REUSE OF TUBE HOUSES/SHOPHOUSES INTO ULTRA-COMPACT CO-LIVING IN HO CHI MINH CITY: TRADE-OFFS IN SPACE, ENERGY, AND SOCIAL COHESION AFTER RENOVATION

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Abstract

In Ho Chi Minh City, the tube house/shophouse is a dwelling-cum-trading typology. When converted into ultra-compact co-living, the "frontage—deep plan" organization together with alley culture generates new trade-offs among: (1) spatial layout, (2) everyday energy-use habits, and (3) the degree of social cohesion. There remains a lack of context-rich research that details how architecture and culture interact in ultra-small spaces after renovation. Method: a multi-case qualitative study, including participant observation and go-along walks with residents; semi-structured, in-depth interviews with homeowners, managers, and occupants; photo-elicitation and resident-produced photo diaries; architectural analysis through annotated sketches, narrative maps of movement flows and shared–private moments; and presentation via thick description to connect artifacts, rituals, and norms of conduct. Findings: three main points: (1) soft boundaries and buffer zones act as mechanisms for cultural negotiation; (2) the "commerce–dwelling" frontage, together with alley rhythms, shapes temporal "scenarios" of shared use; and (3) spatial props (curtains, shelving, benches, tea counters) guide co-habitation rituals and form culturally inflected energy habits. Proposal: conceive architecture as the staging of ritual, prioritizing soft transitions and reconfigurability in design.

Keywords: co-living; tube house; adaptive reuse; urban culture; public–private boundaries; alley life; architecture and ritual.

1. Introduction

The tube house/shophouse is not only a familiar typology but also a cultural archetype of Ho Chi Minh City. Its "narrow frontage—deep body" form is tied to a history of trading–dwelling and alley life, where public–private boundaries are continually negotiated in everyday use (Kim, 2015; Widodo, 2004; Rapoport, 1969). In adaptive reuse, when tube houses are renovated into ultra-compact co-living models, spatial organization and daily rhythms change: the frontage remains a communicative–commercial "stage"; the rear becomes a multi-level "backstage" of privacy. Between these poles lie buffer zones and transitional thresholds; "spatial props" such as curtains, shelving, benches, and tea counters operate as cultural mechanisms that enable smooth communal living while preserving face (Hillier, 1996; Kim, 2015). However, richly contextualized narratives of how architecture and cultural practices interact in ultra-small post-renovation spaces are lacking; most research leans toward technology, policy, or Western co-living, while Southeast Asia in general and Ho Chi Minh City in particular are under-addressed (Tummers, 2016; Widodo, 2016).

From this gap, the paper pursues the following qualitative questions:

(i) How does architecture shape—and in turn get shaped by—residents' habits, rituals, and cultural norms?

(ii) Which soft boundaries and buffer zones allow for conflict-free cohabitation?

(iii) How do the "frontstage–backstage" faces of the commerce–dwelling model influence community cohesion?

Contributions of the paper include:

(a) A Culture–Architecture reading–interpretive framework to describe and explain the two-way relationship between post-renovation tube-house space and Ho Chi Minh City's urban cultural practices;

(b) A set of context-responsive design principles that emphasize soft transitions, reconfigurability, and the staging of communal-life rituals, in order to foster cohesion while respecting privacy (Rapoport, 1969; Hillier, 1996; Kim, 2015).

2. Literature Review

In the urban history of Southeast Asia, the shophouse is recognized as a hybrid "commerce–dwelling" model: simultaneously architecture, memory, and the social organization of market streets. The narrow frontage acts as a communicative–trading "stage"; the elongated body accommodates domestic life, linked by sequences of transitional spaces: verandas, corridors, lightwells, and buffer zones (Widodo, 2016; Rapoport, 1969). In Ho Chi Minh City, the use of sidewalks, alleys, and frontages as extensions of home–work demonstrates locally embedded usage norms, reinforcing the shophouse's role as a distinctive cultural model (Kim, 2015).

Regarding co-living in the East Asian context, many accounts portray communal living as both hospitable–mutualistic and face-conscious with firm privacy boundaries—amenable to "face-work" (Goffman, 1967) and to privacy–territorial regulation in residential environments (Altman, 1975). Recent policy/guidance in Singapore indicates that co-living is not a distinct planning category but an operational mode of shared lodging within existing legal frameworks (URA, 2021).

On theoretical frameworks for "reading" space culturally:

Space syntax demonstrates that dwelling configurations can channel communication and encounter (Hillier, 1996); combined with the "production of space" approach to understand space as the outcome of social practice (Lefebvre, 1991); the pair "liminality–communitas" clarifies the role of boundaries and transitional rituals in communal life (Turner, 1969/1974); and, for housing, "decoding homes–house-ness" treats the public–private axis as a continuum arranged by form–furniture–circulation (Hanson, 1998).

On precedents for shophouse conversion into shared living:

In Singapore, converting conserved shophouses into co-living (private rooms, small shared spaces, preserved frontage identity) shows how communal rituals are "staged" by buffer zones, shared kitchens–living rooms, and soft props (e.g., Figment's projects, Canvas House).

In Penang (George Town), preservation–adaptive-reuse studies indicate that keeping the original frontage and deep–narrow organization suits contemporary life if use management and services are considered (Lee, 2008; Wagner, 2017).

From the review, the academic gaps include:

— A lack of context-rich narratives on architecture–culture interactions in ultra-small spaces after shophouse conversion in Ho Chi Minh City;

— Insufficient fine-grained description of soft boundaries and ritual moments (eating, receiving guests, worship, drying laundry) as mechanisms for communal operation;

— A shortage of design principles grounded in local cultural practices, instead of directly importing Western co-housing/co-living precedents (Tummers, 2016).

3. Theoretical Framework

The paper's Culture–Architecture (C–A) framework rests on the following assumption: the tube house's morphology (narrow frontage, "tubular" depth, lightwell, corridor, buffer zones, materials) and sensory field (sound, smell, light) are both the result of specific cultural–social conventions and continuing drivers of how people use space (Rapoport, 1969; Hillier, 1996; Hanson, 1998). On the "Culture" side, everyday rituals (eating, receiving guests, worship, drying) and privacy norms within Ho Chi Minh City's alley–small-trade culture set the rules of interaction (face-work) and the mechanisms of privacy–territorial regulation, thereby shaping temporal living rhythms and degrees of public–private interpenetration (Goffman, 1967; Altman, 1975; Kim, 2015).

The two-way relationship in brief:

Spatial configuration → "choreographs" encounter routes, fields of view–audibility, and the cadence of daily rituals.

Cultural practice → "reprograms" configuration by changing functions, adding/removing thresholds, and arranging props.

Core concepts:

Soft boundaries & buffer zones as transitional (liminal) regions for negotiating norms (Turner, 1969).

Spatial props (loose furniture, curtains, shelves, tea counters) as "social techniques" that fine-tune openness–closure, thereby producing shared living space as an ongoing social practice (Lefebvre, 1991).

4. Method (qualitative, interpretive)

This multi-case study employs deep description and a combination of complementary approaches:

(a) Participant observation and "go-along" walking with residents to record rhythms of life and spatial practices step by step (Spradley, 1980; Kusenbach, 2003; de Certeau, 1984).

(b) Urban anthropology via images: photovoice/resident photo diaries to surface everyday meanings; alongside photo-elicitation interviews to trigger memories, emotions, and cultural conventions tied to dwelling times–spaces (Wang & Burris, 1997; Harper, 2002; Pink, 2015).

(c) Semi-structured, in-depth interviews with residents, owners, and managers, focusing on "spatial stories" rather than quantitative questions, to explain the interplay between architecture and ritual (Kvale & Brinkmann, 2009).

(d) Architectural reading–interpretation through hand sketches, annotated plans/sections, configurational analysis (space syntax), and sensory notes (light–sound–smell) as experiential material (Hillier & Hanson, 1984; Groat & Wang, 2013; Schafer, 1977; Henshaw, 2014; Pink, 2015).

(e) Documenting the renovation process via design journals, before–after photos, and builders'/architects' notes to reconstruct the reflection–action loop (Schön, 1983).

Analysis and presentation: data are thematically coded and presented through "thick description" to preserve context and polyphony; results are synthesized in narrative maps of

movement flows, touchpoints, and shared–private moments, clarifying the post-renovation tube house's temporal rhythms and rituals (Braun & Clarke, 2006; Geertz, 1973; Stickdorn & Schneider, 2011; de Certeau, 1984).

Ethics and cultural sensitivity: informed consent, anonymization, limits on sensitive details concerning worship/privacy, and rights to withdraw from image publication in line with current professional standards; no questionnaires, frequency counts, or measurement–simulation so as to avoid oversimplifying lived experience (American Anthropological Association, 2012; British Sociological Association, 2017).

5. Ho Chi Minh City Context: City, Alleys, Shophouses

Ho Chi Minh City has evolved as a multilayered urban structure in which alleys are the micro-infrastructure of daily life: about 85% of residents live within a dense alley network, an "inner city" of high density and small lots with a fast-paced rhythm (Gibert & Phạm, 2016). Tube houses/shophouses line commercial streets on narrow, elongated plots, organizing "commerce–dwelling" along a front–back and down–up axis. Over time, it has developed into many local variants (rudimentary, traditional, new, commercial, row townhouses) yet retains the live–work spirit (Dang & Pitts, 2020).

Alleys as extensions of domestic space: thresholds, steps, and alleyways constitute semi-public buffer zones where cooking, drying, petty trade, and informal work unfold in time-sharing; public–private boundaries are flexible and negotiated through greetings, reminders, and neighborly agreements (Drummond, 2000; Kim, 2015). The "commerce–dwelling" rhythm aligns with the informal economy and sidewalk/alley services, while "civilized city" campaigns and order enforcement create new compromises between circulation and livelihoods (Gibert & Phạm, 2016; Harms, 2011).

The legal framework sets technical–administrative parameters: nationally, QCVN 01:2021/BXD (urban planning) and QCVN 06:2022/BXD (fire safety for buildings); locally, Decision 88/2007/QĐ-UBND (right-of-way and alley management) and Decision 74/2008/QĐ-UBND (management and use of carriageways and sidewalks). These documents provide minimum frames; everyday alley use remains governed chiefly by customs and community negotiation (People's Committee of Ho Chi Minh City, 2007; 2008; Ministry of Construction, 2021; 2022).

6. Case Narratives

Case 1 — Cloud House (ROOM+ Design & Build, 2025, Ho Chi Minh City). Management context: a small-scale co-living model in a 4 m alley, plot area ~70 m²; dual aim of "quality of life + affordability" for young renters; constraints: narrow-deep plot, contiguous tube-house context (ROOM+ Design & Build, 2025). The "path of life" moves from a perforated–solid façade with "cloud openings" into a semi-public motorbike court, spirals up a circular stair as a "social spine," passes a mezzanine for shared sitting, and reaches the rooftop; layers of buffers (lobby, landings, roof) create spots for gathering/pausing between public and private (ROOM+ Design & Build, 2025). Post-renovation rituals: light meals/chatting at the mezzanine, evening gatherings on the roof; architecture leads via integrated benches, lofted mezzanines in each room, and diagonal views across the lightwell; noise–privacy conflicts are "negotiated" by recess depth, level changes, and rules for shared parking/quiet hours (ROOM+ Design & Build, 2025). Proposed annotated imagery set: façade with "cloud openings," a

section through the spiral stair, and a diagram of airflow arrows—light bands with sound notes fading from alley to core. (ROOM+ Design & Build, 2025).

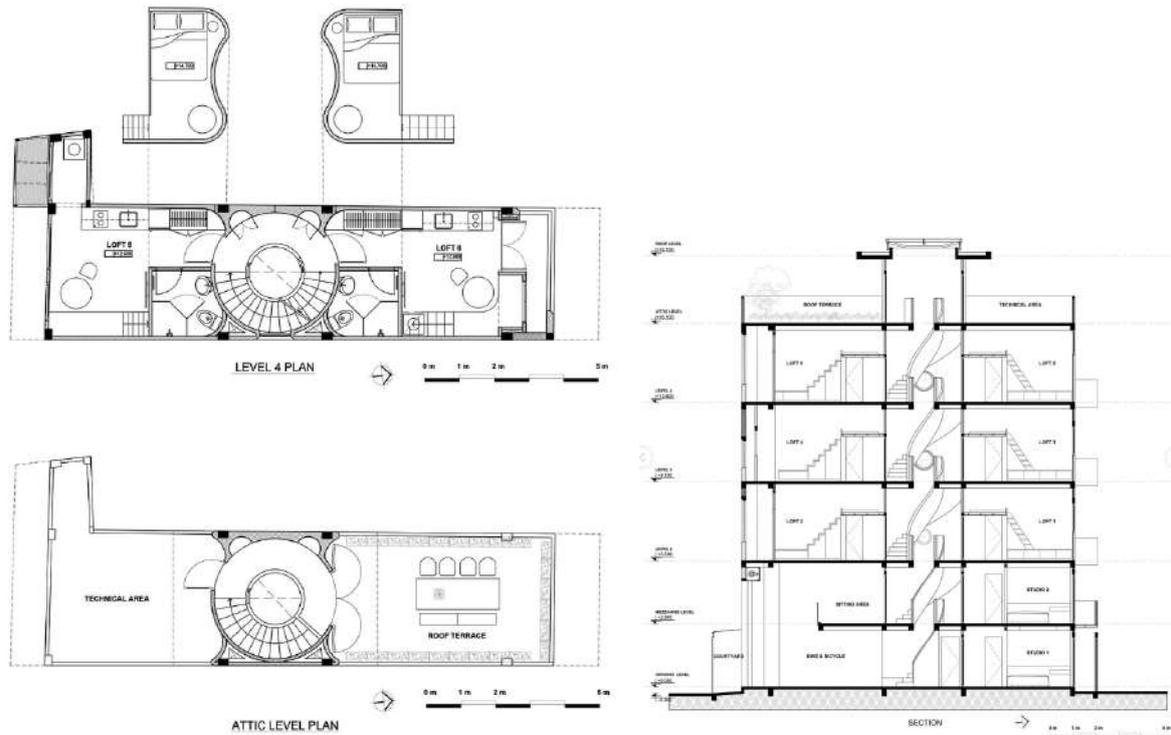Figure 1: Overall view of the project (source: author)
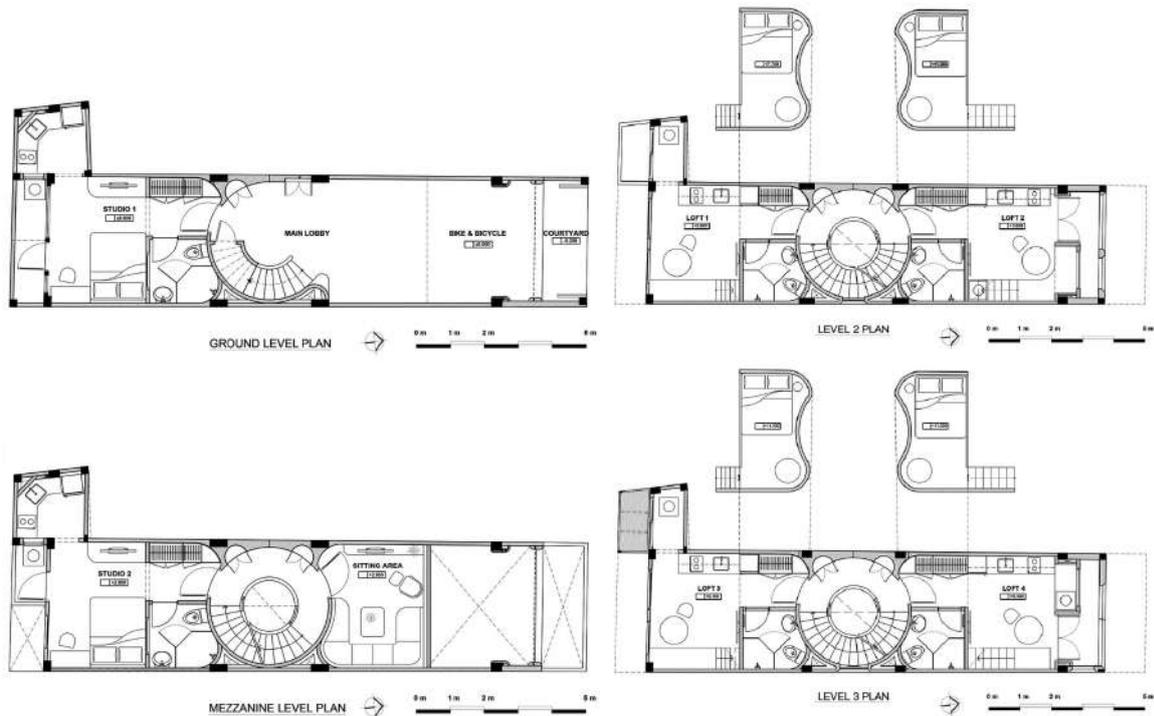
Figure 2: Floor plans (source: https://www.archdaily.com/1029769/cloud-house-room-plus-design-and-build)

Figure 3: Interior spaces of the project (source: author)

Case 2 — Gia Định House (G+architects, 2025, Ho Chi Minh City). Client context: a dwelling combined with rental units and flexible space (small co-working/café) to create a

"condensed co-living model" that both houses and generates income; constraints: skewed plan, adjacency to a long-standing alley (G+architects, 2025). The "path of life" moves from a steel-mesh gate through a ventilated, open ground–mezzanine level into a central void; floor lobbies act as semi-public "shared living rooms" linking units to a west-facing green wall, with cross-ventilation front-to-back (G+architects, 2025). Post-renovation rituals: brief encounters in floor lobbies, receiving guests/reading in loggias; architecture guides through the void, a stair beside the garden, and sliding glass doors; traffic–privacy tensions are negotiated via opening/closing the mesh façade, lobby use schedules, and each unit's loggia as a "buffer zone" (G+architects, 2025). Annotated imagery set: mesh-steel façade, an axonometric of "void–floor lobby–loggia," a cross-ventilation diagram and west-sun shading by greenery. (G+architects, 2025).

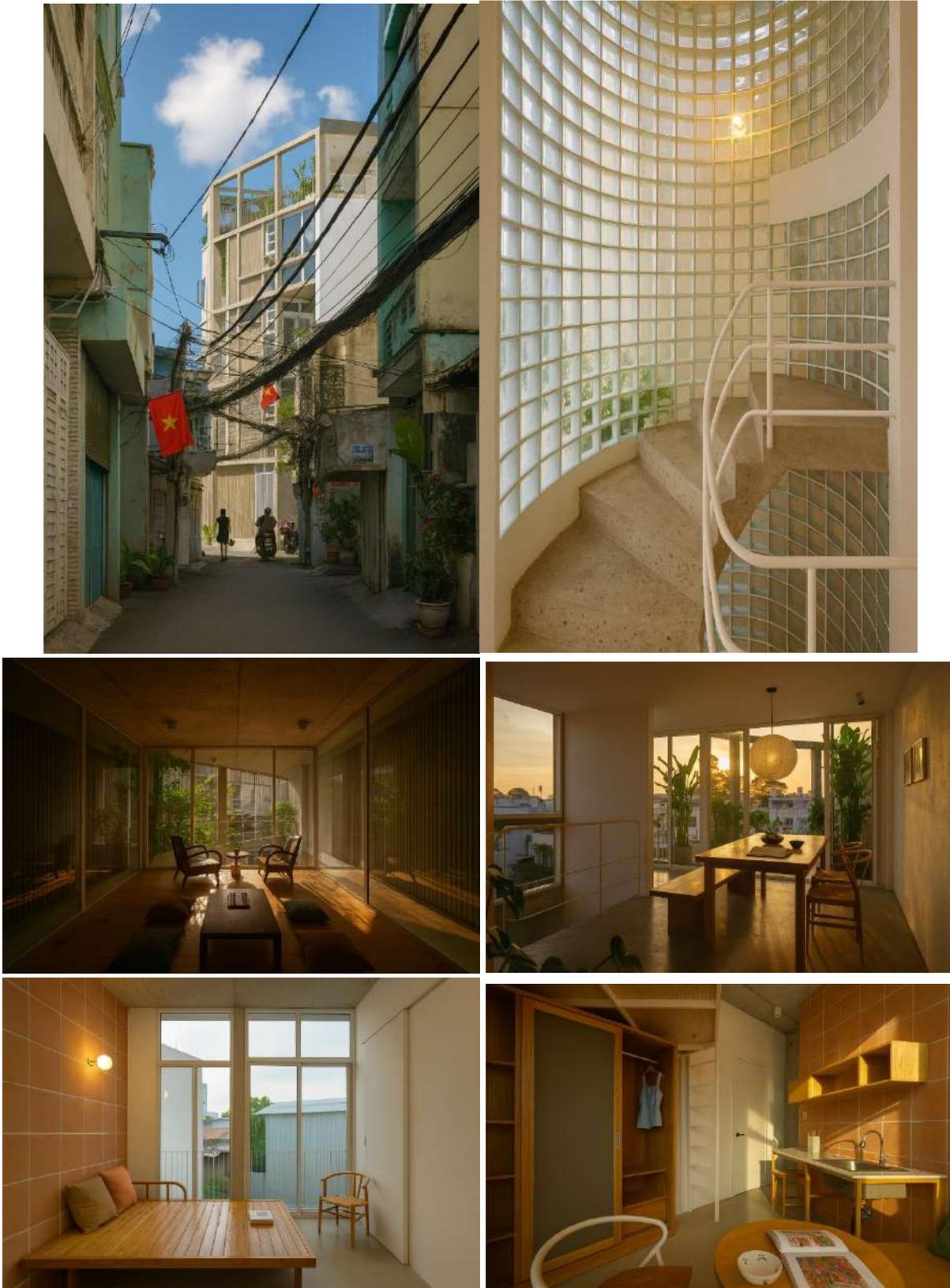Figure 4: Floor plans (source: https://www.archdaily.com/1034442/gia-dinh-house-g-plus-architects)

Figure 5: Interior spaces of the project (source: author)

Case 3 — Co-Living Home (Yuan Architects, 2023, Taipei—comparison with tight alley context). Context: a corner lot in an alley, width only ~4 m; goal: multi-storey rental housing for young people, "one household per floor" yet sharing the co-living spirit; constraints: ultra-narrow, single frontage, pressure on ventilation and daylight (Yuan

Architects, 2023). The "path of life" runs vertically from alley to stair–lightwell core, with small thresholds/canopies creating buffers before entering rooms; post-renovation rituals tend toward quick eating/drinking, rotating laundry by floor; noise–view conflicts are addressed by layered doors, high clerestory slits, and organizing "one household per floor" to reduce frictions (Yuan Architects, 2023). Annotated imagery set: a 4 m longitudinal section, airflow mapping through the lightwell, and notes marking "touchpoints" at landings. (Yuan Architects, 2023).
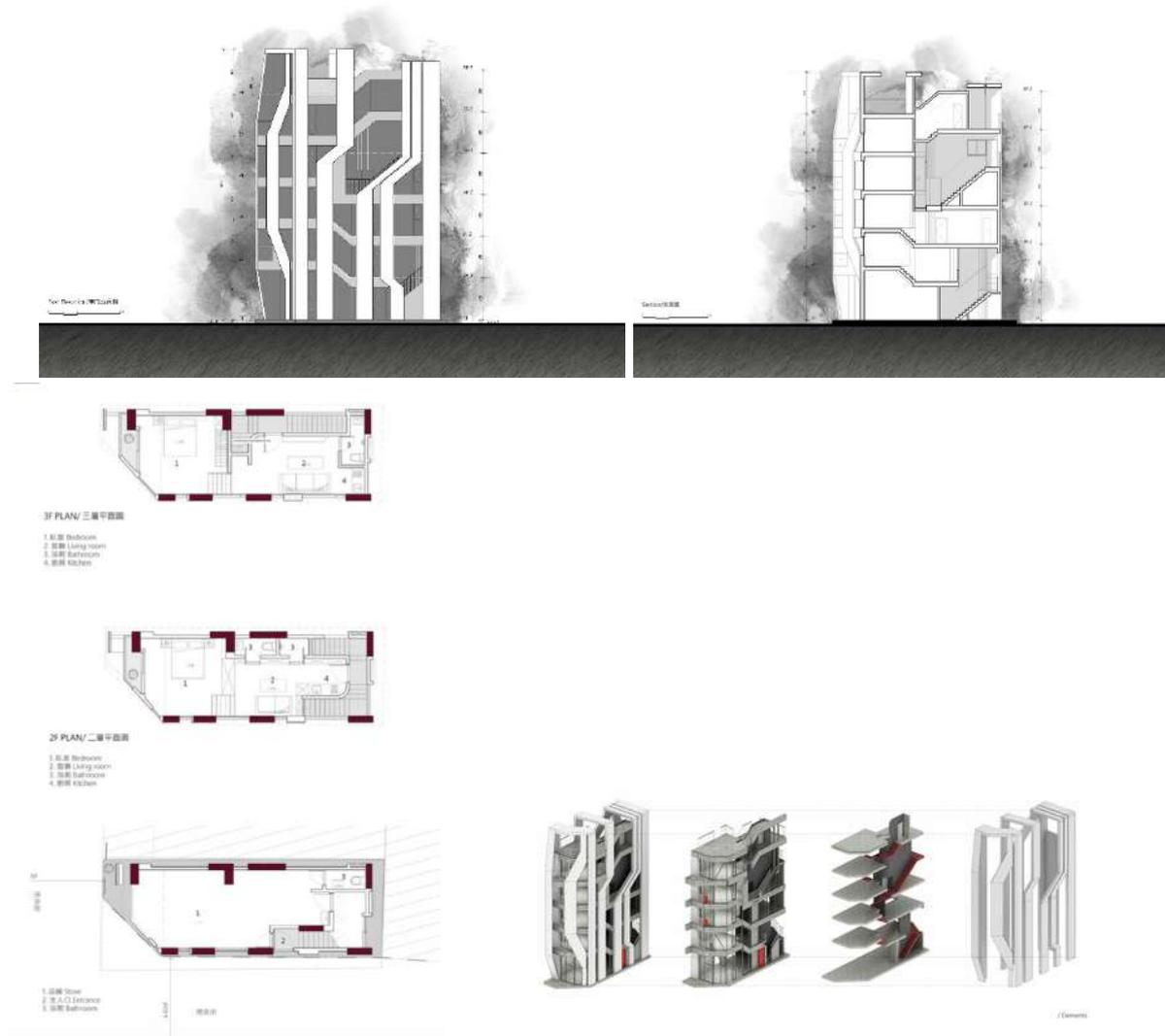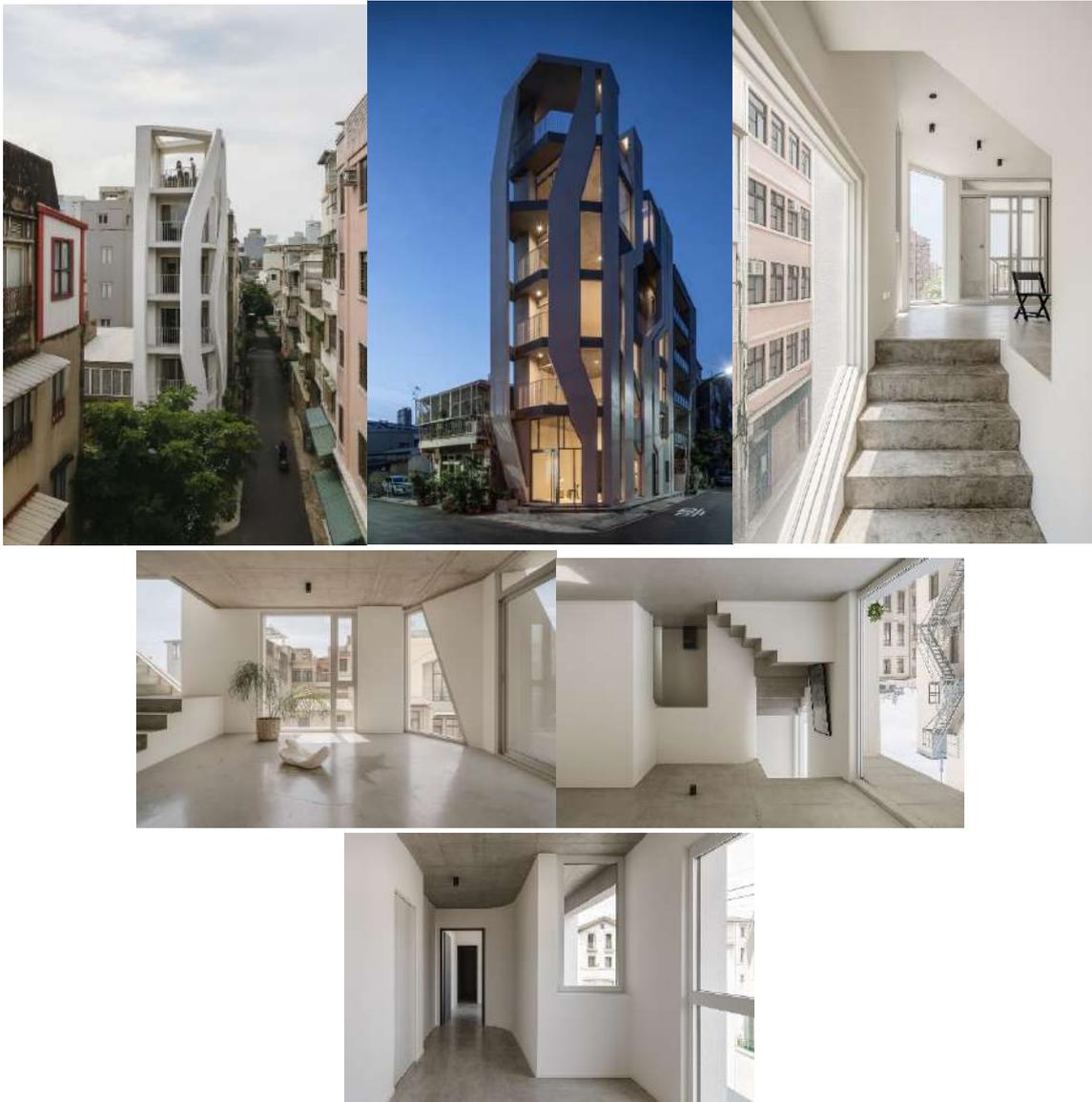

Figure 6: Technical drawings (source:
https://www.goldenpin.org.tw/goldenpin/en/winners/95)

Figure 7: Exterior and interior spaces (source:
https://www.goldenpin.org.tw/goldenpin/en/winners/95)

Soft boundaries & buffer zones

In tube house/co living, "stops" such as verandas, loggias, small shared lobbies, and stair landings create semi public safe areas to observe and greet before entering privacy. They operate as socially rich edges, encouraging low frequency, low risk interactions, in line with arguments on "life between buildings" and "threshold transitions" (Gehl, 2011; Alexander, 1977; Whyte, 1980). On alley and shophouse plans, edges are even more flexible because public–private lines are negotiated daily through customary use of passageways/verandas (Drummond, 2000; Kim, 2015). Cases like Canvas House (a co living shophouse) and Co Living Home (Yuan) show that split levels, shelves/benches, and shallow balconies create sequences of micro thresholds that enable brief meetings while maintaining privacy (Ministry of Design, 2020; Yuan Architects, 2023).

Commerce–dwelling frontage

When the ground floor retains trading/service functions, co living residents often "choreograph" flexible lifestyles: by day the frontage is a social stage; by night activity recedes to upper shared spaces, allowing shared–private rhythms to self regulate. This aligns with evidence on the "commerce–dwelling" shophouse and the role of sidewalks/alleys as extensions of the home (Drummond, 2000; Kim, 2015; Dang & Pitts, 2020). Figment in Singapore exemplifies this: long table kitchens and shared living rooms are placed to the rear/upper floors, the conserved frontage remains active for services, and residents continually negotiate shared use conventions (Goldberg, 2020; Goh, 2022).

Temporal rhythms & shared use "scenarios"

Unwritten schedules for kitchens/balconies/lightwells form along day–night and weekend rhythms (Lefebvre, 2004), reinforced by small shared infrastructures (long tables, rooftops, landings) that encourage brief encounters and rotation based shared meals (Jarvis, 2011; Sanguinetti, 2014). Designs that permit lateral and vertical observation increase the odds of spontaneous meetings (Williams, 2005). In narrow frontage houses like Co Living Home (Yuan), the stair–balcony axis divides use by floor/time, reducing peak hour collisions (Yuan Architects, 2023).

Culture of care & face

The durability of communal living depends more on face saving conventions—volume, smells, tidiness, keeping items in place—than on expensive materials. These conventions are enacted through politeness, face, and "interaction scripts" in face to face situations (Goffman, 1967; Brown & Levinson, 1987), and they operate within the tube house's sensory field (soundscape/smellscape) (Schafer, 1977; Henshaw, 2014; Pink, 2015). Soft "props" such as curtains, temporary shelves, hand made house rules, and oral schedules serve as everyday institutions for reconciling minor conflicts without damaging the shared atmosphere (Goffman, 1967; Brown & Levinson, 1987; Schafer, 1977; Henshaw, 2014; Pink, 2015).

Energy practice as cultural habit

In tropical tube houses, opening/closing doors, using fans–curtains–plants, and learning from one another how to catch breezes and avoid sun are everyday adaptations, consistent with the adaptive comfort model (de Dear & Brager, 1998; Nicol & Humphreys, 2002) and energy practice theory (Shove, 2003; Gram Hanssen, 2010). Such habits often influence perceived comfort and energy use more than isolated technical interventions (de Dear & Brager, 1998; Shove, 2003).

8. Discussion

Within the Culture–Architecture framework, tube-house/co-living architecture not only "contains" but also "teaches" how to live together via soft boundaries and buffer zones (verandas, loggias, small lobbies, landings). These "in-between spaces" invite safe interaction before stepping into privacy. Residents can mobilize everyday bodily "tactics"—gaits and paths—to negotiate boundaries and cultivate "collaboration skills" as a social craft. Compared with Western precedents, co-housing/co-living often emphasizes community governance (bylaws, consent/sociocracy, decision processes, common houses) as operational infrastructure. Ho Chi Minh City stands out for boundary negotiation and the role of verandas/alleys as "extended spaces" of the home, where public–private is bargained daily through customs and micro-rules. Methodological reflection: "thick description" preserves context, traces rituals, and surfaces the "hidden schedule" of kitchens/balconies/lightwells. A

risk is "romanticizing" the alley if the researcher does not acknowledge positionality. Mitigation: reflexive journals, separating records from interpretation, admitting the writer's vulnerability, and controlling bias through transparency/group dialogue, combined with sensory description. Implications for practice: design as "ritual staging"—prioritize reconfigurable buffers (deep verandas, shallow loggias, foyers, floor lobbies) to support low-frequency, low-risk encounters; organize threshold sequences following the "Entrance Transition" pattern to allow sensory adjustment; separate "support–infill" so residents can customize rituals over time; accept that buildings "learn," enabling common conventions to evolve without rigid investment.

9. Conclusion

This study contributes a Culture–Architecture (C–A) reading–interpretive framework that treats tube-house/co-living architecture not merely as a "shell," but as a mechanism that teaches communal living along three axes: soft boundaries/buffer zones (verandas, loggias, small lobbies, landings) as "in-between spaces" setting a safe cadence of interaction before privacy; spatial props (curtains, shelving, hand-made house rules) as micro-institutions for everyday negotiation, opening–closing boundaries through "everyday tactics"; and temporal scenarios—the day/night rhythm and the "hidden schedule" of kitchens–balconies– lightwells—shaped by dwelling customs and mutual learning in shared living. Practical implication: design as ritual staging—prioritize reconfigurable buffers in threshold sequences (the "Entrance Transition" pattern), arrange support–infill to allow resident customization over time, and let buildings "learn" as ways of living change. Limitations: few cases, alley-specific uniqueness, and the risk of "romanticizing" context. Recommendations: strengthen reflexive thick description and broaden community narratives through photovoice, photo-elicitation, and narrative inquiry to capture more local voices.

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