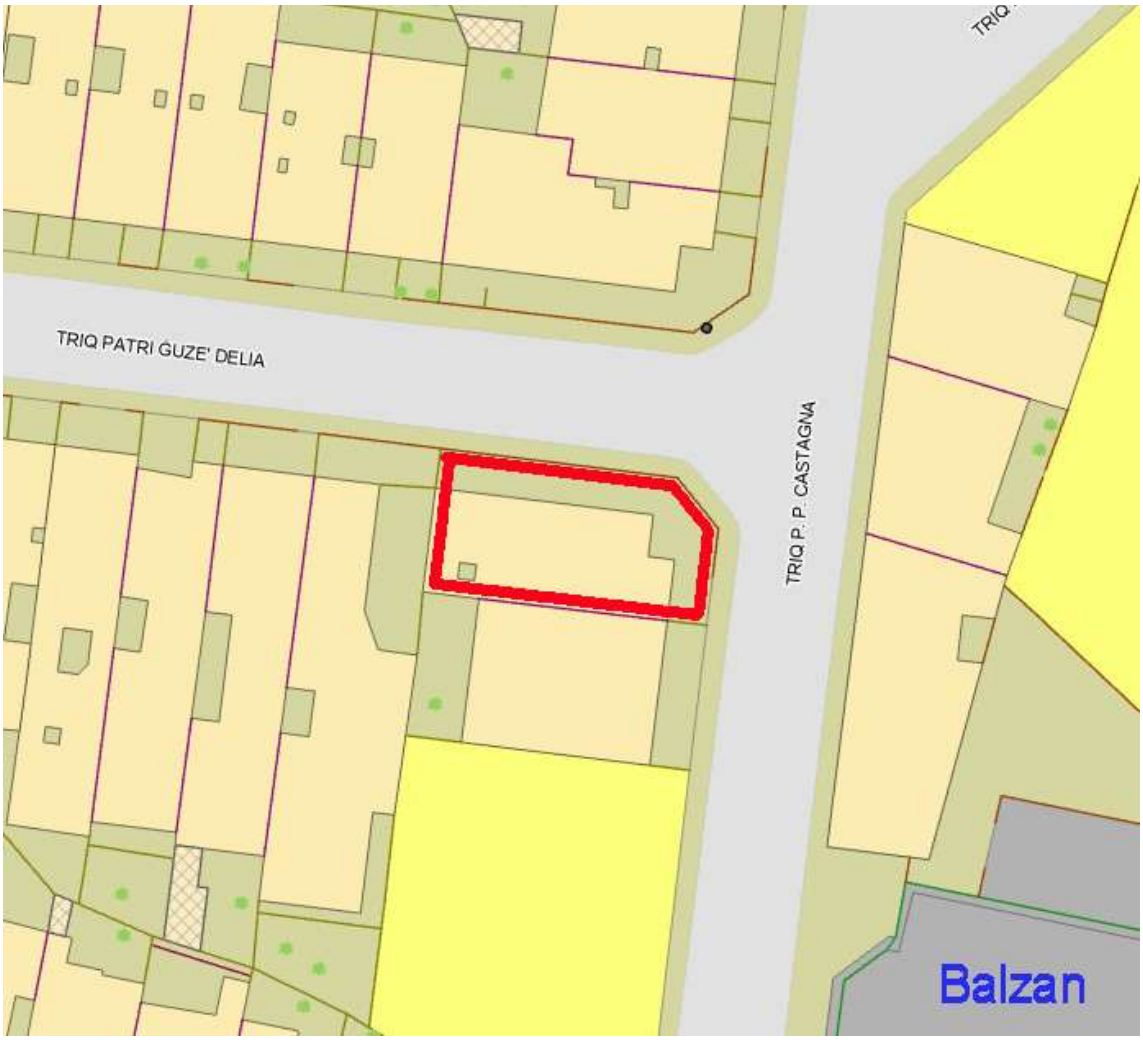
1. Naxxar – Triq l-Imnara c/w Triq Margaret A. Murray



2. Pembroke – Triq Liscof Angelo Portelli c/w Triq Don Luigi Rigord



3. Balzan – Triq Patri Ġuże' Delia c/w Triq P.P. Castagna



4. Baħar iċ-Ċagħaq – Triq is-Sikka c/w Triq il-Lampara

Appendix B - Supplementary Reading

Reference Design Guidelines:
“Architects' Data”, by Ernst Neufert
“Metric Handbook: Planning and Design Data”

Architectural drawing:
“Architectural graphics”, by Francis D. K. Ching
“The details of modern Architecture”, volumes 1 and 2, by Edward R. Ford
“Architects' Working details”, edited by David Jenkins and Louis Dezart
"Architectural Sketching and Rendering Techniques for Designers and Artist", by S.R. Kliment
"Sketching and Rendering Interior Spaces" by Ivo Drpic

Architectural design (books):
“Architecture: Form, Space, and Order”, by Francis D. K. Ching
“Elements of Architecture: From Form to Place”, by Pierre von Meiss
"Folding Architecture", by Sophia Vyzoviti
"Architecture Now! Vol. 1-9", Philip Jodidio
"10x10x3",ed. by Shumon Basar, Mercedes Daguerre, Luis Fernández-Galiano, Bart G., et al
"Mediterranean Modern", by Dominic Bradbury
“The Modular”, by Le Corbusier
“Towards a new architecture”, by Le Corbusier

Architectural design (periodicals):
Architectural Review (AR)
Architecture A.I.A
A&U Architecture and Urbanism
Architecture d’aujourd’hui
Architectural Design
Architectural Record
Domus
C3

Materials and construction details (periodicals):
Detail: review of architecture and construction details
Architects’ Journal (AJ)

Websites:
www.archdaily.com
www.dezeen.com
www.yatzer.com
www.domus.com
www.koozarch.com (Architectural Drawing)
https://www.dimensions.com/classifications/layouts
https://www.dimensions.com/